

## RELAZIONE ILLUSTRATIVA E DI CALCOLO LOTTO 1

### 1. INDIVIDUAZIONE DEL MODELLO DI CALCOLO

#### 1.1 DESCRIZIONE GENERALE DELL'OPERA

Oggetto della presente relazione e' l'analisi delle sollecitazioni ed il calcolo della struttura in cemento armato ordinario da realizzarsi in Comune di Torino - Via Thures

Destinazione e tipologia dell'opera:

Il sito oggetto dell'intervento presenta i seguenti caratteri morfologico-geotecnici generali:  
La struttura e' composta dai seguenti elementi, previsti in calcestruzzo gettato in opera:

FONDAZIONI: travi rovesce su sottofondo armato

TRAVI: Travi a sezione nello spessore e rialzate

PILASTRI/SETTI : Pilastri interni a sezione RETTANGOLARE E CIRCOLARE , SETTI dimensione  $b_1=20$  cm  $b_2 =$  variabile

SOLAI: Solai in LASTRE TIPO PREDALLE CON ALTEZZA VARIABILE (25 cm e 36 cm )

#### 1.2 NORMATIVE DI RIFERIMENTO

L'analisi della struttura in oggetto e' stata fatta utilizzando i metodi usuali della scienza delle Costruzioni ed in conformita' alle normative e leggi vigenti:

- Legge 5/11/1971 n. 1086: Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso ed a struttura metallica.
- Legge 2/2/1974 n. 64: Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche.
- C.N.R. 10024/86 del 23/7/1986: Analisi di strutture mediante elaboratore: impostazione e redazione delle relazioni di calcolo
- D.M. 14/2/1992: Norme tecniche per l'esecuzione delle opere in cemento armato normale e precompresso e per le strutture metalliche.
- D.M. 9/1/1996: Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle opere in cemento armato normale e precompresso e per le strutture metalliche.
- D.M. 16/1/1996: Norme tecniche relative ai criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e dei sovraccarichi.
- D.M. 16/1/1996: Norme tecniche per le costruzioni in zona sismica.

#### 1.3 CRITERI DI ANALISI DELLA SICUREZZA

Con riferimento alle normative precedentemente citate, le strutture in oggetto sono verificate per quanto riguarda:

- verifica di resistenza;
- verifica a deformazione e fessurazione.

Calcestruzzo per le strutture in elevazione:  $R_{ck} > 30$  MPa

Tensione ammissibile nel cls:  $> 97.5$  dn/cm<sup>2</sup>

Acciaio in barre : Fe B 44 k controllato

Tensione ammissibile nell'armatura:  $> 2600$  dn/cm<sup>2</sup>

#### 1.4 SCHEMATIZZAZIONE DELLA STRUTTURA E DEI VINCOLI

La struttura e' stata schematizzata escludendo il contributo degli elementi aventi rigiditezza e resistenza trascurabili a fronte dei principali. E' quindi stata considerata l'orditura a telaio tridimensionale, i solai ed i setti verticali ad elevata rigiditezza (vano ascensore, setti in cls).  
I plinti di fondazione vengono assimilati a vincoli elastici di cui e' fornita la costante di rigiditezza. Le travi di fondazione sono schematizzate come poggianti su vincoli elastici distribuiti.

#### 1.5 MODELLAZIONE DELLA STRUTTURA E DEI VINCOLI

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

#### 1.6 SCHEMATIZZAZIONE DELLE AZIONI

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

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

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

## 1.7 MODELLAZIONE DELLE AZIONI

Sono stati adottati i seguenti valori di carico: vedi relazione a parte

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

## 1.8 MODELLAZIONE DEI MATERIALI

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

## 1.9 TIPO DI ANALISI

Le analisi strutturali condotte sono statiche in regime lineare. Il metodo di calcolo e' ad elementi finiti. Il calcolo sismico e' stato effettuato tramite analisi statica/dinamica. La verifica delle membrature in cemento armato viene eseguita considerando tutte le caratteristiche di sollecitazione.

## 2. INDIVIDUAZIONE DEL CODICE DI CALCOLO

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

DOLMEN WIN (R), versione 4.2 del 2006 prodotto, distribuito ed assistito dalla CDM DOLMEN srl, con sede in Torino, Via Drovetti 9/F.

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

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

## 2.2 GRADO DI AFFIDABILITA' DEL CODICE

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

## 2.3 MOTIVAZIONE DELLA SCELTA DEL CODICE

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

## 2.4 NOTIZIE SULL'ELABORATORE

Unita' centrale di processo: Pentium IV  
sistema operativo: Windows XP ( SP2)  
capacita' di memoria: 640 Mb  
cifre significative: 10E12  
unita' di memoria di massa: hard-disk da 30Gb

## 3. ESAME DEI RISULTATI E CONTROLLI

### 3.1 VALUTAZIONE DELLA CORRETTEZZA DEL MODELLO

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

### 4. GIUDIZIO MOTIVATO DI ACCETTABILITA' DEI RISULTATI

L'analisi critica dei risultati e dei parametri di controllo nonche' il confronto con calcolazioni di massima eseguite manualmente porta ad confermare la validita' dei risultati.

## 5. ALLEGATI

Alla presente relazione si allegano le seguenti stampe:

- dati di ingresso;
- sollecitazioni nelle aste e nei gusci;
- reazioni vincolari;
- verifiche di resistenza di travi e pilastri;
- diagrammi di sollecitazioni e deformazioni.

## DATI STRUTTURA:

Lavoro: THUUNO

Unità di misura adottate:

lunghezze:	[cm]
forze:	[kgf]
coppie e momenti:	[kgfm]
carichi lineari:	[kgf/m]
carichi di superficie:	[kgf/m <sup>2</sup> ]
pesi specifici:	[kgf/m <sup>3</sup> ]
coeff. di Winkler:	[daN/cm <sup>3</sup> ]
tensioni:	[daN/cm <sup>2</sup> ]
superfici:	[cm <sup>2</sup> ]
volumi:	[cm <sup>3</sup> ]
coppie distribuite:	[daNcm/cm]
aree ferri:	[cm <sup>2</sup> ]
dati sezioni:	[cm]

Carichi :

- solai in predalle con altezza variabile

H=25 peso 400 kg/mq

H=36 peso 700 kg/mq

- permanente solai di calpestio : 300 Kg/mq  
- variabile solai : 500 kg/mq

- carichi sul solaio di copertura : 200 Kg/mq come indice  
di riferimento peso proprio della copertura metallica

- neve : 200 Kg/mq

- giardino pensile : non presente

- carichi nodi : P. N.46-47 ( ipotesi di solo carrello verticale quale appoggio della pensilina centrale )

NODI--|-----|-----|-----|-----|-----|num.= 1134

Nome	Coord. X	Coord. Y	Coord. Z
15	1002.308	410.867	0.000
16	1002.308	410.867	160.000
17	1322.308	410.867	0.000
18	1322.308	410.867	160.000
19	1672.308	410.867	0.000
20	1672.308	410.867	160.000
21	1672.308	683.367	0.000
22	1672.308	683.367	160.000
23	2087.558	683.367	0.000
24	2087.558	683.367	160.000
25	2497.558	683.367	0.000
26	2497.558	683.367	160.000
27	2907.558	683.367	0.000
28	2907.558	683.367	160.000
29	3322.808	683.367	0.000
30	3322.808	683.367	160.000
31	3322.808	490.867	0.000
32	3322.808	490.867	160.000
33	3792.808	490.867	0.000
34	3792.808	490.867	160.000
39	3792.808	1310.936	0.000
40	3792.808	1310.936	160.000
41	3322.808	1310.936	0.000
42	3322.808	1310.936	160.000
47	3322.808	2000.867	0.000
48	3322.808	2000.867	160.000
49	3618.308	2000.867	0.000
50	3618.308	2000.867	160.000
51	3898.308	2000.867	0.000
52	3898.308	2000.867	160.000
53	3898.308	2510.867	0.000
54	3898.308	2510.867	160.000
95	2022.308	1540.867	0.000
96	2022.308	1540.867	160.000
97	1672.308	2000.804	0.000
98	1672.308	2000.804	160.000
99	1282.808	2000.804	0.000
100	1282.808	2000.804	160.000
107	1002.308	410.867	80.000
108	1082.308	410.867	80.000
109	1082.308	410.867	0.000
110	1082.308	410.867	160.000
111	1162.308	410.867	80.000
112	1162.308	410.867	0.000
113	1162.308	410.867	160.000
114	1242.308	410.867	80.000

115	1242.308	410.867	0.000
116	1242.308	410.867	160.000
117	1322.308	410.867	80.000
118	1409.808	410.867	80.000
119	1409.808	410.867	0.000
120	1409.808	410.867	160.000
121	1497.308	410.867	80.000
122	1497.308	410.867	0.000
123	1497.308	410.867	160.000
124	1584.808	410.867	80.000
125	1584.808	410.867	0.000
126	1584.808	410.867	160.000
127	1672.308	410.867	80.000
147	1672.308	683.367	80.000
160	2087.558	683.367	80.000
173	2497.558	683.367	80.000
186	2907.558	683.367	80.000
199	3322.808	683.367	80.000
200	3322.808	587.117	80.000
201	3322.808	587.117	0.000
202	3322.808	587.117	160.000
203	3322.808	490.867	80.000
204	3416.808	490.867	80.000
205	3416.808	490.867	0.000
206	3416.808	490.867	160.000
207	3510.808	490.867	80.000
208	3510.808	490.867	0.000
209	3510.808	490.867	160.000
210	3604.808	490.867	80.000
211	3604.808	490.867	0.000
212	3604.808	490.867	160.000
213	3698.808	490.867	80.000
214	3698.808	490.867	0.000
215	3698.808	490.867	160.000
216	3792.808	490.867	80.000
237	3792.808	1310.936	80.000
238	3698.808	1310.936	80.000
239	3698.808	1310.936	0.000
240	3698.808	1310.936	160.000
241	3604.808	1310.936	80.000
242	3604.808	1310.936	0.000
243	3604.808	1310.936	160.000
244	3510.808	1310.936	80.000
245	3510.808	1310.936	0.000
246	3510.808	1310.936	160.000
247	3416.808	1310.936	80.000
248	3416.808	1310.936	0.000
249	3416.808	1310.936	160.000
250	3322.808	1310.936	80.000
268	3322.808	2000.867	80.000
269	3421.308	2000.867	80.000
270	3421.308	2000.867	0.000
271	3421.308	2000.867	160.000
272	3519.808	2000.867	80.000
273	3519.808	2000.867	0.000
274	3519.808	2000.867	160.000
275	3618.308	2000.867	80.000
276	3711.641	2000.867	80.000
277	3711.641	2000.867	0.000
278	3711.641	2000.867	160.000
279	3804.975	2000.867	80.000
280	3804.975	2000.867	0.000
281	3804.975	2000.867	160.000
282	3898.308	2000.867	80.000
283	3898.308	2085.867	80.000
284	3898.308	2085.867	0.000
285	3898.308	2085.867	160.000
286	3898.308	2170.867	80.000
287	3898.308	2170.867	0.000
288	3898.308	2170.867	160.000
289	3898.308	2255.867	80.000
290	3898.308	2255.867	0.000
291	3898.308	2255.867	160.000
292	3898.308	2340.867	80.000
293	3898.308	2340.867	0.000
294	3898.308	2340.867	160.000
295	3898.308	2425.867	80.000
296	3898.308	2425.867	0.000
297	3898.308	2425.867	160.000
298	3898.308	2510.867	80.000
378	2022.308	1540.867	80.000
399	1672.308	2000.804	80.000
400	1574.933	2000.804	80.000
401	1574.933	2000.804	0.000
402	1574.933	2000.804	160.000
403	1477.558	2000.804	80.000
404	1477.558	2000.804	0.000
405	1477.558	2000.804	160.000

406	1380.183	2000.804	80.000
407	1380.183	2000.804	0.000
408	1380.183	2000.804	160.000
409	1282.808	2000.804	80.000
493	1759.808	683.367	80.000
494	1759.808	683.367	0.000
495	1759.808	683.367	160.000
496	1847.308	683.367	80.000
497	1847.308	683.367	0.000
498	1847.308	683.367	160.000
499	1934.808	683.367	80.000
500	1934.808	683.367	0.000
501	1934.808	683.367	160.000
502	2022.308	683.367	80.000
503	2022.308	683.367	0.000
504	2022.308	683.367	160.000
506	2175.808	683.367	80.000
507	2175.808	683.367	0.000
508	2175.808	683.367	160.000
509	2264.058	683.367	80.000
510	2264.058	683.367	0.000
511	2264.058	683.367	160.000
512	2352.308	683.367	80.000
513	2352.308	683.367	0.000
514	2352.308	683.367	160.000
515	2424.933	683.367	80.000
516	2424.933	683.367	0.000
517	2424.933	683.367	160.000
518	2589.933	683.367	80.000
519	2589.933	683.367	0.000
520	2589.933	683.367	160.000
521	2682.308	683.367	80.000
522	2682.308	683.367	0.000
523	2682.308	683.367	160.000
524	2757.391	683.367	80.000
525	2757.391	683.367	0.000
526	2757.391	683.367	160.000
527	2832.475	683.367	80.000
528	2832.475	683.367	0.000
529	2832.475	683.367	160.000
530	2959.933	683.367	80.000
531	2959.933	683.367	0.000
532	2959.933	683.367	160.000
533	3012.308	683.367	80.000
534	3012.308	683.367	0.000
535	3012.308	683.367	160.000
536	3089.933	683.367	80.000
537	3089.933	683.367	0.000
538	3089.933	683.367	160.000
539	3167.558	683.367	80.000
540	3167.558	683.367	0.000
541	3167.558	683.367	160.000
542	3245.183	683.367	80.000
543	3245.183	683.367	0.000
544	3245.183	683.367	160.000
646	2022.308	1445.589	80.000
647	2022.308	1445.589	0.000
648	2022.308	1445.589	160.000
649	2022.308	1350.311	80.000
650	2022.308	1350.311	0.000
651	2022.308	1350.311	160.000
652	2022.308	1255.034	80.000
653	2022.308	1255.034	0.000
654	2022.308	1255.034	160.000
655	2022.308	1159.756	80.000
656	2022.308	1159.756	0.000
657	2022.308	1159.756	160.000
658	2022.308	1064.478	80.000
659	2022.308	1064.478	0.000
660	2022.308	1064.478	160.000
661	2022.308	969.200	80.000
662	2022.308	969.200	0.000
663	2022.308	969.200	160.000
664	2022.308	873.923	80.000
665	2022.308	873.923	0.000
666	2022.308	873.923	160.000
667	2022.308	778.645	80.000
668	2022.308	778.645	0.000
669	2022.308	778.645	160.000
679	2352.308	1540.867	80.000
680	2352.308	1540.867	0.000
681	2352.308	1540.867	160.000
682	2352.308	1445.589	80.000
683	2352.308	1445.589	0.000
684	2352.308	1445.589	160.000
685	2352.308	1350.312	80.000
686	2352.308	1350.312	0.000
687	2352.308	1350.312	160.000

688	2352.308	1255.034	80.000
689	2352.308	1255.034	0.000
690	2352.308	1255.034	160.000
691	2352.308	1159.756	80.000
692	2352.308	1159.756	0.000
693	2352.308	1159.756	160.000
694	2352.308	1064.478	80.000
695	2352.308	1064.478	0.000
696	2352.308	1064.478	160.000
697	2352.308	969.200	80.000
698	2352.308	969.200	0.000
699	2352.308	969.200	160.000
700	2352.308	873.923	80.000
701	2352.308	873.923	0.000
702	2352.308	873.923	160.000
703	2352.308	778.645	80.000
704	2352.308	778.645	0.000
705	2352.308	778.645	160.000
720	2682.308	1540.867	80.000
721	2682.308	1540.867	0.000
722	2682.308	1540.867	160.000
723	2682.308	1445.589	80.000
724	2682.308	1445.589	0.000
725	2682.308	1445.589	160.000
726	2682.308	1350.312	80.000
727	2682.308	1350.312	0.000
728	2682.308	1350.312	160.000
729	2682.308	1255.034	80.000
730	2682.308	1255.034	0.000
731	2682.308	1255.034	160.000
732	2682.308	1159.756	80.000
733	2682.308	1159.756	0.000
734	2682.308	1159.756	160.000
735	2682.308	1064.478	80.000
736	2682.308	1064.478	0.000
737	2682.308	1064.478	160.000
738	2682.308	969.200	80.000
739	2682.308	969.200	0.000
740	2682.308	969.200	160.000
741	2682.308	873.923	80.000
742	2682.308	873.923	0.000
743	2682.308	873.923	160.000
744	2682.308	778.645	80.000
745	2682.308	778.645	0.000
746	2682.308	778.645	160.000
747	1672.308	501.700	80.000
748	1672.308	501.700	0.000
749	1672.308	501.700	160.000
750	1672.308	592.534	80.000
751	1672.308	592.534	0.000
752	1672.308	592.534	160.000
753	1002.308	503.867	80.000
754	1002.308	503.867	0.000
755	1002.308	503.867	160.000
756	1002.308	596.867	80.000
757	1002.308	596.867	0.000
758	1002.308	596.867	160.000
759	1002.308	689.867	80.000
760	1002.308	689.867	0.000
761	1002.308	689.867	160.000
762	1002.308	782.867	80.000
763	1002.308	782.867	0.000
764	1002.308	782.867	160.000
765	1002.308	875.867	80.000
766	1002.308	875.867	0.000
767	1002.308	875.867	160.000
768	1002.308	895.867	80.000
769	1002.308	895.867	160.000
770	1002.308	895.867	0.000
771	1002.308	994.617	80.000
772	1002.308	994.617	0.000
773	1002.308	994.617	160.000
774	1002.308	1093.367	80.000
775	1002.308	1093.367	0.000
776	1002.308	1093.367	160.000
777	1002.308	1192.117	80.000
778	1002.308	1192.117	0.000
779	1002.308	1192.117	160.000
780	1002.308	1290.867	80.000
781	1002.308	1290.867	0.000
782	1002.308	1290.867	160.000
783	1002.308	1315.871	160.000
784	1002.308	1315.871	80.000
785	1002.308	1315.871	0.000
786	902.475	1315.871	0.000
787	902.475	1315.871	80.000
788	902.475	1315.871	160.000
789	802.641	1315.871	0.000

790	802.641	1315.871	80.000
791	802.641	1315.871	160.000
792	702.808	1315.871	0.000
793	702.808	1315.871	80.000
794	702.808	1315.871	160.000
795	1077.421	1315.871	80.000
796	1077.421	1315.871	0.000
797	1077.421	1315.871	160.000
798	1152.533	1315.871	80.000
799	1152.533	1315.871	0.000
800	1152.533	1315.871	160.000
801	1227.646	1315.871	80.000
802	1227.646	1315.871	0.000
803	1227.646	1315.871	160.000
804	702.808	1409.620	80.000
805	702.808	1409.620	0.000
806	702.808	1409.620	160.000
807	702.808	1503.369	80.000
808	702.808	1503.369	0.000
809	702.808	1503.369	160.000
810	702.808	1597.118	80.000
811	702.808	1597.118	0.000
812	702.808	1597.118	160.000
813	702.808	1690.867	80.000
814	702.808	1690.867	0.000
815	702.808	1690.867	160.000
816	702.808	1768.351	80.000
817	702.808	1768.351	0.000
818	702.808	1768.351	160.000
819	702.808	1845.836	80.000
820	702.808	1845.836	0.000
821	702.808	1845.836	160.000
822	702.808	1923.320	80.000
823	702.808	1923.320	0.000
824	702.808	1923.320	160.000
825	702.808	2000.804	80.000
826	702.808	2000.804	0.000
827	702.808	2000.804	160.000
828	702.808	2085.825	80.000
829	702.808	2085.825	0.000
830	702.808	2085.825	160.000
831	702.808	2170.846	80.000
832	702.808	2170.846	0.000
833	702.808	2170.846	160.000
834	702.808	2255.867	80.000
835	702.808	2255.867	0.000
836	702.808	2255.867	160.000
837	702.808	2340.867	80.000
838	702.808	2340.867	0.000
839	702.808	2340.867	160.000
840	702.808	2425.867	80.000
841	702.808	2425.867	0.000
842	702.808	2425.867	160.000
843	702.808	2510.867	80.000
844	702.808	2510.867	0.000
845	702.808	2510.867	160.000
846	785.308	2510.867	80.000
847	785.308	2510.867	0.000
848	785.308	2510.867	160.000
849	867.808	2510.867	80.000
850	867.808	2510.867	0.000
851	867.808	2510.867	160.000
852	950.308	2510.867	80.000
853	950.308	2510.867	0.000
854	950.308	2510.867	160.000
855	1032.808	2510.867	80.000
856	1032.808	2510.867	0.000
857	1032.808	2510.867	160.000
858	1092.564	2510.867	160.000
859	1092.564	2510.867	80.000
860	1092.564	2510.867	0.000
861	1155.979	2445.867	80.000
862	1155.979	2445.867	0.000
863	1155.979	2445.867	160.000
864	1219.393	2380.867	80.000
865	1219.393	2380.867	0.000
866	1219.393	2380.867	160.000
867	1282.808	2315.867	80.000
868	1282.808	2315.867	0.000
869	1282.808	2315.867	160.000
870	1282.808	2255.867	80.000
871	1282.808	2255.867	160.000
872	1282.808	2255.867	0.000
873	1282.808	2170.846	0.000
874	1282.808	2170.846	80.000
875	1282.808	2170.846	160.000
876	1282.808	2085.825	0.000
877	1282.808	2085.825	80.000

878	1282.808	2085.825	160.000
879	1227.646	2000.804	80.000
880	1227.646	2000.804	160.000
881	1227.646	2000.804	0.000
882	1140.173	2000.804	0.000
883	1140.173	2000.804	80.000
884	1140.173	2000.804	160.000
885	1052.700	2000.804	0.000
886	1052.700	2000.804	80.000
887	1052.700	2000.804	160.000
888	965.227	2000.804	0.000
889	965.227	2000.804	80.000
890	965.227	2000.804	160.000
891	877.754	2000.804	0.000
892	877.754	2000.804	80.000
893	877.754	2000.804	160.000
894	790.281	2000.804	0.000
895	790.281	2000.804	80.000
896	790.281	2000.804	160.000
897	790.281	1690.867	80.000
898	790.281	1690.867	0.000
899	790.281	1690.867	160.000
900	877.754	1690.867	80.000
901	877.754	1690.867	0.000
902	877.754	1690.867	160.000
903	965.227	1690.867	80.000
904	965.227	1690.867	0.000
905	965.227	1690.867	160.000
906	1052.700	1690.867	80.000
907	1052.700	1690.867	0.000
908	1052.700	1690.867	160.000
909	1140.173	1690.867	80.000
910	1140.173	1690.867	0.000
911	1140.173	1690.867	160.000
912	1227.646	1690.867	80.000
913	1227.646	1690.867	0.000
914	1227.646	1690.867	160.000
915	1227.646	1923.320	0.000
916	1227.646	1923.320	80.000
917	1227.646	1923.320	160.000
918	1227.646	1845.836	0.000
919	1227.646	1845.836	80.000
920	1227.646	1845.836	160.000
921	1227.646	1768.351	0.000
922	1227.646	1768.351	80.000
923	1227.646	1768.351	160.000
924	1227.646	1597.118	0.000
925	1227.646	1597.118	80.000
926	1227.646	1597.118	160.000
927	1227.646	1503.369	0.000
928	1227.646	1503.369	80.000
929	1227.646	1503.369	160.000
930	1227.646	1409.620	0.000
931	1227.646	1409.620	80.000
932	1227.646	1409.620	160.000
933	1257.646	1315.867	160.000
934	1257.646	1315.867	80.000
935	1257.646	1315.867	0.000
936	1322.308	1315.871	160.000
937	1322.308	1315.871	80.000
938	1322.308	1315.871	0.000
939	1401.058	1315.871	80.000
940	1401.058	1315.871	0.000
941	1401.058	1315.871	160.000
942	1479.808	1315.871	80.000
943	1479.808	1315.871	0.000
944	1479.808	1315.871	160.000
945	1558.558	1315.871	80.000
946	1558.558	1315.871	0.000
947	1558.558	1315.871	160.000
948	1637.308	1315.871	80.000
949	1637.308	1315.871	0.000
950	1637.308	1315.871	160.000
951	1672.308	1315.871	160.000
952	1672.308	1315.871	80.000
953	1672.308	1315.871	0.000
954	1082.308	895.867	80.000
955	1082.308	895.867	0.000
956	1082.308	895.867	160.000
957	1162.308	895.867	80.000
958	1162.308	895.867	0.000
959	1162.308	895.867	160.000
960	1242.308	895.867	80.000
961	1242.308	895.867	0.000
962	1242.308	895.867	160.000
963	1322.308	895.867	80.000
964	1322.308	895.867	0.000
965	1322.308	895.867	160.000



966	1401.135	895.867	80.000
967	1401.135	895.867	0.000
968	1401.135	895.867	160.000
969	1479.962	895.867	80.000
970	1479.962	895.867	0.000
971	1479.962	895.867	160.000
972	1558.789	895.867	80.000
973	1558.789	895.867	0.000
974	1558.789	895.867	160.000
975	1637.616	895.867	80.000
976	1637.616	895.867	0.000
977	1637.616	895.867	160.000
978	1672.308	895.867	160.000
979	1672.308	895.867	80.000
980	1672.308	895.867	0.000
981	1322.308	507.867	80.000
982	1322.308	507.867	0.000
983	1322.308	507.867	160.000
984	1322.308	604.867	80.000
985	1322.308	604.867	0.000
986	1322.308	604.867	160.000
987	1322.308	701.867	80.000
988	1322.308	701.867	0.000
989	1322.308	701.867	160.000
990	1322.308	798.867	80.000
991	1322.308	798.867	0.000
992	1322.308	798.867	160.000
993	1322.308	979.868	80.000
994	1322.308	979.868	0.000
995	1322.308	979.868	160.000
996	1322.308	1063.869	80.000
997	1322.308	1063.869	0.000
998	1322.308	1063.869	160.000
999	1322.308	1147.870	80.000
1000	1322.308	1147.870	0.000
1001	1322.308	1147.870	160.000
1002	1322.308	1231.870	80.000
1003	1322.308	1231.870	0.000
1004	1322.308	1231.870	160.000
1005	1672.308	754.200	80.000
1006	1672.308	754.200	0.000
1007	1672.308	754.200	160.000
1008	1672.308	825.034	80.000
1009	1672.308	825.034	0.000
1010	1672.308	825.034	160.000
1011	1672.308	979.868	80.000
1012	1672.308	979.868	0.000
1013	1672.308	979.868	160.000
1014	1672.308	1063.869	80.000
1015	1672.308	1063.869	0.000
1016	1672.308	1063.869	160.000
1017	1672.308	1147.870	80.000
1018	1672.308	1147.870	0.000
1019	1672.308	1147.870	160.000
1020	1672.308	1231.870	80.000
1021	1672.308	1231.870	0.000
1022	1672.308	1231.870	160.000
1023	1672.308	1390.870	80.000
1024	1672.308	1390.870	0.000
1025	1672.308	1390.870	160.000
1026	1672.308	1465.868	80.000
1027	1672.308	1465.868	0.000
1028	1672.308	1465.868	160.000
1029	1672.308	1540.867	80.000
1030	1672.308	1540.867	0.000
1031	1672.308	1540.867	160.000
1032	1672.308	1615.867	80.000
1033	1672.308	1615.867	0.000
1034	1672.308	1615.867	160.000
1035	1672.308	1690.867	80.000
1036	1672.308	1690.867	0.000
1037	1672.308	1690.867	160.000
1038	1672.308	1768.351	80.000
1039	1672.308	1768.351	0.000
1040	1672.308	1768.351	160.000
1041	1672.308	1845.836	80.000
1042	1672.308	1845.836	0.000
1043	1672.308	1845.836	160.000
1044	1672.308	1923.320	80.000
1045	1672.308	1923.320	0.000
1046	1672.308	1923.320	160.000
1047	1316.579	1690.867	80.000
1048	1316.579	1690.867	0.000
1049	1316.579	1690.867	160.000
1050	1405.511	1690.867	80.000
1051	1405.511	1690.867	0.000
1052	1405.511	1690.867	160.000
1053	1494.443	1690.867	80.000

1054	1494.443	1690.867	0.000
1055	1494.443	1690.867	160.000
1056	1583.376	1690.867	80.000
1057	1583.376	1690.867	0.000
1058	1583.376	1690.867	160.000
1059	1759.808	1540.867	80.000
1060	1759.808	1540.867	0.000
1061	1759.808	1540.867	160.000
1062	1847.308	1540.867	80.000
1063	1847.308	1540.867	0.000
1064	1847.308	1540.867	160.000
1065	1934.808	1540.867	80.000
1066	1934.808	1540.867	0.000
1067	1934.808	1540.867	160.000
1068	2022.308	1615.867	80.000
1069	2022.308	1615.867	0.000
1070	2022.308	1615.867	160.000
1071	2022.308	1690.867	80.000
1072	2022.308	1690.867	0.000
1073	2022.308	1690.867	160.000
1074	2022.308	1765.867	80.000
1075	2022.308	1765.867	0.000
1076	2022.308	1765.867	160.000
1077	2022.308	1844.179	80.000
1078	2022.308	1844.179	0.000
1079	2022.308	1844.179	160.000
1080	2022.308	1922.492	80.000
1081	2022.308	1922.492	0.000
1082	2022.308	1922.492	160.000
1083	2022.308	2000.804	80.000
1084	2022.308	2000.804	0.000
1085	2022.308	2000.804	160.000
1086	2022.308	2045.891	160.000
1087	2022.308	2045.891	80.000
1088	2022.308	2045.891	0.000
1089	2022.308	2115.883	80.000
1090	2022.308	2115.883	0.000
1091	2022.308	2115.883	160.000
1092	2022.308	2185.875	80.000
1093	2022.308	2185.875	0.000
1094	2022.308	2185.875	160.000
1095	2022.308	2255.867	80.000
1096	2022.308	2255.867	0.000
1097	2022.308	2255.867	160.000
1098	2022.308	2315.867	160.000
1099	2022.308	2315.867	80.000
1100	2022.308	2315.867	0.000
1101	2085.641	2380.867	80.000
1102	2085.641	2380.867	0.000
1103	2085.641	2380.867	160.000
1104	2148.975	2445.867	80.000
1105	2148.975	2445.867	0.000
1106	2148.975	2445.867	160.000
1107	2212.308	2510.867	80.000
1108	2212.308	2510.867	0.000
1109	2212.308	2510.867	160.000
1110	2294.975	2510.867	80.000
1111	2294.975	2510.867	0.000
1112	2294.975	2510.867	160.000
1113	2377.642	2510.867	80.000
1114	2377.642	2510.867	0.000
1115	2377.642	2510.867	160.000
1116	2389.649	2510.867	160.000
1117	2389.649	2510.867	80.000
1118	2389.649	2510.867	0.000
1119	2479.794	2510.867	80.000
1120	2479.794	2510.867	0.000
1121	2479.794	2510.867	160.000
1122	2569.940	2510.867	80.000
1123	2569.940	2510.867	0.000
1124	2569.940	2510.867	160.000
1125	2660.086	2510.867	80.000
1126	2660.086	2510.867	0.000
1127	2660.086	2510.867	160.000
1128	2750.231	2510.867	80.000
1129	2750.231	2510.867	0.000
1130	2750.231	2510.867	160.000
1131	2840.377	2510.867	80.000
1132	2840.377	2510.867	0.000
1133	2840.377	2510.867	160.000
1134	2849.649	2510.867	160.000
1135	2849.649	2510.867	80.000
1136	2849.649	2510.867	0.000
1137	2942.426	2510.867	80.000
1138	2942.426	2510.867	0.000
1139	2942.426	2510.867	160.000
1140	3035.204	2510.867	80.000
1141	3035.204	2510.867	0.000

1142	3035.204	2510.867	160.000
1143	3127.981	2510.867	80.000
1144	3127.981	2510.867	0.000
1145	3127.981	2510.867	160.000
1146	3220.759	2510.867	80.000
1147	3220.759	2510.867	0.000
1148	3220.759	2510.867	160.000
1149	3313.536	2510.867	80.000
1150	3313.536	2510.867	0.000
1151	3313.536	2510.867	160.000
1152	3322.808	2510.867	160.000
1153	3322.808	2510.867	80.000
1154	3322.808	2510.867	0.000
1155	3421.308	2510.867	80.000
1156	3421.308	2510.867	0.000
1157	3421.308	2510.867	160.000
1158	3519.808	2510.867	80.000
1159	3519.808	2510.867	0.000
1160	3519.808	2510.867	160.000
1161	3618.308	2510.867	80.000
1162	3618.308	2510.867	0.000
1163	3618.308	2510.867	160.000
1164	3711.641	2510.867	80.000
1165	3711.641	2510.867	0.000
1166	3711.641	2510.867	160.000
1167	3804.975	2510.867	80.000
1168	3804.975	2510.867	0.000
1169	3804.975	2510.867	160.000
1170	2114.143	2000.804	80.000
1171	2114.143	2000.804	0.000
1172	2114.143	2000.804	160.000
1173	2205.978	2000.804	80.000
1174	2205.978	2000.804	0.000
1175	2205.978	2000.804	160.000
1176	2297.814	2000.804	80.000
1177	2297.814	2000.804	0.000
1178	2297.814	2000.804	160.000
1179	2389.649	2000.804	80.000
1180	2389.649	2000.804	0.000
1181	2389.649	2000.804	160.000
1182	2481.649	2000.804	80.000
1183	2481.649	2000.804	0.000
1184	2481.649	2000.804	160.000
1185	2573.649	2000.804	80.000
1186	2573.649	2000.804	0.000
1187	2573.649	2000.804	160.000
1188	2665.649	2000.804	80.000
1189	2665.649	2000.804	0.000
1190	2665.649	2000.804	160.000
1191	2757.649	2000.804	80.000
1192	2757.649	2000.804	0.000
1193	2757.649	2000.804	160.000
1194	2849.649	2000.804	80.000
1195	2849.649	2000.804	0.000
1196	2849.649	2000.804	160.000
1197	2944.281	2000.817	80.000
1198	2944.281	2000.817	0.000
1199	2944.281	2000.817	160.000
1200	3038.912	2000.830	80.000
1201	3038.912	2000.830	0.000
1202	3038.912	2000.830	160.000
1203	3133.544	2000.842	80.000
1204	3133.544	2000.842	0.000
1205	3133.544	2000.842	160.000
1206	3228.176	2000.854	80.000
1207	3228.176	2000.854	0.000
1208	3228.176	2000.854	160.000
1209	2104.808	1540.867	80.000
1210	2104.808	1540.867	0.000
1211	2104.808	1540.867	160.000
1212	2187.308	1540.867	80.000
1213	2187.308	1540.867	0.000
1214	2187.308	1540.867	160.000
1215	2269.808	1540.867	80.000
1216	2269.808	1540.867	0.000
1217	2269.808	1540.867	160.000
1218	2389.649	1540.867	160.000
1219	2389.649	1540.867	80.000
1220	2389.649	1540.867	0.000
1221	2487.202	1540.867	80.000
1222	2487.202	1540.867	0.000
1223	2487.202	1540.867	160.000
1224	2584.755	1540.867	80.000
1225	2584.755	1540.867	0.000
1226	2584.755	1540.867	160.000
1227	2765.978	1540.867	80.000
1228	2765.978	1540.867	0.000
1229	2765.978	1540.867	160.000

1230	2849.649	1540.867	80.000
1231	2849.649	1540.867	0.000
1232	2849.649	1540.867	160.000
1233	2869.649	1540.867	160.000
1234	2869.649	1540.867	80.000
1235	2869.649	1540.867	0.000
1236	2940.978	1540.867	80.000
1237	2940.978	1540.867	0.000
1238	2940.978	1540.867	160.000
1239	3012.308	1540.867	80.000
1240	3012.308	1540.867	0.000
1241	3012.308	1540.867	160.000
1242	3089.933	1540.867	80.000
1243	3089.933	1540.867	0.000
1244	3089.933	1540.867	160.000
1245	3167.558	1540.867	80.000
1246	3167.558	1540.867	0.000
1247	3167.558	1540.867	160.000
1248	3245.183	1540.867	80.000
1249	3245.183	1540.867	0.000
1250	3245.183	1540.867	160.000
1251	3322.808	1540.867	80.000
1252	3322.808	1540.867	0.000
1253	3322.808	1540.867	160.000
1254	3322.808	1927.534	0.000
1255	3322.808	1927.534	80.000
1256	3322.808	1927.534	160.000
1257	3322.808	1854.200	0.000
1258	3322.808	1854.200	80.000
1259	3322.808	1854.200	160.000
1260	3322.808	1780.867	0.000
1261	3322.808	1780.867	80.000
1262	3322.808	1780.867	160.000
1263	3322.808	1700.867	0.000
1264	3322.808	1700.867	80.000
1265	3322.808	1700.867	160.000
1266	3322.808	1620.867	0.000
1267	3322.808	1620.867	80.000
1268	3322.808	1620.867	160.000
1269	2389.649	2426.711	0.000
1270	2389.649	2426.711	80.000
1271	2389.649	2426.711	160.000
1272	2389.649	2342.555	0.000
1273	2389.649	2342.555	80.000
1274	2389.649	2342.555	160.000
1275	2389.649	2258.398	0.000
1276	2389.649	2258.398	80.000
1277	2389.649	2258.398	160.000
1278	2389.649	2174.242	0.000
1279	2389.649	2174.242	80.000
1280	2389.649	2174.242	160.000
1281	2389.649	2090.086	0.000
1282	2389.649	2090.086	80.000
1283	2389.649	2090.086	160.000
1284	2389.649	2005.929	0.000
1285	2389.649	2005.929	80.000
1286	2389.649	2005.929	160.000
1287	2389.649	1908.817	0.000
1288	2389.649	1908.817	80.000
1289	2389.649	1908.817	160.000
1290	2389.649	1816.830	0.000
1291	2389.649	1816.830	80.000
1292	2389.649	1816.830	160.000
1293	2389.649	1724.842	0.000
1294	2389.649	1724.842	80.000
1295	2389.649	1724.842	160.000
1296	2389.649	1632.854	0.000
1297	2389.649	1632.854	80.000
1298	2389.649	1632.854	160.000
1299	2849.649	2425.857	0.000
1300	2849.649	2425.857	80.000
1301	2849.649	2425.857	160.000
1302	2849.649	2340.846	0.000
1303	2849.649	2340.846	80.000
1304	2849.649	2340.846	160.000
1305	2849.649	2255.836	0.000
1306	2849.649	2255.836	80.000
1307	2849.649	2255.836	160.000
1308	2849.649	2170.825	0.000
1309	2849.649	2170.825	80.000
1310	2849.649	2170.825	160.000
1311	2849.649	2085.815	0.000
1312	2849.649	2085.815	80.000
1313	2849.649	2085.815	160.000
1314	2849.649	1985.929	80.000
1315	2849.649	1985.929	160.000
1316	2849.649	1985.929	0.000
1317	2849.649	1896.917	0.000

1318	2849.649	1896.917	80.000
1319	2849.649	1896.917	160.000
1320	2849.649	1807.905	0.000
1321	2849.649	1807.905	80.000
1322	2849.649	1807.905	160.000
1323	2849.649	1718.892	0.000
1324	2849.649	1718.892	80.000
1325	2849.649	1718.892	160.000
1326	2849.649	1629.880	0.000
1327	2849.649	1629.880	80.000
1328	2849.649	1629.880	160.000
1329	3322.808	2425.867	0.000
1330	3322.808	2425.867	80.000
1331	3322.808	2425.867	160.000
1332	3322.808	2340.867	0.000
1333	3322.808	2340.867	80.000
1334	3322.808	2340.867	160.000
1335	3322.808	2255.867	0.000
1336	3322.808	2255.867	80.000
1337	3322.808	2255.867	160.000
1338	3322.808	2170.867	0.000
1339	3322.808	2170.867	80.000
1340	3322.808	2170.867	160.000
1341	3322.808	2085.867	0.000
1342	3322.808	2085.867	80.000
1343	3322.808	2085.867	160.000
1344	3012.308	1445.589	0.000
1345	3012.308	1445.589	80.000
1346	3012.308	1445.589	160.000
1347	3012.308	1350.312	0.000
1348	3012.308	1350.312	80.000
1349	3012.308	1350.312	160.000
1350	3012.308	1255.034	0.000
1351	3012.308	1255.034	80.000
1352	3012.308	1255.034	160.000
1353	3012.308	1159.756	0.000
1354	3012.308	1159.756	80.000
1355	3012.308	1159.756	160.000
1356	3012.308	1064.478	0.000
1357	3012.308	1064.478	80.000
1358	3012.308	1064.478	160.000
1359	3012.308	969.200	0.000
1360	3012.308	969.200	80.000
1361	3012.308	969.200	160.000
1362	3012.308	873.923	0.000
1363	3012.308	873.923	80.000
1364	3012.308	873.923	160.000
1365	3012.308	778.645	0.000
1366	3012.308	778.645	80.000
1367	3012.308	778.645	160.000
1368	3322.808	1225.913	0.000
1369	3322.808	1225.913	80.000
1370	3322.808	1225.913	160.000
1371	3322.808	1140.890	0.000
1372	3322.808	1140.890	80.000
1373	3322.808	1140.890	160.000
1374	3322.808	1055.867	0.000
1375	3322.808	1055.867	80.000
1376	3322.808	1055.867	160.000
1377	3322.808	962.742	0.000
1378	3322.808	962.742	80.000
1379	3322.808	962.742	160.000
1380	3322.808	869.617	0.000
1381	3322.808	869.617	80.000
1382	3322.808	869.617	160.000
1383	3322.808	776.492	0.000
1384	3322.808	776.492	80.000
1385	3322.808	776.492	160.000
1386	3792.808	1225.913	0.000
1387	3792.808	1225.913	80.000
1388	3792.808	1225.913	160.000
1389	3792.808	1140.890	0.000
1390	3792.808	1140.890	80.000
1391	3792.808	1140.890	160.000
1392	3792.808	1055.867	0.000
1393	3792.808	1055.867	80.000
1394	3792.808	1055.867	160.000
1395	3792.808	962.742	0.000
1396	3792.808	962.742	80.000
1397	3792.808	962.742	160.000
1398	3792.808	869.617	0.000
1399	3792.808	869.617	80.000
1400	3792.808	869.617	160.000
1401	3792.808	776.492	0.000
1402	3792.808	776.492	80.000
1403	3792.808	776.492	160.000
1404	3792.808	683.367	0.000
1405	3792.808	683.367	80.000

1406	3792.808	683.367	160.000
1407	3792.808	587.117	0.000
1408	3792.808	587.117	80.000
1409	3792.808	587.117	160.000
1410	3352.808	1055.867	160.000
1411	3352.808	1055.867	80.000
1412	3352.808	1055.867	0.000
1413	3440.808	1055.867	80.000
1414	3440.808	1055.867	0.000
1415	3440.808	1055.867	160.000
1416	3528.808	1055.867	80.000
1417	3528.808	1055.867	0.000
1418	3528.808	1055.867	160.000
1419	3616.808	1055.867	80.000
1420	3616.808	1055.867	0.000
1421	3616.808	1055.867	160.000
1422	3704.808	1055.867	80.000
1423	3704.808	1055.867	0.000
1424	3704.808	1055.867	160.000
1425	3416.808	683.367	80.000
1426	3416.808	683.367	0.000
1427	3416.808	683.367	160.000
1428	3510.808	683.367	80.000
1429	3510.808	683.367	0.000
1430	3510.808	683.367	160.000
1431	3604.808	683.367	80.000
1432	3604.808	683.367	0.000
1433	3604.808	683.367	160.000
1434	3698.808	683.367	80.000
1435	3698.808	683.367	0.000
1436	3698.808	683.367	160.000
1439	3322.808	1500.858	160.000
1440	3322.808	1500.858	80.000
1441	3322.808	1500.858	0.000
1442	3322.808	1405.897	0.000
1443	3322.808	1405.897	80.000
1444	3322.808	1405.897	160.000
1445	1002.308	410.867	490.000
1446	1322.308	410.867	490.000
1448	1672.308	683.367	490.000
1449	1322.308	895.867	490.000
1450	1002.308	875.867	490.000
1451	702.808	1315.871	490.000
1452	1002.308	1290.867	490.000
1453	1257.646	1315.867	490.000
1454	702.808	2020.804	0.000
1455	702.808	2020.804	80.000
1456	702.808	2020.804	160.000
1459	1637.616	895.867	460.000
1575	1092.564	2510.867	490.000
1578	1282.808	2315.867	490.000
1581	1227.646	2000.804	490.000
1590	702.808	2000.804	490.000
1599	702.808	1690.867	490.000
1606	1002.308	1315.871	490.000
1609	1227.646	1315.871	490.000
1611	1322.308	1315.871	490.000
1615	1672.308	1315.871	490.000
1639	1002.308	895.867	490.000
1652	1672.308	895.867	490.000
1669	2022.308	2315.867	490.000
1672	2022.308	2000.804	490.000
1679	2212.308	2510.867	490.000
1680	2294.975	2510.867	490.000
1681	2389.649	2510.867	490.000
1686	2849.649	2510.867	490.000
1691	3322.808	2510.867	490.000
1699	2389.649	2000.804	490.000
1715	2849.649	1540.867	490.000
1721	3322.808	1540.867	490.000
1737	3352.808	1055.867	490.000
1746	2849.649	2000.804	490.000
1779	1672.308	410.867	490.000
1780	3322.808	683.367	490.000
1781	3322.808	490.867	490.000
1782	3792.808	490.867	490.000
1783	3792.808	1310.936	490.000
1784	3322.808	1310.936	490.000
1785	3322.808	2000.867	490.000
1786	3618.308	2000.867	490.000
1787	3898.308	2000.867	490.000
1788	3898.308	2510.867	490.000
1789	1672.308	2000.804	490.000
1790	1282.808	2000.804	490.000
1794	2022.308	1540.867	490.000
1795	702.808	2510.867	490.000
1796	1032.808	2510.867	490.000
1797	1282.808	2255.867	490.000

1798	1672.308	1690.867	490.000
1799	1672.308	1540.867	490.000
1800	702.808	2255.867	490.000
1801	1637.308	1315.871	490.000
1802	1227.646	1690.867	490.000
1803	1637.616	895.867	490.000
1804	2022.308	2255.867	490.000
1805	2022.308	2045.891	490.000
1806	2022.308	1765.867	490.000
1807	2377.642	2510.867	490.000
1808	2840.377	2510.867	490.000
1809	3313.536	2510.867	490.000
1810	3618.308	2510.867	490.000
1811	2389.649	2005.929	490.000
1812	2389.649	1540.867	490.000
1813	2869.649	1540.867	490.000
1814	3792.808	683.367	490.000
1815	3322.808	1055.867	490.000
1816	3792.808	1055.867	490.000
1817	3322.808	1780.867	490.000
1818	3322.808	1500.858	490.000
1819	2849.649	1985.929	490.000
1820	702.808	2020.804	490.000
1823	1672.308	683.367	540.000
1828	2087.558	683.367	540.000
1833	2497.558	683.367	540.000
1838	2907.558	683.367	540.000
1844	3322.808	683.367	540.000
1846	2022.308	1540.867	540.000
1855	2352.308	1540.867	540.000
1864	2682.308	1540.867	540.000
1875	2389.649	1540.867	540.000
1880	2869.649	1540.867	540.000
1882	3012.308	1540.867	540.000
1886	3322.808	1540.867	540.000
1898	3322.808	1055.867	540.000
1899	3352.808	1055.867	540.000
1900	3322.808	1500.858	540.000
1902	3322.808	1310.936	540.000
1905	1637.308	1315.871	540.000
1906	1672.308	1315.871	540.000
1907	1637.616	895.867	540.000
1908	1672.308	895.867	540.000
1909	1672.308	1540.867	540.000
1910	1759.808	1540.867	540.000
1911	1847.308	1540.867	540.000
1912	1934.808	1540.867	540.000
1914	2187.308	1540.867	540.000
1915	2269.808	1540.867	540.000
1917	2584.755	1540.867	540.000
1918	2765.978	1540.867	540.000
1920	3089.933	1540.867	540.000
1921	3167.558	1540.867	540.000
1922	3245.183	1540.867	540.000
1923	1759.808	1540.867	490.000
1924	1847.308	1540.867	490.000
1925	1934.808	1540.867	490.000
1927	2187.308	1540.867	490.000
1928	2269.808	1540.867	490.000
1929	2352.308	1540.867	490.000
1931	2584.755	1540.867	490.000
1932	2682.308	1540.867	490.000
1933	2765.978	1540.867	490.000
1935	3012.308	1540.867	490.000
1936	3089.933	1540.867	490.000
1937	3167.558	1540.867	490.000
1938	3245.183	1540.867	490.000
1939	2849.649	1540.867	540.000
1940	1672.308	754.200	540.000
1941	1672.308	825.034	540.000
1942	1672.308	979.868	540.000
1943	1672.308	1063.869	540.000
1944	1672.308	1147.870	540.000
1945	1672.308	1231.870	540.000
1946	1672.308	1390.870	540.000
1947	1672.308	1465.868	540.000
1948	1672.308	754.200	490.000
1949	1672.308	825.034	490.000
1950	1672.308	979.868	490.000
1951	1672.308	1063.869	490.000
1952	1672.308	1147.870	490.000
1953	1672.308	1231.870	490.000
1954	1672.308	1390.870	490.000
1955	1672.308	1465.868	490.000
1956	3322.808	776.492	540.000
1957	3322.808	869.617	540.000
1958	3322.808	962.742	540.000
1959	3322.808	1140.890	540.000

1960	3322.808	1225.913	540.000
1961	3322.808	1405.897	540.000
1962	3322.808	776.492	490.000
1963	3322.808	869.617	490.000
1964	3322.808	962.742	490.000
1965	3322.808	1140.890	490.000
1966	3322.808	1225.913	490.000
1967	3322.808	1405.897	490.000
1969	2087.558	1540.867	540.000
1970	2497.558	1540.867	540.000
1971	2907.558	1540.867	540.000
1972	2907.558	1540.867	490.000
1973	2087.558	1540.867	490.000
1974	2497.558	1540.867	490.000
1975	702.808	2720.867	160.000
1976	702.808	2810.867	160.000
1977	702.808	2900.867	160.000
1978	702.808	2990.867	160.000
1979	1282.808	2990.867	160.000
1980	1282.808	2900.867	160.000
1981	1282.808	2810.867	160.000
1982	1282.808	2720.867	160.000
1983	1282.808	2510.867	160.000
1984	702.808	2990.867	510.000
1985	702.808	2900.867	506.250
1986	702.808	2810.867	502.500
1987	702.808	2720.867	498.750
1988	1282.808	2990.867	510.000
1989	1282.808	2900.867	506.250
1990	1282.808	2810.867	502.500
1991	1282.808	2720.867	498.750
1992	1282.808	2510.867	490.000

ASTE--	-----	-----	-----	-----	-----	num.=	989
Nome	Proprieta.	Nodo iniz.	Nodo fin.	Rilasci in.	Rilasci fin.		Orient.
50	2	16	110				0.0
51	2	110	113				0.0
52	2	113	116				0.0
53	2	116	18				0.0
54	2	18	120				0.0
55	2	120	123				0.0
56	2	123	126				0.0
57	2	126	20				0.0
86	2	202	30				0.0
87	2	32	202				0.0
88	2	32	206				0.0
89	2	206	209				0.0
90	2	209	212				0.0
91	2	212	215				0.0
92	2	215	34				0.0
102	2	240	40				0.0
103	2	243	240				0.0
104	2	246	243				0.0
105	2	249	246				0.0
106	2	42	249				0.0
115	2	48	271				0.0
116	2	271	274				0.0
117	2	274	50				0.0
118	2	50	278				0.0
119	2	278	281				0.0
120	2	281	52				0.0
121	2	52	285				0.0
122	2	285	288				0.0
123	2	288	291				0.0
124	2	291	294				0.0
125	2	294	297				0.0
126	2	297	54				0.0
168	2	402	98				0.0
169	2	405	402				0.0
170	2	408	405				0.0
171	2	100	408				0.0
206	16	22	495				0.0
207	16	495	498				0.0
209	16	501	504				0.0
210	16	504	24				0.0
211	16	24	508				0.0
212	16	508	511				0.0
213	16	511	514				0.0
214	16	514	517				0.0
215	16	517	26				0.0
216	16	26	520				0.0
217	16	520	523				0.0
218	16	523	526				0.0
219	16	526	529				0.0
220	16	529	28				0.0
221	16	28	532				0.0
222	16	532	535				0.0
223	16	535	538				0.0



224	16	538	541	0.0
226	16	544	30	0.0
269	2	648	96	0.0
270	2	651	648	0.0
271	2	654	651	0.0
272	2	657	654	0.0
273	2	660	657	0.0
274	2	663	660	0.0
275	2	666	663	0.0
276	2	669	666	0.0
277	2	504	669	0.0
282	2	684	681	0.0
283	2	687	684	0.0
284	2	690	687	0.0
285	2	693	690	0.0
286	2	696	693	0.0
287	2	699	696	0.0
288	2	702	699	0.0
289	2	705	702	0.0
290	2	514	705	0.0
297	2	725	722	0.0
298	2	728	725	0.0
299	2	731	728	0.0
300	2	734	731	0.0
301	2	737	734	0.0
302	2	740	737	0.0
303	2	743	740	0.0
304	2	746	743	0.0
305	2	523	746	0.0
424	16	498	501	0.0
425	16	541	544	0.0
426	2	845	848	0.0
427	2	848	851	0.0
428	2	851	854	0.0
429	2	854	857	0.0
430	2	857	858	0.0
431	2	858	863	0.0
432	2	863	866	0.0
433	2	866	869	0.0
434	2	871	869	0.0
435	2	875	871	0.0
436	2	878	875	0.0
437	2	100	878	0.0
438	2	880	100	0.0
439	2	1046	98	0.0
440	2	1043	1046	0.0
441	2	1040	1043	0.0
442	2	1037	1040	0.0
443	2	1034	1037	0.0
444	2	1031	1034	0.0
445	2	842	845	0.0
446	2	839	842	0.0
447	2	836	839	0.0
448	2	833	836	0.0
449	2	830	833	0.0
451	2	827	896	0.0
452	2	896	893	0.0
453	2	893	890	0.0
454	2	890	887	0.0
455	2	887	884	0.0
456	2	884	880	0.0
458	2	824	827	0.0
459	2	821	824	0.0
460	2	818	821	0.0
461	2	815	818	0.0
462	2	812	815	0.0
463	2	809	812	0.0
464	2	806	809	0.0
465	2	794	806	0.0
466	2	794	791	0.0
467	2	791	788	0.0
468	2	788	783	0.0
469	2	783	797	0.0
470	2	797	800	0.0
471	2	800	803	0.0
472	2	803	933	0.0
473	2	933	936	0.0
474	2	936	941	0.0
475	2	941	944	0.0
476	2	944	947	0.0
477	2	947	950	0.0
478	2	950	951	0.0
479	2	815	899	0.0
480	2	899	902	0.0
481	2	902	905	0.0
482	2	905	908	0.0
483	2	908	911	0.0
484	2	911	914	0.0

485	2	914	1049	0.0
486	2	1049	1052	0.0
487	2	1052	1055	0.0
488	2	1055	1058	0.0
489	2	1058	1037	0.0
490	2	917	880	0.0
491	2	920	917	0.0
492	2	923	920	0.0
493	2	914	923	0.0
494	2	926	914	0.0
495	2	929	926	0.0
496	2	932	929	0.0
497	2	803	932	0.0
498	2	1028	1031	0.0
499	2	1025	1028	0.0
500	2	951	1025	0.0
501	2	1031	1061	0.0
502	2	1061	1064	0.0
503	2	1064	1067	0.0
504	2	1067	96	0.0
506	2	776	779	0.0
507	2	773	776	0.0
508	2	769	773	0.0
509	2	767	769	0.0
510	2	764	767	0.0
511	2	761	764	0.0
512	2	758	761	0.0
513	2	755	758	0.0
514	2	16	755	0.0
515	2	769	956	0.0
516	2	956	959	0.0
517	2	959	962	0.0
518	2	962	965	0.0
519	2	965	968	0.0
520	2	968	971	0.0
521	2	971	974	0.0
522	2	974	977	0.0
523	2	977	978	0.0
524	2	1004	936	0.0
525	2	1001	1004	0.0
526	2	998	1001	0.0
527	2	995	998	0.0
528	2	965	995	0.0
529	2	1022	951	0.0
530	2	1019	1022	0.0
531	2	1016	1019	0.0
532	2	1013	1016	0.0
533	2	978	1013	0.0
534	2	992	965	0.0
535	2	989	992	0.0
536	2	986	989	0.0
537	2	983	986	0.0
538	2	18	983	0.0
539	2	1010	978	0.0
540	2	1007	1010	0.0
541	2	22	1007	0.0
542	2	752	22	0.0
543	2	749	752	0.0
544	2	20	749	0.0
545	2	1097	1098	0.0
546	2	1094	1097	0.0
547	2	1091	1094	0.0
548	2	1086	1091	0.0
549	2	1085	1086	0.0
550	2	1082	1085	0.0
551	2	1079	1082	0.0
552	2	1076	1079	0.0
553	2	1073	1076	0.0
554	2	1070	1073	0.0
555	2	96	1070	0.0
556	2	1098	1103	0.0
557	2	1103	1106	0.0
558	2	1106	1109	0.0
559	2	1109	1112	0.0
560	2	1112	1115	0.0
561	2	1115	1116	0.0
563	2	1116	1121	0.0
564	2	1121	1124	0.0
565	2	1124	1127	0.0
566	2	1127	1130	0.0
567	2	1130	1133	0.0
568	2	1133	1134	0.0
570	2	1139	1142	0.0
571	2	1142	1145	0.0
572	2	1145	1148	0.0
573	2	1148	1151	0.0
574	2	1151	1152	0.0
575	2	1152	1157	0.0

576	2	1157	1160	0.0
577	2	1160	1163	0.0
578	2	1163	1166	0.0
579	2	1166	1169	0.0
580	2	1169	54	0.0
581	2	1085	1172	0.0
582	2	1172	1175	0.0
583	2	1175	1178	0.0
584	2	1178	1181	0.0
585	2	1271	1116	0.0
586	2	1274	1271	0.0
587	2	1277	1274	0.0
588	2	1280	1277	0.0
589	2	1283	1280	0.0
590	2	1286	1283	0.0
591	2	1181	1286	0.0
592	2	96	1211	0.0
593	2	1211	1214	0.0
594	2	1214	1217	0.0
595	2	1217	681	0.0
596	2	681	1218	0.0
597	2	1289	1181	0.0
598	2	1292	1289	0.0
599	2	1295	1292	0.0
600	2	1298	1295	0.0
601	2	1218	1298	0.0
602	2	1218	1223	0.0
603	2	1223	1226	0.0
604	2	1226	722	0.0
605	2	722	1229	0.0
606	2	1229	1232	0.0
607	2	1232	1233	0.0
608	2	1233	1238	0.0
609	2	1238	1241	0.0
610	2	1241	1244	0.0
611	2	1244	1247	0.0
612	2	1247	1250	0.0
613	2	1250	1253	0.0
615	2	535	1367	0.0
616	2	1367	1364	0.0
617	2	1364	1361	0.0
618	2	1361	1358	0.0
619	2	1358	1355	0.0
620	2	1355	1352	0.0
621	2	1352	1349	0.0
622	2	1349	1346	0.0
623	2	1346	1241	0.0
624	2	30	1427	0.0
625	2	1427	1430	0.0
626	2	1430	1433	0.0
627	2	1433	1436	0.0
628	2	1436	1406	0.0
629	2	30	1385	0.0
630	2	1385	1382	0.0
631	2	1382	1379	0.0
632	2	1379	1376	0.0
633	2	1376	1410	0.0
634	2	1410	1415	0.0
635	2	1415	1418	0.0
636	2	1418	1421	0.0
637	2	1421	1424	0.0
638	2	1424	1394	0.0
639	2	1181	1184	0.0
640	2	1184	1187	0.0
641	2	1187	1190	0.0
642	2	1190	1193	0.0
643	2	1193	1196	0.0
644	2	1196	1199	0.0
645	2	1199	1202	0.0
646	2	1202	1205	0.0
647	2	1205	1208	0.0
648	2	1208	48	0.0
649	2	1256	48	0.0
650	2	1259	1256	0.0
651	2	1262	1259	0.0
653	2	1304	1301	0.0
654	2	1307	1304	0.0
655	2	1310	1307	0.0
656	2	1313	1310	0.0
657	2	1196	1313	0.0
658	2	1331	1152	0.0
659	2	1334	1331	0.0
660	2	1337	1334	0.0
661	2	1340	1337	0.0
662	2	1343	1340	0.0
663	2	48	1343	0.0
665	2	1322	1319	0.0
666	2	1325	1322	0.0

667	2	1328	1325	0.0
668	2	1232	1328	0.0
670	2	1265	1262	0.0
671	2	1268	1265	0.0
672	2	1253	1268	0.0
673	2	1439	1253	0.0
674	2	1444	1439	0.0
675	2	42	1444	0.0
676	2	1370	42	0.0
677	2	1373	1370	0.0
678	2	1376	1373	0.0
679	2	1388	40	0.0
680	2	1391	1388	0.0
681	2	1394	1391	0.0
682	2	1397	1394	0.0
683	2	1400	1397	0.0
684	2	1403	1400	0.0
685	2	1406	1403	0.0
686	2	1409	1406	0.0
687	2	34	1409	0.0
688	2	782	783	0.0
689	2	779	782	0.0
690	2	1134	1139	0.0
691	2	1301	1134	0.0
692	2	1319	1315	0.0
693	2	1315	1196	0.0
694	1	16	1445	0.0
695	1	18	1446	90.0
697	10	22	1448	90.0
698	1	965	1449	90.0
699	1	767	1450	0.0
700	1	794	1451	0.0
701	1	782	1452	0.0
702	1	933	1453	90.0
703	2	827	1456	0.0
704	2	1456	830	0.0
705	1	20	1779	0.0
706	1	950	1801	90.0
707	1	977	1459	90.0
708	1	1031	1799	90.0
709	1	1037	1798	0.0
710	1	1456	1820	0.0
711	1	845	1795	90.0
712	1	857	1796	90.0
713	1	871	1797	0.0
714	1	100	1790	90.0
715	1	98	1789	90.0
716	1	914	1802	90.0
717	1	836	1800	0.0
718	1	96	1794	90.0
719	1	1076	1806	0.0
720	1	1086	1805	0.0
721	1	1097	1804	0.0
722	1	1115	1807	90.0
723	1	1286	1811	90.0
724	1	1133	1808	90.0
725	1	1151	1809	90.0
726	1	1163	1810	90.0
727	1	54	1788	90.0
728	1	52	1787	90.0
729	1	50	1786	90.0
730	1	48	1785	0.0
731	1	1262	1817	0.0
732	1	1218	1812	90.0
733	1	1233	1813	90.0
734	1	1315	1819	0.0
735	1	42	1784	90.0
736	1	1439	1818	0.0
737	1	40	1783	90.0
738	1	1394	1816	0.0
739	1	1376	1815	90.0
740	1	32	1781	90.0
741	1	30	1780	0.0
742	1	34	1782	90.0
743	1	1406	1814	0.0
744	15	24	1828	90.0
745	15	26	1833	90.0
746	15	28	1838	90.0
1092	3	1800	1795	0.0
1093	3	1795	1796	0.0
1094	3	1820	1800	0.0
1095	3	1796	1575	0.0
1096	3	1797	1578	0.0
1097	3	1575	1578	0.0
1098	3	1790	1797	0.0
1099	3	1590	1820	0.0
1100	3	1590	1581	0.0
1101	3	1581	1790	0.0

1102	3	1790	1789	0.0
1103	3	1599	1590	0.0
1104	3	1451	1599	0.0
1105	4	1599	1802	0.0
1106	5	1802	1581	0.0
1107	5	1609	1802	0.0
1108	4	1802	1798	0.0
1109	3	1798	1789	0.0
1110	3	1451	1606	0.0
1111	3	1606	1609	0.0
1112	3	1609	1453	0.0
1113	3	1453	1611	0.0
1114	3	1611	1801	0.0
1115	3	1801	1615	0.0
1116	3	1452	1606	0.0
1117	3	1639	1452	0.0
1118	5	1449	1611	0.0
1119	5	1446	1449	0.0
1120	4	1639	1449	0.0
1121	3	1450	1639	0.0
1122	3	1445	1450	0.0
1123	3	1445	1446	0.0
1124	3	1446	1779	0.0
1125	4	1449	1803	0.0
1126	4	1803	1652	0.0
1127	3	1779	1448	0.0
1128	17	1448	1948	0.0
1129	17	1652	1950	0.0
1130	17	1615	1954	0.0
1131	3	1799	1798	0.0
1132	12	1799	1923	0.0
1133	3	1794	1806	0.0
1134	3	1806	1672	0.0
1135	3	1672	1805	0.0
1136	3	1805	1804	0.0
1137	3	1804	1669	0.0
1138	3	1679	1680	0.0
1139	3	1669	1679	0.0
1140	3	1680	1807	0.0
1141	3	1807	1681	0.0
1142	3	1681	1808	0.0
1144	3	1808	1686	0.0
1145	3	1686	1809	0.0
1146	3	1809	1691	0.0
1147	3	1691	1810	0.0
1148	3	1810	1788	0.0
1149	3	1787	1788	0.0
1150	3	1786	1787	0.0
1151	3	1785	1786	0.0
1152	4	1785	1691	0.0
1153	3	1746	1785	0.0
1154	21	1746	1686	0.0
1155	3	1672	1699	0.0
1156	20	1811	1681	0.0
1157	4	1699	1811	0.0
1158	3	1699	1746	0.0
1244	3	1905	1906	0.0
1245	4	1907	1908	0.0
1246	18	1823	1940	0.0
1247	18	1908	1942	0.0
1248	18	1906	1946	0.0
1249	11	1909	1910	0.0
1252	12	1715	1813	0.0
1254	3	1721	1817	0.0
1255	20	1812	1699	0.0
1256	21	1715	1819	0.0
1257	4	1819	1746	0.0
1258	3	1817	1785	0.0
1259	17	1818	1721	0.0
1260	17	1784	1967	0.0
1261	3	1784	1783	0.0
1262	17	1815	1965	0.0
1263	3	1816	1783	0.0
1264	4	1815	1737	0.0
1265	4	1737	1816	0.0
1266	17	1780	1962	0.0
1267	3	1814	1816	0.0
1268	4	1780	1814	0.0
1269	3	1781	1780	0.0
1270	3	1782	1814	0.0
1271	3	1781	1782	0.0
1278	11	1855	1875	0.0
1280	11	1864	1918	0.0
1282	11	1882	1920	0.0
1283	18	1900	1886	0.0
1284	18	1902	1961	0.0
1285	18	1898	1959	0.0
1286	3	1898	1899	0.0

1287	18	1844	1956	0.0
1295	3	1459	1803	0.0
1296	10	1448	1823	90.0
1297	3	1780	1844	90.0
1298	3	1799	1909	0.0
1299	3	1794	1846	0.0
1300	3	1812	1875	0.0
1301	3	1813	1880	0.0
1302	3	1784	1902	0.0
1303	3	1818	1900	90.0
1305	3	1815	1898	0.0
1307	3	1801	1905	0.0
1308	3	1803	1907	0.0
1309	7	21	494	0.0
1310	7	494	497	0.0
1311	7	497	500	0.0
1312	7	500	503	0.0
1313	7	503	23	0.0
1314	7	23	507	0.0
1315	7	507	510	0.0
1316	7	510	513	0.0
1317	7	513	516	0.0
1318	7	516	25	0.0
1319	7	25	519	0.0
1320	7	519	522	0.0
1321	7	522	525	0.0
1322	7	525	528	0.0
1323	7	528	27	0.0
1324	7	27	531	0.0
1325	7	531	534	0.0
1326	7	534	537	0.0
1327	7	537	540	0.0
1328	7	540	543	0.0
1329	7	543	29	0.0
1330	8	19	748	0.0
1331	8	748	751	0.0
1332	8	751	21	0.0
1333	8	21	1006	0.0
1334	8	1006	1009	0.0
1335	8	1009	980	0.0
1336	8	980	1012	0.0
1337	8	1012	1015	0.0
1338	8	1015	1018	0.0
1339	8	1018	1021	0.0
1340	8	1021	953	0.0
1341	8	953	1024	0.0
1342	8	1024	1027	0.0
1343	8	1027	1030	0.0
1344	8	1030	1033	0.0
1345	8	1033	1036	0.0
1346	8	1036	1039	0.0
1347	8	1039	1042	0.0
1348	8	1042	1045	0.0
1349	8	1045	97	0.0
1350	8	15	109	0.0
1351	8	109	112	0.0
1352	8	112	115	0.0
1353	8	115	17	0.0
1354	8	17	119	0.0
1355	8	119	122	0.0
1356	8	122	125	0.0
1357	8	125	19	0.0
1358	8	15	754	0.0
1359	8	754	757	0.0
1360	8	757	760	0.0
1361	8	760	763	0.0
1362	8	763	766	0.0
1363	8	766	770	0.0
1364	8	770	772	0.0
1365	8	772	775	0.0
1366	8	775	778	0.0
1367	8	778	781	0.0
1368	8	781	785	0.0
1369	8	792	789	0.0
1370	8	789	786	0.0
1371	8	786	785	0.0
1372	8	785	796	0.0
1373	8	796	799	0.0
1374	8	799	802	0.0
1375	8	938	940	0.0
1376	8	940	943	0.0
1377	8	943	946	0.0
1378	8	946	949	0.0
1379	8	949	953	0.0
1380	8	792	805	0.0
1381	8	805	808	0.0
1382	8	808	811	0.0
1383	8	811	814	0.0

1384	8	814	817	0.0
1385	8	817	820	0.0
1386	8	820	823	0.0
1387	8	823	826	0.0
1388	8	826	1454	0.0
1389	8	1454	829	0.0
1390	8	829	832	0.0
1391	8	832	835	0.0
1392	8	835	838	0.0
1393	8	838	841	0.0
1394	8	841	844	0.0
1395	8	17	982	0.0
1396	8	982	985	0.0
1397	8	985	988	0.0
1398	8	988	991	0.0
1399	8	991	964	0.0
1400	8	964	994	0.0
1401	8	994	997	0.0
1402	8	997	1000	0.0
1403	8	1000	1003	0.0
1404	8	1003	938	0.0
1405	8	770	955	0.0
1406	8	955	958	0.0
1407	8	958	961	0.0
1408	8	961	964	0.0
1409	8	964	967	0.0
1410	8	967	970	0.0
1411	8	970	973	0.0
1412	8	973	976	0.0
1413	8	976	980	0.0
1414	8	814	898	0.0
1415	8	898	901	0.0
1416	8	901	904	0.0
1417	8	904	907	0.0
1418	8	907	910	0.0
1419	8	910	913	0.0
1420	8	913	1048	0.0
1421	8	1048	1051	0.0
1422	8	1051	1054	0.0
1423	8	1054	1057	0.0
1424	8	1057	1036	0.0
1425	8	844	847	0.0
1426	8	847	850	0.0
1427	8	850	853	0.0
1428	8	853	856	0.0
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105	1	39	237	238	239
106	1	237	40	240	238
107	1	239	238	241	242
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133	1	269	270	273	272
134	1	271	269	272	274
135	1	272	273	49	275
136	1	274	272	275	50
137	1	275	49	277	276
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351	2	528	527	186	27
352	2	527	529	28	186
353	2	27	186	530	531
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463	1	665	664	667	668
464	1	664	666	669	667
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520	1	738	740	743	741
521	1	742	741	744	745
522	1	741	743	746	744
523	1	745	744	521	522
524	1	744	746	523	521
525	1	747	127	19	748
526	1	749	20	127	747
527	1	750	747	748	751
528	1	752	749	747	750
529	1	147	750	751	21
530	1	22	752	750	147
531	1	753	107	15	754
532	1	755	16	107	753
533	1	756	753	754	757
534	1	758	755	753	756
535	1	759	756	757	760
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PROPRIETA` ASTE---							num.=	20
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1	1	60.00	20.00	1.20000E+03	1.00000E+03	1.00000E+03		
		0.000000	0.000000	1.26434E+05	3.60000E+05	4.00000E+04		
2	1	20.00	30.00	6.00000E+02	5.00000E+02	5.00000E+02		
		0.000000	0.000000	4.69526E+04	2.00000E+04	4.50000E+04		
3	1	20.00	60.00	1.20000E+03	1.00000E+03	1.00000E+03		
		0.000000	0.000000	1.26434E+05	4.00000E+04	3.60000E+05		
4	1	40.00	25.00	1.00000E+03	8.33333E+02	8.33333E+02		
		0.000000	0.000000	1.27344E+05	1.33333E+05	5.20833E+04		
5	1	90.00	25.00	2.25000E+03	1.87500E+03	1.87500E+03		
		0.000000	0.000000	3.86757E+05	1.51875E+06	1.17188E+05		
7	1	100.00	40.00	4.00000E+03	3.33333E+03	3.33333E+03		
		9.806650	9.806650	1.59687E+06	3.33333E+06	5.33333E+05		
8	1	90.00	40.00	3.60000E+03	3.00000E+03	3.00000E+03		
		9.806650	9.806650	1.38414E+06	2.43000E+06	4.80000E+05		
10	1	20.00	100.00	2.00000E+03	1.66667E+03	1.66667E+03		
		0.000000	0.000000	2.33069E+05	6.66667E+04	1.66667E+06		
11	1	20.00	20.00	4.00000E+02	3.33333E+02	3.33333E+02		
		0.000000	0.000000	2.25330E+04	1.33333E+04	1.33333E+04		
12	1	20.00	111.00	2.22000E+03	1.85000E+03	1.85000E+03		
		0.000000	0.000000	2.62401E+05	7.40000E+04	2.27939E+06		
14	1	60.00	36.00	2.16000E+03	1.80000E+03	1.80000E+03		
		0.000000	0.000000	5.84204E+05	6.48000E+05	2.33280E+05		
15	1	40.00	40.00	1.25664E+03	1.13097E+03	1.13097E+03		
		0.000000	0.000000	2.51327E+05	1.25664E+05	1.25664E+05		
16	1	40.00	25.00	1.00000E+03	8.33333E+02	8.33333E+02		
		0.000000	0.000000	1.27344E+05	1.33333E+05	5.20833E+04		
17	1	20.00	111.00	2.22000E+03	1.85000E+03	1.85000E+03		
		0.000000	0.000000	2.62401E+05	7.40000E+04	2.27939E+06		
18	1	20.00	25.00	5.00000E+02	4.16667E+02	4.16667E+02		
		0.000000	0.000000	3.42131E+04	1.66667E+04	2.60417E+04		
19	1	80.00	36.00	2.88000E+03	2.40000E+03	2.40000E+03		
		0.000000	0.000000	8.92638E+05	1.53600E+06	3.11040E+05		
20	1	85.00	25.00	2.12500E+03	1.77083E+03	1.77083E+03		
		0.000000	0.000000	3.60725E+05	1.27943E+06	1.10677E+05		
21	1	40.00	35.00	1.40000E+03	1.16667E+03	1.16667E+03		
		0.000000	0.000000	2.71926E+05	1.86667E+05	1.42917E+05		
23	1	50.00	100.00	5.00000E+03	4.16667E+03	4.16667E+03		
		9.806650	9.806650	2.86098E+06	1.04167E+06	4.16667E+06		
24	2	21.91	20.65	4.21000E+01	3.78900E+01	3.78900E+01		
		0.000000	0.000000	4.77200E+03	2.38600E+03	2.38600E+03		

PROPRIETA` GUSCI---					num.=	2
Nome	Materiale	Sp.membr.	Sp. piastra	Kw		
1	1	30.00	30.00	0.000000		
2	1	40.00	40.00	0.000000		

MATERIALI-----						num.=	2
Nome	Mod. elast.	Coeff. nu	Mod. tang.	Peso spec.	Dil. te.		
1	3.00000E+05	1.50000E-01	1.30000E+05	2.54929E+03	1.00000E-05		
2	2.10000E+06	3.00000E-01	8.50000E+05	8.00477E+03	1.00000E-05		

VINCOLI-----							num.=	331
Nodo	Rigid. X	Rigid. Y	Rigid. Z	Rigid. RX	Rigid. RY	Rigid. RZ		
21	bloccato	bloccato	libero	libero	libero	libero		
23	bloccato	bloccato	libero	libero	libero	libero		
25	bloccato	bloccato	libero	libero	libero	libero		
27	bloccato	bloccato	libero	libero	libero	libero		
29	bloccato	bloccato	libero	libero	libero	libero		
15	bloccato	bloccato	libero	libero	libero	libero		
17	bloccato	bloccato	libero	libero	libero	libero		
19	bloccato	bloccato	libero	libero	libero	libero		
31	bloccato	bloccato	libero	libero	libero	libero		
33	bloccato	bloccato	libero	libero	libero	libero		
39	bloccato	bloccato	libero	libero	libero	libero		
41	bloccato	bloccato	libero	libero	libero	libero		
47	bloccato	bloccato	libero	libero	libero	libero		
49	bloccato	bloccato	libero	libero	libero	libero		
51	bloccato	bloccato	libero	libero	libero	libero		
53	bloccato	bloccato	libero	libero	libero	libero		
95	bloccato	bloccato	libero	libero	libero	libero		
97	bloccato	bloccato	libero	libero	libero	libero		
99	bloccato	bloccato	libero	libero	libero	libero		
748	bloccato	bloccato	libero	libero	libero	libero		
751	bloccato	bloccato	libero	libero	libero	libero		
754	bloccato	bloccato	libero	libero	libero	libero		
757	bloccato	bloccato	libero	libero	libero	libero		
760	bloccato	bloccato	libero	libero	libero	libero		
763	bloccato	bloccato	libero	libero	libero	libero		
766	bloccato	bloccato	libero	libero	libero	libero		
770	bloccato	bloccato	libero	libero	libero	libero		
772	bloccato	bloccato	libero	libero	libero	libero		
775	bloccato	bloccato	libero	libero	libero	libero		
778	bloccato	bloccato	libero	libero	libero	libero		
781	bloccato	bloccato	libero	libero	libero	libero		
785	bloccato	bloccato	libero	libero	libero	libero		







647	bloccato	bloccato	libero	libero	libero	libero
650	bloccato	bloccato	libero	libero	libero	libero
653	bloccato	bloccato	libero	libero	libero	libero
656	bloccato	bloccato	libero	libero	libero	libero
659	bloccato	bloccato	libero	libero	libero	libero
662	bloccato	bloccato	libero	libero	libero	libero
665	bloccato	bloccato	libero	libero	libero	libero
668	bloccato	bloccato	libero	libero	libero	libero
680	bloccato	bloccato	libero	libero	libero	libero
683	bloccato	bloccato	libero	libero	libero	libero
686	bloccato	bloccato	libero	libero	libero	libero
689	bloccato	bloccato	libero	libero	libero	libero
692	bloccato	bloccato	libero	libero	libero	libero
695	bloccato	bloccato	libero	libero	libero	libero
698	bloccato	bloccato	libero	libero	libero	libero
701	bloccato	bloccato	libero	libero	libero	libero
704	bloccato	bloccato	libero	libero	libero	libero
721	bloccato	bloccato	libero	libero	libero	libero
724	bloccato	bloccato	libero	libero	libero	libero
727	bloccato	bloccato	libero	libero	libero	libero
730	bloccato	bloccato	libero	libero	libero	libero
733	bloccato	bloccato	libero	libero	libero	libero
736	bloccato	bloccato	libero	libero	libero	libero
739	bloccato	bloccato	libero	libero	libero	libero
742	bloccato	bloccato	libero	libero	libero	libero
745	bloccato	bloccato	libero	libero	libero	libero
1975	bloccato	bloccato	libero	libero	libero	libero
1976	bloccato	bloccato	libero	libero	libero	libero
1977	bloccato	bloccato	libero	libero	libero	libero
1978	bloccato	bloccato	libero	libero	libero	libero
1979	bloccato	bloccato	libero	libero	libero	libero
1980	bloccato	bloccato	libero	libero	libero	libero
1981	bloccato	bloccato	libero	libero	libero	libero
1982	bloccato	bloccato	libero	libero	libero	libero
1983	bloccato	bloccato	libero	libero	libero	libero



CARICHI NODI-----|-----|-----|-----|-----|num.= 3616

Nome	Nodo	Direzione	Intensita`
1 appoggio parte metal	1782	Z	-600.0
2 appoggio parte metal	1814	Z	-600.0
3 neve parte metallica	1782	Z	-1200.0
4 neve parte metallica	1814	Z	-1200.0
5 D001	1445	X	124.9
6 D001	1446	X	246.2
7 D001	1450	X	23.5
8 D001	1639	X	129.7
9 D001	1451	X	81.8
10 D001	1779	X	127.0
11 D001	1449	X	233.4
12 D001	1452	X	39.9
13 D001	1606	X	49.8
14 D001	1448	X	32.9
15 D001	1823	X	211.9
16 D001	1940	X	11.4
17 D001	1803	X	136.0
18 D001	1941	X	11.0
19 D001	1453	X	140.6
20 D001	1907	X	2.4
21 D001	1908	X	3.3
22 D001	1611	X	60.1
23 D001	1590	X	111.2
24 D001	1820	X	6.5
25 D001	1943	X	13.6
26 D001	1828	X	478.3
27 D001	1802	X	144.9
28 D001	1945	X	20.3
29 D001	1800	X	6.1
30 D001	1905	X	52.3
31 D001	1906	X	21.7
32 D001	1947	X	42.6
33 D001	1799	X	33.6
34 D001	1795	X	19.3
35 D001	1833	X	475.6
36 D001	1909	X	23.7
37 D001	1790	X	90.9
38 D001	1910	X	51.2
39 D001	1798	X	51.3
40 D001	1911	X	51.2
41 D001	1912	X	51.2
42 D001	1797	X	4.8
43 D001	1796	X	25.1
44 D001	1794	X	41.7
45 D001	1578	X	11.4
46 D001	1846	X	111.7
47 D001	1838	X	478.1
48 D001	1789	X	27.2
49 D001	1914	X	69.3
50 D001	1806	X	11.9
51 D001	1781	X	107.9
52 D001	1915	X	62.8
53 D001	1812	X	53.7
54 D001	1855	X	30.6
55 D001	1875	X	37.7
56 D001	1780	X	130.3
57 D001	1844	X	211.0
58 D001	1805	X	162.2
59 D001	1970	X	104.3
60 D001	1917	X	70.3
61 D001	1957	X	30.5
62 D001	1864	X	69.0
63 D001	1804	X	4.5
64 D001	1782	X	121.5
65 D001	1669	X	6.8
66 D001	1918	X	63.7
67 D001	1715	X	262.2
68 D001	1898	X	29.4
69 D001	1939	X	26.5
70 D001	1899	X	90.8
71 D001	1880	X	82.2
72 D001	1814	X	136.0
73 D001	1959	X	10.9
74 D001	1882	X	69.4
75 D001	1784	X	59.4
76 D001	1920	X	59.2
77 D001	1902	X	4.9
78 D001	1679	X	9.3
79 D001	1921	X	59.2
80 D001	1961	X	10.1
81 D001	1818	X	27.8
82 D001	1922	X	59.2
83 D001	1816	X	104.9
84 D001	1900	X	2.1
85 D001	1807	X	3.2
86 D001	1681	X	13.1

87	D001	1886	X	20.3
88	D001	1783	X	49.2
89	D001	1785	X	97.3
90	D001	1808	X	27.5
91	D001	1786	X	43.2
92	D001	1691	X	23.6
93	D001	1787	X	28.8
94	D001	1810	X	13.5
95	D001	1788	X	9.0
96	D001	1445	Y	38.0
97	D001	1446	Y	120.8
98	D001	1450	Y	8.9
99	D001	1639	Y	49.9
100	D001	1451	Y	17.4
101	D001	1779	Y	88.2
102	D001	1449	Y	144.6
103	D001	1452	Y	19.5
104	D001	1606	Y	24.8
105	D001	1448	Y	25.9
106	D001	1823	Y	162.8
107	D001	1940	Y	9.1
108	D001	1803	Y	115.7
109	D001	1941	Y	9.1
110	D001	1453	Y	104.1
111	D001	1907	Y	2.0
112	D001	1908	Y	2.8
113	D001	1611	Y	48.2
114	D001	1590	Y	45.5
115	D001	1820	Y	2.7
116	D001	1943	Y	12.8
117	D001	1828	Y	497.6
118	D001	1802	Y	139.9
119	D001	1945	Y	21.2
120	D001	1800	Y	3.8
121	D001	1905	Y	56.1
122	D001	1906	Y	24.0
123	D001	1947	Y	52.7
124	D001	1799	Y	45.2
125	D001	1795	Y	25.3
126	D001	1833	Y	622.2
127	D001	1909	Y	31.1
128	D001	1790	Y	133.7
129	D001	1910	Y	72.3
130	D001	1798	Y	79.0
131	D001	1911	Y	77.4
132	D001	1912	Y	82.4
133	D001	1797	Y	10.8
134	D001	1796	Y	81.5
135	D001	1794	Y	72.6
136	D001	1578	Y	29.1
137	D001	1846	Y	190.8
138	D001	1838	Y	752.9
139	D001	1789	Y	59.4
140	D001	1914	Y	131.1
141	D001	1806	Y	25.5
142	D001	1781	Y	185.0
143	D001	1915	Y	124.5
144	D001	1812	Y	115.8
145	D001	1855	Y	63.5
146	D001	1875	Y	79.7
147	D001	1780	Y	244.1
148	D001	1844	Y	389.3
149	D001	1805	Y	487.8
150	D001	1970	Y	233.3
151	D001	1917	Y	164.1
152	D001	1957	Y	61.9
153	D001	1864	Y	168.3
154	D001	1804	Y	19.4
155	D001	1782	Y	242.8
156	D001	1669	Y	33.2
157	D001	1918	Y	161.4
158	D001	1715	Y	702.2
159	D001	1898	Y	66.1
160	D001	1939	Y	69.7
161	D001	1899	Y	206.2
162	D001	1880	Y	217.5
163	D001	1814	Y	297.0
164	D001	1959	Y	25.8
165	D001	1882	Y	194.6
166	D001	1784	Y	160.1
167	D001	1920	Y	171.1
168	D001	1902	Y	13.1
169	D001	1679	Y	94.4
170	D001	1921	Y	176.2
171	D001	1961	Y	28.5
172	D001	1818	Y	86.6
173	D001	1922	Y	181.4
174	D001	1816	Y	279.6

175	D001	1900	Y	6.5
176	D001	1807	Y	35.7
177	D001	1681	Y	146.8
178	D001	1886	Y	63.9
179	D001	1783	Y	154.7
180	D001	1785	Y	506.7
181	D001	1808	Y	382.6
182	D001	1786	Y	248.6
183	D001	1691	Y	395.1
184	D001	1787	Y	180.3
185	D001	1810	Y	248.6
186	D001	1788	Y	180.3
187	D002	1445	X	163.6
188	D002	1446	X	322.6
189	D002	1450	X	36.9
190	D002	1639	X	206.0
191	D002	1451	X	162.1
192	D002	1779	X	166.4
193	D002	1449	X	370.6
194	D002	1452	X	77.9
195	D002	1606	X	98.6
196	D002	1448	X	47.8
197	D002	1823	X	311.1
198	D002	1940	X	17.2
199	D002	1803	X	216.0
200	D002	1941	X	17.1
201	D002	1453	X	278.7
202	D002	1907	X	3.8
203	D002	1908	X	5.3
204	D002	1611	X	119.1
205	D002	1590	X	398.3
206	D002	1820	X	23.9
207	D002	1943	X	23.6
208	D002	1828	X	702.4
209	D002	1802	X	376.7
210	D002	1945	X	38.3
211	D002	1800	X	32.8
212	D002	1905	X	103.3
213	D002	1906	X	42.8
214	D002	1947	X	92.4
215	D002	1799	X	77.4
216	D002	1795	X	211.0
217	D002	1833	X	698.6
218	D002	1909	X	54.1
219	D002	1790	X	325.7
220	D002	1910	X	116.9
221	D002	1798	X	133.5
222	D002	1911	X	116.9
223	D002	1912	X	116.9
224	D002	1797	X	25.8
225	D002	1796	X	274.4
226	D002	1794	X	96.1
227	D002	1578	X	68.8
228	D002	1846	X	255.2
229	D002	1838	X	702.6
230	D002	1789	X	97.5
231	D002	1914	X	158.4
232	D002	1806	X	33.1
233	D002	1781	X	145.5
234	D002	1915	X	143.5
235	D002	1812	X	123.9
236	D002	1855	X	69.9
237	D002	1875	X	86.1
238	D002	1780	X	189.0
239	D002	1844	X	310.0
240	D002	1805	X	616.2
241	D002	1970	X	238.2
242	D002	1917	X	160.5
243	D002	1957	X	48.3
244	D002	1864	X	157.5
245	D002	1804	X	24.0
246	D002	1782	X	163.9
247	D002	1669	X	40.9
248	D002	1918	X	145.5
249	D002	1715	X	604.7
250	D002	1898	X	50.6
251	D002	1939	X	60.6
252	D002	1899	X	156.2
253	D002	1880	X	187.5
254	D002	1814	X	197.3
255	D002	1959	X	19.5
256	D002	1882	X	158.4
257	D002	1784	X	117.3
258	D002	1920	X	135.1
259	D002	1902	X	9.7
260	D002	1679	X	101.4
261	D002	1921	X	135.1
262	D002	1961	X	21.0

263	D002	1818	X	62.4
264	D002	1922	X	135.1
265	D002	1816	X	179.9
266	D002	1900	X	4.8
267	D002	1807	X	35.0
268	D002	1681	X	143.1
269	D002	1886	X	46.3
270	D002	1783	X	97.3
271	D002	1785	X	348.6
272	D002	1808	X	301.5
273	D002	1786	X	154.9
274	D002	1691	X	258.6
275	D002	1787	X	103.2
276	D002	1810	X	147.4
277	D002	1788	X	98.2
278	D002	1445	Y	110.9
279	D002	1446	Y	211.8
280	D002	1450	Y	26.0
281	D002	1639	Y	145.4
282	D002	1451	Y	122.1
283	D002	1779	Y	105.4
284	D002	1449	Y	253.5
285	D002	1452	Y	56.9
286	D002	1606	Y	72.2
287	D002	1448	Y	30.9
288	D002	1823	Y	200.3
289	D002	1940	Y	11.2
290	D002	1803	Y	143.1
291	D002	1941	Y	11.2
292	D002	1453	Y	199.0
293	D002	1907	Y	2.5
294	D002	1908	Y	3.5
295	D002	1611	Y	84.5
296	D002	1590	Y	319.3
297	D002	1820	Y	19.2
298	D002	1943	Y	15.8
299	D002	1828	Y	428.3
300	D002	1802	Y	279.0
301	D002	1945	Y	26.1
302	D002	1800	Y	26.9
303	D002	1905	Y	71.5
304	D002	1906	Y	29.5
305	D002	1947	Y	64.8
306	D002	1799	Y	54.1
307	D002	1795	Y	177.8
308	D002	1833	Y	402.9
309	D002	1909	Y	38.3
310	D002	1790	Y	247.0
311	D002	1910	Y	81.8
312	D002	1798	Y	94.5
313	D002	1911	Y	80.8
314	D002	1912	Y	79.8
315	D002	1797	Y	20.0
316	D002	1796	Y	224.0
317	D002	1794	Y	64.7
318	D002	1578	Y	53.8
319	D002	1846	Y	172.2
320	D002	1838	Y	381.4
321	D002	1789	Y	71.1
322	D002	1914	Y	104.7
323	D002	1806	Y	22.7
324	D002	1781	Y	76.8
325	D002	1915	Y	93.9
326	D002	1812	Y	80.0
327	D002	1855	Y	45.3
328	D002	1875	Y	55.4
329	D002	1780	Y	101.3
330	D002	1844	Y	157.5
331	D002	1805	Y	434.6
332	D002	1970	Y	151.1
333	D002	1917	Y	100.5
334	D002	1957	Y	25.0
335	D002	1864	Y	97.2
336	D002	1804	Y	17.3
337	D002	1782	Y	81.3
338	D002	1669	Y	29.6
339	D002	1918	Y	88.8
340	D002	1715	Y	370.2
341	D002	1898	Y	26.7
342	D002	1939	Y	36.5
343	D002	1899	Y	82.1
344	D002	1880	Y	112.6
345	D002	1814	Y	99.5
346	D002	1959	Y	10.4
347	D002	1882	Y	93.2
348	D002	1784	Y	66.4
349	D002	1920	Y	78.5
350	D002	1902	Y	5.3

351	D002	1679	Y	73.3
352	D002	1921	Y	77.5
353	D002	1961	Y	11.6
354	D002	1818	Y	35.9
355	D002	1922	Y	76.5
356	D002	1816	Y	93.7
357	D002	1900	Y	2.6
358	D002	1807	Y	24.8
359	D002	1681	Y	101.4
360	D002	1886	Y	25.9
361	D002	1783	Y	51.8
362	D002	1785	Y	210.2
363	D002	1808	Y	202.8
364	D002	1786	Y	90.0
365	D002	1691	Y	163.9
366	D002	1787	Y	57.7
367	D002	1810	Y	89.9
368	D002	1788	Y	57.7
369	SX	107	X	1.3
370	SX	108	X	1.2
371	SX	111	X	1.2
372	SX	114	X	1.2
373	SX	117	X	2.1
374	SX	118	X	1.4
375	SX	121	X	1.4
376	SX	124	X	1.4
377	SX	127	X	1.4
378	SX	147	X	2.2
379	SX	160	X	1.6
380	SX	173	X	1.7
381	SX	186	X	1.3
382	SX	199	X	3.0
383	SX	200	X	1.5
384	SX	203	X	1.5
385	SX	204	X	1.5
386	SX	207	X	1.5
387	SX	210	X	1.5
388	SX	213	X	1.5
389	SX	216	X	1.5
390	SX	237	X	1.4
391	SX	238	X	1.5
392	SX	241	X	1.5
393	SX	244	X	1.5
394	SX	247	X	1.5
395	SX	250	X	2.1
396	SX	268	X	2.7
397	SX	269	X	1.5
398	SX	272	X	1.5
399	SX	275	X	1.5
400	SX	276	X	1.5
401	SX	279	X	1.5
402	SX	282	X	1.4
403	SX	283	X	1.3
404	SX	286	X	1.3
405	SX	289	X	1.3
406	SX	292	X	1.3
407	SX	295	X	1.3
408	SX	298	X	1.4
409	SX	378	X	2.6
410	SX	399	X	1.4
411	SX	400	X	1.5
412	SX	403	X	1.5
413	SX	406	X	1.5
414	SX	409	X	1.8
415	SX	493	X	1.8
416	SX	496	X	1.8
417	SX	499	X	1.8
418	SX	502	X	2.3
419	SX	506	X	1.8
420	SX	509	X	1.8
421	SX	512	X	2.4
422	SX	515	X	1.5
423	SX	518	X	1.9
424	SX	521	X	2.5
425	SX	524	X	1.6
426	SX	527	X	1.6
427	SX	530	X	1.1
428	SX	533	X	2.1
429	SX	536	X	1.6
430	SX	539	X	1.6
431	SX	542	X	1.6
432	SX	646	X	1.5
433	SX	649	X	1.5
434	SX	652	X	1.5
435	SX	655	X	1.5
436	SX	658	X	1.5
437	SX	661	X	1.5
438	SX	664	X	1.5

439	SX	667	X	1.5
440	SX	679	X	1.7
441	SX	682	X	1.5
442	SX	685	X	1.5
443	SX	688	X	1.5
444	SX	691	X	1.5
445	SX	694	X	1.5
446	SX	697	X	1.5
447	SX	700	X	1.5
448	SX	703	X	1.5
449	SX	720	X	2.2
450	SX	723	X	1.5
451	SX	726	X	1.5
452	SX	729	X	1.5
453	SX	732	X	1.5
454	SX	735	X	1.5
455	SX	738	X	1.5
456	SX	741	X	1.5
457	SX	744	X	1.5
458	SX	747	X	1.4
459	SX	750	X	1.4
460	SX	753	X	1.4
461	SX	756	X	1.4
462	SX	759	X	1.4
463	SX	762	X	1.4
464	SX	765	X	0.9
465	SX	768	X	1.5
466	SX	771	X	1.5
467	SX	774	X	1.5
468	SX	777	X	1.5
469	SX	780	X	1.0
470	SX	784	X	1.6
471	SX	787	X	1.6
472	SX	790	X	1.6
473	SX	793	X	1.5
474	SX	795	X	1.2
475	SX	798	X	1.2
476	SX	801	X	1.5
477	SX	804	X	1.5
478	SX	807	X	1.5
479	SX	810	X	1.5
480	SX	813	X	2.0
481	SX	816	X	1.2
482	SX	819	X	1.2
483	SX	822	X	1.2
484	SX	825	X	1.4
485	SX	828	X	1.2
486	SX	831	X	1.3
487	SX	834	X	1.3
488	SX	837	X	1.3
489	SX	840	X	1.3
490	SX	843	X	1.3
491	SX	846	X	1.3
492	SX	849	X	1.3
493	SX	852	X	1.3
494	SX	855	X	1.1
495	SX	859	X	1.2
496	SX	861	X	1.4
497	SX	864	X	1.4
498	SX	867	X	1.2
499	SX	870	X	1.1
500	SX	874	X	1.3
501	SX	877	X	1.3
502	SX	879	X	1.7
503	SX	883	X	1.4
504	SX	886	X	1.4
505	SX	889	X	1.4
506	SX	892	X	1.4
507	SX	895	X	1.4
508	SX	897	X	1.4
509	SX	900	X	1.4
510	SX	903	X	1.4
511	SX	906	X	1.4
512	SX	909	X	1.4
513	SX	912	X	2.7
514	SX	916	X	1.2
515	SX	919	X	1.2
516	SX	922	X	1.2
517	SX	925	X	1.5
518	SX	928	X	1.5
519	SX	931	X	1.5
520	SX	934	X	0.7
521	SX	937	X	1.8
522	SX	939	X	1.2
523	SX	942	X	1.2
524	SX	945	X	1.2
525	SX	948	X	0.9
526	SX	952	X	1.5

527	SX	954	X	1.2
528	SX	957	X	1.2
529	SX	960	X	1.2
530	SX	963	X	2.6
531	SX	966	X	1.2
532	SX	969	X	1.2
533	SX	972	X	1.2
534	SX	975	X	0.9
535	SX	979	X	1.5
536	SX	981	X	1.5
537	SX	984	X	1.5
538	SX	987	X	1.5
539	SX	990	X	1.5
540	SX	993	X	1.3
541	SX	996	X	1.3
542	SX	999	X	1.3
543	SX	1002	X	1.3
544	SX	1005	X	1.1
545	SX	1008	X	1.1
546	SX	1011	X	1.3
547	SX	1014	X	1.3
548	SX	1017	X	1.3
549	SX	1020	X	1.3
550	SX	1023	X	1.2
551	SX	1026	X	1.2
552	SX	1029	X	1.8
553	SX	1032	X	1.2
554	SX	1035	X	1.9
555	SX	1038	X	1.2
556	SX	1041	X	1.2
557	SX	1044	X	1.2
558	SX	1047	X	1.4
559	SX	1050	X	1.4
560	SX	1053	X	1.4
561	SX	1056	X	1.4
562	SX	1059	X	1.4
563	SX	1062	X	1.4
564	SX	1065	X	1.4
565	SX	1068	X	1.2
566	SX	1071	X	1.2
567	SX	1074	X	1.2
568	SX	1077	X	1.2
569	SX	1080	X	1.2
570	SX	1083	X	1.7
571	SX	1087	X	0.9
572	SX	1089	X	1.1
573	SX	1092	X	1.1
574	SX	1095	X	1.0
575	SX	1099	X	1.2
576	SX	1101	X	1.4
577	SX	1104	X	1.4
578	SX	1107	X	1.3
579	SX	1110	X	1.3
580	SX	1113	X	0.7
581	SX	1117	X	1.4
582	SX	1119	X	1.4
583	SX	1122	X	1.4
584	SX	1125	X	1.4
585	SX	1128	X	1.4
586	SX	1131	X	0.8
587	SX	1135	X	1.5
588	SX	1137	X	1.4
589	SX	1140	X	1.4
590	SX	1143	X	1.4
591	SX	1146	X	1.4
592	SX	1149	X	0.8
593	SX	1153	X	1.5
594	SX	1155	X	1.5
595	SX	1158	X	1.5
596	SX	1161	X	1.5
597	SX	1164	X	1.5
598	SX	1167	X	1.5
599	SX	1170	X	1.4
600	SX	1173	X	1.4
601	SX	1176	X	1.4
602	SX	1179	X	2.2
603	SX	1182	X	1.4
604	SX	1185	X	1.4
605	SX	1188	X	1.4
606	SX	1191	X	1.4
607	SX	1194	X	2.2
608	SX	1197	X	1.5
609	SX	1200	X	1.5
610	SX	1203	X	1.5
611	SX	1206	X	1.5
612	SX	1209	X	1.3
613	SX	1212	X	1.3
614	SX	1215	X	1.3

615	SX	1219	X	1.8
616	SX	1221	X	1.5
617	SX	1224	X	1.5
618	SX	1227	X	1.3
619	SX	1230	X	1.5
620	SX	1234	X	0.7
621	SX	1236	X	1.1
622	SX	1239	X	1.9
623	SX	1242	X	1.2
624	SX	1245	X	1.2
625	SX	1248	X	1.2
626	SX	1251	X	1.5
627	SX	1255	X	1.1
628	SX	1258	X	1.1
629	SX	1261	X	1.2
630	SX	1264	X	1.2
631	SX	1267	X	1.2
632	SX	1270	X	1.3
633	SX	1273	X	1.3
634	SX	1276	X	1.3
635	SX	1279	X	1.3
636	SX	1282	X	1.3
637	SX	1285	X	0.7
638	SX	1288	X	1.4
639	SX	1291	X	1.4
640	SX	1294	X	1.4
641	SX	1297	X	1.4
642	SX	1300	X	1.3
643	SX	1303	X	1.3
644	SX	1306	X	1.3
645	SX	1309	X	1.3
646	SX	1312	X	1.3
647	SX	1314	X	0.8
648	SX	1318	X	1.4
649	SX	1321	X	1.4
650	SX	1324	X	1.4
651	SX	1327	X	1.4
652	SX	1330	X	1.3
653	SX	1333	X	1.3
654	SX	1336	X	1.3
655	SX	1339	X	1.3
656	SX	1342	X	1.3
657	SX	1345	X	1.5
658	SX	1348	X	1.5
659	SX	1351	X	1.5
660	SX	1354	X	1.5
661	SX	1357	X	1.5
662	SX	1360	X	1.5
663	SX	1363	X	1.5
664	SX	1366	X	1.5
665	SX	1369	X	1.3
666	SX	1372	X	1.3
667	SX	1375	X	1.6
668	SX	1378	X	1.4
669	SX	1381	X	1.4
670	SX	1384	X	1.4
671	SX	1387	X	1.3
672	SX	1390	X	1.3
673	SX	1393	X	2.1
674	SX	1396	X	1.4
675	SX	1399	X	1.4
676	SX	1402	X	1.4
677	SX	1405	X	2.2
678	SX	1408	X	1.5
679	SX	1411	X	0.9
680	SX	1413	X	1.4
681	SX	1416	X	1.4
682	SX	1419	X	1.4
683	SX	1422	X	1.4
684	SX	1425	X	1.5
685	SX	1428	X	1.5
686	SX	1431	X	1.5
687	SX	1434	X	1.5
688	SX	1440	X	1.1
689	SX	1443	X	1.5
690	SX	1455	X	0.7
691	SX	16	X	51.2
692	SX	18	X	72.2
693	SX	20	X	53.0
694	SX	22	X	91.7
695	SX	24	X	37.7
696	SX	26	X	39.3
697	SX	28	X	33.9
698	SX	30	X	85.9
699	SX	32	X	47.2
700	SX	34	X	47.2
701	SX	40	X	48.9
702	SX	42	X	82.7



703	SX	48	X	115.5
704	SX	50	X	37.6
705	SX	52	X	62.3
706	SX	54	X	62.0
707	SX	96	X	98.2
708	SX	98	X	51.6
709	SX	100	X	73.6
710	SX	110	X	20.6
711	SX	113	X	20.6
712	SX	116	X	20.6
713	SX	120	X	22.6
714	SX	123	X	22.6
715	SX	126	X	22.6
716	SX	202	X	24.8
717	SX	206	X	43.8
718	SX	209	X	43.8
719	SX	212	X	43.8
720	SX	215	X	43.8
721	SX	240	X	50.2
722	SX	243	X	50.2
723	SX	246	X	50.2
724	SX	249	X	50.2
725	SX	271	X	25.4
726	SX	274	X	25.4
727	SX	278	X	24.1
728	SX	281	X	24.1
729	SX	285	X	74.8
730	SX	288	X	74.8
731	SX	291	X	74.8
732	SX	294	X	74.8
733	SX	297	X	74.8
734	SX	402	X	57.8
735	SX	405	X	57.7
736	SX	408	X	57.7
737	SX	495	X	25.3
738	SX	498	X	25.3
739	SX	501	X	25.3
740	SX	504	X	59.7
741	SX	508	X	25.5
742	SX	511	X	25.5
743	SX	514	X	59.8
744	SX	517	X	21.0
745	SX	520	X	26.7
746	SX	523	X	60.8
747	SX	526	X	21.7
748	SX	529	X	21.7
749	SX	532	X	15.1
750	SX	535	X	54.4
751	SX	538	X	22.4
752	SX	541	X	22.4
753	SX	544	X	22.4
754	SX	648	X	84.9
755	SX	651	X	75.2
756	SX	654	X	75.2
757	SX	657	X	75.2
758	SX	660	X	75.2
759	SX	663	X	75.2
760	SX	666	X	75.2
761	SX	669	X	75.2
762	SX	681	X	39.8
763	SX	684	X	73.2
764	SX	687	X	73.2
765	SX	690	X	73.2
766	SX	693	X	73.2
767	SX	696	X	73.2
768	SX	699	X	73.2
769	SX	702	X	73.2
770	SX	705	X	73.2
771	SX	722	X	41.5
772	SX	725	X	73.2
773	SX	728	X	73.2
774	SX	731	X	73.2
775	SX	734	X	73.2
776	SX	737	X	73.2
777	SX	740	X	73.2
778	SX	743	X	73.2
779	SX	746	X	73.2
780	SX	749	X	57.8
781	SX	752	X	57.8
782	SX	755	X	56.2
783	SX	758	X	56.2
784	SX	761	X	56.2
785	SX	764	X	56.2
786	SX	767	X	47.0
787	SX	769	X	38.0
788	SX	773	X	59.6
789	SX	776	X	59.6
790	SX	779	X	59.6

791	SX	782	X	52.8
792	SX	783	X	60.5
793	SX	788	X	66.2
794	SX	791	X	65.9
795	SX	794	X	52.9
796	SX	797	X	34.5
797	SX	800	X	34.5
798	SX	803	X	20.6
799	SX	806	X	24.2
800	SX	809	X	24.2
801	SX	812	X	24.2
802	SX	815	X	56.8
803	SX	818	X	20.0
804	SX	821	X	20.0
805	SX	824	X	20.0
806	SX	827	X	53.6
807	SX	830	X	19.4
808	SX	833	X	21.9
809	SX	836	X	34.8
810	SX	839	X	21.9
811	SX	842	X	21.9
812	SX	845	X	68.3
813	SX	848	X	66.8
814	SX	851	X	66.8
815	SX	854	X	66.8
816	SX	857	X	70.4
817	SX	858	X	58.5
818	SX	863	X	53.3
819	SX	866	X	49.0
820	SX	869	X	43.2
821	SX	871	X	37.7
822	SX	875	X	21.9
823	SX	878	X	21.9
824	SX	880	X	60.0
825	SX	884	X	78.3
826	SX	887	X	82.2
827	SX	890	X	82.3
828	SX	893	X	82.3
829	SX	896	X	82.4
830	SX	899	X	69.6
831	SX	902	X	69.5
832	SX	905	X	69.5
833	SX	908	X	69.5
834	SX	911	X	70.0
835	SX	914	X	110.6
836	SX	917	X	4.2
837	SX	920	X	4.2
838	SX	923	X	4.2
839	SX	926	X	5.1
840	SX	929	X	5.1
841	SX	932	X	5.1
842	SX	933	X	15.4
843	SX	936	X	52.6
844	SX	941	X	36.2
845	SX	944	X	36.2
846	SX	947	X	36.2
847	SX	950	X	39.0
848	SX	951	X	57.5
849	SX	956	X	4.4
850	SX	959	X	4.4
851	SX	962	X	4.4
852	SX	965	X	87.6
853	SX	968	X	4.3
854	SX	971	X	4.3
855	SX	974	X	4.3
856	SX	977	X	14.8
857	SX	978	X	63.7
858	SX	983	X	75.5
859	SX	986	X	75.5
860	SX	989	X	75.5
861	SX	992	X	75.5
862	SX	995	X	65.4
863	SX	998	X	65.4
864	SX	1001	X	65.4
865	SX	1004	X	65.4
866	SX	1007	X	57.5
867	SX	1010	X	57.5
868	SX	1013	X	68.1
869	SX	1016	X	68.1
870	SX	1019	X	68.1
871	SX	1022	X	68.1
872	SX	1025	X	32.5
873	SX	1028	X	40.1
874	SX	1031	X	57.7
875	SX	1034	X	19.3
876	SX	1037	X	67.7
877	SX	1040	X	20.0
878	SX	1043	X	20.0

879	SX	1046	X	20.0
880	SX	1049	X	85.7
881	SX	1052	X	70.7
882	SX	1055	X	70.7
883	SX	1058	X	70.8
884	SX	1061	X	22.6
885	SX	1064	X	22.6
886	SX	1067	X	22.6
887	SX	1070	X	49.1
888	SX	1073	X	49.1
889	SX	1076	X	63.1
890	SX	1079	X	51.3
891	SX	1082	X	51.3
892	SX	1085	X	42.9
893	SX	1086	X	50.5
894	SX	1091	X	45.9
895	SX	1094	X	45.9
896	SX	1097	X	61.5
897	SX	1098	X	49.6
898	SX	1103	X	44.8
899	SX	1106	X	40.3
900	SX	1109	X	37.8
901	SX	1112	X	29.7
902	SX	1115	X	25.1
903	SX	1116	X	45.7
904	SX	1121	X	23.3
905	SX	1124	X	23.3
906	SX	1127	X	23.3
907	SX	1130	X	23.3
908	SX	1133	X	25.7
909	SX	1134	X	58.4
910	SX	1139	X	23.9
911	SX	1142	X	23.9
912	SX	1145	X	23.9
913	SX	1148	X	23.9
914	SX	1151	X	26.0
915	SX	1152	X	64.2
916	SX	1157	X	25.4
917	SX	1160	X	25.4
918	SX	1163	X	37.6
919	SX	1166	X	24.1
920	SX	1169	X	24.1
921	SX	1172	X	5.0
922	SX	1175	X	5.0
923	SX	1178	X	5.0
924	SX	1181	X	50.4
925	SX	1184	X	5.0
926	SX	1187	X	5.0
927	SX	1190	X	5.0
928	SX	1193	X	5.0
929	SX	1196	X	57.2
930	SX	1199	X	5.2
931	SX	1202	X	5.2
932	SX	1205	X	5.2
933	SX	1208	X	5.2
934	SX	1211	X	4.5
935	SX	1214	X	4.5
936	SX	1217	X	4.5
937	SX	1218	X	60.2
938	SX	1223	X	5.3
939	SX	1226	X	5.3
940	SX	1229	X	4.6
941	SX	1232	X	50.1
942	SX	1233	X	15.3
943	SX	1238	X	3.9
944	SX	1241	X	39.6
945	SX	1244	X	4.2
946	SX	1247	X	4.2
947	SX	1250	X	4.2
948	SX	1253	X	44.8
949	SX	1256	X	56.4
950	SX	1259	X	56.4
951	SX	1262	X	71.8
952	SX	1265	X	61.6
953	SX	1268	X	61.6
954	SX	1271	X	70.0
955	SX	1274	X	77.1
956	SX	1277	X	79.8
957	SX	1280	X	79.9
958	SX	1283	X	79.9
959	SX	1286	X	54.9
960	SX	1289	X	87.3
961	SX	1292	X	87.3
962	SX	1295	X	87.3
963	SX	1298	X	87.3
964	SX	1301	X	90.4
965	SX	1304	X	90.4
966	SX	1307	X	90.4

967	SX	1310	X	90.4
968	SX	1313	X	90.4
969	SX	1315	X	68.1
970	SX	1319	X	94.6
971	SX	1322	X	94.6
972	SX	1325	X	94.6
973	SX	1328	X	94.7
974	SX	1331	X	101.0
975	SX	1334	X	101.0
976	SX	1337	X	101.0
977	SX	1340	X	101.0
978	SX	1343	X	109.6
979	SX	1346	X	71.2
980	SX	1349	X	71.2
981	SX	1352	X	71.2
982	SX	1355	X	71.2
983	SX	1358	X	71.2
984	SX	1361	X	71.2
985	SX	1364	X	71.2
986	SX	1367	X	71.2
987	SX	1370	X	33.2
988	SX	1373	X	33.2
989	SX	1376	X	58.6
990	SX	1379	X	36.3
991	SX	1382	X	36.3
992	SX	1385	X	36.3
993	SX	1388	X	21.9
994	SX	1391	X	21.9
995	SX	1394	X	68.1
996	SX	1397	X	24.0
997	SX	1400	X	24.0
998	SX	1403	X	24.0
999	SX	1406	X	68.5
1000	SX	1409	X	24.8
1001	SX	1410	X	43.2
1002	SX	1415	X	64.5
1003	SX	1418	X	64.5
1004	SX	1421	X	64.5
1005	SX	1424	X	64.5
1006	SX	1427	X	62.5
1007	SX	1430	X	62.5
1008	SX	1433	X	62.5
1009	SX	1436	X	62.5
1010	SX	1439	X	52.9
1011	SX	1444	X	56.4
1012	SX	1456	X	23.8
1013	SX	1975	X	17.3
1014	SX	1976	X	11.0
1015	SX	1977	X	11.0
1016	SX	1978	X	25.1
1017	SX	1979	X	23.2
1018	SX	1980	X	7.3
1019	SX	1981	X	7.3
1020	SX	1982	X	11.2
1021	SX	1983	X	20.7
1022	SX	1445	X	388.6
1023	SX	1446	X	766.0
1024	SX	1448	X	116.0
1025	SX	1449	X	916.7
1026	SX	1450	X	91.2
1027	SX	1451	X	415.9
1028	SX	1452	X	199.4
1029	SX	1453	X	91.1
1030	SX	1459	X	36.9
1031	SX	1779	X	395.1
1032	SX	1780	X	418.4
1033	SX	1781	X	347.8
1034	SX	1782	X	391.6
1035	SX	1783	X	249.5
1036	SX	1784	X	263.8
1037	SX	1785	X	863.9
1038	SX	1786	X	423.3
1039	SX	1787	X	281.9
1040	SX	1788	X	281.9
1041	SX	1789	X	266.3
1042	SX	1790	X	135.4
1043	SX	1794	X	132.2
1044	SX	1795	X	305.0
1045	SX	1796	X	298.6
1046	SX	1797	X	72.2
1047	SX	1798	X	354.2
1048	SX	1799	X	202.7
1049	SX	1800	X	91.7
1050	SX	1802	X	999.4
1051	SX	1803	X	389.0
1052	SX	1804	X	67.1
1053	SX	1805	X	65.4
1054	SX	1806	X	88.4

1055	SX	1808	X	345.8
1056	SX	1809	X	490.3
1057	SX	1810	X	423.3
1058	SX	1811	X	137.4
1059	SX	1812	X	237.0
1060	SX	1813	X	83.7
1061	SX	1814	X	479.1
1062	SX	1815	X	102.8
1063	SX	1816	X	451.0
1064	SX	1817	X	88.4
1065	SX	1818	X	70.4
1066	SX	1819	X	96.4
1067	SX	1820	X	65.4
1068	SX	1801	X	242.9
1069	SX	1807	X	100.5
1070	SX	1575	X	186.7
1071	SX	1578	X	133.2
1072	SX	1581	X	755.8
1073	SX	1590	X	566.0
1074	SX	1599	X	519.9
1075	SX	1606	X	252.9
1076	SX	1609	X	623.7
1077	SX	1611	X	305.5
1078	SX	1615	X	91.4
1079	SX	1639	X	509.5
1080	SX	1652	X	71.6
1081	SX	1669	X	116.4
1082	SX	1672	X	429.7
1083	SX	1679	X	178.7
1084	SX	1680	X	111.0
1085	SX	1681	X	410.7
1086	SX	1686	X	519.9
1087	SX	1691	X	252.1
1088	SX	1699	X	1057.5
1089	SX	1715	X	133.7
1090	SX	1721	X	92.2
1091	SX	1746	X	1165.3
1092	SX	1737	X	367.4
1093	SX	1923	X	38.1
1094	SX	1924	X	38.1
1095	SX	1925	X	38.1
1096	SX	1927	X	131.5
1097	SX	1928	X	119.3
1098	SX	1929	X	87.1
1099	SX	1931	X	133.3
1100	SX	1932	X	130.8
1101	SX	1933	X	120.9
1102	SX	1935	X	131.6
1103	SX	1936	X	112.3
1104	SX	1937	X	112.3
1105	SX	1938	X	112.3
1106	SX	1948	X	31.2
1107	SX	1949	X	31.2
1108	SX	1950	X	36.6
1109	SX	1951	X	36.6
1110	SX	1952	X	36.6
1111	SX	1953	X	36.6
1112	SX	1954	X	106.1
1113	SX	1955	X	106.1
1114	SX	1962	X	40.4
1115	SX	1963	X	40.4
1116	SX	1964	X	40.4
1117	SX	1965	X	37.1
1118	SX	1966	X	37.1
1119	SX	1967	X	41.2
1120	SX	1972	X	103.4
1121	SX	1973	X	119.3
1122	SX	1974	X	140.7
1123	SX	1987	X	100.6
1124	SX	1991	X	100.6
1125	SX	1992	X	61.9
1126	SX	1823	X	833.5
1127	SX	1828	X	1882.0
1128	SX	1844	X	830.3
1129	SX	1846	X	266.3
1130	SX	1898	X	20.3
1131	SX	1900	X	14.0
1132	SX	1902	X	16.4
1133	SX	1905	X	11.2
1134	SX	1907	X	10.4
1135	SX	1909	X	159.4
1136	SX	1875	X	253.5
1137	SX	1880	X	105.0
1138	SX	1838	X	1882.0
1139	SX	1833	X	1871.6
1140	SX	1855	X	205.9
1141	SX	1864	X	310.3
1142	SX	1882	X	312.3

1143	SX	1886	X	136.4
1144	SX	1906	X	15.5
1145	SX	1908	X	14.5
1146	SX	1899	X	3.9
1147	SX	1910	X	299.7
1148	SX	1911	X	299.7
1149	SX	1912	X	299.7
1150	SX	1914	X	312.0
1151	SX	1915	X	282.7
1152	SX	1917	X	316.3
1153	SX	1918	X	286.7
1154	SX	1920	X	266.1
1155	SX	1921	X	266.1
1156	SX	1922	X	266.1
1157	SX	1939	X	178.4
1158	SX	1940	X	9.9
1159	SX	1941	X	9.9
1160	SX	1942	X	11.4
1161	SX	1943	X	11.4
1162	SX	1944	X	11.4
1163	SX	1945	X	11.4
1164	SX	1946	X	10.4
1165	SX	1947	X	10.4
1166	SX	1956	X	12.4
1167	SX	1957	X	12.4
1168	SX	1958	X	12.4
1169	SX	1959	X	11.5
1170	SX	1960	X	11.5
1171	SX	1961	X	12.6
1172	SX	1969	X	485.4
1173	SX	1970	X	536.6
1174	SX	1971	X	447.4
1175	SX	1984	X	72.3
1176	SX	1985	X	81.3
1177	SX	1986	X	81.2
1178	SX	1988	X	72.3
1179	SX	1989	X	81.3
1180	SX	1990	X	81.2
1181	SY	107	Y	1.3
1182	SY	108	Y	1.2
1183	SY	111	Y	1.2
1184	SY	114	Y	1.2
1185	SY	117	Y	2.1
1186	SY	118	Y	1.4
1187	SY	121	Y	1.4
1188	SY	124	Y	1.4
1189	SY	127	Y	1.4
1190	SY	147	Y	2.2
1191	SY	160	Y	1.6
1192	SY	173	Y	1.7
1193	SY	186	Y	1.3
1194	SY	199	Y	3.0
1195	SY	200	Y	1.5
1196	SY	203	Y	1.5
1197	SY	204	Y	1.5
1198	SY	207	Y	1.5
1199	SY	210	Y	1.5
1200	SY	213	Y	1.5
1201	SY	216	Y	1.5
1202	SY	237	Y	1.4
1203	SY	238	Y	1.5
1204	SY	241	Y	1.5
1205	SY	244	Y	1.5
1206	SY	247	Y	1.5
1207	SY	250	Y	2.1
1208	SY	268	Y	2.7
1209	SY	269	Y	1.5
1210	SY	272	Y	1.5
1211	SY	275	Y	1.5
1212	SY	276	Y	1.5
1213	SY	279	Y	1.5
1214	SY	282	Y	1.4
1215	SY	283	Y	1.3
1216	SY	286	Y	1.3
1217	SY	289	Y	1.3
1218	SY	292	Y	1.3
1219	SY	295	Y	1.3
1220	SY	298	Y	1.4
1221	SY	378	Y	2.6
1222	SY	399	Y	1.4
1223	SY	400	Y	1.5
1224	SY	403	Y	1.5
1225	SY	406	Y	1.5
1226	SY	409	Y	1.8
1227	SY	493	Y	1.8
1228	SY	496	Y	1.8
1229	SY	499	Y	1.8
1230	SY	502	Y	2.3

1231	SY	506	Y	1.8
1232	SY	509	Y	1.8
1233	SY	512	Y	2.4
1234	SY	515	Y	1.5
1235	SY	518	Y	1.9
1236	SY	521	Y	2.5
1237	SY	524	Y	1.6
1238	SY	527	Y	1.6
1239	SY	530	Y	1.1
1240	SY	533	Y	2.1
1241	SY	536	Y	1.6
1242	SY	539	Y	1.6
1243	SY	542	Y	1.6
1244	SY	646	Y	1.5
1245	SY	649	Y	1.5
1246	SY	652	Y	1.5
1247	SY	655	Y	1.5
1248	SY	658	Y	1.5
1249	SY	661	Y	1.5
1250	SY	664	Y	1.5
1251	SY	667	Y	1.5
1252	SY	679	Y	1.7
1253	SY	682	Y	1.5
1254	SY	685	Y	1.5
1255	SY	688	Y	1.5
1256	SY	691	Y	1.5
1257	SY	694	Y	1.5
1258	SY	697	Y	1.5
1259	SY	700	Y	1.5
1260	SY	703	Y	1.5
1261	SY	720	Y	2.2
1262	SY	723	Y	1.5
1263	SY	726	Y	1.5
1264	SY	729	Y	1.5
1265	SY	732	Y	1.5
1266	SY	735	Y	1.5
1267	SY	738	Y	1.5
1268	SY	741	Y	1.5
1269	SY	744	Y	1.5
1270	SY	747	Y	1.4
1271	SY	750	Y	1.4
1272	SY	753	Y	1.4
1273	SY	756	Y	1.4
1274	SY	759	Y	1.4
1275	SY	762	Y	1.4
1276	SY	765	Y	0.9
1277	SY	768	Y	1.5
1278	SY	771	Y	1.5
1279	SY	774	Y	1.5
1280	SY	777	Y	1.5
1281	SY	780	Y	1.0
1282	SY	784	Y	1.6
1283	SY	787	Y	1.6
1284	SY	790	Y	1.6
1285	SY	793	Y	1.5
1286	SY	795	Y	1.2
1287	SY	798	Y	1.2
1288	SY	801	Y	1.5
1289	SY	804	Y	1.5
1290	SY	807	Y	1.5
1291	SY	810	Y	1.5
1292	SY	813	Y	2.0
1293	SY	816	Y	1.2
1294	SY	819	Y	1.2
1295	SY	822	Y	1.2
1296	SY	825	Y	1.4
1297	SY	828	Y	1.2
1298	SY	831	Y	1.3
1299	SY	834	Y	1.3
1300	SY	837	Y	1.3
1301	SY	840	Y	1.3
1302	SY	843	Y	1.3
1303	SY	846	Y	1.3
1304	SY	849	Y	1.3
1305	SY	852	Y	1.3
1306	SY	855	Y	1.1
1307	SY	859	Y	1.2
1308	SY	861	Y	1.4
1309	SY	864	Y	1.4
1310	SY	867	Y	1.2
1311	SY	870	Y	1.1
1312	SY	874	Y	1.3
1313	SY	877	Y	1.3
1314	SY	879	Y	1.7
1315	SY	883	Y	1.4
1316	SY	886	Y	1.4
1317	SY	889	Y	1.4
1318	SY	892	Y	1.4

1319	SY	895	Y	1.4
1320	SY	897	Y	1.4
1321	SY	900	Y	1.4
1322	SY	903	Y	1.4
1323	SY	906	Y	1.4
1324	SY	909	Y	1.4
1325	SY	912	Y	2.7
1326	SY	916	Y	1.2
1327	SY	919	Y	1.2
1328	SY	922	Y	1.2
1329	SY	925	Y	1.5
1330	SY	928	Y	1.5
1331	SY	931	Y	1.5
1332	SY	934	Y	0.7
1333	SY	937	Y	1.8
1334	SY	939	Y	1.2
1335	SY	942	Y	1.2
1336	SY	945	Y	1.2
1337	SY	948	Y	0.9
1338	SY	952	Y	1.5
1339	SY	954	Y	1.2
1340	SY	957	Y	1.2
1341	SY	960	Y	1.2
1342	SY	963	Y	2.6
1343	SY	966	Y	1.2
1344	SY	969	Y	1.2
1345	SY	972	Y	1.2
1346	SY	975	Y	0.9
1347	SY	979	Y	1.5
1348	SY	981	Y	1.5
1349	SY	984	Y	1.5
1350	SY	987	Y	1.5
1351	SY	990	Y	1.5
1352	SY	993	Y	1.3
1353	SY	996	Y	1.3
1354	SY	999	Y	1.3
1355	SY	1002	Y	1.3
1356	SY	1005	Y	1.1
1357	SY	1008	Y	1.1
1358	SY	1011	Y	1.3
1359	SY	1014	Y	1.3
1360	SY	1017	Y	1.3
1361	SY	1020	Y	1.3
1362	SY	1023	Y	1.2
1363	SY	1026	Y	1.2
1364	SY	1029	Y	1.8
1365	SY	1032	Y	1.2
1366	SY	1035	Y	1.9
1367	SY	1038	Y	1.2
1368	SY	1041	Y	1.2
1369	SY	1044	Y	1.2
1370	SY	1047	Y	1.4
1371	SY	1050	Y	1.4
1372	SY	1053	Y	1.4
1373	SY	1056	Y	1.4
1374	SY	1059	Y	1.4
1375	SY	1062	Y	1.4
1376	SY	1065	Y	1.4
1377	SY	1068	Y	1.2
1378	SY	1071	Y	1.2
1379	SY	1074	Y	1.2
1380	SY	1077	Y	1.2
1381	SY	1080	Y	1.2
1382	SY	1083	Y	1.7
1383	SY	1087	Y	0.9
1384	SY	1089	Y	1.1
1385	SY	1092	Y	1.1
1386	SY	1095	Y	1.0
1387	SY	1099	Y	1.2
1388	SY	1101	Y	1.4
1389	SY	1104	Y	1.4
1390	SY	1107	Y	1.3
1391	SY	1110	Y	1.3
1392	SY	1113	Y	0.7
1393	SY	1117	Y	1.4
1394	SY	1119	Y	1.4
1395	SY	1122	Y	1.4
1396	SY	1125	Y	1.4
1397	SY	1128	Y	1.4
1398	SY	1131	Y	0.8
1399	SY	1135	Y	1.5
1400	SY	1137	Y	1.4
1401	SY	1140	Y	1.4
1402	SY	1143	Y	1.4
1403	SY	1146	Y	1.4
1404	SY	1149	Y	0.8
1405	SY	1153	Y	1.5
1406	SY	1155	Y	1.5



1407	SY	1158	Y	1.5
1408	SY	1161	Y	1.5
1409	SY	1164	Y	1.5
1410	SY	1167	Y	1.5
1411	SY	1170	Y	1.4
1412	SY	1173	Y	1.4
1413	SY	1176	Y	1.4
1414	SY	1179	Y	2.2
1415	SY	1182	Y	1.4
1416	SY	1185	Y	1.4
1417	SY	1188	Y	1.4
1418	SY	1191	Y	1.4
1419	SY	1194	Y	2.2
1420	SY	1197	Y	1.5
1421	SY	1200	Y	1.5
1422	SY	1203	Y	1.5
1423	SY	1206	Y	1.5
1424	SY	1209	Y	1.3
1425	SY	1212	Y	1.3
1426	SY	1215	Y	1.3
1427	SY	1219	Y	1.8
1428	SY	1221	Y	1.5
1429	SY	1224	Y	1.5
1430	SY	1227	Y	1.3
1431	SY	1230	Y	1.5
1432	SY	1234	Y	0.7
1433	SY	1236	Y	1.1
1434	SY	1239	Y	1.9
1435	SY	1242	Y	1.2
1436	SY	1245	Y	1.2
1437	SY	1248	Y	1.2
1438	SY	1251	Y	1.5
1439	SY	1255	Y	1.1
1440	SY	1258	Y	1.1
1441	SY	1261	Y	1.2
1442	SY	1264	Y	1.2
1443	SY	1267	Y	1.2
1444	SY	1270	Y	1.3
1445	SY	1273	Y	1.3
1446	SY	1276	Y	1.3
1447	SY	1279	Y	1.3
1448	SY	1282	Y	1.3
1449	SY	1285	Y	0.7
1450	SY	1288	Y	1.4
1451	SY	1291	Y	1.4
1452	SY	1294	Y	1.4
1453	SY	1297	Y	1.4
1454	SY	1300	Y	1.3
1455	SY	1303	Y	1.3
1456	SY	1306	Y	1.3
1457	SY	1309	Y	1.3
1458	SY	1312	Y	1.3
1459	SY	1314	Y	0.8
1460	SY	1318	Y	1.4
1461	SY	1321	Y	1.4
1462	SY	1324	Y	1.4
1463	SY	1327	Y	1.4
1464	SY	1330	Y	1.3
1465	SY	1333	Y	1.3
1466	SY	1336	Y	1.3
1467	SY	1339	Y	1.3
1468	SY	1342	Y	1.3
1469	SY	1345	Y	1.5
1470	SY	1348	Y	1.5
1471	SY	1351	Y	1.5
1472	SY	1354	Y	1.5
1473	SY	1357	Y	1.5
1474	SY	1360	Y	1.5
1475	SY	1363	Y	1.5
1476	SY	1366	Y	1.5
1477	SY	1369	Y	1.3
1478	SY	1372	Y	1.3
1479	SY	1375	Y	1.6
1480	SY	1378	Y	1.4
1481	SY	1381	Y	1.4
1482	SY	1384	Y	1.4
1483	SY	1387	Y	1.3
1484	SY	1390	Y	1.3
1485	SY	1393	Y	2.1
1486	SY	1396	Y	1.4
1487	SY	1399	Y	1.4
1488	SY	1402	Y	1.4
1489	SY	1405	Y	2.2
1490	SY	1408	Y	1.5
1491	SY	1411	Y	0.9
1492	SY	1413	Y	1.4
1493	SY	1416	Y	1.4
1494	SY	1419	Y	1.4

1495	SY	1422	Y	1.4
1496	SY	1425	Y	1.5
1497	SY	1428	Y	1.5
1498	SY	1431	Y	1.5
1499	SY	1434	Y	1.5
1500	SY	1440	Y	1.1
1501	SY	1443	Y	1.5
1502	SY	1455	Y	0.7
1503	SY	16	Y	51.2
1504	SY	18	Y	72.2
1505	SY	20	Y	53.0
1506	SY	22	Y	91.7
1507	SY	24	Y	37.7
1508	SY	26	Y	39.3
1509	SY	28	Y	33.9
1510	SY	30	Y	85.9
1511	SY	32	Y	47.2
1512	SY	34	Y	47.2
1513	SY	40	Y	48.9
1514	SY	42	Y	82.7
1515	SY	48	Y	115.5
1516	SY	50	Y	37.6
1517	SY	52	Y	62.3
1518	SY	54	Y	62.0
1519	SY	96	Y	98.2
1520	SY	98	Y	51.6
1521	SY	100	Y	73.6
1522	SY	110	Y	20.6
1523	SY	113	Y	20.6
1524	SY	116	Y	20.6
1525	SY	120	Y	22.6
1526	SY	123	Y	22.6
1527	SY	126	Y	22.6
1528	SY	202	Y	24.8
1529	SY	206	Y	43.8
1530	SY	209	Y	43.8
1531	SY	212	Y	43.8
1532	SY	215	Y	43.8
1533	SY	240	Y	50.2
1534	SY	243	Y	50.2
1535	SY	246	Y	50.2
1536	SY	249	Y	50.2
1537	SY	271	Y	25.4
1538	SY	274	Y	25.4
1539	SY	278	Y	24.1
1540	SY	281	Y	24.1
1541	SY	285	Y	74.8
1542	SY	288	Y	74.8
1543	SY	291	Y	74.8
1544	SY	294	Y	74.8
1545	SY	297	Y	74.8
1546	SY	402	Y	57.8
1547	SY	405	Y	57.7
1548	SY	408	Y	57.7
1549	SY	495	Y	25.3
1550	SY	498	Y	25.3
1551	SY	501	Y	25.3
1552	SY	504	Y	59.7
1553	SY	508	Y	25.5
1554	SY	511	Y	25.5
1555	SY	514	Y	59.8
1556	SY	517	Y	21.0
1557	SY	520	Y	26.7
1558	SY	523	Y	60.8
1559	SY	526	Y	21.7
1560	SY	529	Y	21.7
1561	SY	532	Y	15.1
1562	SY	535	Y	54.4
1563	SY	538	Y	22.4
1564	SY	541	Y	22.4
1565	SY	544	Y	22.4
1566	SY	648	Y	84.9
1567	SY	651	Y	75.2
1568	SY	654	Y	75.2
1569	SY	657	Y	75.2
1570	SY	660	Y	75.2
1571	SY	663	Y	75.2
1572	SY	666	Y	75.2
1573	SY	669	Y	75.2
1574	SY	681	Y	39.8
1575	SY	684	Y	73.2
1576	SY	687	Y	73.2
1577	SY	690	Y	73.2
1578	SY	693	Y	73.2
1579	SY	696	Y	73.2
1580	SY	699	Y	73.2
1581	SY	702	Y	73.2
1582	SY	705	Y	73.2

1583	SY	722	Y	41.5
1584	SY	725	Y	73.2
1585	SY	728	Y	73.2
1586	SY	731	Y	73.2
1587	SY	734	Y	73.2
1588	SY	737	Y	73.2
1589	SY	740	Y	73.2
1590	SY	743	Y	73.2
1591	SY	746	Y	73.2
1592	SY	749	Y	57.8
1593	SY	752	Y	57.8
1594	SY	755	Y	56.2
1595	SY	758	Y	56.2
1596	SY	761	Y	56.2
1597	SY	764	Y	56.2
1598	SY	767	Y	47.0
1599	SY	769	Y	38.0
1600	SY	773	Y	59.6
1601	SY	776	Y	59.6
1602	SY	779	Y	59.6
1603	SY	782	Y	52.8
1604	SY	783	Y	60.5
1605	SY	788	Y	66.2
1606	SY	791	Y	65.9
1607	SY	794	Y	52.9
1608	SY	797	Y	34.5
1609	SY	800	Y	34.5
1610	SY	803	Y	20.6
1611	SY	806	Y	24.2
1612	SY	809	Y	24.2
1613	SY	812	Y	24.2
1614	SY	815	Y	56.8
1615	SY	818	Y	20.0
1616	SY	821	Y	20.0
1617	SY	824	Y	20.0
1618	SY	827	Y	53.6
1619	SY	830	Y	19.4
1620	SY	833	Y	21.9
1621	SY	836	Y	34.8
1622	SY	839	Y	21.9
1623	SY	842	Y	21.9
1624	SY	845	Y	68.3
1625	SY	848	Y	66.8
1626	SY	851	Y	66.8
1627	SY	854	Y	66.8
1628	SY	857	Y	70.4
1629	SY	858	Y	58.5
1630	SY	863	Y	53.3
1631	SY	866	Y	49.0
1632	SY	869	Y	43.2
1633	SY	871	Y	37.7
1634	SY	875	Y	21.9
1635	SY	878	Y	21.9
1636	SY	880	Y	60.0
1637	SY	884	Y	78.3
1638	SY	887	Y	82.2
1639	SY	890	Y	82.3
1640	SY	893	Y	82.3
1641	SY	896	Y	82.4
1642	SY	899	Y	69.6
1643	SY	902	Y	69.5
1644	SY	905	Y	69.5
1645	SY	908	Y	69.5
1646	SY	911	Y	70.0
1647	SY	914	Y	110.6
1648	SY	917	Y	4.2
1649	SY	920	Y	4.2
1650	SY	923	Y	4.2
1651	SY	926	Y	5.1
1652	SY	929	Y	5.1
1653	SY	932	Y	5.1
1654	SY	933	Y	15.4
1655	SY	936	Y	52.6
1656	SY	941	Y	36.2
1657	SY	944	Y	36.2
1658	SY	947	Y	36.2
1659	SY	950	Y	39.0
1660	SY	951	Y	57.5
1661	SY	956	Y	4.4
1662	SY	959	Y	4.4
1663	SY	962	Y	4.4
1664	SY	965	Y	87.6
1665	SY	968	Y	4.3
1666	SY	971	Y	4.3
1667	SY	974	Y	4.3
1668	SY	977	Y	14.8
1669	SY	978	Y	63.7
1670	SY	983	Y	75.5

1671	SY	986	Y	75.5
1672	SY	989	Y	75.5
1673	SY	992	Y	75.5
1674	SY	995	Y	65.4
1675	SY	998	Y	65.4
1676	SY	1001	Y	65.4
1677	SY	1004	Y	65.4
1678	SY	1007	Y	57.5
1679	SY	1010	Y	57.5
1680	SY	1013	Y	68.1
1681	SY	1016	Y	68.1
1682	SY	1019	Y	68.1
1683	SY	1022	Y	68.1
1684	SY	1025	Y	32.5
1685	SY	1028	Y	40.1
1686	SY	1031	Y	57.7
1687	SY	1034	Y	19.3
1688	SY	1037	Y	67.7
1689	SY	1040	Y	20.0
1690	SY	1043	Y	20.0
1691	SY	1046	Y	20.0
1692	SY	1049	Y	85.7
1693	SY	1052	Y	70.7
1694	SY	1055	Y	70.7
1695	SY	1058	Y	70.8
1696	SY	1061	Y	22.6
1697	SY	1064	Y	22.6
1698	SY	1067	Y	22.6
1699	SY	1070	Y	49.1
1700	SY	1073	Y	49.1
1701	SY	1076	Y	63.1
1702	SY	1079	Y	51.3
1703	SY	1082	Y	51.3
1704	SY	1085	Y	42.9
1705	SY	1086	Y	50.5
1706	SY	1091	Y	45.9
1707	SY	1094	Y	45.9
1708	SY	1097	Y	61.5
1709	SY	1098	Y	49.6
1710	SY	1103	Y	44.8
1711	SY	1106	Y	40.3
1712	SY	1109	Y	37.8
1713	SY	1112	Y	29.7
1714	SY	1115	Y	25.1
1715	SY	1116	Y	45.7
1716	SY	1121	Y	23.3
1717	SY	1124	Y	23.3
1718	SY	1127	Y	23.3
1719	SY	1130	Y	23.3
1720	SY	1133	Y	25.7
1721	SY	1134	Y	58.4
1722	SY	1139	Y	23.9
1723	SY	1142	Y	23.9
1724	SY	1145	Y	23.9
1725	SY	1148	Y	23.9
1726	SY	1151	Y	26.0
1727	SY	1152	Y	64.2
1728	SY	1157	Y	25.4
1729	SY	1160	Y	25.4
1730	SY	1163	Y	37.6
1731	SY	1166	Y	24.1
1732	SY	1169	Y	24.1
1733	SY	1172	Y	5.0
1734	SY	1175	Y	5.0
1735	SY	1178	Y	5.0
1736	SY	1181	Y	50.4
1737	SY	1184	Y	5.0
1738	SY	1187	Y	5.0
1739	SY	1190	Y	5.0
1740	SY	1193	Y	5.0
1741	SY	1196	Y	57.2
1742	SY	1199	Y	5.2
1743	SY	1202	Y	5.2
1744	SY	1205	Y	5.2
1745	SY	1208	Y	5.2
1746	SY	1211	Y	4.5
1747	SY	1214	Y	4.5
1748	SY	1217	Y	4.5
1749	SY	1218	Y	60.2
1750	SY	1223	Y	5.3
1751	SY	1226	Y	5.3
1752	SY	1229	Y	4.6
1753	SY	1232	Y	50.1
1754	SY	1233	Y	15.3
1755	SY	1238	Y	3.9
1756	SY	1241	Y	39.6
1757	SY	1244	Y	4.2
1758	SY	1247	Y	4.2

1759	SY	1250	Y	4.2
1760	SY	1253	Y	44.8
1761	SY	1256	Y	56.4
1762	SY	1259	Y	56.4
1763	SY	1262	Y	71.8
1764	SY	1265	Y	61.6
1765	SY	1268	Y	61.6
1766	SY	1271	Y	70.0
1767	SY	1274	Y	77.1
1768	SY	1277	Y	79.8
1769	SY	1280	Y	79.9
1770	SY	1283	Y	79.9
1771	SY	1286	Y	54.9
1772	SY	1289	Y	87.3
1773	SY	1292	Y	87.3
1774	SY	1295	Y	87.3
1775	SY	1298	Y	87.3
1776	SY	1301	Y	90.4
1777	SY	1304	Y	90.4
1778	SY	1307	Y	90.4
1779	SY	1310	Y	90.4
1780	SY	1313	Y	90.4
1781	SY	1315	Y	68.1
1782	SY	1319	Y	94.6
1783	SY	1322	Y	94.6
1784	SY	1325	Y	94.6
1785	SY	1328	Y	94.7
1786	SY	1331	Y	101.0
1787	SY	1334	Y	101.0
1788	SY	1337	Y	101.0
1789	SY	1340	Y	101.0
1790	SY	1343	Y	109.6
1791	SY	1346	Y	71.2
1792	SY	1349	Y	71.2
1793	SY	1352	Y	71.2
1794	SY	1355	Y	71.2
1795	SY	1358	Y	71.2
1796	SY	1361	Y	71.2
1797	SY	1364	Y	71.2
1798	SY	1367	Y	71.2
1799	SY	1370	Y	33.2
1800	SY	1373	Y	33.2
1801	SY	1376	Y	58.6
1802	SY	1379	Y	36.3
1803	SY	1382	Y	36.3
1804	SY	1385	Y	36.3
1805	SY	1388	Y	21.9
1806	SY	1391	Y	21.9
1807	SY	1394	Y	68.1
1808	SY	1397	Y	24.0
1809	SY	1400	Y	24.0
1810	SY	1403	Y	24.0
1811	SY	1406	Y	68.5
1812	SY	1409	Y	24.8
1813	SY	1410	Y	43.2
1814	SY	1415	Y	64.5
1815	SY	1418	Y	64.5
1816	SY	1421	Y	64.5
1817	SY	1424	Y	64.5
1818	SY	1427	Y	62.5
1819	SY	1430	Y	62.5
1820	SY	1433	Y	62.5
1821	SY	1436	Y	62.5
1822	SY	1439	Y	52.9
1823	SY	1444	Y	56.4
1824	SY	1456	Y	23.8
1825	SY	1975	Y	17.3
1826	SY	1976	Y	11.0
1827	SY	1977	Y	11.0
1828	SY	1978	Y	25.1
1829	SY	1979	Y	23.2
1830	SY	1980	Y	7.3
1831	SY	1981	Y	7.3
1832	SY	1982	Y	11.2
1833	SY	1983	Y	20.7
1834	SY	1445	Y	388.6
1835	SY	1446	Y	766.0
1836	SY	1448	Y	116.0
1837	SY	1449	Y	916.7
1838	SY	1450	Y	91.2
1839	SY	1451	Y	415.9
1840	SY	1452	Y	199.4
1841	SY	1453	Y	91.1
1842	SY	1459	Y	36.9
1843	SY	1779	Y	395.1
1844	SY	1780	Y	418.4
1845	SY	1781	Y	347.8
1846	SY	1782	Y	391.6

1847	SY	1783	Y	249.5
1848	SY	1784	Y	263.8
1849	SY	1785	Y	863.9
1850	SY	1786	Y	423.3
1851	SY	1787	Y	281.9
1852	SY	1788	Y	281.9
1853	SY	1789	Y	266.3
1854	SY	1790	Y	135.4
1855	SY	1794	Y	132.2
1856	SY	1795	Y	305.0
1857	SY	1796	Y	298.6
1858	SY	1797	Y	72.2
1859	SY	1798	Y	354.2
1860	SY	1799	Y	202.7
1861	SY	1800	Y	91.7
1862	SY	1802	Y	999.4
1863	SY	1803	Y	389.0
1864	SY	1804	Y	67.1
1865	SY	1805	Y	65.4
1866	SY	1806	Y	88.4
1867	SY	1808	Y	345.8
1868	SY	1809	Y	490.3
1869	SY	1810	Y	423.3
1870	SY	1811	Y	137.4
1871	SY	1812	Y	237.0
1872	SY	1813	Y	83.7
1873	SY	1814	Y	479.1
1874	SY	1815	Y	102.8
1875	SY	1816	Y	451.0
1876	SY	1817	Y	88.4
1877	SY	1818	Y	70.4
1878	SY	1819	Y	96.4
1879	SY	1820	Y	65.4
1880	SY	1801	Y	242.9
1881	SY	1807	Y	100.5
1882	SY	1575	Y	186.7
1883	SY	1578	Y	133.2
1884	SY	1581	Y	755.8
1885	SY	1590	Y	566.0
1886	SY	1599	Y	519.9
1887	SY	1606	Y	252.9
1888	SY	1609	Y	623.7
1889	SY	1611	Y	305.5
1890	SY	1615	Y	91.4
1891	SY	1639	Y	509.5
1892	SY	1652	Y	71.6
1893	SY	1669	Y	116.4
1894	SY	1672	Y	429.7
1895	SY	1679	Y	178.7
1896	SY	1680	Y	111.0
1897	SY	1681	Y	410.7
1898	SY	1686	Y	519.9
1899	SY	1691	Y	252.1
1900	SY	1699	Y	1057.5
1901	SY	1715	Y	133.7
1902	SY	1721	Y	92.2
1903	SY	1746	Y	1165.3
1904	SY	1737	Y	367.4
1905	SY	1923	Y	38.1
1906	SY	1924	Y	38.1
1907	SY	1925	Y	38.1
1908	SY	1927	Y	131.5
1909	SY	1928	Y	119.3
1910	SY	1929	Y	87.1
1911	SY	1931	Y	133.3
1912	SY	1932	Y	130.8
1913	SY	1933	Y	120.9
1914	SY	1935	Y	131.6
1915	SY	1936	Y	112.3
1916	SY	1937	Y	112.3
1917	SY	1938	Y	112.3
1918	SY	1948	Y	31.2
1919	SY	1949	Y	31.2
1920	SY	1950	Y	36.6
1921	SY	1951	Y	36.6
1922	SY	1952	Y	36.6
1923	SY	1953	Y	36.6
1924	SY	1954	Y	106.1
1925	SY	1955	Y	106.1
1926	SY	1962	Y	40.4
1927	SY	1963	Y	40.4
1928	SY	1964	Y	40.4
1929	SY	1965	Y	37.1
1930	SY	1966	Y	37.1
1931	SY	1967	Y	41.2
1932	SY	1972	Y	103.4
1933	SY	1973	Y	119.3
1934	SY	1974	Y	140.7

1935	SY	1987	Y	100.6
1936	SY	1991	Y	100.6
1937	SY	1992	Y	61.9
1938	SY	1823	Y	833.5
1939	SY	1828	Y	1882.0
1940	SY	1844	Y	830.3
1941	SY	1846	Y	266.3
1942	SY	1898	Y	20.3
1943	SY	1900	Y	14.0
1944	SY	1902	Y	16.4
1945	SY	1905	Y	11.2
1946	SY	1907	Y	10.4
1947	SY	1909	Y	159.4
1948	SY	1875	Y	253.5
1949	SY	1880	Y	105.0
1950	SY	1838	Y	1882.0
1951	SY	1833	Y	1871.6
1952	SY	1855	Y	205.9
1953	SY	1864	Y	310.3
1954	SY	1882	Y	312.3
1955	SY	1886	Y	136.4
1956	SY	1906	Y	15.5
1957	SY	1908	Y	14.5
1958	SY	1899	Y	3.9
1959	SY	1910	Y	299.7
1960	SY	1911	Y	299.7
1961	SY	1912	Y	299.7
1962	SY	1914	Y	312.0
1963	SY	1915	Y	282.7
1964	SY	1917	Y	316.3
1965	SY	1918	Y	286.7
1966	SY	1920	Y	266.1
1967	SY	1921	Y	266.1
1968	SY	1922	Y	266.1
1969	SY	1939	Y	178.4
1970	SY	1940	Y	9.9
1971	SY	1941	Y	9.9
1972	SY	1942	Y	11.4
1973	SY	1943	Y	11.4
1974	SY	1944	Y	11.4
1975	SY	1945	Y	11.4
1976	SY	1946	Y	10.4
1977	SY	1947	Y	10.4
1978	SY	1956	Y	12.4
1979	SY	1957	Y	12.4
1980	SY	1958	Y	12.4
1981	SY	1959	Y	11.5
1982	SY	1960	Y	11.5
1983	SY	1961	Y	12.6
1984	SY	1969	Y	485.4
1985	SY	1970	Y	536.6
1986	SY	1971	Y	447.4
1987	SY	1984	Y	72.3
1988	SY	1985	Y	81.3
1989	SY	1986	Y	81.2
1990	SY	1988	Y	72.3
1991	SY	1989	Y	81.3
1992	SY	1990	Y	81.2
1993	MadX	107	X	-0.4
1994	MadX	108	X	-0.4
1995	MadX	111	X	-0.4
1996	MadX	114	X	-0.4
1997	MadX	117	X	-0.6
1998	MadX	118	X	-0.4
1999	MadX	121	X	-0.4
2000	MadX	124	X	-0.4
2001	MadX	127	X	-0.4
2002	MadX	147	X	-0.5
2003	MadX	160	X	-0.3
2004	MadX	173	X	-0.4
2005	MadX	186	X	-0.3
2006	MadX	199	X	-0.6
2007	MadX	200	X	-0.4
2008	MadX	203	X	-0.4
2009	MadX	204	X	-0.4
2010	MadX	207	X	-0.4
2011	MadX	210	X	-0.4
2012	MadX	213	X	-0.4
2013	MadX	216	X	-0.4
2014	MadX	237	X	-0.1
2015	MadX	238	X	-0.1
2016	MadX	241	X	-0.1
2017	MadX	244	X	-0.1
2018	MadX	247	X	-0.1
2019	MadX	250	X	-0.1
2020	MadX	268	X	0.4
2021	MadX	269	X	0.2
2022	MadX	272	X	0.2

2023	MadX	275	X	0.2
2024	MadX	276	X	0.2
2025	MadX	279	X	0.2
2026	MadX	282	X	0.2
2027	MadX	283	X	0.2
2028	MadX	286	X	0.2
2029	MadX	289	X	0.3
2030	MadX	292	X	0.3
2031	MadX	295	X	0.3
2032	MadX	298	X	0.4
2033	MadX	378	X	0.1
2034	MadX	399	X	0.2
2035	MadX	400	X	0.2
2036	MadX	403	X	0.2
2037	MadX	406	X	0.2
2038	MadX	409	X	0.3
2039	MadX	493	X	-0.4
2040	MadX	496	X	-0.4
2041	MadX	499	X	-0.4
2042	MadX	502	X	-0.5
2043	MadX	506	X	-0.4
2044	MadX	509	X	-0.4
2045	MadX	512	X	-0.5
2046	MadX	515	X	-0.3
2047	MadX	518	X	-0.4
2048	MadX	521	X	-0.5
2049	MadX	524	X	-0.3
2050	MadX	527	X	-0.3
2051	MadX	530	X	-0.2
2052	MadX	533	X	-0.4
2053	MadX	536	X	-0.3
2054	MadX	539	X	-0.3
2055	MadX	542	X	-0.3
2056	MadX	646	X	0.0
2057	MadX	649	X	0.0
2058	MadX	652	X	-0.1
2059	MadX	655	X	-0.1
2060	MadX	658	X	-0.2
2061	MadX	661	X	-0.2
2062	MadX	664	X	-0.2
2063	MadX	667	X	-0.3
2064	MadX	679	X	0.0
2065	MadX	682	X	0.0
2066	MadX	685	X	0.0
2067	MadX	688	X	-0.1
2068	MadX	691	X	-0.1
2069	MadX	694	X	-0.2
2070	MadX	697	X	-0.2
2071	MadX	700	X	-0.2
2072	MadX	703	X	-0.3
2073	MadX	720	X	0.0
2074	MadX	723	X	0.0
2075	MadX	726	X	0.0
2076	MadX	729	X	-0.1
2077	MadX	732	X	-0.1
2078	MadX	735	X	-0.2
2079	MadX	738	X	-0.2
2080	MadX	741	X	-0.2
2081	MadX	744	X	-0.3
2082	MadX	747	X	-0.4
2083	MadX	750	X	-0.3
2084	MadX	753	X	-0.4
2085	MadX	756	X	-0.3
2086	MadX	759	X	-0.3
2087	MadX	762	X	-0.3
2088	MadX	765	X	-0.1
2089	MadX	768	X	-0.2
2090	MadX	771	X	-0.2
2091	MadX	774	X	-0.2
2092	MadX	777	X	-0.1
2093	MadX	780	X	0.0
2094	MadX	784	X	-0.1
2095	MadX	787	X	-0.1
2096	MadX	790	X	-0.1
2097	MadX	793	X	-0.1
2098	MadX	795	X	0.0
2099	MadX	798	X	0.0
2100	MadX	801	X	-0.1
2101	MadX	804	X	0.0
2102	MadX	807	X	0.0
2103	MadX	810	X	0.0
2104	MadX	813	X	0.1
2105	MadX	816	X	0.1
2106	MadX	819	X	0.1
2107	MadX	822	X	0.1
2108	MadX	825	X	0.2
2109	MadX	828	X	0.2
2110	MadX	831	X	0.2



2111	MadX	834	X	0.3
2112	MadX	837	X	0.3
2113	MadX	840	X	0.3
2114	MadX	843	X	0.4
2115	MadX	846	X	0.4
2116	MadX	849	X	0.4
2117	MadX	852	X	0.4
2118	MadX	855	X	0.3
2119	MadX	859	X	0.3
2120	MadX	861	X	0.4
2121	MadX	864	X	0.3
2122	MadX	867	X	0.3
2123	MadX	870	X	0.2
2124	MadX	874	X	0.2
2125	MadX	877	X	0.2
2126	MadX	879	X	0.2
2127	MadX	883	X	0.2
2128	MadX	886	X	0.2
2129	MadX	889	X	0.2
2130	MadX	892	X	0.2
2131	MadX	895	X	0.2
2132	MadX	897	X	0.1
2133	MadX	900	X	0.1
2134	MadX	903	X	0.1
2135	MadX	906	X	0.1
2136	MadX	909	X	0.1
2137	MadX	912	X	0.2
2138	MadX	916	X	0.1
2139	MadX	919	X	0.1
2140	MadX	922	X	0.1
2141	MadX	925	X	0.0
2142	MadX	928	X	0.0
2143	MadX	931	X	0.0
2144	MadX	934	X	0.0
2145	MadX	937	X	-0.1
2146	MadX	939	X	-0.1
2147	MadX	942	X	-0.1
2148	MadX	945	X	-0.1
2149	MadX	948	X	0.0
2150	MadX	952	X	-0.1
2151	MadX	954	X	-0.2
2152	MadX	957	X	-0.2
2153	MadX	960	X	-0.2
2154	MadX	963	X	-0.4
2155	MadX	966	X	-0.2
2156	MadX	969	X	-0.2
2157	MadX	972	X	-0.2
2158	MadX	975	X	-0.1
2159	MadX	979	X	-0.2
2160	MadX	981	X	-0.4
2161	MadX	984	X	-0.4
2162	MadX	987	X	-0.3
2163	MadX	990	X	-0.3
2164	MadX	993	X	-0.2
2165	MadX	996	X	-0.1
2166	MadX	999	X	-0.1
2167	MadX	1002	X	-0.1
2168	MadX	1005	X	-0.2
2169	MadX	1008	X	-0.2
2170	MadX	1011	X	-0.2
2171	MadX	1014	X	-0.1
2172	MadX	1017	X	-0.1
2173	MadX	1020	X	-0.1
2174	MadX	1023	X	0.0
2175	MadX	1026	X	0.0
2176	MadX	1029	X	0.0
2177	MadX	1032	X	0.0
2178	MadX	1035	X	0.1
2179	MadX	1038	X	0.1
2180	MadX	1041	X	0.1
2181	MadX	1044	X	0.1
2182	MadX	1047	X	0.1
2183	MadX	1050	X	0.1
2184	MadX	1053	X	0.1
2185	MadX	1056	X	0.1
2186	MadX	1059	X	0.0
2187	MadX	1062	X	0.0
2188	MadX	1065	X	0.0
2189	MadX	1068	X	0.0
2190	MadX	1071	X	0.1
2191	MadX	1074	X	0.1
2192	MadX	1077	X	0.1
2193	MadX	1080	X	0.1
2194	MadX	1083	X	0.2
2195	MadX	1087	X	0.1
2196	MadX	1089	X	0.2
2197	MadX	1092	X	0.2
2198	MadX	1095	X	0.2

2199	MadX	1099	X	0.3
2200	MadX	1101	X	0.3
2201	MadX	1104	X	0.4
2202	MadX	1107	X	0.4
2203	MadX	1110	X	0.4
2204	MadX	1113	X	0.2
2205	MadX	1117	X	0.4
2206	MadX	1119	X	0.4
2207	MadX	1122	X	0.4
2208	MadX	1125	X	0.4
2209	MadX	1128	X	0.4
2210	MadX	1131	X	0.2
2211	MadX	1135	X	0.4
2212	MadX	1137	X	0.4
2213	MadX	1140	X	0.4
2214	MadX	1143	X	0.4
2215	MadX	1146	X	0.4
2216	MadX	1149	X	0.2
2217	MadX	1153	X	0.4
2218	MadX	1155	X	0.4
2219	MadX	1158	X	0.4
2220	MadX	1161	X	0.4
2221	MadX	1164	X	0.4
2222	MadX	1167	X	0.4
2223	MadX	1170	X	0.2
2224	MadX	1173	X	0.2
2225	MadX	1176	X	0.2
2226	MadX	1179	X	0.3
2227	MadX	1182	X	0.2
2228	MadX	1185	X	0.2
2229	MadX	1188	X	0.2
2230	MadX	1191	X	0.2
2231	MadX	1194	X	0.3
2232	MadX	1197	X	0.2
2233	MadX	1200	X	0.2
2234	MadX	1203	X	0.2
2235	MadX	1206	X	0.2
2236	MadX	1209	X	0.0
2237	MadX	1212	X	0.0
2238	MadX	1215	X	0.0
2239	MadX	1219	X	0.0
2240	MadX	1221	X	0.0
2241	MadX	1224	X	0.0
2242	MadX	1227	X	0.0
2243	MadX	1230	X	0.0
2244	MadX	1234	X	0.0
2245	MadX	1236	X	0.0
2246	MadX	1239	X	0.0
2247	MadX	1242	X	0.0
2248	MadX	1245	X	0.0
2249	MadX	1248	X	0.0
2250	MadX	1251	X	0.0
2251	MadX	1255	X	0.1
2252	MadX	1258	X	0.1
2253	MadX	1261	X	0.1
2254	MadX	1264	X	0.1
2255	MadX	1267	X	0.1
2256	MadX	1270	X	0.3
2257	MadX	1273	X	0.3
2258	MadX	1276	X	0.3
2259	MadX	1279	X	0.2
2260	MadX	1282	X	0.2
2261	MadX	1285	X	0.1
2262	MadX	1288	X	0.2
2263	MadX	1291	X	0.1
2264	MadX	1294	X	0.1
2265	MadX	1297	X	0.1
2266	MadX	1300	X	0.3
2267	MadX	1303	X	0.3
2268	MadX	1306	X	0.3
2269	MadX	1309	X	0.2
2270	MadX	1312	X	0.2
2271	MadX	1314	X	0.1
2272	MadX	1318	X	0.2
2273	MadX	1321	X	0.1
2274	MadX	1324	X	0.1
2275	MadX	1327	X	0.1
2276	MadX	1330	X	0.3
2277	MadX	1333	X	0.3
2278	MadX	1336	X	0.3
2279	MadX	1339	X	0.2
2280	MadX	1342	X	0.2
2281	MadX	1345	X	0.0
2282	MadX	1348	X	0.0
2283	MadX	1351	X	-0.1
2284	MadX	1354	X	-0.1
2285	MadX	1357	X	-0.2
2286	MadX	1360	X	-0.2

2287	MadX	1363	X	-0.2
2288	MadX	1366	X	-0.3
2289	MadX	1369	X	-0.1
2290	MadX	1372	X	-0.1
2291	MadX	1375	X	-0.2
2292	MadX	1378	X	-0.2
2293	MadX	1381	X	-0.2
2294	MadX	1384	X	-0.3
2295	MadX	1387	X	-0.1
2296	MadX	1390	X	-0.1
2297	MadX	1393	X	-0.2
2298	MadX	1396	X	-0.2
2299	MadX	1399	X	-0.2
2300	MadX	1402	X	-0.3
2301	MadX	1405	X	-0.5
2302	MadX	1408	X	-0.4
2303	MadX	1411	X	-0.1
2304	MadX	1413	X	-0.2
2305	MadX	1416	X	-0.2
2306	MadX	1419	X	-0.2
2307	MadX	1422	X	-0.2
2308	MadX	1425	X	-0.3
2309	MadX	1428	X	-0.3
2310	MadX	1431	X	-0.3
2311	MadX	1434	X	-0.3
2312	MadX	1440	X	0.0
2313	MadX	1443	X	0.0
2314	MadX	1455	X	0.1
2315	MadX	16	X	-18.8
2316	MadX	18	X	-26.5
2317	MadX	20	X	-19.5
2318	MadX	22	X	-25.4
2319	MadX	24	X	-10.4
2320	MadX	26	X	-10.9
2321	MadX	28	X	-9.4
2322	MadX	30	X	-23.8
2323	MadX	32	X	-16.1
2324	MadX	34	X	-16.1
2325	MadX	40	X	-3.4
2326	MadX	42	X	-5.7
2327	MadX	48	X	18.3
2328	MadX	50	X	6.0
2329	MadX	52	X	9.9
2330	MadX	54	X	20.3
2331	MadX	96	X	0.7
2332	MadX	98	X	8.2
2333	MadX	100	X	11.7
2334	MadX	110	X	-7.6
2335	MadX	113	X	-7.6
2336	MadX	116	X	-7.6
2337	MadX	120	X	-8.3
2338	MadX	123	X	-8.3
2339	MadX	126	X	-8.3
2340	MadX	202	X	-7.7
2341	MadX	206	X	-14.9
2342	MadX	209	X	-14.9
2343	MadX	212	X	-14.9
2344	MadX	215	X	-14.9
2345	MadX	240	X	-3.5
2346	MadX	243	X	-3.5
2347	MadX	246	X	-3.5
2348	MadX	249	X	-3.5
2349	MadX	271	X	4.0
2350	MadX	274	X	4.0
2351	MadX	278	X	3.8
2352	MadX	281	X	3.8
2353	MadX	285	X	14.0
2354	MadX	288	X	16.1
2355	MadX	291	X	18.2
2356	MadX	294	X	20.3
2357	MadX	297	X	22.4
2358	MadX	402	X	9.2
2359	MadX	405	X	9.2
2360	MadX	408	X	9.2
2361	MadX	495	X	-7.0
2362	MadX	498	X	-7.0
2363	MadX	501	X	-7.0
2364	MadX	504	X	-16.5
2365	MadX	508	X	-7.1
2366	MadX	511	X	-7.1
2367	MadX	514	X	-16.6
2368	MadX	517	X	-5.8
2369	MadX	520	X	-7.4
2370	MadX	523	X	-16.8
2371	MadX	526	X	-6.0
2372	MadX	529	X	-6.0
2373	MadX	532	X	-4.2
2374	MadX	535	X	-15.1

2375	MadX	538	X	-6.2
2376	MadX	541	X	-6.2
2377	MadX	544	X	-6.2
2378	MadX	648	X	-2.1
2379	MadX	651	X	-4.2
2380	MadX	654	X	-6.6
2381	MadX	657	X	-9.0
2382	MadX	660	X	-11.4
2383	MadX	663	X	-13.7
2384	MadX	666	X	-16.1
2385	MadX	669	X	-18.5
2386	MadX	681	X	0.3
2387	MadX	684	X	-1.8
2388	MadX	687	X	-4.1
2389	MadX	690	X	-6.4
2390	MadX	693	X	-8.7
2391	MadX	696	X	-11.0
2392	MadX	699	X	-13.4
2393	MadX	702	X	-15.7
2394	MadX	705	X	-18.0
2395	MadX	722	X	0.3
2396	MadX	725	X	-1.8
2397	MadX	728	X	-4.1
2398	MadX	731	X	-6.4
2399	MadX	734	X	-8.7
2400	MadX	737	X	-11.0
2401	MadX	740	X	-13.4
2402	MadX	743	X	-15.7
2403	MadX	746	X	-18.0
2404	MadX	749	X	-19.5
2405	MadX	752	X	-17.8
2406	MadX	755	X	-18.9
2407	MadX	758	X	-17.2
2408	MadX	761	X	-15.4
2409	MadX	764	X	-13.7
2410	MadX	767	X	-10.0
2411	MadX	769	X	-7.9
2412	MadX	773	X	-10.4
2413	MadX	776	X	-8.4
2414	MadX	779	X	-6.5
2415	MadX	782	X	-4.0
2416	MadX	783	X	-4.1
2417	MadX	788	X	-4.5
2418	MadX	791	X	-4.5
2419	MadX	794	X	-3.6
2420	MadX	797	X	-2.3
2421	MadX	800	X	-2.3
2422	MadX	803	X	-1.4
2423	MadX	806	X	-0.9
2424	MadX	809	X	-0.1
2425	MadX	812	X	0.6
2426	MadX	815	X	3.2
2427	MadX	818	X	1.6
2428	MadX	821	X	2.1
2429	MadX	824	X	2.7
2430	MadX	827	X	8.5
2431	MadX	830	X	3.6
2432	MadX	833	X	4.7
2433	MadX	836	X	8.5
2434	MadX	839	X	5.9
2435	MadX	842	X	6.6
2436	MadX	845	X	22.4
2437	MadX	848	X	21.9
2438	MadX	851	X	21.9
2439	MadX	854	X	21.9
2440	MadX	857	X	23.1
2441	MadX	858	X	19.2
2442	MadX	863	X	16.3
2443	MadX	866	X	13.9
2444	MadX	869	X	11.4
2445	MadX	871	X	9.2
2446	MadX	875	X	4.7
2447	MadX	878	X	4.1
2448	MadX	880	X	9.5
2449	MadX	884	X	12.4
2450	MadX	887	X	13.1
2451	MadX	890	X	13.1
2452	MadX	893	X	13.1
2453	MadX	896	X	13.1
2454	MadX	899	X	3.9
2455	MadX	902	X	3.9
2456	MadX	905	X	3.9
2457	MadX	908	X	3.9
2458	MadX	911	X	3.9
2459	MadX	914	X	6.2
2460	MadX	917	X	0.6
2461	MadX	920	X	0.5
2462	MadX	923	X	0.3

2463	MadX	926	X	0.1
2464	MadX	929	X	0.0
2465	MadX	932	X	-0.2
2466	MadX	933	X	-1.0
2467	MadX	936	X	-3.6
2468	MadX	941	X	-2.5
2469	MadX	944	X	-2.5
2470	MadX	947	X	-2.5
2471	MadX	950	X	-2.6
2472	MadX	951	X	-3.9
2473	MadX	956	X	-0.9
2474	MadX	959	X	-0.9
2475	MadX	962	X	-0.9
2476	MadX	965	X	-18.1
2477	MadX	968	X	-0.9
2478	MadX	971	X	-0.9
2479	MadX	974	X	-0.9
2480	MadX	977	X	-3.1
2481	MadX	978	X	-13.2
2482	MadX	983	X	-25.3
2483	MadX	986	X	-22.9
2484	MadX	989	X	-20.5
2485	MadX	992	X	-18.0
2486	MadX	995	X	-11.7
2487	MadX	998	X	-9.9
2488	MadX	1001	X	-8.1
2489	MadX	1004	X	-6.3
2490	MadX	1007	X	-14.6
2491	MadX	1010	X	-13.2
2492	MadX	1013	X	-12.2
2493	MadX	1016	X	-10.3
2494	MadX	1019	X	-8.4
2495	MadX	1022	X	-6.5
2496	MadX	1025	X	-1.4
2497	MadX	1028	X	-0.7
2498	MadX	1031	X	0.4
2499	MadX	1034	X	0.6
2500	MadX	1037	X	3.8
2501	MadX	1040	X	1.6
2502	MadX	1043	X	2.1
2503	MadX	1046	X	2.7
2504	MadX	1049	X	4.8
2505	MadX	1052	X	4.0
2506	MadX	1055	X	4.0
2507	MadX	1058	X	4.0
2508	MadX	1061	X	0.1
2509	MadX	1064	X	0.1
2510	MadX	1067	X	0.1
2511	MadX	1070	X	1.5
2512	MadX	1073	X	2.8
2513	MadX	1076	X	5.1
2514	MadX	1079	X	5.5
2515	MadX	1082	X	6.8
2516	MadX	1085	X	6.8
2517	MadX	1086	X	8.8
2518	MadX	1091	X	9.0
2519	MadX	1094	X	10.1
2520	MadX	1097	X	15.0
2521	MadX	1098	X	13.1
2522	MadX	1103	X	12.7
2523	MadX	1106	X	12.3
2524	MadX	1109	X	12.4
2525	MadX	1112	X	9.7
2526	MadX	1115	X	8.2
2527	MadX	1116	X	15.0
2528	MadX	1121	X	7.6
2529	MadX	1124	X	7.6
2530	MadX	1127	X	7.6
2531	MadX	1130	X	7.6
2532	MadX	1133	X	8.4
2533	MadX	1134	X	19.1
2534	MadX	1139	X	7.8
2535	MadX	1142	X	7.8
2536	MadX	1145	X	7.8
2537	MadX	1148	X	7.8
2538	MadX	1151	X	8.5
2539	MadX	1152	X	21.0
2540	MadX	1157	X	8.3
2541	MadX	1160	X	8.3
2542	MadX	1163	X	12.3
2543	MadX	1166	X	7.9
2544	MadX	1169	X	7.9
2545	MadX	1172	X	0.8
2546	MadX	1175	X	0.8
2547	MadX	1178	X	0.8
2548	MadX	1181	X	8.0
2549	MadX	1184	X	0.8
2550	MadX	1187	X	0.8

2551	MadX	1190	X	0.8
2552	MadX	1193	X	0.8
2553	MadX	1196	X	9.1
2554	MadX	1199	X	0.8
2555	MadX	1202	X	0.8
2556	MadX	1205	X	0.8
2557	MadX	1208	X	0.8
2558	MadX	1211	X	0.0
2559	MadX	1214	X	0.0
2560	MadX	1217	X	0.0
2561	MadX	1218	X	0.4
2562	MadX	1223	X	0.0
2563	MadX	1226	X	0.0
2564	MadX	1229	X	0.0
2565	MadX	1232	X	0.3
2566	MadX	1233	X	0.1
2567	MadX	1238	X	0.0
2568	MadX	1241	X	0.3
2569	MadX	1244	X	0.0
2570	MadX	1247	X	0.0
2571	MadX	1250	X	0.0
2572	MadX	1253	X	0.3
2573	MadX	1256	X	7.6
2574	MadX	1259	X	6.2
2575	MadX	1262	X	6.2
2576	MadX	1265	X	3.7
2577	MadX	1268	X	2.0
2578	MadX	1271	X	21.0
2579	MadX	1274	X	21.0
2580	MadX	1277	X	19.5
2581	MadX	1280	X	17.3
2582	MadX	1283	X	15.0
2583	MadX	1286	X	8.8
2584	MadX	1289	X	11.2
2585	MadX	1292	X	8.5
2586	MadX	1295	X	5.9
2587	MadX	1298	X	3.2
2588	MadX	1301	X	27.1
2589	MadX	1304	X	24.5
2590	MadX	1307	X	22.0
2591	MadX	1310	X	19.4
2592	MadX	1313	X	16.9
2593	MadX	1315	X	10.5
2594	MadX	1319	X	11.8
2595	MadX	1322	X	9.0
2596	MadX	1325	X	6.2
2597	MadX	1328	X	3.4
2598	MadX	1331	X	30.2
2599	MadX	1334	X	27.4
2600	MadX	1337	X	24.6
2601	MadX	1340	X	21.7
2602	MadX	1343	X	20.5
2603	MadX	1346	X	-1.8
2604	MadX	1349	X	-4.0
2605	MadX	1352	X	-6.3
2606	MadX	1355	X	-8.5
2607	MadX	1358	X	-10.7
2608	MadX	1361	X	-13.0
2609	MadX	1364	X	-15.2
2610	MadX	1367	X	-17.5
2611	MadX	1370	X	-3.2
2612	MadX	1373	X	-4.2
2613	MadX	1376	X	-9.0
2614	MadX	1379	X	-6.7
2615	MadX	1382	X	-7.8
2616	MadX	1385	X	-8.9
2617	MadX	1388	X	-2.1
2618	MadX	1391	X	-2.8
2619	MadX	1394	X	-10.5
2620	MadX	1397	X	-4.4
2621	MadX	1400	X	-5.2
2622	MadX	1403	X	-5.9
2623	MadX	1406	X	-19.0
2624	MadX	1409	X	-7.7
2625	MadX	1410	X	-6.7
2626	MadX	1415	X	-9.9
2627	MadX	1418	X	-9.9
2628	MadX	1421	X	-9.9
2629	MadX	1424	X	-9.9
2630	MadX	1427	X	-17.3
2631	MadX	1430	X	-17.3
2632	MadX	1433	X	-17.3
2633	MadX	1436	X	-17.3
2634	MadX	1439	X	-0.3
2635	MadX	1444	X	-2.1
2636	MadX	1456	X	3.9
2637	MadX	1975	X	6.9
2638	MadX	1976	X	4.7

2639	MadX	1977	X	5.0
2640	MadX	1978	X	12.2
2641	MadX	1979	X	11.3
2642	MadX	1980	X	3.3
2643	MadX	1981	X	3.1
2644	MadX	1982	X	4.4
2645	MadX	1983	X	6.8
2646	MadX	1445	X	-129.9
2647	MadX	1446	X	-256.1
2648	MadX	1448	X	-29.9
2649	MadX	1449	X	-182.1
2650	MadX	1450	X	-18.6
2651	MadX	1451	X	-33.8
2652	MadX	1452	X	-17.6
2653	MadX	1453	X	-7.4
2654	MadX	1459	X	-7.3
2655	MadX	1779	X	-132.1
2656	MadX	1780	X	-108.0
2657	MadX	1781	X	-108.5
2658	MadX	1782	X	-122.2
2659	MadX	1783	X	-20.6
2660	MadX	1784	X	-21.8
2661	MadX	1785	X	95.3
2662	MadX	1786	X	46.7
2663	MadX	1787	X	31.1
2664	MadX	1788	X	71.3
2665	MadX	1789	X	29.4
2666	MadX	1790	X	14.9
2667	MadX	1794	X	-2.4
2668	MadX	1795	X	77.1
2669	MadX	1796	X	75.5
2670	MadX	1797	X	13.1
2671	MadX	1798	X	8.4
2672	MadX	1799	X	-3.7
2673	MadX	1800	X	16.7
2674	MadX	1802	X	23.6
2675	MadX	1803	X	-77.3
2676	MadX	1804	X	12.2
2677	MadX	1805	X	8.0
2678	MadX	1806	X	3.9
2679	MadX	1808	X	87.5
2680	MadX	1809	X	124.0
2681	MadX	1810	X	107.1
2682	MadX	1811	X	15.4
2683	MadX	1812	X	-4.3
2684	MadX	1813	X	-1.5
2685	MadX	1814	X	-123.7
2686	MadX	1815	X	-15.8
2687	MadX	1816	X	-69.4
2688	MadX	1817	X	4.3
2689	MadX	1818	X	-2.1
2690	MadX	1819	X	10.2
2691	MadX	1820	X	7.6
2692	MadX	1801	X	-19.7
2693	MadX	1807	X	25.4
2694	MadX	1575	X	47.2
2695	MadX	1578	X	26.4
2696	MadX	1581	X	83.4
2697	MadX	1590	X	62.4
2698	MadX	1599	X	12.3
2699	MadX	1606	X	-20.5
2700	MadX	1609	X	-50.6
2701	MadX	1611	X	-24.8
2702	MadX	1615	X	-7.4
2703	MadX	1639	X	-101.2
2704	MadX	1652	X	-14.2
2705	MadX	1669	X	23.1
2706	MadX	1672	X	47.4
2707	MadX	1679	X	45.2
2708	MadX	1680	X	28.1
2709	MadX	1681	X	103.9
2710	MadX	1686	X	131.5
2711	MadX	1691	X	63.8
2712	MadX	1699	X	116.7
2713	MadX	1715	X	-2.4
2714	MadX	1721	X	-1.7
2715	MadX	1746	X	128.6
2716	MadX	1737	X	-56.5
2717	MadX	1923	X	-0.7
2718	MadX	1924	X	-0.7
2719	MadX	1925	X	-0.7
2720	MadX	1927	X	-2.4
2721	MadX	1928	X	-2.2
2722	MadX	1929	X	-1.6
2723	MadX	1931	X	-2.4
2724	MadX	1932	X	-2.4
2725	MadX	1933	X	-2.2
2726	MadX	1935	X	-2.4

2727	MadX	1936	X	-2.1
2728	MadX	1937	X	-2.1
2729	MadX	1938	X	-2.1
2730	MadX	1948	X	-7.4
2731	MadX	1949	X	-6.8
2732	MadX	1950	X	-6.4
2733	MadX	1951	X	-5.6
2734	MadX	1952	X	-4.7
2735	MadX	1953	X	-3.8
2736	MadX	1954	X	-6.4
2737	MadX	1955	X	-4.2
2738	MadX	1962	X	-9.4
2739	MadX	1963	X	-8.3
2740	MadX	1964	X	-7.3
2741	MadX	1965	X	-4.8
2742	MadX	1966	X	-3.9
2743	MadX	1967	X	-2.3
2744	MadX	1972	X	-1.9
2745	MadX	1973	X	-2.2
2746	MadX	1974	X	-2.6
2747	MadX	1987	X	31.4
2748	MadX	1991	X	31.4
2749	MadX	1992	X	15.7
2750	MadX	1823	X	-157.6
2751	MadX	1828	X	-355.8
2752	MadX	1844	X	-157.0
2753	MadX	1846	X	44.0
2754	MadX	1898	X	-0.7
2755	MadX	1900	X	2.1
2756	MadX	1902	X	1.2
2757	MadX	1905	X	0.8
2758	MadX	1907	X	-1.0
2759	MadX	1909	X	26.4
2760	MadX	1875	X	41.9
2761	MadX	1880	X	17.4
2762	MadX	1838	X	-355.8
2763	MadX	1833	X	-353.8
2764	MadX	1855	X	34.1
2765	MadX	1864	X	51.3
2766	MadX	1882	X	51.6
2767	MadX	1886	X	22.5
2768	MadX	1906	X	1.1
2769	MadX	1908	X	-1.5
2770	MadX	1899	X	-0.1
2771	MadX	1910	X	49.6
2772	MadX	1911	X	49.6
2773	MadX	1912	X	49.6
2774	MadX	1914	X	51.6
2775	MadX	1915	X	46.8
2776	MadX	1917	X	52.3
2777	MadX	1918	X	47.4
2778	MadX	1920	X	44.0
2779	MadX	1921	X	44.0
2780	MadX	1922	X	44.0
2781	MadX	1939	X	29.5
2782	MadX	1940	X	-1.6
2783	MadX	1941	X	-1.3
2784	MadX	1942	X	-0.8
2785	MadX	1943	X	-0.4
2786	MadX	1944	X	0.0
2787	MadX	1945	X	0.4
2788	MadX	1946	X	1.1
2789	MadX	1947	X	1.4
2790	MadX	1956	X	-1.9
2791	MadX	1957	X	-1.4
2792	MadX	1958	X	-0.9
2793	MadX	1959	X	0.0
2794	MadX	1960	X	0.4
2795	MadX	1961	X	1.4
2796	MadX	1969	X	80.3
2797	MadX	1970	X	88.7
2798	MadX	1971	X	74.0
2799	MadX	1984	X	55.3
2800	MadX	1985	X	59.1
2801	MadX	1986	X	56.1
2802	MadX	1988	X	55.3
2803	MadX	1989	X	59.1
2804	MadX	1990	X	56.1
2805	MadY	107	Y	-0.3
2806	MadY	108	Y	-0.3
2807	MadY	111	Y	-0.2
2808	MadY	114	Y	-0.2
2809	MadY	117	Y	-0.4
2810	MadY	118	Y	-0.2
2811	MadY	121	Y	-0.2
2812	MadY	124	Y	-0.2
2813	MadY	127	Y	-0.2
2814	MadY	147	Y	-0.2



2815	Mady	160	Y	-0.1
2816	Mady	173	Y	0.1
2817	Mady	186	Y	0.1
2818	Mady	199	Y	0.6
2819	Mady	200	Y	0.3
2820	Mady	203	Y	0.3
2821	Mady	204	Y	0.3
2822	Mady	207	Y	0.3
2823	Mady	210	Y	0.3
2824	Mady	213	Y	0.4
2825	Mady	216	Y	0.4
2826	Mady	237	Y	0.4
2827	Mady	238	Y	0.4
2828	Mady	241	Y	0.3
2829	Mady	244	Y	0.3
2830	Mady	247	Y	0.3
2831	Mady	250	Y	0.4
2832	Mady	268	Y	0.5
2833	Mady	269	Y	0.3
2834	Mady	272	Y	0.3
2835	Mady	275	Y	0.4
2836	Mady	276	Y	0.4
2837	Mady	279	Y	0.4
2838	Mady	282	Y	0.4
2839	Mady	283	Y	0.4
2840	Mady	286	Y	0.4
2841	Mady	289	Y	0.4
2842	Mady	292	Y	0.4
2843	Mady	295	Y	0.4
2844	Mady	298	Y	0.4
2845	Mady	378	Y	-0.1
2846	Mady	399	Y	-0.1
2847	Mady	400	Y	-0.2
2848	Mady	403	Y	-0.2
2849	Mady	406	Y	-0.2
2850	Mady	409	Y	-0.3
2851	Mady	493	Y	-0.2
2852	Mady	496	Y	-0.1
2853	Mady	499	Y	-0.1
2854	Mady	502	Y	-0.1
2855	Mady	506	Y	0.0
2856	Mady	509	Y	0.0
2857	Mady	512	Y	0.0
2858	Mady	515	Y	0.0
2859	Mady	518	Y	0.1
2860	Mady	521	Y	0.2
2861	Mady	524	Y	0.1
2862	Mady	527	Y	0.2
2863	Mady	530	Y	0.1
2864	Mady	533	Y	0.3
2865	Mady	536	Y	0.2
2866	Mady	539	Y	0.3
2867	Mady	542	Y	0.3
2868	Mady	646	Y	-0.1
2869	Mady	649	Y	-0.1
2870	Mady	652	Y	-0.1
2871	Mady	655	Y	-0.1
2872	Mady	658	Y	-0.1
2873	Mady	661	Y	-0.1
2874	Mady	664	Y	-0.1
2875	Mady	667	Y	-0.1
2876	Mady	679	Y	0.0
2877	Mady	682	Y	0.0
2878	Mady	685	Y	0.0
2879	Mady	688	Y	0.0
2880	Mady	691	Y	0.0
2881	Mady	694	Y	0.0
2882	Mady	697	Y	0.0
2883	Mady	700	Y	0.0
2884	Mady	703	Y	0.0
2885	Mady	720	Y	0.2
2886	Mady	723	Y	0.1
2887	Mady	726	Y	0.1
2888	Mady	729	Y	0.1
2889	Mady	732	Y	0.1
2890	Mady	735	Y	0.1
2891	Mady	738	Y	0.1
2892	Mady	741	Y	0.1
2893	Mady	744	Y	0.1
2894	Mady	747	Y	-0.2
2895	Mady	750	Y	-0.2
2896	Mady	753	Y	-0.3
2897	Mady	756	Y	-0.3
2898	Mady	759	Y	-0.3
2899	Mady	762	Y	-0.3
2900	Mady	765	Y	-0.2
2901	Mady	768	Y	-0.4
2902	Mady	771	Y	-0.4

2903	Mady	774	Y	-0.4
2904	Mady	777	Y	-0.4
2905	Mady	780	Y	-0.2
2906	Mady	784	Y	-0.4
2907	Mady	787	Y	-0.4
2908	Mady	790	Y	-0.4
2909	Mady	793	Y	-0.4
2910	Mady	795	Y	-0.3
2911	Mady	798	Y	-0.2
2912	Mady	801	Y	-0.3
2913	Mady	804	Y	-0.4
2914	Mady	807	Y	-0.4
2915	Mady	810	Y	-0.4
2916	Mady	813	Y	-0.6
2917	Mady	816	Y	-0.3
2918	Mady	819	Y	-0.3
2919	Mady	822	Y	-0.3
2920	Mady	825	Y	-0.4
2921	Mady	828	Y	-0.3
2922	Mady	831	Y	-0.4
2923	Mady	834	Y	-0.4
2924	Mady	837	Y	-0.4
2925	Mady	840	Y	-0.4
2926	Mady	843	Y	-0.4
2927	Mady	846	Y	-0.3
2928	Mady	849	Y	-0.3
2929	Mady	852	Y	-0.3
2930	Mady	855	Y	-0.2
2931	Mady	859	Y	-0.2
2932	Mady	861	Y	-0.3
2933	Mady	864	Y	-0.3
2934	Mady	867	Y	-0.2
2935	Mady	870	Y	-0.2
2936	Mady	874	Y	-0.2
2937	Mady	877	Y	-0.2
2938	Mady	879	Y	-0.3
2939	Mady	883	Y	-0.3
2940	Mady	886	Y	-0.3
2941	Mady	889	Y	-0.3
2942	Mady	892	Y	-0.3
2943	Mady	895	Y	-0.4
2944	Mady	897	Y	-0.4
2945	Mady	900	Y	-0.3
2946	Mady	903	Y	-0.3
2947	Mady	906	Y	-0.3
2948	Mady	909	Y	-0.3
2949	Mady	912	Y	-0.5
2950	Mady	916	Y	-0.2
2951	Mady	919	Y	-0.2
2952	Mady	922	Y	-0.2
2953	Mady	925	Y	-0.3
2954	Mady	928	Y	-0.3
2955	Mady	931	Y	-0.3
2956	Mady	934	Y	-0.1
2957	Mady	937	Y	-0.3
2958	Mady	939	Y	-0.2
2959	Mady	942	Y	-0.2
2960	Mady	945	Y	-0.2
2961	Mady	948	Y	-0.1
2962	Mady	952	Y	-0.2
2963	Mady	954	Y	-0.3
2964	Mady	957	Y	-0.2
2965	Mady	960	Y	-0.2
2966	Mady	963	Y	-0.5
2967	Mady	966	Y	-0.2
2968	Mady	969	Y	-0.2
2969	Mady	972	Y	-0.2
2970	Mady	975	Y	-0.1
2971	Mady	979	Y	-0.2
2972	Mady	981	Y	-0.3
2973	Mady	984	Y	-0.3
2974	Mady	987	Y	-0.3
2975	Mady	990	Y	-0.3
2976	Mady	993	Y	-0.2
2977	Mady	996	Y	-0.2
2978	Mady	999	Y	-0.2
2979	Mady	1002	Y	-0.2
2980	Mady	1005	Y	-0.1
2981	Mady	1008	Y	-0.1
2982	Mady	1011	Y	-0.1
2983	Mady	1014	Y	-0.1
2984	Mady	1017	Y	-0.1
2985	Mady	1020	Y	-0.1
2986	Mady	1023	Y	-0.1
2987	Mady	1026	Y	-0.1
2988	Mady	1029	Y	-0.2
2989	Mady	1032	Y	-0.1
2990	Mady	1035	Y	-0.2

2991	Mady	1038	Y	-0.1
2992	Mady	1041	Y	-0.1
2993	Mady	1044	Y	-0.1
2994	Mady	1047	Y	-0.2
2995	Mady	1050	Y	-0.2
2996	Mady	1053	Y	-0.2
2997	Mady	1056	Y	-0.2
2998	Mady	1059	Y	-0.1
2999	Mady	1062	Y	-0.1
3000	Mady	1065	Y	-0.1
3001	Mady	1068	Y	-0.1
3002	Mady	1071	Y	-0.1
3003	Mady	1074	Y	-0.1
3004	Mady	1077	Y	-0.1
3005	Mady	1080	Y	-0.1
3006	Mady	1083	Y	-0.1
3007	Mady	1087	Y	0.0
3008	Mady	1089	Y	-0.1
3009	Mady	1092	Y	-0.1
3010	Mady	1095	Y	0.0
3011	Mady	1099	Y	-0.1
3012	Mady	1101	Y	0.0
3013	Mady	1104	Y	0.0
3014	Mady	1107	Y	0.0
3015	Mady	1110	Y	0.0
3016	Mady	1113	Y	0.0
3017	Mady	1117	Y	0.0
3018	Mady	1119	Y	0.0
3019	Mady	1122	Y	0.1
3020	Mady	1125	Y	0.1
3021	Mady	1128	Y	0.1
3022	Mady	1131	Y	0.1
3023	Mady	1135	Y	0.1
3024	Mady	1137	Y	0.2
3025	Mady	1140	Y	0.2
3026	Mady	1143	Y	0.2
3027	Mady	1146	Y	0.2
3028	Mady	1149	Y	0.1
3029	Mady	1153	Y	0.3
3030	Mady	1155	Y	0.3
3031	Mady	1158	Y	0.3
3032	Mady	1161	Y	0.4
3033	Mady	1164	Y	0.4
3034	Mady	1167	Y	0.4
3035	Mady	1170	Y	0.0
3036	Mady	1173	Y	0.0
3037	Mady	1176	Y	0.0
3038	Mady	1179	Y	0.0
3039	Mady	1182	Y	0.1
3040	Mady	1185	Y	0.1
3041	Mady	1188	Y	0.1
3042	Mady	1191	Y	0.1
3043	Mady	1194	Y	0.2
3044	Mady	1197	Y	0.2
3045	Mady	1200	Y	0.2
3046	Mady	1203	Y	0.2
3047	Mady	1206	Y	0.2
3048	Mady	1209	Y	0.0
3049	Mady	1212	Y	0.0
3050	Mady	1215	Y	0.0
3051	Mady	1219	Y	0.0
3052	Mady	1221	Y	0.1
3053	Mady	1224	Y	0.1
3054	Mady	1227	Y	0.1
3055	Mady	1230	Y	0.2
3056	Mady	1234	Y	0.1
3057	Mady	1236	Y	0.1
3058	Mady	1239	Y	0.2
3059	Mady	1242	Y	0.2
3060	Mady	1245	Y	0.2
3061	Mady	1248	Y	0.2
3062	Mady	1251	Y	0.3
3063	Mady	1255	Y	0.2
3064	Mady	1258	Y	0.2
3065	Mady	1261	Y	0.2
3066	Mady	1264	Y	0.2
3067	Mady	1267	Y	0.2
3068	Mady	1270	Y	0.0
3069	Mady	1273	Y	0.0
3070	Mady	1276	Y	0.0
3071	Mady	1279	Y	0.0
3072	Mady	1282	Y	0.0
3073	Mady	1285	Y	0.0
3074	Mady	1288	Y	0.0
3075	Mady	1291	Y	0.0
3076	Mady	1294	Y	0.0
3077	Mady	1297	Y	0.0
3078	Mady	1300	Y	0.1

3079	Mady	1303	Y	0.1
3080	Mady	1306	Y	0.1
3081	Mady	1309	Y	0.1
3082	Mady	1312	Y	0.1
3083	Mady	1314	Y	0.1
3084	Mady	1318	Y	0.1
3085	Mady	1321	Y	0.1
3086	Mady	1324	Y	0.1
3087	Mady	1327	Y	0.1
3088	Mady	1330	Y	0.2
3089	Mady	1333	Y	0.2
3090	Mady	1336	Y	0.2
3091	Mady	1339	Y	0.2
3092	Mady	1342	Y	0.2
3093	Mady	1345	Y	0.2
3094	Mady	1348	Y	0.2
3095	Mady	1351	Y	0.2
3096	Mady	1354	Y	0.2
3097	Mady	1357	Y	0.2
3098	Mady	1360	Y	0.2
3099	Mady	1363	Y	0.2
3100	Mady	1366	Y	0.2
3101	Mady	1369	Y	0.2
3102	Mady	1372	Y	0.2
3103	Mady	1375	Y	0.3
3104	Mady	1378	Y	0.3
3105	Mady	1381	Y	0.3
3106	Mady	1384	Y	0.3
3107	Mady	1387	Y	0.4
3108	Mady	1390	Y	0.4
3109	Mady	1393	Y	0.6
3110	Mady	1396	Y	0.4
3111	Mady	1399	Y	0.4
3112	Mady	1402	Y	0.4
3113	Mady	1405	Y	0.6
3114	Mady	1408	Y	0.4
3115	Mady	1411	Y	0.2
3116	Mady	1413	Y	0.3
3117	Mady	1416	Y	0.3
3118	Mady	1419	Y	0.3
3119	Mady	1422	Y	0.3
3120	Mady	1425	Y	0.3
3121	Mady	1428	Y	0.3
3122	Mady	1431	Y	0.3
3123	Mady	1434	Y	0.4
3124	Mady	1440	Y	0.2
3125	Mady	1443	Y	0.3
3126	Mady	1455	Y	-0.2
3127	Mady	16	Y	-11.6
3128	Mady	18	Y	-12.3
3129	Mady	20	Y	-5.7
3130	Mady	22	Y	-9.8
3131	Mady	24	Y	-1.3
3132	Mady	26	Y	1.6
3133	Mady	28	Y	3.8
3134	Mady	30	Y	16.1
3135	Mady	32	Y	8.8
3136	Mady	34	Y	12.8
3137	Mady	40	Y	13.3
3138	Mady	42	Y	15.5
3139	Mady	48	Y	21.6
3140	Mady	50	Y	9.0
3141	Mady	52	Y	18.1
3142	Mady	54	Y	18.0
3143	Mady	96	Y	-4.4
3144	Mady	98	Y	-5.5
3145	Mady	100	Y	-13.0
3146	Mady	110	Y	-4.4
3147	Mady	113	Y	-4.1
3148	Mady	116	Y	-3.8
3149	Mady	120	Y	-3.5
3150	Mady	123	Y	-3.1
3151	Mady	126	Y	-2.8
3152	Mady	202	Y	4.6
3153	Mady	206	Y	8.9
3154	Mady	209	Y	9.7
3155	Mady	212	Y	10.4
3156	Mady	215	Y	11.1
3157	Mady	240	Y	12.8
3158	Mady	243	Y	11.9
3159	Mady	246	Y	11.1
3160	Mady	249	Y	10.2
3161	Mady	271	Y	5.2
3162	Mady	274	Y	5.7
3163	Mady	278	Y	6.2
3164	Mady	281	Y	6.6
3165	Mady	285	Y	21.7
3166	Mady	288	Y	21.7

3167	MadY	291	Y	21.7
3168	MadY	294	Y	21.7
3169	MadY	297	Y	21.7
3170	MadY	402	Y	-7.2
3171	MadY	405	Y	-8.2
3172	MadY	408	Y	-9.2
3173	MadY	495	Y	-2.3
3174	MadY	498	Y	-1.9
3175	MadY	501	Y	-1.5
3176	MadY	504	Y	-2.7
3177	MadY	508	Y	-0.4
3178	MadY	511	Y	0.0
3179	MadY	514	Y	0.8
3180	MadY	517	Y	0.6
3181	MadY	520	Y	1.5
3182	MadY	523	Y	4.4
3183	MadY	526	Y	1.9
3184	MadY	529	Y	2.2
3185	MadY	532	Y	1.9
3186	MadY	535	Y	7.2
3187	MadY	538	Y	3.3
3188	MadY	541	Y	3.6
3189	MadY	544	Y	3.9
3190	MadY	648	Y	-3.8
3191	MadY	651	Y	-3.4
3192	MadY	654	Y	-3.4
3193	MadY	657	Y	-3.4
3194	MadY	660	Y	-3.4
3195	MadY	663	Y	-3.4
3196	MadY	666	Y	-3.4
3197	MadY	669	Y	-3.4
3198	MadY	681	Y	0.6
3199	MadY	684	Y	1.0
3200	MadY	687	Y	1.0
3201	MadY	690	Y	1.0
3202	MadY	693	Y	1.0
3203	MadY	696	Y	1.0
3204	MadY	699	Y	1.0
3205	MadY	702	Y	1.0
3206	MadY	705	Y	1.0
3207	MadY	722	Y	3.0
3208	MadY	725	Y	5.3
3209	MadY	728	Y	5.3
3210	MadY	731	Y	5.3
3211	MadY	734	Y	5.3
3212	MadY	737	Y	5.3
3213	MadY	740	Y	5.3
3214	MadY	743	Y	5.3
3215	MadY	746	Y	5.3
3216	MadY	749	Y	-6.2
3217	MadY	752	Y	-6.2
3218	MadY	755	Y	-12.8
3219	MadY	758	Y	-12.8
3220	MadY	761	Y	-12.8
3221	MadY	764	Y	-12.8
3222	MadY	767	Y	-10.7
3223	MadY	769	Y	-8.6
3224	MadY	773	Y	-13.5
3225	MadY	776	Y	-13.5
3226	MadY	779	Y	-13.5
3227	MadY	782	Y	-12.0
3228	MadY	783	Y	-13.7
3229	MadY	788	Y	-16.2
3230	MadY	791	Y	-17.3
3231	MadY	794	Y	-14.8
3232	MadY	797	Y	-7.4
3233	MadY	800	Y	-6.9
3234	MadY	803	Y	-3.9
3235	MadY	806	Y	-6.8
3236	MadY	809	Y	-6.8
3237	MadY	812	Y	-6.8
3238	MadY	815	Y	-15.9
3239	MadY	818	Y	-5.6
3240	MadY	821	Y	-5.6
3241	MadY	824	Y	-5.6
3242	MadY	827	Y	-15.0
3243	MadY	830	Y	-5.4
3244	MadY	833	Y	-6.2
3245	MadY	836	Y	-9.8
3246	MadY	839	Y	-6.2
3247	MadY	842	Y	-6.2
3248	MadY	845	Y	-19.1
3249	MadY	848	Y	-17.7
3250	MadY	851	Y	-16.8
3251	MadY	854	Y	-15.8
3252	MadY	857	Y	-15.6
3253	MadY	858	Y	-12.3
3254	MadY	863	Y	-10.6

3255	MadY	866	Y	-9.2
3256	MadY	869	Y	-7.6
3257	MadY	871	Y	-6.7
3258	MadY	875	Y	-3.9
3259	MadY	878	Y	-3.9
3260	MadY	880	Y	-11.2
3261	MadY	884	Y	-15.9
3262	MadY	887	Y	-17.9
3263	MadY	890	Y	-19.2
3264	MadY	893	Y	-20.5
3265	MadY	896	Y	-21.8
3266	MadY	899	Y	-18.4
3267	MadY	902	Y	-17.3
3268	MadY	905	Y	-16.2
3269	MadY	908	Y	-15.2
3270	MadY	911	Y	-14.2
3271	MadY	914	Y	-20.7
3272	MadY	917	Y	-0.8
3273	MadY	920	Y	-0.8
3274	MadY	923	Y	-0.8
3275	MadY	926	Y	-1.0
3276	MadY	929	Y	-1.0
3277	MadY	932	Y	-1.0
3278	MadY	933	Y	-2.8
3279	MadY	936	Y	-8.9
3280	MadY	941	Y	-5.6
3281	MadY	944	Y	-5.1
3282	MadY	947	Y	-4.6
3283	MadY	950	Y	-4.4
3284	MadY	951	Y	-6.2
3285	MadY	956	Y	-0.9
3286	MadY	959	Y	-0.9
3287	MadY	962	Y	-0.8
3288	MadY	965	Y	-14.9
3289	MadY	968	Y	-0.7
3290	MadY	971	Y	-0.6
3291	MadY	974	Y	-0.5
3292	MadY	977	Y	-1.7
3293	MadY	978	Y	-6.8
3294	MadY	983	Y	-12.8
3295	MadY	986	Y	-12.8
3296	MadY	989	Y	-12.8
3297	MadY	992	Y	-12.8
3298	MadY	995	Y	-11.1
3299	MadY	998	Y	-11.1
3300	MadY	1001	Y	-11.1
3301	MadY	1004	Y	-11.1
3302	MadY	1007	Y	-6.2
3303	MadY	1010	Y	-6.2
3304	MadY	1013	Y	-7.3
3305	MadY	1016	Y	-7.3
3306	MadY	1019	Y	-7.3
3307	MadY	1022	Y	-7.3
3308	MadY	1025	Y	-3.5
3309	MadY	1028	Y	-4.3
3310	MadY	1031	Y	-6.2
3311	MadY	1034	Y	-2.1
3312	MadY	1037	Y	-7.3
3313	MadY	1040	Y	-2.1
3314	MadY	1043	Y	-2.1
3315	MadY	1046	Y	-2.1
3316	MadY	1049	Y	-14.6
3317	MadY	1052	Y	-11.0
3318	MadY	1055	Y	-9.8
3319	MadY	1058	Y	-8.7
3320	MadY	1061	Y	-2.1
3321	MadY	1064	Y	-1.7
3322	MadY	1067	Y	-1.4
3323	MadY	1070	Y	-2.2
3324	MadY	1073	Y	-2.2
3325	MadY	1076	Y	-2.8
3326	MadY	1079	Y	-2.3
3327	MadY	1082	Y	-2.3
3328	MadY	1085	Y	-1.9
3329	MadY	1086	Y	-2.3
3330	MadY	1091	Y	-2.1
3331	MadY	1094	Y	-2.1
3332	MadY	1097	Y	-2.8
3333	MadY	1098	Y	-2.2
3334	MadY	1103	Y	-1.5
3335	MadY	1106	Y	-0.9
3336	MadY	1109	Y	-0.4
3337	MadY	1112	Y	0.1
3338	MadY	1115	Y	0.5
3339	MadY	1116	Y	0.9
3340	MadY	1121	Y	0.9
3341	MadY	1124	Y	1.2
3342	MadY	1127	Y	1.6

3343	MadY	1130	Y	2.0
3344	MadY	1133	Y	2.6
3345	MadY	1134	Y	6.0
3346	MadY	1139	Y	2.9
3347	MadY	1142	Y	3.3
3348	MadY	1145	Y	3.6
3349	MadY	1148	Y	4.0
3350	MadY	1151	Y	4.8
3351	MadY	1152	Y	12.0
3352	MadY	1157	Y	5.2
3353	MadY	1160	Y	5.7
3354	MadY	1163	Y	9.0
3355	MadY	1166	Y	6.2
3356	MadY	1169	Y	6.6
3357	MadY	1172	Y	-0.1
3358	MadY	1175	Y	-0.1
3359	MadY	1178	Y	0.0
3360	MadY	1181	Y	1.0
3361	MadY	1184	Y	0.2
3362	MadY	1187	Y	0.3
3363	MadY	1190	Y	0.4
3364	MadY	1193	Y	0.4
3365	MadY	1196	Y	5.9
3366	MadY	1199	Y	0.6
3367	MadY	1202	Y	0.7
3368	MadY	1205	Y	0.8
3369	MadY	1208	Y	0.9
3370	MadY	1211	Y	-0.1
3371	MadY	1214	Y	-0.1
3372	MadY	1217	Y	0.0
3373	MadY	1218	Y	1.2
3374	MadY	1223	Y	0.2
3375	MadY	1226	Y	0.3
3376	MadY	1229	Y	0.4
3377	MadY	1232	Y	5.2
3378	MadY	1233	Y	1.6
3379	MadY	1238	Y	0.5
3380	MadY	1241	Y	5.2
3381	MadY	1244	Y	0.6
3382	MadY	1247	Y	0.7
3383	MadY	1250	Y	0.7
3384	MadY	1253	Y	8.4
3385	MadY	1256	Y	10.6
3386	MadY	1259	Y	10.6
3387	MadY	1262	Y	13.4
3388	MadY	1265	Y	11.5
3389	MadY	1268	Y	11.5
3390	MadY	1271	Y	1.4
3391	MadY	1274	Y	1.6
3392	MadY	1277	Y	1.6
3393	MadY	1280	Y	1.6
3394	MadY	1283	Y	1.6
3395	MadY	1286	Y	1.1
3396	MadY	1289	Y	1.8
3397	MadY	1292	Y	1.8
3398	MadY	1295	Y	1.8
3399	MadY	1298	Y	1.8
3400	MadY	1301	Y	9.3
3401	MadY	1304	Y	9.3
3402	MadY	1307	Y	9.3
3403	MadY	1310	Y	9.3
3404	MadY	1313	Y	9.3
3405	MadY	1315	Y	7.0
3406	MadY	1319	Y	9.7
3407	MadY	1322	Y	9.7
3408	MadY	1325	Y	9.7
3409	MadY	1328	Y	9.7
3410	MadY	1331	Y	18.9
3411	MadY	1334	Y	18.9
3412	MadY	1337	Y	18.9
3413	MadY	1340	Y	18.9
3414	MadY	1343	Y	20.5
3415	MadY	1346	Y	9.4
3416	MadY	1349	Y	9.4
3417	MadY	1352	Y	9.4
3418	MadY	1355	Y	9.4
3419	MadY	1358	Y	9.4
3420	MadY	1361	Y	9.4
3421	MadY	1364	Y	9.4
3422	MadY	1367	Y	9.4
3423	MadY	1370	Y	6.2
3424	MadY	1373	Y	6.2
3425	MadY	1376	Y	11.0
3426	MadY	1379	Y	6.8
3427	MadY	1382	Y	6.8
3428	MadY	1385	Y	6.8
3429	MadY	1388	Y	5.9
3430	MadY	1391	Y	5.9

3431	MadY	1394	Y	18.5
3432	MadY	1397	Y	6.5
3433	MadY	1400	Y	6.5
3434	MadY	1403	Y	6.5
3435	MadY	1406	Y	18.6
3436	MadY	1409	Y	6.7
3437	MadY	1410	Y	8.3
3438	MadY	1415	Y	13.4
3439	MadY	1418	Y	14.4
3440	MadY	1421	Y	15.5
3441	MadY	1424	Y	16.5
3442	MadY	1427	Y	12.8
3443	MadY	1430	Y	13.8
3444	MadY	1433	Y	14.9
3445	MadY	1436	Y	15.9
3446	MadY	1439	Y	9.9
3447	MadY	1444	Y	10.6
3448	MadY	1456	Y	-6.7
3449	MadY	1975	Y	-4.8
3450	MadY	1976	Y	-3.1
3451	MadY	1977	Y	-3.1
3452	MadY	1978	Y	-7.0
3453	MadY	1979	Y	-4.1
3454	MadY	1980	Y	-1.3
3455	MadY	1981	Y	-1.3
3456	MadY	1982	Y	-2.0
3457	MadY	1983	Y	-3.7
3458	MadY	1445	Y	-72.0
3459	MadY	1446	Y	-103.8
3460	MadY	1448	Y	-9.4
3461	MadY	1449	Y	-124.2
3462	MadY	1450	Y	-16.9
3463	MadY	1451	Y	-96.5
3464	MadY	1452	Y	-37.0
3465	MadY	1453	Y	-13.3
3466	MadY	1459	Y	-3.2
3467	MadY	1779	Y	-32.0
3468	MadY	1780	Y	73.8
3469	MadY	1781	Y	61.4
3470	MadY	1782	Y	97.8
3471	MadY	1783	Y	62.3
3472	MadY	1784	Y	46.6
3473	MadY	1785	Y	152.4
3474	MadY	1786	Y	94.2
3475	MadY	1787	Y	75.1
3476	MadY	1788	Y	75.1
3477	MadY	1789	Y	-21.5
3478	MadY	1790	Y	-19.2
3479	MadY	1794	Y	-3.5
3480	MadY	1795	Y	-70.8
3481	MadY	1796	Y	-53.9
3482	MadY	1797	Y	-10.2
3483	MadY	1798	Y	-28.7
3484	MadY	1799	Y	-16.4
3485	MadY	1800	Y	-21.3
3486	MadY	1802	Y	-150.1
3487	MadY	1803	Y	-33.6
3488	MadY	1804	Y	-1.8
3489	MadY	1805	Y	-1.7
3490	MadY	1806	Y	-2.3
3491	MadY	1808	Y	35.0
3492	MadY	1809	Y	85.8
3493	MadY	1810	Y	94.2
3494	MadY	1811	Y	4.3
3495	MadY	1812	Y	7.3
3496	MadY	1813	Y	8.9
3497	MadY	1814	Y	119.7
3498	MadY	1815	Y	18.1
3499	MadY	1816	Y	112.7
3500	MadY	1817	Y	15.6
3501	MadY	1818	Y	12.4
3502	MadY	1819	Y	9.9
3503	MadY	1820	Y	-15.2
3504	MadY	1801	Y	-21.0
3505	MadY	1807	Y	2.9
3506	MadY	1575	Y	-32.0
3507	MadY	1578	Y	-18.9
3508	MadY	1581	Y	-113.5
3509	MadY	1590	Y	-131.3
3510	MadY	1599	Y	-120.7
3511	MadY	1606	Y	-46.9
3512	MadY	1609	Y	-93.7
3513	MadY	1611	Y	-41.4
3514	MadY	1615	Y	-7.4
3515	MadY	1639	Y	-94.4
3516	MadY	1652	Y	-5.8
3517	MadY	1669	Y	-3.1
3518	MadY	1672	Y	-11.3



3519	MadY	1679	Y	0.6
3520	MadY	1680	Y	1.8
3521	MadY	1681	Y	12.7
3522	MadY	1686	Y	53.4
3523	MadY	1691	Y	44.5
3524	MadY	1699	Y	32.7
3525	MadY	1715	Y	13.7
3526	MadY	1721	Y	16.3
3527	MadY	1746	Y	119.7
3528	MadY	1737	Y	66.5
3529	MadY	1923	Y	-2.6
3530	MadY	1924	Y	-2.0
3531	MadY	1925	Y	-1.5
3532	MadY	1927	Y	-0.1
3533	MadY	1928	Y	1.5
3534	MadY	1929	Y	2.2
3535	MadY	1931	Y	8.2
3536	MadY	1932	Y	10.0
3537	MadY	1933	Y	10.8
3538	MadY	1935	Y	16.9
3539	MadY	1936	Y	15.7
3540	MadY	1937	Y	17.1
3541	MadY	1938	Y	18.5
3542	MadY	1948	Y	-2.5
3543	MadY	1949	Y	-2.5
3544	MadY	1950	Y	-3.0
3545	MadY	1951	Y	-3.0
3546	MadY	1952	Y	-3.0
3547	MadY	1953	Y	-3.0
3548	MadY	1954	Y	-8.6
3549	MadY	1955	Y	-8.6
3550	MadY	1962	Y	7.1
3551	MadY	1963	Y	7.1
3552	MadY	1964	Y	7.1
3553	MadY	1965	Y	6.5
3554	MadY	1966	Y	6.5
3555	MadY	1967	Y	7.3
3556	MadY	1972	Y	11.5
3557	MadY	1973	Y	-1.9
3558	MadY	1974	Y	6.7
3559	MadY	1987	Y	-23.3
3560	MadY	1991	Y	-14.2
3561	MadY	1992	Y	-8.8
3562	MadY	1823	Y	-279.6
3563	MadY	1828	Y	-293.0
3564	MadY	1844	Y	314.9
3565	MadY	1846	Y	-49.0
3566	MadY	1898	Y	7.7
3567	MadY	1900	Y	5.3
3568	MadY	1902	Y	6.2
3569	MadY	1905	Y	-3.9
3570	MadY	1907	Y	-3.6
3571	MadY	1909	Y	-53.5
3572	MadY	1875	Y	-6.3
3573	MadY	1880	Y	19.2
3574	MadY	1838	Y	375.3
3575	MadY	1833	Y	40.9
3576	MadY	1855	Y	-8.5
3577	MadY	1864	Y	31.6
3578	MadY	1882	Y	76.4
3579	MadY	1886	Y	51.7
3580	MadY	1906	Y	-5.2
3581	MadY	1908	Y	-4.9
3582	MadY	1899	Y	1.5
3583	MadY	1910	Y	-89.2
3584	MadY	1911	Y	-77.8
3585	MadY	1912	Y	-66.5
3586	MadY	1914	Y	-35.1
3587	MadY	1915	Y	-21.7
3588	MadY	1917	Y	18.9
3589	MadY	1918	Y	39.6
3590	MadY	1920	Y	74.1
3591	MadY	1921	Y	83.0
3592	MadY	1922	Y	92.0
3593	MadY	1939	Y	31.1
3594	MadY	1940	Y	-3.3
3595	MadY	1941	Y	-3.3
3596	MadY	1942	Y	-3.8
3597	MadY	1943	Y	-3.8
3598	MadY	1944	Y	-3.8
3599	MadY	1945	Y	-3.8
3600	MadY	1946	Y	-3.5
3601	MadY	1947	Y	-3.5
3602	MadY	1956	Y	4.7
3603	MadY	1957	Y	4.7
3604	MadY	1958	Y	4.7
3605	MadY	1959	Y	4.4
3606	MadY	1960	Y	4.4

3607	Mady	1961	Y	4.8
3608	Mady	1969	Y	-75.6
3609	Mady	1970	Y	11.7
3610	Mady	1971	Y	89.2
3611	Mady	1984	Y	-54.6
3612	Mady	1985	Y	-61.4
3613	Mady	1986	Y	-61.3
3614	Mady	1988	Y	-36.4
3615	Mady	1989	Y	-41.0
3616	Mady	1990	Y	-40.9

CARICHI DI SOLAIO-|-----|-----|-----|-----|num.= 42

Nome	Cos X	Cos Y	Cos Z	Cond.	Rifer.	Intens.	Quota
1	-1.0000	0.0042	0.0000	1	glob	-400.0	160.00
2	-1.0000	-0.0077	0.0000	1	glob	-400.0	160.00
3	-1.0000	0.0009	0.0000	1	glob	-400.0	160.00
4	-1.0000	0.0000	0.0000	1	glob	-400.0	490.00
5	0.0000	1.0000	0.0000	1	glob	-400.0	160.00
6	0.0000	1.0000	0.0000	1	glob	-400.0	490.00
7	0.0000	-1.0000	0.0000	1	glob	-400.0	490.00
8	-1.0000	0.0042	0.0000	1	glob	-300.0	160.00
9	-1.0000	-0.0077	0.0000	1	glob	-300.0	160.00
10	-1.0000	0.0009	0.0000	1	glob	-300.0	160.00
11	-1.0000	0.0000	0.0000	1	glob	-300.0	490.00
12	0.0000	1.0000	0.0000	1	glob	-300.0	160.00
13	0.0000	1.0000	0.0000	1	glob	-300.0	490.00
14	0.0000	-1.0000	0.0000	1	glob	-300.0	490.00
15	0.0000	1.0000	0.0000	1	glob	-400.0	490.00
16	0.0000	1.0000	0.0000	1	glob	-400.0	490.00
17	0.0000	0.0000	0.0000	1	glob	-400.0	0.00
18	0.0000	0.0000	0.0000	1	glob	-400.0	0.00
19	0.0000	0.0000	0.0000	1	glob	-400.0	0.00
20	0.0000	0.0000	0.0000	1	glob	-400.0	0.00
21	0.0000	1.0000	0.0000	1	glob	-200.0	490.00
22	0.0000	1.0000	0.0000	1	glob	-200.0	490.00
23	0.0000	0.0000	0.0000	1	glob	-200.0	0.00
24	0.0000	0.0000	0.0000	1	glob	-200.0	0.00
25	0.0000	0.0000	0.0000	1	glob	-200.0	0.00
26	0.0000	0.0000	0.0000	1	glob	-200.0	0.00
27	0.0000	0.0000	0.0000	1	glob	-700.0	0.00
28	0.0000	0.0000	0.0000	1	glob	-200.0	0.00
29	-1.0000	0.0042	0.0000	2	glob	-500.0	160.00
30	-1.0000	-0.0077	0.0000	2	glob	-500.0	160.00
31	-1.0000	0.0009	0.0000	2	glob	-500.0	160.00
32	-1.0000	0.0000	0.0000	2	glob	-500.0	490.00
33	0.0000	1.0000	0.0000	2	glob	-500.0	160.00
34	0.0000	1.0000	0.0000	2	glob	-500.0	490.00
35	0.0000	-1.0000	0.0000	2	glob	-500.0	490.00
36	0.0000	1.0000	0.0000	4	glob	-200.0	490.00
37	0.0000	1.0000	0.0000	4	glob	-200.0	490.00
38	0.0000	0.0000	0.0000	4	glob	-200.0	0.00
39	0.0000	0.0000	0.0000	4	glob	-200.0	0.00
40	0.0000	0.0000	0.0000	4	glob	-200.0	0.00
41	0.0000	0.0000	0.0000	4	glob	-200.0	0.00
42	0.0000	0.0000	0.0000	4	glob	-200.0	0.00

CARICHI ASTE-----|-----|-----|-----|num.= 2088

Nome	Asta	Dir	Tip	RIF	Parametro 1	Parametro 2	Parametro 3	Parametro 4
3617	TAMPONATURE				426	Z	FD glo	-800.0
3618	TAMPONATURE				427	Z	FD glo	-800.0
3619	TAMPONATURE				428	Z	FD glo	-800.0
3620	TAMPONATURE				429	Z	FD glo	-800.0
3621	TAMPONATURE				430	Z	FD glo	-800.0
3622	TAMPONATURE				431	Z	FD glo	-800.0
3623	TAMPONATURE				432	Z	FD glo	-800.0
3624	TAMPONATURE				433	Z	FD glo	-800.0
3625	TAMPONATURE				434	Z	FD glo	-800.0
3626	TAMPONATURE				434	Z	FD glo	-800.0
3627	TAMPONATURE				435	Z	FD glo	-800.0
3628	TAMPONATURE				436	Z	FD glo	-800.0
3629	TAMPONATURE				437	Z	FD glo	-800.0
3630	TAMPONATURE				168	Z	FD glo	-800.0
3631	TAMPONATURE				169	Z	FD glo	-800.0
3632	TAMPONATURE				170	Z	FD glo	-800.0
3633	TAMPONATURE				171	Z	FD glo	-800.0
3634	TAMPONATURE				439	Z	FD glo	-800.0
3635	TAMPONATURE				440	Z	FD glo	-800.0
3636	TAMPONATURE				441	Z	FD glo	-800.0
3637	TAMPONATURE				442	Z	FD glo	-800.0
3638	TAMPONATURE				443	Z	FD glo	-800.0
3639	TAMPONATURE				444	Z	FD glo	-800.0
3640	TAMPONATURE				498	Z	FD glo	-800.0
3641	TAMPONATURE				269	Z	FD glo	-800.0
3642	TAMPONATURE				545	Z	FD glo	-800.0
3643	TAMPONATURE				546	Z	FD glo	-800.0
3644	TAMPONATURE				547	Z	FD glo	-800.0
3645	TAMPONATURE				548	Z	FD glo	-800.0
3646	TAMPONATURE				549	Z	FD glo	-800.0

3647	TAMPONATURE	550	Z	FD	glo	-800.0
3648	TAMPONATURE	551	Z	FD	glo	-800.0
3649	TAMPONATURE	552	Z	FD	glo	-800.0
3650	TAMPONATURE	553	Z	FD	glo	-800.0
3651	TAMPONATURE	554	Z	FD	glo	-800.0
3652	TAMPONATURE	555	Z	FD	glo	-800.0
3653	TAMPONATURE	545	Z	FD	glo	-800.0
3654	TAMPONATURE	556	Z	FD	glo	-800.0
3655	TAMPONATURE	557	Z	FD	glo	-800.0
3656	TAMPONATURE	558	Z	FD	glo	-800.0
3657	TAMPONATURE	559	Z	FD	glo	-800.0
3658	TAMPONATURE	559	Z	FD	glo	-800.0
3659	TAMPONATURE	560	Z	FD	glo	-800.0
3660	TAMPONATURE	561	Z	FD	glo	-800.0
3661	TAMPONATURE	563	Z	FD	glo	-800.0
3662	TAMPONATURE	564	Z	FD	glo	-800.0
3663	TAMPONATURE	565	Z	FD	glo	-800.0
3664	TAMPONATURE	566	Z	FD	glo	-800.0
3665	TAMPONATURE	567	Z	FD	glo	-800.0
3666	TAMPONATURE	568	Z	FD	glo	-800.0
3667	TAMPONATURE	570	Z	FD	glo	-800.0
3668	TAMPONATURE	571	Z	FD	glo	-800.0
3669	TAMPONATURE	572	Z	FD	glo	-800.0
3670	TAMPONATURE	573	Z	FD	glo	-800.0
3671	TAMPONATURE	574	Z	FD	glo	-800.0
3672	TAMPONATURE	575	Z	FD	glo	-800.0
3673	TAMPONATURE	576	Z	FD	glo	-800.0
3674	TAMPONATURE	577	Z	FD	glo	-800.0
3675	TAMPONATURE	578	Z	FD	glo	-800.0
3676	TAMPONATURE	579	Z	FD	glo	-800.0
3677	TAMPONATURE	580	Z	FD	glo	-800.0
3678	TAMPONATURE	690	Z	FD	glo	-800.0
3679	TAMPONATURE	121	Z	FD	glo	-800.0
3680	TAMPONATURE	122	Z	FD	glo	-800.0
3681	TAMPONATURE	123	Z	FD	glo	-800.0
3682	TAMPONATURE	124	Z	FD	glo	-800.0
3683	TAMPONATURE	125	Z	FD	glo	-800.0
3684	TAMPONATURE	126	Z	FD	glo	-800.0
3685	TAMPONATURE	115	Z	FD	glo	-800.0
3686	TAMPONATURE	116	Z	FD	glo	-800.0
3687	TAMPONATURE	117	Z	FD	glo	-800.0
3688	TAMPONATURE	118	Z	FD	glo	-800.0
3689	TAMPONATURE	119	Z	FD	glo	-800.0
3690	TAMPONATURE	120	Z	FD	glo	-800.0
3691	TAMPONATURE	649	Z	FD	glo	-800.0
3692	TAMPONATURE	650	Z	FD	glo	-800.0
3693	TAMPONATURE	651	Z	FD	glo	-800.0
3694	TAMPONATURE	663	Z	FD	glo	-800.0
3695	TAMPONATURE	670	Z	FD	glo	-800.0
3696	TAMPONATURE	671	Z	FD	glo	-800.0
3697	TAMPONATURE	672	Z	FD	glo	-800.0
3698	TAMPONATURE	673	Z	FD	glo	-800.0
3699	TAMPONATURE	674	Z	FD	glo	-800.0
3700	TAMPONATURE	675	Z	FD	glo	-800.0
3701	TAMPONATURE	102	Z	FD	glo	-800.0
3702	TAMPONATURE	103	Z	FD	glo	-800.0
3703	TAMPONATURE	104	Z	FD	glo	-800.0
3704	TAMPONATURE	105	Z	FD	glo	-800.0
3705	TAMPONATURE	106	Z	FD	glo	-800.0
3706	TAMPONATURE	679	Z	FD	glo	-800.0
3707	TAMPONATURE	680	Z	FD	glo	-800.0
3708	TAMPONATURE	681	Z	FD	glo	-800.0
3709	TAMPONATURE	682	Z	FD	glo	-800.0
3710	TAMPONATURE	683	Z	FD	glo	-800.0
3711	TAMPONATURE	684	Z	FD	glo	-800.0
3712	TAMPONATURE	685	Z	FD	glo	-800.0
3713	TAMPONATURE	686	Z	FD	glo	-800.0
3714	TAMPONATURE	687	Z	FD	glo	-800.0
3715	TAMPONATURE	88	Z	FD	glo	-800.0
3716	TAMPONATURE	89	Z	FD	glo	-800.0
3717	TAMPONATURE	90	Z	FD	glo	-800.0
3718	TAMPONATURE	91	Z	FD	glo	-800.0
3719	TAMPONATURE	92	Z	FD	glo	-800.0
3720	TAMPONATURE	86	Z	FD	glo	-800.0
3721	TAMPONATURE	87	Z	FD	glo	-800.0
3722	TAMPONATURE	206	Z	FD	glo	-800.0
3723	TAMPONATURE	207	Z	FD	glo	-800.0
3724	TAMPONATURE	424	Z	FD	glo	-800.0
3725	TAMPONATURE	209	Z	FD	glo	-800.0
3726	TAMPONATURE	210	Z	FD	glo	-800.0
3727	TAMPONATURE	211	Z	FD	glo	-800.0
3728	TAMPONATURE	212	Z	FD	glo	-800.0
3729	TAMPONATURE	213	Z	FD	glo	-800.0
3730	TAMPONATURE	214	Z	FD	glo	-800.0
3731	TAMPONATURE	215	Z	FD	glo	-800.0
3732	TAMPONATURE	216	Z	FD	glo	-800.0
3733	TAMPONATURE	217	Z	FD	glo	-800.0
3734	TAMPONATURE	218	Z	FD	glo	-800.0

3735	TAMPONATURE	219	Z	FD	glo	-800.0			
3736	TAMPONATURE	220	Z	FD	glo	-800.0			
3737	TAMPONATURE	221	Z	FD	glo	-800.0			
3738	TAMPONATURE	222	Z	FD	glo	-800.0			
3739	TAMPONATURE	223	Z	FD	glo	-800.0			
3740	TAMPONATURE	224	Z	FD	glo	-800.0			
3741	TAMPONATURE	425	Z	FD	glo	-800.0			
3742	TAMPONATURE	226	Z	FD	glo	-800.0			
3743	TAMPONATURE	542	Z	FD	glo	-800.0			
3744	TAMPONATURE	543	Z	FD	glo	-800.0			
3745	TAMPONATURE	544	Z	FD	glo	-800.0			
3746	TAMPONATURE	50	Z	FD	glo	-800.0			
3747	TAMPONATURE	51	Z	FD	glo	-800.0			
3748	TAMPONATURE	52	Z	FD	glo	-800.0			
3749	TAMPONATURE	53	Z	FD	glo	-800.0			
3750	TAMPONATURE	54	Z	FD	glo	-800.0			
3751	TAMPONATURE	55	Z	FD	glo	-800.0			
3752	TAMPONATURE	56	Z	FD	glo	-800.0			
3753	TAMPONATURE	57	Z	FD	glo	-800.0			
3754	TAMPONATURE	506	Z	FD	glo	-800.0			
3755	TAMPONATURE	507	Z	FD	glo	-800.0			
3756	TAMPONATURE	508	Z	FD	glo	-800.0			
3757	TAMPONATURE	509	Z	FD	glo	-800.0			
3758	TAMPONATURE	510	Z	FD	glo	-800.0			
3759	TAMPONATURE	511	Z	FD	glo	-800.0			
3760	TAMPONATURE	512	Z	FD	glo	-800.0			
3761	TAMPONATURE	513	Z	FD	glo	-800.0			
3762	TAMPONATURE	514	Z	FD	glo	-800.0			
3763	TAMPONATURE	688	Z	FD	glo	-800.0			
3764	TAMPONATURE	689	Z	FD	glo	-800.0			
3765	TAMPONATURE	466	Z	FD	glo	-800.0			
3766	TAMPONATURE	467	Z	FD	glo	-800.0			
3767	TAMPONATURE	468	Z	FD	glo	-800.0			
3768	TAMPONATURE	688	Z	FD	glo	-800.0			
3769	TAMPONATURE	445	Z	FD	glo	-800.0			
3770	TAMPONATURE	446	Z	FD	glo	-800.0			
3771	TAMPONATURE	447	Z	FD	glo	-800.0			
3772	TAMPONATURE	448	Z	FD	glo	-800.0			
3773	TAMPONATURE	449	Z	FD	glo	-800.0			
3774	TAMPONATURE	458	Z	FD	glo	-800.0			
3775	TAMPONATURE	459	Z	FD	glo	-800.0			
3776	TAMPONATURE	460	Z	FD	glo	-800.0			
3777	TAMPONATURE	461	Z	FD	glo	-800.0			
3778	TAMPONATURE	462	Z	FD	glo	-800.0			
3779	TAMPONATURE	463	Z	FD	glo	-800.0			
3780	TAMPONATURE	464	Z	FD	glo	-800.0			
3781	TAMPONATURE	465	Z	FD	glo	-800.0			
3782	TAMPONATURE	703	Z	FD	glo	-800.0			
3783	TAMPONATURE	704	Z	FD	glo	-800.0			
3784	TAMPONATURE	501	Z	FD	glo	-800.0			
3785	TAMPONATURE	502	Z	FD	glo	-800.0			
3786	TAMPONATURE	503	Z	FD	glo	-800.0			
3787	TAMPONATURE	504	Z	FD	glo	-800.0			
3788	ppesostrutt.metalli	1791	Z	FD	glo	-200.0			
3789	ppesostrutt.metalli	1792	Z	FD	glo	-200.0			
3790	ppesostrutt.metalli	1793	Z	FD	glo	-200.0			
3791	pesostrutt.metallic	1794	Z	FD	glo	-300.0			
3792	pesostrutt.metallic	1795	Z	FD	glo	-300.0			
3793	ppesostrutt.metalli	1801	Z	FD	glo	-200.0			
3794	ppesostrutt.metalli	1802	Z	FD	glo	-200.0			
3795	ppesostrutt.metalli	1803	Z	FD	glo	-200.0			
3796	ppesostrutt.metalli	1804	Z	FD	glo	-200.0			
3797	ppesostrutt.metalli	1796	Z	FD	glo	-200.0			
3798	ppesostrutt.metalli	1797	Z	FD	glo	-200.0			
3799	ppesostrutt.metalli	1798	Z	FD	glo	-200.0			
3800	ppesostrutt.metalli	1799	Z	FD	glo	-200.0			
3801	ppesostrutt.metalli	1800	Z	FD	glo	-200.0			
3802	TAMPONATURE	1123	Z	FD	glo	-800.0			
3803	TAMPONATURE	1124	Z	FD	glo	-800.0			
3804	TAMPONATURE	1110	Z	FD	glo	-800.0			
3805	TAMPONATURE	1117	Z	FD	glo	-800.0			
3806	TAMPONATURE	1271	Z	FD	glo	-800.0			
3807	TAMPONATURE	1145	Z	FD	glo	-800.0			
3808	S004-P. PROPRIOH=20+5	426	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
3809	S004-P. PROPRIOH=20+5	427	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
3810	S004-P. PROPRIOH=20+5	428	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
3811	S004-P. PROPRIOH=20+5	429	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
3812	S004-P. PROPRIOH=20+5	430	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
3813	S004-P. PROPRIOH=20+5	431	Z	FT	glo	-698.1	-609.2	0.000	0.000
3814	S004-P. PROPRIOH=20+5	432	Z	FT	glo	-609.2	-520.2	0.000	0.000
3815	S004-P. PROPRIOH=20+5	433	Z	FT	glo	-523.7	-428.6	0.000	0.000
3816	S004-P. PROPRIOH=20+5	438	Z	FT	glo	-758.4	-643.0	0.000	0.000
3817	S004-P. PROPRIOH=20+5	451	Z	FT	glo	-1006.9	-1033.3	0.000	0.000
3818	S004-P. PROPRIOH=20+5	452	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
3819	S004-P. PROPRIOH=20+5	453	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
3820	S004-P. PROPRIOH=20+5	454	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
3821	S004-P. PROPRIOH=20+5	455	Z	FT	glo	-1039.4	-966.9	0.000	0.000
3822	S004-P. PROPRIOH=20+5	456	Z	FT	glo	-941.4	-758.4	0.000	0.000



3911	S009-P. PROPRIOH=20+5	302	Z	FT	glo	-1320.0	-1320.0	0.000	0.000
3912	S009-P. PROPRIOH=20+5	303	Z	FT	glo	-1320.0	-1320.0	0.000	0.000
3913	S009-P. PROPRIOH=20+5	304	Z	FT	glo	-1320.0	-1320.0	0.000	0.000
3914	S009-P. PROPRIOH=20+5	305	Z	FT	glo	-1319.9	-1320.2	0.000	0.000
3915	S009-P. PROPRIOH=20+5	498	Z	FT	glo	-700.0	-700.0	0.000	0.000
3916	S009-P. PROPRIOH=20+5	499	Z	FT	glo	-700.0	-700.0	0.000	0.000
3917	S009-P. PROPRIOH=20+5	500	Z	FT	glo	-700.0	-700.0	0.000	0.000
3918	S009-P. PROPRIOH=20+5	529	Z	FT	glo	-700.0	-700.0	0.000	0.000
3919	S009-P. PROPRIOH=20+5	530	Z	FT	glo	-700.0	-700.0	0.000	0.000
3920	S009-P. PROPRIOH=20+5	531	Z	FT	glo	-700.0	-700.0	0.000	0.000
3921	S009-P. PROPRIOH=20+5	532	Z	FT	glo	-700.0	-700.0	0.000	0.000
3922	S009-P. PROPRIOH=20+5	533	Z	FT	glo	-700.0	-700.0	0.000	0.000
3923	S009-P. PROPRIOH=20+5	539	Z	FT	glo	-700.0	-700.0	0.000	0.000
3924	S009-P. PROPRIOH=20+5	540	Z	FT	glo	-700.0	-700.0	0.000	0.000
3925	S009-P. PROPRIOH=20+5	541	Z	FT	glo	-699.7	-700.3	0.000	0.000
3926	S009-P. PROPRIOH=20+5	615	Z	FT	glo	-1280.9	-1281.1	0.000	0.000
3927	S009-P. PROPRIOH=20+5	616	Z	FT	glo	-1281.0	-1281.0	0.000	0.000
3928	S009-P. PROPRIOH=20+5	617	Z	FT	glo	-1281.0	-1281.0	0.000	0.000
3929	S009-P. PROPRIOH=20+5	618	Z	FT	glo	-1281.0	-1281.0	0.000	0.000
3930	S009-P. PROPRIOH=20+5	619	Z	FT	glo	-1281.0	-1281.0	0.000	0.000
3931	S009-P. PROPRIOH=20+5	620	Z	FT	glo	-1281.0	-1281.0	0.000	0.000
3932	S009-P. PROPRIOH=20+5	621	Z	FT	glo	-1281.0	-1281.0	0.000	0.000
3933	S009-P. PROPRIOH=20+5	622	Z	FT	glo	-1281.0	-1281.0	0.000	0.000
3934	S009-P. PROPRIOH=20+5	623	Z	FT	glo	-1281.2	-1280.9	0.000	0.000
3935	S009-P. PROPRIOH=20+5	629	Z	FT	glo	-621.0	-621.0	0.000	0.000
3936	S009-P. PROPRIOH=20+5	630	Z	FT	glo	-621.0	-621.0	0.000	0.000
3937	S009-P. PROPRIOH=20+5	631	Z	FT	glo	-621.0	-621.0	0.000	0.000
3938	S009-P. PROPRIOH=20+5	632	Z	FT	glo	-621.0	-621.0	0.000	0.000
3939	S009-P. PROPRIOH=20+5	673	Z	FT	glo	-621.7	-620.3	0.000	0.000
3940	S009-P. PROPRIOH=20+5	674	Z	FT	glo	-621.0	-621.0	0.000	0.000
3941	S009-P. PROPRIOH=20+5	675	Z	FT	glo	-621.0	-621.0	0.000	0.000
3942	S009-P. PROPRIOH=20+5	676	Z	FT	glo	-621.0	-621.0	0.000	0.000
3943	S009-P. PROPRIOH=20+5	677	Z	FT	glo	-621.0	-621.0	0.000	0.000
3944	S009-P. PROPRIOH=20+5	678	Z	FT	glo	-621.0	-621.0	0.000	0.000
3945	S010-P. PROPRIOH=20+5	550	Z	FT	glo	-735.6	-733.7	0.000	0.000
3946	S010-P. PROPRIOH=20+5	551	Z	FT	glo	-734.7	-734.7	0.000	0.000
3947	S010-P. PROPRIOH=20+5	552	Z	FT	glo	-734.7	-734.7	0.000	0.000
3948	S010-P. PROPRIOH=20+5	553	Z	FT	glo	-734.7	-734.7	0.000	0.000
3949	S010-P. PROPRIOH=20+5	554	Z	FT	glo	-734.7	-734.7	0.000	0.000
3950	S010-P. PROPRIOH=20+5	555	Z	FT	glo	-734.7	-734.7	0.000	0.000
3951	S010-P. PROPRIOH=20+5	597	Z	FT	glo	-1656.1	-1653.3	0.000	0.000
3952	S010-P. PROPRIOH=20+5	598	Z	FT	glo	-1654.7	-1654.7	0.000	0.000
3953	S010-P. PROPRIOH=20+5	599	Z	FT	glo	-1654.7	-1654.7	0.000	0.000
3954	S010-P. PROPRIOH=20+5	600	Z	FT	glo	-1654.7	-1654.7	0.000	0.000
3955	S010-P. PROPRIOH=20+5	601	Z	FT	glo	-1654.0	-1655.4	0.000	0.000
3956	S010-P. PROPRIOH=20+5	649	Z	FT	glo	-946.3	-946.3	0.000	0.000
3957	S010-P. PROPRIOH=20+5	650	Z	FT	glo	-946.3	-946.3	0.000	0.000
3958	S010-P. PROPRIOH=20+5	651	Z	FT	glo	-946.3	-946.3	0.000	0.000
3959	S010-P. PROPRIOH=20+5	665	Z	FT	glo	-1866.3	-1866.3	0.000	0.000
3960	S010-P. PROPRIOH=20+5	666	Z	FT	glo	-1866.3	-1866.3	0.000	0.000
3961	S010-P. PROPRIOH=20+5	667	Z	FT	glo	-1866.3	-1866.3	0.000	0.000
3962	S010-P. PROPRIOH=20+5	668	Z	FT	glo	-1864.9	-1867.8	0.000	0.000
3963	S010-P. PROPRIOH=20+5	670	Z	FT	glo	-946.3	-946.3	0.000	0.000
3964	S010-P. PROPRIOH=20+5	671	Z	FT	glo	-946.3	-946.3	0.000	0.000
3965	S010-P. PROPRIOH=20+5	672	Z	FT	glo	-944.4	-948.3	0.000	0.000
3966	S010-P. PROPRIOH=20+5	692	Z	FT	glo	-1866.3	-1866.3	0.000	0.000
3967	S010-P. PROPRIOH=20+5	693	Z	FT	glo	-1921.2	-1811.4	0.000	0.000
3968	S011-P. PROPRIOH=20+5	121	Z	FT	glo	-1151.0	-1151.0	0.000	0.000
3969	S011-P. PROPRIOH=20+5	122	Z	FT	glo	-1151.0	-1151.0	0.000	0.000
3970	S011-P. PROPRIOH=20+5	123	Z	FT	glo	-1151.0	-1151.0	0.000	0.000
3971	S011-P. PROPRIOH=20+5	124	Z	FT	glo	-1151.0	-1151.0	0.000	0.000
3972	S011-P. PROPRIOH=20+5	125	Z	FT	glo	-1151.0	-1151.0	0.000	0.000
3973	S011-P. PROPRIOH=20+5	126	Z	FT	glo	-1164.8	-1123.3	0.000	0.000
3974	S011-P. PROPRIOH=20+5	545	Z	FT	glo	-734.7	-734.7	0.000	0.000
3975	S011-P. PROPRIOH=20+5	546	Z	FT	glo	-734.7	-734.7	0.000	0.000
3976	S011-P. PROPRIOH=20+5	547	Z	FT	glo	-734.7	-734.7	0.000	0.000
3977	S011-P. PROPRIOH=20+5	548	Z	FT	glo	-734.7	-734.7	0.000	0.000
3978	S011-P. PROPRIOH=20+5	549	Z	FT	glo	-733.6	-735.3	0.000	0.000
3979	S011-P. PROPRIOH=20+5	556	Z	FT	glo	-526.7	-435.9	0.000	0.000
3980	S011-P. PROPRIOH=20+5	557	Z	FT	glo	-435.9	-345.1	0.000	0.000
3981	S011-P. PROPRIOH=20+5	558	Z	FT	glo	-345.1	-254.3	0.000	0.000
3982	S011-P. PROPRIOH=20+5	585	Z	FT	glo	-1438.2	-1274.4	0.000	0.000
3983	S011-P. PROPRIOH=20+5	586	Z	FT	glo	-1602.1	-1438.2	0.000	0.000
3984	S011-P. PROPRIOH=20+5	587	Z	FT	glo	-1666.2	-1626.3	0.000	0.000
3985	S011-P. PROPRIOH=20+5	588	Z	FT	glo	-1654.7	-1654.7	0.000	0.000
3986	S011-P. PROPRIOH=20+5	589	Z	FT	glo	-1654.7	-1654.7	0.000	0.000
3987	S011-P. PROPRIOH=20+5	590	Z	FT	glo	-1654.7	-1654.7	0.000	0.000
3988	S011-P. PROPRIOH=20+5	591	Z	FT	glo	-964.2	-1672.0	0.000	0.000
3989	S011-P. PROPRIOH=20+5	653	Z	FT	glo	-1866.3	-1866.3	0.000	0.000
3990	S011-P. PROPRIOH=20+5	654	Z	FT	glo	-1866.3	-1866.3	0.000	0.000
3991	S011-P. PROPRIOH=20+5	655	Z	FT	glo	-1866.3	-1866.3	0.000	0.000
3992	S011-P. PROPRIOH=20+5	656	Z	FT	glo	-1866.3	-1866.3	0.000	0.000
3993	S011-P. PROPRIOH=20+5	657	Z	FT	glo	-1785.3	-1905.7	0.000	0.000
3994	S011-P. PROPRIOH=20+5	658	Z	FT	glo	-2106.7	-2078.6	0.000	0.000
3995	S011-P. PROPRIOH=20+5	659	Z	FT	glo	-2097.3	-2097.3	0.000	0.000
3996	S011-P. PROPRIOH=20+5	660	Z	FT	glo	-2097.3	-2097.3	0.000	0.000
3997	S011-P. PROPRIOH=20+5	661	Z	FT	glo	-2097.3	-2097.3	0.000	0.000
3998	S011-P. PROPRIOH=20+5	662	Z	FT	glo	-2097.3	-2097.3	0.000	0.000

3999	S011-P. PROPRIOH=20+5	663	Z	FT	glo	-2097.3	-2097.4	0.000	0.000
4000	S011-P. PROPRIOH=20+5	691	Z	FT	glo	-1866.4	-1866.3	0.000	0.000
4001	S012-P. PROPRIOH=20+5	88	Z	FT	glo	-385.0	-385.0	0.000	0.000
4002	S012-P. PROPRIOH=20+5	89	Z	FT	glo	-385.0	-385.0	0.000	0.000
4003	S012-P. PROPRIOH=20+5	90	Z	FT	glo	-385.0	-385.0	0.000	0.000
4004	S012-P. PROPRIOH=20+5	91	Z	FT	glo	-385.0	-385.0	0.000	0.000
4005	S012-P. PROPRIOH=20+5	92	Z	FT	glo	-385.0	-385.0	0.000	0.000
4006	S012-P. PROPRIOH=20+5	102	Z	FT	glo	-510.1	-510.1	0.000	0.000
4007	S012-P. PROPRIOH=20+5	103	Z	FT	glo	-510.1	-510.1	0.000	0.000
4008	S012-P. PROPRIOH=20+5	104	Z	FT	glo	-510.1	-510.1	0.000	0.000
4009	S012-P. PROPRIOH=20+5	105	Z	FT	glo	-510.1	-510.1	0.000	0.000
4010	S012-P. PROPRIOH=20+5	106	Z	FT	glo	-510.1	-510.1	0.000	0.000
4011	S012-P. PROPRIOH=20+5	624	Z	FT	glo	-1130.0	-1130.0	0.000	0.000
4012	S012-P. PROPRIOH=20+5	625	Z	FT	glo	-1130.0	-1130.0	0.000	0.000
4013	S012-P. PROPRIOH=20+5	626	Z	FT	glo	-1130.0	-1130.0	0.000	0.000
4014	S012-P. PROPRIOH=20+5	627	Z	FT	glo	-1130.0	-1130.0	0.000	0.000
4015	S012-P. PROPRIOH=20+5	628	Z	FT	glo	-1130.0	-1130.0	0.000	0.000
4016	S012-P. PROPRIOH=20+5	633	Z	FT	glo	-1255.1	-1255.1	0.000	0.000
4017	S012-P. PROPRIOH=20+5	634	Z	FT	glo	-1255.1	-1255.1	0.000	0.000
4018	S012-P. PROPRIOH=20+5	635	Z	FT	glo	-1255.1	-1255.1	0.000	0.000
4019	S012-P. PROPRIOH=20+5	636	Z	FT	glo	-1255.1	-1255.1	0.000	0.000
4020	S012-P. PROPRIOH=20+5	637	Z	FT	glo	-1255.1	-1255.1	0.000	0.000
4021	S012-P. PROPRIOH=20+5	638	Z	FT	glo	-1255.1	-1255.1	0.000	0.000
4022	S004-per.sott+pavime	426	Z	FT	glo	-765.1	-765.1	0.000	0.000
4023	S004-per.sott+pavime	427	Z	FT	glo	-765.1	-765.1	0.000	0.000
4024	S004-per.sott+pavime	428	Z	FT	glo	-765.1	-765.1	0.000	0.000
4025	S004-per.sott+pavime	429	Z	FT	glo	-765.1	-765.1	0.000	0.000
4026	S004-per.sott+pavime	430	Z	FT	glo	-765.1	-765.1	0.000	0.000
4027	S004-per.sott+pavime	431	Z	FT	glo	-523.6	-456.9	0.000	0.000
4028	S004-per.sott+pavime	432	Z	FT	glo	-456.9	-390.2	0.000	0.000
4029	S004-per.sott+pavime	433	Z	FT	glo	-392.8	-321.4	0.000	0.000
4030	S004-per.sott+pavime	438	Z	FT	glo	-568.8	-482.2	0.000	0.000
4031	S004-per.sott+pavime	451	Z	FT	glo	-755.2	-775.0	0.000	0.000
4032	S004-per.sott+pavime	452	Z	FT	glo	-765.1	-765.1	0.000	0.000
4033	S004-per.sott+pavime	453	Z	FT	glo	-765.1	-765.1	0.000	0.000
4034	S004-per.sott+pavime	454	Z	FT	glo	-765.1	-765.1	0.000	0.000
4035	S004-per.sott+pavime	455	Z	FT	glo	-779.6	-725.2	0.000	0.000
4036	S004-per.sott+pavime	456	Z	FT	glo	-706.0	-568.8	0.000	0.000
4037	S005-per.sott+pavime	168	Z	FT	glo	-471.0	-458.8	0.000	0.000
4038	S005-per.sott+pavime	169	Z	FT	glo	-464.9	-464.9	0.000	0.000
4039	S005-per.sott+pavime	170	Z	FT	glo	-464.9	-464.9	0.000	0.000
4040	S005-per.sott+pavime	171	Z	FT	glo	-464.9	-464.9	0.000	0.000
4041	S005-per.sott+pavime	438	Z	FT	glo	-464.9	-464.9	0.000	0.000
4042	S005-per.sott+pavime	451	Z	FT	glo	-464.9	-464.9	0.000	0.000
4043	S005-per.sott+pavime	452	Z	FT	glo	-464.9	-464.9	0.000	0.000
4044	S005-per.sott+pavime	453	Z	FT	glo	-464.9	-464.9	0.000	0.000
4045	S005-per.sott+pavime	454	Z	FT	glo	-464.9	-464.9	0.000	0.000
4046	S005-per.sott+pavime	455	Z	FT	glo	-464.9	-464.9	0.000	0.000
4047	S005-per.sott+pavime	456	Z	FT	glo	-464.9	-464.9	0.000	0.000
4048	S005-per.sott+pavime	466	Z	FT	glo	-288.5	-684.0	0.000	0.000
4049	S005-per.sott+pavime	467	Z	FT	glo	-562.5	-562.5	0.000	0.000
4050	S005-per.sott+pavime	468	Z	FT	glo	-562.5	-562.5	0.000	0.000
4051	S005-per.sott+pavime	469	Z	FT	glo	-562.5	-562.5	0.000	0.000
4052	S005-per.sott+pavime	470	Z	FT	glo	-562.5	-562.5	0.000	0.000
4053	S005-per.sott+pavime	471	Z	FT	glo	-562.5	-562.5	0.000	0.000
4054	S005-per.sott+pavime	474	Z	FT	glo	-562.5	-562.5	0.000	0.000
4055	S005-per.sott+pavime	475	Z	FT	glo	-562.5	-562.5	0.000	0.000
4056	S005-per.sott+pavime	476	Z	FT	glo	-562.5	-562.5	0.000	0.000
4057	S005-per.sott+pavime	477	Z	FT	glo	-562.5	-562.5	0.000	0.000
4058	S005-per.sott+pavime	478	Z	FT	glo	-562.5	-562.5	0.000	0.000
4059	S005-per.sott+pavime	479	Z	FT	glo	-1019.8	-1035.0	0.000	0.000
4060	S005-per.sott+pavime	480	Z	FT	glo	-1027.4	-1027.4	0.000	0.000
4061	S005-per.sott+pavime	481	Z	FT	glo	-1027.4	-1027.4	0.000	0.000
4062	S005-per.sott+pavime	482	Z	FT	glo	-1027.4	-1027.4	0.000	0.000
4063	S005-per.sott+pavime	483	Z	FT	glo	-1027.4	-1027.4	0.000	0.000
4064	S005-per.sott+pavime	484	Z	FT	glo	-893.7	-1335.1	0.000	0.000
4065	S005-per.sott+pavime	485	Z	FT	glo	-1675.6	-1405.4	0.000	0.000
4066	S005-per.sott+pavime	486	Z	FT	glo	-1027.4	-1027.4	0.000	0.000
4067	S005-per.sott+pavime	487	Z	FT	glo	-1027.4	-1027.4	0.000	0.000
4068	S005-per.sott+pavime	488	Z	FT	glo	-1027.4	-1027.4	0.000	0.000
4069	S005-per.sott+pavime	489	Z	FT	glo	-1040.4	-1014.4	0.000	0.000
4070	S006-per.sott+pavime	506	Z	FT	glo	-480.0	-480.0	0.000	0.000
4071	S006-per.sott+pavime	507	Z	FT	glo	-480.0	-480.0	0.000	0.000
4072	S006-per.sott+pavime	508	Z	FT	glo	-480.0	-480.0	0.000	0.000
4073	S006-per.sott+pavime	509	Z	FT	glo	-480.0	-480.0	0.000	0.000
4074	S006-per.sott+pavime	510	Z	FT	glo	-480.0	-480.0	0.000	0.000
4075	S006-per.sott+pavime	511	Z	FT	glo	-480.0	-480.0	0.000	0.000
4076	S006-per.sott+pavime	512	Z	FT	glo	-480.0	-480.0	0.000	0.000
4077	S006-per.sott+pavime	513	Z	FT	glo	-480.0	-480.0	0.000	0.000
4078	S006-per.sott+pavime	514	Z	FT	glo	-479.8	-480.2	0.000	0.000
4079	S006-per.sott+pavime	524	Z	FT	glo	-1005.3	-1004.7	0.000	0.000
4080	S006-per.sott+pavime	525	Z	FT	glo	-1005.0	-1005.0	0.000	0.000
4081	S006-per.sott+pavime	526	Z	FT	glo	-1005.0	-1005.0	0.000	0.000
4082	S006-per.sott+pavime	527	Z	FT	glo	-1005.0	-1005.0	0.000	0.000
4083	S006-per.sott+pavime	528	Z	FT	glo	-1005.0	-1005.0	0.000	0.000
4084	S006-per.sott+pavime	529	Z	FT	glo	-552.2	-469.5	0.000	0.000
4085	S006-per.sott+pavime	530	Z	FT	glo	-525.0	-525.0	0.000	0.000
4086	S006-per.sott+pavime	531	Z	FT	glo	-525.0	-525.0	0.000	0.000





4175	S010-per.sott+pavime	667	Z	FT glo	-1399.7	-1399.7	0.000	0.000
4176	S010-per.sott+pavime	668	Z	FT glo	-1398.6	-1400.8	0.000	0.000
4177	S010-per.sott+pavime	670	Z	FT glo	-709.7	-709.7	0.000	0.000
4178	S010-per.sott+pavime	671	Z	FT glo	-709.7	-709.7	0.000	0.000
4179	S010-per.sott+pavime	672	Z	FT glo	-708.3	-711.2	0.000	0.000
4180	S010-per.sott+pavime	692	Z	FT glo	-1399.7	-1399.7	0.000	0.000
4181	S010-per.sott+pavime	693	Z	FT glo	-1440.9	-1358.6	0.000	0.000
4182	S011-per.sott+pavime	121	Z	FT glo	-863.3	-863.3	0.000	0.000
4183	S011-per.sott+pavime	122	Z	FT glo	-863.3	-863.3	0.000	0.000
4184	S011-per.sott+pavime	123	Z	FT glo	-863.3	-863.3	0.000	0.000
4185	S011-per.sott+pavime	124	Z	FT glo	-863.3	-863.3	0.000	0.000
4186	S011-per.sott+pavime	125	Z	FT glo	-863.3	-863.3	0.000	0.000
4187	S011-per.sott+pavime	126	Z	FT glo	-873.6	-842.5	0.000	0.000
4188	S011-per.sott+pavime	545	Z	FT glo	-551.0	-551.0	0.000	0.000
4189	S011-per.sott+pavime	546	Z	FT glo	-551.0	-551.0	0.000	0.000
4190	S011-per.sott+pavime	547	Z	FT glo	-551.0	-551.0	0.000	0.000
4191	S011-per.sott+pavime	548	Z	FT glo	-551.0	-551.0	0.000	0.000
4192	S011-per.sott+pavime	549	Z	FT glo	-550.2	-551.4	0.000	0.000
4193	S011-per.sott+pavime	556	Z	FT glo	-395.0	-326.9	0.000	0.000
4194	S011-per.sott+pavime	557	Z	FT glo	-326.9	-258.8	0.000	0.000
4195	S011-per.sott+pavime	558	Z	FT glo	-258.8	-190.7	0.000	0.000
4196	S011-per.sott+pavime	585	Z	FT glo	-1078.7	-955.8	0.000	0.000
4197	S011-per.sott+pavime	586	Z	FT glo	-1201.6	-1078.7	0.000	0.000
4198	S011-per.sott+pavime	587	Z	FT glo	-1249.6	-1219.8	0.000	0.000
4199	S011-per.sott+pavime	588	Z	FT glo	-1241.0	-1241.0	0.000	0.000
4200	S011-per.sott+pavime	589	Z	FT glo	-1241.0	-1241.0	0.000	0.000
4201	S011-per.sott+pavime	590	Z	FT glo	-1241.0	-1241.0	0.000	0.000
4202	S011-per.sott+pavime	591	Z	FT glo	-723.2	-1254.0	0.000	0.000
4203	S011-per.sott+pavime	653	Z	FT glo	-1399.7	-1399.7	0.000	0.000
4204	S011-per.sott+pavime	654	Z	FT glo	-1399.7	-1399.7	0.000	0.000
4205	S011-per.sott+pavime	655	Z	FT glo	-1399.7	-1399.7	0.000	0.000
4206	S011-per.sott+pavime	656	Z	FT glo	-1399.7	-1399.7	0.000	0.000
4207	S011-per.sott+pavime	657	Z	FT glo	-1339.0	-1429.3	0.000	0.000
4208	S011-per.sott+pavime	658	Z	FT glo	-1580.0	-1558.9	0.000	0.000
4209	S011-per.sott+pavime	659	Z	FT glo	-1573.0	-1573.0	0.000	0.000
4210	S011-per.sott+pavime	660	Z	FT glo	-1573.0	-1573.0	0.000	0.000
4211	S011-per.sott+pavime	661	Z	FT glo	-1573.0	-1573.0	0.000	0.000
4212	S011-per.sott+pavime	662	Z	FT glo	-1573.0	-1573.0	0.000	0.000
4213	S011-per.sott+pavime	663	Z	FT glo	-1573.0	-1573.0	0.000	0.000
4214	S011-per.sott+pavime	691	Z	FT glo	-1399.8	-1399.7	0.000	0.000
4215	S012-per.sott+pavime	88	Z	FT glo	-288.7	-288.8	0.000	0.000
4216	S012-per.sott+pavime	89	Z	FT glo	-288.7	-288.8	0.000	0.000
4217	S012-per.sott+pavime	90	Z	FT glo	-288.7	-288.8	0.000	0.000
4218	S012-per.sott+pavime	91	Z	FT glo	-288.7	-288.8	0.000	0.000
4219	S012-per.sott+pavime	92	Z	FT glo	-288.7	-288.8	0.000	0.000
4220	S012-per.sott+pavime	102	Z	FT glo	-382.6	-382.6	0.000	0.000
4221	S012-per.sott+pavime	103	Z	FT glo	-382.6	-382.6	0.000	0.000
4222	S012-per.sott+pavime	104	Z	FT glo	-382.6	-382.6	0.000	0.000
4223	S012-per.sott+pavime	105	Z	FT glo	-382.6	-382.6	0.000	0.000
4224	S012-per.sott+pavime	106	Z	FT glo	-382.6	-382.6	0.000	0.000
4225	S012-per.sott+pavime	624	Z	FT glo	-847.5	-847.5	0.000	0.000
4226	S012-per.sott+pavime	625	Z	FT glo	-847.5	-847.5	0.000	0.000
4227	S012-per.sott+pavime	626	Z	FT glo	-847.5	-847.5	0.000	0.000
4228	S012-per.sott+pavime	627	Z	FT glo	-847.5	-847.5	0.000	0.000
4229	S012-per.sott+pavime	628	Z	FT glo	-847.5	-847.5	0.000	0.000
4230	S012-per.sott+pavime	633	Z	FT glo	-941.4	-941.4	0.000	0.000
4231	S012-per.sott+pavime	634	Z	FT glo	-941.4	-941.4	0.000	0.000
4232	S012-per.sott+pavime	635	Z	FT glo	-941.4	-941.4	0.000	0.000
4233	S012-per.sott+pavime	636	Z	FT glo	-941.4	-941.4	0.000	0.000
4234	S012-per.sott+pavime	637	Z	FT glo	-941.4	-941.4	0.000	0.000
4235	S012-per.sott+pavime	638	Z	FT glo	-941.4	-941.4	0.000	0.000
4236	S013-P. PROPRIOH=20+5	1093	Z	FT glo	-1020.1	-1020.1	0.000	0.000
4237	S013-P. PROPRIOH=20+5	1095	Z	FT glo	-1020.1	-1020.1	0.000	0.000
4238	S013-P. PROPRIOH=20+5	1097	Z	FT glo	-712.4	-440.0	0.000	0.000
4239	S013-P. PROPRIOH=20+5	1100	Z	FT glo	-1073.1	-895.9	0.000	0.000
4240	S013-P. PROPRIOH=20+5	1101	Z	FT glo	-743.2	-630.1	0.000	0.000
4241	S014-P. PROPRIOH=20+5	1103	Z	FT glo	-1049.7	-1049.7	0.000	0.000
4242	S014-P. PROPRIOH=20+5	1104	Z	FT glo	-1049.7	-1049.7	0.000	0.000
4243	S014-P. PROPRIOH=20+5	1106	Z	FT glo	-1939.0	-1939.0	0.000	0.000
4244	S014-P. PROPRIOH=20+5	1107	Z	FT glo	-1939.0	-1939.0	0.000	0.000
4245	S014-P. PROPRIOH=20+5	1131	Z	FT glo	-889.3	-889.3	0.000	0.000
4246	S014-P. PROPRIOH=20+5	1130	Z	FT glo	-889.3	-889.3	0.000	0.000
4247	S014-P. PROPRIOH=20+5	1713	Z	FT glo	-889.3	-889.3	0.000	0.000
4248	S014-P. PROPRIOH=20+5	1714	Z	FT glo	-889.3	-889.3	0.000	0.000
4249	S014-P. PROPRIOH=20+5	1109	Z	FT glo	-889.3	-889.3	0.000	0.000
4250	S015-P. PROPRIOH=20+5	1111	Z	FT glo	-840.0	-840.0	0.000	0.000
4251	S015-P. PROPRIOH=20+5	1112	Z	FT glo	-840.0	-840.0	0.000	0.000
4252	S015-P. PROPRIOH=20+5	1113	Z	FT glo	-840.0	-840.0	0.000	0.000
4253	S015-P. PROPRIOH=20+5	1114	Z	FT glo	-840.0	-840.0	0.000	0.000
4254	S015-P. PROPRIOH=20+5	1115	Z	FT glo	-840.0	-840.0	0.000	0.000
4255	S015-P. PROPRIOH=20+5	1120	Z	FT glo	-1810.0	-1810.0	0.000	0.000
4256	S015-P. PROPRIOH=20+5	1123	Z	FT glo	-970.0	-970.0	0.000	0.000
4257	S015-P. PROPRIOH=20+5	1124	Z	FT glo	-970.0	-970.0	0.000	0.000
4258	S015-P. PROPRIOH=20+5	1125	Z	FT glo	-1810.0	-1810.0	0.000	0.000
4259	S015-P. PROPRIOH=20+5	1126	Z	FT glo	-1810.0	-1810.0	0.000	0.000
4260	S016-P. PROPRIOH=20+5	1138	Z	FT glo	-1020.1	-1020.1	0.000	0.000
4261	S016-P. PROPRIOH=20+5	1139	Z	FT glo	-439.7	-711.9	0.000	0.000
4262	S016-P. PROPRIOH=20+5	1140	Z	FT glo	-1020.1	-1020.1	0.000	0.000

4263	S016-P. PROPRIOH=20+5	1141	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
4264	S016-P. PROPRIOH=20+5	1142	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
4265	S016-P. PROPRIOH=20+5	1144	Z	FT	glo	-1020.1	-1020.1	0.000	0.000
4266	S016-P. PROPRIOH=20+5	1145	Z	FT	glo	-1020.1	-1020.0	0.000	0.000
4267	S016-P. PROPRIOH=20+5	1146	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
4268	S016-P. PROPRIOH=20+5	1155	Z	FT	glo	-1640.9	-2037.4	0.000	0.000
4269	S016-P. PROPRIOH=20+5	1158	Z	FT	glo	-1940.0	-1940.0	0.000	0.000
4270	S016-P. PROPRIOH=20+5	1252	Z	FT	glo	-919.9	-919.9	0.000	0.000
4271	S016-P. PROPRIOH=20+5	1669	Z	FT	glo	-919.9	-919.9	0.000	0.000
4272	S016-P. PROPRIOH=20+5	1670	Z	FT	glo	-919.9	-919.9	0.000	0.000
4273	S016-P. PROPRIOH=20+5	1671	Z	FT	glo	-919.9	-919.9	0.000	0.000
4274	S016-P. PROPRIOH=20+5	1673	Z	FT	glo	-919.9	-919.9	0.000	0.000
4275	S016-P. PROPRIOH=20+5	1674	Z	FT	glo	-919.9	-919.9	0.000	0.000
4276	S016-P. PROPRIOH=20+5	1675	Z	FT	glo	-919.9	-919.9	0.000	0.000
4277	S016-P. PROPRIOH=20+5	1677	Z	FT	glo	-919.9	-919.9	0.000	0.000
4278	S016-P. PROPRIOH=20+5	1678	Z	FT	glo	-919.9	-920.0	0.000	0.000
4279	S016-P. PROPRIOH=20+5	1679	Z	FT	glo	-920.0	-920.0	0.000	0.000
4280	S016-P. PROPRIOH=20+5	1680	Z	FT	glo	-920.0	-920.0	0.000	0.000
4281	S016-P. PROPRIOH=20+5	1756	Z	FT	glo	-919.9	-919.9	0.000	0.000
4282	S016-P. PROPRIOH=20+5	1757	Z	FT	glo	-919.9	-919.9	0.000	0.000
4283	S016-P. PROPRIOH=20+5	1758	Z	FT	glo	-919.9	-919.9	0.000	0.000
4284	S016-P. PROPRIOH=20+5	1759	Z	FT	glo	-919.9	-919.9	0.000	0.000
4285	S016-P. PROPRIOH=20+5	1760	Z	FT	glo	-919.9	-919.9	0.000	0.000
4286	S016-P. PROPRIOH=20+5	1761	Z	FT	glo	-919.9	-919.9	0.000	0.000
4287	S016-P. PROPRIOH=20+5	1153	Z	FT	glo	-1940.0	-1940.0	0.000	0.000
4288	S017-P. PROPRIOH=20+5	1147	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
4289	S017-P. PROPRIOH=20+5	1148	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
4290	S017-P. PROPRIOH=20+5	1150	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
4291	S017-P. PROPRIOH=20+5	1151	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
4292	S018-P. PROPRIOH=20+5	1261	Z	FT	glo	-510.1	-510.1	0.000	0.000
4293	S018-P. PROPRIOH=20+5	1264	Z	FT	glo	-1255.1	-1255.1	0.000	0.000
4294	S018-P. PROPRIOH=20+5	1265	Z	FT	glo	-1255.1	-1255.1	0.000	0.000
4295	S018-P. PROPRIOH=20+5	1268	Z	FT	glo	-1130.0	-1130.0	0.000	0.000
4296	S018-P. PROPRIOH=20+5	1271	Z	FT	glo	-385.0	-385.0	0.000	0.000
4297	S013-perm.sott.+stru	1093	Z	FT	glo	-510.1	-510.1	0.000	0.000
4298	S013-perm.sott.+stru	1095	Z	FT	glo	-510.1	-510.1	0.000	0.000
4299	S013-perm.sott.+stru	1097	Z	FT	glo	-356.2	-220.0	0.000	0.000
4300	S013-perm.sott.+stru	1100	Z	FT	glo	-536.5	-448.0	0.000	0.000
4301	S013-perm.sott.+stru	1101	Z	FT	glo	-371.6	-315.1	0.000	0.000
4302	S014-perm.sott.+stru	1103	Z	FT	glo	-524.8	-524.8	0.000	0.000
4303	S014-perm.sott.+stru	1104	Z	FT	glo	-524.8	-524.8	0.000	0.000
4304	S014-perm.sott.+stru	1106	Z	FT	glo	-969.5	-969.5	0.000	0.000
4305	S014-perm.sott.+stru	1107	Z	FT	glo	-969.5	-969.5	0.000	0.000
4306	S014-perm.sott.+stru	1131	Z	FT	glo	-444.7	-444.7	0.000	0.000
4307	S014-perm.sott.+stru	1130	Z	FT	glo	-444.7	-444.7	0.000	0.000
4308	S014-perm.sott.+stru	1713	Z	FT	glo	-444.7	-444.7	0.000	0.000
4309	S014-perm.sott.+stru	1714	Z	FT	glo	-444.7	-444.7	0.000	0.000
4310	S014-perm.sott.+stru	1109	Z	FT	glo	-444.7	-444.7	0.000	0.000
4311	S015-perm.sott.+stru	1111	Z	FT	glo	-420.0	-420.0	0.000	0.000
4312	S015-perm.sott.+stru	1112	Z	FT	glo	-420.0	-420.0	0.000	0.000
4313	S015-perm.sott.+stru	1113	Z	FT	glo	-420.0	-420.0	0.000	0.000
4314	S015-perm.sott.+stru	1114	Z	FT	glo	-420.0	-420.0	0.000	0.000
4315	S015-perm.sott.+stru	1115	Z	FT	glo	-420.0	-420.0	0.000	0.000
4316	S015-perm.sott.+stru	1120	Z	FT	glo	-905.0	-905.0	0.000	0.000
4317	S015-perm.sott.+stru	1123	Z	FT	glo	-485.0	-485.0	0.000	0.000
4318	S015-perm.sott.+stru	1124	Z	FT	glo	-485.0	-485.0	0.000	0.000
4319	S015-perm.sott.+stru	1125	Z	FT	glo	-905.0	-905.0	0.000	0.000
4320	S015-perm.sott.+stru	1126	Z	FT	glo	-905.0	-905.0	0.000	0.000
4321	S016-perm.sott.+stru	1138	Z	FT	glo	-510.1	-510.1	0.000	0.000
4322	S016-perm.sott.+stru	1139	Z	FT	glo	-219.9	-355.9	0.000	0.000
4323	S016-perm.sott.+stru	1140	Z	FT	glo	-510.1	-510.1	0.000	0.000
4324	S016-perm.sott.+stru	1141	Z	FT	glo	-510.1	-510.1	0.000	0.000
4325	S016-perm.sott.+stru	1142	Z	FT	glo	-510.1	-510.1	0.000	0.000
4326	S016-perm.sott.+stru	1144	Z	FT	glo	-510.1	-510.1	0.000	0.000
4327	S016-perm.sott.+stru	1145	Z	FT	glo	-510.1	-510.0	0.000	0.000
4328	S016-perm.sott.+stru	1146	Z	FT	glo	-510.0	-510.0	0.000	0.000
4329	S016-perm.sott.+stru	1155	Z	FT	glo	-820.4	-1018.7	0.000	0.000
4330	S016-perm.sott.+stru	1158	Z	FT	glo	-970.0	-970.0	0.000	0.000
4331	S016-perm.sott.+stru	1252	Z	FT	glo	-459.9	-459.9	0.000	0.000
4332	S016-perm.sott.+stru	1669	Z	FT	glo	-459.9	-459.9	0.000	0.000
4333	S016-perm.sott.+stru	1670	Z	FT	glo	-459.9	-459.9	0.000	0.000
4334	S016-perm.sott.+stru	1671	Z	FT	glo	-459.9	-459.9	0.000	0.000
4335	S016-perm.sott.+stru	1673	Z	FT	glo	-459.9	-459.9	0.000	0.000
4336	S016-perm.sott.+stru	1674	Z	FT	glo	-459.9	-459.9	0.000	0.000
4337	S016-perm.sott.+stru	1675	Z	FT	glo	-459.9	-459.9	0.000	0.000
4338	S016-perm.sott.+stru	1677	Z	FT	glo	-460.0	-460.0	0.000	0.000
4339	S016-perm.sott.+stru	1678	Z	FT	glo	-460.0	-460.0	0.000	0.000
4340	S016-perm.sott.+stru	1679	Z	FT	glo	-460.0	-460.0	0.000	0.000
4341	S016-perm.sott.+stru	1680	Z	FT	glo	-460.0	-460.0	0.000	0.000
4342	S016-perm.sott.+stru	1756	Z	FT	glo	-459.9	-460.0	0.000	0.000
4343	S016-perm.sott.+stru	1757	Z	FT	glo	-459.9	-459.9	0.000	0.000
4344	S016-perm.sott.+stru	1758	Z	FT	glo	-459.9	-459.9	0.000	0.000
4345	S016-perm.sott.+stru	1759	Z	FT	glo	-459.9	-459.9	0.000	0.000
4346	S016-perm.sott.+stru	1760	Z	FT	glo	-459.9	-459.9	0.000	0.000
4347	S016-perm.sott.+stru	1761	Z	FT	glo	-459.9	-459.9	0.000	0.000
4348	S016-perm.sott.+stru	1153	Z	FT	glo	-970.0	-970.0	0.000	0.000
4349	S017-perm.sott.+stru	1147	Z	FT	glo	-510.0	-510.0	0.000	0.000
4350	S017-perm.sott.+stru	1148	Z	FT	glo	-510.0	-510.0	0.000	0.000

4351	S017-perm.sott.+stru	1150	Z	FT	glo	-510.0	-510.0	0.000	0.000
4352	S017-perm.sott.+stru	1151	Z	FT	glo	-510.0	-510.0	0.000	0.000
4353	S018-perm.sott.+stru	1261	Z	FT	glo	-255.1	-255.1	0.000	0.000
4354	S018-perm.sott.+stru	1264	Z	FT	glo	-627.6	-627.6	0.000	0.000
4355	S018-perm.sott.+stru	1265	Z	FT	glo	-627.6	-627.6	0.000	0.000
4356	S018-perm.sott.+stru	1268	Z	FT	glo	-565.0	-565.0	0.000	0.000
4357	S018-perm.sott.+stru	1271	Z	FT	glo	-192.5	-192.5	0.000	0.000
4358	S019-P.PH=6+20+10=36	1249	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4359	S019-P.PH=6+20+10=36	1652	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4360	S019-P.PH=6+20+10=36	1653	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4361	S019-P.PH=6+20+10=36	1654	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4362	S019-P.PH=6+20+10=36	1278	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4363	S019-P.PH=6+20+10=36	1659	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4364	S019-P.PH=6+20+10=36	1280	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4365	S019-P.PH=6+20+10=36	1660	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4366	S019-P.PH=6+20+10=36	1681	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4367	S019-P.PH=6+20+10=36	1282	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4368	S019-P.PH=6+20+10=36	1662	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4369	S019-P.PH=6+20+10=36	1663	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4370	S019-P.PH=6+20+10=36	1664	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4371	S019-P.PH=6+20+10=36	1753	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4372	S019-P.PH=6+20+10=36	1754	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4373	S019-P.PH=6+20+10=36	1762	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4374	S019-P.PH=6+20+10=36	1763	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4375	S019-P.PH=6+20+10=36	1764	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4376	S019-P.PH=6+20+10=36	1765	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4377	S019-P.PH=6+20+10=36	1767	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4378	S019-P.PH=6+20+10=36	1768	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4379	S019-P.PH=6+20+10=36	1744	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4380	S019-P.PH=6+20+10=36	1745	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4381	S019-P.PH=6+20+10=36	1746	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4382	S019-P.PH=6+20+10=36	1748	Z	FT	glo	-3001.3	-3001.3	0.000	0.000
4383	S019-perm.sott.+stru	1249	Z	FT	glo	-857.5	-857.5	0.000	0.000
4384	S019-perm.sott.+stru	1652	Z	FT	glo	-857.5	-857.5	0.000	0.000
4385	S019-perm.sott.+stru	1653	Z	FT	glo	-857.5	-857.5	0.000	0.000
4386	S019-perm.sott.+stru	1654	Z	FT	glo	-857.5	-857.5	0.000	0.000
4387	S019-perm.sott.+stru	1278	Z	FT	glo	-857.5	-857.5	0.000	0.000
4388	S019-perm.sott.+stru	1659	Z	FT	glo	-857.5	-857.5	0.000	0.000
4389	S019-perm.sott.+stru	1280	Z	FT	glo	-857.5	-857.5	0.000	0.000
4390	S019-perm.sott.+stru	1660	Z	FT	glo	-857.5	-857.5	0.000	0.000
4391	S019-perm.sott.+stru	1681	Z	FT	glo	-857.5	-857.5	0.000	0.000
4392	S019-perm.sott.+stru	1282	Z	FT	glo	-857.5	-857.5	0.000	0.000
4393	S019-perm.sott.+stru	1662	Z	FT	glo	-857.5	-857.5	0.000	0.000
4394	S019-perm.sott.+stru	1663	Z	FT	glo	-857.5	-857.5	0.000	0.000
4395	S019-perm.sott.+stru	1664	Z	FT	glo	-857.5	-857.5	0.000	0.000
4396	S019-perm.sott.+stru	1753	Z	FT	glo	-857.5	-857.5	0.000	0.000
4397	S019-perm.sott.+stru	1754	Z	FT	glo	-857.5	-857.5	0.000	0.000
4398	S019-perm.sott.+stru	1762	Z	FT	glo	-857.5	-857.5	0.000	0.000
4399	S019-perm.sott.+stru	1763	Z	FT	glo	-857.5	-857.5	0.000	0.000
4400	S019-perm.sott.+stru	1764	Z	FT	glo	-857.5	-857.5	0.000	0.000
4401	S019-perm.sott.+stru	1765	Z	FT	glo	-857.5	-857.5	0.000	0.000
4402	S019-perm.sott.+stru	1767	Z	FT	glo	-857.5	-857.5	0.000	0.000
4403	S019-perm.sott.+stru	1768	Z	FT	glo	-857.5	-857.5	0.000	0.000
4404	S019-perm.sott.+stru	1744	Z	FT	glo	-857.5	-857.5	0.000	0.000
4405	S019-perm.sott.+stru	1745	Z	FT	glo	-857.5	-857.5	0.000	0.000
4406	S019-perm.sott.+stru	1746	Z	FT	glo	-857.5	-857.5	0.000	0.000
4407	S019-perm.sott.+stru	1748	Z	FT	glo	-857.5	-857.5	0.000	0.000
4408	S004-var.scuola	426	Z	FT	glo	-1275.1	-1275.1	0.000	0.000
4409	S004-var.scuola	427	Z	FT	glo	-1275.1	-1275.1	0.000	0.000
4410	S004-var.scuola	428	Z	FT	glo	-1275.1	-1275.1	0.000	0.000
4411	S004-var.scuola	429	Z	FT	glo	-1275.1	-1275.1	0.000	0.000
4412	S004-var.scuola	430	Z	FT	glo	-1275.1	-1275.1	0.000	0.000
4413	S004-var.scuola	431	Z	FT	glo	-872.7	-761.5	0.000	0.000
4414	S004-var.scuola	432	Z	FT	glo	-761.5	-650.3	0.000	0.000
4415	S004-var.scuola	433	Z	FT	glo	-654.6	-535.7	0.000	0.000
4416	S004-var.scuola	438	Z	FT	glo	-948.0	-803.7	0.000	0.000
4417	S004-var.scuola	451	Z	FT	glo	-1258.7	-1291.6	0.000	0.000
4418	S004-var.scuola	452	Z	FT	glo	-1275.1	-1275.1	0.000	0.000
4419	S004-var.scuola	453	Z	FT	glo	-1275.1	-1275.1	0.000	0.000
4420	S004-var.scuola	454	Z	FT	glo	-1275.1	-1275.1	0.000	0.000
4421	S004-var.scuola	455	Z	FT	glo	-1299.3	-1208.6	0.000	0.000
4422	S004-var.scuola	456	Z	FT	glo	-1176.7	-948.0	0.000	0.000
4423	S005-var.scuola	168	Z	FT	glo	-785.1	-764.6	0.000	0.000
4424	S005-var.scuola	169	Z	FT	glo	-774.8	-774.8	0.000	0.000
4425	S005-var.scuola	170	Z	FT	glo	-774.8	-774.8	0.000	0.000
4426	S005-var.scuola	171	Z	FT	glo	-774.8	-774.8	0.000	0.000
4427	S005-var.scuola	438	Z	FT	glo	-774.8	-774.8	0.000	0.000
4428	S005-var.scuola	451	Z	FT	glo	-774.8	-774.8	0.000	0.000
4429	S005-var.scuola	452	Z	FT	glo	-774.8	-774.8	0.000	0.000
4430	S005-var.scuola	453	Z	FT	glo	-774.8	-774.8	0.000	0.000
4431	S005-var.scuola	454	Z	FT	glo	-774.8	-774.8	0.000	0.000
4432	S005-var.scuola	455	Z	FT	glo	-774.8	-774.8	0.000	0.000
4433	S005-var.scuola	456	Z	FT	glo	-774.8	-774.8	0.000	0.000
4434	S005-var.scuola	466	Z	FT	glo	-480.8	-1140.0	0.000	0.000
4435	S005-var.scuola	467	Z	FT	glo	-937.5	-937.5	0.000	0.000
4436	S005-var.scuola	468	Z	FT	glo	-937.5	-937.5	0.000	0.000
4437	S005-var.scuola	469	Z	FT	glo	-937.5	-937.5	0.000	0.000
4438	S005-var.scuola	470	Z	FT	glo	-937.5	-937.5	0.000	0.000



4527	S009-var.scuola	616	Z	FT	glo	-1601.2	-1601.2	0.000	0.000
4528	S009-var.scuola	617	Z	FT	glo	-1601.2	-1601.2	0.000	0.000
4529	S009-var.scuola	618	Z	FT	glo	-1601.2	-1601.2	0.000	0.000
4530	S009-var.scuola	619	Z	FT	glo	-1601.2	-1601.2	0.000	0.000
4531	S009-var.scuola	620	Z	FT	glo	-1601.2	-1601.2	0.000	0.000
4532	S009-var.scuola	621	Z	FT	glo	-1601.2	-1601.2	0.000	0.000
4533	S009-var.scuola	622	Z	FT	glo	-1601.2	-1601.2	0.000	0.000
4534	S009-var.scuola	623	Z	FT	glo	-1601.4	-1601.1	0.000	0.000
4535	S009-var.scuola	629	Z	FT	glo	-776.2	-776.2	0.000	0.000
4536	S009-var.scuola	630	Z	FT	glo	-776.2	-776.2	0.000	0.000
4537	S009-var.scuola	631	Z	FT	glo	-776.2	-776.2	0.000	0.000
4538	S009-var.scuola	632	Z	FT	glo	-776.2	-776.2	0.000	0.000
4539	S009-var.scuola	673	Z	FT	glo	-777.1	-775.4	0.000	0.000
4540	S009-var.scuola	674	Z	FT	glo	-776.2	-776.2	0.000	0.000
4541	S009-var.scuola	675	Z	FT	glo	-776.2	-776.2	0.000	0.000
4542	S009-var.scuola	676	Z	FT	glo	-776.2	-776.2	0.000	0.000
4543	S009-var.scuola	677	Z	FT	glo	-776.2	-776.2	0.000	0.000
4544	S009-var.scuola	678	Z	FT	glo	-776.2	-776.2	0.000	0.000
4545	S010-var.scuola	550	Z	FT	glo	-919.5	-917.1	0.000	0.000
4546	S010-var.scuola	551	Z	FT	glo	-918.3	-918.3	0.000	0.000
4547	S010-var.scuola	552	Z	FT	glo	-918.3	-918.3	0.000	0.000
4548	S010-var.scuola	553	Z	FT	glo	-918.3	-918.3	0.000	0.000
4549	S010-var.scuola	554	Z	FT	glo	-918.3	-918.3	0.000	0.000
4550	S010-var.scuola	555	Z	FT	glo	-918.3	-918.3	0.000	0.000
4551	S010-var.scuola	597	Z	FT	glo	-2070.0	-2066.6	0.000	0.000
4552	S010-var.scuola	598	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
4553	S010-var.scuola	599	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
4554	S010-var.scuola	600	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
4555	S010-var.scuola	601	Z	FT	glo	-2067.5	-2069.2	0.000	0.000
4556	S010-var.scuola	649	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
4557	S010-var.scuola	650	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
4558	S010-var.scuola	651	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
4559	S010-var.scuola	665	Z	FT	glo	-2332.9	-2332.9	0.000	0.000
4560	S010-var.scuola	666	Z	FT	glo	-2332.9	-2332.9	0.000	0.000
4561	S010-var.scuola	667	Z	FT	glo	-2332.9	-2332.9	0.000	0.000
4562	S010-var.scuola	668	Z	FT	glo	-2331.1	-2334.7	0.000	0.000
4563	S010-var.scuola	670	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
4564	S010-var.scuola	671	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
4565	S010-var.scuola	672	Z	FT	glo	-1180.4	-1185.3	0.000	0.000
4566	S010-var.scuola	692	Z	FT	glo	-2332.9	-2332.9	0.000	0.000
4567	S010-var.scuola	693	Z	FT	glo	-2401.5	-2264.2	0.000	0.000
4568	S011-var.scuola	121	Z	FT	glo	-1438.7	-1438.7	0.000	0.000
4569	S011-var.scuola	122	Z	FT	glo	-1438.7	-1438.7	0.000	0.000
4570	S011-var.scuola	123	Z	FT	glo	-1438.7	-1438.7	0.000	0.000
4571	S011-var.scuola	124	Z	FT	glo	-1438.7	-1438.7	0.000	0.000
4572	S011-var.scuola	125	Z	FT	glo	-1438.7	-1438.7	0.000	0.000
4573	S011-var.scuola	126	Z	FT	glo	-1456.0	-1404.1	0.000	0.000
4574	S011-var.scuola	545	Z	FT	glo	-918.3	-918.3	0.000	0.000
4575	S011-var.scuola	546	Z	FT	glo	-918.3	-918.3	0.000	0.000
4576	S011-var.scuola	547	Z	FT	glo	-918.3	-918.3	0.000	0.000
4577	S011-var.scuola	548	Z	FT	glo	-918.3	-918.3	0.000	0.000
4578	S011-var.scuola	549	Z	FT	glo	-916.9	-919.1	0.000	0.000
4579	S011-var.scuola	556	Z	FT	glo	-658.3	-544.8	0.000	0.000
4580	S011-var.scuola	557	Z	FT	glo	-544.8	-431.3	0.000	0.000
4581	S011-var.scuola	558	Z	FT	glo	-431.3	-317.8	0.000	0.000
4582	S011-var.scuola	585	Z	FT	glo	-1797.8	-1593.0	0.000	0.000
4583	S011-var.scuola	586	Z	FT	glo	-2002.6	-1797.8	0.000	0.000
4584	S011-var.scuola	587	Z	FT	glo	-2082.7	-2032.9	0.000	0.000
4585	S011-var.scuola	588	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
4586	S011-var.scuola	589	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
4587	S011-var.scuola	590	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
4588	S011-var.scuola	591	Z	FT	glo	-1205.3	-2089.9	0.000	0.000
4589	S011-var.scuola	653	Z	FT	glo	-2332.9	-2332.9	0.000	0.000
4590	S011-var.scuola	654	Z	FT	glo	-2332.9	-2332.9	0.000	0.000
4591	S011-var.scuola	655	Z	FT	glo	-2332.9	-2332.9	0.000	0.000
4592	S011-var.scuola	656	Z	FT	glo	-2332.9	-2332.9	0.000	0.000
4593	S011-var.scuola	657	Z	FT	glo	-2231.6	-2382.1	0.000	0.000
4594	S011-var.scuola	658	Z	FT	glo	-2633.3	-2598.2	0.000	0.000
4595	S011-var.scuola	659	Z	FT	glo	-2621.6	-2621.6	0.000	0.000
4596	S011-var.scuola	660	Z	FT	glo	-2621.6	-2621.6	0.000	0.000
4597	S011-var.scuola	661	Z	FT	glo	-2621.6	-2621.6	0.000	0.000
4598	S011-var.scuola	662	Z	FT	glo	-2621.6	-2621.6	0.000	0.000
4599	S011-var.scuola	663	Z	FT	glo	-2621.6	-2621.7	0.000	0.000
4600	S011-var.scuola	691	Z	FT	glo	-2332.9	-2332.9	0.000	0.000
4601	S012-var.scuola	88	Z	FT	glo	-481.2	-481.2	0.000	0.000
4602	S012-var.scuola	89	Z	FT	glo	-481.2	-481.2	0.000	0.000
4603	S012-var.scuola	90	Z	FT	glo	-481.2	-481.2	0.000	0.000
4604	S012-var.scuola	91	Z	FT	glo	-481.2	-481.2	0.000	0.000
4605	S012-var.scuola	92	Z	FT	glo	-481.2	-481.2	0.000	0.000
4606	S012-var.scuola	102	Z	FT	glo	-637.7	-637.7	0.000	0.000
4607	S012-var.scuola	103	Z	FT	glo	-637.7	-637.7	0.000	0.000
4608	S012-var.scuola	104	Z	FT	glo	-637.7	-637.7	0.000	0.000
4609	S012-var.scuola	105	Z	FT	glo	-637.7	-637.7	0.000	0.000
4610	S012-var.scuola	106	Z	FT	glo	-637.7	-637.7	0.000	0.000
4611	S012-var.scuola	624	Z	FT	glo	-1412.5	-1412.5	0.000	0.000
4612	S012-var.scuola	625	Z	FT	glo	-1412.5	-1412.5	0.000	0.000
4613	S012-var.scuola	626	Z	FT	glo	-1412.5	-1412.5	0.000	0.000
4614	S012-var.scuola	627	Z	FT	glo	-1412.5	-1412.5	0.000	0.000

4615	S012-var.scuola	628	Z	FT	glo	-1412.5	-1412.5	0.000	0.000
4616	S012-var.scuola	633	Z	FT	glo	-1568.9	-1568.9	0.000	0.000
4617	S012-var.scuola	634	Z	FT	glo	-1568.9	-1568.9	0.000	0.000
4618	S012-var.scuola	635	Z	FT	glo	-1568.9	-1568.9	0.000	0.000
4619	S012-var.scuola	636	Z	FT	glo	-1568.9	-1568.9	0.000	0.000
4620	S012-var.scuola	637	Z	FT	glo	-1568.9	-1568.9	0.000	0.000
4621	S012-var.scuola	638	Z	FT	glo	-1568.9	-1568.9	0.000	0.000
4622	TAMPONATURE	1771	Z	FD	glo	-800.0			
4623	TAMPONATURE	1772	Z	FD	glo	-800.0			
4624	TAMPONATURE	1773	Z	FD	glo	-800.0			
4625	TAMPONATURE	1774	Z	FD	glo	-800.0			
4626	nevestrutt.metall	1791	Z	FD	glo	-300.0			
4627	nevestrutt.metall	1792	Z	FD	glo	-300.0			
4628	nevestrutt.metall	1793	Z	FD	glo	-300.0			
4629	nevestrutt.metall	1794	Z	FD	glo	-600.0			
4630	nevestrutt.metall	1795	Z	FD	glo	-600.0			
4631	S013-var.cop.(neve)	1093	Z	FT	glo	-510.1	-510.1	0.000	0.000
4632	S013-var.cop.(neve)	1095	Z	FT	glo	-510.1	-510.1	0.000	0.000
4633	S013-var.cop.(neve)	1097	Z	FT	glo	-356.2	-220.0	0.000	0.000
4634	S013-var.cop.(neve)	1100	Z	FT	glo	-536.5	-448.0	0.000	0.000
4635	S013-var.cop.(neve)	1101	Z	FT	glo	-371.6	-315.1	0.000	0.000
4636	S014-var.cop.(neve)	1103	Z	FT	glo	-524.8	-524.8	0.000	0.000
4637	S014-var.cop.(neve)	1104	Z	FT	glo	-524.8	-524.8	0.000	0.000
4638	S014-var.cop.(neve)	1106	Z	FT	glo	-969.5	-969.5	0.000	0.000
4639	S014-var.cop.(neve)	1107	Z	FT	glo	-969.5	-969.5	0.000	0.000
4640	S014-var.cop.(neve)	1131	Z	FT	glo	-444.7	-444.7	0.000	0.000
4641	S014-var.cop.(neve)	1130	Z	FT	glo	-444.7	-444.7	0.000	0.000
4642	S014-var.cop.(neve)	1713	Z	FT	glo	-444.7	-444.7	0.000	0.000
4643	S014-var.cop.(neve)	1714	Z	FT	glo	-444.7	-444.7	0.000	0.000
4644	S014-var.cop.(neve)	1109	Z	FT	glo	-444.7	-444.7	0.000	0.000
4645	S015-var.cop.(neve)	1111	Z	FT	glo	-420.0	-420.0	0.000	0.000
4646	S015-var.cop.(neve)	1112	Z	FT	glo	-420.0	-420.0	0.000	0.000
4647	S015-var.cop.(neve)	1113	Z	FT	glo	-420.0	-420.0	0.000	0.000
4648	S015-var.cop.(neve)	1114	Z	FT	glo	-420.0	-420.0	0.000	0.000
4649	S015-var.cop.(neve)	1115	Z	FT	glo	-420.0	-420.0	0.000	0.000
4650	S015-var.cop.(neve)	1120	Z	FT	glo	-905.0	-905.0	0.000	0.000
4651	S015-var.cop.(neve)	1123	Z	FT	glo	-485.0	-485.0	0.000	0.000
4652	S015-var.cop.(neve)	1124	Z	FT	glo	-485.0	-485.0	0.000	0.000
4653	S015-var.cop.(neve)	1125	Z	FT	glo	-905.0	-905.0	0.000	0.000
4654	S015-var.cop.(neve)	1126	Z	FT	glo	-905.0	-905.0	0.000	0.000
4655	S016-var.cop.(neve)	1138	Z	FT	glo	-510.1	-510.1	0.000	0.000
4656	S016-var.cop.(neve)	1139	Z	FT	glo	-219.9	-355.9	0.000	0.000
4657	S016-var.cop.(neve)	1140	Z	FT	glo	-510.1	-510.1	0.000	0.000
4658	S016-var.cop.(neve)	1141	Z	FT	glo	-510.1	-510.1	0.000	0.000
4659	S016-var.cop.(neve)	1142	Z	FT	glo	-510.1	-510.1	0.000	0.000
4660	S016-var.cop.(neve)	1144	Z	FT	glo	-510.1	-510.1	0.000	0.000
4661	S016-var.cop.(neve)	1145	Z	FT	glo	-510.1	-510.0	0.000	0.000
4662	S016-var.cop.(neve)	1146	Z	FT	glo	-510.0	-510.0	0.000	0.000
4663	S016-var.cop.(neve)	1155	Z	FT	glo	-820.4	-1018.7	0.000	0.000
4664	S016-var.cop.(neve)	1158	Z	FT	glo	-970.0	-970.0	0.000	0.000
4665	S016-var.cop.(neve)	1252	Z	FT	glo	-459.9	-459.9	0.000	0.000
4666	S016-var.cop.(neve)	1669	Z	FT	glo	-459.9	-459.9	0.000	0.000
4667	S016-var.cop.(neve)	1670	Z	FT	glo	-459.9	-459.9	0.000	0.000
4668	S016-var.cop.(neve)	1671	Z	FT	glo	-459.9	-459.9	0.000	0.000
4669	S016-var.cop.(neve)	1673	Z	FT	glo	-459.9	-459.9	0.000	0.000
4670	S016-var.cop.(neve)	1674	Z	FT	glo	-459.9	-459.9	0.000	0.000
4671	S016-var.cop.(neve)	1675	Z	FT	glo	-459.9	-459.9	0.000	0.000
4672	S016-var.cop.(neve)	1677	Z	FT	glo	-460.0	-460.0	0.000	0.000
4673	S016-var.cop.(neve)	1678	Z	FT	glo	-460.0	-460.0	0.000	0.000
4674	S016-var.cop.(neve)	1679	Z	FT	glo	-460.0	-460.0	0.000	0.000
4675	S016-var.cop.(neve)	1680	Z	FT	glo	-460.0	-460.0	0.000	0.000
4676	S016-var.cop.(neve)	1756	Z	FT	glo	-459.9	-460.0	0.000	0.000
4677	S016-var.cop.(neve)	1757	Z	FT	glo	-459.9	-459.9	0.000	0.000
4678	S016-var.cop.(neve)	1758	Z	FT	glo	-459.9	-459.9	0.000	0.000
4679	S016-var.cop.(neve)	1759	Z	FT	glo	-459.9	-459.9	0.000	0.000
4680	S016-var.cop.(neve)	1760	Z	FT	glo	-459.9	-459.9	0.000	0.000
4681	S016-var.cop.(neve)	1761	Z	FT	glo	-459.9	-459.9	0.000	0.000
4682	S016-var.cop.(neve)	1153	Z	FT	glo	-970.0	-970.0	0.000	0.000
4683	S017-var.cop.(neve)	1147	Z	FT	glo	-510.0	-510.0	0.000	0.000
4684	S017-var.cop.(neve)	1148	Z	FT	glo	-510.0	-510.0	0.000	0.000
4685	S017-var.cop.(neve)	1150	Z	FT	glo	-510.0	-510.0	0.000	0.000
4686	S017-var.cop.(neve)	1151	Z	FT	glo	-510.0	-510.0	0.000	0.000
4687	S018-var.cop.(neve)	1261	Z	FT	glo	-255.1	-255.1	0.000	0.000
4688	S018-var.cop.(neve)	1264	Z	FT	glo	-627.6	-627.6	0.000	0.000
4689	S018-var.cop.(neve)	1265	Z	FT	glo	-627.6	-627.6	0.000	0.000
4690	S018-var.cop.(neve)	1268	Z	FT	glo	-565.0	-565.0	0.000	0.000
4691	S018-var.cop.(neve)	1271	Z	FT	glo	-192.5	-192.5	0.000	0.000
4692	S019-var.cop.(neve)	1249	Z	FT	glo	-857.5	-857.5	0.000	0.000
4693	S019-var.cop.(neve)	1652	Z	FT	glo	-857.5	-857.5	0.000	0.000
4694	S019-var.cop.(neve)	1653	Z	FT	glo	-857.5	-857.5	0.000	0.000
4695	S019-var.cop.(neve)	1654	Z	FT	glo	-857.5	-857.5	0.000	0.000
4696	S019-var.cop.(neve)	1278	Z	FT	glo	-857.5	-857.5	0.000	0.000
4697	S019-var.cop.(neve)	1659	Z	FT	glo	-857.5	-857.5	0.000	0.000
4698	S019-var.cop.(neve)	1280	Z	FT	glo	-857.5	-857.5	0.000	0.000
4699	S019-var.cop.(neve)	1660	Z	FT	glo	-857.5	-857.5	0.000	0.000
4700	S019-var.cop.(neve)	1681	Z	FT	glo	-857.5	-857.5	0.000	0.000
4701	S019-var.cop.(neve)	1282	Z	FT	glo	-857.5	-857.5	0.000	0.000
4702	S019-var.cop.(neve)	1662	Z	FT	glo	-857.5	-857.5	0.000	0.000

4703	S019-var.cop.(neve)	1663	Z	FT glo	-857.5	-857.5	0.000	0.000
4704	S019-var.cop.(neve)	1664	Z	FT glo	-857.5	-857.5	0.000	0.000
4705	S019-var.cop.(neve)	1753	Z	FT glo	-857.5	-857.5	0.000	0.000
4706	S019-var.cop.(neve)	1754	Z	FT glo	-857.5	-857.5	0.000	0.000
4707	S019-var.cop.(neve)	1762	Z	FT glo	-857.5	-857.5	0.000	0.000
4708	S019-var.cop.(neve)	1763	Z	FT glo	-857.5	-857.5	0.000	0.000
4709	S019-var.cop.(neve)	1764	Z	FT glo	-857.5	-857.5	0.000	0.000
4710	S019-var.cop.(neve)	1765	Z	FT glo	-857.5	-857.5	0.000	0.000
4711	S019-var.cop.(neve)	1767	Z	FT glo	-857.5	-857.5	0.000	0.000
4712	S019-var.cop.(neve)	1768	Z	FT glo	-857.5	-857.5	0.000	0.000
4713	S019-var.cop.(neve)	1744	Z	FT glo	-857.5	-857.5	0.000	0.000
4714	S019-var.cop.(neve)	1745	Z	FT glo	-857.5	-857.5	0.000	0.000
4715	S019-var.cop.(neve)	1746	Z	FT glo	-857.5	-857.5	0.000	0.000
4716	S019-var.cop.(neve)	1748	Z	FT glo	-857.5	-857.5	0.000	0.000

PESI PROPRI ASTE--|-----|-----|-----|-----|

Cond.	Nome Carichi	Aste
1	4717-5350	50-57, 86-92, 102-106, 115-126, 168-171, 206-207, 209-224, 226, 269-277, 282-290, 297-305, 424-449, 451-456, 458-504, 506-561, 563-568, 570-613, 615-651, 653-663, 665-668, 670-695, 697-746, 1092-1142, 1144-1158, 1244-1249, 1252, 1254-1271, 1278, 1280, 1282-1287, 1295-1303, 1305, 1307-1308, 1652-1654, 1659-1660, 1662-1667, 1669-1671, 1673-1675, 1677-1684, 1686-1688, 1690-1693, 1695-1746, 1748-1749, 1751-1769, 1782-1804
3	5351-5704	1309-1651, 1771-1781

PESI PROPRI GUSCI-|-----|-----|-----|-----|

Cond.	Nome Carichi	Gusci
3	5705-6394	1-16, 73-86, 105-114, 131-154, 237-244, 323-364, 449-466, 475-492, 507-580, 583-880, 883-932, 935-946, 949-1054

CONDIZIONI DI CARICO-----|-----|-----|-----|num.= 12

Nome		
1	Perm_____	N. carichi: 1427 Lista carichi: 1-2, 3617-4407, 4717-5350
2	Var_____	N. carichi: 214 Lista carichi: 4408-4621
3	Perm_fond_____	N. carichi: 1048 Lista carichi: 4622-4625, 5351-6394
4	neve_____	N. carichi: 93 Lista carichi: 3-4, 4626-4716
5	Sisma_X	N. carichi: 812 Lista carichi: 369-1180
6	Sisma_Y	N. carichi: 812 Lista carichi: 1181-1992
7	Torcente_add._X	N. carichi: 812 Lista carichi: 1993-2804
8	Torcente_add._Y	N. carichi: 812 Lista carichi: 2805-3616
9	Autovett_001_(X)	N. carichi: 91 Lista carichi: 5-95
10	Autovett_001_(Y)	N. carichi: 91 Lista carichi: 96-186
11	Autovett_002_(X)	N. carichi: 91 Lista carichi: 187-277
12	Autovett_002_(Y)	N. carichi: 91 Lista carichi: 278-368

## DATI ANALISI SISMICA:

ANALISI DINAMICA

Lavoro : \THU801

PARAMETRI DI CALCOLO:

Calcolo secondo Ordinanza P.C.M. 3274

Modello generale

Assi di vibrazione: X Y

Combinazione quadratica completa (CQC)

Accelerazione di picco al suolo = 0.05g

Zona sismica = 4

Categoria del suolo di fondazione = C

Fattore di struttura q = 3.276

$q = q_0 * K_D * K_R$  dove :

$q_0 = 4.5$  ( Strutture a telaio ) \* 1.3 ( Edifici a telaio con più piani e più campate )

$K_D = 0.7$  ( Classe di duttilità "B" )

$K_R = 0.8$  ( Edifici non regolari in altezza)

CONDIZIONI DI RIFERIMENTO	COEFFICIENTE	PESO RISULTANTE [kgf]
1.	1.000	1039285.6
2.	0.300	73212.0
3.	0.200	131455.0

\*\*\* TABELLA AUTOVETTORI \*\*\*

n	PERIODO [sec]	MASSA ATTIVATA			COEFFICIENTI DI CORRELAZIONE						
		%X	%Y	%Z	n+1	n+2	n+3	n+4	n+5	n+6	n+7
1	0.216558	28.203	51.832	0.000	0.692						
2	0.202591	60.375	38.909	0.000							
----- MASSA TOTALE		88.579	90.742	0.000							
-----											



## DESCRIZIONE CASI DI CARICO:

NOME	DESCRIZIONE	TIPO	CONDIZ. INSERITE			CASI INSERITI	
			Num.	Coeff.	Segno	Num.	Coeff.
1	SLU SENZA SISMA	somma	1	1.400	+		
			2	1.500	+		
			3	1.400	+		
			4	1.500	+		
2	SISMAX SLU	somma	7	1.000	±		
			9	1.000	quadr.		
			11	1.000	quadr.		
3	SISMAY SLU	somma	8	1.000	±		
			10	1.000	quadr.		
			12	1.000	quadr.		
4	SLU SISMAX PRINC	somma	1	1.000	+	2	1.000
			2	0.600	+		
			3	1.000	+		
			4	0.200	+		
5	SLU SISMAY PRINC	somma	1	1.000	+	3	1.000
			2	0.600	+		
			3	1.000	+		
			4	0.200	+		
6	SLD SISMAX PRINC	somma	1	1.000	+	2	1.310
			2	0.600	+		
			3	1.000	+		
			4	0.200	+		
7	SLD SISMAY PRINC	somma	1	1.000	+	3	1.310
			2	0.600	+		
			3	1.000	+		
			4	0.200	+		
8	Rara	somma	1	1.000	+		
			2	1.000	+		
			3	1.000	+		
			4	1.000	+		
9	Frequente	somma	1	1.000	+		
			2	0.600	+		
			3	1.000	+		
			4	0.200	+		
10	Quasi Perm	somma	1	1.000	+		
			2	0.300	+		
			3	1.000	+		

### VERIFICA SPOSTAMENTI SISMICI

spostamento limite interpiano = 0.5% dell'altezza

CASO n. 6 - SLD SISMAX PRINC:

Zinf [cm]	Zsup [cm]	h [cm]	spost.max [cm]	%h	nodo	sest.	ver.
160.00	490.00	330.00	0.099372	0.030	1782	5	SI
490.00	540.00	50.00	0.023210	0.046	1833	5	SI

CASO n. 7 - SLD SISMAY PRINC:

Zinf [cm]	Zsup [cm]	h [cm]	spost.max [cm]	%h	nodo	sest.	ver.
160.00	490.00	330.00	0.118640	0.036	1782	2	SI
490.00	540.00	50.00	0.027687	0.055	1833	2	SI

## PROGETTO / VERIFICA DI ELEMENTI IN ACCIAIO :

### VERIFICA ASTE IN ACCIAIO

RIASSUNTO DELLE ASTE VERIFICATE CON L'ULTIMO CALCOLO EFFETTUATO

asta	1782	- sez.	24	-	P_TUBO219.1x6.3_S024	-	31%	della Si	limite.
asta	1783	- sez.	24	-	P_TUBO219.1x6.3_S024	-	32%	della Si	limite.
asta	1784	- sez.	24	-	P_TUBO219.1x6.3_S024	-	34%	della Si	limite.
asta	1785	- sez.	24	-	P_TUBO219.1x6.3_S024	-	41%	della Si	limite.
asta	1786	- sez.	24	-	P_TUBO219.1x6.3_S024	-	31%	della Si	limite.
asta	1787	- sez.	24	-	P_TUBO219.1x6.3_S024	-	32%	della Si	limite.
asta	1788	- sez.	24	-	P_TUBO219.1x6.3_S024	-	34%	della Si	limite.
asta	1789	- sez.	24	-	P_TUBO219.1x6.3_S024	-	42%	della Si	limite.
asta	1790	- sez.	24	-	P_TUBO219.1x6.3_S024	-	10%	della Si	limite.
asta	1791	- sez.	24	-	P_TUBO219.1x6.3_S024	-	29%	della Si	limite.
asta	1792	- sez.	24	-	P_TUBO219.1x6.3_S024	-	29%	della Si	limite.
asta	1793	- sez.	24	-	P_TUBO219.1x6.3_S024	-	29%	della Si	limite.
asta	1794	- sez.	24	-	P_TUBO219.1x6.3_S024	-	55%	della Si	limite.
asta	1795	- sez.	24	-	P_TUBO219.1x6.3_S024	-	10%	della Si	limite.
asta	1796	- sez.	24	-	P_TUBO219.1x6.3_S024	-	5%	della Si	limite.
asta	1797	- sez.	24	-	P_TUBO219.1x6.3_S024	-	5%	della Si	limite.
asta	1798	- sez.	24	-	P_TUBO219.1x6.3_S024	-	3%	della Si	limite.
asta	1799	- sez.	24	-	P_TUBO219.1x6.3_S024	-	2%	della Si	limite.
asta	1800	- sez.	24	-	P_TUBO219.1x6.3_S024	-	3%	della Si	limite.
asta	1801	- sez.	24	-	P_TUBO219.1x6.3_S024	-	5%	della Si	limite.
asta	1802	- sez.	24	-	P_TUBO219.1x6.3_S024	-	3%	della Si	limite.
asta	1803	- sez.	24	-	P_TUBO219.1x6.3_S024	-	2%	della Si	limite.
asta	1804	- sez.	24	-	P_TUBO219.1x6.3_S024	-	3%	della Si	limite.

## PROGETTO / VERIFICA DI ELEMENTI IN C.A.

PROGETTO ELEMENTI IN CEMENTO ARMATO - lavoro: THU101

Unita` di misura:  
 DIM.SEZIONI: cm  
 FORZE: kgf  
 LUNGHEZZE: cm  
 COPPIE: kgfm  
 TENSIONI: daN/cm2  
 BARRE: mm  
 AREA BARRE: cm2

PILASTRATA : N. 99 P001 CRITERI : 1  

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
694	0.	330.	16	1445							

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 694

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.01 | cy 1.00 |  
 VALORI Max | Ea 0.36 P 330. | Ec -0.25 P 330. | etZ .01 P 0. | etY .00 P 0. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 100 P033 CRITERI : 1  

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
700	0.	330.	794	1451							

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 700

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.02 | cy 1.00 |  
 VALORI Max | Ea 0.39 P 330. | Ec -0.27 P 330. | etZ .01 P 0. | etY .00 P 0. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 101 P016 CRITERI : 1  

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
699	0.	330.	767	1450							

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 699

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.03 | cy 1.00 |  
 VALORI Max | Ea 0.95 P 330. | Ec -0.65 P 330. | etZ .01 P 0. | etY .01 P 0. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 102 P029 CRITERI : 1  

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
701	0.	330.	782	1452							

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 701

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.02 | cy 1.00 |  
 VALORI Max | Ea 0.16 P 330. | Ec -0.19 P 330. | etZ .01 P 0. | etY .00 P 0. |

ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 103 P002 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
695	0.	330.	18	1446					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 695

ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.04 | cy 1.00 |  
 VALORI Max | Ea -0.26 P 330. | Ec -0.31 P 330. | etZ .01 P 0. | etY .01 P 0. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 104 P017 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
698	0.	330.	965	1449					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 698

ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.06 | cy 1.01 |  
 VALORI Max | Ea -0.24 P 330. | Ec -0.25 P 330. | etZ .01 P 0. | etY .01 P 0. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 105 P032 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
702	0.	330.	933	1453					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 702

ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.05 | cy 1.01 |  
 VALORI Max | Ea -0.33 P 330. | Ec -0.41 P 330. | etZ .01 P 0. | etY .01 P 0. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 106 P018 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
707	0.	300.	977	1459					
1295	300.	330.	1459	1803					
1308	330.	380.	1803	1907					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	300.	300.	60.	20.	0.	0.	0.	0.
Rett.	300.	380.	80.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	sol.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 707

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 52 |L 300. |om 1.01 |cz 1.03 |cy 1.00 |  
 VALORI Max |Ea 0.48 P 300. |Ec -0.41 P 300. |etZ .01 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 24 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 75. 7 10. 10.1 10.1 | 150. 10 15. 6.7 6.7 | 75. 7 10. 10.1 10.1 |

----- ASTA 1295

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 5 |L 30. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 1.06 P 330. |Ec -0.45 P 330. |etZ .00 P 300. |etY .01 P 300. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 2 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 30. 2 15. 6.7 6.7 |

----- ASTA 1308

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 1.06 P 330. |Ec -0.45 P 330. |etZ .01 P 330. |etY .08 P 330. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |

PILASTRATA : N. 107 P010

CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
741	0.	330.	30	1780
1297	330.	380.	1780	1844

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.
Rett.	330.	380.	50.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	sol.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 741

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 57 |L 330. |om 1.03 |cz 1.06 |cy 1.01 |  
 VALORI Max |Ea 0.57 P 330. |Ec -0.70 P 330. |etZ .02 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

----- ASTA 1297

ARMATURE Long. : TOT | N | 12 | A | 18.47256 | % | 1.53938 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 1.96 P 380. |Ec -1.70 P 380. |etZ .04 P 330. |etY .03 P 330. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |

PILASTRATA : N. 108 P011

CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
743	0.	330.	1406	1814

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	sol.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 743

ARMATURE Long. : TOT | N | 8 | A | 12.31504 | % | 1.02625 |  
 SNELLEZZA |roz 6.|roy 17.|Lamb 57|L 330.|om 1.03|cz 1.03|cy 1.00|  
 VALORI Max |Ea 1.27 P 330.|Ec -0.93 P 330.|etZ .02 P 0.|etY .01 P 0.|  
 ARMATURE Tras. |Diam 8|N. braccia z 2|N. braccia y 2|N. tot. 27|  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 109 P003 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.	L	B	H	S1	S2	S3	S4
705	0.	330.	20	1779							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 705

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6.|roy 17.|Lamb 57|L 330.|om 1.03|cz 1.02|cy 1.00|  
 VALORI Max |Ea 0.35 P 330.|Ec -0.27 P 330.|etZ .01 P 0.|etY .00 P 0.|  
 ARMATURE Tras. |Diam 8|N. braccia z 2|N. braccia y 2|N. tot. 27|  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 110 P064 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.	L	B	H	S1	S2	S3	S4
709	0.	330.	1037	1798							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 709

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6.|roy 17.|Lamb 57|L 330.|om 1.03|cz 1.03|cy 1.00|  
 VALORI Max |Ea -0.16 P 330.|Ec -0.19 P 330.|etZ .01 P 0.|etY .00 P 0.|  
 ARMATURE Tras. |Diam 8|N. braccia z 2|N. braccia y 2|N. tot. 27|  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 111 P069 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.	L	B	H	S1	S2	S3	S4
715	0.	330.	98	1789							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 715

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6.|roy 17.|Lamb 57|L 330.|om 1.03|cz 1.01|cy 1.00|  
 VALORI Max |Ea 0.45 P 330.|Ec -0.29 P 330.|etZ .01 P 0.|etY .00 P 0.|  
 ARMATURE Tras. |Diam 8|N. braccia z 2|N. braccia y 2|N. tot. 27|  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 112 P056 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.	L	B	H	S1	S2	S3	S4
732	0.	330.	1218	1812							
1300	330.	380.	1812	1875							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.		
Rett.	330.	380.	50.	20.	60.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 732

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 57 |L 330. |om 1.03 |cz 1.14 |cy 1.01 |  
 VALORI Max |Ea 1.12 P 330. |Ec -0.60 P 330. |etZ .01 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

----- ASTA 1300

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 0.35 P 330. |Ec -0.31 P 330. |etZ .01 P 330. |etY .04 P 330. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |

PILASTRATA : N. 113 P061 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
733	0.	330.	1233	1813
1301	330.	380.	1813	1880

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.
Rett.	330.	380.	50.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 733

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 57 |L 330. |om 1.03 |cz 1.16 |cy 1.02 |  
 VALORI Max |Ea 1.70 P 330. |Ec -0.88 P 330. |etZ .01 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

----- ASTA 1301

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 0.31 P 330. |Ec -0.26 P 330. |etZ .01 P 330. |etY .04 P 330. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |

PILASTRATA : N. 114 P004 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
740	0.	330.	32	1781

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 740

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 57 |L 330. |om 1.03 |cz 1.01 |cy 1.00 |  
 VALORI Max |Ea 0.66 P 330. |Ec -0.45 P 330. |etZ .02 P 0. |etY .00 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 115 P022 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
739	0.	330.	1376	1815
1305	330.	380.	1815	1898

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.
Rett.	330.	380.	50.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 739

ARMATURE Long. : TOT | N | 12 | A | 18.47256 | % | 1.53938 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 57 |L 330. |om 1.03 |cz 1.04 |cy 1.00 |  
 VALORI Max |Ea 7.48 P 330. |Ec -3.28 P 330. |etZ .02 P 0. |etY .00 P 0. |

ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |  
 ----- ASTA 1305  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA | roz 17. | roy 6. | Lamb 9 | L 50. | om 1.00 | cz 1.00 | cy 1.00 |  
 VALORI Max | Ea 1.74 P 330. | Ec -0.87 P 330. | etZ .03 P 330. | etY .12 P 330. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |  
 PILASTRATA : N. 116 P030 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
735	0.	330.	42	1784
1302	330.	380.	1784	1902

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.
Rett.	330.	380.	50.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	sol1.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 735  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.03 | cy 1.00 |  
 VALORI Max | Ea 1.41 P 330. | Ec -0.58 P 330. | etZ .01 P 0. | etY .00 P 0. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |  
 ----- ASTA 1302

ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA | roz 17. | roy 6. | Lamb 9 | L 50. | om 1.00 | cz 1.00 | cy 1.00 |  
 VALORI Max | Ea 0.47 P 330. | Ec -0.27 P 330. | etZ .01 P 330. | etY .03 P 330. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |  
 PILASTRATA : N. 117 P039 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
736	0.	330.	1439	1818
1303	330.	380.	1818	1900

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.
Rett.	330.	380.	50.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	sol1.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 736  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.05 | cy 1.01 |  
 VALORI Max | Ea 1.52 P 330. | Ec -0.80 P 330. | etZ .01 P 0. | etY .00 P 0. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |  
 ----- ASTA 1303

ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA | roz 17. | roy 6. | Lamb 9 | L 50. | om 1.00 | cz 1.00 | cy 1.00 |  
 VALORI Max | Ea 1.35 P 330. | Ec -0.73 P 330. | etZ .04 P 330. | etY .05 P 330. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |  
 PILASTRATA : N. 118 P066 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
731	0.	330.	1262	1817

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	sol1.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 731  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA | roz 6. | roy 17. | Lamb 57 | L 330. | om 1.03 | cz 1.01 | cy 1.00 |  
 VALORI Max | Ea 0.72 P 330. | Ec -0.37 P 330. | etZ .01 P 0. | etY .01 P 0. |  
 ARMATURE Tras. | Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |



PILASTRATA : N. 119 P070

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
730	0.	330.	48	1785					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 730

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.06	cy 1.01	
VALORI Max	Ea -0.32	P 330.	Ec -0.39	P 330.	etZ .01	P 0.	etY .00	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m		
	83. 8 10. 10.1 10.1	165. 11 15. 6.7 6.7	83. 8 10. 10.1 10.1					

PILASTRATA : N. 120 P079

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
711	0.	330.	845	1795					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 711

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.02	cy 1.00	
VALORI Max	Ea 0.39	P 330.	Ec -0.27	P 330.	etZ .01	P 0.	etY .00	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m		
	83. 8 10. 10.1 10.1	165. 11 15. 6.7 6.7	83. 8 10. 10.1 10.1					

PILASTRATA : N. 121 P080

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
712	0.	330.	857	1796					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 712

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.03	cy 1.00	
VALORI Max	Ea -0.13	P 330.	Ec -0.15	P 330.	etZ .01	P 0.	etY .01	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m		
	83. 8 10. 10.1 10.1	165. 11 15. 6.7 6.7	83. 8 10. 10.1 10.1					

PILASTRATA : N. 122 P081

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
722	0.	330.	1115	1807					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 722

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.05	cy 1.00	
VALORI Max	Ea -0.21	P 330.	Ec -0.25	P 330.	etZ .01	P 0.	etY .01	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m		
	83. 8 10. 10.1 10.1	165. 11 15. 6.7 6.7	83. 8 10. 10.1 10.1					

PILASTRATA : N. 123 P082 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
724	0.	330.	1133	1808					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 724

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.05	cy 1.00
VALORI Max	Ea -0.26	P 330.	Ec -0.33	P 330.	etZ .01	P 0.	etY .00
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10. 10.1 10.1	165. 11 15. 6.7 6.7	83. 8 10. 10.1 10.1				

PILASTRATA : N. 124 P083 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
725	0.	330.	1151	1809					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 725

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.04	cy 1.00
VALORI Max	Ea -0.27	P 330.	Ec -0.33	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10. 10.1 10.1	165. 11 15. 6.7 6.7	83. 8 10. 10.1 10.1				

PILASTRATA : N. 125 P084 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
726	0.	330.	1163	1810					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 726

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.03	cy 1.00
VALORI Max	Ea -0.17	P 330.	Ec -0.20	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10. 10.1 10.1	165. 11 15. 6.7 6.7	83. 8 10. 10.1 10.1				

PILASTRATA : N. 126 P085 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
727	0.	330.	54	1788					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 727

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.02	cy 1.00
VALORI Max	Ea 0.44	P 330.	Ec -0.31	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10. 10.1 10.1	165. 11 15. 6.7 6.7	83. 8 10. 10.1 10.1				

PILASTRATA : N. 127 P071

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
729	0.	330.	50	1786					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 729

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.02	cy 1.00
VALORI Max	Ea 0.16	P 330.	Ec -0.18	P 330.	etZ .01	P 0.	etY .00
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 128 P072

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
728	0.	330.	52	1787					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 728

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.02	cy 1.00
VALORI Max	Ea 0.39	P 330.	Ec -0.32	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 129 P076

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
717	0.	330.	836	1800					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 717

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.01	cy 1.00
VALORI Max	Ea 0.48	P 330.	Ec -0.28	P 330.	etZ .01	P 0.	etY .00
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 130 P074

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
710	0.	330.	1456	1820					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 710

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.04	cy 1.00
VALORI Max	Ea 0.86	P 330.	Ec -0.83	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 131 P077

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
713	0.	330.	871	1797							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 713

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.01	cy 1.00
VALORI Max	Ea 0.29	P 330.	Ec -0.21	P 330.	etZ .01	P 0.	etY .00
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 132 P068

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
714	0.	330.	100	1790							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 714

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.05	cy 1.01
VALORI Max	Ea 0.71	P 330.	Ec -0.79	P 330.	etZ .03	P 0.	etY .02
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 133 P063

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
716	0.	330.	914	1802							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 716

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.07	cy 1.01
VALORI Max	Ea -0.34	P 330.	Ec -0.37	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 134 P078

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
721	0.	330.	1097	1804							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 721

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.02	cy 1.00
VALORI Max	Ea 0.41	P 330.	Ec -0.29	P 330.	etZ .01	P 0.	etY .00
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 135 P075 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
720	0.	330.	1086	1805					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soll.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 720

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.02	cy 1.00
VALORI Max	Ea 0.57	P 330.	Ec -0.44	P 330.	etZ .01	P 0.	etY .00
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 136 P065 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
719	0.	330.	1076	1806					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soll.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 719

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.01	cy 1.00
VALORI Max	Ea 0.47	P 330.	Ec -0.27	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 137 P073 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
723	0.	330.	1286	1811					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soll.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 723

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.08	cy 1.01
VALORI Max	Ea -0.30	P 330.	Ec -0.31	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

PILASTRATA : N. 138 P034 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
706	0.	330.	950	1801					
1307	330.	380.	1801	1905					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.
Rett.	330.	380.	50.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soll.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 706

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.04	cy 1.00
VALORI Max	Ea 1.79	P 330.	Ec -0.78	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83. 8 10.	10.1 10.1	165. 11 15.	6.7 6.7	83. 8 10.	10.1 10.1	

----- ASTA 1307  
 ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 0.51 P 330. |Ec -0.28 P 330. |etZ .01 P 330. |etY .03 P 330. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |  
 PILASTRATA : N. 139 P067 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
734	0.	330.	1315	1819

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 734  
 ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 57 |L 330. |om 1.03 |cz 1.09 |cy 1.01 |  
 VALORI Max |Ea -0.29 P 0. |Ec -0.30 P 0. |etZ .01 P 0. |etY .00 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |  
 PILASTRATA : N. 140 P023 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
738	0.	330.	1394	1816

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 738  
 ARMATURE Long. : TOT | N | 8 | A | 12.31504 | % | 1.02625 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 57 |L 330. |om 1.03 |cz 1.03 |cy 1.00 |  
 VALORI Max |Ea 1.40 P 330. |Ec -1.05 P 330. |etZ .02 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |  
 PILASTRATA : N. 141 P031 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
737	0.	330.	40	1783

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 737  
 ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 57 |L 330. |om 1.03 |cz 1.01 |cy 1.00 |  
 VALORI Max |Ea 0.69 P 330. |Ec -0.48 P 330. |etZ .01 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |  
 PILASTRATA : N. 142 P005 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
742	0.	330.	34	1782

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 742  
 ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 6. |roy 17. |Lamb 57 |L 330. |om 1.03 |cz 1.01 |cy 1.00 |  
 VALORI Max |Ea 0.87 P 330. |Ec -0.50 P 330. |etZ .02 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |

PILASTRATA : N. 143 P040

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
708	0.	330.	1031	1799
1298	330.	380.	1799	1909

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.
Rett.	330.	380.	50.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 708

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.04	cy 1.00
VALORI Max	Ea 1.40	P 330.	Ec -0.67	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot.	27		
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83.	8 10. 10.1 10.1	165.	11 15. 6.7 6.7	83.	8 10. 10.1 10.1	

----- ASTA 1298

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 9	L 50.	om 1.00	cz 1.00	cy 1.00
VALORI Max	Ea 0.31	P 330.	Ec -0.22	P 330.	etZ .01	P 330.	etY .05
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot.	3		
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	13.	1 10. 10.1 10.1	25.	1 15. 6.7 6.7	13.	1 10. 10.1 10.1	

PILASTRATA : N. 144 P044

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
718	0.	330.	96	1794
1299	330.	380.	1794	1846

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	330.	330.	60.	20.	0.	0.	0.	0.
Rett.	330.	380.	50.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 718

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 6.	roy 17.	Lamb 57	L 330.	om 1.03	cz 1.09	cy 1.01
VALORI Max	Ea 0.65	P 330.	Ec -0.39	P 330.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot.	27		
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83.	8 10. 10.1 10.1	165.	11 15. 6.7 6.7	83.	8 10. 10.1 10.1	

----- ASTA 1299

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 9	L 50.	om 1.00	cz 1.00	cy 1.00
VALORI Max	Ea 0.20	P 330.	Ec -0.22	P 330.	etZ .02	P 330.	etY .02
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot.	3		
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	13.	1 10. 10.1 10.1	25.	1 15. 6.7 6.7	13.	1 10. 10.1 10.1	

PILASTRATA : N. 145 P006

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
697	0.	330.	22	1448
1296	330.	380.	1448	1823

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	380.	380.	20.	100.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 697

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.30788
SNELLEZZA	roz 29.	roy 6.	Lamb 57	L 330.	om 1.03	cz 1.00	cy 1.03
VALORI Max	Ea 0.29	P 330.	Ec -0.27	P 330.	etZ .00	P 0.	etY .02
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot.	27		
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	83.	8 10. 10.1 10.1	165.	11 15. 6.7 6.7	83.	8 10. 10.1 10.1	

----- ASTA 1296

ARMATURE Long.	: TOT	N	12	A	18.47256	%	0.92363
SNELLEZZA	roz 29.	roy 6.	Lamb 9	L 50.	om 1.00	cz 1.00	cy 1.00
VALORI Max	Ea 5.20	P 380.	Ec -2.46	P 380.	etZ .09	P 330.	etY .06
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot.	10		
	Lung. N. Ps	Az/m Ay/m					
	50.	10 5. 20.1 20.1					

PILASTRATA : N. 180 P007

CRITERI : 1

| Asta|Progr.I.|Progr.F.| Nodo I.| Nodo F. |  
| 744| 0.| 380.| 24| 1828|

| Sez.|Progr.I.|Progr.F.| L | B | H | S1 | S2 | S3 | S4 |  
| Circ.| 0.| 380.| 380.| 40.| 0.| 0.| 0.| 0.| 0. |

CASI DI CARICO

N	Descrizione	Soli.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 744  
ARMATURE Long. : TOT | N 8 | A 12.31504 | % 0.98000 |  
SNELLEZZA |roz 10.|roy 10.|Lamb 38|L 380.|om 1.00|cz 1.00|cy 1.00|  
VALORI Max |Ea -0.48 P 380.|Ec -0.58 P 380.|eta .01 P 0. |

PILASTRATA : N. 181 P008

CRITERI : 1

| Asta|Progr.I.|Progr.F.| Nodo I.| Nodo F. |  
| 745| 0.| 380.| 26| 1833|

| Sez.|Progr.I.|Progr.F.| L | B | H | S1 | S2 | S3 | S4 |  
| Circ.| 0.| 380.| 380.| 40.| 0.| 0.| 0.| 0.| 0. |

CASI DI CARICO

N	Descrizione	Soli.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 745  
ARMATURE Long. : TOT | N 8 | A 12.31504 | % 0.98000 |  
SNELLEZZA |roz 10.|roy 10.|Lamb 38|L 380.|om 1.00|cz 1.00|cy 1.00|  
VALORI Max |Ea -0.49 P 380.|Ec -0.62 P 380.|eta .01 P 0. |

PILASTRATA : N. 182 P009

CRITERI : 1

| Asta|Progr.I.|Progr.F.| Nodo I.| Nodo F. |  
| 746| 0.| 380.| 28| 1838|

| Sez.|Progr.I.|Progr.F.| L | B | H | S1 | S2 | S3 | S4 |  
| Circ.| 0.| 380.| 380.| 40.| 0.| 0.| 0.| 0.| 0. |

CASI DI CARICO

N	Descrizione	Soli.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 746  
ARMATURE Long. : TOT | N 8 | A 12.31504 | % 0.98000 |  
SNELLEZZA |roz 10.|roy 10.|Lamb 38|L 380.|om 1.00|cz 1.00|cy 1.00|  
VALORI Max |Ea -0.47 P 380.|Ec -0.57 P 380.|eta .01 P 0. |

PILASTRATA : N. 183 P062

CRITERI : 1

| Asta|Progr.I.|Progr.F.| Nodo I.| Nodo F. |  
| 1770| 0.| 330.| 815| 1599|

| Sez.|Progr.I.|Progr.F.| L | B | H | S1 | S2 | S3 | S4 |  
| Rett.| 0.| 330.| 330.| 20.| 60.| 0.| 0.| 0.| 0. |

CASI DI CARICO

N	Descrizione	Soli.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 1770  
ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
SNELLEZZA |roz 17.|roy 6.|Lamb 57|L 330.|om 1.03|cz 1.00|cy 1.04 |  
VALORI Max |Ea -0.29 P 330.|Ec -0.36 P 330.|etZ .00 P 0.|etY .01 P 0. |  
ARMATURE Tras. |Diam 8|N. braccia z 2|N. braccia y 2|N. tot. 27 |  
| Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
| 83. 8 10. 10.1 10.1 | 165. 11 15. 6.7 6.7 | 83. 8 10. 10.1 10.1 |



VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TRF200  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : Sc1s(rara)=124.8; Sc1s(quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: Sacc(rara)=3069. ; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [C1rc. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=50.; alt.=100.; Ac1s=5000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1775	2	2	2	0	570.	530.

CASI DI CARICO DA MODELLO 3D

Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	2.	1.	-3419.58	-.033	.096	-68694.88	-1.2	10.	2.	.107	20.09	SI
0.	0.	2.	1.	13.64	0.	0.	90904.74	-1.66	10.	2.	.142	6664.	SI
263.	263.	2.	2.	-6780.53	-.07	.191	-68509.24	-1.35	10.	2.	.119	10.1	SI
527.	527.	2.	1.	33.09	0.	.001	90904.74	-1.66	10.	2.	.142	2747.	SI
570.	570.	2.	1.	-2592.89	-.025	.072	-68694.88	-1.2	10.	2.	.107	26.49	SI
570.	570.	2.	1.	33.09	0.	.001	90904.74	-1.66	10.	2.	.142	2747.	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve		
> 0.	0.	2.	1.	-4395.	12507.	192879.	64140.	30017.	34123.	1.01	10.	SI
21.	21.	2.	1.	-3919.	14938.	192879.	64140.	30017.	34123.	1.01	10.	SI
570.	570.	2.	1.	3732.	12507.	192879.	64140.	30017.	34123.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	2.	1.	-1254.09	-1.5	71.8	18.85	7.5	.021	13.56	.003	SI
43.	43.	2.	1.	-2336.55	-2.8	133.8	18.85	7.5	.039	13.56	.005	SI
263.	263.	2.	2.	-4678.51	-6.	269.6	18.85	7.5	.079	13.56	.011	SI
570.	570.	2.	1.	-785.59	-1.	45.	18.85	7.5	.013	13.56	.002	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	2.	1.	-609.14	-.7	34.9	18.85	7.5	.01	13.56	.001	SI
43.	43.	2.	1.	-1321.36	-1.6	75.7	18.85	7.5	.022	13.56	.003	SI
219.	219.	2.	2.	-2783.68	-3.6	160.4	18.85	7.5	.047	13.56	.006	SI
570.	570.	2.	1.	-233.69	-.3	13.4	18.85	7.5	.004	13.56	.001	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	2.	1.	-449.08	-.5	25.7	18.85	7.5	.008	13.56	.001	SI
43.	43.	2.	1.	-1075.61	-1.3	61.6	18.85	7.5	.018	13.56	.002	SI
219.	219.	2.	2.	-2344.	-3.	135.1	18.85	7.5	.04	13.56	.005	SI
570.	570.	2.	1.	-118.46	-.1	6.8	18.85	7.5	.002	13.56	0.	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Infer.	Barre	Barre
1	43.98	.88	18.85	.377	6d20
2	37.7	.754	18.85	.377	6d20

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TRF201  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : Sc1s(rara)=124.8; Sc1s(quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: Sacc(rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

5) Rettangolare: base=30.; alt.=100.; Ac1s=3000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1781	5	5	5	0	190.	175.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	5. 1.	-691.36	-.011	.025	-53735.14	-1.57	10.	2.	.136	77.72	SI
0.	0.	5. 1.	1119.64	-.017	.047	45736.42	-1.3	10.	2.	.115	40.85	SI
168.	168.	5. 2.	-2867.57	-.047	.121	-45656.92	-1.4	10.	2.	.122	15.92	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	5.	-4871.	7504.	115728.	52133.	18010.	34123.	1.01	10.	SI
88.	88.	5.	-2208.	9125.	115728.	52133.	18010.	34123.	1.01	10.	SI
190.	190.	5.	411.	7504.	115728.	52133.	18010.	34123.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5. 1.	796.54	-1.6	68.7	12.57	7.5	.02	12.89	.003	SI
15.	15.	5. 1.	325.07	-.6	28.	12.57	7.5	.008	12.89	.001	SI
29.	29.	5. 1.	-96.21	-.2	7.1	14.83	7.5	.002	11.27	0.	SI
168.	168.	5. 2.	-1995.65	-4.1	172.8	12.57	7.5	.051	12.89	.007	SI
190.	190.	5. 3.	-1976.42	-3.9	0.	***	***	*****	***	***	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5. 1.	875.34	-1.7	75.5	12.57	7.5	.022	12.89	.003	SI
15.	15.	5. 1.	476.41	-.9	41.1	12.57	7.5	.012	12.89	.002	SI
29.	29.	5. 1.	120.08	-.2	10.4	12.57	7.5	.003	12.89	0.	SI
168.	168.	5. 2.	-1510.36	-3.1	130.8	12.57	7.5	.038	12.89	.005	SI
190.	190.	5. 3.	-1509.33	-3.	0.	***	***	*****	***	***	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5. 1.	837.73	-1.6	72.2	12.57	7.5	.021	12.89	.003	SI
15.	15.	5. 1.	473.47	-.9	40.8	12.57	7.5	.012	12.89	.002	SI
29.	29.	5. 1.	148.23	-.3	12.8	12.57	7.5	.004	12.89	0.	SI
168.	168.	5. 2.	-1337.05	-2.7	115.7	12.57	7.5	.034	12.89	.004	SI
190.	190.	5. 3.	-1336.82	-2.6	0.	***	***	*****	***	***	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	27.39	.913	14.83	.494	2d12 +4d20	12.57	.419	4d20
2	25.13	.838	12.57	.419	4d20	12.57	.419	4d20
3	0.	0.	0.	0.		0.	0.	

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TRF202  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : Sc1s(rara)=124.8; Sc1s(quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: Sacc(rara)=3069. ; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=50.; alt.=100.; Acl=5000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1771	2	2	2	0	210.	195.
2	A1772	2	2	2	0	90.	90.
3	A1773	2	2	2	0	90.	90.
4	A1774	2	2	2	0	90.	90.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	VE
> 0.	0.	2.	684.5	-.007	.019	68509.24	-1.35	10.	2.	.119	100.1	SI
59.	59.	2.	537.74	-.006	.015	68509.24	-1.35	10.	2.	.119	127.4	SI
166.	166.	2.	2938.18	-.03	.083	68509.24	-1.35	10.	2.	.119	23.32	SI
210.	210.	2.	2938.18	-.03	.083	68509.24	-1.35	10.	2.	.119	23.32	SI
> 210.	0.	2.	2984.74	-.031	.084	68509.24	-1.35	10.	2.	.119	22.95	SI
278.	68.	2.	2965.99	-.031	.083	68509.24	-1.35	10.	2.	.119	23.1	SI
300.	90.	2.	2965.99	-.031	.083	68509.24	-1.35	10.	2.	.119	23.1	SI
> 300.	0.	2.	3022.57	-.031	.085	68509.24	-1.35	10.	2.	.119	22.67	SI
390.	90.	2.	2288.77	-.024	.064	68509.24	-1.35	10.	2.	.119	29.93	SI
> 390.	0.	2.	1998.94	-.021	.056	68509.24	-1.35	10.	2.	.119	34.27	SI
434.	44.	2.	-199.55	-.002	.006	-68509.24	-1.35	10.	2.	.119	343.3	SI
480.	90.	2.	-224.12	-.002	.006	-68509.24	-1.35	10.	2.	.119	305.7	SI
480.	90.	2.	746.55	-.008	.021	68509.24	-1.35	10.	2.	.119	91.77	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	-1140.	12507.	192879.	64140.	30017.	34123.	1.01	10.	SI
44.	44.	2.	-611.	14938.	192879.	64140.	30017.	34123.	1.01	10.	SI
210.	210.	2.	3474.	14938.	192879.	64140.	30017.	34123.	1.01	10.	SI
> 210.	0.	2.	-908.	14938.	192879.	64140.	30017.	34123.	1.01	10.	SI
300.	90.	2.	845.	14938.	192879.	64140.	30017.	34123.	1.01	10.	SI
> 300.	0.	2.	-2010.	14938.	192879.	64140.	30017.	34123.	1.01	10.	SI
390.	90.	2.	-433.	14938.	192879.	64140.	30017.	34123.	1.01	10.	SI
> 390.	0.	2.	-3069.	14938.	192879.	64140.	30017.	34123.	1.01	10.	SI
480.	90.	2.	-1742.	12507.	192879.	64140.	30017.	34123.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
15.	15.	2.	80.24	-.1	4.6	18.85	7.5	.001	13.56	0.	SI
44.	44.	2.	22.49	0.	1.3	18.85	7.5	0.	13.56	0.	SI
210.	210.	2.	2026.26	-2.6	116.8	18.85	7.5	.034	13.56	.005	SI
> 210.	0.	2.	2059.59	-2.7	118.7	18.85	7.5	.035	13.56	.005	SI
256.	46.	2.	1920.18	-2.5	110.7	18.85	7.5	.032	13.56	.004	SI
300.	90.	2.	2050.88	-2.6	118.2	18.85	7.5	.035	13.56	.005	SI
> 300.	0.	2.	2090.73	-2.7	120.5	18.85	7.5	.035	13.56	.005	SI
390.	90.	2.	1344.34	-1.7	77.5	18.85	7.5	.023	13.56	.003	SI
> 390.	0.	2.	1386.2	-1.8	79.9	18.85	7.5	.023	13.56	.003	SI
480.	90.	2.	-103.4	-.1	6.	18.85	7.5	.002	13.56	0.	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	ScIs	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
15.	15.	2.	290.21	-.4	16.7	18.85	7.5	.005	13.56	.001	SI
59.	59.	2.	125.12	-.2	7.2	18.85	7.5	.002	13.56	0.	SI
210.	210.	2.	1107.76	-1.4	63.8	18.85	7.5	.019	13.56	.003	SI
> 210.	0.	2.	1147.47	-1.5	66.1	18.85	7.5	.019	13.56	.003	SI
254.	44.	2.	1086.23	-1.4	62.6	18.85	7.5	.018	13.56	.002	SI
300.	90.	2.	1194.9	-1.5	68.9	18.85	7.5	.02	13.56	.003	SI
> 300.	0.	2.	1233.14	-1.6	71.1	18.85	7.5	.021	13.56	.003	SI
390.	90.	2.	821.57	-1.1	47.3	18.85	7.5	.014	13.56	.002	SI
> 390.	0.	2.	862.38	-1.1	49.7	18.85	7.5	.015	13.56	.002	SI
480.	90.	2.	-117.4	-.2	6.8	18.85	7.5	.002	13.56	0.	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	ScIs	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
15.	15.	2.	298.54	-.4	17.2	18.85	7.5	.005	13.56	.001	SI
59.	59.	2.	141.45	-.2	8.2	18.85	7.5	.002	13.56	0.	SI
210.	210.	2.	931.75	-1.2	53.7	18.85	7.5	.016	13.56	.002	SI
> 210.	0.	2.	970.26	-1.3	55.9	18.85	7.5	.016	13.56	.002	SI
254.	44.	2.	929.97	-1.2	53.6	18.85	7.5	.016	13.56	.002	SI
300.	90.	2.	1029.87	-1.3	59.3	18.85	7.5	.017	13.56	.002	SI
> 300.	0.	2.	1065.35	-1.4	61.4	18.85	7.5	.018	13.56	.002	SI
390.	90.	2.	721.84	-.9	41.6	18.85	7.5	.012	13.56	.002	SI
> 390.	0.	2.	760.31	-1.	43.8	18.85	7.5	.013	13.56	.002	SI
480.	90.	2.	-111.78	-.1	6.4	18.85	7.5	.002	13.56	0.	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	37.7	.754	18.85	.377	6d20	18.85	.377

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TRF201  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=250.; fck=208.; fctk=16.2; fctm=23.1; Ec=284604.;  
 gc=1.6; fcd=130.; fbd=22.8; fctd=10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000.;  
 ga=1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : ScIs(rara)=124.8; ScIs(quasi permanente)=93.6; fbd(esercizio)=22.8  
 ACCIAIO: Sacc(rara)=3069.; coeff.Omogein.=15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4; wk(q.p.)=.2;  
 c/cmin=1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

5) Rettangolare: base=30.; alt.=100.; AclS=3000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1781	5	5	5	0	190.	175.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	EpscI	Epsac	Mrd	EpscI	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	5.	-691.36	-.011	.029	-45656.92	-1.4	10.	2.	.122	66.04	SI
0.	0.	5.	1119.64	-.018	.047	45656.92	-1.4	10.	2.	.122	40.78	SI
59.	59.	5.	654.64	-.011	.028	45656.92	-1.4	10.	2.	.122	69.74	SI
117.	117.	5.	-2837.86	-.046	.12	-45656.92	-1.4	10.	2.	.122	16.09	SI
168.	168.	5.	-2867.57	-.041	.12	-45829.22	-1.17	10.	2.	.105	15.98	SI
190.	190.	5.	-2839.31	-.041	.119	-45829.22	-1.17	10.	2.	.105	16.14	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	SE	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	5.	-4871.	7504.	115728.	52133.	18010.	34123.	1.01	10.
44.	44.	5.	-3500.	9125.	115728.	52133.	18010.	34123.	1.01	10.
190.	190.	5.	411.	7504.	115728.	52133.	18010.	34123.	1.01	10.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	Sc	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5.1.	796.54!	-1.6!	69.	12.57	7.5	.02	12.89	.003	SI
29.	29.	5.1.	-96.21!	-.2!	8.3	12.57	7.5	.002	12.89	0.	SI
168.	168.	5.2.	-1995.65!	-3.7!	171.1!	12.57	7.5	.05	12.89	.006	SI
190.	190.	5.2.	-1976.42!	-3.6!	169.4!	12.57	7.5	.05	12.89	.006	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	Sc	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5.1.	875.34!	-1.8!	75.8	12.57	7.5	.022	12.89	.003	SI
29.	29.	5.1.	120.08!	-.2!	10.4	12.57	7.5	.003	12.89	0.	SI
168.	168.	5.2.	-1510.36!	-2.8!	129.5!	12.57	7.5	.038	12.89	.005	SI
190.	190.	5.2.	-1509.33!	-2.8!	129.4!	12.57	7.5	.038	12.89	.005	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	Sc	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5.1.	837.73!	-1.7!	72.5	12.57	7.5	.021	12.89	.003	SI
29.	29.	5.1.	148.23!	-.3!	12.8	12.57	7.5	.004	12.89	0.	SI
168.	168.	5.2.	-1337.05!	-2.5!	114.6!	12.57	7.5	.034	12.89	.004	SI
190.	190.	5.2.	-1336.82!	-2.5!	114.6!	12.57	7.5	.034	12.89	.004	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	25.13	.838	12.57	.419	4d20	12.57	.419
2	31.42	1.047	12.57	.419	4d20	18.85	.628

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 3l - Travata T074  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FEB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(eserczio)= 22.8  
 ACCIAIO: σf (rara)=3069.; coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1104	3	3	3	0	395.	355.
2	A1099	3	3	3	0	315.	255.
3	A1094	3	3	3	0	230.	170.
4	A1092	3	3	3	0	255.	215.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.1.	-3005.66!	-.191!	.408!	-14230.1	-1.76!	10.	2.	.15	4.734	SI
0.	0.	3.1.	854.17!	-.054!	.129!	12685.53	-1.56!	10.	2.	.135	14.85	SI
198.	198.	3.2.	3455.04!	-.244!	.529!	12638.85	-1.8	10.	2.	.152	3.658	SI
290.	290.	3.3.	-630.08!	-.034!	.052!	-23376.04	-2.7	10.	2.	.212	37.1	SI
290.	290.	3.3.	2344.75!	-.125!	.35!	12715.54	-1.28!	10.	2.	.113	5.423	SI
336.	336.	3.4.	1100.96!	-.049!	.084!	25245.22	-2.01!	10.	2.	.167	22.93	SI
368.	368.	3.4.	229.15!	-.01!	.018!	25245.22	-2.01!	10.	2.	.167	110.2	SI
395.	395.	3.4.	-3586.08!	-.158!	.291!	-23705.43	-1.86!	10.	2.	.157	6.61	SI
> 395.	0.	3.4.	-3461.89!	-.153!	.281!	-23705.43	-1.86!	10.	2.	.157	6.848	SI
448.	53.	3.4.	97.84!	-.004!	.007!	25245.22	-2.01!	10.	2.	.167	258.	SI
490.	95.	3.5.	-858.42!	-.05!	.088!	-18858.17	-2.17!	10.	2.	.178	21.97	SI
490.	95.	3.5.	1219.05!	-.07!	.183!	12706.02	-1.4	10.	2.	.122	10.42	SI
573.	178.	3.2.	2079.03!	-.146!	.318!	12638.85	-1.8	10.	2.	.152	6.079	SI
710.	315.	3.4.	-2785.42!	-.123!	.226!	-23705.43	-1.86!	10.	2.	.157	8.511	SI
710.	315.	3.4.	523.42!	-.023!	.04!	25245.22	-2.01!	10.	2.	.167	48.23	SI
> 710.	0.	3.4.	-1328.97!	-.058!	.108!	-23705.43	-1.86!	10.	2.	.157	17.84	SI
710.	0.	3.4.	380.84!	-.017!	.029!	25245.22	-2.01!	10.	2.	.167	66.29	SI
805.	95.	3.2.	-788.72!	-.056!	.158!	-9543.68	-1.36!	10.	2.	.119	12.1	SI
805.	95.	3.2.	33.87!	-.002!	.005!	12638.85	-1.8	10.	2.	.152	373.2	SI
940.	230.	3.4.	-1178.4	-.052!	.096!	-23705.43	-1.86!	10.	2.	.157	20.12	SI
940.	230.	3.4.	375.	-.017!	.029!	25245.22	-2.01!	10.	2.	.167	67.32	SI
> 940.	0.	3.4.	-802.08!	-.035!	.065!	-23705.43	-1.86!	10.	2.	.157	29.56	SI
940.	0.	3.4.	313.88!	-.014!	.024!	25245.22	-2.01!	10.	2.	.167	80.43	SI

970.	30.	3.	4.	320.53	-.014	.025	25245.22	-2.01	10.	2.	.167	78.76	SI
1037.	97.	3.	5.	-389.49	-.022	.04	-18858.17	-2.17	10.	2.	.178	48.42	SI
1078.	138.	3.	2.	-144.67	-.01	.029	-9543.68	-1.36	10.	2.	.119	65.97	SI
1118.	178.	3.	1.	-62.71	-.004	.008	-14230.1	-1.76	10.	2.	.15	226.9	SI
1195.	255.	3.	1.	-299.19	-.019	.041	-14230.1	-1.76	10.	2.	.15	47.56	SI
1195.	255.	3.	1.	314.47	-.02	.048	12685.53	-1.56	10.	2.	.135	40.34	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	6136.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 395.	395.	3.	-6059.!	3829.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 395.	0.	3.	5589.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
532.	137.	3.	1770.!	3829.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
710.	315.	3.	-12845.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 710.	0.	3.	-466.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
710.	0.	3.	1157.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
752.	42.	3.	-503.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
940.	230.	3.	-997.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
940.	230.	3.	438.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 940.	0.	3.	877.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
1195.	255.	3.	-601.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
1195.	255.	3.	97.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-2113.95	-16.6	586.3	6.79	7.5	.172	12.67	.022	SI
14.	14.	3.	1.	-1642.42	-12.9	455.5	6.79	7.5	.133	12.67	.017	SI
45.	45.	3.	1.	-539.43	-4.2	149.6	6.79	7.5	.044	12.67	.006	SI
198.	198.	3.	2.	2430.22	-20.9	759.1	6.03	7.5	.227	14.24	.032	SI
395.	395.	3.	4.	-2524.08	-14.2	420.5	11.31	7.5	.123	10.87	.013	SI
> 395.	0.	3.	4.	-2436.14	-13.7	405.8	11.31	7.5	.119	10.87	.013	SI
573.	178.	3.	2.	1461.43	-12.6	456.5	6.03	7.5	.134	14.24	.019	SI
710.	315.	3.	4.	-1960.3	-11.	326.6	11.31	7.5	.096	10.87	.01	SI
> 710.	0.	3.	4.	-608.36	-3.4	101.3	11.31	7.5	.03	10.87	.003	SI
805.	95.	3.	2.	-412.44	-3.7	169.2	4.52	7.5	.05	14.92	.007	SI
845.	135.	3.	2.	107.07	-.9	33.4	6.03	7.5	.01	14.24	.001	SI
940.	230.	3.	4.	-504.23	-2.8	84.	11.31	7.5	.025	10.87	.003	SI
> 940.	0.	3.	4.	-293.06	-1.7	48.8	11.31	7.5	.014	10.87	.002	SI
1078.	138.	3.	2.	142.08	-1.2	44.4	6.03	7.5	.013	14.24	.002	SI
1195.	255.	3.	1.	-124.32	-1.	34.5	6.79	7.5	.01	12.67	.001	SI
1195.	255.	3.	1.	1.08	0.	.3	6.03	7.5	0.	14.24	0.	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
27.	27.	3.	1.	-966.99	-7.6	268.2	6.79	7.5	.078	12.67	.01	SI
45.	45.	3.	1.	-446.08	-3.5	123.7	6.79	7.5	.036	12.67	.005	SI
198.	198.	3.	2.	1989.44	-17.1	621.4	6.03	7.5	.182	14.24	.026	SI
395.	395.	3.	4.	-2090.29	-11.8	348.2	11.31	7.5	.102	10.87	.011	SI
> 395.	0.	3.	4.	-2013.7	-11.3	335.5	11.31	7.5	.098	10.87	.011	SI
573.	178.	3.	2.	1199.15	-10.3	374.6	6.03	7.5	.11	14.24	.016	SI
710.	315.	3.	4.	-1630.56	-9.2	271.6	11.31	7.5	.08	10.87	.009	SI
> 710.	0.	3.	4.	-506.29	-2.9	84.3	11.31	7.5	.025	10.87	.003	SI
805.	95.	3.	2.	-325.06	-2.9	133.3	4.52	7.5	.039	14.92	.006	SI
845.	135.	3.	2.	109.59	-.9	34.2	6.03	7.5	.01	14.24	.001	SI
940.	230.	3.	4.	-438.98	-2.5	73.1	11.31	7.5	.021	10.87	.002	SI
> 940.	0.	3.	4.	-256.3	-1.4	42.7	11.31	7.5	.012	10.87	.001	SI
1078.	138.	3.	2.	142.8	-1.2	44.6	6.03	7.5	.013	14.24	.002	SI
1195.	255.	3.	1.	-124.32	-1.	34.5	6.79	7.5	.01	12.67	.001	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
27.	27.	3.	1.	-916.08	-7.2	254.1	6.79	7.5	.074	12.67	.009	SI
32.	32.	3.	1.	-791.16	-6.2	219.4	6.79	7.5	.064	12.67	.008	SI
198.	198.	3.	2.	1884.97	-16.2	588.8	6.03	7.5	.172	14.24	.025	SI
395.	395.	3.	4.	-1982.84	-11.2	330.3	11.31	7.5	.097	10.87	.011	SI
> 395.	0.	3.	4.	-1908.92	-10.8	318.	11.31	7.5	.093	10.87	.01	SI
573.	178.	3.	2.	1132.65	-9.8	353.8	6.03	7.5	.104	14.24	.015	SI
710.	315.	3.	4.	-1549.	-8.7	258.	11.31	7.5	.076	10.87	.008	SI
> 710.	0.	3.	4.	-484.94	-2.7	80.8	11.31	7.5	.024	10.87	.003	SI
805.	95.	3.	2.	-303.8	-2.7	124.6	4.52	7.5	.036	14.92	.005	SI
845.	135.	3.	2.	108.49	-.9	33.9	6.03	7.5	.01	14.24	.001	SI
940.	230.	3.	4.	-417.84	-2.4	69.6	11.31	7.5	.02	10.87	.002	SI
> 940.	0.	3.	4.	-243.54	-1.4	40.6	11.31	7.5	.012	10.87	.001	SI
1078.	138.	3.	2.	143.18	-1.2	44.7	6.03	7.5	.013	14.24	.002	SI
1195.	255.	3.	1.	-124.32	-1.	34.5	6.79	7.5	.01	12.67	.001	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	12.82	1.068	6.79	.565	2d12 +4d12	6.03	.503	3d16
2	10.56	.88	4.52	.377	4d12	6.03	.503	3d16
3	17.34	1.445	11.31	.942	2d12 +4d12 +4d12	6.03	.503	3d16
4	23.37	1.948	11.31	.942	2d12 +4d12 +4d12	12.06	1.005	3d16 +3d16
5	15.08	1.257	9.05	.754	4d12 +4d12	6.03	.503	3d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 37 - Travata T002  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogenein. = 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=25.; Acls=2250. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1107	3	3	3	0	375.	355.
2	A1106	3	3	3	0	310.	290.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	-5562.61	-.628	1.375	-7769.73	-2.13	10.	2.	.175	1.397	SI
10.	10.	3.	120.25	-.012	.025	9332.11	-2.43	10.	2.	.195	77.61	SI
182.	182.	3.	6386.11	-.737	1.318	9328.98	-2.55	10.	2.	.203	1.461	SI
286.	286.	3.	-1160.72	-.104	.165	-13429.22	-2.94	10.	2.	.227	11.57	SI
375.	375.	3.	-8206.02	-.661	1.161	-13462.01	-2.49	10.	2.	.199	1.641	SI
> 375.	0.	3.	-7698.81	-.618	1.089	-13462.01	-2.49	10.	2.	.199	1.749	SI
430.	55.	3.	-3980.72	-.377	.567	-13409.28	-3.09	10.	2.	.236	3.369	SI
500.	125.	3.	-287.43	-.035	.091	-6080.92	-1.93	10.	2.	.162	21.16	SI
500.	125.	3.	3646.09	-.434	.893	7846.08	-2.28	10.	2.	.186	2.152	SI
570.	195.	3.	4363.74	-.524	1.07	7846.08	-2.28	10.	2.	.186	1.798	SI
685.	310.	3.	-3799.92	-.436	.938	-7772.96	-2.18	10.	2.	.179	2.046	SI
685.	310.	3.	214.51	-.024	.052	7843.23	-2.2	10.	2.	.18	36.56	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	11331.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI
375.	375.	3.	-12682.	10188.	78742.	43211.	12254.	30957.	2.01	5.	SI
> 375.	0.	3.	11420.	10188.	78742.	43211.	12254.	30957.	2.01	5.	SI
685.	310.	3.	-9039.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	-3912.43	-52.4	1957.1	9.96	6.23	.67	20.68	.139	SI
44.	44.	3.	-935.35	-12.5	467.9	9.96	6.23	.137	20.68	.028	SI
44.	44.	3.	1058.81	-13.6	440.4	12.06	6.02	.129	23.47	.03	SI
79.	79.	3.	2636.73	-33.8	1096.6	12.06	6.02	.321	23.47	.075	SI
182.	182.	3.	4491.14	-59.2	1869.	12.06	5.97	.68	23.29	.158	SI
375.	375.	3.	-5771.34	-56.4	1657.8	17.66	5.86	.643	14.76	.095	SI
> 375.	0.	3.	-5414.57	-52.9	1555.3	17.66	5.86	.593	14.76	.088	SI
570.	195.	3.	3069.15	-43.2	1521.6	10.05	6.14	.463	23.96	.111	SI
685.	310.	3.	-2672.65	-36.6	1336.9	9.96	6.2	.391	20.6	.081	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	-3230.78	-43.3	1616.1	9.96	6.23	.504	20.68	.104	SI
44.	44.	3.	-771.79	-10.3	386.1	9.96	6.23	.113	20.68	.023	SI
44.	44.	3.	862.4	-11.	358.7	12.06	6.02	.105	23.47	.025	SI
79.	79.	3.	2167.06	-27.7	901.3	12.06	6.02	.264	23.47	.062	SI
182.	182.	3.	3703.35	-48.8	1541.1	12.06	5.97	.52	23.29	.121	SI
375.	375.	3.	-4760.83	-46.5	1367.5	17.66	5.86	.502	14.76	.074	SI
> 375.	0.	3.	-4465.35	-43.6	1282.6	17.66	5.86	.46	14.76	.068	SI
570.	195.	3.	2534.05	-35.7	1256.3	10.05	6.14	.368	23.96	.088	SI
685.	310.	3.	-2207.	-30.3	1104.	9.96	6.2	.323	20.6	.067	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-3060.37	-41.	1530.9	9.96	6.23	.462	20.68	.096	SI
44.	44.	3.	1.	-730.98	-9.8	365.7	9.96	6.23	.107	20.68	.022	SI
44.	44.	3.	1.	813.37	-10.4	338.3	12.06	6.02	.099	23.47	.023	SI
79.	79.	3.	1.	2049.65	-26.2	852.5	12.06	6.02	.25	23.47	.059	SI
182.	182.	3.	2.	3506.23	-46.2	1459.1	12.06	5.97	.48	23.29	.112	SI
375.	375.	3.	4.	-4508.88	-44.1	1295.2	17.66	5.86	.466	14.76	.069	SI
> 375.	0.	3.	4.	-4228.97	-41.3	1214.7	17.66	5.86	.427	14.76	.063	SI
570.	195.	3.	7.	2400.09	-33.8	1189.9	10.05	6.14	.348	23.96	.083	SI
685.	310.	3.	8.	-2090.59	-28.7	1045.8	9.96	6.2	.306	20.6	.063	SI

ARMATURE LONGITUDINALI											
Nro	Totale	% Super.	% Barre	Infer.	% Barre						
1	22.02	.979	9.96	.443	2d12 +5d14						
2	19.76	.878	7.7	.342	5d14						
3	29.72	1.321	17.66	.785	2d12 +5d14 +5d14						
4	39.77	1.768	17.66	.785	2d12 +5d14 +5d14						
5	127.71	1.232	17.66	.785	2d12 +5d14 +5d14						
6	25.45	1.131	15.39	.684	5d14 +5d14						
7	17.75	.789	7.7	.342	5d14						
8	20.01	.889	9.96	.443	2d12 +5d14						

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 33 - Travata T082  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogenein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1098	3	3	3	0	255.	215.
2	A1096	3	3	3	0	60.	30.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-834.42	-.056	.114	-14180.29	-1.96	10.	2.	.164	16.99	SI
118.	118.	3.	2.	-881.71	-.067	.178	-9529.88	-1.48	10.	2.	.129	10.81	SI
118.	118.	3.	2.	61.28	-.005	.012	9529.88	-1.48	10.	2.	.129	155.5	SI
158.	158.	3.	3.	156.61	-.011	.031	9547.75	-1.3	10.	2.	.115	60.97	SI
199.	199.	3.	4.	209.13	-.011	.021	18965.7	-1.82	10.	2.	.154	90.69	SI
229.	229.	3.	4.	210.92	-.011	.021	18965.7	-1.82	10.	2.	.154	89.92	SI
255.	255.	3.	4.	-1629.53	-.084	.166	-18965.7	-1.82	10.	2.	.154	11.64	SI
255.	255.	3.	4.	210.92	-.011	.021	18965.7	-1.82	10.	2.	.154	89.92	SI
> 255.	0.	3.	4.	-1128.64	-.058	.115	-18965.7	-1.82	10.	2.	.154	16.8	SI
281.	26.	3.	4.	94.36	-.005	.01	18965.7	-1.82	10.	2.	.154	201.	SI
289.	34.	3.	4.	214.89	-.011	.022	18965.7	-1.82	10.	2.	.154	88.26	SI
311.	56.	3.	5.	-722.19	-.055	.146	-9529.88	-1.48	10.	2.	.129	13.2	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	-255.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
0.	0.	3.	738.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
26.	26.	3.	-303.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
255.	255.	3.	-913.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 255.	0.	3.	2645.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
315.	60.	3.	2517.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI



VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	3. 1.	-549.57	-4.6	153.3	6.79	7.5	.045	12.67	.006	SI
36.	36.	3. 1.	-535.04	-4.4	149.3	6.79	7.5	.044	12.67	.006	SI
118.	118.	3. 2.	-539.65	-5.1	222.4	4.52	7.5	.065	14.92	.01	SI
118.	118.	3. 2.	142.04	-1.3	58.5	4.52	7.5	.017	14.92	.003	SI
255.	255.	3. 4.	-927.59	-6.1	193.2	9.05	7.5	.057	11.54	.007	SI
> 255.	0.	3. 4.	-795.58	-5.2	165.7	9.05	7.5	.048	11.54	.006	SI
311.	56.	3. 5.	-40.87	- .4	16.8	4.52	7.5	.005	14.92	.001	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	3. 1.	-446.75	-3.7	124.6	6.79	7.5	.036	12.67	.005	SI
36.	36.	3. 1.	-431.06	-3.6	120.3	6.79	7.5	.035	12.67	.004	SI
118.	118.	3. 2.	-426.17	-4.	175.6	4.52	7.5	.051	14.92	.008	SI
118.	118.	3. 2.	143.39	-1.4	59.1	4.52	7.5	.017	14.92	.003	SI
255.	255.	3. 4.	-799.91	-5.2	166.6	9.05	7.5	.049	11.54	.006	SI
> 255.	0.	3. 4.	-679.75	-4.4	141.5	9.05	7.5	.041	11.54	.005	SI
311.	56.	3. 5.	-36.51	- .3	15.	4.52	7.5	.004	14.92	.001	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	3. 1.	-421.32	-3.5	117.5	6.79	7.5	.034	12.67	.004	SI
36.	36.	3. 1.	-405.18	-3.4	113.	6.79	7.5	.033	12.67	.004	SI
118.	118.	3. 2.	-396.63	-3.8	163.4	4.52	7.5	.048	14.92	.007	SI
118.	118.	3. 2.	147.82	-1.4	60.9	4.52	7.5	.018	14.92	.003	SI
255.	255.	3. 4.	-764.88	-5.	159.3	9.05	7.5	.047	11.54	.005	SI
> 255.	0.	3. 4.	-649.39	-4.2	135.2	9.05	7.5	.04	11.54	.005	SI
311.	56.	3. 5.	-34.33	- .3	14.1	4.52	7.5	.004	14.92	.001	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	11.31	.942	.565	4.52	.377
2	9.05	.754	4.52	4.52	.377
3	11.31	.942	.565	4.52	.377
4	18.1	1.508	9.05	9.05	.754
5	9.05	.754	4.52	4.52	.377

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 40 - Travata T004  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=250.; fck=208.; fctk=16.2; fctm=23.1; Ec=284604.;  
 gc=1.6; fcd=130.; fbd=22.8; fctd=10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000.;  
 ga=1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)=93.6; fbd(esesrcizio)=22.8  
 ACCIAIO: σf (rara)=3069.; Coeff.Omogein.=15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4; wk(q.p.)=.2;  
 c/cmin=1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1122	3	3	3	0	445.	385.
2	A1117	3	3	3	0	415.	355.
3	A1116	3	3	3	0	30.	0.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-985.69	-.066	.135	-14180.29	-1.96	10.	2.	.164	14.39	SI
0.	0.	3. 1.	851.38	-.058	.17	9547.75	-1.3	10.	2.	.115	11.21	SI
53.	53.	3. 1.	882.3	-.061	.176	9547.75	-1.3	10.	2.	.115	10.82	SI
349.	349.	3. 4.	-771.	-.045	.065	-22947.14	-3.42	10.	2.	.255	29.76	SI
349.	349.	3. 4.	257.85	-.015	.051	9556.02	-1.09	10.	2.	.098	37.06	SI
392.	392.	3. 5.	186.12	-.009	.019	19003.24	-1.64	10.	2.	.141	102.1	SI
445.	445.	3. 5.	-1394.54	-.068	.114	-23618.55	-2.14	10.	2.	.176	16.94	SI
445.	445.	3. 5.	6.31	0.	.001	19003.24	-1.64	10.	2.	.141	3011.	SI
> 445.	0.	3. 5.	-977.23	-.047	.08	-23618.55	-2.14	10.	2.	.176	24.17	SI
445.	0.	3. 5.	845.96	-.04	.085	19003.24	-1.64	10.	2.	.141	22.46	SI
465.	20.	3. 5.	907.89	-.043	.092	19003.24	-1.64	10.	2.	.141	20.93	SI
535.	90.	3. 4.	-247.02	-.014	.021	-22947.14	-3.42	10.	2.	.255	92.9	SI
535.	90.	3. 4.	748.33	-.043	.148	9556.02	-1.09	10.	2.	.098	12.77	SI
860.	415.	3. 7.	-1886.57	-.097	.192	-18965.7	-1.82	10.	2.	.154	10.05	SI
860.	415.	3. 7.	8.44	0.	.001	18965.7	-1.82	10.	2.	.154	2248.	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	930.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
445.	445.	3.	-1131.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 445.	0.	3.	-170.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
445.	0.	3.	8154.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
860.	415.	3.	-1276.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
25.	25.	3.	1.	-279.02!	-2.3!	77.8!	6.79!	7.5!	.023!	12.67!	.003!	SI
29.	29.	3.	1.	-268.19!	-2.2!	74.8!	6.79!	7.5!	.022!	12.67!	.003!	SI
180.	180.	3.	2.	471.54!	-4.5!	194.3!	4.52!	7.5!	.057!	14.92!	.008!	SI
445.	445.	3.	5.	-758.02!	-4.7!	127.4!	11.31!	7.5!	.037!	10.87!	.004!	SI
> 445.	0.	3.	5.	-795.33!	-4.9!	133.7!	11.31!	7.5!	.039!	10.87!	.004!	SI
535.	90.	3.	4.	358.99!	-2.7!	145.7!	4.52!	7.5!	.043!	14.92!	.006!	SI
860.	415.	3.	7.	-1106.28!	-7.2!	230.4!	9.05!	7.5!	.067!	11.54!	.008!	SI
> 860.	0.	3.	8.	-1063.07!	-8.7!	0.!	***	***	*****	****	****	!SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
25.	25.	3.	1.	-277.17!	-2.3!	77.3!	6.79!	7.5!	.023!	12.67!	.003!	SI
29.	29.	3.	1.	-268.19!	-2.2!	74.8!	6.79!	7.5!	.022!	12.67!	.003!	SI
180.	180.	3.	2.	471.69!	-4.5!	194.4!	4.52!	7.5!	.057!	14.92!	.008!	SI
445.	445.	3.	5.	-725.59!	-4.5!	122.!	11.31!	7.5!	.036!	10.87!	.004!	SI
> 445.	0.	3.	5.	-733.!	-4.5!	123.2!	11.31!	7.5!	.036!	10.87!	.004!	SI
580.	135.	3.	3.	304.69!	-2.5!	124.1!	4.52!	7.5!	.036!	14.92!	.005!	SI
860.	415.	3.	7.	-961.59!	-6.3!	200.2!	9.05!	7.5!	.059!	11.54!	.007!	SI
> 860.	0.	3.	8.	-887.5!	-7.3!	0.!	***	***	*****	****	****	!SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
25.	25.	3.	1.	-276.76!	-2.3!	77.2!	6.79!	7.5!	.023!	12.67!	.003!	SI
29.	29.	3.	1.	-268.19!	-2.2!	74.8!	6.79!	7.5!	.022!	12.67!	.003!	SI
180.	180.	3.	2.	473.47!	-4.5!	195.1!	4.52!	7.5!	.057!	14.92!	.009!	SI
445.	445.	3.	5.	-718.4!	-4.4!	120.8!	11.31!	7.5!	.035!	10.87!	.004!	SI
> 445.	0.	3.	5.	-718.1!	-4.4!	120.7!	11.31!	7.5!	.035!	10.87!	.004!	SI
580.	135.	3.	3.	301.9!	-2.4!	123.!	4.52!	7.5!	.036!	14.92!	.005!	SI
860.	415.	3.	7.	-924.81!	-6.!	192.6!	9.05!	7.5!	.056!	11.54!	.007!	SI
> 860.	0.	3.	8.	-843.71!	-6.9!	0.!	***	***	*****	****	****	!SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31!	.942!	6.79!	.565!	2d12 +4d12	4.52!	.377!	4d12
2	9.05!	.754!	4.52!	.377!	4d12	4.52!	.377!	4d12
3	13.57!	1.131!	9.05!	.754!	4d12 +4d12	4.52!	.377!	4d12
4	15.83!	1.319!	11.31!	.942!	2d12 +4d12 +4d12	4.52!	.377!	4d12
5	20.36!	1.696!	11.31!	.942!	2d12 +4d12 +4d12	9.05!	.754!	4d12 +4d12
6	13.57!	1.131!	9.05!	.754!	2d12 +4d12 +2d12	4.52!	.377!	4d12
7	18.1!	1.508!	9.05!	.754!	2d12 +4d12 +2d12	9.05!	.754!	4d12 +4d12
8	0.	0.	0.	0.		0.	0.	

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 41 - Travata T064  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FE844k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: σf (rara)=3069. ; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=25.; Acl=2250. .

## DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1119	3	3	3	0	485.	465.
2	A1118	3	3	3	0	420.	400.

## CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

## VERIFICHE ALLO STATO LIMITE ULTIMO

## FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-1298.3	-.134	.278	-8913.68	-2.28	10.	2.	.186	6.866	SI
20.	20.	3. 1.	17.03	-.002	.003	9332.42	-2.36	10.	2.	.191	547.9	SI
260.	260.	3. 2.	1014.98	-.107	.208	9331.53	-2.46	10.	2.	.198	9.194	SI
397.	397.	3. 4.	-496.19	-.042	.06	-15654.59	-3.27	10.	2.	.246	31.55	SI
397.	397.	3. 4.	623.48	-.056	.127	9324.23	-2.12	10.	2.	.175	14.96	SI
465.	465.	3. 5.	151.71	-.011	.016	18200.54	-3.01	10.	2.	.231	120.	SI
485.	485.	3. 5.	-1375.11	-.099	.166	-15730.18	-2.63	10.	2.	.208	11.44	SI
> 485.	0.	3. 5.	-487.87	-.035	.059	-15730.18	-2.63	10.	2.	.208	32.24	SI
485.	0.	3. 5.	858.07	-.061	.09	18200.54	-3.01	10.	2.	.231	21.21	SI
540.	55.	3. 4.	-249.34	-.021	.03	-15654.59	-3.27	10.	2.	.246	62.79	SI
682.	197.	3. 2.	-24.92	-.003	.007	-7230.54	-2.05	10.	2.	.17	290.2	SI
905.	420.	3. 1.	-2077.34	-.215	.445	-8913.68	-2.28	10.	2.	.186	4.291	SI

## VERIFICHE A TAGLIO

## TAGLIO:

Progressive	Se	Ar	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3. 1.	1606.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI
157.	157.	3. 1.	584.	9193.	78742.	20638.	12254.	10319.	2.01	15.	SI
485.	485.	3. 1.	-1636.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI
> 485.	0.	3. 1.	-168.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI
485.	0.	3. 1.	710.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI
505.	20.	3. 1.	-196.	9193.	78742.	43211.	12254.	30957.	2.01	5.	SI
905.	420.	3. 1.	-1399.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI

## VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

## TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-931.13	-11.8	405.4	11.5	6.1	.119	18.78	.022	SI
10.	10.	3. 1.	-885.91	-11.2	385.8	11.5	6.1	.113	18.78	.021	SI
225.	225.	3. 2.	724.91	-9.4	301.5	12.06	6.	.088	23.41	.021	SI
485.	485.	3. 5.	-971.06	-8.8	238.7	20.73	5.72	.07	13.61	.01	SI
> 485.	0.	3. 5.	292.39	-2.6	62.2	24.13	5.49	.018	13.05	.002	SI
540.	55.	3. 4.	361.07	-4.1	150.	12.06	6.2	.044	24.19	.011	SI
905.	420.	3. 1.	-1243.92	-15.8	541.6	11.5	6.1	.159	18.78	.03	SI

## TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-972.37	-12.3	423.4	11.5	6.1	.124	18.78	.023	SI
10.	10.	3. 1.	-925.41	-11.7	403.	11.5	6.1	.118	18.78	.022	SI
260.	260.	3. 2.	729.18	-9.4	303.3	12.06	6.	.089	23.41	.021	SI
485.	485.	3. 5.	-846.48	-7.7	208.1	20.73	5.72	.061	13.61	.008	SI
> 485.	0.	3. 5.	170.19	-1.5	36.2	24.13	5.49	.011	13.05	.001	SI
576.	91.	3. 4.	295.1	-3.3	122.6	12.06	6.2	.036	24.19	.009	SI
905.	420.	3. 1.	-1088.69	-13.8	474.	11.5	6.1	.139	18.78	.026	SI

## TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-983.2	-12.5	428.1	11.5	6.1	.125	18.78	.024	SI
10.	10.	3. 1.	-935.79	-11.9	407.5	11.5	6.1	.119	18.78	.022	SI
260.	260.	3. 2.	726.16	-9.4	302.1	12.06	6.	.088	23.41	.021	SI
485.	485.	3. 5.	-815.12	-7.4	200.3	20.73	5.72	.059	13.61	.008	SI
> 485.	0.	3. 5.	138.97	-1.2	29.6	24.13	5.49	.009	13.05	.001	SI
576.	91.	3. 4.	279.17	-3.2	116.	12.06	6.2	.034	24.19	.008	SI
905.	420.	3. 1.	-1049.23	-13.3	456.9	11.5	6.1	.134	18.78	.025	SI

## ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Infer.	Barre
1	23.56	1.047	11.5	.511 2d12 +6d14
2	21.3	.947	9.24	.411 6d14
3	30.54	1.357	18.47	.821 6d14 +6d14
4	32.8	1.458	20.73	.922 2d12 +6d14 +6d14
5	44.86	1.994	20.73	.922 2d12 +6d14 +6d14

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 41 - Travata T064  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=25.; Acls=2250. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1119	3	3	3	0	485.	465.
2	A1118	3	3	3	0	420.	400.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-1298.3	-.134	.278	-8913.68	-2.28	10.	2.	.186	6.866	SI
20.	20.	3. 1.	17.03	-.002	.003	9332.42	-2.36	10.	2.	.191	547.9	SI
260.	260.	3. 2.	1014.98	-.107	.208	9331.53	-2.46	10.	2.	.198	9.194	SI
397.	397.	3. 4.	-496.19	-.042	.06	-15654.59	-3.27	10.	2.	.246	31.55	SI
397.	397.	3. 4.	623.48	-.056	.127	9324.23	-2.12	10.	2.	.175	14.96	SI
465.	465.	3. 5.	151.71	-.011	.016	18200.54	-3.01	10.	2.	.231	120.	SI
485.	485.	3. 5.	-1375.11	-.099	.166	-15730.18	-2.63	10.	2.	.208	11.44	SI
> 485.	0.	3. 5.	-487.87	-.035	.059	-15730.18	-2.63	10.	2.	.208	32.24	SI
485.	0.	3. 5.	858.07	-.061	.09	18200.54	-3.01	10.	2.	.231	21.21	SI
540.	55.	3. 4.	-249.34	-.021	.03	-15654.59	-3.27	10.	2.	.246	62.79	SI
682.	197.	3. 2.	-24.92	-.003	.007	-7230.54	-2.05	10.	2.	.17	290.2	SI
905.	420.	3. 1.	-2077.34	-.215	.445	-8913.68	-2.28	10.	2.	.186	4.291	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	1606.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI
157.	157.	3. 1.	584.	9193.	78742.	20638.	12254.	10319.	2.01	15.	SI
485.	485.	3. 1.	-1636.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI
> 485.	0.	3. 1.	-168.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI
485.	0.	3. 1.	710.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI
505.	20.	3. 1.	-196.	9193.	78742.	43211.	12254.	30957.	2.01	5.	SI
905.	420.	3. 1.	-1399.	7046.	78742.	43211.	12254.	30957.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-931.13	-11.8	405.4	11.5	6.1	.119	18.78	.022	SI
10.	10.	3. 1.	-885.91	-11.2	385.8	11.5	6.1	.113	18.78	.021	SI
225.	225.	3. 2.	724.91	-9.4	301.5	12.06	6.	.088	23.41	.021	SI
485.	485.	3. 5.	-971.06	-8.8	238.7	20.73	5.72	.07	13.61	.01	SI
> 485.	0.	3. 5.	292.39	-2.6	62.2	24.13	5.49	.018	13.05	.002	SI
540.	55.	3. 4.	361.07	-4.1	150.	12.06	6.2	.044	24.19	.011	SI
905.	420.	3. 1.	-1243.92	-15.8	541.6	11.5	6.1	.159	18.78	.03	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-972.37	-12.3	423.4	11.5	6.1	.124	18.78	.023	SI
10.	10.	3. 1.	-925.41	-11.7	403.	11.5	6.1	.118	18.78	.022	SI
260.	260.	3. 2.	729.18	-9.4	303.3	12.06	6.	.089	23.41	.021	SI
485.	485.	3. 5.	-846.48	-7.7	208.1	20.73	5.72	.061	13.61	.008	SI
> 485.	0.	3. 5.	170.19	-1.5	36.2	24.13	5.49	.011	13.05	.001	SI
576.	91.	3. 4.	295.1	-3.3	122.6	12.06	6.2	.036	24.19	.009	SI
905.	420.	3. 1.	-1088.69	-13.8	474.	11.5	6.1	.139	18.78	.026	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	1.	-983.2	-12.5	428.1	11.5	6.1	.125	18.78	.024
10.	10.	3.	1.	-935.79	-11.9	407.5	11.5	6.1	.119	18.78	.022
260.	260.	3.	2.	726.16	-9.4	302.1	12.06	6.	.088	23.41	.021
485.	485.	3.	5.	-815.12	-7.4	200.3	20.73	5.72	.059	13.61	.008
> 485.	0.	3.	5.	138.97	-1.2	29.6	24.13	5.49	.009	13.05	.001
576.	91.	3.	4.	279.17	-3.2	116.	12.06	6.2	.034	24.19	.008
905.	420.	3.	1.	-1049.23	-13.3	456.9	11.5	6.1	.134	18.78	.025

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	23.56	1.047	11.5	.511	2d12 +6d14	12.06	.536	6d16
2	21.3	.947	9.24	.411	6d14	12.06	.536	6d16
3	30.54	1.357	18.47	.821	6d14 +6d14	12.06	.536	6d16
4	32.8	1.458	20.73	.922	2d12 +6d14 +6d14	12.06	.536	6d16
5	44.86	1.994	20.73	.922	2d12 +6d14 +6d14	24.13	1.072	6d16 +6d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 32 - Travata T006  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc=1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogenein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; AcIs=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	s.ini	Sez.	s.fin	Incl.	L.assi	L.netta
1	A1093	3	3	3	0	330.	270.
2	A1095	3	3	3	0	60.	30.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-2270.31	-.153	.31	-14180.29	-1.96	10.	2.	.164	6.246
0.	0.	3.	1.	907.98	-.062	.182	9547.75	-1.3	10.	2.	.115	10.52
99.	99.	3.	1.	-213.83	-.014	.029	-14180.29	-1.96	10.	2.	.164	66.32
143.	143.	3.	2.	2591.02	-.199	.523	9529.88	-1.48	10.	2.	.129	3.678
274.	274.	3.	4.	1490.01	-.077	.151	18965.7	-1.82	10.	2.	.154	12.73
330.	330.	3.	4.	-2307.8	-.119	.234	-18965.7	-1.82	10.	2.	.154	8.218
330.	330.	3.	4.	460.94	-.024	.047	18965.7	-1.82	10.	2.	.154	41.15
> 330.	0.	3.	4.	-1978.59	-.102	.201	-18965.7	-1.82	10.	2.	.154	9.585
360.	30.	3.	4.	2.16	0.	0.	18965.7	-1.82	10.	2.	.154	8789.
364.	34.	3.	4.	74.25	-.004	.008	18965.7	-1.82	10.	2.	.154	255.4
386.	56.	3.	5.	-1286.19	-.081	.256	-9554.12	-1.18	10.	2.	.105	7.428
386.	56.	3.	5.	74.25	-.005	.008	18749.37	-2.44	10.	2.	.196	252.5

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3.	5309.	3028.	45337.	27107.	7056.	20051.	1.01	10.
56.	56.	3.	3453.	3629.	45337.	27107.	7056.	20051.	1.01	10.
330.	330.	3.	-4831.	3028.	45337.	27107.	7056.	20051.	1.01	10.
> 330.	0.	3.	4116.	3028.	45337.	27107.	7056.	20051.	1.01	10.
390.	60.	3.	3124.	3028.	45337.	27107.	7056.	20051.	1.01	10.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1596.86!	-13.2!	445.5!	6.79!	7.5!	.13!	12.67!	.017!	SI
13.	13.	3. 1.	-1181.07!	-9.8!	329.5!	6.79!	7.5!	.096!	12.67!	.012!	SI
30.	30.	3. 1.	-926.44!	-7.7!	258.5!	6.79!	7.5!	.076!	12.67!	.01!	SI
43.	43.	3. 1.	-511.54!	-4.2!	142.7!	6.79!	7.5!	.042!	12.67!	.005!	SI
143.	143.	3. 2.	1822.36!	-17.3!	751.!	4.52!	7.5!	.22!	14.92!	.033!	SI
330.	330.	3. 4.	-1546.33!	-10.1!	322.!	9.05!	7.5!	.094!	11.54!	.011!	SI
> 330.	0.	3. 4.	-1393.26!	-9.1!	290.1!	9.05!	7.5!	.085!	11.54!	.01!	SI
386.	56.	3. 5.	-241.24!	-1.9!	98.3!	4.52!	7.5!	.029!	14.92!	.004!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1319.13!	-10.9!	368.!	6.79!	7.5!	.108!	12.67!	.014!	SI
13.	13.	3. 1.	-976.15!	-8.1!	272.3!	6.79!	7.5!	.08!	12.67!	.01!	SI
30.	30.	3. 1.	-765.31!	-6.3!	213.5!	6.79!	7.5!	.062!	12.67!	.008!	SI
43.	43.	3. 1.	-423.13!	-3.5!	118.1!	6.79!	7.5!	.035!	12.67!	.004!	SI
143.	143.	3. 2.	1516.47!	-14.4!	624.9!	4.52!	7.5!	.183!	14.92!	.027!	SI
330.	330.	3. 4.	-1289.6!	-8.4!	268.5!	9.05!	7.5!	.079!	11.54!	.009!	SI
> 330.	0.	3. 4.	-1166.49!	-7.6!	242.9!	9.05!	7.5!	.071!	11.54!	.008!	SI
386.	56.	3. 5.	-203.08!	-1.6!	82.7!	4.52!	7.5!	.024!	14.92!	.004!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1249.7!	-10.4!	348.7!	6.79!	7.5!	.102!	12.67!	.013!	SI
13.	13.	3. 1.	-924.99!	-7.7!	258.1!	6.79!	7.5!	.076!	12.67!	.01!	SI
30.	30.	3. 1.	-725.03!	-6.!	202.3!	6.79!	7.5!	.059!	12.67!	.008!	SI
43.	43.	3. 1.	-401.09!	-3.3!	111.9!	6.79!	7.5!	.033!	12.67!	.004!	SI
143.	143.	3. 2.	1436.76!	-13.6!	592.1!	4.52!	7.5!	.173!	14.92!	.026!	SI
330.	330.	3. 4.	-1227.02!	-8.!	255.5!	9.05!	7.5!	.075!	11.54!	.009!	SI
> 330.	0.	3. 4.	-1111.07!	-7.3!	231.4!	9.05!	7.5!	.068!	11.54!	.008!	SI
386.	56.	3. 5.	-194.51!	-1.6!	79.2!	4.52!	7.5!	.023!	14.92!	.003!	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	11.31	.942	6.79	4.52	.377
2	9.05	.754	4.52	4.52	.377
3	11.31	.942	6.79	4.52	.377
4	18.1	1.508	9.05	9.05	.754
5	13.57	1.131	4.52	9.05	.754

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 34 - Travata T085  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esesercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1097	3	3	3	0	295.	295.

CASI DI CARICO DA MODELLO 3D

SLU		RARE		QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.
4.	SLU SISMAX PRINC	16			
5.	SLU SISMAX PRINC	16			

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 14.	14.	3.	-418.04!	-.032	.084	-9529.88!	-1.48	10.	2.	.129	22.8	SI
14.	14.	3.	697.29!	-.053	.141	9529.88!	-1.48	10.	2.	.129	13.67	SI
171.	171.	3.	1739.89!	-.133	.351	9529.88!	-1.48	10.	2.	.129	5.477	SI
267.	267.	3.	-170.96!	-.013	.034	-9529.88!	-1.48	10.	2.	.129	55.74	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	3124.!	3028.	45337.	35701.	7056.	28645.	1.01	7.	SI
76.	76.	3.	1476.!	3629.!	45337.	35701.	7056.	28645.	1.01	7.	SI
295.	295.	3.	-2517.!	3028.	45337.!	35701.!	7056.!	28645.!	1.01	7.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 14.	14.	3.	43.17!	-.4	17.8	4.52	7.5	.005	14.92	.001	SI
171.	171.	3.	1225.43!	-11.6!	505.!	4.52	7.5	.148	14.92	.022	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 14.	14.	3.	35.5 !	-.3	14.6	4.52	7.5	.004	14.92	.001	SI
171.	171.	3.	1030.7 !	-9.8!	424.7!	4.52	7.5	.124	14.92	.019	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 14.	14.	3.	32.75!	-.3	13.5	4.52	7.5	.004	14.92	.001	SI
171.	171.	3.	982.26!	-9.3!	404.8!	4.52	7.5	.118	14.92	.018	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre	
1	9.05	.754	4.52	.377	4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 35 - Travata T081  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FEB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO: σf (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1101	2	2	2	0	600.	560.
2	A1102	2	2	2	0	350.	290.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	Se	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	2. 1.	-5567.76	-.384	.762	-14180.29	-1.96	10.	2.	.164	2.547	SI
0.	0.	2. 1.	150.87	-.01	.03	9547.75	-1.3	10.	2.	.115	63.29	SI
271.	271.	2. 2.	8066.34	-.645	1.632	9529.88	-1.48	10.	2.	.129	1.181	SI
467.	467.	2. 4.	-1279.4	-.074	.107	-22947.14	-3.42	10.	2.	.255	17.94	SI
467.	467.	2. 4.	3063.48	-.178	.606	9556.02	-1.09	10.	2.	.098	3.119	SI
529.	529.	2. 4.	30.43	-.002	.006	9556.02	-1.09	10.	2.	.098	314.	SI
600.	600.	2. 5.	-9170.84	-.46	.754	-23618.55	-2.14	10.	2.	.176	2.575	SI
> 600.	0.	2. 5.	-4961.75	-.245	.407	-23618.55	-2.14	10.	2.	.176	4.76	SI
686.	86.	2. 4.	-3831.58	-.226	.322	-22947.14	-3.42	10.	2.	.255	5.989	SI
721.	121.	2. 2.	-3011.08	-.232	.608	-9529.88	-1.48	10.	2.	.129	3.165	SI
829.	229.	2. 1.	364.43	-.025	.073	9547.75	-1.3	10.	2.	.115	26.2	SI
923.	323.	2. 1.	-452.77	-.03	.062	-14180.29	-1.96	10.	2.	.164	31.32	SI
927.	327.	2. 1.	1388.92	-.096	.278	9547.75	-1.3	10.	2.	.115	6.874	SI
950.	350.	2. 1.	-452.89	-.03	.062	-14180.29	-1.96	10.	2.	.164	31.31	SI
950.	350.	2. 1.	1388.92	-.096	.278	9547.75	-1.3	10.	2.	.115	6.874	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	9006.!	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
600.	600.	2.	-16685.!	4530.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 600.	0.	2.	2290.!	4230.	45337.	27107.	7056.	20051.	1.01	10.	SI
950.	350.	2.	-13.!	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
950.	350.	2.	791.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	2. 1.	-3916.44	-32.5	1092.7	6.79	7.5	.403	12.67	.051	SI
13.	13.	2. 1.	-3205.01	-26.6	894.2	6.79	7.5	.306	12.67	.039	SI
76.	76.	2. 1.	1891.48	-16.5	774.2	4.52	7.5	.227	14.92	.034	SI
125.	125.	2. 1.	3595.16	-31.3	1471.6	4.52	7.5	.538	14.92	.08	SI
271.	271.	2. 2.	5673.58	-53.8	2338.	4.52	7.5	.96	14.92	.143	SI
600.	600.	2. 5.	-6452.98	-39.6	1085.	11.31	7.5	.439	10.87	.048	SI
> 600.	0.	2. 5.	-3532.59	-21.7	593.9	11.31	7.5	.199	10.87	.022	SI
757.	157.	2. 2.	-1641.52	-15.6	676.4	4.52	7.5	.198	14.92	.03	SI
950.	350.	2. 1.	-290.06	-2.4	80.9	6.79	7.5	.024	12.67	.003	SI
950.	350.	2. 1.	614.02	-5.4	251.3	4.52	7.5	.074	14.92	.011	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	2. 1.	-3238.49	-26.9	903.5	6.79	7.5	.31	12.67	.039	SI
13.	13.	2. 1.	-2650.94	-22.	739.6	6.79	7.5	.23	12.67	.029	SI
76.	76.	2. 1.	1565.27	-13.6	640.7	4.52	7.5	.188	14.92	.028	SI
125.	125.	2. 1.	2971.99	-25.9	1216.5	4.52	7.5	.413	14.92	.062	SI
271.	271.	2. 2.	4687.05	-44.4	1931.4	4.52	7.5	.762	14.92	.114	SI
600.	600.	2. 5.	-5358.13	-32.9	900.9	11.31	7.5	.349	10.87	.038	SI
> 600.	0.	2. 5.	-2960.59	-18.2	497.8	11.31	7.5	.152	10.87	.017	SI
757.	157.	2. 2.	-1312.22	-12.4	540.7	4.52	7.5	.158	14.92	.024	SI
950.	350.	2. 1.	-290.06	-2.4	80.9	6.79	7.5	.024	12.67	.003	SI
950.	350.	2. 1.	464.58	-4.1	190.2	4.52	7.5	.056	14.92	.008	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	2. 1.	-3069.	-25.5	856.2	6.79	7.5	.287	12.67	.036	SI
13.	13.	2. 1.	-2512.44	-20.8	701.	6.79	7.5	.212	12.67	.027	SI
76.	76.	2. 1.	1484.24	-12.9	607.5	4.52	7.5	.178	14.92	.027	SI
125.	125.	2. 1.	2816.58	-24.6	1152.9	4.52	7.5	.382	14.92	.057	SI
271.	271.	2. 2.	4440.36	-42.1	1829.8	4.52	7.5	.712	14.92	.106	SI
600.	600.	2. 5.	-5085.2	-31.2	855.	11.31	7.5	.327	10.87	.035	SI
> 600.	0.	2. 5.	-2818.96	-17.3	474.	11.31	7.5	.141	10.87	.015	SI
757.	157.	2. 2.	-1230.69	-11.7	507.1	4.52	7.5	.148	14.92	.022	SI
950.	350.	2. 1.	-290.06	-2.4	80.9	6.79	7.5	.024	12.67	.003	SI
950.	350.	2. 1.	429.36	-3.7	175.7	4.52	7.5	.051	14.92	.008	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
4	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
5	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12



VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 36 - Travata T009  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=40.; alt.=25.; Acls=1000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1105	3	3	3	0	525.	485.
2	A1108	3	3	3	0	445.	405.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-786.59	-.175	.344	-4364.36	-2.39	10.	2.	.193	5.548	SI
270.	270.	3. 2.	707.55	-.171	.31	4360.77	-2.64	10.	2.	.209	6.163	SI
378.	378.	3. 3.	532.46	-.106	.232	4362.12	-2.17	10.	2.	.179	8.192	SI
413.	413.	3. 3.	-109.49	-.021	.03	-6840.83	-3.18	10.	2.	.241	62.48	SI
485.	485.	3. 4.	150.74	-.024	.034	8514.8	-3.13	10.	2.	.238	56.49	SI
515.	515.	3. 4.	4.32	-.001	.001	8514.8	-3.13	10.	2.	.238	1972.	SI
525.	525.	3. 4.	-612.57	-.098	.169	-6868.89	-2.57	10.	2.	.204	11.21	SI
> 525.	0.	3. 4.	-641.05	-.102	.177	-6868.89	-2.57	10.	2.	.204	10.72	SI
535.	10.	3. 4.	29.75	-.005	.007	8514.8	-3.13	10.	2.	.238	286.2	SI
600.	75.	3. 3.	-327.87	-.062	.091	-6840.83	-3.18	10.	2.	.241	20.86	SI
670.	145.	3. 2.	-20.13	-.005	.014	-2679.3	-1.88	10.	2.	.158	133.1	SI
740.	215.	3. 2.	504.4	-.121	.221	4360.77	-2.64	10.	2.	.209	8.645	SI
969.	445.	3. 1.	-432.23	-.095	.189	-4364.36	-2.39	10.	2.	.193	10.1	SI
969.	445.	3. 1.	41.53	-.009	.018	4364.36	-2.39	10.	2.	.193	105.1	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	927.	3132.	34997.	20925.	5446.	15478.	1.01	5.	SI
525.	525.	3. 1.	-812.	4138.	34997.	20925.	5446.	15478.	1.01	5.	SI
> 525.	0.	3. 1.	861.	4138.	34997.	20925.	5446.	15478.	1.01	5.	SI
969.	445.	3. 1.	-716.	3132.	34997.	20925.	5446.	15478.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-556.73	-15.2	494.7	5.65	6.02	.145	16.84	.024	SI
10.	10.	3. 1.	-526.57	-14.4	467.9	5.65	6.02	.137	16.84	.023	SI
56.	56.	3. 1.	-251.22	-6.9	223.2	5.65	6.02	.065	16.84	.011	SI
270.	270.	3. 2.	505.05	-14.7	449.4	5.65	5.92	.132	16.7	.022	SI
525.	525.	3. 4.	-492.77	-10.	277.3	9.05	5.76	.081	13.36	.011	SI
> 525.	0.	3. 4.	-449.06	-9.1	252.7	9.05	5.76	.074	13.36	.01	SI
740.	215.	3. 2.	359.69	-10.5	320.	5.65	5.92	.094	16.7	.016	SI
969.	445.	3. 1.	-295.14	-8.1	262.2	5.65	6.02	.077	16.84	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-547.53	-15.	486.5	5.65	6.02	.142	16.84	.024	SI
10.	10.	3. 1.	-517.64	-14.1	459.9	5.65	6.02	.135	16.84	.023	SI
56.	56.	3. 1.	-244.67	-6.7	217.4	5.65	6.02	.064	16.84	.011	SI
270.	270.	3. 2.	501.18	-14.6	445.9	5.65	5.92	.131	16.7	.022	SI
525.	525.	3. 4.	-426.79	-8.7	240.1	9.05	5.76	.07	13.36	.009	SI
> 525.	0.	3. 4.	-442.14	-9.	248.8	9.05	5.76	.073	13.36	.01	SI
740.	215.	3. 2.	363.28	-10.6	323.2	5.65	5.92	.095	16.7	.016	SI
969.	445.	3. 1.	-315.04	-8.6	279.9	5.65	6.02	.082	16.84	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-544.41!	-14.9!	483.7!	5.65	6.02	.142	16.84	.024	SI
10.	10.	3.	1.	-514.61!	-14.1!	457.3!	5.65	6.02	.134	16.84	.023	SI
56.	56.	3.	1.	-242.41!	-6.6!	215.4!	5.65	6.02	.063	16.84	.011	SI
270.	270.	3.	2.	505.7!	-14.7!	449.9!	5.65	5.92	.132	16.7	.022	SI
525.	525.	3.	4.	-432.23!	-8.8!	243.2!	9.05	5.76	.071	13.36	.01	SI
> 525.	0.	3.	4.	-440.74!	-8.9!	248.!	9.05	5.76	.073	13.36	.01	SI
740.	215.	3.	2.	360.05!	-10.5!	320.4!	5.65	5.92	.094	16.7	.016	SI
969.	445.	3.	1.	-315.04!	-8.6!	279.9!	5.65	6.02	.082	16.84	.014	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	1.131	5.65	.565	2d12 +3d12	5.65	.565	5d12
2	9.05	.905	3.39	.339	3d12	5.65	.565	5d12
3	14.7	1.47	9.05	.905	2d12 +3d12 +3d12	5.65	.565	5d12
4	20.36	2.036	9.05	.905	2d12 +3d12 +3d12	11.31	1.131	5d12 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 39 - Travata T073  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf/m; kgf/m; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; ftk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(eserczio)= 22.8  
 ACCIAIO: σf (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1112	3	3	3	0	280.	240.
2	A1112	3	3	3	0	260.	220.
3	A1114	3	3	3	0	380.	320.
4	A1115	3	3	3	0	40.	10.

CASI DI CARICO DA MODELLO 3D

SLU		RARE		QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.
4.	SLU SISMAX PRINC	16			10.
5.	SLU SISMAX PRINC	16			10.

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 280.	0.	3.	1.	-2119.25!	-.109!	.215!	-18965.7!	-1.82	10.	2.	.154!	8.949!	SI
280.	0.	3.	1.	377.98!	-.019!	.038!	18965.7!	-1.82	10.	2.	.154!	50.18!	SI
353.	73.	3.	3.	2084.24!	-.144!	.417!	9547.75!	-1.3	10.	2.	.115!	4.581!	SI
390.	110.	3.	4.	2061.52!	-.158!	.416!	9529.88!	-1.48	10.	2.	.129!	4.623!	SI
473.	193.	3.	6.	-2037.33!	-.119!	.171!	-22947.14!	-3.42	10.	2.	.255!	11.26!	SI
473.	193.	3.	6.	203.08!	-.012!	.04!	9556.02!	-1.09	10.	2.	.098!	47.06!	SI
494.	214.	3.	7.	47.11!	-.002!	.005!	19003.24!	-1.64	10.	2.	.141!	403.4!	SI
526.	246.	3.	7.	-2939.04!	-.144!	.241!	-23618.55!	-2.14	10.	2.	.176!	8.036!	SI
540.	260.	3.	7.	-2517.68!	-.123!	.207!	-23618.55!	-2.14	10.	2.	.176!	9.381!	SI
540.	260.	3.	7.	803.78!	-.038!	.081!	19003.24!	-1.64	10.	2.	.141!	23.64!	SI
> 540.	0.	3.	7.	-1229.67!	-.06!	.101!	-23618.55!	-2.14	10.	2.	.176!	19.21!	SI
540.	0.	3.	7.	654.23!	-.031!	.066!	19003.24!	-1.64	10.	2.	.141!	29.05!	SI
605.	65.	3.	6.	-3579.21!	-.211!	.301!	-22947.14!	-3.42	10.	2.	.255!	6.411!	SI
605.	65.	3.	6.	-3767.72!	-.222!	.317!	-22947.14!	-3.42	10.	2.	.255!	6.09!	SI
669.	129.	3.	4.	-3237.86!	-.25!	.653!	-9529.88!	-1.48	10.	2.	.129!	2.943!	SI
825.	285.	3.	6.	96.13!	-.006!	.019!	9556.02!	-1.09	10.	2.	.098!	99.41!	SI
920.	380.	3.	7.	-540.86!	-.026!	.044!	-23618.55!	-2.14	10.	2.	.176!	43.67!	SI
920.	380.	3.	7.	484.63!	-.023!	.049!	19003.24!	-1.64	10.	2.	.141!	39.21!	SI
> 920.	0.	3.	7.	-617.74!	-.03!	.051!	-23618.55!	-2.14	10.	2.	.176!	38.23!	SI
920.	0.	3.	7.	548.69!	-.026!	.055!	19003.24!	-1.64	10.	2.	.141!	34.63!	SI
930.	11.	3.	7.	1539.91!	-.073!	.155!	19003.24!	-1.64	10.	2.	.141!	12.34!	SI
949.	29.	3.	8.	-3907.75!	-.203!	.397!	-18965.7!	-1.82	10.	2.	.154!	4.853!	SI
960.	40.	3.	10.	1297.17!	-.08!	.135!	18749.37!	-2.44	10.	2.	.196!	14.45!	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 280.	0.	3.	4632.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.	SI
420.	140.	3.	-4464.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.	SI
540.	260.	3.	-2955.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.	SI
> 540.	0.	3.	-12806.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.	SI
605.	65.	3.	-13653.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.	SI
605.	65.	3.	6792.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.	SI
920.	380.	3.	4967.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.	SI
> 920.	0.	3.	3262.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.	SI
960.	40.	3.	-5629.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 280.	0.	3.	1.	-1463.78!	-9.6!	304.8!	9.05	7.5	.089	11.54	.01	SI
285.	5.	3.	1.	-1390.11!	-9.1!	289.5!	9.05	7.5	.085	11.54	.01	SI
297.	17.	3.	1.	-678.31!	-4.4!	141.2!	9.05	7.5	.041	11.54	.005	SI
315.	35.	3.	1.	465.27!	-3.!	96.9!	9.05	7.5	.028	11.54	.003	SI
353.	73.	3.	3.	1465.98!	-12.8!	600.1!	4.52	7.5	.176	14.92	.026	SI
526.	246.	3.	7.	-2592.6!	-15.9!	435.9!	11.31	7.5	.128	10.87	.014	SI
540.	260.	3.	7.	-1251.53!	-7.7!	210.4!	11.31	7.5	.062	10.87	.007	SI
540.	260.	3.	7.	339.51!	-2.1!	70.3!	9.05	7.5	.021	11.54	.002	SI
> 540.	0.	3.	7.	-51.9!	-3!	8.7!	11.31	7.5	.003	10.87	0.	SI
540.	0.	3.	7.	271.02!	-1.7!	56.1!	9.05	7.5	.016	11.54	.002	SI
605.	65.	3.	6.	-2936.49!	-20.9!	503.4!	11.31	7.5	.155	10.87	.017	SI
669.	129.	3.	4.	-2278.73!	-21.6!	939.!	4.52	7.5	.278	14.92	.041	SI
920.	380.	3.	7.	-51.9!	-3!	8.7!	11.31	7.5	.003	10.87	0.	SI
920.	380.	3.	7.	27.69!	-2!	5.7!	9.05	7.5	.002	11.54	0.	SI
> 920.	0.	3.	7.	-122.5!	-8!	20.6!	11.31	7.5	.006	10.87	.001	SI
930.	11.	3.	7.	1085.28!	-6.6!	224.6!	9.05	7.5	.066	11.54	.008	SI
954.	34.	3.	8.	-1190.39!	-7.8!	247.9!	9.05	7.5	.073	11.54	.008	SI
960.	40.	3.	9.	-2753.8!	-22.5!	0.	***	***	*****	****	****	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 280.	0.	3.	1.	-1216.5!	-8.!	253.3!	9.05	7.5	.074	11.54	.009	SI
285.	5.	3.	1.	-1155.27!	-7.6!	240.6!	9.05	7.5	.07	11.54	.008	SI
297.	17.	3.	1.	-563.76!	-3.7!	117.4!	9.05	7.5	.034	11.54	.004	SI
315.	35.	3.	1.	382.48!	-2.5!	79.6!	9.05	7.5	.023	11.54	.003	SI
353.	73.	3.	3.	1212.08!	-10.6!	496.1!	4.52	7.5	.145	14.92	.022	SI
526.	246.	3.	7.	-2139.07!	-13.1!	359.6!	11.31	7.5	.105	10.87	.011	SI
540.	260.	3.	7.	-1037.96!	-6.4!	174.5!	11.31	7.5	.051	10.87	.006	SI
540.	260.	3.	7.	250.22!	-1.5!	51.8!	9.05	7.5	.015	11.54	.002	SI
> 540.	0.	3.	7.	-43.11!	-3!	7.2!	11.31	7.5	.002	10.87	0.	SI
540.	0.	3.	7.	190.66!	-1.2!	39.5!	9.05	7.5	.012	11.54	.001	SI
605.	65.	3.	6.	-2465.34!	-17.5!	422.7!	11.31	7.5	.124	10.87	.013	SI
669.	129.	3.	4.	-1913.6!	-18.1!	788.6!	4.52	7.5	.231	14.92	.034	SI
920.	380.	3.	7.	-43.11!	-3!	7.2!	11.31	7.5	.002	10.87	0.	SI
920.	380.	3.	7.	65.61!	-4!	13.6!	9.05	7.5	.004	11.54	0.	SI
> 920.	0.	3.	7.	-60.35!	-4!	10.1!	11.31	7.5	.003	10.87	0.	SI
930.	11.	3.	7.	920.8!	-5.6!	190.5!	9.05	7.5	.056	11.54	.006	SI
954.	34.	3.	8.	-1019.08!	-6.7!	212.2!	9.05	7.5	.062	11.54	.007	SI
960.	40.	3.	9.	-2329.9!	-19.!	0.	***	***	*****	****	****	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 280.	0.	3.	1.	-1156.18!	-7.6!	240.8!	9.05	7.5	.07	11.54	.008	SI
285.	5.	3.	1.	-1098.04!	-7.2!	228.7!	9.05	7.5	.067	11.54	.008	SI
297.	17.	3.	1.	-536.39!	-3.5!	111.7!	9.05	7.5	.033	11.54	.004	SI
315.	35.	3.	1.	360.71!	-2.4!	75.1!	9.05	7.5	.022	11.54	.003	SI
353.	73.	3.	3.	1148.09!	-10.!	469.9!	4.52	7.5	.138	14.92	.021	SI
526.	246.	3.	7.	-2025.16!	-12.4!	340.5!	11.31	7.5	.1	10.87	.011	SI
540.	260.	3.	7.	-984.57!	-6.!	165.5!	11.31	7.5	.048	10.87	.005	SI
540.	260.	3.	7.	226.67!	-1.4!	46.9!	9.05	7.5	.014	11.54	.002	SI
> 540.	0.	3.	7.	-40.92!	-3!	6.9!	11.31	7.5	.002	10.87	0.	SI
540.	0.	3.	7.	169.65!	-1.!	35.1!	9.05	7.5	.01	11.54	.001	SI
605.	65.	3.	6.	-2345.22!	-16.7!	402.1!	11.31	7.5	.118	10.87	.013	SI
669.	129.	3.	4.	-1820.47!	-17.3!	750.2!	4.52	7.5	.22	14.92	.033	SI
920.	380.	3.	7.	-40.92!	-3!	6.9!	11.31	7.5	.002	10.87	0.	SI
920.	380.	3.	7.	76.02!	-5!	15.7!	9.05	7.5	.005	11.54	.001	SI
> 920.	0.	3.	7.	-43.76!	-3!	7.4!	11.31	7.5	.002	10.87	0.	SI
930.	11.	3.	7.	879.85!	-5.4!	182.1!	9.05	7.5	.053	11.54	.006	SI
954.	34.	3.	8.	-978.02!	-6.4!	203.7!	9.05	7.5	.06	11.54	.007	SI
960.	40.	3.	9.	-2226.16!	-18.2!	0.	***	***	*****	****	****	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	18.1	1.508	9.05	.754	2d12 +2d12 +4d12	9.05	.754	4d12 +4d12
2	13.57	1.131	9.05	.754	2d12 +2d12 +4d12	4.52	.377	4d12
3	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
4	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
5	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
6	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
7	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
8	18.1	1.508	9.05	.754	4d12 +4d12	9.05	.754	4d12 +4d12
9	0.	0.	0.	0.		0.	0.	
10	13.57	1.131	4.52	.377	4d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 42 - Travata T011  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogenein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=40.; alt.=25.; Acls=1000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1120	3	3	3	0	320.	280.
2	A1125	3	3	3	0	315.	255.
3	A1126	3	3	3	0	45.	15.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	Ve
> 0.	0.	3. 1.	-1180.58	-.259	.434	-5191.21	-2.79	10.	2.	.218	4.397	SI
145.	145.	3. 2.	1354.26	-.343	.736	3527.28	-2.2	10.	2.	.181	2.605	SI
246.	246.	3. 4.	-230.58	-.041	.046	-9321.97	-3.5	5.082	3.	.408	40.43	SI
246.	246.	3. 4.	636.33	-.125	.345	3515.62	-1.89	10.	2.	.159	5.525	SI
280.	280.	3. 5.	152.08	-.022	.036	8072.84	-2.68	10.	2.	.211	53.08	SI
290.	290.	3. 5.	7.36	-.001	.002	8072.84	-2.68	10.	2.	.211	1097.	SI
320.	320.	3. 5.	-1297.35	-.191	.254	-9716.73	-3.2	10.	2.	.243	7.49	SI
> 320.	0.	3. 5.	-3289.55	-.497	.645	-9716.73	-3.2	10.	2.	.243	2.954	SI
360.	40.	3. 5.	41.93	-.006	.01	8072.84	-2.68	10.	2.	.211	192.5	SI
394.	74.	3. 6.	-1160.96	-.198	.23	-9559.51	-3.5	7.149	3.	.329	8.234	SI
394.	74.	3. 6.	894.	-.156	.358	4731.5	-2.1	10.	2.	.174	5.293	SI
494.	174.	3. 8.	2604.95	-.572	1.052	4735.35	-2.45	10.	2.	.197	1.818	SI
635.	315.	3. 11.	-2444.47	-.395	.538	-8653.43	-3.14	10.	2.	.239	3.54	SI
635.	315.	3. 11.	367.95	-.058	.099	7007.84	-2.58	10.	2.	.205	19.05	SI
635.	0.	3. 11.	138.21	-.022	.037	7007.84	-2.58	10.	2.	.205	50.71	SI
667.	32.	3. 11.	932.77	-.148	.252	7007.84	-2.58	10.	2.	.205	7.513	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Ar	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3.	1943.!	3132.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI
320.	320.	3.	-1778.!	3937.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI
> 320.	0.	3.	5573.!	5435.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI
635.	315.	3.	-5092.!	4227.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI
> 635.	0.	3.	8739.!	3132.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI
680.	45.	3.	-8651.!	3132.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
44.	44.	3. 1.	-108.83	-2.9	81.2	6.79	5.79	.024	15.12	.004	SI
77.	77.	3. 1.	666.38	-19.2	734.4	4.52	6.27	.215	19.46	.042	SI
145.	145.	3. 2.	966.9	-29.5	1065.6	4.52	6.18	.312	19.31	.06	SI
320.	320.	3. 5.	-928.62	-17.1	370.3	12.94	5.33	.108	11.4	.012	SI
> 320.	0.	3. 5.	-2312.06	-42.6	922.1	12.94	5.33	.345	11.4	.039	SI
494.	174.	3. 8.	1832.52	-48.	1499.7	6.16	5.96	.526	17.03	.09	SI
635.	315.	3. 11.	-1719.53	-34.	769.7	11.5	5.41	.26	12.14	.032	SI
667.	32.	3. 11.	654.93	-13.1	361.2	9.24	5.75	.106	13.74	.015	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
44.	44.	3. 1.	-111.76	-3.	83.4	6.79	5.79	.024	15.12	.004	SI
77.	77.	3. 1.	666.	-19.2	734.	4.52	6.27	.215	19.46	.042	SI
145.	145.	3. 2.	961.86	-29.4	1060.	4.52	6.18	.31	19.31	.06	SI
320.	320.	3. 5.	-949.03	-17.5	378.5	12.94	5.33	.111	11.4	.013	SI
> 320.	0.	3. 5.	-1907.6	-35.2	760.8	12.94	5.33	.266	11.4	.03	SI
494.	174.	3. 8.	1517.58	-39.7	1241.9	6.16	5.96	.401	17.03	.068	SI
635.	315.	3. 11.	-1422.47	-28.1	636.8	11.5	5.41	.195	12.14	.024	SI
> 635.	0.	3. 11.	-2664.04	-52.7	1192.6	11.5	5.41	.466	12.14	.057	SI
667.	32.	3. 11.	528.16	-10.6	291.3	9.24	5.75	.085	13.74	.012	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	Wk	Ve
44.	44.	3.	1.	-112.58	-3.	84.	6.79	5.79	.025	15.12	.004
77.	77.	3.	1.	673.39	-19.4	742.1	4.52	6.27	.217	19.46	.042
145.	145.	3.	2.	969.32	-29.6	1068.2	4.52	6.18	.313	19.31	.06
320.	320.	3.	5.	-954.82	-17.6	380.8	12.94	5.33	.111	11.4	.013
> 320.	0.	3.	5.	-1807.12	-33.3	720.7	12.94	5.33	.247	11.4	.028
494.	174.	3.	8.	1438.61	-37.6	1177.3	6.16	5.96	.369	17.03	.063
635.	315.	3.	11.	-1348.2	-26.7	603.5	11.5	5.41	.179	12.14	.022
> 635.	0.	3.	11.	-2509.65	-49.6	1123.4	11.5	5.41	.432	12.14	.053
667.	32.	3.	11.	496.36	-10.	273.7	9.24	5.75	.08	13.74	.011

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	1.131	6.79	.679	2d12 +4d12	4.52	.452	4d12
2	9.05	.905	4.52	.452	4d12	4.52	.452	4d12
3	15.21	1.521	10.68	1.068	4d12 +4d14	4.52	.452	4d12
4	17.47	1.747	12.94	1.294	2d12 +4d12 +4d14	4.52	.452	4d12
5	23.62	2.362	12.94	1.294	2d12 +4d12 +4d14	10.68	1.068	4d12 +4d14
6	19.1	1.91	12.94	1.294	2d12 +4d12 +4d14	6.16	.616	4d14
7	16.84	1.684	10.68	1.068	4d12 +4d14	6.16	.616	4d14
8	12.32	1.232	6.16	.616	4d14	6.16	.616	4d14
9	15.39	1.539	9.24	.924	4d14 +2d14	6.16	.616	4d14
10	17.66	1.766	11.5	1.15	2d12 +4d14 +2d14	6.16	.616	4d14
11	20.73	2.073	11.5	1.15	2d12 +4d14 +2d14	9.24	.924	4d14 +2d14
12	14.58	1.458	5.34	.534	2d12 +2d14	9.24	.924	4d14 +2d14
13	0.	0.	0.	0.		0.	0.	

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 43 - Travata T012  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Ac1s=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1123	3	3	3	0	320.	280.
2	A1124	3	3	3	0	350.	310.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-1056.39	-.071	.144	-14180.29	-1.96	10.	2.	.164	13.42
0.	0.	3.	1.	862.6	-.059	.172	9547.75	-1.3	10.	2.	.115	11.07
10.	10.	3.	1.	878.18	-.06	.176	9547.75	-1.3	10.	2.	.115	10.87
226.	226.	3.	3.	-531.19	-.031	.045	-22947.14	-3.42	10.	2.	.255	43.2
226.	226.	3.	3.	318.29	-.018	.063	9556.02	-1.09	10.	2.	.098	30.02
264.	264.	3.	4.	244.62	-.012	.025	19003.24	-1.64	10.	2.	.141	77.68
320.	320.	3.	4.	-1324.89	-.064	.109	-23618.55	-2.14	10.	2.	.176	17.83
320.	320.	3.	4.	48.6	-.002	.005	19003.24	-1.64	10.	2.	.141	391.
> 320.	0.	3.	4.	-2043.37	-.1	.168	-23618.55	-2.14	10.	2.	.176	11.56
320.	0.	3.	4.	878.	-.042	.089	19003.24	-1.64	10.	2.	.141	21.64
419.	99.	3.	3.	-509.15	-.029	.043	-22947.14	-3.42	10.	2.	.255	45.07
419.	99.	3.	3.	2270.92	-.131	.45	9556.02	-1.09	10.	2.	.098	4.208
462.	142.	3.	2.	2344.53	-.18	.473	9529.88	-1.48	10.	2.	.129	4.065
644.	324.	3.	1.	10.31	-.001	.002	9547.75	-1.3	10.	2.	.115	925.8
670.	350.	3.	1.	-3569.6	-.243	.488	-14180.29	-1.96	10.	2.	.164	3.973

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	930.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
320.	320.	3.	-1093.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 320.	0.	3.	4470.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
670.	350.	3.	-5980.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
26.	26.	3.	1.	-218.12	-1.8	60.9	6.79	7.5	.018	12.67	.002	SI
150.	150.	3.	2.	473.22	-4.5	195.	4.52	7.5	.057	14.92	.009	SI
320.	320.	3.	4.	-713.86	-4.4	120.	11.31	7.5	.035	10.87	.004	SI
> 320.	0.	3.	4.	-1437.38	-8.8	241.7	11.31	7.5	.071	10.87	.008	SI
462.	142.	3.	2.	1648.98	-15.6	679.5	4.52	7.5	.199	14.92	.03	SI
670.	350.	3.	1.	-2507.52	-20.8	699.6	6.79	7.5	.211	12.67	.027	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
26.	26.	3.	1.	-215.43	-1.8	60.1	6.79	7.5	.018	12.67	.002	SI
150.	150.	3.	2.	474.91	-4.5	195.7	4.52	7.5	.057	14.92	.009	SI
320.	320.	3.	4.	-681.87	-4.2	114.6	11.31	7.5	.034	10.87	.004	SI
> 320.	0.	3.	4.	-1189.07	-7.3	199.9	11.31	7.5	.059	10.87	.006	SI
462.	142.	3.	2.	1361.9	-12.9	561.2	4.52	7.5	.164	14.92	.025	SI
670.	350.	3.	1.	-2077.61	-17.2	579.6	6.79	7.5	.17	12.67	.021	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
26.	26.	3.	1.	-214.84	-1.8	59.9	6.79	7.5	.018	12.67	.002	SI
150.	150.	3.	2.	472.35	-4.5	194.6	4.52	7.5	.057	14.92	.009	SI
320.	320.	3.	4.	-674.78	-4.1	113.5	11.31	7.5	.033	10.87	.004	SI
> 320.	0.	3.	4.	-1126.99	-6.9	189.5	11.31	7.5	.055	10.87	.006	SI
462.	142.	3.	2.	1289.86	-12.2	531.5	4.52	7.5	.156	14.92	.023	SI
670.	350.	3.	1.	-1970.92	-16.3	549.9	6.79	7.5	.161	12.67	.02	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Infer.	Barre
1	11.31	.942	.565	2d12 +4d12
2	9.05	.754	.452	4d12
3	15.83	1.319	.942	2d12 +4d12 +4d12
4	20.36	1.696	.942	2d12 +4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 43 - Travata T012  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Ac1s=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1123	3	3	3	0	320.	280.
2	A1124	3	3	3	0	350.	310.

CASI DI CARICO DA MODELLO 3D

Nome	Descrizione	Sest	RARE	Sest	QUASI PERMANENTI	Sest
1.	SLU SENZA SISMA	1.	8.   Rara	1.	10.   Quasi Perm	1.
4.	SLU SISMAX PRINC	16				
5.	SLU SISMAX PRINC	16				

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-1056.39	-.071	.144	-14180.29	-1.96	10.	2.	.164	13.42	SI
0.	0.	3. 1.	862.6	-.059	.172	9547.75	-1.3	10.	2.	.115	11.07	SI
10.	10.	3. 1.	878.18	-.06	.176	9547.75	-1.3	10.	2.	.115	10.87	SI
226.	226.	3. 3.	-531.19	-.031	.045	-22947.14	-3.42	10.	2.	.255	43.2	SI
226.	226.	3. 3.	318.29	-.018	.063	9556.02	-1.09	10.	2.	.098	30.02	SI
264.	264.	3. 4.	244.62	-.012	.025	19003.24	-1.64	10.	2.	.141	77.68	SI
320.	320.	3. 4.	-1324.89	-.064	.109	-23618.55	-2.14	10.	2.	.176	17.83	SI
320.	320.	3. 4.	48.6	-.002	.005	19003.24	-1.64	10.	2.	.141	391.	SI
> 320.	0.	3. 4.	-2043.37	-.1	.168	-23618.55	-2.14	10.	2.	.176	11.56	SI
320.	0.	3. 4.	878.	-.042	.089	19003.24	-1.64	10.	2.	.141	21.64	SI
419.	99.	3. 3.	-509.15	-.029	.043	-22947.14	-3.42	10.	2.	.255	45.07	SI
419.	99.	3. 3.	2270.92	-.131	.45	9556.02	-1.09	10.	2.	.098	4.208	SI
462.	142.	3. 2.	2344.53	-.18	.473	9529.88	-1.48	10.	2.	.129	4.065	SI
644.	324.	3. 1.	10.31	-.001	.002	9547.75	-1.3	10.	2.	.115	925.8	SI
670.	350.	3. 1.	-3569.6	-.243	.488	-14180.29	-1.96	10.	2.	.164	3.973	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	930.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
320.	320.	3. 1.	-1093.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 320.	0.	3. 1.	4470.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
670.	350.	3. 1.	-5980.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	3. 1.	-218.12	-1.8	60.9	6.79	7.5	.018	12.67	.002	SI
150.	150.	3. 2.	473.22	-4.5	195.	4.52	7.5	.057	14.92	.009	SI
320.	320.	3. 4.	-713.86	-4.4	120.	11.31	7.5	.035	10.87	.004	SI
> 320.	0.	3. 4.	-1437.38	-8.8	241.7	11.31	7.5	.071	10.87	.008	SI
462.	142.	3. 2.	1648.98	-15.6	679.5	4.52	7.5	.199	14.92	.03	SI
670.	350.	3. 1.	-2507.52	-20.8	699.6	6.79	7.5	.211	12.67	.027	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	3. 1.	-215.43	-1.8	60.1	6.79	7.5	.018	12.67	.002	SI
150.	150.	3. 2.	474.91	-4.5	195.7	4.52	7.5	.057	14.92	.009	SI
320.	320.	3. 4.	-681.87	-4.2	114.6	11.31	7.5	.034	10.87	.004	SI
> 320.	0.	3. 4.	-1189.07	-7.3	199.9	11.31	7.5	.059	10.87	.006	SI
462.	142.	3. 2.	1361.9	-12.9	561.2	4.52	7.5	.164	14.92	.025	SI
670.	350.	3. 1.	-2077.61	-17.2	579.6	6.79	7.5	.17	12.67	.021	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	3. 1.	-214.84	-1.8	59.9	6.79	7.5	.018	12.67	.002	SI
150.	150.	3. 2.	472.35	-4.5	194.6	4.52	7.5	.057	14.92	.009	SI
320.	320.	3. 4.	-674.78	-4.1	113.5	11.31	7.5	.033	10.87	.004	SI
> 320.	0.	3. 4.	-1126.99	-6.9	189.5	11.31	7.5	.055	10.87	.006	SI
462.	142.	3. 2.	1289.86	-12.2	531.5	4.52	7.5	.156	14.92	.023	SI
670.	350.	3. 1.	-1970.92	-16.3	549.9	6.79	7.5	.161	12.67	.02	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	11.31	.942	6.79	.565	2d12 +4d12
2	9.05	.754	4.52	.377	4d12
3	15.83	1.319	11.31	.942	2d12 +4d12 +4d12
4	20.36	1.696	11.31	.942	2d12 +4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 45 - Travata T013  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: σf (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; AcIs=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1140	3	3	3	0	165.	135.
2	A1142	3	3	3	0	463.	403.
3	A1145	3	3	3	0	473.	413.
4	A1147	3	3	3	0	305.	245.
5	A1148	3	3	3	0	280.	220.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 13.	13.	3. 1.	-2916.18	-.225	.588	-9529.88	-1.48	10.	2.	.129	3.268	SI
95.	95.	3. 2.	-1157.43	-.071	.12	-18749.37	-2.44	10.	2.	.196	16.2	SI
95.	95.	3. 2.	1957.5	-.123	.389	9554.12	-1.18	10.	2.	.105	4.881	SI
108.	108.	3. 3.	-771.87	-.04	.078	-18965.7	-1.82	10.	2.	.154	24.57	SI
108.	108.	3. 3.	2181.34	-.113	.222	18965.7	-1.82	10.	2.	.154	8.694	SI
110.	110.	3. 3.	-679.17	-.035	.069	-18965.7	-1.82	10.	2.	.154	27.93	SI
110.	110.	3. 3.	2200.94	-.114	.224	18965.7	-1.82	10.	2.	.154	8.617	SI
165.	165.	3. 3.	2154.18	-.111	.219	18965.7	-1.82	10.	2.	.154	8.804	SI
> 165.	0.	3. 3.	-5920.39	-.31	.602	-18965.7	-1.82	10.	2.	.154	3.203	SI
177.	12.	3. 3.	-6582.57	-.346	.669	-18965.7	-1.82	10.	2.	.154	2.881	SI
295.	130.	3. 4.	-6430.26	-.508	1.3	-9529.88	-1.48	10.	2.	.129	1.482	SI
526.	361.	3. 5.	-5911.13	-.353	.498	-22947.14	-3.42	10.	2.	.255	3.882	SI
572.	407.	3. 6.	8.16	0.	.001	19003.24	-1.64	10.	2.	.141	2328.	SI
602.	437.	3. 6.	157.75	-.007	.016	19003.24	-1.64	10.	2.	.141	120.5	SI
628.	463.	3. 6.	-5686.14	-.281	.467	-23618.55	-2.14	10.	2.	.176	4.154	SI
628.	463.	3. 6.	157.75	-.007	.016	19003.24	-1.64	10.	2.	.141	120.5	SI
> 628.	0.	3. 6.	-6327.43	-.314	.52	-23618.55	-2.14	10.	2.	.176	3.733	SI
628.	0.	3. 6.	3085.18	-.147	.311	19003.24	-1.64	10.	2.	.141	6.16	SI
637.	9.	3. 6.	-6462.91	-.32	.531	-23618.55	-2.14	10.	2.	.176	3.654	SI
663.	35.	3. 6.	2467.54	-.118	.249	19003.24	-1.64	10.	2.	.141	7.701	SI
706.	77.	3. 5.	-6432.23	-.385	.542	-22947.14	-3.42	10.	2.	.255	3.568	SI
706.	77.	3. 5.	2516.86	-.146	.498	9556.02	-1.09	10.	2.	.098	3.797	SI
791.	162.	3. 4.	-6277.98	-.495	1.269	-9529.88	-1.48	10.	2.	.129	1.518	SI
1101.	473.	3. 6.	-5722.5	-.283	.47	-23618.55	-2.14	10.	2.	.176	4.127	SI
1101.	473.	3. 6.	2940.2	-.14	.297	19003.24	-1.64	10.	2.	.141	6.463	SI
>1101.	0.	3. 6.	-4811.07	-.237	.395	-23618.55	-2.14	10.	2.	.176	4.909	SI
1101.	0.	3. 6.	3912.61	-.188	.395	19003.24	-1.64	10.	2.	.141	4.857	SI
1110.	9.	3. 6.	4021.58	-.193	.406	19003.24	-1.64	10.	2.	.141	4.725	SI
1179.	78.	3. 5.	-4101.82	-.242	.345	-22947.14	-3.42	10.	2.	.255	5.594	SI
1179.	78.	3. 5.	3736.46	-.217	.74	9556.02	-1.09	10.	2.	.098	2.558	SI
1308.	206.	3. 4.	-4345.59	-.338	.877	-9529.88	-1.48	10.	2.	.129	2.193	SI
1406.	305.	3. 6.	-4486.01	-.221	.368	-23618.55	-2.14	10.	2.	.176	5.265	SI
1406.	305.	3. 6.	2220.14	-.106	.224	19003.24	-1.64	10.	2.	.141	8.559	SI
>1406.	0.	3. 6.	-2717.07	-.133	.223	-23618.55	-2.14	10.	2.	.176	8.693	SI
1406.	0.	3. 6.	780.98	-.037	.079	19003.24	-1.64	10.	2.	.141	24.33	SI
1504.	98.	3. 7.	-668.45	-.041	.069	-18749.37	-2.44	10.	2.	.196	28.05	SI
1504.	98.	3. 7.	1938.41	-.122	.385	9554.12	-1.18	10.	2.	.105	4.929	SI
1546.	140.	3. 4.	2076.27	-.159	.419	9529.88	-1.48	10.	2.	.129	4.59	SI
1588.	182.	3. 8.	-203.17	-.014	.028	-14180.29	-1.96	10.	2.	.164	69.8	SI
1686.	280.	3. 8.	-1652.13	-.111	.226	-14180.29	-1.96	10.	2.	.164	8.583	SI
1686.	280.	3. 8.	844.02	-.058	.169	9547.75	-1.3	10.	2.	.115	11.31	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	3579.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
165.	165.	3.	-2313.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 165.	0.	3.	-5070.	4230.	45337.	27107.	7056.	20051.	1.01	10.	SI
177.	12.	3.	8986.	4230.	45337.	27107.	7056.	20051.	1.01	10.	SI
628.	463.	3.	8602.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 628.	0.	3.	7464.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
637.	9.	3.	-7584.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
637.	9.	3.	9147.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
1101.	473.	3.	8837.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
>1101.	0.	3.	7826.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
1110.	9.	3.	-4206.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
1406.	305.	3.	6222.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
>1406.	0.	3.	5349.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
1686.	280.	3.	-3651.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI



VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 13.	13.	3. 1.	-1820.53!	-17.3!	750.2!	4.52	7.5	.22	14.92	.033!	SI
41.	41.	3. 1.	-1310.66!	-12.4!	540.1!	4.52	7.5	.158	14.92	.024!	SI
57.	57.	3. 1.	-1036.04!	-9.8!	426.9!	4.52	7.5	.125	14.92	.019!	SI
135.	135.	3. 3.	1551.03!	-10.1!	323.	9.05	7.5	.095	11.54	.011!	SI
165.	165.	3. 3.	762.13!	-5.	158.7!	9.05	7.5	.046	11.54	.005!	SI
> 165.	0.	3. 3.	-1404.37!	-9.2!	292.4!	9.05	7.5	.086	11.54	.01!	SI
203.	38.	3. 3.	-4630.53!	-30.3!	964.3!	9.05	7.5	.365	11.54	.042!	SI
342.	176.	3. 4.	-4408.49!	-41.8!	1816.7!	4.52	7.5	.706	14.92	.105!	SI
628.	463.	3. 6.	-3959.43!	-24.3!	665.7!	11.31	7.5	.234	10.87	.025!	SI
> 628.	0.	3. 6.	-3947.95!	-24.2!	663.8!	11.31	7.5	.233	10.87	.025!	SI
663.	35.	3. 6.	-4546.31!	-27.9!	764.4!	11.31	7.5	.282	10.87	.031!	SI
791.	162.	3. 4.	-4383.41!	-41.6!	1806.3!	4.52	7.5	.701	14.92	.105!	SI
1101.	473.	3. 6.	-3992.87!	-24.5!	671.3!	11.31	7.5	.237	10.87	.026!	SI
>1101.	0.	3. 6.	-3384.29!	-20.8!	569.	11.31	7.5	.187	10.87	.02!	SI
1110.	9.	3. 6.	1190.51!	-7.3!	246.3!	9.05	7.5	.072	11.54	.008!	SI
1265.	163.	3. 4.	-2965.21!	-28.1!	1221.9!	4.52	7.5	.416	14.92	.062!	SI
1406.	305.	3. 6.	-3155.3!	-19.4!	530.5!	11.31	7.5	.168	10.87	.018!	SI
>1406.	0.	3. 6.	-1911.38!	-11.7!	321.4!	11.31	7.5	.094	10.87	.01!	SI
1546.	140.	3. 4.	1460.46!	-13.8!	601.8!	4.52	7.5	.176	14.92	.026!	SI
1686.	280.	3. 8.	-1128.79!	-9.4!	314.9!	6.79	7.5	.092	12.67	.012!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 13.	13.	3. 1.	-1529.38!	-14.5!	630.2!	4.52	7.5	.184	14.92	.028!	SI
41.	41.	3. 1.	-1094.95!	-10.4!	451.2!	4.52	7.5	.132	14.92	.02!	SI
57.	57.	3. 1.	-861.84!	-8.2!	355.1!	4.52	7.5	.104	14.92	.016!	SI
135.	135.	3. 3.	1314.98!	-8.6!	273.8!	9.05	7.5	.08	11.54	.009!	SI
165.	165.	3. 3.	651.6!	-4.3!	135.7!	9.05	7.5	.04	11.54	.005!	SI
> 165.	0.	3. 3.	-1163.85!	-7.6!	242.4!	9.05	7.5	.071	11.54	.008!	SI
203.	38.	3. 3.	-3834.29!	-25.1!	798.4!	9.05	7.5	.284	11.54	.033!	SI
342.	176.	3. 4.	-3647.33!	-34.6!	1503.	4.52	7.5	.553	14.92	.083!	SI
628.	463.	3. 6.	-3269.04!	-20.1!	549.6!	11.31	7.5	.178	10.87	.019!	SI
> 628.	0.	3. 6.	-3259.73!	-20.	548.1!	11.31	7.5	.177	10.87	.019!	SI
663.	35.	3. 6.	-3761.84!	-23.1!	632.5!	11.31	7.5	.218	10.87	.024!	SI
791.	162.	3. 4.	-3624.66!	-34.4!	1493.7!	4.52	7.5	.548	14.92	.082!	SI
1101.	473.	3. 6.	-3295.7!	-20.2!	554.1!	11.31	7.5	.18	10.87	.02!	SI
>1101.	0.	3. 6.	-2795.2!	-17.2!	470.	11.31	7.5	.139	10.87	.015!	SI
1110.	9.	3. 6.	974.96!	-6.	201.7!	9.05	7.5	.059	11.54	.007!	SI
1265.	163.	3. 4.	-2451.4!	-23.2!	1010.2!	4.52	7.5	.313	14.92	.047!	SI
1406.	305.	3. 6.	-2606.53!	-16.	438.2!	11.31	7.5	.128	10.87	.014!	SI
>1406.	0.	3. 6.	-1574.34!	-9.7!	264.7!	11.31	7.5	.077	10.87	.008!	SI
1546.	140.	3. 4.	1206.56!	-11.4!	497.2!	4.52	7.5	.146	14.92	.022!	SI
1686.	280.	3. 8.	-936.74!	-7.8!	261.3!	6.79	7.5	.076	12.67	.01!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 13.	13.	3. 1.	-1456.5!	-13.8!	600.2!	4.52	7.5	.176	14.92	.026!	SI
41.	41.	3. 1.	-1040.94!	-9.9!	428.9!	4.52	7.5	.126	14.92	.019!	SI
57.	57.	3. 1.	-818.21!	-7.8!	337.2!	4.52	7.5	.099	14.92	.015!	SI
135.	135.	3. 3.	1255.99!	-8.2!	261.5!	9.05	7.5	.077	11.54	.009!	SI
165.	165.	3. 3.	623.97!	-4.1!	129.9!	9.05	7.5	.038	11.54	.004!	SI
> 165.	0.	3. 3.	-1103.77!	-7.2!	229.8!	9.05	7.5	.067	11.54	.008!	SI
203.	38.	3. 3.	-3634.06!	-23.8!	756.7!	9.05	7.5	.264	11.54	.03!	SI
342.	176.	3. 4.	-3455.88!	-32.8!	1424.1!	4.52	7.5	.514	14.92	.077!	SI
628.	463.	3. 6.	-3095.35!	-19.	520.4!	11.31	7.5	.163	10.87	.018!	SI
> 628.	0.	3. 6.	-3086.62!	-19.	519.	11.31	7.5	.163	10.87	.018!	SI
663.	35.	3. 6.	-3565.68!	-21.9!	599.5!	11.31	7.5	.202	10.87	.022!	SI
791.	162.	3. 4.	-3434.95!	-32.6!	1415.5!	4.52	7.5	.51	14.92	.076!	SI
1101.	473.	3. 6.	-3121.42!	-19.2!	524.8!	11.31	7.5	.166	10.87	.018!	SI
>1101.	0.	3. 6.	-2650.19!	-16.3!	445.6!	11.31	7.5	.13	10.87	.014!	SI
1110.	9.	3. 6.	916.24!	-5.6!	189.6!	9.05	7.5	.055	11.54	.006!	SI
1265.	163.	3. 4.	-2325.26!	-22.	958.2!	4.52	7.5	.287	14.92	.043!	SI
1406.	305.	3. 6.	-2469.34!	-15.2!	415.2!	11.31	7.5	.122	10.87	.013!	SI
>1406.	0.	3. 6.	-1494.04!	-9.2!	251.2!	11.31	7.5	.074	10.87	.008!	SI
1546.	140.	3. 4.	1143.56!	-10.8!	471.2!	4.52	7.5	.138	14.92	.021!	SI
1686.	280.	3. 8.	-883.04!	-7.3!	246.4!	6.79	7.5	.072	12.67	.009!	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	9.05	.754	4.52	.377	2d12 +2d12	4.52	.377	4d12
2	13.57	1.131	9.05	.754	2d12 +2d12 +4d12	4.52	.377	4d12
3	18.1	1.508	9.05	.754	2d12 +2d12 +4d12	9.05	.754	4d12 +4d12
4	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
5	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
6	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
7	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
8	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 45 - Travata T013  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1140	3	3	3	0	165.	135.
2	A1142	3	3	3	0	463.	403.
3	A1145	3	3	3	0	473.	413.
4	A1147	3	3	3	0	305.	245.
5	A1148	3	3	3	0	280.	220.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 13.	13.	3. 1.	-2916.18	-.225	.588	-9529.88	-1.48	10.	2.	.129	3.268	SI
95.	95.	3. 2.	-1157.43	-.071	.12	-18749.37	-2.44	10.	2.	.196	16.2	SI
95.	95.	3. 2.	1957.5	-.123	.389	9554.12	-1.18	10.	2.	.105	4.881	SI
108.	108.	3. 3.	-771.87	-.04	.078	-18965.7	-1.82	10.	2.	.154	24.57	SI
108.	108.	3. 3.	2181.34	-.113	.222	18965.7	-1.82	10.	2.	.154	8.694	SI
110.	110.	3. 3.	-679.17	-.035	.069	-18965.7	-1.82	10.	2.	.154	27.93	SI
110.	110.	3. 3.	2200.94	-.114	.224	18965.7	-1.82	10.	2.	.154	8.617	SI
165.	165.	3. 3.	2154.18	-.111	.219	18965.7	-1.82	10.	2.	.154	8.804	SI
> 165.	0.	3. 3.	-5920.39	-.31	.602	-18965.7	-1.82	10.	2.	.154	3.203	SI
177.	12.	3. 3.	-6582.57	-.346	.669	-18965.7	-1.82	10.	2.	.154	2.881	SI
295.	130.	3. 4.	-6430.26	-.508	1.3	-9529.88	-1.48	10.	2.	.129	1.482	SI
526.	361.	3. 5.	-5911.13	-.353	.498	-22947.14	-3.42	10.	2.	.255	3.882	SI
572.	407.	3. 6.	8.16	0.	.001	19003.24	-1.64	10.	2.	.141	2328.	SI
602.	437.	3. 6.	157.75	-.007	.016	19003.24	-1.64	10.	2.	.141	120.5	SI
628.	463.	3. 6.	-5686.14	-.281	.467	-23618.55	-2.14	10.	2.	.176	4.154	SI
628.	463.	3. 6.	157.75	-.007	.016	19003.24	-1.64	10.	2.	.141	120.5	SI
> 628.	0.	3. 6.	-6327.43	-.314	.52	-23618.55	-2.14	10.	2.	.176	3.733	SI
628.	0.	3. 6.	3085.18	-.147	.311	19003.24	-1.64	10.	2.	.141	6.16	SI
637.	9.	3. 6.	-6462.91	-.32	.531	-23618.55	-2.14	10.	2.	.176	3.654	SI
663.	35.	3. 6.	2467.54	-.118	.249	19003.24	-1.64	10.	2.	.141	7.701	SI
706.	77.	3. 5.	-6432.23	-.385	.542	-22947.14	-3.42	10.	2.	.255	3.568	SI
706.	77.	3. 5.	2516.86	-.146	.498	9556.02	-1.09	10.	2.	.098	3.797	SI
791.	162.	3. 4.	-6277.98	-.495	1.269	-9529.88	-1.48	10.	2.	.129	1.518	SI
1101.	473.	3. 6.	-5722.5	-.283	.47	-23618.55	-2.14	10.	2.	.176	4.127	SI
1101.	473.	3. 6.	2940.2	-.14	.297	19003.24	-1.64	10.	2.	.141	6.463	SI
>1101.	0.	3. 6.	-4811.07	-.237	.395	-23618.55	-2.14	10.	2.	.176	4.909	SI
1101.	0.	3. 6.	3912.61	-.188	.395	19003.24	-1.64	10.	2.	.141	4.857	SI
1110.	9.	3. 6.	4021.58	-.193	.406	19003.24	-1.64	10.	2.	.141	4.725	SI
1179.	78.	3. 5.	-4101.82	-.242	.345	-22947.14	-3.42	10.	2.	.255	5.594	SI
1179.	78.	3. 5.	3736.46	-.217	.74	9556.02	-1.09	10.	2.	.098	2.558	SI
1308.	206.	3. 4.	-4345.59	-.338	.877	-9529.88	-1.48	10.	2.	.129	2.193	SI
1406.	305.	3. 6.	-4486.01	-.221	.368	-23618.55	-2.14	10.	2.	.176	5.265	SI
1406.	305.	3. 6.	2220.14	-.106	.224	19003.24	-1.64	10.	2.	.141	8.559	SI
>1406.	0.	3. 6.	-2717.07	-.133	.223	-23618.55	-2.14	10.	2.	.176	8.693	SI
1406.	0.	3. 6.	780.98	-.037	.079	19003.24	-1.64	10.	2.	.141	24.33	SI
1504.	98.	3. 7.	-668.45	-.041	.069	-18749.37	-2.44	10.	2.	.196	28.05	SI
1504.	98.	3. 7.	1938.41	-.122	.385	9554.12	-1.18	10.	2.	.105	4.929	SI
1546.	140.	3. 4.	2076.27	-.159	.419	9529.88	-1.48	10.	2.	.129	4.59	SI
1588.	182.	3. 8.	-203.17	-.014	.028	-14180.29	-1.96	10.	2.	.164	69.8	SI
1686.	280.	3. 8.	-1652.13	-.111	.226	-14180.29	-1.96	10.	2.	.164	8.583	SI
1686.	280.	3. 8.	844.02	-.058	.169	9547.75	-1.3	10.	2.	.115	11.31	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	3579.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 165.	165.	3.	-2313.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 165.	0.	3.	-5070.!	4230.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 177.	12.	3.	8986.!	4230.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 628.	463.	3.	8602.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 628.	0.	3.	7464.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 637.	9.	3.	-7584.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 637.	9.	3.	9147.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 1101.	473.	3.	8837.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 1101.	0.	3.	7826.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 1110.	9.	3.	-4206.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 1406.	305.	3.	6222.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 1406.	0.	3.	5349.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI
> 1686.	280.	3.	-3651.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01	10.!	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 13.	13.	3.	1.	-1820.53!	-17.3!	750.2!	4.52	7.5	.22	14.92	.033	SI
> 41.	41.	3.	1.	-1310.66!	-12.4!	540.1!	4.52	7.5	.158	14.92	.024	SI
> 57.	57.	3.	1.	-1036.04!	-9.8!	426.9!	4.52	7.5	.125	14.92	.019	SI
> 135.	135.	3.	3.	1551.03!	-10.1!	323.!	9.05	7.5	.095	11.54	.011	SI
> 165.	165.	3.	3.	762.13!	-5.!	158.7!	9.05	7.5	.046	11.54	.005	SI
> 165.	0.	3.	3.	-1404.37!	-9.2!	292.4!	9.05	7.5	.086	11.54	.01	SI
> 203.	38.	3.	3.	-4630.53!	-30.3!	964.3!	9.05	7.5	.365	11.54	.042	SI
> 342.	176.	3.	4.	-4408.49!	-41.8!	1816.7!	4.52	7.5	.706	14.92	.105	SI
> 628.	463.	3.	6.	-3959.43!	-24.3!	665.7!	11.31	7.5	.234	10.87	.025	SI
> 628.	0.	3.	6.	-3947.95!	-24.2!	663.8!	11.31	7.5	.233	10.87	.025	SI
> 663.	35.	3.	6.	-4546.31!	-27.9!	764.4!	11.31	7.5	.282	10.87	.031	SI
> 791.	162.	3.	4.	-4383.41!	-41.6!	1806.3!	4.52	7.5	.701	14.92	.105	SI
> 1101.	473.	3.	6.	-3992.87!	-24.5!	671.3!	11.31	7.5	.237	10.87	.026	SI
> 1101.	0.	3.	6.	-3384.29!	-20.8!	569.!	11.31	7.5	.187	10.87	.02	SI
> 1110.	9.	3.	6.	1190.51!	-7.3!	246.3!	9.05	7.5	.072	11.54	.008	SI
> 1265.	163.	3.	4.	-2965.21!	-28.1!	1221.9!	4.52	7.5	.416	14.92	.062	SI
> 1406.	305.	3.	6.	-3155.3!	-19.4!	530.5!	11.31	7.5	.168	10.87	.018	SI
> 1406.	0.	3.	6.	-1911.38!	-11.7!	321.4!	11.31	7.5	.094	10.87	.01	SI
> 1546.	140.	3.	4.	1460.46!	-13.8!	601.8!	4.52	7.5	.176	14.92	.026	SI
> 1686.	280.	3.	8.	-1128.79!	-9.4!	314.9!	6.79	7.5	.092	12.67	.012	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 13.	13.	3.	1.	-1529.38!	-14.5!	630.2!	4.52	7.5	.184	14.92	.028	SI
> 41.	41.	3.	1.	-1094.95!	-10.4!	451.2!	4.52	7.5	.132	14.92	.02	SI
> 57.	57.	3.	1.	-861.84!	-8.2!	355.1!	4.52	7.5	.104	14.92	.016	SI
> 135.	135.	3.	3.	1314.98!	-8.6!	273.8!	9.05	7.5	.08	11.54	.009	SI
> 165.	165.	3.	3.	651.6!	-4.3!	135.7!	9.05	7.5	.04	11.54	.005	SI
> 165.	0.	3.	3.	-1163.85!	-7.6!	242.4!	9.05	7.5	.071	11.54	.008	SI
> 203.	38.	3.	3.	-3834.29!	-25.1!	798.4!	9.05	7.5	.284	11.54	.033	SI
> 342.	176.	3.	4.	-3647.33!	-34.6!	1503.!	4.52	7.5	.553	14.92	.083	SI
> 628.	463.	3.	6.	-3269.04!	-20.1!	549.6!	11.31	7.5	.178	10.87	.019	SI
> 628.	0.	3.	6.	-3259.73!	-20.!	548.1!	11.31	7.5	.177	10.87	.019	SI
> 663.	35.	3.	6.	-3761.84!	-23.1!	632.5!	11.31	7.5	.218	10.87	.024	SI
> 791.	162.	3.	4.	-3624.66!	-34.4!	1493.7!	4.52	7.5	.548	14.92	.082	SI
> 1101.	473.	3.	6.	-3295.7!	-20.2!	554.1!	11.31	7.5	.18	10.87	.02	SI
> 1101.	0.	3.	6.	-2795.2!	-17.2!	470.!	11.31	7.5	.139	10.87	.015	SI
> 1110.	9.	3.	6.	974.96!	-6.!	201.7!	9.05	7.5	.059	11.54	.007	SI
> 1265.	163.	3.	4.	-2451.4!	-23.2!	1010.2!	4.52	7.5	.313	14.92	.047	SI
> 1406.	305.	3.	6.	-2606.53!	-16.!	438.2!	11.31	7.5	.128	10.87	.014	SI
> 1406.	0.	3.	6.	-1574.34!	-9.7!	264.7!	11.31	7.5	.077	10.87	.008	SI
> 1546.	140.	3.	4.	1206.56!	-11.4!	497.2!	4.52	7.5	.146	14.92	.022	SI
> 1686.	280.	3.	8.	-936.74!	-7.8!	261.3!	6.79	7.5	.076	12.67	.01	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 13.	13.	3.	1.	-1456.5!	-13.8!	600.2!	4.52	7.5	.176	14.92	.026	SI
> 41.	41.	3.	1.	-1040.94!	-9.9!	428.9!	4.52	7.5	.126	14.92	.019	SI
> 57.	57.	3.	1.	-818.21!	-7.8!	337.2!	4.52	7.5	.099	14.92	.015	SI
> 135.	135.	3.	3.	1255.99!	-8.2!	261.5!	9.05	7.5	.077	11.54	.009	SI
> 165.	165.	3.	3.	623.97!	-4.1!	129.9!	9.05	7.5	.038	11.54	.004	SI
> 165.	0.	3.	3.	-1103.77!	-7.2!	229.8!	9.05	7.5	.067	11.54	.008	SI
> 203.	38.	3.	3.	-3634.06!	-23.8!	756.7!	9.05	7.5	.264	11.54	.03	SI
> 342.	176.	3.	4.	-3455.88!	-32.8!	1424.1!	4.52	7.5	.514	14.92	.077	SI
> 628.	463.	3.	6.	-3095.35!	-19.!	520.4!	11.31	7.5	.163	10.87	.018	SI
> 628.	0.	3.	6.	-3086.62!	-19.!	519.!	11.31	7.5	.163	10.87	.018	SI
> 663.	35.	3.	6.	-3565.68!	-21.9!	599.5!	11.31	7.5	.202	10.87	.022	SI
> 791.	162.	3.	4.	-3434.95!	-32.6!	1415.5!	4.52	7.5	.51	14.92	.076	SI
> 1101.	473.	3.	6.	-3121.42!	-19.2!	524.8!	11.31	7.5	.166	10.87	.018	SI
> 1101.	0.	3.	6.	-2650.19!	-16.3!	445.6!	11.31	7.5	.13	10.87	.014	SI
> 1110.	9.	3.	6.	916.24!	-5.6!	189.6!	9.05	7.5	.055	11.54	.006	SI
> 1265.	163.	3.	4.	-2325.26!	-22.!	958.2!	4.52	7.5	.287	14.92	.043	SI
> 1406.	305.	3.	6.	-2469.34!	-15.2!	415.2!	11.31	7.5	.122	10.87	.013	SI
> 1406.	0.	3.	6.	-1494.04!	-9.2!	251.2!	11.31	7.5	.074	10.87	.008	SI
> 1546.	140.	3.	4.	1143.56!	-10.8!	471.2!	4.52	7.5	.138	14.92	.021	SI
> 1686.	280.	3.	8.	-883.04!	-7.3!	246.4!	6.79	7.5	.072	12.67	.009	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	9.05	.754	4.52	.377	2d12 +2d12	4.52	.377	4d12
2	13.57	1.131	9.05	.754	2d12 +2d12 +4d12	4.52	.377	4d12
3	18.1	1.508	9.05	.754	2d12 +2d12 +4d12	9.05	.754	4d12 +4d12
4	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
5	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
6	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
7	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
8	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 48 - Travata T014  
 Metodo di verifica : stati limite,  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=124.8;  $\sigma$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1771	3	3	3	0	367.	327.
2	A1772	3	3	3	0	460.	420.
3	A1773	3	3	3	0	473.	453.
4	A1151	3	3	3	0	296.	256.
5	A1150	3	3	3	0	280.	220.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-4812.11	-.288	.649	-14260.42	-1.61	10.	2.	.139	2.963	SI
0.	0.	3.	1.	1189.01	-.07	.143	15995.82	-1.83	10.	2.	.154	13.45	SI
115.	115.	3.	2.	-719.79	-.048	.144	-9550.98	-1.25	10.	2.	.111	13.27	SI
154.	154.	3.	2.	5495.95	-.366	.672	15903.27	-2.13	10.	2.	.176	2.894	SI
312.	312.	3.	4.	1348.72	-.057	.082	31825.07	-2.4	10.	2.	.194	23.6	SI
342.	342.	3.	4.	16.7	-.001	.001	31825.07	-2.4	10.	2.	.194	1906.	SI
367.	367.	3.	4.	-7171.97	-.289	.578	-23751.04	-1.65	10.	2.	.142	3.312	SI
> 367.	0.	3.	4.	-7952.37	-.321	.64	-23751.04	-1.65	10.	2.	.142	2.987	SI
380.	13.	3.	4.	250.25	-.01	.015	31825.07	-2.4	10.	2.	.194	127.2	SI
469.	102.	3.	3.	5110.95	-.257	.608	16061.29	-1.47	10.	2.	.128	3.143	SI
607.	240.	3.	2.	7958.22	-.539	.975	15903.27	-2.13	10.	2.	.176	1.998	SI
827.	460.	3.	4.	-10840.3	-.441	.873	-23751.04	-1.65	10.	2.	.142	2.191	SI
> 827.	0.	3.	4.	-11066.16	-.45	.891	-23751.04	-1.65	10.	2.	.142	2.146	SI
863.	36.	3.	3.	-10413.53	-.556	.862	-23548.43	-2.32	10.	2.	.188	2.261	SI
908.	80.	3.	3.	2931.81	-.146	.349	16061.29	-1.47	10.	2.	.128	5.478	SI
1086.	259.	3.	2.	8423.43	-.572	1.032	15903.27	-2.13	10.	2.	.176	1.888	SI
1265.	438.	3.	6.	1174.11	-.052	.089	25439.49	-2.02	10.	2.	.168	21.67	SI
1275.	448.	3.	6.	475.99	-.021	.036	25439.49	-2.02	10.	2.	.168	53.45	SI
1301.	473.	3.	6.	-8340.14	-.372	.677	-23707.27	-1.85	10.	2.	.156	2.843	SI
>1301.	0.	3.	6.	-6818.52	-.303	.554	-23707.27	-1.85	10.	2.	.156	3.477	SI
1301.	0.	3.	6.	284.1	-.013	.022	25439.49	-2.02	10.	2.	.168	89.55	SI
1377.	76.	3.	7.	-4212.44	-.265	.438	-18749.37	-2.44	10.	2.	.196	4.451	SI
1377.	76.	3.	7.	1465.47	-.092	.291	9554.12	-1.18	10.	2.	.105	6.52	SI
1459.	158.	3.	8.	1848.38	-.142	.373	9529.88	-1.48	10.	2.	.129	5.156	SI
1596.	296.	3.	9.	-1820.23	-.089	.149	-23618.55	-2.14	10.	2.	.176	12.98	SI
1596.	296.	3.	9.	853.77	-.041	.086	19003.24	-1.64	10.	2.	.141	22.26	SI
>1596.	0.	3.	9.	-1478.77	-.072	.121	-23618.55	-2.14	10.	2.	.176	15.97	SI
1596.	0.	3.	9.	278.09	-.013	.028	19003.24	-1.64	10.	2.	.141	68.34	SI
1736.	140.	3.	8.	1870.5	-.143	.377	9529.88	-1.48	10.	2.	.129	5.095	SI
1778.	182.	3.	10.	1794.17	-.124	.359	9547.75	-1.3	10.	2.	.115	5.322	SI
1876.	280.	3.	10.	-1645.53	-.111	.225	-14180.29	-1.96	10.	2.	.164	8.617	SI
1876.	280.	3.	10.	867.11	-.06	.173	9547.75	-1.3	10.	2.	.115	11.01	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3.	9341.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
154.	154.	3.	-563.!	4042.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
367.	367.	3.	-10940.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
> 367.	0.	3.	11640.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
827.	460.	3.	-13490.!	4530.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
> 827.	0.	3.	14275.!	4530.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
1301.	473.	3.	-13528.!	4230.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
>1301.	0.	3.	6540.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
1596.	296.	3.	-4086.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
>1596.	0.	3.	4976.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI
1876.	280.	3.	-4427.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01 10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
26.	26.	3.	1.	-1962.57	-14.6	541.4	6.79	7.5	.158	12.67	.02	SI
26.	26.	3.	1.	561.89	-4.1	138.8	7.63	7.5	.041	13.15	.005	SI
154.	154.	3.	2.	3862.38	-30.9	962.7	7.63	7.5	.35	13.15	.046	SI
367.	367.	3.	4.	-5039.12	-26.1	833.1	11.31	7.5	.316	10.87	.034	SI
> 367.	0.	3.	4.	-5587.28	-29.	923.8	11.31	7.5	.36	10.87	.039	SI
607.	240.	3.	2.	5591.97	-44.7	1393.8	7.63	7.5	.561	13.15	.074	SI
827.	460.	3.	4.	-7617.26	-39.5	1259.4	11.31	7.5	.524	10.87	.057	SI
> 827.	0.	3.	4.	-7775.84	-40.3	1285.6	11.31	7.5	.537	10.87	.058	SI
1086.	259.	3.	2.	5918.41	-47.3	1475.2	7.63	7.5	.6	13.15	.079	SI
1301.	473.	3.	6.	-5860.24	-32.9	976.	11.31	7.5	.386	10.87	.042	SI
>1301.	0.	3.	6.	-4792.03	-26.9	798.1	11.31	7.5	.299	10.87	.032	SI
1459.	158.	3.	8.	1292.09	-12.3	532.4	4.52	7.5	.156	14.92	.023	SI
1596.	296.	3.	9.	-1280.28	-7.9	215.3	11.31	7.5	.063	10.87	.007	SI
>1596.	0.	3.	9.	-1395.42	-8.6	234.6	11.31	7.5	.069	10.87	.007	SI
1736.	140.	3.	8.	1315.48	-12.5	542.1	4.52	7.5	.159	14.92	.024	SI
1876.	280.	3.	10	-1149.5	-9.5	320.7	6.79	7.5	.094	12.67	.012	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
26.	26.	3.	1.	-1598.82	-11.9	441.1	6.79	7.5	.129	12.67	.016	SI
26.	26.	3.	1.	458.56	-3.4	113.3	7.63	7.5	.033	13.15	.004	SI
154.	154.	3.	2.	3154.03	-25.2	786.2	7.63	7.5	.264	13.15	.035	SI
367.	367.	3.	4.	-4096.95	-21.2	677.4	11.31	7.5	.24	10.87	.026	SI
> 367.	0.	3.	4.	-4546.33	-23.6	751.6	11.31	7.5	.276	10.87	.03	SI
607.	240.	3.	2.	4557.33	-36.4	1135.9	7.63	7.5	.435	13.15	.057	SI
827.	460.	3.	4.	-6205.03	-32.2	1025.9	11.31	7.5	.41	10.87	.045	SI
> 827.	0.	3.	4.	-6332.57	-32.8	1047.	11.31	7.5	.42	10.87	.046	SI
1086.	259.	3.	2.	4819.6	-38.5	1201.3	7.63	7.5	.467	13.15	.061	SI
1301.	473.	3.	6.	-4773.9	-26.8	795.1	11.31	7.5	.297	10.87	.032	SI
>1301.	0.	3.	6.	-3908.97	-22.	651.	11.31	7.5	.227	10.87	.025	SI
1459.	158.	3.	8.	1072.76	-10.2	442.1	4.52	7.5	.129	14.92	.019	SI
1596.	296.	3.	9.	-1057.62	-6.5	177.8	11.31	7.5	.052	10.87	.006	SI
>1596.	0.	3.	9.	-1164.05	-7.1	195.7	11.31	7.5	.057	10.87	.006	SI
1736.	140.	3.	8.	1082.83	-10.3	446.2	4.52	7.5	.131	14.92	.019	SI
1876.	280.	3.	10	-949.58	-7.9	264.9	6.79	7.5	.078	12.67	.01	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
26.	26.	3.	1.	-1508.04	-11.2	416.	6.79	7.5	.122	12.67	.015	SI
26.	26.	3.	1.	433.41	-3.2	107.1	7.63	7.5	.031	13.15	.004	SI
154.	154.	3.	2.	2976.62	-23.8	741.9	7.63	7.5	.243	13.15	.032	SI
367.	367.	3.	4.	-3863.69	-20.	638.8	11.31	7.5	.221	10.87	.024	SI
> 367.	0.	3.	4.	-4285.88	-22.2	708.6	11.31	7.5	.255	10.87	.028	SI
607.	240.	3.	2.	4298.15	-34.3	1071.3	7.63	7.5	.403	13.15	.053	SI
827.	460.	3.	4.	-5853.56	-30.3	967.8	11.31	7.5	.382	10.87	.041	SI
> 827.	0.	3.	4.	-5973.44	-31.	987.6	11.31	7.5	.391	10.87	.043	SI
1086.	259.	3.	2.	4543.69	-36.3	1132.5	7.63	7.5	.433	13.15	.057	SI
1301.	473.	3.	6.	-4502.32	-25.3	749.8	11.31	7.5	.275	10.87	.03	SI
>1301.	0.	3.	6.	-3691.04	-20.7	614.7	11.31	7.5	.209	10.87	.023	SI
1459.	158.	3.	8.	1018.84	-9.7	419.8	4.52	7.5	.123	14.92	.018	SI
1596.	296.	3.	9.	-1001.96	-6.2	168.5	11.31	7.5	.049	10.87	.005	SI
>1596.	0.	3.	9.	-1103.11	-6.8	185.5	11.31	7.5	.054	10.87	.006	SI
1736.	140.	3.	8.	1025.68	-9.7	422.7	4.52	7.5	.124	14.92	.018	SI
1876.	280.	3.	10	-899.6	-7.5	251.	6.79	7.5	.073	12.67	.009	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	14.42	1.202	6.79	.565	2d12 +4d12	7.63	.636	3d18
2	12.16	1.013	4.52	.377	4d12	7.63	.636	3d18
3	18.94	1.579	11.31	.942	2d12 +4d12 +4d12	7.63	.636	3d18
4	26.58	2.215	11.31	.942	2d12 +4d12 +4d12	15.27	1.272	3d18 +3d18
5	16.68	1.39	9.05	.754	4d12 +4d12	7.63	.636	3d18
6	23.47	1.956	11.31	.942	2d12 +4d12 +4d12	12.16	1.013	3d18 +4d12
7	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
8	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
9	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
10	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 52 - Travata T015  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=124.8;  $\sigma$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma$ f (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1261	3	3	3	0	430.	370.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-2685.88	-182	.367	-14180.29	-1.96	10.	2.	.164	5.28	SI
12.	12.	3.	1.	115.52	-.008	.023	9547.75	-1.3	10.	2.	.115	82.65	SI
215.	215.	3.	2.	2966.78	-.229	.599	9529.88	-1.48	10.	2.	.129	3.212	SI
430.	430.	3.	1.	-2598.57	-176	.355	-14180.29	-1.96	10.	2.	.164	5.457	SI
430.	430.	3.	1.	556.07	-.038	.111	9547.75	-1.3	10.	2.	.115	17.17	SI

VERIFICHE A TAGLIO

TAGLIO:												
Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	vcd	Vwd	Asw	s	Ve		
> 0.	0.	3.	1.	4125.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
51.	51.	3.	1.	3694.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
430.	430.	3.	1.	-4282.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-1849.08	-15.3	515.9	6.79	7.5	.151	12.67	.019	SI
23.	23.	3.	1.	-1565.56	-13.	436.8	6.79	7.5	.128	12.67	.016	SI
215.	215.	3.	2.	2090.26	-19.8	861.4	4.52	7.5	.252	14.92	.038	SI
430.	430.	3.	1.	-1830.97	-15.2	510.8	6.79	7.5	.15	12.67	.019	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve	
23.	23.	3.	1.	-1308.01	-10.8	364.9	6.79	7.5	.107	12.67	.014	SI
215.	215.	3.	2.	1766.72	-16.8	728.	4.52	7.5	.213	14.92	.032	SI
430.	430.	3.	1.	-1549.25	-12.8	432.2	6.79	7.5	.127	12.67	.016	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve	
23.	23.	3.	1.	-1246.95	-10.3	347.9	6.79	7.5	.102	12.67	.013	SI
215.	215.	3.	2.	1685.91	-16.	694.7	4.52	7.5	.203	14.92	.03	SI
430.	430.	3.	1.	-1478.82	-12.3	412.6	6.79	7.5	.121	12.67	.015	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 54 - Travata T071  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; daN/cm<sup>2</sup>; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm<sup>2</sup> - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: σf (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=40.; alt.=25.; Acl=1000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1265	3	3	3	0	430.	390.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-6817.12	-1.75	4.679	-6866.73	-2.66	10.	2.	.21	1.007
68.	68.	3.	1.	638.31	-1.105	.16	7599.24	-2.92	10.	2.	.226	1.91
162.	162.	3.	2.	4523.52	-1.01	1.161	7438.87	-3.5	7.349	3.	.323	1.644
224.	224.	3.	2.	5473.41	-1.26	1.411	7438.87	-3.5	7.349	3.	.323	1.359
430.	430.	3.	3.	-4760.18	-.915	1.748	-5199.57	-2.31	10.	2.	.187	1.092

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	1.	8773.	4742.	34997.	20925.	5446.	15478.	1.01	5.
130.	130.	3.	1.	4459.	4921.	34997.	10319.	5446.	5159.	1.01	15.
430.	430.	3.	1.	-8632.	3132.	34997.	20925.	5446.	15478.	1.01	5.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	1.	-4791.45	-100.	2206.3	9.05	5.71	1.172	13.31	.156
18.	18.	3.	1.	-4389.89	-91.6	2472.4	9.05	5.71	1.061	13.31	.141
224.	224.	3.	2.	3847.31	-93.	1978.2	10.05	5.3	.839	13.22	.111
430.	430.	3.	3.	-3345.89	-76.9	2488.6	6.79	6.01	1.024	15.39	.157

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	1.	-3917.45	-81.7	2206.3	9.05	5.71	.932	13.31	.124
18.	18.	3.	1.	-3588.85	-74.9	2021.3	9.05	5.71	.841	13.31	.112
224.	224.	3.	2.	3149.88	-76.1	1619.6	10.05	5.3	.664	13.22	.088
430.	430.	3.	3.	-2738.41	-63.	2036.8	6.79	6.01	.803	15.39	.124

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	1.	-3699.57	-77.2	2083.6	9.05	5.71	.872	13.31	.116
18.	18.	3.	1.	-3389.21	-70.7	1908.8	9.05	5.71	.787	13.31	.105
224.	224.	3.	2.	2975.56	-71.9	1530.	10.05	5.3	.621	13.22	.082
430.	430.	3.	3.	-2586.54	-59.5	1923.8	6.79	6.01	.748	15.39	.115

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	19.1	1.91	9.05	.905	5d12 +3d12	10.05	1.005	5d16
2	13.45	1.345	3.39	.339	3d12	10.05	1.005	5d16
3	16.84	1.684	6.79	.679	3d12 +3d12	10.05	1.005	5d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 55 - Travata T069  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO: σf (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

5) Rettangolare: base=60.; alt.=25.; Acls=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1268	5	5	5	0	470.	450.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	5. 1.	-6306.03!	-.996!	1.742!	-6963.07!	-2.5	10.	2.	.2	1.104!	SI
56.	56.	5. 1.	723.86!	-.107!	.222!	6221.04!	-2.29	10.	2.	.186!	8.594!	SI
163.	163.	5. 2.	4563.59!	-.782!	1.412!	6220.36!	-2.5	10.	2.	.2	1.363!	SI
235.	235.	5. 2.	5630.64!	-.986!	1.747!	6220.36!	-2.5	10.	2.	.2	1.105!	SI
343.	343.	5. 3.	4135.49!	-.66!	1.275!	6221.57!	-2.35	10.	2.	.19	1.504!	SI
378.	378.	5. 3.	-178.86!	-.027!	.056!	-6128.58!	-2.32	10.	2.	.188!	34.27!	SI
470.	470.	5. 3.	-4939.03!	-.8	1.548!	-6128.58!	-2.32	10.	2.	.188!	1.241!	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	5. 1.	8519.!	4698.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI
56.	56.	5. 1.	6882.!	6129.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI
470.	470.	5. 1.	-8147.!	4698.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5. 1.	-4432.06!	-79.6!	2467.6!	9.05	5.94	.995	16.2	.161	SI
10.	10.	5. 1.	-4160.39!	-74.7!	2316.4!	9.05	5.94	.922	16.2	.149	SI
235.	235.	5. 2.	3958.63!	-77.5!	2470.5!	8.04	5.99	.973	23.35	.227!	SI
470.	470.	5. 3.	-3472.16!	-65.3!	2198.4!	7.92	6.07	.834	17.55	.146!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5. 1.	-3621.69!	-65.!	2016.4!	9.05	5.94	.775	16.2	.126	SI
10.	10.	5. 1.	-3399.!	-61.!	1892.4!	9.05	5.94	.715	16.2	.116	SI
235.	235.	5. 2.	3250.14!	-63.6!	2028.3!	8.04	5.99	.757	23.35	.177!	SI
470.	470.	5. 3.	-2848.13!	-53.6!	1803.3!	7.92	6.07	.641	17.55	.113	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5. 1.	-3419.69!	-61.4!	1904.!	9.05	5.94	.72	16.2	.117	SI
10.	10.	5. 1.	-3209.23!	-57.6!	1786.8!	9.05	5.94	.663	16.2	.107	SI
235.	235.	5. 2.	3073.04!	-60.1!	1917.8!	8.04	5.99	.703	23.35	.164!	SI
470.	470.	5. 3.	-2692.12!	-50.7!	1704.5!	7.92	6.07	.593	17.55	.104	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	17.09	1.139	9.05	.603	3d12 +5d12	8.04	.536	4d16
2	13.7	.913	5.65	.377	5d12	8.04	.536	4d16
3	15.96	1.064	7.92	.528	2d12 +5d12	8.04	.536	4d16



VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 55 - Travata T069  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogenein. = 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

5) Rettangolare: base=60.; alt.=25.; Acls=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1268	5	5	5	0	470.	450.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	5. 1.	-6306.03!	-996!	1.742	-6963.07!	-2.5	10.	2.	.2	1.104!	SI
56.	56.	5. 1.	723.86!	-1.07	.222	6221.04!	-2.29	10.	2.	.186!	8.594	SI
163.	163.	5. 2.	4563.59!	-782	1.412	6220.36!	-2.5	10.	2.	.2	1.363	SI
235.	235.	5. 2.	5630.64!	-986	1.747!	6220.36!	-2.5	10.	2.	.2	1.105	SI
343.	343.	5. 3.	4135.49!	-66	1.275!	6221.57!	-2.35	10.	2.	.19	1.504	SI
378.	378.	5. 3.	-178.86!	-0.27	.056	-6128.58!	-2.32	10.	2.	.188	34.27!	SI
470.	470.	5. 3.	-4939.03!	-.8	1.548	-6128.58!	-2.32	10.	2.	.188	1.241	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vvd	Asw	s	Ve
> 0.	0.	5. 1.	8519.!	4698.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI
56.	56.	5. 1.	6882.!	6129.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI
470.	470.	5. 1.	-8147.!	4698.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5. 1.	-4432.06!	-79.6!	2467.6	9.05	5.94	.995	16.2	.161	SI
10.	10.	5. 1.	-4160.39!	-74.7!	2316.4	9.05	5.94	.922	16.2	.149	SI
235.	235.	5. 2.	3958.63!	-77.5!	2470.5!	8.04	5.99	.973	23.35	.227!	SI
470.	470.	5. 3.	-3472.16!	-65.3!	2198.4	7.92	6.07	.834	17.55	.146	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5. 1.	-3621.69!	-65.!	2016.4	9.05	5.94	.775	16.2	.126	SI
10.	10.	5. 1.	-3399.!	-61.!	1892.4	9.05	5.94	.715	16.2	.116	SI
235.	235.	5. 2.	3250.14!	-63.6!	2028.3!	8.04	5.99	.757	23.35	.177!	SI
470.	470.	5. 3.	-2848.13!	-53.6!	1803.3	7.92	6.07	.641	17.55	.113	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	5. 1.	-3419.69!	-61.4!	1904.!	9.05	5.94	.72	16.2	.117	SI
10.	10.	5. 1.	-3209.23!	-57.6!	1786.8	9.05	5.94	.663	16.2	.107	SI
235.	235.	5. 2.	3073.04!	-60.1!	1917.8!	8.04	5.99	.703	23.35	.164!	SI
470.	470.	5. 3.	-2692.12!	-50.7!	1704.5	7.92	6.07	.593	17.55	.104	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	17.09	1.139	9.05	.603	3d12 +5d12	8.04	.536	4d16
2	13.7	.913	5.65	.377	5d12	8.04	.536	4d16
3	15.96	1.064	7.92	.528	2d12 +5d12	8.04	.536	4d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 56 - Travata T067  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=124.8;  $\sigma$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma$ f (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1271	3	3	3	0	450.	390.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	-2021.11	-.136	.276	-14180.29	-1.96	10.	2.	.164	7.016	SI
0.	0.	3.	488.74	-.034	.098	9547.75	-1.3	10.	2.	.115	19.54	SI
225.	225.	3.	2536.47	-.195	.512	9529.88	-1.48	10.	2.	.129	3.757	SI
354.	354.	3.	-495.42	-.033	.068	-14180.29	-1.96	10.	2.	.164	28.62	SI
450.	450.	3.	-1784.43	-.12	.244	-14180.29	-1.96	10.	2.	.164	7.947	SI
450.	450.	3.	723.1	-.05	.145	9547.75	-1.3	10.	2.	.115	13.2	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3.	3690.	3028.	45337.	27107.	7056.	20051.	1.01	10.
53.	53.	3.	2841.	3629.	45337.	27107.	7056.	20051.	1.01	10.
450.	450.	3.	-3002.	3028.	45337.	27107.	7056.	20051.	1.01	10.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve
25.	25.	3.	-966.96	-8.	269.8	6.79	7.5	.079	12.67	.01	SI
225.	225.	3.	1788.3	-17.	736.9	4.52	7.5	.216	14.92	.032	SI
450.	450.	3.	-1485.43	-12.3	414.4	6.79	7.5	.121	12.67	.015	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve
25.	25.	3.	-828.56	-6.9	231.2	6.79	7.5	.068	12.67	.009	SI
225.	225.	3.	1524.68	-14.5	628.3	4.52	7.5	.184	14.92	.027	SI
450.	450.	3.	-1272.82	-10.6	355.1	6.79	7.5	.104	12.67	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve
25.	25.	3.	-793.96	-6.6	221.5	6.79	7.5	.065	12.67	.008	SI
225.	225.	3.	1459.21	-13.8	601.3	4.52	7.5	.176	14.92	.026	SI
450.	450.	3.	-1219.67	-10.1	340.3	6.79	7.5	.1	12.67	.013	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	11.31	.942	6.79	.565	2d12 +4d12
2	9.05	.754	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 44 - Travata T019  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogenein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1133	3	3	3	0	225.	185.
2	A1135	3	3	3	0	280.	220.
3	A1136	3	3	3	0	210.	150.
4	A1137	3	3	3	0	60.	30.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-416.65	-.028	.057	-14180.29	-1.96	10.	2.	.164	34.03	SI
0.	0.	3.	1.	608.69	-.042	.122	9547.75	-1.3	10.	2.	.115	15.69	SI
136.	136.	3.	2.	-1289.39	-.098	.26	-9529.88	-1.48	10.	2.	.129	7.391	SI
169.	169.	3.	3.	21.	-.001	.002	19003.24	-1.64	10.	2.	.141	904.9	SI
225.	225.	3.	3.	-2199.	-.107	.18	-23618.55	-2.14	10.	2.	.176	10.74	SI
> 225.	0.	3.	3.	-222.8	-.011	.018	-23618.55	-2.14	10.	2.	.176	106.	SI
225.	0.	3.	3.	1519.2	-.072	.153	19003.24	-1.64	10.	2.	.141	12.51	SI
319.	94.	3.	4.	589.71	-.037	.117	9554.12	-1.18	10.	2.	.105	16.2	SI
396.	171.	3.	2.	-2325.77	-.179	.469	-9529.88	-1.48	10.	2.	.129	4.098	SI
434.	209.	3.	5.	-3123.76	-.183	.263	-22947.14	-3.42	10.	2.	.255	7.346	SI
449.	224.	3.	3.	164.11	-.008	.017	19003.24	-1.64	10.	2.	.141	115.8	SI
479.	254.	3.	3.	1765.39	-.084	.178	19003.24	-1.64	10.	2.	.141	10.76	SI
505.	280.	3.	3.	-833.84	-.04	.068	-23618.55	-2.14	10.	2.	.176	28.33	SI
505.	280.	3.	3.	1765.39	-.084	.178	19003.24	-1.64	10.	2.	.141	10.76	SI
> 505.	0.	3.	3.	-196.58	-.01	.016	-23618.55	-2.14	10.	2.	.176	120.1	SI
505.	0.	3.	3.	1632.09	-.078	.165	19003.24	-1.64	10.	2.	.141	11.64	SI
594.	89.	3.	2.	-864.99	-.066	.174	-9529.88	-1.48	10.	2.	.129	11.02	SI
626.	121.	3.	2.	-1119.01	-.085	.226	-9529.88	-1.48	10.	2.	.129	8.516	SI
702.	197.	3.	6.	69.84	-.004	.007	18965.7	-1.82	10.	2.	.154	271.6	SI
715.	210.	3.	6.	-1495.36	-.077	.152	-18965.7	-1.82	10.	2.	.154	12.68	SI
> 715.	0.	3.	6.	-948.13	-.049	.096	-18965.7	-1.82	10.	2.	.154	20.	SI
715.	0.	3.	6.	665.09	-.034	.068	18965.7	-1.82	10.	2.	.154	28.52	SI
749.	34.	3.	6.	-2384.15	-.123	.242	-18965.7	-1.82	10.	2.	.154	7.955	SI
749.	34.	3.	6.	304.08	-.016	.031	18965.7	-1.82	10.	2.	.154	62.37	SI
771.	56.	3.	7.	-2384.15	-.15	.474	-9554.12	-1.18	10.	2.	.105	4.007	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	-702.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
0.	0.	3.	1062.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
225.	225.	3.	-3580.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 225.	0.	3.	-1307.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
460.	235.	3.	-2270.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
460.	235.	3.	1981.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
505.	280.	3.	-28.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
505.	280.	3.	1021.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 505.	0.	3.	-6890.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
715.	210.	3.	-7055.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 715.	0.	3.	-1452.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
715.	0.	3.	703.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
775.	60.	3.	-1773.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
775.	60.	3.	60.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	3. 1.	266.97	-2.3	109.3	4.52	7.5	.032	14.92	.005	SI
10.	10.	3. 1.	291.99	-2.5	119.5	4.52	7.5	.035	14.92	.005	SI
26.	26.	3. 1.	-230.68	-1.9	64.4	6.79	7.5	.019	12.67	.002	SI
36.	36.	3. 1.	336.55	-2.9	137.8	4.52	7.5	.04	14.92	.006	SI
136.	136.	3. 2.	-645.99	-6.1	266.2	4.52	7.5	.078	14.92	.012	SI
225.	225.	3. 3.	-1562.55	-9.6	262.7	11.31	7.5	.077	10.87	.008	SI
> 225.	0.	3. 3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
225.	0.	3. 3.	1073.7	-6.6	222.2	9.05	7.5	.065	11.54	.008	SI
396.	171.	3. 2.	-2100.79	-19.9	865.7	4.52	7.5	.253	14.92	.038	SI
460.	235.	3. 3.	-3057.44	-18.8	514.1	11.31	7.5	.16	10.87	.017	SI
505.	280.	3. 3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
505.	280.	3. 3.	1239.85	-7.6	256.6	9.05	7.5	.075	11.54	.009	SI
> 505.	0.	3. 3.	-3.89	0.	.7	11.31	7.5	0.	10.87	0.	SI
505.	0.	3. 3.	1145.48	-7.	237.	9.05	7.5	.069	11.54	.008	SI
626.	121.	3. 2.	-613.25	-5.8	252.7	4.52	7.5	.074	14.92	.011	SI
715.	210.	3. 6.	-992.4	-6.5	206.7	9.05	7.5	.06	11.54	.007	SI
> 715.	0.	3. 6.	-165.73	-1.1	34.5	9.05	7.5	.01	11.54	.001	SI
771.	56.	3. 7.	-1348.59	-10.9	549.3	4.52	7.5	.161	14.92	.024	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	3. 1.	245.3	-2.1	100.4	4.52	7.5	.029	14.92	.004	SI
10.	10.	3. 1.	258.37	-2.3	105.8	4.52	7.5	.031	14.92	.005	SI
26.	26.	3. 1.	-195.76	-1.6	54.6	6.79	7.5	.016	12.67	.002	SI
26.	26.	3. 1.	278.83	-2.4	114.1	4.52	7.5	.033	14.92	.005	SI
136.	136.	3. 2.	-559.33	-5.3	230.5	4.52	7.5	.067	14.92	.01	SI
225.	225.	3. 3.	-1332.34	-8.2	224.	11.31	7.5	.066	10.87	.007	SI
> 225.	0.	3. 3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
225.	0.	3. 3.	949.19	-5.8	196.4	9.05	7.5	.057	11.54	.007	SI
396.	171.	3. 2.	-1786.96	-16.9	736.4	4.52	7.5	.216	14.92	.032	SI
460.	235.	3. 3.	-2625.97	-16.1	441.5	11.31	7.5	.129	10.87	.014	SI
505.	280.	3. 3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
505.	280.	3. 3.	1002.57	-6.1	207.5	9.05	7.5	.061	11.54	.007	SI
> 505.	0.	3. 3.	-3.89	0.	.7	11.31	7.5	0.	10.87	0.	SI
505.	0.	3. 3.	917.6	-5.6	189.9	9.05	7.5	.056	11.54	.006	SI
626.	121.	3. 2.	-526.01	-5.	216.8	4.52	7.5	.063	14.92	.009	SI
715.	210.	3. 6.	-852.33	-5.6	177.5	9.05	7.5	.052	11.54	.006	SI
> 715.	0.	3. 6.	-147.71	-1.	30.8	9.05	7.5	.009	11.54	.001	SI
771.	56.	3. 7.	-1147.37	-9.3	467.3	4.52	7.5	.137	14.92	.02	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	3. 1.	240.02	-2.1	98.2	4.52	7.5	.029	14.92	.004	SI
10.	10.	3. 1.	249.15	-2.2	102.	4.52	7.5	.03	14.92	.004	SI
26.	26.	3. 1.	-186.85	-1.5	52.1	6.79	7.5	.015	12.67	.002	SI
26.	26.	3. 1.	263.44	-2.3	107.8	4.52	7.5	.032	14.92	.005	SI
136.	136.	3. 2.	-536.72	-5.1	221.2	4.52	7.5	.065	14.92	.01	SI
225.	225.	3. 3.	-1273.33	-7.8	214.1	11.31	7.5	.063	10.87	.007	SI
> 225.	0.	3. 3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
225.	0.	3. 3.	916.27	-5.6	189.6	9.05	7.5	.055	11.54	.006	SI
396.	171.	3. 2.	-1707.67	-16.2	703.7	4.52	7.5	.206	14.92	.031	SI
460.	235.	3. 3.	-2516.96	-15.5	423.2	11.31	7.5	.124	10.87	.013	SI
505.	280.	3. 3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
505.	280.	3. 3.	943.5	-5.8	195.2	9.05	7.5	.057	11.54	.007	SI
> 505.	0.	3. 3.	-3.89	0.	.7	11.31	7.5	0.	10.87	0.	SI
505.	0.	3. 3.	860.89	-5.3	178.1	9.05	7.5	.052	11.54	.006	SI
626.	121.	3. 2.	-503.71	-4.8	207.6	4.52	7.5	.061	14.92	.009	SI
715.	210.	3. 6.	-816.53	-5.3	170.	9.05	7.5	.05	11.54	.006	SI
> 715.	0.	3. 6.	-143.85	-.9	30.	9.05	7.5	.009	11.54	.001	SI
771.	56.	3. 7.	-1095.23	-8.8	446.1	4.52	7.5	.131	14.92	.019	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
4	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
5	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
6	18.1	1.508	9.05	.754	2d12 +4d12 +2d12	9.05	.754	4d12 +4d12
7	13.57	1.131	4.52	.377	2d12 +2d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 44 - Travata T019  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
ACCIAIO: σf (rara)=3069.; Coeff.Omoiein.= 15  
FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1133	3	3	3	0	225.	185.
2	A1135	3	3	3	0	280.	220.
3	A1136	3	3	3	0	210.	150.
4	A1137	3	3	3	0	60.	30.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-416.65	-.028	.057	-14180.29	-1.96	10.	2.	.164	34.03	SI
> 0.	0.	3.	1.	608.69	-.042	.122	9547.75	-1.3	10.	2.	.115	15.69	SI
136.	136.	3.	2.	-1289.39	-.098	.26	-9529.88	-1.48	10.	2.	.129	7.391	SI
169.	169.	3.	3.	21.	-.001	.002	19003.24	-1.64	10.	2.	.141	904.9	SI
225.	225.	3.	3.	-2199.	-.107	.18	-23618.55	-2.14	10.	2.	.176	10.74	SI
> 225.	0.	3.	3.	-222.8	-.011	.018	-23618.55	-2.14	10.	2.	.176	106.	SI
225.	0.	3.	3.	1519.2	-.072	.153	19003.24	-1.64	10.	2.	.141	12.51	SI
319.	94.	3.	4.	589.71	-.037	.117	9554.12	-1.18	10.	2.	.105	16.2	SI
396.	171.	3.	2.	-2325.77	-.179	.469	-9529.88	-1.48	10.	2.	.129	4.098	SI
434.	209.	3.	5.	-3123.76	-.183	.263	-22947.14	-3.42	10.	2.	.255	7.346	SI
449.	224.	3.	3.	164.11	-.008	.017	19003.24	-1.64	10.	2.	.141	115.8	SI
479.	254.	3.	3.	1765.39	-.084	.178	19003.24	-1.64	10.	2.	.141	10.76	SI
505.	280.	3.	3.	-833.84	-.04	.068	-23618.55	-2.14	10.	2.	.176	28.33	SI
505.	280.	3.	3.	1765.39	-.084	.178	19003.24	-1.64	10.	2.	.141	10.76	SI
> 505.	0.	3.	3.	-196.58	-.01	.016	-23618.55	-2.14	10.	2.	.176	120.1	SI
505.	0.	3.	3.	1632.09	-.078	.165	19003.24	-1.64	10.	2.	.141	11.64	SI
594.	89.	3.	2.	-864.99	-.066	.174	-9529.88	-1.48	10.	2.	.129	11.02	SI
626.	121.	3.	2.	-1119.01	-.085	.226	-9529.88	-1.48	10.	2.	.129	8.516	SI
702.	197.	3.	6.	69.84	-.004	.007	18965.7	-1.82	10.	2.	.154	271.6	SI
715.	210.	3.	6.	-1495.36	-.077	.152	-18965.7	-1.82	10.	2.	.154	12.68	SI
> 715.	0.	3.	6.	-948.13	-.049	.096	-18965.7	-1.82	10.	2.	.154	20.	SI
715.	0.	3.	6.	665.09	-.034	.068	18965.7	-1.82	10.	2.	.154	28.52	SI
749.	34.	3.	6.	-2384.15	-.123	.242	-18965.7	-1.82	10.	2.	.154	7.955	SI
749.	34.	3.	6.	304.08	-.016	.031	18965.7	-1.82	10.	2.	.154	62.37	SI
771.	56.	3.	7.	-2384.15	-.15	.474	-9554.12	-1.18	10.	2.	.105	4.007	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	-702.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 0.	0.	3.	1062.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
225.	225.	3.	-3580.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 225.	0.	3.	-1307.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
460.	235.	3.	-2270.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
460.	235.	3.	1981.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
505.	280.	3.	-28.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
505.	280.	3.	1021.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 505.	0.	3.	-6890.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
715.	210.	3.	-7055.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 715.	0.	3.	-1452.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
715.	0.	3.	703.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
775.	60.	3.	-1773.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
775.	60.	3.	60.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO  
TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
0.	0.	3.	1.	266.97	-2.3	109.3	4.52	7.5	.032	14.92	.005	SI
10.	10.	3.	1.	291.99	-2.5	119.5	4.52	7.5	.035	14.92	.005	SI
26.	26.	3.	1.	-230.68	-1.9	64.4	6.79	7.5	.019	12.67	.002	SI
36.	36.	3.	1.	336.55	-2.9	137.8	4.52	7.5	.04	14.92	.006	SI
136.	136.	3.	2.	-645.99	-6.1	266.2	4.52	7.5	.078	14.92	.012	SI
225.	225.	3.	3.	-1562.55	-9.6	262.7	11.31	7.5	.077	10.87	.008	SI
> 225.	0.	3.	3.	-105.53	-6	17.7	11.31	7.5	.005	10.87	.001	SI
225.	0.	3.	3.	1073.7	-6.6	222.2	9.05	7.5	.065	11.54	.008	SI
396.	171.	3.	2.	-2100.79	-19.9	865.7	4.52	7.5	.253	14.92	.038	SI
460.	235.	3.	3.	-3057.44	-18.8	514.1	11.31	7.5	.16	10.87	.017	SI
505.	280.	3.	3.	-105.53	-6	17.7	11.31	7.5	.005	10.87	.001	SI
505.	280.	3.	3.	1239.85	-7.6	256.6	9.05	7.5	.075	11.54	.009	SI
> 505.	0.	3.	3.	-3.89	0.	.7	11.31	7.5	0.	10.87	0.	SI
505.	0.	3.	3.	1145.48	-7.	237.	9.05	7.5	.069	11.54	.008	SI
626.	121.	3.	2.	-613.25	-5.8	252.7	4.52	7.5	.074	14.92	.011	SI
715.	210.	3.	6.	-992.4	-6.5	206.7	9.05	7.5	.06	11.54	.007	SI
> 715.	0.	3.	6.	-165.73	-1.1	34.5	9.05	7.5	.01	11.54	.001	SI
771.	56.	3.	7.	-1348.59	-10.9	549.3	4.52	7.5	.161	14.92	.024	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
0.	0.	3.	1.	245.3	-2.1	100.4	4.52	7.5	.029	14.92	.004	SI
10.	10.	3.	1.	258.37	-2.3	105.8	4.52	7.5	.031	14.92	.005	SI
26.	26.	3.	1.	-195.76	-1.6	54.6	6.79	7.5	.016	12.67	.002	SI
26.	26.	3.	1.	278.83	-2.4	114.1	4.52	7.5	.033	14.92	.005	SI
136.	136.	3.	2.	-559.33	-5.3	230.5	4.52	7.5	.067	14.92	.01	SI
225.	225.	3.	3.	-1332.34	-8.2	224.	11.31	7.5	.066	10.87	.007	SI
> 225.	0.	3.	3.	-105.53	-6	17.7	11.31	7.5	.005	10.87	.001	SI
225.	0.	3.	3.	949.19	-5.8	196.4	9.05	7.5	.057	11.54	.007	SI
396.	171.	3.	2.	-1786.96	-16.9	736.4	4.52	7.5	.216	14.92	.032	SI
460.	235.	3.	3.	-2625.97	-16.1	441.5	11.31	7.5	.129	10.87	.014	SI
505.	280.	3.	3.	-105.53	-6	17.7	11.31	7.5	.005	10.87	.001	SI
505.	280.	3.	3.	1002.57	-6.1	207.5	9.05	7.5	.061	11.54	.007	SI
> 505.	0.	3.	3.	-3.89	0.	.7	11.31	7.5	0.	10.87	0.	SI
505.	0.	3.	3.	917.6	-5.6	189.9	9.05	7.5	.056	11.54	.006	SI
626.	121.	3.	2.	-526.01	-5.	216.8	4.52	7.5	.063	14.92	.009	SI
715.	210.	3.	6.	-852.33	-5.6	177.5	9.05	7.5	.052	11.54	.006	SI
> 715.	0.	3.	6.	-147.71	-1.	30.8	9.05	7.5	.009	11.54	.001	SI
771.	56.	3.	7.	-1147.37	-9.3	467.3	4.52	7.5	.137	14.92	.02	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
0.	0.	3.	1.	240.02	-2.1	98.2	4.52	7.5	.029	14.92	.004	SI
10.	10.	3.	1.	249.15	-2.2	102.	4.52	7.5	.03	14.92	.004	SI
26.	26.	3.	1.	-186.85	-1.5	52.1	6.79	7.5	.015	12.67	.002	SI
26.	26.	3.	1.	263.44	-2.3	107.8	4.52	7.5	.032	14.92	.005	SI
136.	136.	3.	2.	-536.72	-5.1	221.2	4.52	7.5	.065	14.92	.01	SI
225.	225.	3.	3.	-1273.33	-7.8	214.1	11.31	7.5	.063	10.87	.007	SI
> 225.	0.	3.	3.	-105.53	-6	17.7	11.31	7.5	.005	10.87	.001	SI
225.	0.	3.	3.	916.27	-5.6	189.6	9.05	7.5	.055	11.54	.006	SI
396.	171.	3.	2.	-1707.67	-16.2	703.7	4.52	7.5	.206	14.92	.031	SI
460.	235.	3.	3.	-2516.96	-15.5	423.2	11.31	7.5	.124	10.87	.013	SI
505.	280.	3.	3.	-105.53	-6	17.7	11.31	7.5	.005	10.87	.001	SI
505.	280.	3.	3.	943.5	-5.8	195.2	9.05	7.5	.057	11.54	.007	SI
> 505.	0.	3.	3.	-3.89	0.	.7	11.31	7.5	0.	10.87	0.	SI
505.	0.	3.	3.	860.89	-5.3	178.1	9.05	7.5	.052	11.54	.006	SI
626.	121.	3.	2.	-503.71	-4.8	207.6	4.52	7.5	.061	14.92	.009	SI
715.	210.	3.	6.	-816.53	-5.3	170.	9.05	7.5	.05	11.54	.006	SI
> 715.	0.	3.	6.	-143.85	-9	30.	9.05	7.5	.009	11.54	.001	SI
771.	56.	3.	7.	-1095.23	-8.8	446.1	4.52	7.5	.131	14.92	.019	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	11.31	.942	6.79	.565	2d12 +4d12
2	9.05	.754	4.52	.377	4d12
3	20.36	1.696	11.31	.942	2d12 +4d12 +4d12
4	13.57	1.131	9.05	.754	4d12 +4d12
5	15.83	1.319	11.31	.942	2d12 +4d12 +4d12
6	18.1	1.508	9.05	.754	2d12 +4d12 +2d12
7	13.57	1.131	4.52	.377	2d12 +2d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 44 - Travata T019  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO  
 GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogenein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE  
 3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE							
Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1133	3	3	3	0	225.	185.
2	A1135	3	3	3	0	280.	220.
3	A1136	3	3	3	0	210.	150.
4	A1137	3	3	3	0	60.	30.

CASI DI CARICO DA MODELLO 3D							
SLU				RARE		QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm
4.	SLU SISMAX PRINC	16					
5.	SLU SISMAX PRINC	16					

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-416.65	-.028	.057	-14180.29	-1.96	10.	2.	.164	34.03	SI
0.	0.	3. 1.	608.69	-.042	.122	9547.75	-1.3	10.	2.	.115	15.69	SI
136.	136.	3. 2.	-1289.39	-.098	.26	-9529.88	-1.48	10.	2.	.129	7.391	SI
169.	169.	3. 3.	21.	-.001	.002	19003.24	-1.64	10.	2.	.141	904.9	SI
> 225.	225.	3. 3.	-2199.	-.107	.18	-23618.55	-2.14	10.	2.	.176	10.74	SI
225.	0.	3. 3.	-222.8	-.011	.018	-23618.55	-2.14	10.	2.	.176	106.	SI
225.	0.	3. 3.	1519.2	-.072	.153	19003.24	-1.64	10.	2.	.141	12.51	SI
319.	94.	3. 4.	589.71	-.037	.117	9554.12	-1.18	10.	2.	.105	16.2	SI
396.	171.	3. 2.	-2325.77	-.179	.469	-9529.88	-1.48	10.	2.	.129	4.098	SI
434.	209.	3. 5.	-3123.76	-.183	.263	-22947.14	-3.42	10.	2.	.255	7.346	SI
449.	224.	3. 3.	164.11	-.008	.017	19003.24	-1.64	10.	2.	.141	115.8	SI
479.	254.	3. 3.	1765.39	-.084	.178	19003.24	-1.64	10.	2.	.141	10.76	SI
505.	280.	3. 3.	-833.84	-.04	.068	-23618.55	-2.14	10.	2.	.176	28.33	SI
> 505.	280.	3. 3.	1765.39	-.084	.178	19003.24	-1.64	10.	2.	.141	10.76	SI
505.	0.	3. 3.	-196.58	-.01	.016	-23618.55	-2.14	10.	2.	.176	120.1	SI
505.	0.	3. 3.	1632.09	-.078	.165	19003.24	-1.64	10.	2.	.141	11.64	SI
594.	89.	3. 2.	-864.99	-.066	.174	-9529.88	-1.48	10.	2.	.129	11.02	SI
626.	121.	3. 2.	-1119.01	-.085	.226	-9529.88	-1.48	10.	2.	.129	8.516	SI
702.	197.	3. 6.	69.84	-.004	.007	18965.7	-1.82	10.	2.	.154	271.6	SI
715.	210.	3. 6.	-1495.36	-.077	.152	-18965.7	-1.82	10.	2.	.154	12.68	SI
> 715.	0.	3. 6.	-948.13	-.049	.096	-18965.7	-1.82	10.	2.	.154	20.	SI
715.	0.	3. 6.	665.09	-.034	.068	18965.7	-1.82	10.	2.	.154	28.52	SI
749.	34.	3. 6.	-2384.15	-.123	.242	-18965.7	-1.82	10.	2.	.154	7.955	SI
749.	34.	3. 6.	304.08	-.016	.031	18965.7	-1.82	10.	2.	.154	62.37	SI
771.	56.	3. 7.	-2384.15	-.15	.474	-9554.12	-1.18	10.	2.	.105	4.007	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 3.	-702.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
0.	0.	3. 3.	1062.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
225.	225.	3. 3.	-3580.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 225.	0.	3. 3.	-1307.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
460.	235.	3. 3.	-2270.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
460.	235.	3. 3.	1981.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
505.	280.	3. 3.	-28.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 505.	280.	3. 3.	1021.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
505.	0.	3. 3.	-6890.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 715.	210.	3. 3.	-7055.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 715.	0.	3. 3.	-1452.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
715.	0.	3. 3.	703.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
775.	60.	3. 3.	-1773.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
775.	60.	3. 3.	60.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	3. 1.	266.97	-2.3	109.3	4.52	7.5	.032	14.92	.005	SI
10.	10.	3. 1.	291.99	-2.5	119.5	4.52	7.5	.035	14.92	.005	SI
26.	26.	3. 1.	-230.68	-1.9	64.4	6.79	7.5	.019	12.67	.002	SI
36.	36.	3. 1.	336.55	-2.9	137.8	4.52	7.5	.04	14.92	.006	SI
136.	136.	3. 2.	-645.99	-6.1	266.2	4.52	7.5	.078	14.92	.012	SI
225.	225.	3. 3.	-1562.55	-9.6	262.7	11.31	7.5	.077	10.87	.008	SI
> 225.	0.	3. 3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
225.	0.	3. 3.	1073.7	-6.6	222.2	9.05	7.5	.065	11.54	.008	SI
396.	171.	3. 2.	-2100.79	-19.9	865.7	4.52	7.5	.253	14.92	.038	SI
460.	235.	3. 3.	-3057.44	-18.8	514.1	11.31	7.5	.16	10.87	.017	SI
505.	280.	3. 3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
> 505.	280.	3. 3.	1239.85	-7.6	256.6	9.05	7.5	.075	11.54	.009	SI
> 505.	0.	3. 3.	-3.89	0.	.7	11.31	7.5	0.	10.87	0.	SI

505.	0.	3.	3.	1145.48!	-7.!	237.!	9.05	7.5	.069	11.54	.008	SI
626.	121.	3.	2.	-613.25	-5.8	252.7	4.52	7.5	.074	14.92	.011	SI
715.	210.	3.	6.	-992.4!	-6.5	206.7	9.05	7.5	.06	11.54	.007	SI
> 715.	0.	3.	6.	-165.73!	-1.1	34.5	9.05	7.5	.01	11.54	.001	SI
771.	56.	3.	7.	-1348.59	-10.9	549.3	4.52	7.5	.161	14.92	.024	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
0.	0.	3.	1.	245.3	-2.1	100.4	4.52	7.5	.029	14.92	.004	SI
10.	10.	3.	1.	258.37	-2.3	105.8	4.52	7.5	.031	14.92	.005	SI
26.	26.	3.	1.	-195.76	-1.6	54.6	6.79	7.5	.016	12.67	.002	SI
26.	26.	3.	1.	278.83!	-2.4	114.1	4.52	7.5	.033	14.92	.005	SI
136.	136.	3.	2.	-559.33	-5.3	230.5	4.52	7.5	.067	14.92	.01	SI
225.	225.	3.	3.	-1332.34!	-8.2	224.!	11.31	7.5	.066	10.87	.007	SI
> 225.	0.	3.	3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
225.	0.	3.	3.	949.19	-5.8	196.4	9.05	7.5	.057	11.54	.007	SI
396.	171.	3.	2.	-1786.96	-16.9	736.4	4.52	7.5	.216	14.92	.032	SI
460.	235.	3.	3.	-2625.97	-16.1	441.5	11.31	7.5	.129	10.87	.014	SI
505.	280.	3.	3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
505.	280.	3.	3.	1002.57!	-6.1	207.5	9.05	7.5	.061	11.54	.007	SI
> 505.	0.	3.	3.	-3.89	0.	.7	11.31	7.5	0.	10.87	0.	SI
505.	0.	3.	3.	917.6!	-5.6	189.9	9.05	7.5	.056	11.54	.006	SI
626.	121.	3.	2.	-526.01	-5.!	216.8	4.52	7.5	.063	14.92	.009	SI
715.	210.	3.	6.	-852.33!	-5.6	177.5	9.05	7.5	.052	11.54	.006	SI
> 715.	0.	3.	6.	-147.71!	-1.!	30.8	9.05	7.5	.009	11.54	.001	SI
771.	56.	3.	7.	-1147.37!	-9.3	467.3	4.52	7.5	.137	14.92	.02	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
0.	0.	3.	1.	240.02	-2.1	98.2	4.52	7.5	.029	14.92	.004	SI
10.	10.	3.	1.	249.15	-2.2	102.!	4.52	7.5	.03	14.92	.004	SI
26.	26.	3.	1.	-186.85	-1.5	52.1	6.79	7.5	.015	12.67	.002	SI
26.	26.	3.	1.	263.44!	-2.3	107.8	4.52	7.5	.032	14.92	.005	SI
136.	136.	3.	2.	-536.72	-5.1	221.2	4.52	7.5	.065	14.92	.01	SI
225.	225.	3.	3.	-1273.33!	-7.8	214.1	11.31	7.5	.063	10.87	.007	SI
> 225.	0.	3.	3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
225.	0.	3.	3.	916.27	-5.6	189.6	9.05	7.5	.055	11.54	.006	SI
396.	171.	3.	2.	-1707.67	-16.2	703.7	4.52	7.5	.206	14.92	.031	SI
460.	235.	3.	3.	-2516.96	-15.5	423.2	11.31	7.5	.124	10.87	.013	SI
505.	280.	3.	3.	-105.53	-.6	17.7	11.31	7.5	.005	10.87	.001	SI
505.	280.	3.	3.	943.5!	-5.8	195.2	9.05	7.5	.057	11.54	.007	SI
> 505.	0.	3.	3.	-3.89	0.	.7	11.31	7.5	0.	10.87	0.	SI
505.	0.	3.	3.	860.89	-5.3	178.1	9.05	7.5	.052	11.54	.006	SI
626.	121.	3.	2.	-503.71	-4.8	207.6	4.52	7.5	.061	14.92	.009	SI
715.	210.	3.	6.	-816.53!	-5.3	170.!	9.05	7.5	.05	11.54	.006	SI
> 715.	0.	3.	6.	-143.85!	-.9	30.!	9.05	7.5	.009	11.54	.001	SI
771.	56.	3.	7.	-1095.23!	-8.8	446.1	4.52	7.5	.131	14.92	.019	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
4	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
5	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
6	18.1	1.508	9.05	.754	2d12 +4d12 +2d12	9.05	.754	4d12 +4d12
7	13.57	1.131	4.52	.377	2d12 +2d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 46 - Travata T020  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: σf (rara)=3069.; coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	s.ini	Sez.	s.fin	Incl.	L.assi	L.netta
1	A1139	3	3	3	0	295.	295.



CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	VE
> 14.	14.	3.	1055.3	!-.08	.213	9529.88	-1.48	10.	2.	.129	9.03	SI
124.	124.	3.	-300.06	-.023	.06	-9529.88	-1.48	10.	2.	.129	31.76	SI
171.	171.	3.	50.99	-.004	.01	9529.88	-1.48	10.	2.	.129	186.9	SI
281.	281.	3.	-1996.17	-.153	.403	-9529.88	-1.48	10.	2.	.129	4.774	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	-2313.	3028.	45337.	35701.	7056.	28645.	1.01	7.	SI
76.	76.	3.	-3020.	3629.	45337.	35701.	7056.	28645.	1.01	7.	SI
295.	295.	3.	-5070.	3028.	45337.	35701.	7056.	28645.	1.01	7.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 14.	14.	3.	675.3	!-6.4	278.3	4.52	7.5	.081	14.92	.012	SI
28.	28.	3.	607.17	-5.8	250.2	4.52	7.5	.073	14.92	.011	SI
281.	281.	3.	-1270.15	-12.	523.4	4.52	7.5	.153	14.92	.023	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 14.	14.	3.	570.46	!-5.4	235.1	4.52	7.5	.069	14.92	.01	SI
28.	28.	3.	513.37	-4.9	211.5	4.52	7.5	.062	14.92	.009	SI
281.	281.	3.	-1052.17	-10.	433.6	4.52	7.5	.127	14.92	.019	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 14.	14.	3.	544.21	!-5.2	224.3	4.52	7.5	.066	14.92	.01	SI
28.	28.	3.	489.88	-4.6	201.9	4.52	7.5	.059	14.92	.009	SI
281.	281.	3.	-997.72	-9.5	411.1	4.52	7.5	.12	14.92	.018	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Infer.	Barre	Barre
1	9.05	.754	4.52	.377	4d12
					4.52
					.377
					4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 50 - Travata T0TR21  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; daN/cm<sup>2</sup>; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm<sup>2</sup> - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esesercizio)= 22.8  
 ACCIAIO: σf (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

6) Rettangolare: base=60.; alt.=25.; Acl=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1157	6	6	6	0	465.	445.
2	A1156	6	6	6	0	505.	485.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	6. 1.	-1002.73	-.163	.313	-6127.95	-2.48	10.	2.	.199	6.111	SI
10.	10.	6. 1.	34.21	-.006	.015	4444.46	-1.98	10.	2.	.165	129.9	SI
162.	162.	6. 2.	1085.26	-.199	.468	4449.25	-2.06	10.	2.	.17	4.1	SI
232.	232.	6. 2.	1149.26	-.211	.496	4449.25	-2.06	10.	2.	.17	3.871	SI
374.	374.	6. 4.	-656.63	-.089	.122	-10200.36	-3.5	9.517	3.	.269	15.53	SI
374.	374.	6. 4.	428.59	-.066	.185	4435.28	-1.86	10.	2.	.157	10.35	SI
465.	465.	6. 5.	-1863.73	-.224	.345	-10285.92	-2.9	10.	2.	.225	5.519	SI
> 465.	0.	6. 5.	-1503.3	-.18	.278	-10285.92	-2.9	10.	2.	.225	6.842	SI
519.	54.	6. 4.	-824.16	-.112	.154	-10200.36	-3.5	9.517	3.	.269	12.38	SI
519.	54.	6. 4.	69.05	-.011	.03	4435.28	-1.86	10.	2.	.157	64.23	SI
587.	122.	6. 4.	-13.16	-.002	.002	-10200.36	-3.5	9.517	3.	.269	775.1	SI
621.	156.	6. 2.	993.52	-.182	.428	4449.25	-2.06	10.	2.	.17	4.478	SI
722.	257.	6. 2.	1381.18	-.254	.596	4449.25	-2.06	10.	2.	.17	3.221	SI
970.	505.	6. 1.	-1208.54	-.197	.377	-6127.95	-2.48	10.	2.	.199	5.071	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	vcd	Vwd	Asw	s	Ve
> 0.	0.	6. 1.	1646.!	4698.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI
465.	465.	6. 1.	-1945.!	7112.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI
> 465.	0.	6. 1.	1947.!	7112.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI
970.	505.	6. 1.	-1863.!	4698.!	52495.!	23648.!	8170.!	15478.!	1.01	5. SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	6. 1.	-620.43	-12.2	393.1	7.92	6.	.115	17.44	.02	SI
55.	55.	6. 1.	-186.04	-3.7	117.9	7.92	6.	.034	17.44	.006	SI
232.	232.	6. 2.	821.11	-18.3	719.2	5.65	6.31	.211	21.81	.046	SI
465.	465.	6. 5.	-1328.98	-19.7	500.2	13.57	5.61	.146	13.22	.019	SI
> 465.	0.	6. 5.	-1076.86	-15.9	405.3	13.57	5.61	.119	13.22	.016	SI
722.	257.	6. 2.	986.57	-22.!	864.1	5.65	6.31	.253	21.81	.055	SI
970.	505.	6. 1.	-863.25	-17.!	546.9	7.92	6.	.16	17.44	.028	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	6. 1.	-619.86	-12.2	392.7	7.92	6.	.115	17.44	.02	SI
55.	55.	6. 1.	-182.92	-3.6	115.4	7.92	6.	.034	17.44	.006	SI
232.	232.	6. 2.	823.81	-18.4	721.6	5.65	6.31	.211	21.81	.046	SI
465.	465.	6. 5.	-1303.01	-19.3	490.4	13.57	5.61	.144	13.22	.019	SI
> 465.	0.	6. 5.	-1113.!	-16.5	418.9	13.57	5.61	.123	13.22	.016	SI
722.	257.	6. 2.	986.52	-22.!	864.1	5.65	6.31	.253	21.81	.055	SI
970.	505.	6. 1.	-863.25	-17.!	546.9	7.92	6.	.16	17.44	.028	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	6. 1.	-619.73	-12.2	392.6	7.92	6.	.115	17.44	.02	SI
55.	55.	6. 1.	-182.18	-3.6	115.4	7.92	6.	.034	17.44	.006	SI
232.	232.	6. 2.	824.32	-18.4	722.!	5.65	6.31	.211	21.81	.046	SI
465.	465.	6. 5.	-1296.85	-19.2	488.1	13.57	5.61	.143	13.22	.019	SI
> 465.	0.	6. 5.	-1122.52	-16.6	422.5	13.57	5.61	.124	13.22	.016	SI
722.	257.	6. 2.	986.63	-22.!	864.2	5.65	6.31	.253	21.81	.055	SI
970.	505.	6. 1.	-863.25	-17.!	546.9	7.92	6.	.16	17.44	.028	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre	
1	13.57	.905	7.92	2d12 +5d12	5.65	.377	5d12	
2	11.31	.754	5.65	.377	5d12	5.65	.377	5d12
3	16.96	1.131	11.31	.754	5d12 +5d12	5.65	.377	5d12
4	19.23	1.282	13.57	.905	2d12 +5d12 +5d12	5.65	.377	5d12
5	24.88	1.659	13.57	.905	2d12 +5d12 +5d12	11.31	.754	5d12 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 50 - Travata T0TR21  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
CLS :  $\sigma$  (rara)=124.8;  $\sigma$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
ACCIAIO:  $\sigma$ f (rara)=3069.; Coeff.Omogein.= 15  
FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

6) Rettangolare: base=60.; alt.=25.; Acl=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1157	6	6	6	0	465.	445.
2	A1156	6	6	6	0	505.	485.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	VE
> 0.	0.	6. 1.	-1002.73	-.163	.313	-6127.95	-2.48	10.	2.	.199	6.111	SI
10.	10.	6. 1.	34.21	-.006	.015	4444.46	-1.98	10.	2.	.165	129.9	SI
162.	162.	6. 2.	1085.26	-.199	.468	4449.25	-2.06	10.	2.	.17	4.1	SI
232.	232.	6. 2.	1149.26	-.211	.496	4449.25	-2.06	10.	2.	.17	3.871	SI
374.	374.	6. 4.	-656.63	-.089	.122	-10200.36	-3.5	9.517	3.	.269	15.53	SI
374.	374.	6. 4.	428.59	-.066	.185	4435.28	-1.86	10.	2.	.157	10.35	SI
465.	465.	6. 5.	-1863.73	-.224	.345	-10285.92	-2.9	10.	2.	.225	5.519	SI
> 465.	0.	6. 5.	-1503.3	-.18	.278	-10285.92	-2.9	10.	2.	.225	6.842	SI
519.	54.	6. 4.	-824.16	-.112	.154	-10200.36	-3.5	9.517	3.	.269	12.38	SI
519.	54.	6. 4.	69.05	-.011	.03	4435.28	-1.86	10.	2.	.157	64.23	SI
587.	122.	6. 4.	-13.16	-.002	.002	-10200.36	-3.5	9.517	3.	.269	775.1	SI
621.	156.	6. 2.	993.52	-.182	.428	4449.25	-2.06	10.	2.	.17	4.478	SI
722.	257.	6. 2.	1381.18	-.254	.596	4449.25	-2.06	10.	2.	.17	3.221	SI
970.	505.	6. 1.	-1208.54	-.197	.377	-6127.95	-2.48	10.	2.	.199	5.071	SI

VERIFICHE A TAGLIO

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	6. 1.	1646.	4698.	52495.	23648.	8170.	15478.	1.01	5.	SI
465.	465.	6. 1.	-1945.	7112.	52495.	23648.	8170.	15478.	1.01	5.	SI
> 465.	0.	6. 1.	1947.	7112.	52495.	23648.	8170.	15478.	1.01	5.	SI
970.	505.	6. 1.	-1863.	4698.	52495.	23648.	8170.	15478.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma$ c	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	6. 1.	-620.43	-12.2	393.1	7.92	6.	.115	17.44	.02	SI
55.	55.	6. 1.	-186.04	-3.7	117.9	7.92	6.	.034	17.44	.006	SI
232.	232.	6. 2.	821.11	-18.3	719.2	5.65	6.31	.211	21.81	.046	SI
465.	465.	6. 5.	-1328.98	-19.7	500.2	13.57	5.61	.146	13.22	.019	SI
> 465.	0.	6. 5.	-1076.86	-15.9	405.3	13.57	5.61	.119	13.22	.016	SI
722.	257.	6. 2.	986.57	-22.	864.1	5.65	6.31	.253	21.81	.055	SI
970.	505.	6. 1.	-863.25	-17.	546.9	7.92	6.	.16	17.44	.028	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma$ c	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	6. 1.	-619.86	-12.2	392.7	7.92	6.	.115	17.44	.02	SI
55.	55.	6. 1.	-182.92	-3.6	115.9	7.92	6.	.034	17.44	.006	SI
232.	232.	6. 2.	823.81	-18.4	722.	5.65	6.31	.211	21.81	.046	SI
465.	465.	6. 5.	-1303.01	-19.3	490.4	13.57	5.61	.144	13.22	.019	SI
> 465.	0.	6. 5.	-1113.	-16.5	418.9	13.57	5.61	.123	13.22	.016	SI
722.	257.	6. 2.	986.52	-22.	864.1	5.65	6.31	.253	21.81	.055	SI
970.	505.	6. 1.	-863.25	-17.	546.9	7.92	6.	.16	17.44	.028	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma$ c	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	6. 1.	-619.73	-12.2	392.6	7.92	6.	.115	17.44	.02	SI
55.	55.	6. 1.	-182.18	-3.6	115.4	7.92	6.	.034	17.44	.006	SI
232.	232.	6. 2.	824.32	-18.4	722.	5.65	6.31	.211	21.81	.046	SI
465.	465.	6. 5.	-1296.85	-19.2	488.1	13.57	5.61	.143	13.22	.019	SI
> 465.	0.	6. 5.	-1122.52	-16.6	422.5	13.57	5.61	.124	13.22	.016	SI
722.	257.	6. 2.	986.63	-22.	864.2	5.65	6.31	.253	21.81	.055	SI
970.	505.	6. 1.	-863.25	-17.	546.9	7.92	6.	.16	17.44	.028	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	13.57	.905	7.92	.528	2d12 +5d12
2	11.31	.754	5.65	.377	5d12
3	16.96	1.131	11.31	.754	5d12 +5d12
4	19.23	1.282	13.57	.905	2d12 +5d12 +5d12
5	24.88	1.659	13.57	.905	2d12 +5d12 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 51 - Travata T079  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=124.8;  $\sigma$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogenein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

7) Rettangolare: base=40.; alt.=25.; Acls=1000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1256	7	7	7	0	445.	415.
2	A1257	7	7	7	0	15.	-15.
3	A1154	7	7	7	0	510.	500.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
14.	14.	7. 2.	-335.19	-.083	.24	-2675.83	-1.82	10.	2.	.154	7.983	SI
14.	14.	7. 2.	333.83	-.072	.106	5991.98	-3.35	10.	2.	.251	17.95	SI
143.	143.	7. 3.	516.3	-.124	.226	4360.77	-2.64	10.	2.	.209	8.446	SI
358.	358.	7. 4.	18.57	-.004	.008	4364.05	-2.3	10.	2.	.187	235.	SI
445.	445.	7. 5.	-1497.89	-.265	.547	-5198.93	-2.25	10.	2.	.183	3.471	SI
> 445.	0.	7. 5.	-1003.12	-.177	.366	-5198.93	-2.25	10.	2.	.183	5.183	SI
460.	15.	7. 5.	-998.8	-.176	.365	-5198.93	-2.25	10.	2.	.183	5.205	SI
> 460.	0.	7. 5.	-994.47	-.175	.363	-5198.93	-2.25	10.	2.	.183	5.228	SI
518.	58.	7. 5.	226.36	-.039	.051	8487.24	-3.48	10.	2.	.258	37.5	SI
737.	277.	7. 3.	935.79	-.227	.41	4360.77	-2.64	10.	2.	.209	4.66	SI
970.	510.	7. 6.	-651.61	-.144	.285	-4364.36	-2.39	10.	2.	.193	6.698	SI
970.	510.	7. 6.	7.79	-.002	.003	4364.36	-2.39	10.	2.	.193	560.6	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	7. 739.!	3132.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI
445.	445.	7. -1335.!	4339.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI
> 445.	0.	7. 1258.!	4339.!	34997.!	0.!	0.!	0.!	***	**	SI
460.	15.	7. 1258.!	4339.!	34997.!	0.!	0.!	0.!	***	**	SI
> 460.	0.	7. 1334.!	4339.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI
970.	510.	7. -1215.!	3132.!	34997.!	20925.!	5446.!	15478.!	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
57.	57.	7. 2.	232.54	-6.1	150.	7.92	5.57	.044	13.9	.006	SI
100.	100.	7. 3.	331.95	-9.7	295.4	5.65	5.92	.086	16.7	.014	SI
143.	143.	7. 3.	368.04	-10.7	327.5	5.65	5.92	.096	16.7	.016	SI
445.	445.	7. 5.	-1045.1	-23.4	777.1	6.79	6.05	.227	15.44	.035	SI
> 445.	0.	7. 5.	-596.56	-13.3	443.6	6.79	6.05	.13	15.44	.02	SI
460.	15.	7. 5.	-563.16	-12.6	418.7	6.79	6.05	.123	15.44	.019	SI
> 460.	0.	7. 5.	-587.73	-13.1	437.	6.79	6.05	.128	15.44	.02	SI
737.	277.	7. 3.	667.87	-19.5	594.2	5.65	5.92	.174	16.7	.029	SI
970.	510.	7. 6.	-367.	-10.	326.1	5.65	6.02	.095	16.84	.016	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	7.1.	-46.65	-46.!	254.6	***	***	*****	****	****	SI
57.	57.	7.2.	207.66	-5.4	134.	7.92	5.57	.039	13.9	.005	SI
100.	100.	7.3.	315.37	-9.2	280.6	5.65	5.92	.082	16.7	.014	SI
143.	143.	7.3.	359.77	-10.5	320.1	5.65	5.92	.094	16.7	.016	SI
445.	445.	7.5.	-997.85	-22.3	741.9	6.79	6.05	.217	15.44	.034	SI
> 445.	0.	7.5.	-626.67	-14.!	465.9	6.79	6.05	.136	15.44	.021	SI
460.	15.	7.5.	-592.95	-13.3	440.9	6.79	6.05	.129	15.44	.02	SI
> 460.	0.	7.5.	-617.85	-13.8	459.4	6.79	6.05	.134	15.44	.021	SI
737.	277.	7.3.	662.14	-19.3	589.1	5.65	5.92	.172	16.7	.029	SI
970.	510.	7.6.	-352.2	-9.6	312.9	5.65	6.02	.092	16.84	.015	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	7.1.	-56.33	-55.5	307.4	***	***	*****	****	****	SI
57.	57.	7.2.	201.02	-5.2	129.7	7.92	5.57	.038	13.9	.005	SI
100.	100.	7.3.	311.	-9.1	276.7	5.65	5.92	.081	16.7	.014	SI
143.	143.	7.3.	357.66	-10.4	318.2	5.65	5.92	.093	16.7	.016	SI
445.	445.	7.5.	-984.79	-22.!	732.2	6.79	6.05	.214	15.44	.033	SI
> 445.	0.	7.5.	-636.34	-14.2	473.1	6.79	6.05	.138	15.44	.021	SI
460.	15.	7.5.	-602.52	-13.5	448.	6.79	6.05	.131	15.44	.02	SI
> 460.	0.	7.5.	-627.54	-14.!	466.6	6.79	6.05	.137	15.44	.021	SI
737.	277.	7.3.	660.49	-19.2	587.7	5.65	5.92	.172	16.7	.029	SI
970.	510.	7.6.	-347.07	-9.5	308.4	5.65	6.02	.09	16.84	.015	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	7.92	.792	0.	0.		7.92	.792	5d12 +2d12
2	11.31	1.131	3.39	.339	3d12	7.92	.792	5d12 +2d12
3	9.05	.905	3.39	.339	3d12	5.65	.565	5d12
4	12.44	1.244	6.79	.679	3d12 +3d12	5.65	.565	5d12
5	18.1	1.81	6.79	.679	3d12 +3d12	11.31	1.131	5d12 +5d12
6	11.31	1.131	5.65	.565	2d12 +3d12	5.65	.565	5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 47 - Travata T023  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(eserczio)= 22.8  
 ACCIAIO: σf (rara)=3069. ; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; AcIs=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1149	3	3	3	0	510.	490.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.1.	-2351.27	-1.159	.321	-14180.29	-1.96	10.	2.	.164	6.031	SI
0.	0.	3.1.	20.56	-0.001	.004	9547.75	-1.3	10.	2.	.115	464.3	SI
255.	255.	3.2.	1864.07	-1.143	.376	9529.88	-1.48	10.	2.	.129	5.112	SI
510.	510.	3.1.	-1634.28	-1.11	.223	-14180.29	-1.96	10.	2.	.164	8.677	SI
510.	510.	3.1.	837.2	-0.057	.167	9547.75	-1.3	10.	2.	.115	11.4	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	5009.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
80.	80.	3.	3736.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
510.	510.	3.	-4210.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-1649.59	-13.7	460.2	6.79	7.5	.135	12.67	.017	SI
26.	26.	3.	1.	-1300.11	-10.8	362.7	6.79	7.5	.106	12.67	.013	SI
255.	255.	3.	2.	1311.17	-12.4	540.3	4.52	7.5	.158	14.92	.024	SI
510.	510.	3.	1.	-1149.5	-9.5	320.7	6.79	7.5	.094	12.67	.012	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-1368.77	-11.4	381.9	6.79	7.5	.112	12.67	.014	SI
26.	26.	3.	1.	-1079.82	-9.	301.3	6.79	7.5	.088	12.67	.011	SI
255.	255.	3.	2.	1092.01	-10.4	450.	4.52	7.5	.132	14.92	.02	SI
510.	510.	3.	1.	-949.58	-7.9	264.9	6.79	7.5	.078	12.67	.01	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-1294.52	-10.7	361.2	6.79	7.5	.106	12.67	.013	SI
26.	26.	3.	1.	-1020.87	-8.5	284.8	6.79	7.5	.083	12.67	.011	SI
255.	255.	3.	2.	1035.06	-9.8	426.5	4.52	7.5	.125	14.92	.019	SI
510.	510.	3.	1.	-899.6	-7.5	251.	6.79	7.5	.073	12.67	.009	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	11.31	.942	6.79	4.52	.377
2	9.05	.754	4.52	4.52	.377

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 47 - Travata T023  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σ (rara)=124.8; σ (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: σf (rara)=3069.; coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Ac1s=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1149	3	3	3	0	510.	490.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-2351.27	-1.159	.321	-14180.29	-1.96	10.	2.	.164	6.031	SI
0.	0.	3.	1.	20.56	-.001	.004	9547.75	-1.3	10.	2.	.115	464.3	SI
255.	255.	3.	2.	1864.07	-1.143	.376	9529.88	-1.48	10.	2.	.129	5.112	SI
510.	510.	3.	1.	-1634.28	-.11	.223	-14180.29	-1.96	10.	2.	.164	8.677	SI
510.	510.	3.	1.	837.2	-.057	.167	9547.75	-1.3	10.	2.	.115	11.4	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	5009.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
80.	80.	3.	3736.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
510.	510.	3.	-4210.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-1649.59	-13.7	460.2	6.79	7.5	.135	12.67	.017	SI
26.	26.	3.	1.	-1300.11	-10.8	362.7	6.79	7.5	.106	12.67	.013	SI
255.	255.	3.	2.	1311.17	-12.4	540.3	4.52	7.5	.158	14.92	.024	SI
510.	510.	3.	1.	-1149.5	-9.5	320.7	6.79	7.5	.094	12.67	.012	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-1368.77	-11.4	381.9	6.79	7.5	.112	12.67	.014	SI
26.	26.	3.	1.	-1079.82	-9.	301.3	6.79	7.5	.088	12.67	.011	SI
255.	255.	3.	2.	1092.01	-10.4	450.	4.52	7.5	.132	14.92	.02	SI
510.	510.	3.	1.	-949.58	-7.9	264.9	6.79	7.5	.078	12.67	.01	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-1294.52	-10.7	361.2	6.79	7.5	.106	12.67	.013	SI
26.	26.	3.	1.	-1020.87	-8.5	284.8	6.79	7.5	.083	12.67	.011	SI
255.	255.	3.	2.	1035.06	-9.8	426.5	4.52	7.5	.125	14.92	.019	SI
510.	510.	3.	1.	-899.6	-7.5	251.	6.79	7.5	.073	12.67	.009	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 53 - Travata T024  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc=1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: σf (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1270	3	3	3	0	170.	130.
2	A1267	3	3	3	0	380.	320.
3	A1263	3	3	3	0	260.	220.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-359.09	-.024	.049	-14180.29	-1.96	10.	2.	.164	39.49	SI
0.	0.	3. 1.	485.96	-.033	.097	9547.75	-1.3	10.	2.	.115	19.65	SI
31.	31.	3. 1.	-330.01	-.022	.045	-14180.29	-1.96	10.	2.	.164	42.97	SI
91.	91.	3. 2.	-723.39	-.055	.146	-9529.88	-1.48	10.	2.	.129	13.17	SI
121.	121.	3. 3.	878.99	-.042	.089	19003.24	-1.64	10.	2.	.141	21.62	SI
147.	147.	3. 3.	1009.22	-.048	.102	19003.24	-1.64	10.	2.	.141	18.83	SI
170.	170.	3. 3.	-1236.69	-.06	.101	-23618.55	-2.14	10.	2.	.176	19.1	SI
170.	170.	3. 3.	1009.22	-.048	.102	19003.24	-1.64	10.	2.	.141	18.83	SI
> 170.	0.	3. 3.	-1179.89	-.057	.097	-23618.55	-2.14	10.	2.	.176	20.02	SI
170.	0.	3. 3.	1058.37	-.05	.107	19003.24	-1.64	10.	2.	.141	17.96	SI
271.	101.	3. 4.	-584.93	-.034	.049	-22947.14	-3.42	10.	2.	.255	39.23	SI
271.	101.	3. 4.	844.56	-.049	.167	9556.02	-1.09	10.	2.	.098	11.32	SI
316.	146.	3. 2.	-213.04	-.016	.043	-9529.88	-1.48	10.	2.	.129	44.73	SI
550.	380.	3. 3.	-1478.59	-.072	.121	-23618.55	-2.14	10.	2.	.176	15.97	SI
550.	380.	3. 3.	808.64	-.038	.082	19003.24	-1.64	10.	2.	.141	23.5	SI
> 550.	0.	3. 3.	-1049.37	-.051	.086	-23618.55	-2.14	10.	2.	.176	22.51	SI
550.	0.	3. 3.	1035.55	-.049	.104	19003.24	-1.64	10.	2.	.141	18.35	SI
648.	98.	3. 5.	-561.58	-.035	.058	-18749.37	-2.44	10.	2.	.196	33.39	SI
648.	98.	3. 5.	785.33	-.049	.156	9554.12	-1.18	10.	2.	.105	12.17	SI
732.	182.	3. 1.	-116.34	-.008	.016	-14180.29	-1.96	10.	2.	.164	121.9	SI
810.	260.	3. 1.	-498.53	-.033	.068	-14180.29	-1.96	10.	2.	.164	28.44	SI
810.	260.	3. 1.	364.4	-.025	.073	9547.75	-1.3	10.	2.	.115	26.2	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Ar	Vsd	VRd1	VRd2	Vrd3	vcd	Vwd	Asw	s	Ve
> 0.	0.	3. 3.	-745.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
0.	0.	3. 3.	1035.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
170.	170.	3. 3.	-1195.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
170.	170.	3. 3.	446.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 170.	0.	3. 3.	-250.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
170.	0.	3. 3.	1146.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
550.	380.	3. 3.	-1209.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
550.	380.	3. 3.	6.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 550.	0.	3. 3.	-320.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
550.	0.	3. 3.	999.	3629.	45337.	27107.	7056.	20051.	1.01	10.	SI
810.	260.	3. 3.	-980.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI
810.	260.	3. 3.	219.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
9.	9.	3. 1.	-51.52	-.4	14.4	6.79	7.5	.004	12.67	.001	SI
9.	9.	3. 1.	47.94	-.4	19.6	4.52	7.5	.006	14.92	.001	SI
61.	61.	3. 1.	81.34	-.7	33.3	4.52	7.5	.01	14.92	.001	SI
170.	170.	3. 3.	-143.71	-.9	24.2	11.31	7.5	.007	10.87	.001	SI
> 170.	0.	3. 3.	-265.3	-1.6	44.6	11.31	7.5	.013	10.87	.001	SI
316.	146.	3. 2.	267.59	-2.5	110.3	4.52	7.5	.032	14.92	.005	SI
550.	380.	3. 3.	-343.04	-2.1	57.7	11.31	7.5	.017	10.87	.002	SI
> 550.	0.	3. 3.	-124.4	-.8	20.9	11.31	7.5	.006	10.87	.001	SI
690.	140.	3. 2.	167.11	-1.6	68.9	4.52	7.5	.02	14.92	.003	SI
810.	260.	3. 1.	-124.4	-1.	34.7	6.79	7.5	.01	12.67	.001	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
9.	9.	3. 1.	-52.79	-.4	14.7	6.79	7.5	.004	12.67	.001	SI
9.	9.	3. 1.	48.9	-.4	20.	4.52	7.5	.006	14.92	.001	SI
61.	61.	3. 1.	81.2	-.7	33.2	4.52	7.5	.01	14.92	.001	SI
170.	170.	3. 3.	-165.89	-1.	27.9	11.31	7.5	.008	10.87	.001	SI
> 170.	0.	3. 3.	-265.3	-1.6	44.6	11.31	7.5	.013	10.87	.001	SI
316.	146.	3. 2.	265.38	-2.5	109.4	4.52	7.5	.032	14.92	.005	SI
550.	380.	3. 3.	-345.67	-2.1	58.1	11.31	7.5	.017	10.87	.002	SI
> 550.	0.	3. 3.	-124.4	-.8	20.9	11.31	7.5	.006	10.87	.001	SI
690.	140.	3. 2.	159.63	-1.5	65.8	4.52	7.5	.019	14.92	.003	SI
810.	260.	3. 1.	-124.4	-1.	34.7	6.79	7.5	.01	12.67	.001	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
9.	9.	3. 1.	-53.18	-.4	14.8	6.79	7.5	.004	12.67	.001	SI
9.	9.	3. 1.	49.44	-.4	20.2	4.52	7.5	.006	14.92	.001	SI
61.	61.	3. 1.	81.56	-.7	33.4	4.52	7.5	.01	14.92	.001	SI
170.	170.	3. 3.	-172.8	-1.1	29.1	11.31	7.5	.009	10.87	.001	SI
> 170.	0.	3. 3.	-265.3	-1.6	44.6	11.31	7.5	.013	10.87	.001	SI
360.	190.	3. 2.	265.48	-2.5	109.4	4.52	7.5	.032	14.92	.005	SI
550.	380.	3. 3.	-347.35	-2.1	58.4	11.31	7.5	.017	10.87	.002	SI
> 550.	0.	3. 3.	-124.4	-.8	20.9	11.31	7.5	.006	10.87	.001	SI
690.	140.	3. 2.	157.43	-1.5	64.9	4.52	7.5	.019	14.92	.003	SI
810.	260.	3. 1.	-124.4	-1.	34.7	6.79	7.5	.01	12.67	.001	SI



ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
4	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
5	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 93 - Travata T091  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; daN/cm<sup>2</sup>; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm<sup>2</sup> - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σ (rara)=124.8; σc (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: σf (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=36.; Ac1s=2160. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1749	3	3	3	0	858.	828.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-3713.98!	-.274	.59	-12106.53	-1.98	10.	2.	.166	3.26	SI
129.	129.	3.	1.	853.77!	-.064	.169	9625.26	-1.64	10.	2.	.141	11.27	SI
176.	176.	3.	1.	-22.18!	-.002	.004	-12106.53	-1.98	10.	2.	.166	545.7	SI
269.	269.	3.	2.	3076.97!	-.246	.613	9626.57!	-1.73	10.	2.	.148	3.129	SI
457.	457.	3.	2.	4071.94!	-.328!	.811!	9626.57!	-1.73	10.	2.	.148	2.364	SI
858.	858.	3.	1.	-3542.82!	-.261	.562	-12106.53!	-1.98	10.	2.	.166	3.417	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve		
> 0.	0.	3.	1.	3291.!	8151.!	78742.!	35472.!	12254.!	23218.!	1.01	5.	SI
858.	858.	3.	1.	-3271.!	6485.!	78742.!	35472.!	12254.!	23218.!	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-2652.88!	-23.7	857.3	10.18	7.5	.251	17.18	.043	SI
20.	20.	3.	1.	-2442.42!	-21.8	789.1	10.18	7.5	.231	17.18	.04	SI
457.	457.	3.	2.	2908.55!	-28.3!	1179.5!	8.04	7.5	.345	35.44	.122	SI
858.	858.	3.	1.	-2530.59!	-22.6	817.5	10.18	7.5	.239	17.18	.041	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-2653.58!	-23.7	857.3	10.18	7.5	.251	17.18	.043	SI
20.	20.	3.	1.	-2443.11!	-21.8	789.3	10.18	7.5	.231	17.18	.04	SI
457.	457.	3.	2.	2908.68!	-28.3!	1179.6!	8.04	7.5	.345	35.44	.122	SI
858.	858.	3.	1.	-2530.59!	-22.6	817.5	10.18	7.5	.239	17.18	.041	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-2653.58!	-23.7	857.3	10.18	7.5	.251	17.18	.043	SI
20.	20.	3.	1.	-2443.12!	-21.8	789.3	10.18	7.5	.231	17.18	.04	SI
457.	457.	3.	2.	2908.76!	-28.3!	1179.6!	8.04	7.5	.345	35.44	.122	SI
858.	858.	3.	1.	-2530.59!	-22.6	817.5	10.18	7.5	.239	17.18	.041	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	18.22	.844	10.18	.471 2d12 +7d12	8.04	.372	4d16
2	15.96	.739	7.92	.367 7d12	8.04	.372	4d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 94 - Travata T026  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=36.; Acls=2160. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1751	3	3	3	0	858.	828.

CASI DI CARICO DA MODELLO 3D

SLU		RARE		QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.
4.	SLU SISMAX PRINC	16			
5.	SLU SISMAX PRINC	16			

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-3515.4	-.259	.558	-12106.53	-1.98	10.	2.	.166	3.444	SI
129.	129.	3.	1.	866.48	-.065	.172	9625.26	-1.64	10.	2.	.141	11.11	SI
269.	269.	3.	2.	3081.6	-.246	.614	9626.57	-1.73	10.	2.	.148	3.124	SI
457.	457.	3.	2.	4063.05	-.327	.81	9626.57	-1.73	10.	2.	.148	2.369	SI
786.	786.	3.	1.	124.56	-.009	.025	9625.26	-1.64	10.	2.	.141	77.28	SI
858.	858.	3.	1.	-3542.82	-.261	.562	-12106.53	-1.98	10.	2.	.166	3.417	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	3276.	8151.	78742.	35472.	12254.	23218.	1.01	5.	SI
858.	858.	3.	-3288.	6485.	78742.	35472.	12254.	23218.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
20.	20.	3.	1.	-2296.38	-20.5	741.9	10.18	7.5	.217	17.18	.037	SI
457.	457.	3.	2.	2902.24	-28.3	1177.2	8.04	7.5	.344	35.44	.122	SI
858.	858.	3.	1.	-2530.59	-22.6	817.5	10.18	7.5	.239	17.18	.041	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
20.	20.	3.	1.	-2287.29	-20.4	738.9	10.18	7.5	.216	17.18	.037	SI
457.	457.	3.	2.	2902.77	-28.3	1177.2	8.04	7.5	.345	35.44	.122	SI
858.	858.	3.	1.	-2530.59	-22.6	817.5	10.18	7.5	.239	17.18	.041	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
20.	20.	3.	1.	-2284.51	-20.4	738.	10.18	7.5	.216	17.18	.037	SI
457.	457.	3.	2.	2902.97	-28.3	1177.2	8.04	7.5	.345	35.44	.122	SI
858.	858.	3.	1.	-2530.59	-22.6	817.5	10.18	7.5	.239	17.18	.041	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	18.22	.844	10.18	.471 2d12 +7d12	8.04	.372	4d16
2	15.96	.739	7.92	.367 7d12	8.04	.372	4d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 95 - Travata T027  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=36.; Acls=2160. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1752	3	3	3	0	858.	828.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-3679.11	-.271	.584	-12106.53	-1.98	10.	2.	.166	3.291	SI
82.	82.	3. 1.	18.17	-.001	.004	9625.26	-1.64	10.	2.	.141	529.8	SI
269.	269.	3. 2.	3070.85	-.245	.612	9626.57	-1.73	10.	2.	.148	3.135	SI
457.	457.	3. 2.	4041.88	-.325	.805	9626.57	-1.73	10.	2.	.148	2.382	SI
858.	858.	3. 1.	-3542.82	-.261	.562	-12106.53	-1.98	10.	2.	.166	3.417	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3. 1.	3275.!	8151.!	78742.!	35472.!	12254.!	23218.!	1.01	5. SI
858.	858.	3. 1.	-3273.!	6485.!	78742.!	35472.!	12254.!	23218.!	1.01	5. SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-2625.23	-23.5	848.1	10.18	7.5	.248	17.18	.043	SI
20.	20.	3. 1.	-2415.1	-21.6	780.2	10.18	7.5	.228	17.18	.039	SI
457.	457.	3. 2.	2887.11	-28.1	1170.8	8.04	7.5	.343	35.44	.121	SI
858.	858.	3. 1.	-2530.59	-22.6	817.5	10.18	7.5	.239	17.18	.041	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-2622.68	-23.4	847.3	10.18	7.5	.248	17.18	.043	SI
20.	20.	3. 1.	-2412.57	-21.6	779.4	10.18	7.5	.228	17.18	.039	SI
457.	457.	3. 2.	2887.6	-28.1	1171.1	8.04	7.5	.343	35.44	.121	SI
858.	858.	3. 1.	-2530.59	-22.6	817.5	10.18	7.5	.239	17.18	.041	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-2621.53	-23.4	846.9	10.18	7.5	.248	17.18	.043	SI
20.	20.	3. 1.	-2411.44	-21.5	779.	10.18	7.5	.228	17.18	.039	SI
457.	457.	3. 2.	2887.8	-28.1	1171.1	8.04	7.5	.343	35.44	.121	SI
858.	858.	3. 1.	-2530.59	-22.6	817.5	10.18	7.5	.239	17.18	.041	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	18.22	.844	10.18	.471	2d12 +7d12
2	15.96	.739	7.92	.367	7d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 98 - Travata T090  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esesrcizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=80.; alt.=36.; Acls=2880. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1744	3	3	3	0	415.	385.
2	A1745	3	3	3	0	410.	370.
3	A1746	3	3	3	0	410.	370.
4	A1748	3	3	3	0	415.	385.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-8315.95	-415	.887	-17981.03	-1.92	10.	2.	.161	2.162	SI
203.	203.	3.	2.	9487.52	-519	.985	18590.45	-2.22	10.	2.	.182	1.959	SI
336.	336.	3.	4.	-3578.02	-15	.234	-29494.97	-2.69	10.	2.	.212	8.243	SI
336.	336.	3.	4.	3539.25	-15	.361	18649.55	-1.72	10.	2.	.147	5.269	SI
380.	380.	3.	5.	69.35	-002	.004	36789.46	-2.6	10.	2.	.206	530.5	SI
415.	415.	3.	5.	-10702.49	-371	.688	-29688.59	-2.06	10.	2.	.171	2.774	SI
> 415.	0.	3.	5.	-10200.03	-354	.656	-29688.59	-2.06	10.	2.	.171	2.911	SI
450.	35.	3.	5.	321.54	-011	.017	36789.46	-2.6	10.	2.	.206	114.4	SI
493.	77.	3.	4.	-3605.42	-151	.235	-29494.97	-2.69	10.	2.	.212	8.181	SI
493.	77.	3.	4.	3240.7	-137	.33	18649.55	-1.72	10.	2.	.147	5.755	SI
620.	205.	3.	2.	8182.6	-444	.849	18590.45	-2.22	10.	2.	.182	2.272	SI
825.	410.	3.	5.	-9035.57	-312	.581	-29688.59	-2.06	10.	2.	.171	3.286	SI
> 825.	0.	3.	5.	-8889.34	-307	.571	-29688.59	-2.06	10.	2.	.171	3.34	SI
860.	35.	3.	5.	813.21	-028	.042	36789.46	-2.6	10.	2.	.206	45.24	SI
903.	77.	3.	4.	-2772.22	-116	.181	-29494.97	-2.69	10.	2.	.212	10.64	SI
903.	77.	3.	4.	3723.24	-158	.38	18649.55	-1.72	10.	2.	.147	5.009	SI
1030.	205.	3.	2.	8166.35	-443	.847	18590.45	-2.22	10.	2.	.182	2.276	SI
1200.	375.	3.	5.	280.09	-01	.015	36789.46	-2.6	10.	2.	.206	131.3	SI
1235.	410.	3.	5.	-10697.01	-371	.688	-29688.59	-2.06	10.	2.	.171	2.775	SI
>1235.	0.	3.	5.	-11023.36	-383	.709	-29688.59	-2.06	10.	2.	.171	2.693	SI
1315.	79.	3.	4.	-3863.98	-162	.252	-29494.97	-2.69	10.	2.	.212	7.633	SI
1315.	79.	3.	4.	3138.02	-133	.32	18649.55	-1.72	10.	2.	.147	5.943	SI
1359.	124.	3.	3.	-54.52	-002	.004	-23700.2	-2.3	10.	2.	.187	434.7	SI
1448.	213.	3.	2.	9489.01	-519	.985	18590.45	-2.22	10.	2.	.182	1.959	SI
1651.	415.	3.	1.	-8315.95	-415	.887	-17981.03	-1.92	10.	2.	.161	2.162	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	15417.	8646	104990.	62774.	16339.	46435.	2.01	5.	SI
415.	415.	3.	-15855.	12772.	104990.	62774.	16339.	46435.	2.01	5.	SI
> 415.	0.	3.	14574.	12772.	104990.	62774.	16339.	46435.	2.01	5.	SI
825.	410.	3.	-14057.	12772.	104990.	62774.	16339.	46435.	2.01	5.	SI
> 825.	0.	3.	13942.	12772.	104990.	62774.	16339.	46435.	2.01	5.	SI
1235.	410.	3.	-14739.	12772.	104990.	62774.	16339.	46435.	2.01	5.	SI
>1235.	0.	3.	16229.	12772.	104990.	62774.	16339.	46435.	2.01	5.	SI
1651.	415.	3.	-15357.	8646	104990.	62774.	16339.	46435.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
15.	15.	3. 1.	-4501.56	-27.3	977.6	15.14	7.5	.286	18.3	.052	SI
69.	69.	3. 1.	2379.22	-14.4	499.	15.71	7.5	.146	33.87	.049	SI
203.	203.	3. 2.	6701.31	-43.1	1411.8	15.71	7.5	.486	33.33	.162	SI
415.	415.	3. 5.	-7559.09	-33.	993.3	25.2	7.5	.346	13.75	.048	SI
> 415.	0.	3. 5.	-7204.34	-31.4	946.7	25.2	7.5	.324	13.75	.045	SI
620.	205.	3. 2.	5779.8	-37.2	1217.7	15.71	7.5	.391	33.33	.13	SI
825.	410.	3. 5.	-6382.6	-27.9	838.7	25.2	7.5	.271	13.75	.037	SI
> 825.	0.	3. 5.	-6279.21	-27.4	825.1	25.2	7.5	.264	13.75	.036	SI
1030.	205.	3. 2.	5768.44	-37.1	1215.3	15.71	7.5	.39	33.33	.13	SI
1235.	410.	3. 5.	-7555.16	-33.	992.8	25.2	7.5	.346	13.75	.048	SI
>1235.	0.	3. 5.	-7785.15	-34.	1023.	25.2	7.5	.361	13.75	.05	SI
1448.	213.	3. 2.	6701.95	-43.1	1411.9	15.71	7.5	.486	33.33	.162	SI
1651.	415.	3. 1.	-5873.96	-35.6	1275.6	15.14	7.5	.413	18.3	.076	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
15.	15.	3. 1.	-3934.74	-23.9	854.5	15.14	7.5	.25	18.3	.046	SI
69.	69.	3. 1.	2073.05	-12.5	434.7	15.71	7.5	.127	33.87	.043	SI
203.	203.	3. 2.	5855.79	-37.7	1233.7	15.71	7.5	.399	33.33	.133	SI
415.	415.	3. 5.	-6600.9	-28.8	867.4	25.2	7.5	.285	13.75	.039	SI
> 415.	0.	3. 5.	-6291.55	-27.5	826.8	25.2	7.5	.265	13.75	.036	SI
620.	205.	3. 2.	5053.16	-32.5	1064.6	15.71	7.5	.316	33.33	.105	SI
825.	410.	3. 5.	-5583.14	-24.4	733.7	25.2	7.5	.22	13.75	.03	SI
> 825.	0.	3. 5.	-5490.2	-24.	721.5	25.2	7.5	.214	13.75	.029	SI
1030.	205.	3. 2.	5044.7	-32.4	1062.8	15.71	7.5	.315	33.33	.105	SI
1235.	410.	3. 5.	-6596.66	-28.8	866.9	25.2	7.5	.285	13.75	.039	SI
>1235.	0.	3. 5.	-6788.82	-29.6	892.1	25.2	7.5	.297	13.75	.041	SI
1448.	213.	3. 2.	5905.8	-38.	1244.2	15.71	7.5	.404	33.33	.135	SI
1651.	415.	3. 1.	-5134.66	-31.2	1115.1	15.14	7.5	.335	18.3	.061	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
15.	15.	3. 1.	-3793.04	-23.	823.7	15.14	7.5	.241	18.3	.044	SI
69.	69.	3. 1.	1996.52	-12.	418.7	15.71	7.5	.123	33.87	.042	SI
203.	203.	3. 2.	5644.41	-36.3	1189.1	15.71	7.5	.377	33.33	.126	SI
415.	415.	3. 5.	-6361.42	-27.8	835.9	25.2	7.5	.27	13.75	.037	SI
> 415.	0.	3. 5.	-6063.95	-26.5	796.9	25.2	7.5	.251	13.75	.034	SI
620.	205.	3. 2.	4871.29	-31.3	1026.3	15.71	7.5	.3	33.33	.1	SI
825.	410.	3. 5.	-5383.26	-23.5	707.4	25.2	7.5	.207	13.75	.028	SI
> 825.	0.	3. 5.	-5293.67	-23.1	695.6	25.2	7.5	.204	13.75	.028	SI
1030.	205.	3. 2.	4863.47	-31.3	1024.6	15.71	7.5	.3	33.33	.1	SI
1235.	410.	3. 5.	-6357.14	-27.7	835.4	25.2	7.5	.269	13.75	.037	SI
>1235.	0.	3. 5.	-6541.29	-28.6	859.6	25.2	7.5	.281	13.75	.039	SI
1448.	213.	3. 2.	5691.39	-36.6	1199.	15.71	7.5	.382	33.33	.127	SI
1651.	415.	3. 1.	-4949.84	-30.	1074.9	15.14	7.5	.315	18.3	.058	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	30.85	1.071	15.14	.526	2d18 +5d16	15.71	.545	5d20
2	25.76	.894	10.05	.349	5d16	15.71	.545	5d20
3	35.81	1.244	20.11	.698	5d16 +5d16	15.71	.545	5d20
4	40.9	1.42	25.2	.875	2d18 +5d16 +5d16	15.71	.545	5d20
5	56.61	1.966	25.2	.875	2d18 +5d16 +5d16	31.42	1.091	5d20 +5d20

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 38 - Travata TRAVE PAR 1  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; daN/cm<sup>2</sup>; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm<sup>2</sup> - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FE844k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acl=1200. .  
 5) Rettangolare: base=20.; alt.=111.; Acl=2220. .

## DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1127	3	3	3	0	205.	125.
2	A1712	5	5	5	0	260.	200.
3	A1130	5	5	5	0	411.	391.
4	A1713	5	5	5	0	20.	10.
5	A1714	5	5	5	0	215.	205.
6	A1131	3	3	3	0	165.	125.
7	A1109	3	3	3	0	295.	255.

## CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

## VERIFICHE ALLO STATO LIMITE ULTIMO

## FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	-964.8	-.058	.143	-12956.32	-1.51	10.	2.	.131	13.43	SI
148.	148.	3.	67.2	-.004	.008	15977.06	-1.9	10.	2.	.16	237.8	SI
186.	186.	3.	196.01	-.012	.024	15977.06	-1.9	10.	2.	.16	81.51	SI
205.	205.	3.	-90.75	-.005	.013	-12956.32	-1.51	10.	2.	.131	142.8	SI
205.	205.	3.	196.01	-.012	.024	15977.06	-1.9	10.	2.	.16	81.51	SI
> 205.	0.	5.	-1259.63	-.025	.08	-37888.24	-1.38	10.	2.	.121	30.08	SI
213.	8.	5.	2454.45	-.047	.078	67750.42	-3.5	8.117	3.	.301	27.6	SI
256.	51.	5.	-4076.63	-.082	.259	-37888.24	-1.38	10.	2.	.121	9.294	SI
256.	51.	5.	2540.89	-.048	.081	67750.42	-3.5	8.117	3.	.301	26.66	SI
465.	260.	5.	-55.62	-.001	.004	-37888.24	-1.38	10.	2.	.121	681.2	SI
465.	260.	5.	1046.58	-.02	.033	67750.42	-3.5	8.117	3.	.301	64.74	SI
> 465.	0.	5.	-34.94	-.001	.002	-37888.24	-1.38	10.	2.	.121	1084.	SI
465.	0.	5.	959.04	-.018	.03	67750.42	-3.5	8.117	3.	.301	70.64	SI
610.	145.	5.	-24.59	-.001	.002	-37544.47	-1.83	10.	2.	.155	1527.	SI
610.	145.	5.	837.	-.02	.048	41836.54	-2.17	10.	2.	.178	49.98	SI
876.	411.	5.	-150.81	-.003	.01	-37888.24	-1.38	10.	2.	.121	251.2	SI
876.	411.	5.	556.3	-.011	.018	67750.42	-3.5	8.117	3.	.301	121.8	SI
> 876.	0.	5.	-1307.59	-.026	.083	-37888.24	-1.38	10.	2.	.121	28.98	SI
876.	0.	5.	389.31	-.007	.012	67750.42	-3.5	8.117	3.	.301	174.	SI
896.	20.	5.	-1307.59	-.026	.083	-37888.24	-1.38	10.	2.	.121	28.98	SI
896.	20.	5.	389.31	-.007	.012	67750.42	-3.5	8.117	3.	.301	174.	SI
> 896.	0.	5.	-1404.56	-.028	.089	-37888.24	-1.38	10.	2.	.121	26.98	SI
943.	47.	5.	104.28	-.002	.003	67750.42	-3.5	8.117	3.	.301	649.7	SI
1082.	186.	5.	-30.73	-.001	.002	-37888.24	-1.38	10.	2.	.121	1233.	SI
1082.	186.	5.	1079.17	-.02	.034	67750.42	-3.5	8.117	3.	.301	62.78	SI
1111.	215.	5.	1079.17	-.02	.034	67750.42	-3.5	8.117	3.	.301	62.78	SI
>1111.	0.	3.	-1150.79	-.07	.17	-12956.32	-1.51	10.	2.	.131	11.26	SI
1111.	0.	3.	1158.3	-.07	.14	15977.06	-1.9	10.	2.	.16	13.79	SI
1183.	72.	3.	-409.14	-.025	.061	-12956.32	-1.51	10.	2.	.131	31.67	SI
1276.	165.	3.	-885.24	-.053	.131	-12956.32	-1.51	10.	2.	.131	14.64	SI
1276.	165.	3.	985.68	-.059	.119	15977.06	-1.9	10.	2.	.16	16.21	SI
>1276.	0.	3.	-9372.65	-.589	1.389	-12956.32	-1.51	10.	2.	.131	1.382	SI
1288.	12.	3.	304.47	-.018	.037	15977.06	-1.9	10.	2.	.16	52.47	SI
1454.	178.	3.	9508.36	-.6	1.154	15977.06	-1.9	10.	2.	.16	1.68	SI
1571.	295.	3.	-8315.95	-.52	1.232	-12956.32	-1.51	10.	2.	.131	1.558	SI
1571.	295.	3.	1214.02	-.073	.147	15977.06	-1.9	10.	2.	.16	13.16	SI

## VERIFICHE A TAGLIO

## TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	4035.	3846.	45337.	27107.	7056.	20051.	1.01	10.	SI
205.	205.	3.	2575.	3846.	45337.	27107.	7056.	20051.	1.01	10.	SI
> 205.	0.	5.	803.	6555.	85901.	51361.	13369.	37992.	1.01	10.	SI
256.	51.	5.	2779.	6555.	85901.	51361.	13369.	37992.	1.01	10.	SI
325.	120.	5.	-1990.	7158.	85901.	51361.	13369.	37992.	1.01	10.	SI
343.	138.	5.	-2221.	7158.	85901.	51361.	13369.	37992.	1.01	10.	SI
465.	260.	5.	-825.	6555.	85901.	51361.	13369.	37992.	1.01	10.	SI
465.	260.	5.	50.	6555.	85901.	51361.	13369.	37992.	1.01	10.	SI
> 465.	0.	5.	-698.	6555.	85901.	51361.	13369.	37992.	1.01	10.	SI
465.	0.	5.	55.	6555.	85901.	51361.	13369.	37992.	1.01	10.	SI
876.	411.	5.	-1216.	6555.	85901.	51361.	13369.	37992.	1.01	10.	SI
> 876.	0.	5.	-1395.	6555.	85901.	51361.	13369.	37992.	1.01	10.	SI
896.	20.	5.	-2060.	7158.	85901.	51361.	13369.	37992.	1.01	10.	SI
> 896.	0.	5.	4559.	7158.	85901.	51361.	13369.	37992.	1.01	10.	SI
1111.	215.	5.	2064.	6555.	85901.	51361.	13369.	37992.	1.01	10.	SI
>1111.	0.	3.	-492.	3846.	45337.	27107.	7056.	20051.	1.01	10.	SI
1111.	0.	3.	1237.	3846.	45337.	27107.	7056.	20051.	1.01	10.	SI
1276.	165.	3.	-1123.	3846.	45337.	27107.	7056.	20051.	1.01	10.	SI
1276.	165.	3.	403.	3846.	45337.	27107.	7056.	20051.	1.01	10.	SI
>1276.	0.	3.	14515.	3846.	45337.	27107.	7056.	20051.	1.01	10.	SI
1412.	136.	3.	2979.	4042.	45337.	27107.	7056.	20051.	1.01	10.	SI
1571.	295.	3.	-15875.	3028.	45337.	27107.	7056.	20051.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-688.45!	-5.3!	208.6!	6.16	7.5	.061	13.62	.008	SI
19.	19.	3.	1.	-660.58!	-5.1!	200.1!	6.16	7.5	.059	13.62	.008	SI
23.	23.	3.	1.	-650.32!	-5.	197.	6.16	7.5	.058	13.62	.008	SI
205.	205.	3.	1.	-29.15!	-2.	8.8	6.16	7.5	.003	13.62	0.	SI
205.	205.	3.	1.	72.72!	-5	18.	7.63	7.5	.005	13.15	.001	SI
> 205.	0.	5.	2.	-100.55!	-3	13.1	6.16	7.5	.004	13.62	.001	SI
256.	51.	5.	2.	-1126.26!	-2.9!	146.6!	6.16	7.5	.043	13.62	.006	SI
446.	241.	5.	2.	871.52!	-2.	56.2!	15.27	8.75	.016	10.65	.002	SI
465.	260.	5.	2.	-39.73!	-1	5.2!	6.16	7.5	.002	13.62	0.	SI
465.	260.	5.	2.	746.44!	-1.7!	48.2!	15.27	8.75	.014	10.65	.002	SI
> 465.	0.	5.	2.	-24.96!	-1	3.2!	6.16	7.5	.001	13.62	0.	SI
465.	0.	5.	2.	684.55!	-1.6!	44.2!	15.27	8.75	.013	10.65	.001	SI
610.	145.	5.	3.	540.09!	-1.6!	62.9!	7.63	7.5	.018	13.15	.002	SI
876.	411.	5.	2.	-24.96!	-1	3.2!	6.16	7.5	.001	13.62	0.	SI
876.	411.	5.	2.	146.08!	-3	9.4!	15.27	8.75	.003	10.65	0.	SI
> 876.	0.	5.	2.	103.67!	-2	6.7!	15.27	8.75	.002	10.65	0.	SI
896.	20.	5.	2.	-931.6!	-2.4!	121.2!	6.16	7.5	.035	13.62	.005	SI
> 896.	0.	5.	2.	-1000.37!	-2.6!	130.2!	6.16	7.5	.038	13.62	.005	SI
1111.	215.	5.	2.	756.	-1.8	48.8!	15.27	8.75	.014	10.65	.002	SI
>1111.	0.	3.	1.	-141.98!	-1.1!	43.	6.16	7.5	.013	13.62	.002	SI
1183.	72.	3.	1.	-211.87!	-1.6!	52.5!	7.63	7.5	.015	13.15	.002	SI
1276.	165.	3.	1.	-141.98!	-1.1!	43.	6.16	7.5	.013	13.62	.002	SI
>1276.	0.	3.	1.	-6615.57!	-50.7!	2004.5!	6.16	7.5	.837	13.62	.114	SI
1454.	178.	3.	1.	6715.38!	-50.7!	1662.5!	7.63	7.5	.692	13.15	.091	SI
1571.	295.	3.	1.	-5873.96!	-45.	1779.8!	6.16	7.5	.728	13.62	.099	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-626.21!	-4.8!	189.7!	6.16	7.5	.056	13.62	.008	SI
19.	19.	3.	1.	-601.38!	-4.6!	182.2!	6.16	7.5	.053	13.62	.007	SI
23.	23.	3.	1.	-592.24!	-4.5!	179.4!	6.16	7.5	.053	13.62	.007	SI
205.	205.	3.	1.	-23.7!	-2	7.2!	6.16	7.5	.002	13.62	0.	SI
205.	205.	3.	1.	100.99!	-8	25.	7.63	7.5	.007	13.15	.001	SI
> 205.	0.	5.	2.	-93.93!	-2	12.2!	6.16	7.5	.004	13.62	0.	SI
256.	51.	5.	2.	-1044.3!	-2.7!	135.9!	6.16	7.5	.04	13.62	.005	SI
446.	241.	5.	2.	849.28!	-2.	54.8!	15.27	8.75	.016	10.65	.002	SI
465.	260.	5.	2.	-39.73!	-1	5.2!	6.16	7.5	.002	13.62	0.	SI
465.	260.	5.	2.	747.33!	-1.7!	48.2!	15.27	8.75	.014	10.65	.002	SI
> 465.	0.	5.	2.	-24.96!	-1	3.2!	6.16	7.5	.001	13.62	0.	SI
465.	0.	5.	2.	692.63!	-1.6!	44.7!	15.27	8.75	.013	10.65	.001	SI
610.	145.	5.	3.	553.71!	-1.6!	64.5!	7.63	7.5	.019	13.15	.002	SI
876.	411.	5.	2.	-24.96!	-1	3.2!	6.16	7.5	.001	13.62	0.	SI
876.	411.	5.	2.	169.91!	-4	11.	15.27	8.75	.003	10.65	0.	SI
> 876.	0.	5.	2.	135.41!	-3	8.7!	15.27	8.75	.003	10.65	0.	SI
896.	20.	5.	2.	-881.14!	-2.3!	114.7!	6.16	7.5	.034	13.62	.005	SI
> 896.	0.	5.	2.	-941.43!	-2.4!	122.5!	6.16	7.5	.036	13.62	.005	SI
1111.	215.	5.	2.	602.62!	-1.4!	38.9!	15.27	8.75	.011	10.65	.001	SI
>1111.	0.	3.	1.	-141.98!	-1.1!	43.	6.16	7.5	.013	13.62	.002	SI
1183.	72.	3.	1.	206.78!	-1.6!	51.2!	7.63	7.5	.015	13.15	.002	SI
1276.	165.	3.	1.	-141.98!	-1.1!	43.	6.16	7.5	.013	13.62	.002	SI
>1276.	0.	3.	1.	-5767.46!	-44.2!	1747.5!	6.16	7.5	.712	13.62	.097	SI
1454.	178.	3.	1.	5859.95!	-44.2!	1450.8!	7.63	7.5	.588	13.15	.077	SI
1571.	295.	3.	1.	-5134.66!	-39.4!	1555.8!	6.16	7.5	.618	13.62	.084	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-610.91!	-4.7!	185.1!	6.16	7.5	.054	13.62	.007	SI
19.	19.	3.	1.	-586.83!	-4.5!	177.8!	6.16	7.5	.052	13.62	.007	SI
23.	23.	3.	1.	-577.96!	-4.4!	175.1!	6.16	7.5	.051	13.62	.007	SI
205.	205.	3.	1.	-22.34!	-2	6.8!	6.16	7.5	.002	13.62	0.	SI
205.	205.	3.	1.	108.38!	-8	26.8!	7.63	7.5	.008	13.15	.001	SI
> 205.	0.	5.	2.	-92.45!	-2	12.	6.16	7.5	.004	13.62	0.	SI
256.	51.	5.	2.	-1021.28!	-2.6!	132.9!	6.16	7.5	.039	13.62	.005	SI
446.	241.	5.	2.	838.86!	-1.9!	54.1!	15.27	8.75	.016	10.65	.002	SI
465.	260.	5.	2.	-39.73!	-1	5.2!	6.16	7.5	.002	13.62	0.	SI
465.	260.	5.	2.	740.85!	-1.7!	47.8!	15.27	8.75	.014	10.65	.001	SI
> 465.	0.	5.	2.	-24.96!	-1	3.2!	6.16	7.5	.001	13.62	0.	SI
465.	0.	5.	2.	687.93!	-1.6!	44.4!	15.27	8.75	.013	10.65	.001	SI
610.	145.	5.	3.	549.61!	-1.6!	64.1!	7.63	7.5	.019	13.15	.002	SI
876.	411.	5.	2.	-24.96!	-1	3.2!	6.16	7.5	.001	13.62	0.	SI
876.	411.	5.	2.	166.89!	-4	10.8!	15.27	8.75	.003	10.65	0.	SI
> 876.	0.	5.	2.	134.06!	-3	8.7!	15.27	8.75	.003	10.65	0.	SI
896.	20.	5.	2.	-880.37!	-2.3!	114.6!	6.16	7.5	.034	13.62	.005	SI
> 896.	0.	5.	2.	-940.02!	-2.4!	122.3!	6.16	7.5	.036	13.62	.005	SI
1111.	215.	5.	2.	557.86!	-1.3!	36.	15.27	8.75	.011	10.65	.001	SI
>1111.	0.	3.	1.	-141.98!	-1.1!	43.	6.16	7.5	.013	13.62	.002	SI
1183.	72.	3.	1.	206.03!	-1.6!	51.	7.63	7.5	.015	13.15	.002	SI
1276.	165.	3.	1.	-141.98!	-1.1!	43.	6.16	7.5	.013	13.62	.002	SI
>1276.	0.	3.	1.	-5556.96!	-42.6!	1683.7!	6.16	7.5	.681	13.62	.093	SI
1454.	178.	3.	1.	5646.51!	-42.6!	1397.9!	7.63	7.5	.563	13.15	.074	SI
1571.	295.	3.	1.	-4949.84!	-38.	1499.8!	6.16	7.5	.591	13.62	.08	SI

ARMATURE LONGITUDINALI									
Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre	
1	13.79	1.149	6.16	.513	4d14	7.63	.636	3d18	
2	27.58	1.242	12.32	.555	4d14 +4d14	15.27	.688	3d18 +3d18	
3	19.95	.899	12.32	.555	4d14 +4d14	7.63	.344	3d18	

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 49 - Travata T066  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; EC= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; Fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

- 3) Rettangolare: base=20.; alt.=60.; Acls=1200. .
- 5) Rettangolare: base=20.; alt.=111.; Acls=2220. .
- 7) Rettangolare: base=40.; alt.=25.; Acls=1000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1269	3	3	3	0	192.	152.
2	A1733	5	5	5	0	373.	333.
3	A1735	5	5	5	0	255.	235.
4	A1736	5	5	5	0	190.	150.
5	A1254	3	3	3	0	280.	220.
6	A1258	3	3	3	0	220.	160.
7	A1152	7	7	7	0	510.	470.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:													
Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3. 1.	-417.75	-.023	.048	-16867.73	-1.77	10.	2.	.15	40.38	SI	
0.	0.	3. 1.	304.85	-.017	.035	16867.73	-1.77	10.	2.	.15	55.33	SI	
69.	69.	3. 1.	-23.52	-.001	.003	-16867.73	-1.77	10.	2.	.15	717.2	SI	
167.	167.	3. 1.	1267.82	-.07	.145	16867.73	-1.77	10.	2.	.15	13.3	SI	
192.	192.	3. 1.	-99.19	-.005	.011	-16867.73	-1.77	10.	2.	.15	170.1	SI	
192.	192.	3. 1.	1267.82	-.07	.145	16867.73	-1.77	10.	2.	.15	13.3	SI	
> 192.	0.	5. 2.	-689.24	-.015	.035	-48228.77	-2.28	10.	2.	.185	69.97	SI	
192.	0.	5. 2.	3251.72	-.074	.174	46732.7	-2.26	10.	2.	.184	14.37	SI	
308.	115.	5. 2.	-66.07	-.001	.003	-48228.77	-2.28	10.	2.	.185	730.	SI	
489.	297.	5. 3.	-1101.16	-.02	.032	-75509.54	-3.5	7.527	3.	.317	68.57	SI	
489.	297.	5. 3.	857.48	-.016	.044	47689.56	-1.6	10.	2.	.138	55.62	SI	
538.	345.	5. 4.	131.67	-.002	.004	79561.38	-2.24	10.	2.	.183	604.3	SI	
565.	373.	5. 4.	-1724.4	-.026	.048	-81061.6	-2.28	10.	2.	.185	47.01	SI	
> 565.	0.	5. 4.	-1090.98	-.016	.03	-81061.6	-2.28	10.	2.	.185	74.3	SI	
614.	49.	5. 4.	33.35	0.	.001	79561.38	-2.24	10.	2.	.183	2386.	SI	
624.	59.	5. 3.	28.02	-.001	.001	47994.07	-1.6	10.	2.	.138	1713.	SI	
650.	85.	5. 5.	-1526.35	-.028	.042	-79483.36	-3.5	5.52	3.	.388	52.07	SI	
650.	85.	5. 5.	49.	-.001	.002	62675.92	-2.24	10.	2.	.183	1279.	SI	
820.	255.	5. 2.	-3541.67	-.079	.182	-48604.71	-2.24	10.	2.	.183	13.72	SI	
> 820.	0.	5. 2.	-3458.52	-.077	.177	-48604.71	-2.24	10.	2.	.183	14.05	SI	
897.	77.	5. 2.	2.02	0.	0.	47041.24	-2.24	10.	2.	.183	23338	SI	
946.	126.	5. 6.	657.39	-.013	.023	67779.36	-3.5	6.674	3.	.344	103.1	SI	
961.	141.	5. 6.	832.71	-.016	.029	67779.36	-3.5	6.674	3.	.344	81.4	SI	
1010.	190.	5. 6.	-2541.96	-.052	.114	-63748.26	-3.08	10.	2.	.236	25.08	SI	
1010.	190.	5. 6.	832.71	-.016	.029	67779.36	-3.5	6.674	3.	.344	81.4	SI	
>1010.	0.	3. 7.	-3432.57	-.135	.197	-33908.16	-2.25	10.	2.	.184	9.878	SI	
1010.	0.	3. 7.	1414.67	-.053	.102	26683.7	-1.71	10.	2.	.146	18.86	SI	
1050.	40.	3. 7.	3532.21	-.132	.256	26683.7	-1.71	10.	2.	.146	7.554	SI	
1115.	105.	3. 8.	2432.87	-.16	.485	9552.11	-1.23	10.	2.	.109	3.926	SI	
1155.	145.	3. 8.	-96.59	-.006	.011	-16728.7	-2.22	10.	2.	.182	173.2	SI	
1195.	185.	3. 9.	781.04	-.047	.155	9555.51	-1.13	10.	2.	.101	12.23	SI	
1290.	280.	3. 9.	-2127.14	-.127	.195	-21139.37	-2.93	10.	2.	.227	9.938	SI	
>1290.	0.	3. 9.	-1876.16	-.112	.172	-21139.37	-2.93	10.	2.	.227	11.27	SI	
1290.	0.	3. 9.	190.31	-.011	.038	9555.51	-1.13	10.	2.	.101	50.21	SI	
1346.	56.	3. 9.	3.36	0.	.001	9555.51	-1.13	10.	2.	.101	2841.	SI	
1454.	164.	3. 10	1272.89	-.07	.103	28997.57	-3.5	5.811	3.	.376	22.78	SI	
1484.	194.	3. 10	1719.09	-.095	.14	28997.57	-3.5	5.811	3.	.376	16.87	SI	
1510.	220.	3. 10	-1633.52	-.09	.181	-21932.97	-3.5	9.841	3.	.262	13.43	SI	
1510.	220.	3. 10	1719.09	-.095	.14	28997.57	-3.5	5.811	3.	.376	16.87	SI	



>1510.	0.	7.	11.	-682.98!	-.116!	.189!	-6864.	!-2.74!	10.	2.	.215!	10.05!	SI
1540.	30.	7.	11.	35.13!	-.006!	.01!	6864.	!-2.74!	10.	2.	.215!	195.4!	SI
1621.	111.	7.	12.	354.27!	-.076!	.192!	3520.37!	-1.99!	10.	2.	.166!	9.937!	SI
1762.	252.	7.	13.	667.48!	-.167!	.362!	3527.28!	-2.2!	10.	2.	.181!	5.284!	SI
1904.	394.	7.	12.	-12.5!	-.002!	.003!	-6822.8!	-3.41!	10.	2.	.254!	545.8!	SI
2020.	510.	7.	12.	-562.47!	-.112!	.157!	-6822.8!	-3.41!	10.	2.	.254!	12.13!	SI
2020.	510.	7.	12.	30.74!	-.007!	.017!	3520.37!	-1.99!	10.	2.	.166!	114.5!	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	1199.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01!	10.!	SI
192.	192.	3.	-548.!	4096.!	45337.!	27107.!	7056.!	20051.!	1.01!	10.!	SI
192.	192.	3.	610.!	4096.!	45337.!	27107.!	7056.!	20051.!	1.01!	10.!	SI
> 192.	0.	5.	-392.!	6607.!	85901.!	51361.!	13369.!	37992.!	1.01!	10.!	SI
192.	0.	5.	1425.!	6607.!	85901.!	51361.!	13369.!	37992.!	1.01!	10.!	SI
565.	373.	5.	-2848.!	5570.!	85901.!	51361.!	13369.!	37992.!	1.01!	10.!	SI
> 565.	0.	5.	-146.!	5570.!	85901.!	51361.!	13369.!	37992.!	1.01!	10.!	SI
565.	0.	5.	939.!	5570.!	85901.!	51361.!	13369.!	37992.!	1.01!	10.!	SI
820.	255.	5.	-2346.!	7644.!	85901.!	51361.!	13369.!	37992.!	1.01!	10.!	SI
> 820.	0.	5.	2276.!	7644.!	85901.!	51361.!	13369.!	37992.!	1.01!	10.!	SI
1010.	190.	5.	-841.!	5570.!	85901.!	51361.!	13369.!	37992.!	1.01!	10.!	SI
1010.	190.	5.	1103.!	5570.!	85901.!	51361.!	13369.!	37992.!	1.01!	10.!	SI
>1010.	0.	3.	17741.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01!	10.!	SI
1290.	280.	3.	-2767.!	4096.!	45337.!	27107.!	7056.!	20051.!	1.01!	10.!	SI
>1290.	0.	3.	-666.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01!	10.!	SI
1290.	0.	3.	2111.!	3629.!	45337.!	27107.!	7056.!	20051.!	1.01!	10.!	SI
1510.	220.	3.	-1155.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01!	10.!	SI
1510.	220.	3.	1438.!	3028.!	45337.!	27107.!	7056.!	20051.!	1.01!	10.!	SI
>1510.	0.	7.	854.!	4742.!	34997.!	20925.!	5446.!	15478.!	1.01!	5.!	SI
2020.	510.	7.	-837.!	3132.!	34997.!	20925.!	5446.!	15478.!	1.01!	5.!	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-101.09!	-.7!	23.7!	8.04!	7.5!	.007!	12.55!	.001!	SI
26.	26.	3.	1.	-47.77!	-.3!	11.2!	8.04!	7.5!	.003!	12.55!	0.!	SI
192.	192.	3.	1.	-70.85!	-.5!	16.6!	8.04!	7.5!	.005!	12.55!	.001!	SI
192.	192.	3.	1.	757.51!	-5.3!	177.2!	8.04!	7.5!	.052!	12.55!	.007!	SI
> 192.	0.	5.	2.	-30.67!	-.1!	3.2!	8.04!	7.5!	.001!	12.55!	0.!	SI
192.	0.	5.	2.	1425.2!	-4.!	155.!	8.04!	10.!	.045!	16.96!	.008!	SI
286.	93.	5.	2.	1755.41!	-5.!	190.9!	8.04!	10.!	.056!	16.96!	.009!	SI
565.	373.	5.	4.	-1247.31!	-2.4!	71.3!	16.08!	7.5!	.021!	10.02!	.002!	SI
> 565.	0.	5.	4.	-773.4!	-1.5!	44.2!	16.08!	7.5!	.013!	10.02!	.001!	SI
650.	85.	5.	5.	31.91!	-.1!	3.!	8.04!	7.5!	.001!	12.55!	0.!	SI
820.	255.	5.	2.	-2498.19!	-6.9!	260.3!	8.04!	7.5!	.076!	12.55!	.01!	SI
> 820.	0.	5.	2.	-2440.06!	-6.8!	254.3!	8.04!	7.5!	.074!	12.55!	.009!	SI
915.	95.	5.	2.	35.93!	-.1!	3.9!	8.04!	7.5!	.001!	12.55!	0.!	SI
1010.	190.	5.	6.	-1059.21!	-2.7!	96.7!	8.04!	7.5!	.028!	12.55!	.004!	SI
>1010.	0.	3.	7.	-2422.86!	-12.1!	285.7!	16.08!	7.5!	.084!	10.02!	.008!	SI
1050.	40.	3.	7.	2490.54!	-12.1!	370.4!	12.57!	5.9!	.108!	6.31!	.007!	SI
1115.	105.	3.	8.	1343.61!	-11.2!	548.3!	4.52!	7.5!	.16!	14.92!	.024!	SI
1290.	280.	3.	9.	-1462.96!	-10.7!	274.!	10.3!	7.5!	.08!	11.11!	.009!	SI
>1290.	0.	3.	9.	-1078.31!	-7.9!	202.!	10.3!	7.5!	.059!	11.11!	.007!	SI
1454.	164.	3.	10.	93.41!	-.6!	15.4!	9.05!	7.5!	.005!	11.54!	.001!	SI
1510.	220.	3.	10.	-92.54!	-.7!	20.9!	8.04!	7.5!	.006!	12.55!	.001!	SI
1510.	220.	3.	10.	67.8!	-.5!	11.2!	9.05!	7.5!	.003!	11.54!	0.!	SI
>1510.	0.	7.	11.	-475.15!	-10.2!	267.8!	9.05!	5.67!	.078!	13.28!	.01!	SI
1762.	252.	7.	13.	476.61!	-14.6!	525.2!	4.52!	6.18!	.154!	19.31!	.03!	SI
2020.	510.	7.	12.	-414.42!	-10.!	235.!	9.05!	5.48!	.069!	13.1!	.009!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-83.38!	-.6!	19.5!	8.04!	7.5!	.006!	12.55!	.001!	SI
26.	26.	3.	1.	-32.3!	-.2!	7.6!	8.04!	7.5!	.002!	12.55!	0.!	SI
36.	36.	3.	1.	-14.94!	-.1!	3.5!	8.04!	7.5!	.001!	12.55!	0.!	SI
192.	192.	3.	1.	-70.85!	-.5!	16.6!	8.04!	7.5!	.005!	12.55!	.001!	SI
192.	192.	3.	1.	623.75!	-4.4!	145.9!	8.04!	7.5!	.043!	12.55!	.005!	SI
> 192.	0.	5.	2.	-30.67!	-.1!	3.2!	8.04!	7.5!	.001!	12.55!	0.!	SI
192.	0.	5.	2.	1180.93!	-3.3!	128.4!	8.04!	10.!	.038!	16.96!	.006!	SI
286.	93.	5.	2.	1581.1!	-4.5!	172.!	8.04!	10.!	.05!	16.96!	.009!	SI
565.	373.	5.	4.	-1185.9!	-2.2!	67.8!	16.08!	7.5!	.02!	10.02!	.002!	SI
> 565.	0.	5.	4.	-780.93!	-1.5!	44.6!	16.08!	7.5!	.013!	10.02!	.001!	SI
650.	85.	5.	5.	32.38!	-.1!	3.1!	8.04!	7.5!	.001!	12.55!	0.!	SI
820.	255.	5.	2.	-2163.84!	-6.!	225.5!	8.04!	7.5!	.066!	12.55!	.008!	SI
> 820.	0.	5.	2.	-2120.29!	-5.9!	221.!	8.04!	7.5!	.065!	12.55!	.008!	SI
915.	95.	5.	2.	42.54!	-.1!	4.6!	8.04!	7.5!	.001!	12.55!	0.!	SI
1010.	190.	5.	6.	-923.79!	-2.4!	84.3!	8.04!	7.5!	.025!	12.55!	.003!	SI
>1010.	0.	3.	7.	-2101.2!	-10.5!	247.8!	16.08!	7.5!	.073!	10.02!	.007!	SI
1050.	40.	3.	7.	2128.71!	-10.4!	316.6!	12.57!	5.9!	.093!	6.31!	.006!	SI
1115.	105.	3.	8.	1164.02!	-9.7!	475.1!	4.52!	7.5!	.139!	14.92!	.021!	SI
1290.	280.	3.	9.	-1264.34!	-9.2!	236.8!	10.3!	7.5!	.069!	11.11!	.008!	SI
>1290.	0.	3.	9.	-892.76!	-6.5!	167.2!	10.3!	7.5!	.049!	11.11!	.005!	SI
1418.	128.	3.	8.	93.09!	-.8!	38.!	4.52!	7.5!	.011!	14.92!	.002!	SI
1510.	220.	3.	10.	-92.54!	-.7!	20.9!	8.04!	7.5!	.006!	12.55!	.001!	SI
>1510.	0.	7.	11.	-486.25!	-10.4!	274.1!	9.05!	5.67!	.08!	13.28!	.011!	SI
1762.	252.	7.	13.	474.59!	-14.5!	523.!	4.52!	6.18!	.153!	19.31!	.03!	SI
2020.	510.	7.	12.	-414.42!	-10.!	235.!	9.05!	5.48!	.069!	13.1!	.009!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-78.	-5	18.2	8.04	7.5	.005	12.55	.001	SI
26.	26.	3. 1.	-27.6	-2	6.5	8.04	7.5	.002	12.55	0.	SI
36.	36.	3. 1.	-10.58	-1	2.5	8.04	7.5	.001	12.55	0.	SI
192.	192.	3. 1.	-70.85	-5	16.6	8.04	7.5	.005	12.55	.001	SI
192.	192.	3. 1.	585.59	-4.1	137.	8.04	7.5	.04	12.55	.005	SI
> 192.	0.	5. 2.	-30.67	-1	3.2	8.04	7.5	.001	12.55	0.	SI
192.	0.	5. 2.	1121.81	-3.2	122.	8.04	10.	.036	16.96	.006	SI
286.	93.	5. 2.	1537.5	-4.3	167.2	8.04	10.	.049	16.96	.008	SI
565.	373.	5. 4.	-1177.56	-2.2	67.3	16.08	7.5	.02	10.02	.002	SI
> 565.	0.	5. 4.	-789.99	-1.5	45.2	16.08	7.5	.013	10.02	.001	SI
650.	85.	5. 5.	25.85	-1	2.5	8.04	7.5	.001	12.55	0.	SI
820.	255.	5. 2.	-2070.62	-5.7	215.8	8.04	7.5	.063	12.55	.008	SI
> 820.	0.	5. 2.	-2030.49	-5.6	211.6	8.04	7.5	.062	12.55	.008	SI
915.	95.	5. 2.	38.8	-1	4.2	8.04	7.5	.001	12.55	0.	SI
1010.	190.	5. 6.	-892.25	-2.3	81.4	8.04	7.5	.024	12.55	.003	SI
>1010.	0.	3. 7.	-2019.37	-10.1	238.1	16.08	7.5	.07	10.02	.007	SI
1050.	40.	3. 7.	2037.36	-9.9	303.	12.57	5.9	.089	6.31	.006	SI
1115.	105.	3. 8.	1118.44	-9.3	456.5	4.52	7.5	.134	14.92	.02	SI
1290.	280.	3. 9.	-1216.08	-8.9	227.8	10.3	7.5	.067	11.11	.007	SI
>1290.	0.	3. 9.	-847.9	-6.2	158.8	10.3	7.5	.046	11.11	.005	SI
1418.	128.	3. 8.	93.64	-8	38.2	4.52	7.5	.011	14.92	.002	SI
1510.	220.	3. 10.	-92.54	-7	20.9	8.04	7.5	.006	12.55	.001	SI
>1510.	0.	7. 11.	-489.21	-10.5	275.8	9.05	5.67	.081	13.28	.011	SI
1762.	252.	7. 13.	474.16	-14.5	522.6	4.52	6.18	.153	19.31	.03	SI
2020.	510.	7. 12.	-414.42	-10.	235.	9.05	5.48	.069	13.1	.009	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	16.08	1.34	8.04	.67	4d16	8.04	.67	4d16
2	24.13	1.087	16.08	.725	4d16 +4d16	8.04	.362	4d16
3	32.17	1.449	24.13	1.087	4d16 +4d16 +4d16	8.04	.362	4d16
4	40.21	1.811	24.13	1.087	4d16 +4d16 +4d16	16.08	.725	4d16 +4d16
5	40.21	1.811	32.17	1.449	4d16 +4d16 +4d1 ...	8.04	.362	4d16
6	36.69	1.653	24.13	1.087	4d16 +4d16 +4d16	12.57	.566	4d16 +4d12
7	28.65	2.388	16.08	1.34	4d16 +4d16	12.57	1.047	4d16 +4d12
8	12.57	1.047	8.04	.67	4d16	4.52	.377	4d12
9	14.83	1.236	10.3	.859	2d12 +4d16	4.52	.377	4d12
10	26.14	2.178	8.04	.67	4d16	18.1	1.508	4d12 +4d12 +4d1 ...
11	18.1	1.81	9.05	.905	4d12 +4d12	9.05	.905	4d12 +4d12
12	13.57	1.357	9.05	.905	4d12 +4d12	4.52	.452	4d12
13	9.05	.905	4.52	.452	4d12	4.52	.452	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 92 - Travata T076  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=124.8;  $\sigma_c$  (quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO:  $\sigma_f$  (rara)=3069.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmIn= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=111.; Acl=2220. .

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1667	3	3	3	0	305.	245.
2	A1671	3	3	3	0	395.	335.
3	A1252	3	3	3	0	480.	420.
4	A1680	3	3	3	0	455.	415.

CASI DI CARICO DA MODELLO 3D

SLU		RARE		QUASI PERMANENTI				
Nome	Descrizione	Sest	Nome	Descrizione	Sest			
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-2970.53	-.056	.138	-41721.23	-1.47	10.	2.	.128	14.05	SI
0.	0.	3. 1.	2033.19	-.039	.103	38250.47	-1.33	10.	2.	.117	18.81	SI
152.	152.	3. 2.	5112.8	-.104	.26	38132.44	-1.47	10.	2.	.128	7.458	SI
229.	229.	3. 4.	-5104.64	-.083	.137	-73082.	-2.44	10.	2.	.196	14.32	SI
229.	229.	3. 4.	3663.01	-.057	.182	38430.09	-1.02	10.	2.	.092	10.49	SI
250.	250.	3. 5.	2521.73	-.033	.064	76381.5	-1.68	10.	2.	.144	30.29	SI
292.	292.	3. 5.	199.85	-.003	.005	76381.5	-1.68	10.	2.	.144	382.2	SI
305.	305.	3. 5.	-6793.72	-.089	.177	-74398.67	-1.62	10.	2.	.14	10.95	SI
> 305.	0.	3. 5.	-7545.	-.099	.196	-74398.67	-1.62	10.	2.	.14	9.861	SI
323.	18.	3. 5.	936.32	-.012	.024	76381.5	-1.68	10.	2.	.144	81.58	SI
376.	71.	3. 4.	-6161.8	-.1	.165	-73082.	-2.44	10.	2.	.196	11.86	SI
376.	71.	3. 4.	3404.36	-.053	.169	38430.09	-1.02	10.	2.	.092	11.29	SI
431.	126.	3. 2.	-46.29	-.001	.003	-32674.2	-1.23	10.	2.	.11	705.9	SI
484.	179.	3. 2.	5933.74	-.121	.301	38132.44	-1.47	10.	2.	.128	6.426	SI
626.	321.	3. 4.	-9409.26	-.153	.252	-73082.	-2.44	10.	2.	.196	7.767	SI
700.	395.	3. 5.	-11560.4	-.152	.301	-74398.67	-1.62	10.	2.	.14	6.436	SI
> 700.	0.	3. 5.	-13247.77	-.174	.345	-74398.67	-1.62	10.	2.	.14	5.616	SI
730.	30.	3. 5.	538.47	-.007	.014	76381.5	-1.68	10.	2.	.144	141.9	SI
779.	79.	3. 4.	-10058.54	-.164	.269	-73082.	-2.44	10.	2.	.196	7.266	SI
779.	79.	3. 4.	6364.19	-.099	.315	38430.09	-1.02	10.	2.	.092	6.038	SI
847.	147.	3. 2.	10970.69	-.225	.558	38132.44	-1.47	10.	2.	.128	3.476	SI
1111.	411.	3. 4.	-15042.74	-.247	.403	-73082.	-2.44	10.	2.	.196	4.858	SI
1131.	431.	3. 5.	480.11	-.006	.012	76381.5	-1.68	10.	2.	.144	159.1	SI
1180.	480.	3. 5.	-16434.35	-.217	.428	-74398.67	-1.62	10.	2.	.14	4.527	SI
>1180.	0.	3. 5.	-14217.08	-.187	.37	-74398.67	-1.62	10.	2.	.14	5.233	SI
1218.	38.	3. 5.	401.82	-.005	.01	76381.5	-1.68	10.	2.	.144	190.1	SI
1242.	62.	3. 4.	-13330.75	-.218	.357	-73082.	-2.44	10.	2.	.196	5.482	SI
1242.	62.	3. 4.	3537.89	-.055	.175	38430.09	-1.02	10.	2.	.092	10.86	SI
1323.	143.	3. 3.	-19.03	0.	.001	-64534.62	-2.07	10.	2.	.172	3391.	SI
1479.	299.	3. 2.	13915.34	-.287	.707	38132.44	-1.47	10.	2.	.128	2.74	SI
1635.	455.	3. 1.	-2499.41	-.047	.116	-41721.23	-1.47	10.	2.	.128	16.69	SI
1635.	455.	3. 1.	4456.43	-.085	.225	38250.47	-1.33	10.	2.	.117	8.583	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	8537.!	5570.	85901.	51361.	13369.	37992.	1.01	10.	SI
119.	119.	3. 1.	2104.	6785.	85901.	51361.	13369.	37992.	1.01	10.	SI
305.	305.	3. 3.	-11332.!	5570.	85901.	51361.	13369.	37992.	1.01	10.	SI
> 305.	0.	3. 3.	16589.!	5570.	85901.	51361.	13369.	37992.	1.01	10.	SI
457.	152.	3. 4.	4384.	6785.	85901.	51361.	13369.	37992.	1.01	10.	SI
700.	395.	3. 3.	-17831.!	6607.	85901.	51361.	13369.	37992.	1.01	10.	SI
> 700.	0.	3. 3.	20764.!	5570.	85901.	51361.	13369.	37992.	1.01	10.	SI
847.	147.	3. 3.	7277.	6785.	85901.	51361.	13369.	37992.	1.01	10.	SI
1180.	480.	3. 3.	-20466.!	6607.	85901.	51361.	13369.	37992.	1.01	10.	SI
>1180.	0.	3. 3.	25082.!	6607.	85901.	51361.	13369.	37992.	1.01	10.	SI
1338.	158.	3. 3.	7452.!	6785.	85901.	51361.	13369.	37992.	1.01	10.	SI
1635.	455.	3. 1.	-16447.!	5570.	85901.	51361.	13369.	37992.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	3. 1.	-652.6	-1.5	62.	10.3	7.5	.018	11.11	.002	SI
42.	42.	3. 1.	415.41	-1.	42.9	9.42	7.5	.013	12.21	.002	SI
152.	152.	3. 2.	3612.58	-9.1	375.5	9.42	7.5	.11	12.21	.013	SI
305.	305.	3. 5.	-4795.76	-8.	256.4	18.35	7.5	.075	9.59	.007	SI
> 305.	0.	3. 5.	-5322.05	-8.9	284.5	18.35	7.5	.083	9.59	.008	SI
484.	179.	3. 2.	4185.77	-10.5	435.	9.42	7.5	.127	12.21	.016	SI
700.	395.	3. 5.	-8163.57	-13.7	436.4	18.35	7.5	.145	9.59	.014	SI
> 700.	0.	3. 5.	-9352.01	-15.7	499.9	18.35	7.5	.176	9.59	.017	SI
895.	195.	3. 2.	7742.79	-19.5	804.7	9.42	7.5	.29	12.21	.035	SI
1180.	480.	3. 5.	-11597.39	-19.4	619.9	18.35	7.5	.235	9.59	.023	SI
>1180.	0.	3. 5.	-10030.86	-16.8	536.2	18.35	7.5	.194	9.59	.019	SI
1479.	299.	3. 2.	9813.11	-24.7	1019.9	9.42	7.5	.395	12.21	.048	SI
1635.	455.	3. 1.	-1725.44	-4.1	164.	10.3	7.5	.048	11.11	.005	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	3. 1.	-578.1	-1.4	54.9	10.3	7.5	.016	11.11	.002	SI
42.	42.	3. 1.	359.64	-.9	37.2	9.42	7.5	.011	12.21	.001	SI
152.	152.	3. 2.	3166.37	-8.	329.1	9.42	7.5	.096	12.21	.012	SI
305.	305.	3. 5.	-4150.85	-6.9	221.9	18.35	7.5	.065	9.59	.006	SI
> 305.	0.	3. 5.	-4584.15	-7.7	245.	18.35	7.5	.072	9.59	.007	SI
484.	179.	3. 2.	3598.39	-9.1	374.	9.42	7.5	.109	12.21	.013	SI
700.	395.	3. 5.	-7087.12	-11.9	378.8	18.35	7.5	.117	9.59	.011	SI
> 700.	0.	3. 5.	-8098.8	-13.6	432.9	18.35	7.5	.144	9.59	.014	SI
895.	195.	3. 2.	6706.36	-16.9	697.	9.42	7.5	.238	12.21	.029	SI
1180.	480.	3. 5.	-10004.04	-16.7	534.8	18.35	7.5	.193	9.59	.019	SI
>1180.	0.	3. 5.	-8611.91	-14.4	460.4	18.35	7.5	.157	9.59	.015	SI
1479.	299.	3. 2.	8402.43	-21.2	873.3	9.42	7.5	.324	12.21	.04	SI
1635.	455.	3. 1.	-1486.49	-3.5	141.3	10.3	7.5	.041	11.11	.005	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	Wk	Ve
26.	26.	3. 1.	-552.23	-1.3	52.5	10.3	7.5	.015	11.11	.002	SI
42.	42.	3. 1.	352.09	-8	36.4	9.42	7.5	.011	12.21	.001	SI
152.	152.	3. 2.	3057.14	-7.7	317.7	9.42	7.5	.093	12.21	.011	SI
305.	305.	3. 5.	-3993.42	-6.7	213.5	18.35	7.5	.062	9.59	.006	SI
> 305.	0.	3. 5.	-4392.11	-7.4	234.8	18.35	7.5	.069	9.59	.007	SI
484.	179.	3. 2.	3450.59	-8.7	358.6	9.42	7.5	.105	12.21	.013	SI
700.	395.	3. 5.	-6830.65	-11.4	365.1	18.35	7.5	.111	9.59	.011	SI
> 700.	0.	3. 5.	-7792.28	-13.	416.5	18.35	7.5	.136	9.59	.013	SI
895.	195.	3. 2.	6442.33	-16.2	669.6	9.42	7.5	.224	12.21	.027	SI
1180.	480.	3. 5.	-9610.35	-16.1	513.7	18.35	7.5	.183	9.59	.018	SI
>1180.	0.	3. 5.	-8271.13	-13.8	442.1	18.35	7.5	.148	9.59	.014	SI
1479.	299.	3. 2.	8047.12	-20.3	836.4	9.42	7.5	.306	12.21	.037	SI
1635.	455.	3. 1.	-1423.2	-3.4	135.2	10.3	7.5	.04	11.11	.004	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	19.73	.889	10.3	.464	2d12 +4d16	9.42	.425	3d20
2	17.47	.787	8.04	.362	4d16	9.42	.425	3d20
3	25.51	1.149	16.08	.725	4d16 +4d16	9.42	.425	3d20
4	27.77	1.251	18.35	.826	2d12 +4d16 +4d16	9.42	.425	3d20
5	37.2	1.676	18.35	.826	2d12 +4d16 +4d16	18.85	.849	3d20 +3d20

**SOLAI:**

VERIFICA TRAVETTO IN CEMENTO ARMATO

Nome travata : solaio ad armatura lenta  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm<sup>2</sup>; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm<sup>2</sup> - sezioni:cm e derivate.

MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; EC= 284604. ;  
 gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
 ga =1.15; fyd=3812.9; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : Scls(rara)=124.8; Scls(quasi permanente)= 93.6; fbd(esercizio)= 22.8  
 ACCIAIO: Sacc(rara)=3069. ; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SOLAI del 1° ORIZZONTAMENTO : SEZIONI UTILIZZATE

- Sezione a T : L<sub>NETTA</sub> = 560 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acl<sub>s</sub>=750. .  
 : Armatura presunta inferiore 2 Φ 16 - superiore incidenza 4.5 Kg/mq
- Sezione a T : L<sub>NETTA</sub> = 443 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acl<sub>s</sub>=750. .  
 : Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- Sezione a T : L<sub>NETTA</sub> = 410 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acl<sub>s</sub>=750. .  
 : Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- Sezione a T : L<sub>NETTA</sub> = 357 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acl<sub>s</sub>=750. .  
 : Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- Sezione a T : L<sub>NETTA</sub> = 480 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acl<sub>s</sub>=750. .  
 : Armatura presunta inferiore 1 Φ 14 + 1 Φ 16 - superiore incidenza 4.5 Kg/mq
- Sezione a T : L<sub>NETTA</sub> = 280 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acl<sub>s</sub>=750. .  
 : Armatura presunta inferiore 2 Φ 12 - superiore incidenza 4.5 Kg/mq
- Sezione a T : L<sub>NETTA</sub> = 350 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acl<sub>s</sub>=750. .  
 : Armatura presunta inferiore 1 Φ 12 + 1 Φ 14 - superiore incidenza 4.5 Kg/mq
- Sezione a T : L<sub>NETTA</sub> = 290 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acl<sub>s</sub>=750. .  
 : Armatura presunta inferiore 2 Φ 12 - superiore incidenza 4.5 Kg/mq
- Sezione a T : L<sub>NETTA</sub> = 320 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acl<sub>s</sub>=750. .  
 : Armatura presunta inferiore 2 Φ 12 - superiore incidenza 4.5 Kg/mq

- 10) Sezione a T : L<sub>NETTA</sub> = 370 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq
- 11) Sezione a T : L<sub>NETTA</sub> = 380 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq
- 12) Sezione a T : L<sub>NETTA</sub> = 180 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 10 – superiore incidenza 4.5 Kg/mq
- 13) Sezione a T : L<sub>NETTA</sub> = 245 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq
- 14) Sezione a T : L<sub>NETTA</sub> = 305 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq

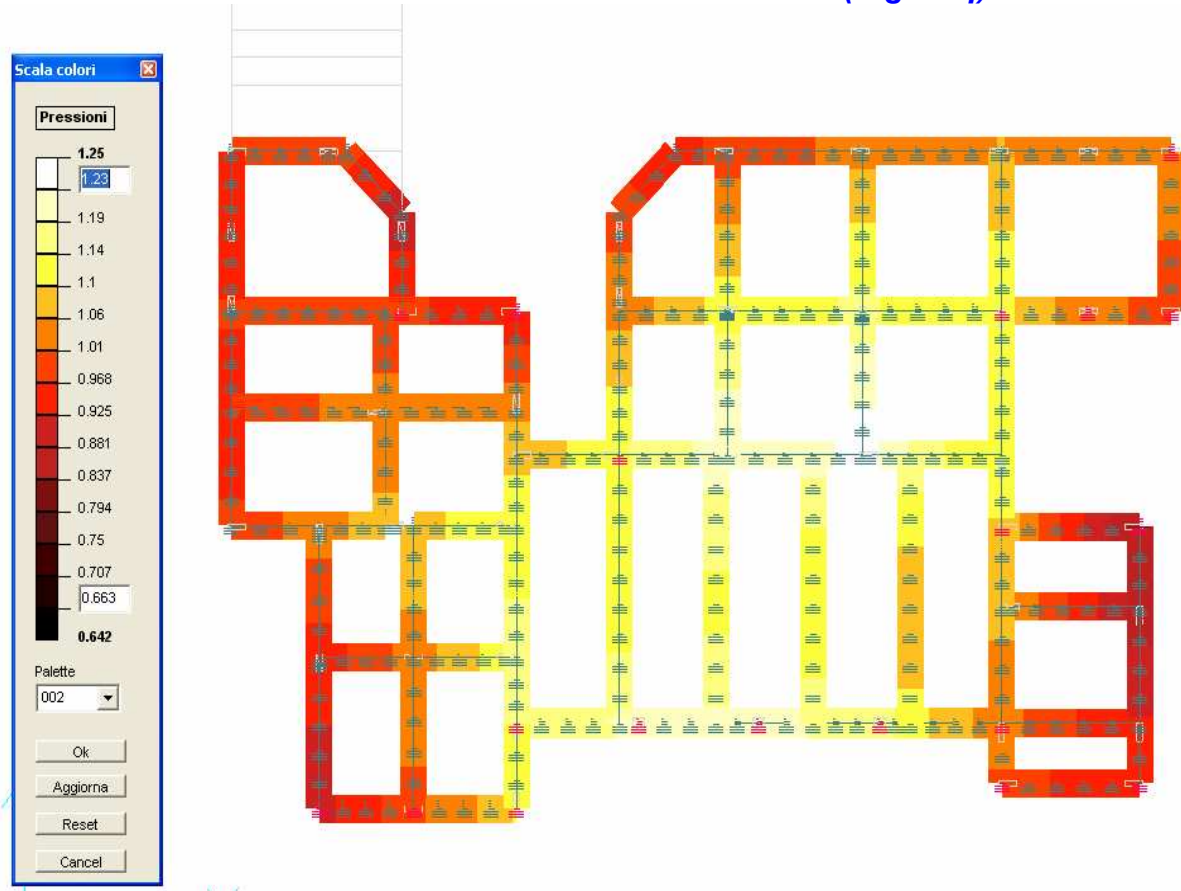
SOLAI del 2° ORIZZONTAMENTO ( COPERTURA ) LIVELLO BASSO : SEZIONI UTILIZZATE

- 1) Sezione a T : L<sub>NETTA</sub> = 490 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 16 – superiore incidenza 4.5 Kg/mq
- 2) Sezione a T : L<sub>NETTA</sub> = 440 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq
- 3) Sezione a T : L<sub>NETTA</sub> = 419 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq
- 4) Sezione a T : L<sub>NETTA</sub> = 265 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq
- 5) Sezione a T : L<sub>NETTA</sub> = 295 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq
- 6) Sezione a T : L<sub>NETTA</sub> = 485 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 16 – superiore incidenza 4.5 Kg/mq
- 7) Sezione a T : L<sub>NETTA</sub> = 125 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 10 – superiore incidenza 4.5 Kg/mq
- 8) Sezione a T : L<sub>NETTA</sub> = 245 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq

SOLAI del 2° ORIZZONTAMENTO ( COPERTURA ) LIVELLO ALTO : SEZIONI UTILIZZATE

- 1) Sezione a T : L<sub>NETTA</sub> = 780 cm largh.=50.; alt.=36.; sp.ala=5.; sp.an.=25.; AcIs= AcIs=1025. .  
: Armatura presunta inferiore 2 Φ 20 – superiore incidenza 4.5 Kg/mq

## VISUALIZZAZIONE PRESSIONE SUL MAGRONE ( Kg/cm<sup>q</sup>)



Dall'immagini sopra riportata le massime tensioni sul magrone in cls armato ( H=15 cm armatura 1Φ8/20x20 ) vale circa  $\sigma = 1,25$  kg/cm<sup>q</sup> : le conseguenti pressioni massime sul terreno saranno inferiori e pari a circa ( angolo tipo di ripartizione sul cls  $\alpha = 45^\circ$  lunghezza di riferimento fondazione B=80 cm , lunghezza di riferimento striscia di terreno interessata b1=110 cm su H=15 cm )

$\sigma = 1,0 / 1,05$  Kg/cm<sup>q</sup>

## **RELAZIONE ILLUSTRATIVA e DI CALCOLO : 1°LOTTO**

TITOLO DEL PROGETTO : SCUOLA VIA THURES – TORINO – PENSILINE METALLICHE FRONTALI

COMMITTENTE : CITTA' DI TORINO

PROGETTISTA : ( collaborazione CDM DOLMEN TORINO )

DATA : MAGGIO 2006

### 1. INDIVIDUAZIONE DEL MODELLO DI CALCOLO

#### 1.1 DESCRIZIONE GENERALE DELL'OPERA

Oggetto della presente relazione e' l'analisi delle sollecitazioni ed il calcolo della struttura in acciaio ordinario da realizzarsi in:

Comune di Torino  
Via Thures  
Proprieta': Comune di Torino  
Concessione edilizia n.

Destinazione e tipologia dell'opera:

Il sito oggetto dell'intervento presenta i seguenti caratteri morfologico-geotecnici generali:

La struttura e' composta dai seguenti elementi, previsti in calcestruzzo gettato in opera:

FONDAZIONI: travi rovesce su sottofondo armato

STRUTTURA METALLICA: Ritti e puntoni in tubolari di vario spessore

#### 1.2 NORMATIVE DI RIFERIMENTO

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

- Legge 5/11/1971 n. 1086: Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso ed a struttura metallica.
- Legge 2/2/1974 n. 64: Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche.
- C.N.R. 10024/86 del 23/7/1986: Analisi di strutture mediante elaboratore: impostazione e redazione delle relazioni di calcolo
- D.M. 14/2/1992: Norme tecniche per l'esecuzione delle opere in cemento armato normale e precompresso e per le strutture metalliche.
- D.M. 9/1/1996: Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle opere in cemento armato normale e precompresso e per le strutture metalliche.
- D.M. 16/1/1996: Norme tecniche relative ai criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e dei sovraccarichi.
- D.M. 16/1/1996: Norme tecniche per le costruzioni in zona sismica.

#### 1.3 CRITERI DI ANALISI DELLA SICUREZZA

Con riferimento alle normative precedentemente citate, le strutture in oggetto sono verificate per quanto riguarda:

- verifica di resistenza;
- verifica a deformazione e fessurazione.

Calcestruzzo per le strutture in c.a.:  $R_{ck} > 30$  MPa  
Tensione ammissibile nel cls:  $> 97.5$  dn/cm<sup>2</sup>

Acciaio in barre : Fe B 44 k controllato  
Tensione ammissibile nell'armatura:  $> 2600$  dn/cm<sup>2</sup>  
Acciaio in profilati : FE 430

#### 1.4 SCHEMATIZZAZIONE DELLA STRUTTURA E DEI VINCOLI

La struttura e' stata schematizzata escludendo il contributo degli elementi aventi rigidezza e resistenza trascurabili a fronte dei principali. E' quindi stata considerata l'orditura a telaio tridimensionale, i solai ed i setti verticali ad elevata rigidezza (vano ascensore, setti in cls).

I plinti di fondazione vengono assimilati a vincoli elastici di cui e' fornita la costante di rigidezza. Le travi di fondazione sono schematizzate come poggianti su vincoli elastici distribuiti.

#### 1.5 MODELLAZIONE DELLA STRUTTURA E DEI VINCOLI

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

#### 1.6 SCHEMATIZZAZIONE DELLE AZIONI

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

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

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

#### 1.7 MODELLAZIONE DELLE AZIONI

Sono stati adottati i seguenti valori di carico: vedi relazione a parte

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

#### 1.8 MODELLAZIONE DEI MATERIALI

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

#### 1.9 TIPO DI ANALISI

Le analisi strutturali condotte sono statiche in regime lineare. Il metodo di calcolo e' ad elementi finiti. Il calcolo sismico e' stato effettuato tramite analisi statica/dinamica. La verifica delle membrature in cemento armato viene eseguita considerando tutte le caratteristiche di sollecitazione.

### 2. INDIVIDUAZIONE DEL CODICE DI CALCOLO

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

DOLMEN WIN (R), versione 4.2 del 2006 prodotto, distribuito ed assistito dalla CDM DOLMEN srl, con sede in Torino, Via Drovetti 9/F.

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

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

#### 2.2 GRADO DI AFFIDABILITA' DEL CODICE

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



## 2.3 MOTIVAZIONE DELLA SCELTA DEL CODICE

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

## 2.4 NOTIZIE SULL'ELABORATORE

Unita' centrale di processo: Pentium IV  
sistema operativo: Windows XP ( SP2)  
capacita' di memoria: 640 Mb  
cifre significative: 10E12  
unita' di memoria di massa: hard-disk da 30Gb

## 3. ESAME DEI RISULTATI E CONTROLLI

### 3.1 VALUTAZIONE DELLA CORRETTEZZA DEL MODELLO

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

## 4. GIUDIZIO MOTIVATO DI ACCETTABILITA' DEI RISULTATI

L'analisi critica dei risultati e dei parametri di controllo nonche' il confronto con calcolazioni di massima eseguite manualmente porta ad confermare la validita' dei risultati.

## 5. ALLEGATI

Alla presente relazione si allegano le seguenti stampe:

- dati di ingresso;
- sollecitazioni nelle aste e nei gusci;
- reazioni vincolari;
- verifiche di resistenza di travi e pilastri;
- diagrammi di sollecitazioni e deformazioni.

## **DATI STRUTTURA:**

Lavoro: THI800

-----  
Unità di misura adottate:  
-----

lunghezze:	[cm]
forze:	[kgf]
coppie e momenti:	[kgfm]
carichi lineari:	[kgf/m]
carichi di superficie:	[kgf/m <sup>2</sup> ]
pesi specifici:	[kgf/m <sup>3</sup> ]
coeff. di winkler:	[daN/cm <sup>3</sup> ]
tensioni:	[daN/cm <sup>2</sup> ]
superfici:	[cm <sup>2</sup> ]
volumi:	[cm <sup>3</sup> ]
coppie distribuite:	[daNcm/cm]
aree ferri:	[cm <sup>2</sup> ]
dati sezioni:	[cm]

Carichi :

- neve : 200 Kg/mq

## DATI STRUTTURA:

\*\*\* DATI STRUTTURA

Unita` di misura :  
 LUNGHEZZE : cm  
 SUPERFICI : cm2  
 DATI SEZIONALI : cm  
 ANGOLI : gradi  
 FORZE : daN  
 MOMENTI : daNcm  
 CARICHI LINEARI : daN/cm  
 CARICHI SUPERFIC.: daN/cm2  
 TENSIONI : daN/cm2  
 PESI DI VOLUME : daN/cm3  
 COEFF. DI WINKLER: daN/cm3  
 RIGIDENZE VINCOL.: daN/cm - daNcm/rad

NODI--	Coord. X	Coord. Y	Coord. Z	num.=
1	87.760	138.963	0.000	29
2	187.760	138.963	0.000	
3	707.760	138.963	0.000	
4	1227.760	138.963	0.000	
5	1327.760	138.963	0.000	
6	187.760	138.963	500.000	
7	187.760	138.963	600.000	
8	707.760	138.963	500.000	
9	707.760	138.963	600.000	
10	1227.760	138.963	500.000	
11	1227.760	138.963	600.000	
12	37.760	138.963	600.000	
13	37.760	258.962	600.000	
14	37.760	18.962	600.000	
15	337.760	258.962	600.000	
16	337.760	138.963	600.000	
17	337.760	18.962	600.000	
18	557.760	138.963	600.000	
19	1077.760	138.963	600.000	
20	557.760	258.962	600.000	
21	1077.760	258.962	600.000	
22	557.760	18.962	600.000	
23	1077.760	18.962	600.000	
24	857.760	258.962	600.000	
25	1377.760	258.962	600.000	
26	857.760	138.963	600.000	
27	1377.760	138.963	600.000	
28	857.760	18.962	600.000	
29	1377.760	18.962	600.000	

ASTE--	Proprieta`	Nodo iniz.	Nodo fin.	Rilasci in.	Rilasci fin.	num.=	orient.
1	1	1	2			70	0.0
2	1	2	3				0.0
3	1	3	4				0.0
4	1	4	5				0.0
5	2	2	6				0.0
6	2	6	7				0.0
7	2	3	8				0.0
8	2	8	9				0.0
9	2	4	10				0.0
10	2	10	11				0.0
11	5	12	6				0.0
12	5	13	6				0.0
13	5	14	6				0.0
14	5	6	15				0.0
15	5	6	16				0.0
16	5	6	17				0.0
17	5	18	8				0.0
18	5	19	10				0.0
19	5	20	8				0.0
20	5	21	10				0.0
21	5	22	8				0.0
22	5	23	10				0.0
23	5	8	24				0.0
24	5	10	25				0.0
25	5	8	26				0.0
26	5	10	27				0.0
27	5	8	28				0.0
28	5	10	29				0.0
29	4	12	13				0.0
30	4	14	12				0.0
31	4	14	17				0.0
32	4	17	16				0.0
33	4	16	15				0.0
34	4	13	15				0.0

35	4	12	7	0.0
36	4	7	16	0.0
37	4	13	7	0.0
38	4	7	17	0.0
39	4	14	7	0.0
40	4	7	15	0.0
41	4	18	20	0.0
42	4	19	21	0.0
43	4	22	18	0.0
44	4	23	19	0.0
45	4	22	28	0.0
46	4	23	29	0.0
47	4	28	26	0.0
48	4	29	27	0.0
49	4	26	24	0.0
50	4	27	25	0.0
51	4	20	24	0.0
52	4	21	25	0.0
53	4	18	9	0.0
54	4	19	11	0.0
55	4	9	26	0.0
56	4	11	27	0.0
57	4	20	9	0.0
58	4	21	11	0.0
59	4	9	28	0.0
60	4	11	29	0.0
61	4	22	9	0.0
62	4	23	11	0.0
63	4	9	24	0.0
64	4	11	25	0.0
65	4	15	20	0.0
66	4	24	21	0.0
67	4	16	18	0.0
68	4	26	19	0.0
69	4	17	22	0.0
70	4	28	23	0.0

PROPRIETA' ASTE----		-----	-----	-----	-----	num.=
Nome	Materiale	Base	Altezza	Area	Area tag. Y	Area tag. Z
		Kw vertic.	Kw orizz.	J tors.	J fless. Y	J fless. Z
1	1	140.00	100.00	1.40000E+04	1.16667E+04	1.16667E+04
2	2	10.000000	10.000000	2.61219E+07	2.28667E+07	1.16667E+07
4	2	27.30	26.18	5.28000E+01	4.75200E+01	4.75200E+01
		0.000000	0.000000	9.39200E+03	4.69600E+03	4.69600E+03
5	2	8.89	7.47	1.82000E+01	1.63800E+01	1.63800E+01
		0.000000	0.000000	3.08000E+02	1.54000E+02	1.54000E+02
		13.97	12.55	2.96000E+01	2.66400E+01	2.66400E+01
		0.000000	0.000000	1.30400E+03	6.52000E+02	6.52000E+02

MATERIALI-----		-----	-----	-----	-----	num.=
Nome	Mod. elast.	Coeff. nu	Mod. tang.	Peso spec.	Dil. te.	
1	3.00000E+05	1.50000E-01	1.30000E+05	2.50000E-03	1.00000E-05	2
2	2.10000E+06	3.00000E-01	8.50000E+05	7.85000E-03	1.00000E-05	

VINCOLI-----		-----	-----	-----	-----	-----	num.=
Nodo	Rigid. X	Rigid. Y	Rigid. Z	Rigid. RX	Rigid. RY	Rigid. RZ	
1	bloccato	bloccato	libero	libero	libero	libero	5
2	bloccato	bloccato	libero	libero	libero	libero	
3	bloccato	bloccato	libero	libero	libero	libero	
4	bloccato	bloccato	libero	libero	libero	libero	
5	bloccato	bloccato	libero	libero	libero	libero	

CARICHI NODI-----		-----	-----	-----	-----	num.=
Nome	Nodo	Direzione	Intensita			
1 D001	14	Y	3.8			
2 D001	12	Y	2.3			
3 D001	6	Y	5.1			
4 D001	13	Y	3.8			
5 D001	7	Y	4.5			
6 D001	17	Y	5.8			
7 D001	16	Y	4.2			
8 D001	22	Y	5.8			
9 D001	15	Y	5.8			
10 D001	18	Y	4.3			
11 D001	8	Y	5.1			
12 D001	20	Y	5.8			
13 D001	9	Y	4.5			
14 D001	28	Y	5.8			
15 D001	26	Y	4.3			
16 D001	23	Y	5.8			
17 D001	24	Y	5.8			
18 D001	19	Y	4.2			
19 D001	10	Y	5.1			
20 D001	21	Y	5.8			
21 D001	11	Y	4.5			
22 D001	29	Y	3.8			
23 D001	27	Y	2.3			
24 D001	25	Y	3.8			

25	D003	14	X	5.1
26	D003	12	X	3.0
27	D003	6	X	7.7
28	D003	13	X	5.1
29	D003	7	X	6.0
30	D003	17	X	7.7
31	D003	16	X	5.6
32	D003	22	X	7.7
33	D003	15	X	7.7
34	D003	18	X	5.6
35	D003	8	X	8.5
36	D003	20	X	7.7
37	D003	9	X	6.0
38	D003	28	X	7.7
39	D003	26	X	5.6
40	D003	23	X	7.7
41	D003	24	X	7.7
42	D003	19	X	5.6
43	D003	10	X	7.7
44	D003	21	X	7.7
45	D003	11	X	6.0
46	D003	29	X	5.1
47	D003	27	X	3.0
48	D003	25	X	5.1
49	SX	6	X	7.6
50	SX	8	X	7.6
51	SX	10	X	7.6
52	SX	7	X	6.0
53	SX	9	X	6.0
54	SX	11	X	6.0
55	SX	12	X	3.1
56	SX	13	X	5.2
57	SX	14	X	5.2
58	SX	15	X	7.8
59	SX	16	X	5.7
60	SX	17	X	7.8
61	SX	18	X	5.7
62	SX	19	X	5.7
63	SX	20	X	7.8
64	SX	21	X	7.8
65	SX	22	X	7.8
66	SX	23	X	7.8
67	SX	24	X	7.8
68	SX	25	X	5.2
69	SX	26	X	5.7
70	SX	27	X	3.1
71	SX	28	X	7.8
72	SX	29	X	5.2
73	SY	6	Y	7.6
74	SY	8	Y	7.6
75	SY	10	Y	7.6
76	SY	7	Y	6.0
77	SY	9	Y	6.0
78	SY	11	Y	6.0
79	SY	12	Y	3.1
80	SY	13	Y	5.2
81	SY	14	Y	5.2
82	SY	15	Y	7.8
83	SY	16	Y	5.7
84	SY	17	Y	7.8
85	SY	18	Y	5.7
86	SY	19	Y	5.7
87	SY	20	Y	7.8
88	SY	21	Y	7.8
89	SY	22	Y	7.8
90	SY	23	Y	7.8
91	SY	24	Y	7.8
92	SY	25	Y	5.2
93	SY	26	Y	5.7
94	SY	27	Y	3.1
95	SY	28	Y	7.8
96	SY	29	Y	5.2
97	MadX	7	X	0.0
98	MadX	9	X	0.0
99	MadX	11	X	0.0
100	MadX	12	X	0.0
101	MadX	13	X	0.8
102	MadX	14	X	-0.8
103	MadX	15	X	1.2
104	MadX	16	X	0.0
105	MadX	17	X	-1.2
106	MadX	18	X	0.0
107	MadX	19	X	0.0
108	MadX	20	X	1.2
109	MadX	21	X	1.2
110	MadX	22	X	-1.2
111	MadX	23	X	-1.2
112	MadX	24	X	1.2

113	MadX	25	X	0.8
114	MadX	26	X	0.0
115	MadX	27	X	0.0
116	MadX	28	X	-1.2
117	MadX	29	X	-0.8
118	Mady	6	Y	-1.1
119	Mady	8	Y	0.0
120	Mady	10	Y	1.1
121	Mady	7	Y	-1.2
122	Mady	9	Y	0.0
123	Mady	11	Y	1.2
124	Mady	12	Y	-0.8
125	Mady	13	Y	-1.4
126	Mady	14	Y	-1.4
127	Mady	15	Y	-1.1
128	Mady	16	Y	-0.8
129	Mady	17	Y	-1.1
130	Mady	18	Y	-0.3
131	Mady	19	Y	0.8
132	Mady	20	Y	-0.5
133	Mady	21	Y	1.1
134	Mady	22	Y	-0.5
135	Mady	23	Y	1.1
136	Mady	24	Y	0.5
137	Mady	25	Y	1.4
138	Mady	26	Y	0.3
139	Mady	27	Y	0.8
140	Mady	28	Y	0.5
141	Mady	29	Y	1.4

CARICHI ASTE----- ----- ----- ----- ----- num.= 88									
Nome	Asta	Dir	Tip	RIF	Parametro 1	Parametro 2	Parametro 3	Parametro 4	
142	neve	34	Z	FD	glo	-2.942			
143	neve	65	Z	FD	glo	-2.942			
144	neve	51	Z	FD	glo	-2.942			
145	neve	66	Z	FD	glo	-2.942			
146	neve	52	Z	FD	glo	-2.942			
147	neve	31	Z	FD	glo	-2.942			
148	neve	69	Z	FD	glo	-2.942			
149	neve	45	Z	FD	glo	-2.942			
150	neve	70	Z	FD	glo	-2.942			
151	neve	46	Z	FD	glo	-2.942			
152	neve	35	Z	FD	glo	-2.942			
153	neve	36	Z	FD	glo	-2.942			
154	neve	67	Z	FD	glo	-2.942			
155	neve	53	Z	FD	glo	-2.942			
156	neve	55	Z	FD	glo	-2.942			
157	neve	68	Z	FD	glo	-2.942			
158	neve	54	Z	FD	glo	-2.942			
159	neve	56	Z	FD	glo	-2.942			

PESI PROPRI ASTE-- ----- ----- ----- -----				
Cond.	Nome Carichi	Aste		
1	160-225	5-70		
2	226-229	1-4		

CONDIZIONI DI CARICO----- ----- ----- ----- num.= 9				
Nome		N. carichi:		
1	Peso_proprio_____	66		
	Lista carichi: 160-225			
2	Peso_Proprio_fondaz	4		
	Lista carichi: 226-229			
3	Carichi_copertura__	18		
	Lista carichi: 142-159			
4	Sisma_X	24		
	Lista carichi: 49-72			
5	Sisma_Y	24		
	Lista carichi: 73-96			
6	Torcente_add._X	21		
	Lista carichi: 97-117			
7	Torcente_add._Y	24		
	Lista carichi: 118-141			
8	Autovett_001_(Y)	24		
	Lista carichi: 1-24			
9	Autovett_003_(X)	24		
	Lista carichi: 25-48			

## DATI ANALISI SISMICA:

ANALISI DINAMICA

Lavoro : \thu800

PARAMETRI DI CALCOLO:

Calcolo secondo Ordinanza P.C.M. 3274

Modello generale

Assi di vibrazione: X Y

Somma quadratica semplice (SRSS)

Accelerazione di picco al suolo = 0.05g

Zona sismica = 4

Categoria del suolo di fondazione = C

Fattore di struttura q = 4.950

q = q0 \* KD \* KR dove :

q0 = 4.5 ( Strutture a telaio ) \* 1.1 ( Edifici a telaio di un piano )

KD = 1.0 ( Classe di duttilità "A" )

KR = 1.0 ( Edifici regolari in altezza )

CONDIZIONI DI RIFERIMENTO	COEFFICIENTE	PESO RISULTANTE
1.	1.000	[dan] 2782.9
3.	0.200	2365.4

\*\*\* TABELLA AUTOVETTORI \*\*\*

n	PERIODO [sec]	MASSA ATTIVATA			COEFFICIENTI DI CORRELAZIONE							
		%X	%Y	%Z	n+1	n+2	n+3	n+4	n+5	n+6	n+7	
1	0.680065	0.000	99.101	0.000	0.000	0.000						
2	0.460592	0.000	0.000	0.000	0.000							
3	0.352679	99.789	0.000	0.000								
MASSA TOTALE		99.789	99.101	0.000								

## DESCRIZIONE CASI DI CARICO:

NOME	DESCRIZIONE	TIPO	CONDIZ. INSERITE			CASI INSERITI	
			Num.	Coeff.	Segno	Num.	Coeff.
1	SLU SENZA SISMA	somma	1	1.400	+		
			2	1.400	+		
			3	1.500	+		
2	SISMAX SLU	somma	6	1.000	±		
			9	1.000	quadr.		
3	SISMAY SLU	somma	7	1.000	±		
			8	1.000	quadr.		
4	SLU SISMAX PRINC	somma	1	1.000	+	2	1.000
			2	1.000	+	3	0.300
			3	0.200	+		
5	SLU SISMAY PRINC	somma	1	1.000	+	3	1.000
			2	1.000	+	2	0.300
			3	0.200	+		
6	SLD SISMAX PRINC	somma	1	1.000	+	2	1.650
			2	1.000	+	3	0.495
			3	0.200	+		
7	SLD SISMAY PRINC	somma	1	1.000	+	3	1.650
			2	1.000	+	2	0.495
			3	0.200	+		
8	Rara	somma	1	1.000	+		
			2	1.000	+		
			3	1.000	+		
9	Frequente	somma	1	1.000	+		
			2	1.000	+		
			3	0.200	+		
10	Quasi Perm	somma	1	1.000	+		
			2	1.000	+		

## VERIFICA ASTE IN ACCIAIO :

VERIFICA ASTE IN ACCIAIO  
RIASSUNTO DELLE ASTE VERIFICATE CON L'ULTIMO CALCOLO EFFETTUATO

asta	5	- sez.	2	-	P_TUBO273x6.3_S002	-	23%	della	Si	limite.
asta	6	- sez.	2	-	P_TUBO273x6.3_S002	-	14%	della	Si	limite.
asta	7	- sez.	2	-	P_TUBO273x6.3_S002	-	8%	della	Si	limite.
asta	8	- sez.	2	-	P_TUBO273x6.3_S002	-	2%	della	Si	limite.
asta	9	- sez.	2	-	P_TUBO273x6.3_S002	-	23%	della	Si	limite.
asta	10	- sez.	2	-	P_TUBO273x6.3_S002	-	14%	della	Si	limite.
asta	29	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	30	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	31	- sez.	4	-	P_TUBO88.9x7.1_S004	-	37%	della	Si	limite.
asta	32	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	33	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	34	- sez.	4	-	P_TUBO88.9x7.1_S004	-	37%	della	Si	limite.
asta	35	- sez.	4	-	P_TUBO88.9x7.1_S004	-	14%	della	Si	limite.
asta	36	- sez.	4	-	P_TUBO88.9x7.1_S004	-	11%	della	Si	limite.
asta	37	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	38	- sez.	4	-	P_TUBO88.9x7.1_S004	-	7%	della	Si	limite.
asta	39	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	40	- sez.	4	-	P_TUBO88.9x7.1_S004	-	7%	della	Si	limite.
asta	41	- sez.	4	-	P_TUBO88.9x7.1_S004	-	4%	della	Si	limite.
asta	42	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	43	- sez.	4	-	P_TUBO88.9x7.1_S004	-	4%	della	Si	limite.
asta	44	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	45	- sez.	4	-	P_TUBO88.9x7.1_S004	-	40%	della	Si	limite.
asta	46	- sez.	4	-	P_TUBO88.9x7.1_S004	-	37%	della	Si	limite.
asta	47	- sez.	4	-	P_TUBO88.9x7.1_S004	-	4%	della	Si	limite.
asta	48	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	49	- sez.	4	-	P_TUBO88.9x7.1_S004	-	4%	della	Si	limite.
asta	50	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	51	- sez.	4	-	P_TUBO88.9x7.1_S004	-	40%	della	Si	limite.
asta	52	- sez.	4	-	P_TUBO88.9x7.1_S004	-	37%	della	Si	limite.
asta	53	- sez.	4	-	P_TUBO88.9x7.1_S004	-	17%	della	Si	limite.
asta	54	- sez.	4	-	P_TUBO88.9x7.1_S004	-	11%	della	Si	limite.
asta	55	- sez.	4	-	P_TUBO88.9x7.1_S004	-	17%	della	Si	limite.
asta	56	- sez.	4	-	P_TUBO88.9x7.1_S004	-	14%	della	Si	limite.
asta	57	- sez.	4	-	P_TUBO88.9x7.1_S004	-	5%	della	Si	limite.
asta	58	- sez.	4	-	P_TUBO88.9x7.1_S004	-	7%	della	Si	limite.
asta	59	- sez.	4	-	P_TUBO88.9x7.1_S004	-	5%	della	Si	limite.
asta	60	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	61	- sez.	4	-	P_TUBO88.9x7.1_S004	-	5%	della	Si	limite.
asta	62	- sez.	4	-	P_TUBO88.9x7.1_S004	-	7%	della	Si	limite.
asta	63	- sez.	4	-	P_TUBO88.9x7.1_S004	-	5%	della	Si	limite.
asta	64	- sez.	4	-	P_TUBO88.9x7.1_S004	-	8%	della	Si	limite.
asta	65	- sez.	4	-	P_TUBO88.9x7.1_S004	-	33%	della	Si	limite.
asta	66	- sez.	4	-	P_TUBO88.9x7.1_S004	-	33%	della	Si	limite.
asta	67	- sez.	4	-	P_TUBO88.9x7.1_S004	-	32%	della	Si	limite.
asta	68	- sez.	4	-	P_TUBO88.9x7.1_S004	-	32%	della	Si	limite.
asta	69	- sez.	4	-	P_TUBO88.9x7.1_S004	-	33%	della	Si	limite.
asta	70	- sez.	4	-	P_TUBO88.9x7.1_S004	-	33%	della	Si	limite.
asta	11	- sez.	5	-	P_TUBO139.7x7.1_S005	-	4%	della	Si	limite.
asta	12	- sez.	5	-	P_TUBO139.7x7.1_S005	-	11%	della	Si	limite.
asta	13	- sez.	5	-	P_TUBO139.7x7.1_S005	-	11%	della	Si	limite.
asta	14	- sez.	5	-	P_TUBO139.7x7.1_S005	-	12%	della	Si	limite.
asta	15	- sez.	5	-	P_TUBO139.7x7.1_S005	-	8%	della	Si	limite.
asta	16	- sez.	5	-	P_TUBO139.7x7.1_S005	-	12%	della	Si	limite.
asta	17	- sez.	5	-	P_TUBO139.7x7.1_S005	-	9%	della	Si	limite.
asta	18	- sez.	5	-	P_TUBO139.7x7.1_S005	-	8%	della	Si	limite.
asta	19	- sez.	5	-	P_TUBO139.7x7.1_S005	-	6%	della	Si	limite.
asta	20	- sez.	5	-	P_TUBO139.7x7.1_S005	-	12%	della	Si	limite.
asta	21	- sez.	5	-	P_TUBO139.7x7.1_S005	-	6%	della	Si	limite.
asta	22	- sez.	5	-	P_TUBO139.7x7.1_S005	-	12%	della	Si	limite.
asta	23	- sez.	5	-	P_TUBO139.7x7.1_S005	-	6%	della	Si	limite.
asta	24	- sez.	5	-	P_TUBO139.7x7.1_S005	-	11%	della	Si	limite.
asta	25	- sez.	5	-	P_TUBO139.7x7.1_S005	-	9%	della	Si	limite.
asta	26	- sez.	5	-	P_TUBO139.7x7.1_S005	-	4%	della	Si	limite.
asta	27	- sez.	5	-	P_TUBO139.7x7.1_S005	-	6%	della	Si	limite.
asta	28	- sez.	5	-	P_TUBO139.7x7.1_S005	-	11%	della	Si	limite.

## RELAZIONE ILLUSTRATIVA E DI CALCOLO LOTTO 2

### 1. INDIVIDUAZIONE DEL MODELLO DI CALCOLO

#### 1.1 DESCRIZIONE GENERALE DELL'OPERA

Oggetto della presente relazione e' l'analisi delle sollecitazioni ed il calcolo della struttura in cemento armato ordinario da realizzarsi in: Comune di Torino - Via Thures

Destinazione e tipologia dell'opera:

Il sito oggetto dell'intervento presenta i seguenti caratteri morfologico-geotecnici generali:

La struttura e' composta dai seguenti elementi, previsti in calcestruzzo gettato in opera:

FONDAZIONI: travi rovesce su sottofondo armato

TRAVI: Travi a sezione nello spessore e rialzate

PILASTRI/SETTI : Pilastri interni a sezione RETTANGOLARE E CIRCOLARE , SETTI dimensione  $b_1=20$  cm  $b_2 =$  variabile

SOLAI: Solai in LASTRE TIPO PREDALLE CON ALTEZZA VARIABILE (25,30 e 36 cm )

#### 1.2 NORMATIVE DI RIFERIMENTO

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

- Legge 5/11/1971 n. 1086: Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso ed a struttura metallica.
- Legge 2/2/1974 n. 64: Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche.
- C.N.R. 10024/86 del 23/7/1986: Analisi di strutture mediante elaboratore: impostazione e redazione delle relazioni di calcolo
- D.M. 14/2/1992: Norme tecniche per l'esecuzione delle opere in cemento armato normale e precompresso e per le strutture metalliche.
- D.M. 9/1/1996: Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle opere in cemento armato normale e precompresso e per le strutture metalliche.
- D.M. 16/1/1996: Norme tecniche relative ai criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e dei sovraccarichi.
- D.M. 16/1/1996: Norme tecniche per le costruzioni in zona sismica.

#### 1.3 CRITERI DI ANALISI DELLA SICUREZZA

Con riferimento alle normative precedentemente citate, le strutture in oggetto sono verificate per quanto riguarda:

- verifica di resistenza;
- verifica a deformazione e fessurazione.

Calcestruzzo per le strutture in elevazione:  $R_{ck} > 30$  MPa  
Tensione ammissibile nel cls:  $> 97.5$  dn/cm<sup>2</sup>

Acciaio in barre : Fe B 44 k controllato  
Tensione ammissibile nell'armatura:  $> 2600$  dn/cm<sup>2</sup>

#### 1.4 SCHEMATIZZAZIONE DELLA STRUTTURA E DEI VINCOLI

La struttura e' stata schematizzata escludendo il contributo degli elementi aventi rigidezza e resistenza trascurabili a fronte dei principali. E' quindi stata considerata l'orditura a telaio tridimensionale, i solai ed i setti verticali ad elevata rigidezza (vano ascensore, setti in cls). I plinti di fondazione vengono assimilati a vincoli elastici di cui e' fornita la costante di rigidezza. Le travi di fondazione sono schematizzate come poggianti su vincoli elastici distribuiti.

#### 1.5 MODELLAZIONE DELLA STRUTTURA E DEI VINCOLI

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

#### 1.6 SCHEMATIZZAZIONE DELLE AZIONI

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

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

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



## 1.7 MODELLAZIONE DELLE AZIONI

Sono stati adottati i seguenti valori di carico: vedi relazione a parte

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

## 1.8 MODELLAZIONE DEI MATERIALI

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

## 1.9 TIPO DI ANALISI

Le analisi strutturali condotte sono statiche in regime lineare. Il metodo di calcolo e' ad elementi finiti. Il calcolo sismico e' stato effettuato tramite analisi statica/dinamica. La verifica delle membrature in cemento armato viene eseguita considerando tutte le caratteristiche di sollecitazione.

## 2. INDIVIDUAZIONE DEL CODICE DI CALCOLO

Per il calcolo delle sollecitazioni e per la verifica di travi e pilastri in cemento armato si e' fatto ricorso all'elaboratore elettronico utilizzando il seguente programma di calcolo: DOLMEN WIN (R), versione 4.2 del 2006 prodotto, distribuito ed assistito dalla CDM DOLMEN srl, con sede in Torino, Via Drovetti 9/F.

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

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

## 2.2 GRADO DI AFFIDABILITA' DEL CODICE

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

## 2.3 MOTIVAZIONE DELLA SCELTA DEL CODICE

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

## 2.4 NOTIZIE SULL'ELABORATORE

Unita' centrale di processo: Pentium IV  
sistema operativo: windows XP ( SP2)  
capacita' di memoria: 640 Mb  
cifre significative: 10E12  
unita' di memoria di massa: hard-disk da 30Gb

## 3. ESAME DEI RISULTATI E CONTROLLI

### 3.1 VALUTAZIONE DELLA CORRETTEZZA DEL MODELLO

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

## 4. GIUDIZIO MOTIVATO DI ACCETTABILITA' DEI RISULTATI

L'analisi critica dei risultati e dei parametri di controllo nonche' il confronto con calcolazioni di massima eseguite manualmente porta ad confermare la validita' dei risultati.

## 5. ALLEGATI

Alla presente relazione si allegano le seguenti stampe:  
- dati di ingresso;  
- sollecitazioni nelle aste e nei gusci;  
- reazioni vincolari;  
- verifiche di resistenza di travi e pilastri;  
- diagrammi di sollecitazioni e deformazioni.

## DATI STRUTTURA:

Lavoro: THU210

-----  
Unità di misura adottate:  
-----

lunghezze:	[cm]
forze:	[kgf]
coppie e momenti:	[kgfm]
carichi lineari:	[kgf/m]
carichi di superficie:	[kgf/m <sup>2</sup> ]
pesi specifici:	[kgf/m <sup>3</sup> ]
coeff. di Winkler:	[daN/cm <sup>3</sup> ]
tensioni:	[daN/cm <sup>2</sup> ]
superfici:	[cm <sup>2</sup> ]
volumi:	[cm <sup>3</sup> ]
coppie distribuite:	[daNcm/cm]
aree ferri:	[cm <sup>2</sup> ]
dati sezioni:	[cm]

Carichi :

- solai in predalle con altezza variabile

H=25 peso 400 Kg/mq

H=30 peso 500 Kg/mq

H=36 peso 700 Kg/mq

- permanente solai di calpestio : 300 Kg/mq

- variabile solai : 500 Kg/mq

- carichi sul solaio di copertura : 200 Kg/mq come indice  
di riferimento peso proprio della copertura metallica

- neve : 200 Kg/mq

- giardino pensile : 600 Kg/mq

NODI--|-----|-----|-----|-----|-----|num.= 1519

Nome	Coord. X	Coord. Y	Coord. Z
1	5118.349	1086.142	-160.000
2	5207.668	1086.142	-160.000
3	5207.666	1086.142	-61.667
4	5118.347	1086.142	-61.667
5	5207.664	1086.142	36.667
6	5118.345	1086.142	36.667
7	5207.661	1086.142	135.000
8	5118.343	1086.142	135.000
9	5029.029	1086.142	-160.000
10	5029.028	1086.142	-61.667
11	5029.027	1086.142	36.667
12	5029.025	1086.142	135.000
13	4939.710	1086.142	-160.000
14	4939.709	1086.142	-61.667
15	4939.708	1086.142	36.667
16	4939.707	1086.142	135.000
17	4850.391	1086.142	-160.000
18	4850.390	1086.142	-61.667
19	4850.390	1086.142	36.667
20	4850.389	1086.142	135.000
21	4761.071	1086.142	-160.000
22	4761.071	1086.142	-61.667
23	4761.071	1086.142	36.667
24	4761.071	1086.142	135.000
25	5606.407	1086.142	-160.000
26	5706.092	1086.142	-160.000
27	5706.092	1086.142	-61.667
28	5606.407	1086.142	-61.667
29	5706.092	1086.142	36.667
30	5606.406	1086.142	36.667
31	5706.092	1086.142	135.000
32	5606.406	1086.142	135.000
33	5506.723	1086.142	-160.000
34	5506.722	1086.142	-61.667
35	5506.721	1086.142	36.667
36	5506.720	1086.142	135.000
37	5407.038	1086.142	-160.000
38	5407.036	1086.142	-61.667
39	5407.035	1086.142	36.667
40	5407.033	1086.142	135.000
41	5307.353	1086.142	-160.000
42	5307.351	1086.142	-61.667
43	5307.349	1086.142	36.667
44	5307.347	1086.142	135.000
45	4741.076	1086.142	36.667
46	4741.076	1086.142	135.000
47	4741.076	1086.142	-61.667

48	4741.076	1086.142	-160.000
49	5706.092	1106.143	135.000
50	5706.092	1106.143	36.667
51	5706.092	1106.143	-61.667
52	5706.092	1106.143	-160.000
53	5706.092	1198.642	-61.667
54	5706.092	1198.642	-160.000
55	5706.092	1198.642	36.667
56	5706.092	1198.642	135.000
74	5706.092	1661.133	-160.000
76	5706.092	1661.133	135.000
90	5706.092	2051.125	-160.000
92	5706.092	2051.125	135.000
121	5207.661	2071.135	135.000
123	5207.661	2071.135	-160.000
140	4741.091	2071.135	-160.000
141	4741.091	2071.135	-61.667
142	4741.091	2071.135	36.667
143	4741.091	2071.135	135.000
144	4741.091	2128.656	135.000
145	4741.091	2128.656	36.667
146	4741.091	2186.177	135.000
147	4741.091	2186.177	36.667
148	4741.091	2128.656	-61.667
149	4741.091	2186.177	-61.667
150	4741.091	2128.656	-160.000
151	4741.091	2186.177	-160.000
152	4741.091	2046.129	36.667
153	4741.091	2046.129	135.000
154	4741.091	2046.129	-61.667
155	4741.091	2046.129	-160.000
156	4741.091	1953.634	36.667
157	4741.091	1953.634	135.000
158	4741.091	1861.139	36.667
159	4741.091	1861.139	135.000
160	4741.091	1953.634	-61.667
161	4741.091	1861.139	-61.667
162	4741.091	1953.634	-160.000
163	4741.091	1861.139	-160.000
164	4741.091	1794.470	-160.000
165	4741.091	1794.470	-61.667
166	4741.091	1794.470	36.667
167	4741.091	1794.470	135.000
168	4741.091	1727.802	-160.000
169	4741.091	1727.802	-61.667
170	4741.091	1727.802	36.667
171	4741.091	1727.802	135.000
172	4741.091	1661.133	-160.000
173	4741.091	1661.133	-61.667
174	4741.091	1661.133	36.667
175	4741.091	1661.133	135.000
176	4741.076	1148.642	135.000
177	4741.076	1148.642	36.667
178	4741.076	1211.142	135.000
179	4741.076	1211.142	36.667
180	4741.076	1148.642	-61.667
181	4741.076	1211.142	-61.667
182	4741.076	1148.642	-160.000
183	4741.076	1211.142	-160.000
184	4741.079	1301.141	-61.667
185	4741.079	1301.141	-160.000
186	4741.079	1301.141	36.667
187	4741.079	1301.141	135.000
188	4741.082	1391.139	-61.667
189	4741.082	1391.139	-160.000
190	4741.082	1391.139	36.667
191	4741.082	1391.139	135.000
192	4741.085	1481.137	-61.667
193	4741.085	1481.137	-160.000
194	4741.085	1481.137	36.667
195	4741.085	1481.137	135.000
196	4741.088	1571.135	-61.667
197	4741.088	1571.135	-160.000
198	4741.088	1571.135	36.667
199	4741.088	1571.135	135.000
228	1192.092	1722.809	0.000
229	1192.092	1816.142	0.000
230	1192.092	1816.142	67.500
231	1192.092	1722.809	67.500
232	1192.092	1816.142	135.000
233	1192.092	1722.809	135.000
234	1192.092	1629.476	0.000
235	1192.092	1629.476	67.500
236	1192.092	1629.476	135.000
237	1192.092	1536.142	0.000
238	1192.092	1536.142	67.500
239	1192.092	1536.142	135.000
240	1282.292	1536.142	67.500

241	1282.292	1536.142	0.000
242	1282.292	1536.142	135.000
243	1372.492	1536.142	67.500
244	1372.492	1536.142	0.000
245	1372.492	1536.142	135.000
246	1462.692	1536.142	67.500
247	1462.692	1536.142	0.000
248	1462.692	1536.142	135.000
249	1552.892	1536.142	67.500
250	1552.892	1536.142	0.000
251	1552.892	1536.142	135.000
252	1643.092	1536.142	67.500
253	1643.092	1536.142	0.000
254	1643.092	1536.142	135.000
255	1658.092	1536.142	135.000
256	1658.092	1536.142	67.500
257	1658.092	1536.142	0.000
258	1658.092	1444.889	0.000
259	1658.092	1444.889	67.500
260	1658.092	1444.889	135.000
261	1658.092	1353.637	0.000
262	1658.092	1353.637	67.500
263	1658.092	1353.637	135.000
264	1658.092	1262.383	0.000
265	1658.092	1262.383	67.500
266	1658.092	1262.383	135.000
267	1658.092	1171.130	0.000
268	1658.092	1171.130	67.500
269	1658.092	1171.130	135.000
270	1658.092	1083.636	0.000
271	1658.092	1083.636	67.500
272	1658.092	1083.636	135.000
273	1658.092	996.143	0.000
274	1658.092	996.143	67.500
275	1658.092	996.143	135.000
276	1678.092	996.143	135.000
277	1678.092	996.143	67.500
278	1678.092	996.143	0.000
279	1764.092	996.143	67.500
280	1764.092	996.143	0.000
281	1764.092	996.143	135.000
282	1850.092	996.143	67.500
283	1850.092	996.143	0.000
284	1850.092	996.143	135.000
285	1936.092	996.143	67.500
286	1936.092	996.143	0.000
287	1936.092	996.143	135.000
288	2022.092	996.143	67.500
289	2022.092	996.143	0.000
290	2022.092	996.143	135.000
291	2108.092	996.143	67.500
292	2108.092	996.143	0.000
293	2108.092	996.143	135.000
294	2128.092	996.143	135.000
295	2128.092	996.143	67.500
296	2128.092	996.143	0.000
297	2128.092	1083.636	67.500
298	2128.092	1083.636	0.000
299	2128.092	1083.636	135.000
300	2128.092	1171.130	67.500
301	2128.092	1171.130	0.000
302	2128.092	1171.130	135.000
303	2128.092	1211.142	135.000
304	2128.092	1211.142	67.500
305	2128.092	1211.142	0.000
306	2211.203	1211.142	67.500
307	2211.203	1211.142	0.000
308	2211.203	1211.142	135.000
309	2294.314	1211.142	67.500
310	2294.314	1211.142	0.000
311	2294.314	1211.142	135.000
312	2377.426	1211.142	67.500
313	2377.426	1211.142	0.000
314	2377.426	1211.142	135.000
315	2460.537	1211.142	67.500
316	2460.537	1211.142	0.000
317	2460.537	1211.142	135.000
318	2543.648	1211.142	67.500
319	2543.648	1211.142	0.000
320	2543.648	1211.142	135.000
321	2625.648	1211.142	67.500
322	2625.648	1211.142	0.000
323	2625.648	1211.142	135.000
324	2707.648	1211.142	67.500
325	2707.648	1211.142	0.000
326	2707.648	1211.142	135.000
327	2789.648	1211.142	67.500
328	2789.648	1211.142	0.000

329	2789.648	1211.142	135.000
330	2871.648	1211.142	67.500
331	2871.648	1211.142	0.000
332	2871.648	1211.142	135.000
333	2953.648	1211.142	67.500
334	2953.648	1211.142	0.000
335	2953.648	1211.142	135.000
336	3035.648	1211.142	67.500
337	3035.648	1211.142	0.000
338	3035.648	1211.142	135.000
339	3117.648	1211.142	67.500
340	3117.648	1211.142	0.000
341	3117.648	1211.142	135.000
342	3199.648	1211.142	67.500
343	3199.648	1211.142	0.000
344	3199.648	1211.142	135.000
345	3281.648	1211.142	67.500
346	3281.648	1211.142	0.000
347	3281.648	1211.142	135.000
348	3363.648	1211.142	67.500
349	3363.648	1211.142	0.000
350	3363.648	1211.142	135.000
351	3446.698	1211.142	67.500
352	3446.698	1211.142	0.000
353	3446.698	1211.142	135.000
354	3529.748	1211.142	67.500
355	3529.748	1211.142	0.000
356	3529.748	1211.142	135.000
357	3612.798	1211.142	67.500
358	3612.798	1211.142	0.000
359	3612.798	1211.142	135.000
360	3695.848	1211.142	67.500
361	3695.848	1211.142	0.000
362	3695.848	1211.142	135.000
363	3778.898	1211.142	67.500
364	3778.898	1211.142	0.000
365	3778.898	1211.142	135.000
366	3778.898	1161.142	67.500
367	3778.898	1161.142	135.000
368	3778.898	1161.142	0.000
369	3778.898	1086.142	0.000
370	3778.898	1086.142	67.500
371	3778.898	1086.142	135.000
372	3778.898	1011.143	0.000
373	3778.898	1011.143	67.500
374	3778.898	1011.143	135.000
375	3778.898	936.143	0.000
376	3778.898	936.143	67.500
377	3778.898	936.143	135.000
378	3778.898	916.143	67.500
379	3778.898	916.143	135.000
380	3778.898	916.143	0.000
381	3858.898	916.143	67.500
382	3858.898	916.143	0.000
383	3858.898	916.143	135.000
384	3938.898	916.143	67.500
385	3938.898	916.143	0.000
386	3938.898	916.143	135.000
387	4018.898	916.143	67.500
388	4018.898	916.143	0.000
389	4018.898	916.143	135.000
390	4098.898	916.143	67.500
391	4098.898	916.143	0.000
392	4098.898	916.143	135.000
393	4185.258	916.143	67.500
394	4185.258	916.143	0.000
395	4185.258	916.143	135.000
396	4271.618	916.143	67.500
397	4271.618	916.143	0.000
398	4271.618	916.143	135.000
399	4357.978	916.143	67.500
400	4357.978	916.143	0.000
401	4357.978	916.143	135.000
402	4444.338	916.143	67.500
403	4444.338	916.143	0.000
404	4444.338	916.143	135.000
405	4444.338	938.465	135.000
406	4444.338	938.465	67.500
407	4444.338	938.465	0.000
414	4444.338	1211.142	67.500
415	4444.338	1211.142	0.000
416	4444.338	1211.142	135.000
417	3813.556	1211.142	135.000
418	3813.556	1211.142	67.500
419	3813.556	1211.142	0.000
420	3908.758	1211.142	67.500
421	3908.758	1211.142	0.000
422	3908.758	1211.142	135.000

423	4003.960	1211.142	67.500
424	4003.960	1211.142	0.000
425	4003.960	1211.142	135.000
426	4099.161	1211.142	67.500
427	4099.161	1211.142	0.000
428	4099.161	1211.142	135.000
429	4175.269	1211.142	67.500
430	4175.269	1211.142	0.000
431	4175.269	1211.142	135.000
432	4251.377	1211.142	67.500
433	4251.377	1211.142	0.000
434	4251.377	1211.142	135.000
435	4327.484	1211.142	67.500
436	4327.484	1211.142	0.000
437	4327.484	1211.142	135.000
438	4403.592	1211.142	67.500
439	4403.592	1211.142	0.000
440	4403.592	1211.142	135.000
441	1282.292	1816.142	67.500
442	1282.292	1816.142	0.000
443	1282.292	1816.142	135.000
444	1372.492	1816.142	67.500
445	1372.492	1816.142	0.000
446	1372.492	1816.142	135.000
447	1462.692	1816.142	67.500
448	1462.692	1816.142	0.000
449	1462.692	1816.142	135.000
450	1552.892	1816.142	67.500
451	1552.892	1816.142	0.000
452	1552.892	1816.142	135.000
453	1643.092	1816.142	67.500
454	1643.092	1816.142	0.000
455	1643.092	1816.142	135.000
456	1736.092	1816.142	67.500
457	1736.092	1816.142	0.000
458	1736.092	1816.142	135.000
459	1829.092	1816.142	67.500
460	1829.092	1816.142	0.000
461	1829.092	1816.142	135.000
462	1922.092	1816.142	67.500
463	1922.092	1816.142	0.000
464	1922.092	1816.142	135.000
465	2015.092	1816.142	67.500
466	2015.092	1816.142	0.000
467	2015.092	1816.142	135.000
468	2108.092	1816.142	67.500
469	2108.092	1816.142	0.000
470	2108.092	1816.142	135.000
471	2128.092	1816.142	135.000
472	2128.092	1816.142	67.500
473	2128.092	1816.142	0.000
474	1643.092	1722.809	0.000
475	1643.092	1722.809	67.500
476	1643.092	1722.809	135.000
477	1643.092	1629.476	0.000
478	1643.092	1629.476	67.500
479	1643.092	1629.476	135.000
480	2128.092	1292.392	67.500
481	2128.092	1292.392	0.000
482	2128.092	1292.392	135.000
483	2128.092	1373.642	67.500
484	2128.092	1373.642	0.000
485	2128.092	1373.642	135.000
486	2128.092	1454.892	67.500
487	2128.092	1454.892	0.000
488	2128.092	1454.892	135.000
489	2128.092	1536.142	67.500
490	2128.092	1536.142	0.000
491	2128.092	1536.142	135.000
492	2128.092	1629.476	67.500
493	2128.092	1629.476	0.000
494	2128.092	1629.476	135.000
495	2128.092	1722.809	67.500
496	2128.092	1722.809	0.000
497	2128.092	1722.809	135.000
498	1745.108	1536.142	67.500
499	1745.108	1536.142	0.000
500	1745.108	1536.142	135.000
501	1832.123	1536.142	67.500
502	1832.123	1536.142	0.000
503	1832.123	1536.142	135.000
504	1919.138	1536.142	67.500
505	1919.138	1536.142	0.000
506	1919.138	1536.142	135.000
507	2006.153	1536.142	67.500
508	2006.153	1536.142	0.000
509	2006.153	1536.142	135.000
510	2093.169	1536.142	67.500

511	2093.169	1536.142	0.000
512	2093.169	1536.142	135.000
513	1752.092	1171.130	67.500
514	1752.092	1171.130	0.000
515	1752.092	1171.130	135.000
516	1846.092	1171.130	67.500
517	1846.092	1171.130	0.000
518	1846.092	1171.130	135.000
519	1940.092	1171.130	67.500
520	1940.092	1171.130	0.000
521	1940.092	1171.130	135.000
522	2034.092	1171.130	67.500
523	2034.092	1171.130	0.000
524	2034.092	1171.130	135.000
525	2128.092	1911.136	67.500
526	2128.092	1911.136	0.000
527	2128.092	1911.136	135.000
528	2128.092	2006.129	67.500
529	2128.092	2006.129	0.000
530	2128.092	2006.129	135.000
531	2128.092	2046.129	135.000
532	2128.092	2046.129	67.500
533	2128.092	2046.129	0.000
534	2128.092	2126.134	67.500
535	2128.092	2126.134	0.000
536	2128.092	2126.134	135.000
537	2128.092	2206.138	67.500
538	2128.092	2206.138	0.000
539	2128.092	2206.138	135.000
540	2128.092	2286.143	67.500
541	2128.092	2286.143	0.000
542	2128.092	2286.143	135.000
543	2128.092	2354.476	67.500
544	2128.092	2354.476	0.000
545	2128.092	2354.476	135.000
546	2128.092	2422.809	67.500
547	2128.092	2422.809	0.000
548	2128.092	2422.809	135.000
549	2128.092	2491.143	67.500
550	2128.092	2491.143	0.000
551	2128.092	2491.143	135.000
552	2128.092	2506.142	135.000
553	2128.092	2506.142	67.500
554	2128.092	2506.142	0.000
555	2128.092	2591.143	67.500
556	2128.092	2591.143	0.000
557	2128.092	2591.143	135.000
558	2128.092	2676.143	67.500
559	2128.092	2676.143	0.000
560	2128.092	2676.143	135.000
561	2128.092	2761.143	67.500
562	2128.092	2761.143	0.000
563	2128.092	2761.143	135.000
564	2128.092	2846.142	67.500
565	2128.092	2846.142	0.000
566	2128.092	2846.142	135.000
567	2128.092	2931.143	67.500
568	2128.092	2931.143	0.000
569	2128.092	2931.143	135.000
570	2128.092	3016.143	67.500
571	2128.092	3016.143	0.000
572	2128.092	3016.143	135.000
573	1297.592	2506.142	135.000
574	1297.592	2526.142	135.000
575	1297.592	2526.142	67.500
576	1297.592	2506.142	67.500
577	1297.592	2526.142	0.000
578	1297.592	2506.142	0.000
579	1297.592	2620.147	67.500
580	1297.592	2620.147	0.000
581	1297.592	2620.147	135.000
582	1297.592	2714.152	67.500
583	1297.592	2714.152	0.000
584	1297.592	2714.152	135.000
585	1297.592	2808.156	67.500
586	1297.592	2808.156	0.000
587	1297.592	2808.156	135.000
588	1297.592	2902.160	67.500
589	1297.592	2902.160	0.000
590	1297.592	2902.160	135.000
591	1297.592	2996.165	67.500
592	1297.592	2996.165	0.000
593	1297.592	2996.165	135.000
594	1297.592	3016.143	135.000
595	1297.592	3016.143	67.500
596	1297.592	3016.143	0.000
597	1374.259	2506.142	67.500
598	1374.259	2506.142	0.000

599	1374.259	2506.142	135.000
600	1450.926	2506.142	67.500
601	1450.926	2506.142	0.000
602	1450.926	2506.142	135.000
603	1527.592	2506.142	67.500
604	1527.592	2506.142	0.000
605	1527.592	2506.142	135.000
606	1627.592	2506.142	67.500
607	1627.592	2506.142	0.000
608	1627.592	2506.142	135.000
609	1727.592	2506.142	67.500
610	1727.592	2506.142	0.000
611	1727.592	2506.142	135.000
612	1827.592	2506.142	67.500
613	1827.592	2506.142	0.000
614	1827.592	2506.142	135.000
615	1902.717	2506.142	67.500
616	1902.717	2506.142	0.000
617	1902.717	2506.142	135.000
618	1977.842	2506.142	67.500
619	1977.842	2506.142	0.000
620	1977.842	2506.142	135.000
621	2052.967	2506.142	67.500
622	2052.967	2506.142	0.000
623	2052.967	2506.142	135.000
624	1527.592	2591.143	67.500
625	1527.592	2591.143	0.000
626	1527.592	2591.143	135.000
627	1527.592	2676.143	67.500
628	1527.592	2676.143	0.000
629	1527.592	2676.143	135.000
630	1527.592	2761.143	67.500
631	1527.592	2761.143	0.000
632	1527.592	2761.143	135.000
633	1527.592	2846.142	67.500
634	1527.592	2846.142	0.000
635	1527.592	2846.142	135.000
636	1527.592	2931.143	67.500
637	1527.592	2931.143	0.000
638	1527.592	2931.143	135.000
639	1527.592	3016.143	67.500
640	1527.592	3016.143	0.000
641	1527.592	3016.143	135.000
642	1827.592	2591.143	67.500
643	1827.592	2591.143	0.000
644	1827.592	2591.143	135.000
645	1827.592	2676.143	67.500
646	1827.592	2676.143	0.000
647	1827.592	2676.143	135.000
648	1827.592	2761.143	67.500
649	1827.592	2761.143	0.000
650	1827.592	2761.143	135.000
651	1827.592	2846.142	67.500
652	1827.592	2846.142	0.000
653	1827.592	2846.142	135.000
654	1827.592	2931.143	67.500
655	1827.592	2931.143	0.000
656	1827.592	2931.143	135.000
657	1827.592	3016.143	67.500
658	1827.592	3016.143	0.000
659	1827.592	3016.143	135.000
660	1374.259	3016.143	67.500
661	1374.259	3016.143	0.000
662	1374.259	3016.143	135.000
663	1450.926	3016.143	67.500
664	1450.926	3016.143	0.000
665	1450.926	3016.143	135.000
666	1627.592	3016.143	67.500
667	1627.592	3016.143	0.000
668	1627.592	3016.143	135.000
669	1727.592	3016.143	67.500
670	1727.592	3016.143	0.000
671	1727.592	3016.143	135.000
672	1902.717	3016.143	67.500
673	1902.717	3016.143	0.000
674	1902.717	3016.143	135.000
675	1977.842	3016.143	67.500
676	1977.842	3016.143	0.000
677	1977.842	3016.143	135.000
678	2052.967	3016.143	67.500
679	2052.967	3016.143	0.000
680	2052.967	3016.143	135.000
681	2139.233	3016.143	135.000
682	2139.233	3016.143	67.500
683	2139.233	3016.143	0.000
684	2231.637	3016.143	67.500
685	2231.637	3016.143	0.000
686	2231.637	3016.143	135.000



687	2324.042	3016.143	67.500
688	2324.042	3016.143	0.000
689	2324.042	3016.143	135.000
690	2416.446	3016.143	67.500
691	2416.446	3016.143	0.000
692	2416.446	3016.143	135.000
693	2508.850	3016.143	67.500
694	2508.850	3016.143	0.000
695	2508.850	3016.143	135.000
696	2601.254	3016.143	67.500
697	2601.254	3016.143	0.000
698	2601.254	3016.143	135.000
699	2689.254	3016.143	67.500
700	2689.254	3016.143	0.000
701	2689.254	3016.143	135.000
702	2777.253	3016.143	67.500
703	2777.253	3016.143	0.000
704	2777.253	3016.143	135.000
705	2865.253	3016.143	67.500
706	2865.253	3016.143	0.000
707	2865.253	3016.143	135.000
708	2953.252	3016.143	67.500
709	2953.252	3016.143	0.000
710	2953.252	3016.143	135.000
711	3041.252	3016.143	67.500
712	3041.252	3016.143	0.000
713	3041.252	3016.143	135.000
714	3135.535	3016.143	67.500
715	3135.535	3016.143	0.000
716	3135.535	3016.143	135.000
717	3229.819	3016.143	67.500
718	3229.819	3016.143	0.000
719	3229.819	3016.143	135.000
720	2211.203	2046.129	67.500
721	2211.203	2046.129	0.000
722	2211.203	2046.129	135.000
723	2294.314	2046.129	67.500
724	2294.314	2046.129	0.000
725	2294.314	2046.129	135.000
726	2377.426	2046.129	67.500
727	2377.426	2046.129	0.000
728	2377.426	2046.129	135.000
729	2460.537	2046.129	67.500
730	2460.537	2046.129	0.000
731	2460.537	2046.129	135.000
732	2543.648	2046.129	67.500
733	2543.648	2046.129	0.000
734	2543.648	2046.129	135.000
735	2601.254	2046.129	135.000
736	2601.254	2046.129	67.500
737	2601.254	2046.129	0.000
738	2689.353	2046.129	67.500
739	2689.353	2046.129	0.000
740	2689.353	2046.129	135.000
741	2777.451	2046.129	67.500
742	2777.451	2046.129	0.000
743	2777.451	2046.129	135.000
744	2865.550	2046.129	67.500
745	2865.550	2046.129	0.000
746	2865.550	2046.129	135.000
747	2953.648	2046.129	67.500
748	2953.648	2046.129	0.000
749	2953.648	2046.129	135.000
750	3003.648	2046.129	135.000
751	3003.648	2046.129	67.500
752	3003.648	2046.129	0.000
753	3093.648	2046.129	67.500
754	3093.648	2046.129	0.000
755	3093.648	2046.129	135.000
756	3183.648	2046.129	67.500
757	3183.648	2046.129	0.000
758	3183.648	2046.129	135.000
759	3273.648	2046.129	67.500
760	3273.648	2046.129	0.000
761	3273.648	2046.129	135.000
762	3363.648	2046.129	67.500
763	3363.648	2046.129	0.000
764	3363.648	2046.129	135.000
765	3428.594	2046.129	135.000
766	3428.594	2046.129	67.500
767	3428.594	2046.129	0.000
768	3493.648	2046.129	135.000
769	3493.648	2046.129	67.500
770	3493.648	2046.129	0.000
771	3581.963	2046.129	67.500
772	3581.963	2046.129	0.000
773	3581.963	2046.129	135.000
774	3670.278	2046.129	67.500

775	3670.278	2046.129	0.000
776	3670.278	2046.129	135.000
777	3758.592	2046.129	67.500
778	3758.592	2046.129	0.000
779	3758.592	2046.129	135.000
780	3778.592	2046.129	135.000
781	3778.592	2046.129	67.500
782	3778.592	2046.129	0.000
783	3813.556	2046.129	135.000
784	3813.556	2046.129	67.500
785	3813.556	2046.129	0.000
786	3908.758	2046.129	67.500
787	3908.758	2046.129	0.000
788	3908.758	2046.129	135.000
789	4003.960	2046.129	67.500
790	4003.960	2046.129	0.000
791	4003.960	2046.129	135.000
792	4099.161	2046.129	67.500
793	4099.161	2046.129	0.000
794	4099.161	2046.129	135.000
795	4148.177	2046.129	135.000
796	4148.177	2046.129	67.500
797	4148.177	2046.129	0.000
798	4168.092	2046.129	135.000
799	4168.092	2046.129	67.500
800	4168.092	2046.129	0.000
801	4256.373	2046.129	67.500
802	4256.373	2046.129	0.000
803	4256.373	2046.129	135.000
804	4344.653	2046.129	67.500
805	4344.653	2046.129	0.000
806	4344.653	2046.129	135.000
807	4432.933	2046.129	67.500
808	4432.933	2046.129	0.000
809	4432.933	2046.129	135.000
810	2601.254	2135.131	67.500
811	2601.254	2135.131	0.000
812	2601.254	2135.131	135.000
813	2601.254	2224.133	67.500
814	2601.254	2224.133	0.000
815	2601.254	2224.133	135.000
816	2601.254	2313.136	67.500
817	2601.254	2313.136	0.000
818	2601.254	2313.136	135.000
819	2601.254	2402.138	67.500
820	2601.254	2402.138	0.000
821	2601.254	2402.138	135.000
822	2601.254	2491.140	67.500
823	2601.254	2491.140	0.000
824	2601.254	2491.140	135.000
825	2601.254	2578.641	67.500
826	2601.254	2578.641	0.000
827	2601.254	2578.641	135.000
828	2601.254	2666.141	67.500
829	2601.254	2666.141	0.000
830	2601.254	2666.141	135.000
831	2601.254	2753.641	67.500
832	2601.254	2753.641	0.000
833	2601.254	2753.641	135.000
834	2601.254	2841.142	67.500
835	2601.254	2841.142	0.000
836	2601.254	2841.142	135.000
837	2601.254	2928.642	67.500
838	2601.254	2928.642	0.000
839	2601.254	2928.642	135.000
840	2543.648	1303.919	67.500
841	2543.648	1303.919	0.000
842	2543.648	1303.919	135.000
843	2543.648	1396.695	67.500
844	2543.648	1396.695	0.000
845	2543.648	1396.695	135.000
846	2543.648	1489.471	67.500
847	2543.648	1489.471	0.000
848	2543.648	1489.471	135.000
849	2543.648	1582.248	67.500
850	2543.648	1582.248	0.000
851	2543.648	1582.248	135.000
852	2543.648	1675.024	67.500
853	2543.648	1675.024	0.000
854	2543.648	1675.024	135.000
855	2543.648	1767.800	67.500
856	2543.648	1767.800	0.000
857	2543.648	1767.800	135.000
858	2543.648	1860.576	67.500
859	2543.648	1860.576	0.000
860	2543.648	1860.576	135.000
861	2543.648	1953.353	67.500
862	2543.648	1953.353	0.000

863	2543.648	1953.353	135.000
864	2953.648	1303.919	67.500
865	2953.648	1303.919	0.000
866	2953.648	1303.919	135.000
867	2953.648	1396.695	67.500
868	2953.648	1396.695	0.000
869	2953.648	1396.695	135.000
870	2953.648	1489.471	67.500
871	2953.648	1489.471	0.000
872	2953.648	1489.471	135.000
873	2953.648	1582.248	67.500
874	2953.648	1582.248	0.000
875	2953.648	1582.248	135.000
876	2953.648	1675.024	67.500
877	2953.648	1675.024	0.000
878	2953.648	1675.024	135.000
879	2953.648	1767.800	67.500
880	2953.648	1767.800	0.000
881	2953.648	1767.800	135.000
882	2953.648	1860.576	67.500
883	2953.648	1860.576	0.000
884	2953.648	1860.576	135.000
885	2953.648	1953.353	67.500
886	2953.648	1953.353	0.000
887	2953.648	1953.353	135.000
888	3363.648	1303.919	67.500
889	3363.648	1303.919	0.000
890	3363.648	1303.919	135.000
891	3363.648	1396.695	67.500
892	3363.648	1396.695	0.000
893	3363.648	1396.695	135.000
894	3363.648	1489.471	67.500
895	3363.648	1489.471	0.000
896	3363.648	1489.471	135.000
897	3363.648	1582.248	67.500
898	3363.648	1582.248	0.000
899	3363.648	1582.248	135.000
900	3363.648	1675.024	67.500
901	3363.648	1675.024	0.000
902	3363.648	1675.024	135.000
903	3363.648	1767.800	67.500
904	3363.648	1767.800	0.000
905	3363.648	1767.800	135.000
906	3363.648	1860.576	67.500
907	3363.648	1860.576	0.000
908	3363.648	1860.576	135.000
909	3363.648	1953.353	67.500
910	3363.648	1953.353	0.000
911	3363.648	1953.353	135.000
912	3041.252	2046.129	135.000
913	3041.252	2046.129	67.500
914	3041.252	2046.129	0.000
915	3041.252	2135.132	67.500
916	3041.252	2135.132	0.000
917	3041.252	2135.132	135.000
918	3041.252	2224.135	67.500
919	3041.252	2224.135	0.000
920	3041.252	2224.135	135.000
921	3041.252	2313.137	67.500
922	3041.252	2313.137	0.000
923	3041.252	2313.137	135.000
924	3041.252	2402.140	67.500
925	3041.252	2402.140	0.000
926	3041.252	2402.140	135.000
927	3041.252	2491.143	67.500
928	3041.252	2491.143	0.000
929	3041.252	2491.143	135.000
930	3041.252	2578.643	67.500
931	3041.252	2578.643	0.000
932	3041.252	2578.643	135.000
933	3041.252	2666.143	67.500
934	3041.252	2666.143	0.000
935	3041.252	2666.143	135.000
936	3041.252	2753.643	67.500
937	3041.252	2753.643	0.000
938	3041.252	2753.643	135.000
939	3041.252	2841.143	67.500
940	3041.252	2841.143	0.000
941	3041.252	2841.143	135.000
942	3041.252	2928.643	67.500
943	3041.252	2928.643	0.000
944	3041.252	2928.643	135.000
945	2222.724	2491.142	67.500
946	2222.724	2491.142	0.000
947	2222.724	2491.142	135.000
948	2317.357	2491.142	67.500
949	2317.357	2491.142	0.000
950	2317.357	2491.142	135.000

951	2411.990	2491.141	67.500
952	2411.990	2491.141	0.000
953	2411.990	2491.141	135.000
954	2506.622	2491.141	67.500
955	2506.622	2491.141	0.000
956	2506.622	2491.141	135.000
957	2689.254	2491.141	67.500
958	2689.254	2491.141	0.000
959	2689.254	2491.141	135.000
960	2777.253	2491.141	67.500
961	2777.253	2491.141	0.000
962	2777.253	2491.141	135.000
963	2865.253	2491.142	67.500
964	2865.253	2491.142	0.000
965	2865.253	2491.142	135.000
966	2953.252	2491.142	67.500
967	2953.252	2491.142	0.000
968	2953.252	2491.142	135.000
969	3138.087	2491.142	67.500
970	3138.087	2491.142	0.000
971	3138.087	2491.142	135.000
972	3234.923	2491.141	67.500
973	3234.923	2491.141	0.000
974	3234.923	2491.141	135.000
975	3331.758	2491.141	67.500
976	3331.758	2491.141	0.000
977	3331.758	2491.141	135.000
978	3428.594	2491.140	67.500
979	3428.594	2491.140	0.000
980	3428.594	2491.140	135.000
981	3428.594	2135.131	67.500
982	3428.594	2135.131	0.000
983	3428.594	2135.131	135.000
984	3428.594	2224.133	67.500
985	3428.594	2224.133	0.000
986	3428.594	2224.133	135.000
987	3428.594	2313.136	67.500
988	3428.594	2313.136	0.000
989	3428.594	2313.136	135.000
990	3428.594	2402.138	67.500
991	3428.594	2402.138	0.000
992	3428.594	2402.138	135.000
993	3296.077	2949.885	67.500
994	3296.077	2949.885	0.000
995	3296.077	2949.885	135.000
996	3362.334	2883.627	67.500
997	3362.334	2883.627	0.000
998	3362.334	2883.627	135.000
999	3428.592	2817.369	67.500
1000	3428.592	2817.369	0.000
1001	3428.592	2817.369	135.000
1002	3428.592	2751.143	67.500
1003	3428.592	2751.143	135.000
1004	3428.592	2751.143	0.000
1005	3428.593	2577.808	0.000
1006	3428.593	2577.808	67.500
1007	3428.593	2577.808	135.000
1008	3428.593	2664.475	0.000
1009	3428.593	2664.475	67.500
1010	3428.593	2664.475	135.000
1011	3813.556	1949.872	0.000
1012	3813.556	1949.872	67.500
1013	3813.556	1949.872	135.000
1014	3813.556	1853.615	0.000
1015	3813.556	1853.615	67.500
1016	3813.556	1853.615	135.000
1017	3813.556	1757.358	0.000
1018	3813.556	1757.358	67.500
1019	3813.556	1757.358	135.000
1020	3813.556	1661.101	0.000
1021	3813.556	1661.101	67.500
1022	3813.556	1661.101	135.000
1023	3813.573	1577.781	67.500
1024	3813.573	1577.781	0.000
1025	3813.573	1577.781	135.000
1026	3813.589	1494.462	67.500
1027	3813.589	1494.462	0.000
1028	3813.589	1494.462	135.000
1029	3813.605	1411.142	67.500
1030	3813.605	1411.142	0.000
1031	3813.605	1411.142	135.000
1032	3813.589	1344.476	0.000
1033	3813.589	1344.476	67.500
1034	3813.589	1344.476	135.000
1035	3813.573	1277.809	0.000
1036	3813.573	1277.809	67.500
1037	3813.573	1277.809	135.000
1038	3778.592	2138.137	67.500

1039	3778.592	2138.137	0.000
1040	3778.592	2138.137	135.000
1041	3778.592	2230.146	67.500
1042	3778.592	2230.146	0.000
1043	3778.592	2230.146	135.000
1044	3778.592	2322.154	67.500
1045	3778.592	2322.154	0.000
1046	3778.592	2322.154	135.000
1047	3778.592	2414.162	67.500
1048	3778.592	2414.162	0.000
1049	3778.592	2414.162	135.000
1050	3778.592	2506.171	67.500
1051	3778.592	2506.171	0.000
1052	3778.592	2506.171	135.000
1053	3798.507	2506.171	135.000
1054	3798.507	2506.171	67.500
1055	3798.507	2506.171	0.000
1056	3885.925	2506.171	67.500
1057	3885.925	2506.171	0.000
1058	3885.925	2506.171	135.000
1059	3973.342	2506.171	67.500
1060	3973.342	2506.171	0.000
1061	3973.342	2506.171	135.000
1062	4060.760	2506.171	67.500
1063	4060.760	2506.171	0.000
1064	4060.760	2506.171	135.000
1065	4148.177	2506.171	67.500
1066	4148.177	2506.171	0.000
1067	4148.177	2506.171	135.000
1068	4168.092	2506.171	135.000
1069	4168.092	2506.171	67.500
1070	4168.092	2506.171	0.000
1071	4256.373	2506.171	67.500
1072	4256.373	2506.171	0.000
1073	4256.373	2506.171	135.000
1074	4344.653	2506.171	67.500
1075	4344.653	2506.171	0.000
1076	4344.653	2506.171	135.000
1077	4432.933	2506.171	67.500
1078	4432.933	2506.171	0.000
1079	4432.933	2506.171	135.000
1080	4507.972	2506.171	67.500
1081	4507.972	2506.171	0.000
1082	4507.972	2506.171	135.000
1083	4583.013	2506.171	67.500
1084	4583.013	2506.171	0.000
1085	4583.013	2506.171	135.000
1086	4658.052	2506.171	67.500
1087	4658.052	2506.171	0.000
1088	4658.052	2506.171	135.000
1089	4733.092	2506.171	67.500
1090	4733.092	2506.171	0.000
1091	4733.092	2506.171	135.000
1092	4741.091	2506.171	135.000
1093	4741.091	2506.171	67.500
1094	4741.091	2506.171	0.000
1095	4758.177	2506.171	135.000
1096	4758.177	2506.171	67.500
1097	4758.177	2506.171	0.000
1098	4843.763	2506.171	67.500
1099	4843.763	2506.171	0.000
1100	4843.763	2506.171	135.000
1101	4929.348	2506.171	67.500
1102	4929.348	2506.171	0.000
1103	4929.348	2506.171	135.000
1104	5014.933	2506.171	67.500
1105	5014.933	2506.171	0.000
1106	5014.933	2506.171	135.000
1107	5100.518	2506.171	67.500
1108	5100.518	2506.171	0.000
1109	5100.518	2506.171	135.000
1110	5120.433	2506.171	135.000
1111	5120.433	2506.171	67.500
1112	5120.433	2506.171	0.000
1113	4099.161	1277.815	67.500
1114	4099.161	1277.815	0.000
1115	4099.161	1277.815	135.000
1116	4099.161	1344.487	67.500
1117	4099.161	1344.487	0.000
1118	4099.161	1344.487	135.000
1119	4099.161	1411.159	67.500
1120	4099.161	1411.159	0.000
1121	4099.161	1411.159	135.000
1122	4099.161	1494.484	67.500
1123	4099.161	1494.484	0.000
1124	4099.161	1494.484	135.000
1125	4099.161	1577.808	67.500
1126	4099.161	1577.808	0.000

1127	4099.161	1577.808	135.000
1128	4099.161	1661.133	67.500
1129	4099.161	1661.133	0.000
1130	4099.161	1661.133	135.000
1131	4099.161	1757.382	67.500
1132	4099.161	1757.382	0.000
1133	4099.161	1757.382	135.000
1134	4099.161	1853.631	67.500
1135	4099.161	1853.631	0.000
1136	4099.161	1853.631	135.000
1137	4099.161	1949.880	67.500
1138	4099.161	1949.880	0.000
1139	4099.161	1949.880	135.000
1140	4148.177	2138.137	67.500
1141	4148.177	2138.137	0.000
1142	4148.177	2138.137	135.000
1143	4148.177	2230.146	67.500
1144	4148.177	2230.146	0.000
1145	4148.177	2230.146	135.000
1146	4148.177	2322.154	67.500
1147	4148.177	2322.154	0.000
1148	4148.177	2322.154	135.000
1149	4148.177	2414.162	67.500
1150	4148.177	2414.162	0.000
1151	4148.177	2414.162	135.000
1152	3908.758	1661.111	67.500
1153	3908.758	1661.111	0.000
1154	3908.758	1661.111	135.000
1155	4003.960	1661.122	67.500
1156	4003.960	1661.122	0.000
1157	4003.960	1661.122	135.000
1158	4175.269	1661.133	67.500
1159	4175.269	1661.133	0.000
1160	4175.269	1661.133	135.000
1161	4251.377	1661.133	67.500
1162	4251.377	1661.133	0.000
1163	4251.377	1661.133	135.000
1164	4327.484	1661.133	67.500
1165	4327.484	1661.133	0.000
1166	4327.484	1661.133	135.000
1167	4403.592	1661.133	67.500
1168	4403.592	1661.133	0.000
1169	4403.592	1661.133	135.000
1170	4432.933	1661.133	135.000
1171	4432.933	1661.133	67.500
1172	4432.933	1661.133	0.000
1173	3908.791	1411.148	67.500
1174	3908.791	1411.148	0.000
1175	3908.791	1411.148	135.000
1176	4003.976	1411.153	67.500
1177	4003.976	1411.153	0.000
1178	4003.976	1411.153	135.000
1179	4175.269	1411.155	67.500
1180	4175.269	1411.155	0.000
1181	4175.269	1411.155	135.000
1182	4251.377	1411.151	67.500
1183	4251.377	1411.151	0.000
1184	4251.377	1411.151	135.000
1185	4327.484	1411.147	67.500
1186	4327.484	1411.147	0.000
1187	4327.484	1411.147	135.000
1188	4403.592	1411.142	67.500
1189	4403.592	1411.142	0.000
1190	4403.592	1411.142	135.000
1191	4403.592	1311.142	67.500
1192	4403.592	1311.142	0.000
1193	4403.592	1311.142	135.000
1194	4403.592	1494.473	67.500
1195	4403.592	1494.473	0.000
1196	4403.592	1494.473	135.000
1197	4403.592	1577.803	67.500
1198	4403.592	1577.803	0.000
1199	4403.592	1577.803	135.000
1200	4432.933	1757.382	67.500
1201	4432.933	1757.382	0.000
1202	4432.933	1757.382	135.000
1203	4432.933	1853.631	67.500
1204	4432.933	1853.631	0.000
1205	4432.933	1853.631	135.000
1206	4432.933	1949.880	67.500
1207	4432.933	1949.880	0.000
1208	4432.933	1949.880	135.000
1209	4432.933	2138.137	67.500
1210	4432.933	2138.137	0.000
1211	4432.933	2138.137	135.000
1212	4432.933	2230.146	67.500
1213	4432.933	2230.146	0.000
1214	4432.933	2230.146	135.000

1215	4432.933	2322.154	67.500
1216	4432.933	2322.154	0.000
1217	4432.933	2322.154	135.000
1218	4432.933	2414.162	67.500
1219	4432.933	2414.162	0.000
1220	4432.933	2414.162	135.000
1221	4168.092	2587.828	67.500
1222	4168.092	2587.828	0.000
1223	4168.092	2587.828	135.000
1224	4168.092	2669.485	67.500
1225	4168.092	2669.485	0.000
1226	4168.092	2669.485	135.000
1227	4168.092	2751.143	67.500
1228	4168.092	2751.143	0.000
1229	4168.092	2751.143	135.000
1230	4168.092	2817.332	135.000
1231	4168.092	2817.332	67.500
1232	4168.092	2817.332	0.000
1233	4234.362	2883.602	67.500
1234	4234.362	2883.602	0.000
1235	4234.362	2883.602	135.000
1236	4300.633	2949.872	67.500
1237	4300.633	2949.872	0.000
1238	4300.633	2949.872	135.000
1239	4366.903	3016.143	67.500
1240	4366.903	3016.143	0.000
1241	4366.903	3016.143	135.000
1242	4415.907	3016.143	135.000
1243	4415.907	3016.143	67.500
1244	4415.907	3016.143	0.000
1245	4495.203	3016.143	67.500
1246	4495.203	3016.143	0.000
1247	4495.203	3016.143	135.000
1248	4574.499	3016.143	67.500
1249	4574.499	3016.143	0.000
1250	4574.499	3016.143	135.000
1251	4653.796	3016.143	67.500
1252	4653.796	3016.143	0.000
1253	4653.796	3016.143	135.000
1254	4733.092	3016.143	67.500
1255	4733.092	3016.143	0.000
1256	4733.092	3016.143	135.000
1257	4824.927	3016.143	67.500
1258	4824.927	3016.143	0.000
1259	4824.927	3016.143	135.000
1260	4916.763	3016.143	67.500
1261	4916.763	3016.143	0.000
1262	4916.763	3016.143	135.000
1263	5008.598	3016.143	67.500
1264	5008.598	3016.143	0.000
1265	5008.598	3016.143	135.000
1266	5100.433	3016.143	67.500
1267	5100.433	3016.143	0.000
1268	5100.433	3016.143	135.000
1269	5120.433	3016.143	135.000
1270	5120.433	3016.143	67.500
1271	5120.433	3016.143	0.000
1272	4733.092	2587.828	67.500
1273	4733.092	2587.828	0.000
1274	4733.092	2587.828	135.000
1275	4733.092	2669.485	67.500
1276	4733.092	2669.485	0.000
1277	4733.092	2669.485	135.000
1278	4733.092	2751.143	67.500
1279	4733.092	2751.143	0.000
1280	4733.092	2751.143	135.000
1281	4733.092	2839.476	67.500
1282	4733.092	2839.476	0.000
1283	4733.092	2839.476	135.000
1284	4733.092	2927.809	67.500
1285	4733.092	2927.809	0.000
1286	4733.092	2927.809	135.000
1287	5120.433	2587.828	67.500
1288	5120.433	2587.828	0.000
1289	5120.433	2587.828	135.000
1290	5120.433	2669.485	67.500
1291	5120.433	2669.485	0.000
1292	5120.433	2669.485	135.000
1293	5120.433	2751.143	67.500
1294	5120.433	2751.143	0.000
1295	5120.433	2751.143	135.000
1296	5120.433	2839.476	67.500
1297	5120.433	2839.476	0.000
1298	5120.433	2839.476	135.000
1299	5120.433	2927.809	67.500
1300	5120.433	2927.809	0.000
1301	5120.433	2927.809	135.000
1302	4262.259	2751.143	67.500

1303	4262.259	2751.143	0.000
1304	4262.259	2751.143	135.000
1305	4356.426	2751.143	67.500
1306	4356.426	2751.143	0.000
1307	4356.426	2751.143	135.000
1308	4450.592	2751.143	67.500
1309	4450.592	2751.143	0.000
1310	4450.592	2751.143	135.000
1311	4544.758	2751.143	67.500
1312	4544.758	2751.143	0.000
1313	4544.758	2751.143	135.000
1314	4638.926	2751.143	67.500
1315	4638.926	2751.143	0.000
1316	4638.926	2751.143	135.000
1317	4829.927	2751.143	67.500
1318	4829.927	2751.143	0.000
1319	4829.927	2751.143	135.000
1320	4926.763	2751.143	67.500
1321	4926.763	2751.143	0.000
1322	4926.763	2751.143	135.000
1323	5023.598	2751.143	67.500
1324	5023.598	2751.143	0.000
1325	5023.598	2751.143	135.000
1326	4098.986	1014.476	67.500
1327	4098.986	1014.476	0.000
1328	4098.986	1014.476	135.000
1329	4099.074	1112.809	67.500
1330	4099.074	1112.809	0.000
1331	4099.074	1112.809	135.000
1335	5207.668	1661.133	-160.000
1336	1192.092	1816.142	475.000
1337	1192.092	1536.142	475.000
1338	1643.092	1816.142	475.000
1339	1643.092	1536.142	475.000
1340	1658.092	1171.130	475.000
1341	1678.092	996.143	475.000
1342	1297.592	2526.142	475.000
1343	1297.592	2996.165	475.000
1344	1527.592	3016.143	475.000
1345	1527.592	2506.142	475.000
1346	1827.592	3016.143	475.000
1347	1827.592	2506.142	475.000
1348	2128.092	2491.143	475.000
1349	2108.092	1816.142	475.000
1350	2128.092	2006.129	475.000
1351	2128.092	2286.143	475.000
1352	2139.233	3016.143	475.000
1353	2601.254	3016.143	475.000
1354	3041.252	3016.143	475.000
1355	3428.592	2751.143	475.000
1360	3041.252	2491.143	475.000
1361	3428.594	2491.140	475.000
1362	2601.254	2491.140	475.000
1363	2601.254	2046.129	475.000
1364	3003.648	2046.129	475.000
1365	2108.092	996.143	475.000
1366	2128.092	1171.130	475.000
1368	2093.169	1536.142	475.000
1371	3778.898	936.143	475.000
1372	3778.898	1161.142	475.000
1373	3813.605	1411.142	475.000
1374	4098.898	916.143	475.000
1375	3493.648	2046.129	475.000
1376	3758.592	2046.129	475.000
1377	3813.556	1661.101	475.000
1378	3798.507	2506.171	475.000
1379	4148.177	2506.171	475.000
1380	4168.092	2046.129	475.000
1381	4168.092	2751.143	475.000
1382	4415.907	3016.143	475.000
1383	4733.092	3016.143	475.000
1384	5100.433	3016.143	475.000
1385	4733.092	2751.143	475.000
1387	4758.007	2506.171	475.000
1388	5100.518	2506.171	475.000
1389	4741.091	2046.129	475.000
1391	4741.091	1661.133	475.000
1392	5207.661	2071.135	475.000
1393	4099.161	1661.133	475.000
1394	4099.161	1411.159	475.000
1395	4432.933	1661.133	475.000
1396	4403.592	1411.142	475.000
1397	4444.338	938.465	475.000
1398	4761.071	1086.142	475.000
1399	5207.668	1661.133	135.000
1400	5207.668	1661.133	475.000
1401	5706.092	1106.143	475.000
1402	5706.092	1661.133	475.000



1403	5706.092	2051.125	475.000
1404	2128.092	1171.130	525.000
1405	5207.668	1086.142	475.000
1406	1297.592	3016.143	475.000
1407	1297.592	2506.142	475.000
1408	2128.092	3016.143	475.000
1409	2128.092	2506.142	475.000
1410	3229.819	3016.143	475.000
1411	3428.592	2817.369	475.000
1412	3041.252	2046.129	475.000
1413	3428.594	2046.129	475.000
1414	2128.092	2046.129	475.000
1415	2543.648	2046.129	475.000
1416	2953.648	2046.129	475.000
1417	3363.648	2046.129	475.000
1418	2128.092	1816.142	475.000
1419	1658.092	1536.142	475.000
1420	2128.092	1536.142	475.000
1421	1658.092	996.143	475.000
1422	2128.092	996.143	475.000
1423	2128.092	1211.142	475.000
1424	3778.898	1211.142	475.000
1425	3778.898	916.143	475.000
1426	4444.338	916.143	475.000
1428	4741.076	1211.142	475.000
1431	3813.556	1211.142	475.000
1433	3778.592	2046.129	475.000
1434	3813.556	2046.129	475.000
1435	4099.161	2046.129	475.000
1436	4148.177	2046.129	475.000
1437	3778.592	2506.171	475.000
1438	4432.933	2046.129	475.000
1439	4741.076	1086.142	475.000
1440	4741.091	2071.135	475.000
1441	5706.092	2071.135	475.000
1443	5706.092	1086.142	475.000
1444	4432.933	2506.171	475.000
1445	4168.092	2506.171	475.000
1446	4168.092	2817.332	475.000
1447	4366.903	3016.143	475.000
1448	5120.433	2751.143	475.000
1449	5120.433	3016.143	475.000
1450	5120.433	2506.171	475.000
1451	4733.092	2506.171	475.000
1452	4741.091	2506.171	475.000
1460	2128.092	2046.129	525.000
1461	2543.648	2046.129	525.000
1462	2601.254	2046.129	525.000
1463	2953.648	2046.129	525.000
1464	3003.648	2046.129	525.000
1465	3041.252	2046.129	525.000
1466	3363.648	2046.129	525.000
1467	3428.594	2046.129	525.000
1468	2543.648	1211.142	525.000
1469	2953.648	1211.142	525.000
1470	3363.648	1211.142	525.000
1471	2128.092	2006.129	525.000
1472	2128.092	1816.142	525.000
1473	2128.092	1536.142	525.000
1474	2128.092	1211.142	525.000
1475	3778.898	1211.142	525.000
1476	3813.556	1211.142	525.000
1477	3813.556	1661.101	525.000
1478	3813.605	1411.142	525.000
1479	3493.648	2046.129	525.000
1480	3758.592	2046.129	525.000
1482	3813.556	2046.129	525.000
1483	2243.648	2046.129	525.000
1484	2243.648	2046.129	475.000
1485	2343.648	2046.129	525.000
1486	2343.648	2046.129	475.000
1487	2443.648	2046.129	525.000
1488	2443.648	2046.129	475.000
1489	2653.648	2046.129	475.000
1490	2653.648	2046.129	525.000
1491	2753.648	2046.129	475.000
1492	2753.648	2046.129	525.000
1493	2853.648	2046.129	475.000
1494	2853.648	2046.129	525.000
1495	3163.648	2046.129	475.000
1496	3163.648	2046.129	525.000
1497	3263.648	2046.129	475.000
1498	3263.648	2046.129	525.000
1499	4444.338	1086.142	67.500
1500	4444.338	1086.142	135.000
1501	4444.338	1086.142	0.000
1502	4444.338	1086.142	475.000
1503	5763.592	1086.142	135.000

1504	5763.592	1086.142	36.667
1505	5821.092	1086.142	135.000
1506	5821.092	1086.142	36.667
1507	5763.592	1086.142	-61.667
1508	5821.092	1086.142	-61.667
1509	5763.592	1086.142	-160.000
1510	5821.092	1086.142	-160.000
1511	5821.092	1181.974	-61.667
1512	5821.092	1181.974	-160.000
1513	5821.092	1181.974	36.667
1514	5821.092	1181.974	135.000
1515	5821.092	1277.806	-61.667
1516	5821.092	1277.806	-160.000
1517	5821.092	1277.806	36.667
1518	5821.092	1277.806	135.000
1519	5821.092	1373.638	-61.667
1520	5821.092	1373.638	-160.000
1521	5821.092	1373.638	36.667
1522	5821.092	1373.638	135.000
1523	5821.092	1469.470	-61.667
1524	5821.092	1469.470	-160.000
1525	5821.092	1469.470	36.667
1526	5821.092	1469.470	135.000
1527	5821.092	1565.301	-61.667
1528	5821.092	1565.301	-160.000
1529	5821.092	1565.301	36.667
1530	5821.092	1565.301	135.000
1531	5821.092	1661.133	-61.667
1532	5821.092	1661.133	-160.000
1533	5821.092	1661.133	36.667
1534	5821.092	1661.133	135.000
1535	5821.092	1743.134	-61.667
1536	5821.092	1743.134	-160.000
1537	5821.092	1743.134	36.667
1538	5821.092	1743.134	135.000
1539	5821.092	1825.134	-61.667
1540	5821.092	1825.134	-160.000
1541	5821.092	1825.134	36.667
1542	5821.092	1825.134	135.000
1543	5821.092	1907.135	-61.667
1544	5821.092	1907.135	-160.000
1545	5821.092	1907.135	36.667
1546	5821.092	1907.135	135.000
1547	5821.092	1989.135	-61.667
1548	5821.092	1989.135	-160.000
1549	5821.092	1989.135	36.667
1550	5821.092	1989.135	135.000
1551	5821.092	2071.135	-61.667
1552	5821.092	2071.135	-160.000
1553	5821.092	2071.135	36.667
1554	5821.092	2071.135	135.000
1555	5821.092	2128.656	135.000
1556	5821.092	2128.656	36.667
1557	5821.092	2186.177	135.000
1558	5821.092	2186.177	36.667
1559	5821.092	2128.656	-61.667
1560	5821.092	2186.177	-61.667
1561	5821.092	2128.656	-160.000
1562	5821.092	2186.177	-160.000
1563	4834.405	2186.177	-61.667
1564	4834.405	2186.177	-160.000
1565	4834.405	2186.177	36.667
1566	4834.405	2186.177	135.000
1567	4927.720	2186.177	-61.667
1568	4927.720	2186.177	-160.000
1569	4927.720	2186.177	36.667
1570	4927.720	2186.177	135.000
1571	5021.033	2186.177	-61.667
1572	5021.033	2186.177	-160.000
1573	5021.033	2186.177	36.667
1574	5021.033	2186.177	135.000
1575	5114.347	2186.177	-61.667
1576	5114.347	2186.177	-160.000
1577	5114.347	2186.177	36.667
1578	5114.347	2186.177	135.000
1579	5207.661	2186.177	-61.667
1580	5207.661	2186.177	-160.000
1581	5207.661	2186.177	36.667
1582	5207.661	2186.177	135.000
1583	5307.347	2186.177	-61.667
1584	5307.347	2186.177	-160.000
1585	5307.347	2186.177	36.667
1586	5307.347	2186.177	135.000
1587	5407.033	2186.177	-61.667
1588	5407.033	2186.177	-160.000
1589	5407.033	2186.177	36.667
1590	5407.033	2186.177	135.000
1591	5506.720	2186.177	-61.667

1592	5506.720	2186.177	-160.000
1593	5506.720	2186.177	36.667
1594	5506.720	2186.177	135.000
1595	5606.406	2186.177	-61.667
1596	5606.406	2186.177	-160.000
1597	5606.406	2186.177	36.667
1598	5606.406	2186.177	135.000
1599	5706.092	2186.177	-61.667
1600	5706.092	2186.177	-160.000
1601	5706.092	2186.177	36.667
1602	5706.092	2186.177	135.000
1603	5763.592	2186.177	135.000
1604	5763.592	2186.177	36.667
1605	5763.592	2186.177	-61.667
1606	5763.592	2186.177	-160.000
1607	5706.092	2071.135	-160.000
1608	5706.092	2071.135	-160.000
1609	5706.092	2071.135	135.000
1610	5706.092	1277.806	135.000
1611	4741.082	1411.142	475.000
1612	4432.933	2071.135	475.000
1613	4432.933	1411.142	475.000
1614	1297.592	3016.143	505.000
1615	1527.592	3016.143	505.000
1616	1527.592	2506.142	540.000
1617	1297.592	2506.142	540.000
1618	1413.600	2506.142	540.000
1619	1413.600	2294.591	561.462
1620	1415.092	2161.142	575.000
1621	1265.246	2294.591	561.462
1622	1563.004	2294.591	561.462
1623	1244.842	2161.142	575.000
1624	1585.342	2161.142	575.000
1625	1224.438	2027.693	607.879
1626	1416.059	2027.693	607.879
1627	1607.680	2027.693	607.879
1628	1585.342	2161.142	475.000
1629	1244.842	2161.142	475.000
1630	1417.592	1816.142	660.000
1631	1425.092	1536.142	655.000
1632	1425.092	1171.130	585.000
1633	1425.092	996.143	550.000
1634	1192.092	1171.130	475.000
1635	1192.092	1171.130	585.000
1636	1192.092	996.143	475.000
1637	1192.092	996.143	550.000
1638	1192.092	1536.142	655.000
1639	1192.092	1816.142	660.000
1640	1643.092	1816.142	660.000
1641	1658.092	1536.142	655.000
1642	1658.092	1171.130	585.000
1643	1658.092	996.143	550.000
1644	1541.592	1083.637	567.500
1645	1308.592	1083.637	567.500
1646	1297.592	2755.556	522.883
1647	1527.592	2755.556	522.883
1648	1412.592	2755.556	522.883
1649	1412.592	3016.143	505.000
1650	1244.842	2161.142	135.000
1651	1585.342	2161.142	135.000
1652	1194.842	2161.142	0.000
1653	1244.842	2161.142	0.000
1654	1585.342	2161.142	0.000
1655	1635.342	2161.142	0.000

ASTE--	Proprieta`	Nodo iniz.	Nodo fin.	Rilasci in.	Rilasci fin.	num.=	orient.
1	1	578	577			1298	0.0
2	1	577	580				0.0
3	1	580	583				0.0
4	1	583	586				0.0
5	1	586	589				0.0
6	1	589	592				0.0
7	1	592	596				0.0
8	2	573	574				0.0
9	2	574	581				0.0
10	2	581	584				0.0
11	2	584	587				0.0
12	2	587	590				0.0
13	2	590	593				0.0
14	2	593	594				0.0
15	1	596	661				0.0
16	1	661	664				0.0
17	1	664	640				0.0
18	1	640	667				0.0
19	1	667	670				0.0
20	1	670	658				0.0
21	1	658	673				0.0

22	1	673	676	0.0
23	1	676	679	0.0
24	1	679	571	0.0
25	1	578	598	0.0
26	1	598	601	0.0
27	1	601	604	0.0
28	1	604	607	0.0
29	1	607	610	0.0
30	1	610	613	0.0
31	1	613	616	0.0
32	1	637	640	0.0
33	1	634	637	0.0
34	1	631	634	0.0
35	1	628	631	0.0
36	1	625	628	0.0
37	1	604	625	0.0
38	1	655	658	0.0
39	1	652	655	0.0
40	1	649	652	0.0
41	1	646	649	0.0
42	1	643	646	0.0
43	1	613	643	0.0
44	1	616	619	0.0
45	1	619	622	0.0
46	1	622	554	0.0
47	1	571	683	0.0
48	1	568	571	0.0
49	1	565	568	0.0
50	1	562	565	0.0
51	1	559	562	0.0
52	1	556	559	0.0
53	1	554	556	0.0
54	1	683	685	0.0
55	1	685	688	0.0
56	1	688	691	0.0
57	1	691	694	0.0
58	1	694	697	0.0
59	1	838	697	0.0
60	1	835	838	0.0
61	1	832	835	0.0
62	1	829	832	0.0
63	1	826	829	0.0
64	1	823	826	0.0
65	1	550	946	0.0
66	1	946	949	0.0
67	1	949	952	0.0
68	1	952	955	0.0
69	1	955	823	0.0
70	1	697	700	0.0
71	1	700	703	0.0
72	1	703	706	0.0
73	1	706	709	0.0
74	1	709	712	0.0
75	1	712	715	0.0
76	1	715	718	0.0
77	1	943	712	0.0
78	1	940	943	0.0
79	1	937	940	0.0
80	1	934	937	0.0
81	1	931	934	0.0
82	1	928	931	0.0
83	1	823	958	0.0
84	1	958	961	0.0
85	1	961	964	0.0
86	1	964	967	0.0
87	1	967	928	0.0
88	1	718	994	0.0
89	1	994	997	0.0
90	1	997	1000	0.0
91	1	1004	1000	0.0
92	1	1004	1008	0.0
93	1	1008	1005	0.0
94	1	1005	979	0.0
95	1	928	970	0.0
96	1	970	973	0.0
97	1	973	976	0.0
98	1	976	979	0.0
99	1	991	979	0.0
100	1	988	991	0.0
101	1	985	988	0.0
102	1	982	985	0.0
103	1	767	982	0.0
104	1	763	767	0.0
105	1	760	763	0.0
106	1	757	760	0.0
107	1	754	757	0.0
108	1	914	754	0.0
109	1	925	928	0.0

110	1	922	925	0.0
111	1	919	922	0.0
112	1	916	919	0.0
113	1	914	916	0.0
114	1	550	554	0.0
115	1	547	550	0.0
116	1	544	547	0.0
117	1	541	544	0.0
118	1	538	541	0.0
119	1	535	538	0.0
120	1	533	535	0.0
121	1	820	823	0.0
122	1	817	820	0.0
123	1	814	817	0.0
124	1	811	814	0.0
125	1	737	811	0.0
126	1	533	721	0.0
127	1	721	724	0.0
128	1	724	727	0.0
129	1	727	730	0.0
130	1	730	733	0.0
131	1	733	737	0.0
132	1	529	533	0.0
133	1	526	529	0.0
134	1	473	526	0.0
136	1	463	466	0.0
137	1	460	463	0.0
138	1	457	460	0.0
139	1	454	457	0.0
140	1	451	454	0.0
141	1	448	451	0.0
142	1	445	448	0.0
143	1	442	445	0.0
144	1	229	442	0.0
145	1	228	229	0.0
146	1	234	228	0.0
147	1	237	234	0.0
148	1	237	241	0.0
149	1	241	244	0.0
150	1	244	247	0.0
151	1	247	250	0.0
152	1	250	253	0.0
153	1	474	454	0.0
154	1	477	474	0.0
155	1	253	477	0.0
156	1	253	257	0.0
157	1	257	499	0.0
158	1	499	502	0.0
159	1	502	505	0.0
160	1	505	508	0.0
161	1	508	511	0.0
162	1	511	490	0.0
163	1	496	473	0.0
164	1	493	496	0.0
165	1	490	493	0.0
166	1	258	257	0.0
167	1	261	258	0.0
168	1	264	261	0.0
169	1	267	264	0.0
170	1	270	267	0.0
171	1	273	270	0.0
172	1	273	278	0.0
173	1	278	280	0.0
174	1	280	283	0.0
175	1	283	286	0.0
176	1	286	289	0.0
177	1	289	292	0.0
178	1	292	296	0.0
179	1	296	298	0.0
180	1	298	301	0.0
181	1	267	514	0.0
182	1	514	517	0.0
183	1	517	520	0.0
184	1	520	523	0.0
185	1	523	301	0.0
186	1	301	305	0.0
187	1	487	490	0.0
188	1	484	487	0.0
189	1	481	484	0.0
190	1	305	481	0.0
191	1	305	307	0.0
192	1	307	310	0.0
193	1	310	313	0.0
194	1	313	316	0.0
195	1	316	319	0.0
196	1	319	322	0.0
197	1	322	325	0.0
198	1	325	328	0.0

199	1	328	331	0.0
200	1	331	334	0.0
201	1	862	733	0.0
202	1	859	862	0.0
203	1	856	859	0.0
204	1	853	856	0.0
205	1	850	853	0.0
206	1	847	850	0.0
207	1	844	847	0.0
208	1	841	844	0.0
209	1	319	841	0.0
210	1	737	739	0.0
211	1	739	742	0.0
212	1	742	745	0.0
213	1	745	748	0.0
214	1	748	752	0.0
215	1	752	914	0.0
216	1	886	748	0.0
217	1	883	886	0.0
218	1	880	883	0.0
219	1	877	880	0.0
220	1	874	877	0.0
221	1	871	874	0.0
222	1	868	871	0.0
223	1	865	868	0.0
224	1	334	865	0.0
225	1	910	763	0.0
226	1	907	910	0.0
227	1	904	907	0.0
228	1	901	904	0.0
229	1	898	901	0.0
230	1	895	898	0.0
231	1	892	895	0.0
232	1	889	892	0.0
233	1	349	889	0.0
234	1	334	337	0.0
235	1	337	340	0.0
236	1	340	343	0.0
237	1	343	346	0.0
238	1	346	349	0.0
239	1	349	352	0.0
240	1	352	355	0.0
241	1	355	358	0.0
242	1	358	361	0.0
243	1	361	364	0.0
244	1	364	419	0.0
245	1	419	421	0.0
246	1	421	424	0.0
247	1	424	427	0.0
248	1	427	430	0.0
249	1	430	433	0.0
250	1	433	436	0.0
251	1	436	439	0.0
252	1	439	415	0.0
253	1	368	364	0.0
254	1	369	368	0.0
255	1	372	369	0.0
256	1	375	372	0.0
257	1	380	375	0.0
258	1	380	382	0.0
259	1	382	385	0.0
260	1	385	388	0.0
261	1	388	391	0.0
262	1	391	394	0.0
263	1	394	397	0.0
264	1	397	400	0.0
265	1	400	403	0.0
266	1	403	407	0.0
270	1	1330	427	0.0
271	1	1327	1330	0.0
272	1	391	1327	0.0
273	1	1020	1024	0.0
274	1	1024	1027	0.0
275	1	1027	1030	0.0
276	1	1032	1030	0.0
277	1	1035	1032	0.0
278	1	419	1035	0.0
279	1	1126	1129	0.0
280	1	1123	1126	0.0
281	1	1120	1123	0.0
282	1	1117	1120	0.0
283	1	1114	1117	0.0
284	1	427	1114	0.0
285	1	1198	1168	0.0
286	1	1195	1198	0.0
287	1	1189	1195	0.0
288	1	1192	1189	0.0
289	1	439	1192	0.0

290	1	1030	1174	0.0
291	1	1174	1177	0.0
292	1	1177	1120	0.0
293	1	1120	1180	0.0
294	1	1180	1183	0.0
295	1	1183	1186	0.0
296	1	1186	1189	0.0
297	1	1020	1153	0.0
298	1	1153	1156	0.0
299	1	1156	1129	0.0
300	1	1129	1159	0.0
301	1	1159	1162	0.0
302	1	1162	1165	0.0
303	1	1165	1168	0.0
304	1	1168	1172	0.0
305	1	785	787	0.0
306	1	787	790	0.0
307	1	790	793	0.0
308	1	793	797	0.0
309	1	797	800	0.0
310	1	800	802	0.0
311	1	802	805	0.0
312	1	805	808	0.0
313	1	1207	808	0.0
314	1	1204	1207	0.0
315	1	1201	1204	0.0
316	1	1172	1201	0.0
317	1	1011	785	0.0
318	1	1014	1011	0.0
319	1	1017	1014	0.0
320	1	1020	1017	0.0
321	1	1138	793	0.0
322	1	1135	1138	0.0
323	1	1132	1135	0.0
324	1	1129	1132	0.0
325	1	767	770	0.0
326	1	770	772	0.0
327	1	772	775	0.0
328	1	775	778	0.0
329	1	778	782	0.0
330	1	782	785	0.0
331	1	782	1039	0.0
332	1	1039	1042	0.0
333	1	1042	1045	0.0
334	1	1045	1048	0.0
335	1	1048	1051	0.0
336	1	1051	1055	0.0
337	1	1055	1057	0.0
338	1	1057	1060	0.0
339	1	1060	1063	0.0
340	1	1063	1066	0.0
341	1	1066	1070	0.0
342	1	1150	1066	0.0
343	1	1147	1150	0.0
344	1	1144	1147	0.0
345	1	1141	1144	0.0
346	1	797	1141	0.0
347	1	1219	1078	0.0
348	1	1216	1219	0.0
349	1	1213	1216	0.0
350	1	1210	1213	0.0
351	1	808	1210	0.0
352	1	1070	1072	0.0
353	1	1072	1075	0.0
354	1	1075	1078	0.0
355	1	1078	1081	0.0
356	1	1081	1084	0.0
357	1	1084	1087	0.0
358	1	1087	1090	0.0
359	1	1090	1094	0.0
360	1	1094	1097	0.0
361	1	1097	1099	0.0
362	1	1099	1102	0.0
363	1	1102	1105	0.0
364	1	1105	1108	0.0
365	1	1108	1112	0.0
366	1	1112	1288	0.0
367	1	1288	1291	0.0
368	1	1291	1294	0.0
369	1	1294	1297	0.0
370	1	1297	1300	0.0
371	1	1300	1271	0.0
372	1	1267	1271	0.0
373	1	1264	1267	0.0
374	1	1261	1264	0.0
375	1	1258	1261	0.0
376	1	1255	1258	0.0
377	1	1252	1255	0.0

378	1	1249	1252	0.0
379	1	1246	1249	0.0
380	1	1244	1246	0.0
381	1	1240	1244	0.0
382	1	1237	1240	0.0
383	1	1234	1237	0.0
384	1	1232	1234	0.0
385	1	1228	1232	0.0
386	1	1228	1303	0.0
387	1	1303	1306	0.0
388	1	1306	1309	0.0
389	1	1309	1312	0.0
390	1	1312	1315	0.0
391	1	1315	1279	0.0
392	1	1279	1318	0.0
393	1	1318	1321	0.0
394	1	1321	1324	0.0
395	1	1324	1294	0.0
396	1	1225	1228	0.0
397	1	1222	1225	0.0
398	1	1070	1222	0.0
399	1	1285	1255	0.0
400	1	1282	1285	0.0
401	1	1279	1282	0.0
402	1	1276	1279	0.0
403	1	1273	1276	0.0
404	1	1090	1273	0.0
416	1	140	150	0.0
417	1	150	151	0.0
426	1	123	1335	0.0
427	1	1335	74	0.0
428	1	172	1335	0.0
429	1	2	1335	0.0
430	1	155	140	0.0
431	1	162	155	0.0
432	1	163	162	0.0
433	1	164	163	0.0
434	1	168	164	0.0
435	1	172	168	0.0
436	1	197	172	0.0
437	1	193	197	0.0
438	1	189	193	0.0
439	1	185	189	0.0
440	1	183	185	0.0
441	1	182	183	0.0
442	1	48	182	0.0
443	1	48	21	0.0
444	1	21	17	0.0
445	1	17	13	0.0
446	1	13	9	0.0
447	1	9	1	0.0
448	1	1	2	0.0
449	1	2	41	0.0
450	1	41	37	0.0
451	1	37	33	0.0
452	1	33	25	0.0
453	1	25	26	0.0
454	1	26	52	0.0
455	1	52	54	0.0
466	1	809	153	0.0
467	1	1170	175	0.0
468	1	416	178	0.0
470	2	594	662	0.0
471	2	662	665	0.0
472	2	665	641	0.0
473	2	638	641	0.0
474	2	635	638	0.0
475	2	632	635	0.0
476	2	629	632	0.0
477	2	626	629	0.0
478	2	605	626	0.0
479	2	573	599	0.0
480	2	599	602	0.0
481	2	602	605	0.0
482	2	605	608	0.0
483	2	608	611	0.0
484	2	611	614	0.0
485	2	614	644	0.0
486	2	644	647	0.0
487	2	647	650	0.0
488	2	650	653	0.0
489	2	653	656	0.0
490	2	656	659	0.0
491	2	641	668	0.0
492	2	668	671	0.0
493	2	671	659	0.0
494	2	659	674	0.0
495	2	674	677	0.0



496	2	677	680	0.0
497	2	680	572	0.0
498	2	569	572	0.0
499	2	566	569	0.0
500	2	563	566	0.0
501	2	560	563	0.0
502	2	557	560	0.0
503	2	552	557	0.0
504	2	614	617	0.0
505	2	617	620	0.0
506	2	620	623	0.0
507	2	623	552	0.0
508	2	572	681	0.0
509	2	681	686	0.0
510	2	686	689	0.0
511	2	689	692	0.0
512	2	692	695	0.0
513	2	695	698	0.0
514	2	839	698	0.0
515	2	836	839	0.0
516	2	833	836	0.0
517	2	830	833	0.0
518	2	827	830	0.0
519	2	824	827	0.0
520	2	698	701	0.0
521	2	701	704	0.0
522	2	704	707	0.0
523	2	707	710	0.0
524	2	710	713	0.0
525	2	713	716	0.0
526	2	716	719	0.0
527	2	944	713	0.0
528	2	941	944	0.0
529	2	938	941	0.0
530	2	935	938	0.0
531	2	932	935	0.0
532	2	929	932	0.0
533	2	719	995	0.0
534	2	995	998	0.0
535	2	998	1001	0.0
536	2	1003	1001	0.0
537	2	1003	1010	0.0
538	2	1010	1007	0.0
539	2	1007	980	0.0
540	2	929	971	0.0
541	2	971	974	0.0
542	2	974	977	0.0
543	2	977	980	0.0
544	2	551	552	0.0
545	2	551	947	0.0
546	2	947	950	0.0
547	2	950	953	0.0
548	2	953	956	0.0
549	2	956	824	0.0
550	2	824	959	0.0
551	2	959	962	0.0
552	2	962	965	0.0
553	2	965	968	0.0
554	2	968	929	0.0
555	2	548	551	0.0
556	2	545	548	0.0
557	2	542	545	0.0
558	2	539	542	0.0
559	2	536	539	0.0
560	2	531	536	0.0
561	2	531	722	0.0
562	2	722	725	0.0
563	2	725	728	0.0
564	2	728	731	0.0
565	2	731	734	0.0
566	2	734	735	0.0
567	2	735	740	0.0
568	2	740	743	0.0
569	2	743	746	0.0
570	2	746	749	0.0
571	2	749	750	0.0
572	2	750	912	0.0
573	2	912	755	0.0
574	2	755	758	0.0
575	2	758	761	0.0
576	2	761	764	0.0
577	2	764	765	0.0
578	2	765	768	0.0
579	2	821	824	0.0
580	2	818	821	0.0
581	2	815	818	0.0
582	2	812	815	0.0
583	2	735	812	0.0

584	2	926	929	0.0
585	2	923	926	0.0
586	2	920	923	0.0
587	2	917	920	0.0
588	2	912	917	0.0
589	2	992	980	0.0
590	2	989	992	0.0
591	2	986	989	0.0
592	2	983	986	0.0
593	2	765	983	0.0
594	2	530	531	0.0
595	2	527	530	0.0
596	2	471	527	0.0
597	2	470	471	0.0
598	2	467	470	0.0
599	2	464	467	0.0
600	2	461	464	0.0
601	2	458	461	0.0
602	2	455	458	0.0
603	2	452	455	0.0
604	2	449	452	0.0
605	2	446	449	0.0
606	2	443	446	0.0
607	2	232	443	0.0
608	2	233	232	0.0
609	2	236	233	0.0
610	2	239	236	0.0
611	2	239	242	0.0
612	2	242	245	0.0
613	2	245	248	0.0
614	2	248	251	0.0
615	2	251	254	0.0
616	2	254	255	0.0
617	2	255	500	0.0
618	2	500	503	0.0
619	2	503	506	0.0
620	2	506	509	0.0
621	2	509	512	0.0
622	2	512	491	0.0
623	2	476	455	0.0
624	2	479	476	0.0
625	2	254	479	0.0
626	2	260	255	0.0
627	2	263	260	0.0
628	2	266	263	0.0
629	2	269	266	0.0
630	2	497	471	0.0
631	2	494	497	0.0
632	2	491	494	0.0
633	2	488	491	0.0
634	2	485	488	0.0
635	2	482	485	0.0
636	2	303	482	0.0
637	2	269	515	0.0
638	2	515	518	0.0
639	2	518	521	0.0
640	2	521	524	0.0
641	2	524	302	0.0
642	2	302	303	0.0
646	2	287	290	0.0
647	2	284	287	0.0
648	2	281	284	0.0
649	2	276	281	0.0
650	2	275	276	0.0
651	2	272	269	0.0
652	2	275	272	0.0
653	20	303	308	0.0
654	20	308	311	0.0
655	20	311	314	0.0
656	20	314	317	0.0
657	20	317	320	0.0
658	20	320	323	0.0
659	20	323	326	0.0
660	20	326	329	0.0
661	20	329	332	0.0
662	20	332	335	0.0
663	2	863	734	0.0
664	2	860	863	0.0
665	2	857	860	0.0
666	2	854	857	0.0
667	2	851	854	0.0
668	2	848	851	0.0
669	2	845	848	0.0
670	2	842	845	0.0
671	2	320	842	0.0
672	2	887	749	0.0
673	2	884	887	0.0
674	2	881	884	0.0

675	2	878	881	0.0
676	2	875	878	0.0
677	2	872	875	0.0
678	2	869	872	0.0
679	2	866	869	0.0
680	2	335	866	0.0
681	2	911	764	0.0
682	2	908	911	0.0
683	2	905	908	0.0
684	2	902	905	0.0
685	2	899	902	0.0
686	2	896	899	0.0
687	2	893	896	0.0
688	2	890	893	0.0
689	2	350	890	0.0
690	20	335	338	0.0
691	20	338	341	0.0
692	20	341	344	0.0
693	20	344	347	0.0
694	20	347	350	0.0
695	20	350	353	0.0
696	20	353	356	0.0
697	20	356	359	0.0
698	20	359	362	0.0
699	20	362	365	0.0
700	20	365	417	0.0
701	2	768	773	0.0
702	2	773	776	0.0
703	2	776	779	0.0
704	2	779	780	0.0
705	2	780	783	0.0
706	2	1013	783	0.0
707	2	1016	1013	0.0
708	2	1019	1016	0.0
709	2	1022	1019	0.0
710	2	1022	1025	0.0
711	2	1025	1028	0.0
712	2	1028	1031	0.0
713	2	1034	1031	0.0
714	2	1037	1034	0.0
715	2	417	1037	0.0
716	2	367	365	0.0
717	2	371	367	0.0
718	2	374	371	0.0
719	2	377	374	0.0
720	2	379	377	0.0
721	2	379	383	0.0
722	2	383	386	0.0
723	2	386	389	0.0
724	2	389	392	0.0
725	2	392	395	0.0
726	2	395	398	0.0
727	2	398	401	0.0
728	2	401	404	0.0
729	2	404	405	0.0
733	2	1331	428	0.0
734	2	1328	1331	0.0
735	2	392	1328	0.0
736	20	417	422	0.0
737	20	422	425	0.0
738	20	425	428	0.0
739	20	428	431	0.0
740	20	431	434	0.0
741	20	434	437	0.0
742	20	437	440	0.0
743	20	440	416	0.0
744	2	1118	1121	0.0
745	2	1115	1118	0.0
746	2	428	1115	0.0
747	2	1193	1190	0.0
748	2	440	1193	0.0
749	2	1031	1175	0.0
750	2	1175	1178	0.0
751	2	1178	1121	0.0
752	2	1121	1181	0.0
753	2	1181	1184	0.0
754	2	1184	1187	0.0
755	2	1187	1190	0.0
756	2	1022	1154	0.0
757	2	1154	1157	0.0
758	2	1157	1130	0.0
759	2	1130	1160	0.0
760	2	1160	1163	0.0
761	2	1163	1166	0.0
762	2	1166	1169	0.0
763	2	1169	1170	0.0
764	2	1127	1130	0.0
765	2	1124	1127	0.0

766	2	1121	1124	0.0
767	2	1199	1169	0.0
768	2	1196	1199	0.0
769	2	1190	1196	0.0
770	2	783	788	0.0
771	2	788	791	0.0
772	2	791	794	0.0
773	2	794	795	0.0
774	2	795	798	0.0
775	2	798	803	0.0
776	2	803	806	0.0
777	2	806	809	0.0
778	2	1139	794	0.0
779	2	1136	1139	0.0
780	2	1133	1136	0.0
781	2	1130	1133	0.0
782	2	1208	809	0.0
783	2	1205	1208	0.0
784	2	1202	1205	0.0
785	2	1170	1202	0.0
786	2	780	1040	0.0
787	2	1040	1043	0.0
788	2	1043	1046	0.0
789	2	1046	1049	0.0
790	2	1049	1052	0.0
791	2	1052	1053	0.0
792	2	1053	1058	0.0
793	2	1058	1061	0.0
794	2	1061	1064	0.0
795	2	1064	1067	0.0
796	2	1067	1068	0.0
797	2	1151	1067	0.0
798	2	1148	1151	0.0
799	2	1145	1148	0.0
800	2	1142	1145	0.0
801	2	795	1142	0.0
802	2	1068	1073	0.0
803	2	1073	1076	0.0
804	2	1076	1079	0.0
805	2	1079	1082	0.0
806	2	1082	1085	0.0
807	2	1085	1088	0.0
808	2	1088	1091	0.0
809	2	1091	1092	0.0
810	2	1220	1079	0.0
811	2	1217	1220	0.0
812	2	1214	1217	0.0
813	2	1211	1214	0.0
814	2	809	1211	0.0
815	2	1092	1095	0.0
816	2	1095	1100	0.0
817	2	1100	1103	0.0
818	2	1103	1106	0.0
819	2	1068	1223	0.0
820	2	1223	1226	0.0
821	2	1226	1229	0.0
822	2	1229	1304	0.0
823	2	1304	1307	0.0
824	2	1307	1310	0.0
825	2	1310	1313	0.0
826	2	1313	1316	0.0
827	2	1316	1280	0.0
828	2	1277	1280	0.0
829	2	1274	1277	0.0
830	2	1091	1274	0.0
831	2	1229	1230	0.0
832	2	1230	1235	0.0
833	2	1235	1238	0.0
834	2	1238	1241	0.0
835	2	1241	1242	0.0
836	2	1242	1247	0.0
837	2	1247	1250	0.0
838	2	1250	1253	0.0
839	2	1253	1256	0.0
840	2	1286	1256	0.0
842	2	1283	1286	0.0
843	2	1280	1283	0.0
844	2	1280	1319	0.0
845	2	1319	1322	0.0
846	2	1322	1325	0.0
847	2	1325	1295	0.0
848	2	1256	1259	0.0
849	2	1259	1262	0.0
850	2	1262	1265	0.0
851	2	1265	1268	0.0
852	2	1268	1269	0.0
853	2	1301	1269	0.0
854	2	1298	1301	0.0

855	2	1295	1298	0.0
856	2	1292	1295	0.0
857	2	1289	1292	0.0
858	2	1110	1289	0.0
859	2	1109	1110	0.0
860	2	1106	1109	0.0
869	2	144	146	0.0
870	2	143	144	0.0
886	2	153	143	0.0
887	2	157	153	0.0
888	2	159	157	0.0
889	2	167	159	0.0
890	2	171	167	0.0
891	2	175	171	0.0
892	2	199	175	0.0
893	2	195	199	0.0
894	2	191	195	0.0
895	2	187	191	0.0
896	2	178	187	0.0
897	2	176	178	0.0
898	2	46	176	0.0
899	2	46	24	0.0
900	2	24	20	0.0
901	2	20	16	0.0
902	2	16	12	0.0
903	2	12	8	0.0
904	2	8	7	0.0
905	2	7	44	0.0
906	2	44	40	0.0
907	2	40	36	0.0
908	2	36	32	0.0
909	2	32	31	0.0
910	2	31	49	0.0
911	2	49	56	0.0
916	2	290	293	0.0
917	2	299	302	0.0
918	2	294	299	0.0
919	2	293	294	0.0
920	1	466	469	0.0
921	1	469	473	0.0
922	1	146	1092	0.0
923	3	232	1336	0.0
924	3	239	1337	0.0
925	3	455	1338	0.0
926	3	254	1339	0.0
927	3	269	1340	90.0
928	3	276	1341	0.0
929	3	574	1342	90.0
930	3	593	1343	90.0
931	3	641	1344	0.0
932	3	605	1345	0.0
933	3	659	1346	0.0
934	3	614	1347	0.0
935	3	551	1348	90.0
936	3	470	1349	0.0
937	3	530	1350	90.0
938	3	542	1351	90.0
939	3	681	1352	0.0
940	3	698	1353	0.0
941	4	713	1354	0.0
942	3	1003	1355	90.0
945	3	929	1360	90.0
946	3	980	1361	90.0
947	3	824	1362	90.0
948	3	735	1363	0.0
949	3	750	1364	0.0
950	3	293	1365	0.0
951	3	302	1366	0.0
953	3	512	1368	0.0
956	3	377	1371	90.0
957	3	367	1372	90.0
958	3	1031	1373	0.0
959	3	392	1374	0.0
960	3	768	1375	0.0
961	3	779	1376	0.0
962	3	1022	1377	0.0
963	3	1053	1378	0.0
964	3	1067	1379	0.0
965	3	798	1380	0.0
966	3	1229	1381	90.0
967	3	1242	1382	0.0
968	3	1256	1383	0.0
969	3	1268	1384	0.0
970	3	1280	1385	90.0
971	3	1095	1387	0.0
972	3	1109	1388	0.0
973	3	153	1389	90.0
975	7	175	1391	0.0

977	3	1130	1393	0.0
978	3	1121	1394	0.0
979	3	1170	1395	0.0
980	3	1190	1396	0.0
981	3	405	1397	90.0
982	3	24	1398	0.0
984	3	49	1401	90.0
985	3	76	1402	0.0
986	3	92	1403	90.0
987	3	1366	1404	0.0
988	3	7	1405	0.0
990	5	1335	1399	90.0
991	5	1399	1400	90.0
992	8	1406	1344	0.0
993	8	1343	1406	0.0
994	8	1342	1343	0.0
995	8	1407	1342	0.0
996	8	1407	1345	0.0
997	9	1345	1344	0.0
998	8	1344	1346	0.0
999	8	1345	1347	0.0
1000	9	1347	1346	0.0
1001	8	1346	1408	0.0
1002	8	1347	1409	0.0
1003	17	1409	1408	0.0
1004	8	1408	1352	0.0
1005	8	1352	1353	0.0
1006	8	1353	1354	0.0
1007	8	1354	1410	0.0
1008	8	1410	1411	0.0
1009	8	1355	1411	0.0
1010	8	1355	1361	0.0
1011	20	1360	1354	0.0
1012	29	1360	1361	0.0
1013	20	1412	1360	0.0
1014	8	1413	1361	0.0
1015	20	1362	1353	0.0
1016	29	1362	1360	0.0
1017	29	1348	1362	0.0
1018	8	1348	1409	0.0
1019	8	1414	1351	0.0
1020	30	1414	1484	0.0
1021	30	1415	1363	0.0
1022	20	1363	1362	0.0
1023	30	1363	1489	0.0
1024	30	1364	1412	0.0
1025	30	1412	1495	0.0
1026	30	1417	1413	0.0
1027	30	1416	1364	0.0
1028	8	1337	1336	0.0
1029	8	1336	1338	0.0
1030	8	1338	1349	0.0
1031	30	1350	1414	0.0
1032	30	1418	1350	0.0
1033	8	1349	1418	0.0
1034	8	1337	1339	0.0
1035	8	1339	1419	0.0
1036	9	1339	1338	0.0
1037	20	1419	1368	0.0
1038	8	1368	1420	0.0
1039	8	1340	1419	0.0
1040	17	1340	1366	0.0
1041	8	1421	1340	0.0
1042	8	1422	1366	0.0
1043	8	1421	1341	0.0
1044	8	1341	1365	0.0
1045	8	1365	1422	0.0
1046	30	1420	1418	0.0
1047	30	1423	1420	0.0
1048	30	1366	1423	0.0
1053	8	1425	1371	0.0
1054	8	1425	1374	0.0
1055	8	1374	1426	0.0
1056	8	1426	1397	0.0
1057	8	1371	1372	0.0
1058	3	1397	1502	0.0
1063	8	1424	1431	0.0
1065	30	1377	1373	0.0
1066	30	1431	1373	0.0
1067	17	1394	1393	0.0
1073	30	1413	1375	0.0
1074	30	1375	1376	0.0
1077	30	1377	1434	0.0
1079	20	1377	1393	0.0
1080	17	1393	1435	0.0
1081	8	1434	1435	0.0
1082	8	1435	1436	0.0
1083	8	1436	1380	0.0

1084	8	1433	1437	0.0
1085	8	1437	1378	0.0
1086	17	1436	1379	0.0
1089	8	1395	1438	0.0
1092	5	1428	1611	0.0
1093	5	1439	1428	0.0
1094	8	1439	1398	0.0
1095	5	1389	1440	0.0
1097	25	1391	1400	0.0
1098	25	1400	1402	0.0
1099	26	1392	1400	0.0
1100	26	1405	1400	0.0
1101	8	1392	1441	0.0
1104	8	1405	1443	0.0
1105	8	1401	1402	0.0
1106	8	1443	1401	0.0
1107	8	1403	1441	0.0
1108	8	1402	1403	0.0
1109	8	1438	1612	0.0
1110	8	1445	1444	0.0
1111	8	1379	1445	0.0
1112	8	1445	1381	0.0
1113	8	1381	1446	0.0
1114	8	1446	1447	0.0
1115	8	1447	1382	0.0
1116	8	1382	1383	0.0
1117	17	1381	1385	0.0
1118	8	1383	1384	0.0
1119	17	1385	1448	0.0
1120	8	1385	1383	0.0
1121	8	1448	1449	0.0
1122	8	1384	1449	0.0
1123	8	1450	1448	0.0
1124	8	1388	1450	0.0
1125	8	1387	1388	0.0
1126	8	1451	1385	0.0
1127	8	1444	1451	0.0
1128	8	1451	1452	0.0
1129	8	1452	1387	0.0
1130	8	1440	1452	0.0
1131	8	1398	1405	0.0
1135	13	1460	1483	0.0
1136	13	1461	1462	0.0
1137	13	1462	1490	0.0
1138	13	1464	1465	0.0
1139	13	1465	1496	0.0
1140	13	1466	1467	0.0
1141	28	1468	1461	0.0
1142	28	1469	1463	0.0
1143	13	1463	1464	0.0
1144	28	1470	1466	0.0
1145	13	1471	1460	0.0
1146	13	1472	1471	0.0
1147	13	1473	1472	0.0
1148	13	1474	1473	0.0
1149	13	1404	1474	0.0
1154	27	1475	1476	0.0
1155	13	1477	1478	0.0
1156	13	1476	1478	0.0
1157	13	1467	1479	0.0
1158	13	1479	1480	0.0
1161	13	1477	1482	0.0
1162	21	320	1468	0.0
1163	21	335	1469	0.0
1164	21	350	1470	0.0
1165	27	1474	1468	0.0
1166	27	1468	1469	0.0
1167	27	1469	1470	0.0
1168	27	1470	1475	0.0
1169	14	1423	1474	0.0
1170	14	1431	1476	0.0
1171	14	1420	1473	0.0
1172	14	1418	1472	0.0
1173	14	1414	1460	0.0
1174	3	1350	1471	90.0
1175	15	1484	1483	0.0
1176	15	1486	1485	0.0
1177	15	1488	1487	0.0
1178	15	1415	1461	0.0
1179	15	1489	1490	0.0
1180	15	1491	1492	0.0
1181	15	1493	1494	0.0
1182	15	1416	1463	0.0
1183	15	1412	1465	0.0
1184	15	1495	1496	0.0
1185	15	1497	1498	0.0
1186	15	1417	1466	0.0
1187	15	1413	1467	0.0

1188	3	1363	1462	0.0
1189	3	1364	1464	0.0
1190	3	1375	1479	0.0
1191	3	1376	1480	0.0
1192	30	1484	1486	0.0
1193	30	1486	1488	0.0
1194	30	1488	1415	0.0
1195	30	1489	1491	0.0
1196	30	1491	1493	0.0
1197	30	1493	1416	0.0
1198	30	1495	1497	0.0
1199	30	1497	1417	0.0
1200	13	1483	1485	0.0
1201	13	1485	1487	0.0
1202	13	1487	1461	0.0
1203	13	1490	1492	0.0
1204	13	1492	1494	0.0
1205	13	1494	1463	0.0
1206	13	1496	1498	0.0
1207	13	1498	1466	0.0
1208	15	1424	1475	0.0
1209	3	1373	1478	0.0
1210	3	1377	1477	0.0
1211	15	1434	1482	0.0
1212	13	1480	1482	0.0
1214	30	1376	1433	0.0
1215	30	1433	1434	0.0
1216	17	175	1399	0.0
1217	17	1399	76	0.0
1218	18	121	1399	0.0
1219	18	7	1399	0.0
1220	2	405	1500	0.0
1221	2	1500	416	0.0
1222	1	407	1501	0.0
1223	1	1501	415	0.0
1224	19	1500	46	0.0
1225	8	1502	1439	0.0
1227	8	1351	1348	0.0
1228	8	1372	1424	0.0
1230	8	1378	1379	0.0
1232	5	74	76	90.0
1233	22	90	92	0.0
1234	5	123	121	90.0
1235	8	121	1392	0.0
1236	5	1391	1389	0.0
1240	1	151	1564	0.0
1241	1	140	123	0.0
1242	1	1564	1568	0.0
1243	1	1568	1572	0.0
1244	1	1572	1576	0.0
1245	1	1576	1580	0.0
1246	1	123	1580	0.0
1247	1	1580	1584	0.0
1248	1	1584	1588	0.0
1249	1	1588	1592	0.0
1250	1	1592	1596	0.0
1251	1	1596	1600	0.0
1252	1	1600	1606	0.0
1253	1	1606	1562	0.0
1254	1	123	1607	0.0
1255	1	1608	1552	0.0
1256	1	1600	1608	0.0
1257	1	1561	1562	0.0
1258	1	1552	1561	0.0
1259	1	1548	1552	0.0
1260	1	1544	1548	0.0
1261	1	1540	1544	0.0
1262	1	1536	1540	0.0
1263	1	1532	1536	0.0
1264	1	90	1607	0.0
1265	1	74	90	0.0
1266	1	74	1532	0.0
1267	1	1528	1532	0.0
1268	1	1524	1528	0.0
1269	1	1520	1524	0.0
1270	1	1516	1520	0.0
1271	1	1512	1516	0.0
1272	1	1510	1512	0.0
1273	1	1509	1510	0.0
1274	1	26	1509	0.0
1275	1	54	74	0.0
1276	18	121	1582	0.0
1277	23	143	121	0.0
1278	23	121	1609	0.0
1279	23	1609	1554	0.0
1280	23	1609	1602	0.0
1281	23	92	1609	0.0
1282	23	76	92	0.0



1284	23	76	1534	0.0
1286	2	31	1503	0.0
1287	2	1503	1505	0.0
1288	2	146	1566	0.0
1289	2	1566	1570	0.0
1290	2	1570	1574	0.0
1291	2	1574	1578	0.0
1292	2	1578	1582	0.0
1293	2	1582	1586	0.0
1294	2	1586	1590	0.0
1295	2	1590	1594	0.0
1296	2	1594	1598	0.0
1297	2	1598	1602	0.0
1298	2	1602	1603	0.0
1299	2	1603	1557	0.0
1300	2	1555	1557	0.0
1301	2	1554	1555	0.0
1302	2	1550	1554	0.0
1303	2	1546	1550	0.0
1304	2	1542	1546	0.0
1305	2	1538	1542	0.0
1306	2	1534	1538	0.0
1307	2	1530	1534	0.0
1308	2	1526	1530	0.0
1309	2	1522	1526	0.0
1310	2	1518	1522	0.0
1311	2	1514	1518	0.0
1312	2	1505	1514	0.0
1313	2	1610	1518	0.0
1314	23	1610	76	0.0
1315	23	56	1610	0.0
1317	8	1295	1448	90.0
1318	3	1373	1394	0.0
1319	3	1394	1396	0.0
1320	3	1396	1613	0.0
1322	5	1611	1391	0.0
1324	11	1374	1394	0.0
1326	8	1612	1444	0.0
1327	20	1393	1395	0.0
1328	5	1395	1391	0.0
1329	8	1613	1395	0.0
1330	8	1613	1502	0.0
1332	33	1406	1614	0.0
1333	33	1344	1615	0.0
1334	33	1345	1616	0.0
1335	33	1407	1617	0.0
1336	33	1619	1618	0.0
1337	33	1619	1620	0.0
1338	33	1621	1619	0.0
1339	33	1619	1622	0.0
1340	33	1623	1620	0.0
1341	33	1620	1624	0.0
1342	33	1625	1626	0.0
1343	33	1626	1627	0.0
1344	33	1622	1628	0.0
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1346	33	1620	1628	0.0
1347	33	1625	1629	0.0
1348	33	1629	1621	0.0
1349	33	1629	1620	0.0
1350	33	1620	1626	0.0
1351	33	1626	1630	0.0
1352	33	1630	1631	0.0
1353	33	1632	1631	0.0
1354	33	1633	1632	0.0
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1356	33	1636	1637	0.0
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1358	33	1336	1639	0.0
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1360	33	1419	1641	0.0
1361	33	1340	1642	0.0
1362	33	1421	1643	0.0
1363	32	1637	1633	0.0
1364	32	1633	1643	0.0
1365	32	1635	1632	0.0
1366	32	1638	1631	0.0
1367	32	1637	1635	0.0
1368	32	1635	1638	0.0
1369	32	1638	1639	0.0
1370	32	1639	1625	0.0
1371	32	1623	1621	0.0
1372	32	1624	1627	0.0
1373	32	1616	1622	0.0
1374	32	1640	1641	0.0
1375	32	1642	1641	0.0
1376	32	1643	1642	0.0
1377	32	1632	1642	0.0

1378	32	1631	1641	0.0
1379	32	1625	1623	0.0
1380	32	1627	1640	0.0
1381	32	1622	1624	0.0
1382	32	1621	1617	0.0
1383	32	1639	1630	0.0
1384	32	1630	1640	0.0
1385	34	1635	1645	0.0
1386	34	1637	1645	0.0
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657	1	917	920	918	915
658	1	918	921	922	919
659	1	920	923	921	918
660	1	921	924	925	922
661	1	923	926	924	921
662	1	924	927	928	925
663	1	926	929	927	924



664	1	927	930	931	928
665	1	929	932	930	927
666	1	930	933	934	931
667	1	932	935	933	930
668	1	933	936	937	934
669	1	935	938	936	933
670	1	936	939	940	937
671	1	938	941	939	936
672	1	939	942	943	940
673	1	941	944	942	939
674	1	942	711	712	943
675	1	944	713	711	942
676	1	549	945	946	550
677	1	551	947	945	549
678	1	945	948	949	946
679	1	947	950	948	945
680	1	948	951	952	949
681	1	950	953	951	948
682	1	951	954	955	952
683	1	953	956	954	951
684	1	954	822	823	955
685	1	956	824	822	954
686	1	822	957	958	823
687	1	824	959	957	822
688	1	957	960	961	958
689	1	959	962	960	957
690	1	960	963	964	961
691	1	962	965	963	960
692	1	963	966	967	964
693	1	965	968	966	963
694	1	966	927	928	967
695	1	968	929	927	966
696	1	927	969	970	928
697	1	929	971	969	927
698	1	969	972	973	970
699	1	971	974	972	969
700	1	972	975	976	973
701	1	974	977	975	972
702	1	975	978	979	976
703	1	977	980	978	975
704	1	766	981	982	767
705	1	765	983	981	766
706	1	981	984	985	982
707	1	983	986	984	981
708	1	984	987	988	985
709	1	986	989	987	984
710	1	987	990	991	988
711	1	989	992	990	987
712	1	990	978	979	991
713	1	992	980	978	990
714	1	717	993	994	718
715	1	719	995	993	717
716	1	993	996	997	994
717	1	995	998	996	993
718	1	996	999	1000	997
719	1	998	1001	999	996
720	1	1002	999	1001	1003
721	1	1004	1000	999	1002
722	1	1005	979	978	1006
723	1	1006	978	980	1007
724	1	1008	1005	1006	1009
725	1	1009	1006	1007	1010
726	1	1004	1008	1009	1002
727	1	1002	1009	1010	1003
728	1	1011	785	784	1012
729	1	1012	784	783	1013
730	1	1014	1011	1012	1015
731	1	1015	1012	1013	1016
732	1	1017	1014	1015	1018
733	1	1018	1015	1016	1019
734	1	1020	1017	1018	1021
735	1	1021	1018	1019	1022
736	1	1021	1023	1024	1020
737	1	1022	1025	1023	1021
738	1	1023	1026	1027	1024
739	1	1025	1028	1026	1023
740	1	1026	1029	1030	1027
741	1	1028	1031	1029	1026
742	1	1032	1030	1029	1033
743	1	1033	1029	1031	1034
744	1	1035	1032	1033	1036
745	1	1036	1033	1034	1037
746	1	419	1035	1036	418
747	1	418	1036	1037	417
748	1	781	1038	1039	782
749	1	780	1040	1038	781
750	1	1038	1041	1042	1039
751	1	1040	1043	1041	1038

752	1	1041	1044	1045	1042
753	1	1043	1046	1044	1041
754	1	1044	1047	1048	1045
755	1	1046	1049	1047	1044
756	1	1047	1050	1051	1048
757	1	1049	1052	1050	1047
758	1	1052	1053	1054	1050
759	1	1050	1054	1055	1051
760	1	1054	1056	1057	1055
761	1	1053	1058	1056	1054
762	1	1056	1059	1060	1057
763	1	1058	1061	1059	1056
764	1	1059	1062	1063	1060
765	1	1061	1064	1062	1059
766	1	1062	1065	1066	1063
767	1	1064	1067	1065	1062
768	1	1067	1068	1069	1065
769	1	1065	1069	1070	1066
770	1	1069	1071	1072	1070
771	1	1068	1073	1071	1069
772	1	1071	1074	1075	1072
773	1	1073	1076	1074	1071
774	1	1074	1077	1078	1075
775	1	1076	1079	1077	1074
776	1	1077	1080	1081	1078
777	1	1079	1082	1080	1077
778	1	1080	1083	1084	1081
779	1	1082	1085	1083	1080
780	1	1083	1086	1087	1084
781	1	1085	1088	1086	1083
782	1	1086	1089	1090	1087
783	1	1088	1091	1089	1086
784	1	1091	1092	1093	1089
785	1	1089	1093	1094	1090
786	1	1092	1095	1096	1093
787	1	1093	1096	1097	1094
788	1	1096	1098	1099	1097
789	1	1095	1100	1098	1096
790	1	1098	1101	1102	1099
791	1	1100	1103	1101	1098
792	1	1101	1104	1105	1102
793	1	1103	1106	1104	1101
794	1	1104	1107	1108	1105
795	1	1106	1109	1107	1104
796	1	1109	1110	1111	1107
797	1	1107	1111	1112	1108
798	1	426	1113	1114	427
799	1	428	1115	1113	426
800	1	1113	1116	1117	1114
801	1	1115	1118	1116	1113
802	1	1116	1119	1120	1117
803	1	1118	1121	1119	1116
804	1	1119	1122	1123	1120
805	1	1121	1124	1122	1119
806	1	1122	1125	1126	1123
807	1	1124	1127	1125	1122
808	1	1125	1128	1129	1126
809	1	1127	1130	1128	1125
810	1	1128	1131	1132	1129
811	1	1130	1133	1131	1128
812	1	1131	1134	1135	1132
813	1	1133	1136	1134	1131
814	1	1134	1137	1138	1135
815	1	1136	1139	1137	1134
816	1	1137	792	793	1138
817	1	1139	794	792	1137
818	1	796	1140	1141	797
819	1	795	1142	1140	796
820	1	1140	1143	1144	1141
821	1	1142	1145	1143	1140
822	1	1143	1146	1147	1144
823	1	1145	1148	1146	1143
824	1	1146	1149	1150	1147
825	1	1148	1151	1149	1146
826	1	1149	1065	1066	1150
827	1	1151	1067	1065	1149
828	1	1021	1152	1153	1020
829	1	1022	1154	1152	1021
830	1	1152	1155	1156	1153
831	1	1154	1157	1155	1152
832	1	1155	1128	1129	1156
833	1	1157	1130	1128	1155
834	1	1128	1158	1159	1129
835	1	1130	1160	1158	1128
836	1	1158	1161	1162	1159
837	1	1160	1163	1161	1158
838	1	1161	1164	1165	1162
839	1	1163	1166	1164	1161

840	1	1164	1167	1168	1165
841	1	1166	1169	1167	1164
842	1	1169	1170	1171	1167
843	1	1167	1171	1172	1168
844	1	1029	1173	1174	1030
845	1	1031	1175	1173	1029
846	1	1173	1176	1177	1174
847	1	1175	1178	1176	1173
848	1	1176	1119	1120	1177
849	1	1178	1121	1119	1176
850	1	1119	1179	1180	1120
851	1	1121	1181	1179	1119
852	1	1179	1182	1183	1180
853	1	1181	1184	1182	1179
854	1	1182	1185	1186	1183
855	1	1184	1187	1185	1182
856	1	1185	1188	1189	1186
857	1	1187	1190	1188	1185
858	1	438	1191	1192	439
859	1	440	1193	1191	438
860	1	1191	1188	1189	1192
861	1	1193	1190	1188	1191
862	1	1188	1194	1195	1189
863	1	1190	1196	1194	1188
864	1	1194	1197	1198	1195
865	1	1196	1199	1197	1194
866	1	1197	1167	1168	1198
867	1	1199	1169	1167	1197
868	1	1171	1200	1201	1172
869	1	1170	1202	1200	1171
870	1	1200	1203	1204	1201
871	1	1202	1205	1203	1200
872	1	1203	1206	1207	1204
873	1	1205	1208	1206	1203
874	1	1206	807	808	1207
875	1	1208	809	807	1206
876	1	807	1209	1210	808
877	1	809	1211	1209	807
878	1	1209	1212	1213	1210
879	1	1211	1214	1212	1209
880	1	1212	1215	1216	1213
881	1	1214	1217	1215	1212
882	1	1215	1218	1219	1216
883	1	1217	1220	1218	1215
884	1	1218	1077	1078	1219
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886	1	1069	1221	1222	1070
887	1	1068	1223	1221	1069
888	1	1221	1224	1225	1222
889	1	1223	1226	1224	1221
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891	1	1226	1229	1227	1224
892	1	1229	1230	1231	1227
893	1	1227	1231	1232	1228
894	1	1231	1233	1234	1232
895	1	1230	1235	1233	1231
896	1	1233	1236	1237	1234
897	1	1235	1238	1236	1233
898	1	1236	1239	1240	1237
899	1	1238	1241	1239	1236
900	1	1241	1242	1243	1239
901	1	1239	1243	1244	1240
902	1	1243	1245	1246	1244
903	1	1242	1247	1245	1243
904	1	1245	1248	1249	1246
905	1	1247	1250	1248	1245
906	1	1248	1251	1252	1249
907	1	1250	1253	1251	1248
908	1	1251	1254	1255	1252
909	1	1253	1256	1254	1251
910	1	1254	1257	1258	1255
911	1	1256	1259	1257	1254
912	1	1257	1260	1261	1258
913	1	1259	1262	1260	1257
914	1	1260	1263	1264	1261
915	1	1262	1265	1263	1260
916	1	1263	1266	1267	1264
917	1	1265	1268	1266	1263
918	1	1268	1269	1270	1266
919	1	1266	1270	1271	1267
920	1	1089	1272	1273	1090
921	1	1091	1274	1272	1089
922	1	1272	1275	1276	1273
923	1	1274	1277	1275	1272
924	1	1275	1278	1279	1276
925	1	1277	1280	1278	1275
926	1	1278	1281	1282	1279
927	1	1280	1283	1281	1278

928	1	1281	1284	1285	1282
929	1	1283	1286	1284	1281
930	1	1284	1254	1255	1285
931	1	1286	1256	1254	1284
932	1	1111	1287	1288	1112
933	1	1110	1289	1287	1111
934	1	1287	1290	1291	1288
935	1	1289	1292	1290	1287
936	1	1290	1293	1294	1291
937	1	1292	1295	1293	1290
938	1	1293	1296	1297	1294
939	1	1295	1298	1296	1293
940	1	1296	1299	1300	1297
941	1	1298	1301	1299	1296
942	1	1299	1270	1271	1300
943	1	1301	1269	1270	1299
944	1	1227	1302	1303	1228
945	1	1229	1304	1302	1227
946	1	1302	1305	1306	1303
947	1	1304	1307	1305	1302
948	1	1305	1308	1309	1306
949	1	1307	1310	1308	1305
950	1	1308	1311	1312	1309
951	1	1310	1313	1311	1308
952	1	1311	1314	1315	1312
953	1	1313	1316	1314	1311
954	1	1314	1278	1279	1315
955	1	1316	1280	1278	1314
956	1	1278	1317	1318	1279
957	1	1280	1319	1317	1278
958	1	1317	1320	1321	1318
959	1	1319	1322	1320	1317
960	1	1320	1323	1324	1321
961	1	1322	1325	1323	1320
962	1	1323	1293	1294	1324
963	1	1325	1295	1293	1323
985	1	1330	427	426	1329
986	1	1329	426	428	1331
987	1	1327	1330	1329	1326
988	1	1326	1329	1331	1328
989	1	391	1327	1326	390
990	1	390	1326	1328	392
991	1	406	1499	1500	405
992	1	1499	414	416	1500
993	1	407	1501	1499	406
994	1	1501	415	414	1499
995	1	31	1503	1504	29
996	1	1503	1505	1506	1504
997	1	29	1504	1507	27
998	1	1504	1506	1508	1507
999	1	27	1507	1509	26
1000	1	1507	1508	1510	1509
1001	1	1508	1511	1512	1510
1002	1	1506	1513	1511	1508
1003	1	1505	1514	1513	1506
1004	1	1511	1515	1516	1512
1005	1	1513	1517	1515	1511
1006	1	1514	1518	1517	1513
1007	1	1515	1519	1520	1516
1008	1	1517	1521	1519	1515
1009	1	1518	1522	1521	1517
1010	1	1519	1523	1524	1520
1011	1	1521	1525	1523	1519
1012	1	1522	1526	1525	1521
1013	1	1523	1527	1528	1524
1014	1	1525	1529	1527	1523
1015	1	1526	1530	1529	1525
1016	1	1527	1531	1532	1528
1017	1	1529	1533	1531	1527
1018	1	1530	1534	1533	1529
1019	1	1531	1535	1536	1532
1020	1	1533	1537	1535	1531
1021	1	1534	1538	1537	1533
1022	1	1535	1539	1540	1536
1023	1	1537	1541	1539	1535
1024	1	1538	1542	1541	1537
1025	1	1539	1543	1544	1540
1026	1	1541	1545	1543	1539
1027	1	1542	1546	1545	1541
1028	1	1543	1547	1548	1544
1029	1	1545	1549	1547	1543
1030	1	1546	1550	1549	1545
1031	1	1547	1551	1552	1548
1032	1	1549	1553	1551	1547
1033	1	1550	1554	1553	1549
1034	1	1554	1555	1556	1553
1035	1	1555	1557	1558	1556
1036	1	1553	1556	1559	1551

1037	1	1556	1558	1560	1559
1038	1	1551	1559	1561	1552
1039	1	1559	1560	1562	1561
1040	1	1563	149	151	1564
1041	1	1565	147	149	1563
1042	1	1566	146	147	1565
1043	1	1567	1563	1564	1568
1044	1	1569	1565	1563	1567
1045	1	1570	1566	1565	1569
1046	1	1571	1567	1568	1572
1047	1	1573	1569	1567	1571
1048	1	1574	1570	1569	1573
1049	1	1575	1571	1572	1576
1050	1	1577	1573	1571	1575
1051	1	1578	1574	1573	1577
1052	1	1579	1575	1576	1580
1053	1	1581	1577	1575	1579
1054	1	1582	1578	1577	1581
1055	1	1583	1579	1580	1584
1056	1	1585	1581	1579	1583
1057	1	1586	1582	1581	1585
1058	1	1587	1583	1584	1588
1059	1	1589	1585	1583	1587
1060	1	1590	1586	1585	1589
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1062	1	1593	1589	1587	1591
1063	1	1594	1590	1589	1593
1064	1	1595	1591	1592	1596
1065	1	1597	1593	1591	1595
1066	1	1598	1594	1593	1597
1067	1	1599	1595	1596	1600
1068	1	1601	1597	1595	1599
1069	1	1602	1598	1597	1601
1070	1	1603	1602	1601	1604
1071	1	1557	1603	1604	1558
1072	1	1604	1601	1599	1605
1073	1	1558	1604	1605	1560
1074	1	1605	1599	1600	1606
1075	1	1560	1605	1606	1562

PROPRIETA`	ASTE---	-----	-----	-----	-----	num.=	30
Nome	Materiale	Base Kw vertic.	Altezza Kw orizz.	Area J tors.	Area tag. J fless. Y	Area tag. J fless. Z	Z
1	1	90.00	40.00	3.60000E+03	3.00000E+03	3.00000E+03	
		9.806650	9.806650	1.38414E+06	2.43000E+06	4.80000E+05	
2	1	30.00	25.00	7.50000E+02	6.25000E+02	6.25000E+02	
		0.000000	0.000000	7.75144E+04	5.62500E+04	3.90625E+04	
3	1	20.00	60.00	1.20000E+03	1.00000E+03	1.00000E+03	
		0.000000	0.000000	1.26434E+05	4.00000E+04	3.60000E+05	
4	1	20.00	120.00	2.40000E+03	2.00000E+03	2.00000E+03	
		0.000000	0.000000	2.86400E+05	8.00000E+04	2.88000E+06	
5	1	60.00	30.00	1.80000E+03	1.50000E+03	1.50000E+03	
		0.000000	0.000000	3.70783E+05	5.40000E+05	1.35000E+05	
7	1	30.00	30.00	9.00000E+02	7.50000E+02	7.50000E+02	
		0.000000	0.000000	1.14073E+05	6.75000E+04	6.75000E+04	
8	1	20.00	60.00	1.20000E+03	1.00000E+03	1.00000E+03	
		0.000000	0.000000	1.26434E+05	4.00000E+04	3.60000E+05	
9	1	90.00	25.00	2.25000E+03	1.87500E+03	1.87500E+03	
		0.000000	0.000000	3.86757E+05	1.51875E+06	1.17188E+05	
11	1	60.00	25.00	1.50000E+03	1.25000E+03	1.25000E+03	
		0.000000	0.000000	2.30673E+05	4.50000E+05	7.81250E+04	
13	1	20.00	25.00	5.00000E+02	4.16667E+02	4.16667E+02	
		0.000000	0.000000	3.42131E+04	1.66667E+04	2.60417E+04	
14	1	30.00	25.00	7.50000E+02	6.25000E+02	6.25000E+02	
		0.000000	0.000000	7.75144E+04	5.62500E+04	3.90625E+04	
15	1	20.00	20.00	4.00000E+02	3.33333E+02	3.33333E+02	
		0.000000	0.000000	2.25330E+04	1.33333E+04	1.33333E+04	
17	1	60.00	25.00	1.50000E+03	1.25000E+03	1.25000E+03	
		0.000000	0.000000	2.30673E+05	4.50000E+05	7.81250E+04	
18	1	120.00	25.00	3.00000E+03	2.50000E+03	2.50000E+03	
		0.000000	0.000000	5.42978E+05	3.60000E+06	1.56250E+05	
19	1	40.00	40.00	1.60000E+03	1.33333E+03	1.33333E+03	
		9.806650	9.806650	3.60528E+05	2.13333E+05	2.13333E+05	
20	1	40.00	25.00	1.00000E+03	8.33333E+02	8.33333E+02	
		0.000000	0.000000	1.27344E+05	1.33333E+05	5.20833E+04	
21	1	40.00	40.00	1.25664E+03	1.13097E+03	1.13097E+03	
		0.000000	0.000000	2.51327E+05	1.25664E+05	1.25664E+05	
22	1	70.00	30.00	2.10000E+03	1.75000E+03	1.75000E+03	
		0.000000	0.000000	4.60374E+05	8.57500E+05	1.57500E+05	
23	1	60.00	25.00	1.50000E+03	1.25000E+03	1.25000E+03	
		0.000000	0.000000	2.30673E+05	4.50000E+05	7.81250E+04	
25	1	60.00	30.00	1.80000E+03	1.50000E+03	1.50000E+03	
		0.000000	0.000000	3.70783E+05	5.40000E+05	1.35000E+05	
26	1	90.00	30.00	2.70000E+03	2.25000E+03	2.25000E+03	
		0.000000	0.000000	6.40070E+05	1.82250E+06	2.02500E+05	
27	1	80.00	36.00	2.88000E+03	2.40000E+03	2.40000E+03	
		0.000000	0.000000	8.92638E+05	1.53600E+06	3.11040E+05	
28	1	60.00	36.00	2.16000E+03	1.80000E+03	1.80000E+03	

		0.000000	0.000000	5.84204E+05	6.48000E+05	2.33280E+05
29	1	100.00	25.00	2.50000E+03	2.08333E+03	2.08333E+03
		0.000000	0.000000	4.38826E+05	2.08333E+06	1.30208E+05
30	1	20.00	110.00	2.20000E+03	1.83333E+03	1.83333E+03
		0.000000	0.000000	2.59735E+05	7.33333E+04	2.21833E+06
32	2	27.30	26.18	5.28000E+01	4.75200E+01	4.75200E+01
		0.000000	0.000000	9.39200E+03	4.69600E+03	4.69600E+03
33	2	13.97	12.55	2.96000E+01	2.66400E+01	2.66400E+01
		0.000000	0.000000	1.30400E+03	6.52000E+02	6.52000E+02
34	2	8.89	7.63	1.63000E+01	1.46700E+01	1.46700E+01
		0.000000	0.000000	2.80000E+02	1.40000E+02	1.40000E+02
35	1	80.00	100.00	8.00000E+03	6.66667E+03	6.66667E+03
		10.000000	10.000000	8.75856E+06	4.26667E+06	6.66667E+06
36	1	50.00	50.00	1.96350E+03	1.76715E+03	1.76715E+03
		0.000000	0.000000	6.13592E+05	3.06796E+05	3.06796E+05

PROPRIETA` GUSCI-- ----- ----- ----- ----- num.= 2					
Nome	Materiale	Sp.membr.	Sp. piastra	Kw	
1	1	30.00	30.00	0.000000	
2	1	40.00	40.00	0.000000	

MATERIALI----- ----- ----- ----- ----- num.= 2					
Nome	Mod. elast.	Coeff. nu	Mod. tang.	Peso spec.	Dil. te.
1	3.00000E+05	1.50000E-01	1.30000E+05	2.54929E+03	1.00000E-05
2	2.10000E+06	3.00000E-01	8.50000E+05	8.00477E+03	1.00000E-05

VINCOLI----- ----- ----- ----- ----- num.= 401						
Nodo	Rigid. X	Rigid. Y	Rigid. Z	Rigid. RX	Rigid. RY	Rigid. RZ
1	bloccato	bloccato	libero	libero	libero	libero
2	bloccato	bloccato	libero	libero	libero	libero
9	bloccato	bloccato	libero	libero	libero	libero
13	bloccato	bloccato	libero	libero	libero	libero
17	bloccato	bloccato	libero	libero	libero	libero
21	bloccato	bloccato	libero	libero	libero	libero
25	bloccato	bloccato	libero	libero	libero	libero
26	bloccato	bloccato	libero	libero	libero	libero
33	bloccato	bloccato	libero	libero	libero	libero
37	bloccato	bloccato	libero	libero	libero	libero
41	bloccato	bloccato	libero	libero	libero	libero
48	bloccato	bloccato	libero	libero	libero	libero
52	bloccato	bloccato	libero	libero	libero	libero
54	bloccato	bloccato	libero	libero	libero	libero
74	bloccato	bloccato	libero	libero	libero	libero
123	bloccato	bloccato	libero	libero	libero	libero
140	bloccato	bloccato	libero	libero	libero	libero
150	bloccato	bloccato	libero	libero	libero	libero
151	bloccato	bloccato	libero	libero	libero	libero
155	bloccato	bloccato	libero	libero	libero	libero
162	bloccato	bloccato	libero	libero	libero	libero
163	bloccato	bloccato	libero	libero	libero	libero
164	bloccato	bloccato	libero	libero	libero	libero
168	bloccato	bloccato	libero	libero	libero	libero
172	bloccato	bloccato	libero	libero	libero	libero
182	bloccato	bloccato	libero	libero	libero	libero
183	bloccato	bloccato	libero	libero	libero	libero
185	bloccato	bloccato	libero	libero	libero	libero
189	bloccato	bloccato	libero	libero	libero	libero
193	bloccato	bloccato	libero	libero	libero	libero
197	bloccato	bloccato	libero	libero	libero	libero
1335	bloccato	bloccato	libero	libero	libero	libero
228	bloccato	bloccato	libero	libero	libero	libero
229	bloccato	bloccato	libero	libero	libero	libero
234	bloccato	bloccato	libero	libero	libero	libero
237	bloccato	bloccato	libero	libero	libero	libero
241	bloccato	bloccato	libero	libero	libero	libero
244	bloccato	bloccato	libero	libero	libero	libero
247	bloccato	bloccato	libero	libero	libero	libero
250	bloccato	bloccato	libero	libero	libero	libero
253	bloccato	bloccato	libero	libero	libero	libero
257	bloccato	bloccato	libero	libero	libero	libero
258	bloccato	bloccato	libero	libero	libero	libero
261	bloccato	bloccato	libero	libero	libero	libero
264	bloccato	bloccato	libero	libero	libero	libero
267	bloccato	bloccato	libero	libero	libero	libero
270	bloccato	bloccato	libero	libero	libero	libero
273	bloccato	bloccato	libero	libero	libero	libero
278	bloccato	bloccato	libero	libero	libero	libero
280	bloccato	bloccato	libero	libero	libero	libero
283	bloccato	bloccato	libero	libero	libero	libero
286	bloccato	bloccato	libero	libero	libero	libero
289	bloccato	bloccato	libero	libero	libero	libero
292	bloccato	bloccato	libero	libero	libero	libero
296	bloccato	bloccato	libero	libero	libero	libero
298	bloccato	bloccato	libero	libero	libero	libero
301	bloccato	bloccato	libero	libero	libero	libero
305	bloccato	bloccato	libero	libero	libero	libero
307	bloccato	bloccato	libero	libero	libero	libero
310	bloccato	bloccato	libero	libero	libero	libero











9	D001	1638	X	0.3
10	D001	1336	X	0.6
11	D001	1365	X	0.4
12	D001	1422	X	0.8
13	D001	1631	X	0.3
14	D001	1339	X	1.7
15	D001	1639	X	0.2
16	D001	1419	X	1.0
17	D001	1366	X	1.1
18	D001	1423	X	1.6
19	D001	1474	X	4.4
20	D001	1630	X	0.1
21	D001	1338	X	1.1
22	D001	1368	X	0.2
23	D001	1420	X	1.7
24	D001	1473	X	0.1
25	D001	1468	X	9.0
26	D001	1349	X	0.2
27	D001	1418	X	0.6
28	D001	1414	X	0.2
29	D001	1469	X	8.9
30	D001	1460	X	0.2
31	D001	1484	X	0.2
32	D001	890	X	0.1
33	D001	1483	X	0.4
34	D001	1486	X	0.2
35	D001	893	X	0.1
36	D001	1485	X	0.4
37	D001	1488	X	0.2
38	D001	896	X	0.1
39	D001	1487	X	0.4
40	D001	1415	X	0.1
41	D001	1470	X	8.9
42	D001	1461	X	0.5
43	D001	1363	X	0.3
44	D001	392	X	0.1
45	D001	1425	X	1.5
46	D001	1462	X	0.2
47	D001	1489	X	0.2
48	D001	1371	X	0.6
49	D001	1490	X	0.3
50	D001	1328	X	0.2
51	D001	1491	X	0.2
52	D001	1492	X	0.4
53	D001	1331	X	0.1
54	D001	1493	X	0.2
55	D001	1372	X	0.3
56	D001	1494	X	0.4
57	D001	1424	X	0.3
58	D001	1416	X	0.1
59	D001	1374	X	3.8
60	D001	1431	X	0.7
61	D001	1475	X	3.7
62	D001	405	X	0.1
63	D001	1463	X	0.5
64	D001	1364	X	0.1
65	D001	1476	X	0.4
66	D001	1412	X	0.3
67	D001	1464	X	0.2
68	D001	1465	X	0.4
69	D001	1500	X	0.2
70	D001	1495	X	0.2
71	D001	1373	X	1.5
72	D001	1496	X	0.5
73	D001	1497	X	0.2
74	D001	416	X	0.3
75	D001	1498	X	0.4
76	D001	1426	X	1.4
77	D001	1397	X	0.5
78	D001	1417	X	0.2
79	D001	1466	X	0.5
80	D001	1413	X	0.5
81	D001	1377	X	1.7
82	D001	1394	X	3.0
83	D001	1467	X	0.3
84	D001	1477	X	0.2
85	D001	1502	X	2.4
86	D001	1375	X	0.2
87	D001	1479	X	0.8
88	D001	178	X	0.1
89	D001	1170	X	0.1
90	D001	1393	X	2.0
91	D001	1396	X	1.4
92	D001	1433	X	0.5
93	D001	1439	X	2.4
94	D001	1613	X	0.6
95	D001	1398	X	3.8
96	D001	1480	X	0.7

97	D001	1434	X	0.6
98	D001	1482	X	0.1
99	D001	1428	X	0.4
100	D001	7	X	1.0
101	D001	175	X	0.1
102	D001	1395	X	3.4
103	D001	1435	X	0.5
104	D001	1611	X	0.4
105	D001	1436	X	0.2
106	D001	1380	X	0.5
107	D001	1405	X	8.4
108	D001	1391	X	5.6
109	D001	1612	X	1.0
110	D001	1399	X	0.4
111	D001	56	X	0.1
112	D001	1610	X	0.2
113	D001	1389	X	1.3
114	D001	1443	X	3.5
115	D001	1401	X	0.7
116	D001	1400	X	7.1
117	D001	76	X	0.2
118	D001	1392	X	1.4
119	D001	1402	X	3.7
120	D001	1441	X	0.6
121	D001	1636	Y	0.4
122	D001	1637	Y	32.5
123	D001	275	Y	1.1
124	D001	276	Y	4.3
125	D001	1634	Y	0.6
126	D001	239	Y	7.0
127	D001	272	Y	0.6
128	D001	281	Y	3.3
129	D001	1635	Y	71.6
130	D001	242	Y	0.7
131	D001	236	Y	8.2
132	D001	1645	Y	2.7
133	D001	269	Y	8.0
134	D001	1633	Y	24.7
135	D001	284	Y	3.3
136	D001	245	Y	0.7
137	D001	233	Y	8.2
138	D001	266	Y	0.7
139	D001	515	Y	10.0
140	D001	287	Y	3.3
141	D001	1421	Y	84.0
142	D001	248	Y	0.7
143	D001	232	Y	6.4
144	D001	263	Y	0.7
145	D001	1341	Y	72.3
146	D001	518	Y	9.9
147	D001	290	Y	3.3
148	D001	1632	Y	53.6
149	D001	1644	Y	2.1
150	D001	1337	Y	185.6
151	D001	1643	Y	4.0
152	D001	251	Y	0.7
153	D001	443	Y	0.7
154	D001	260	Y	0.7
155	D001	293	Y	3.8
156	D001	521	Y	9.7
157	D001	294	Y	0.9
158	D001	1340	Y	306.4
159	D001	254	Y	10.7
160	D001	446	Y	0.6
161	D001	255	Y	3.5
162	D001	524	Y	9.7
163	D001	299	Y	0.6
164	D001	1638	Y	49.5
165	D001	479	Y	16.5
166	D001	1642	Y	7.3
167	D001	449	Y	0.6
168	D001	500	Y	6.4
169	D001	302	Y	6.8
170	D001	303	Y	4.4
171	D001	1336	Y	151.7
172	D001	476	Y	16.4
173	D001	503	Y	6.3
174	D001	452	Y	0.6
175	D001	1650	Y	0.3
176	D001	482	Y	6.6
177	D001	308	Y	0.8
178	D001	1365	Y	41.2
179	D001	506	Y	6.3
180	D001	455	Y	10.5
181	D001	1422	Y	86.7
182	D001	1631	Y	43.3
183	D001	485	Y	6.6
184	D001	311	Y	0.8

185	D001	1339	Y	289.6
186	D001	1639	Y	46.1
187	D001	1419	Y	166.8
188	D001	509	Y	6.2
189	D001	458	Y	0.7
190	D001	488	Y	6.6
191	D001	314	Y	0.8
192	D001	512	Y	6.1
193	D001	1366	Y	134.5
194	D001	461	Y	0.7
195	D001	491	Y	12.2
196	D001	317	Y	0.8
197	D001	1423	Y	209.1
198	D001	1404	Y	6.4
199	D001	1641	Y	2.8
200	D001	1625	Y	26.1
201	D001	1474	Y	535.0
202	D001	464	Y	0.7
203	D001	1629	Y	6.7
204	D001	1651	Y	0.3
205	D001	320	Y	10.5
206	D001	494	Y	15.6
207	D001	1630	Y	43.5
208	D001	1338	Y	271.3
209	D001	573	Y	1.3
210	D001	574	Y	5.1
211	D001	467	Y	0.7
212	D001	323	Y	0.8
213	D001	1623	Y	23.7
214	D001	842	Y	14.2
215	D001	497	Y	15.6
216	D001	599	Y	0.6
217	D001	1626	Y	27.7
218	D001	581	Y	4.6
219	D001	326	Y	0.8
220	D001	470	Y	2.1
221	D001	845	Y	14.1
222	D001	471	Y	11.6
223	D001	602	Y	0.6
224	D001	1368	Y	41.5
225	D001	1640	Y	7.4
226	D001	1621	Y	20.1
227	D001	329	Y	0.8
228	D001	1420	Y	298.4
229	D001	584	Y	4.6
230	D001	1620	Y	22.5
231	D001	848	Y	14.0
232	D001	605	Y	7.6
233	D001	527	Y	7.7
234	D001	1473	Y	21.6
235	D001	332	Y	0.8
236	D001	1628	Y	5.3
237	D001	587	Y	4.6
238	D001	1627	Y	5.4
239	D001	626	Y	8.8
240	D001	851	Y	13.9
241	D001	608	Y	0.7
242	D001	1619	Y	23.1
243	D001	530	Y	7.2
244	D001	1407	Y	109.7
245	D001	1468	Y	1182.1
246	D001	1342	Y	71.0
247	D001	335	Y	10.6
248	D001	531	Y	6.0
249	D001	1624	Y	3.0
250	D001	590	Y	4.6
251	D001	629	Y	8.8
252	D001	1617	Y	25.7
253	D001	854	Y	13.9
254	D001	611	Y	0.7
255	D001	338	Y	0.8
256	D001	536	Y	7.3
257	D001	722	Y	0.6
258	D001	866	Y	14.3
259	D001	1349	Y	43.8
260	D001	1622	Y	4.5
261	D001	1418	Y	157.4
262	D001	632	Y	8.8
263	D001	593	Y	4.5
264	D001	857	Y	13.9
265	D001	594	Y	1.0
266	D001	1618	Y	19.0
267	D001	341	Y	0.8
268	D001	1472	Y	15.0
269	D001	614	Y	7.7
270	D001	539	Y	7.3
271	D001	725	Y	0.6
272	D001	869	Y	14.2

273	D001	1345	Y	343.9
274	D001	635	Y	8.8
275	D001	662	Y	0.6
276	D001	860	Y	13.9
277	D001	617	Y	0.5
278	D001	344	Y	0.8
279	D001	542	Y	8.7
280	D001	644	Y	9.8
281	D001	728	Y	0.6
282	D001	1616	Y	10.0
283	D001	1646	Y	22.7
284	D001	872	Y	14.2
285	D001	638	Y	8.8
286	D001	665	Y	0.6
287	D001	1350	Y	40.5
288	D001	545	Y	6.2
289	D001	620	Y	0.5
290	D001	347	Y	0.9
291	D001	863	Y	13.9
292	D001	647	Y	9.8
293	D001	731	Y	0.6
294	D001	1414	Y	107.8
295	D001	1471	Y	6.4
296	D001	875	Y	14.1
297	D001	641	Y	6.9
298	D001	548	Y	6.2
299	D001	1469	Y	1246.5
300	D001	1648	Y	23.6
301	D001	623	Y	0.5
302	D001	1460	Y	117.8
303	D001	350	Y	16.2
304	D001	650	Y	9.8
305	D001	734	Y	7.0
306	D001	551	Y	7.2
307	D001	878	Y	14.1
308	D001	1484	Y	101.1
309	D001	1343	Y	39.2
310	D001	552	Y	8.1
311	D001	668	Y	0.7
312	D001	735	Y	10.2
313	D001	1406	Y	106.9
314	D001	353	Y	0.9
315	D001	890	Y	24.7
316	D001	1647	Y	5.5
317	D001	1347	Y	387.4
318	D001	653	Y	9.8
319	D001	1483	Y	213.4
320	D001	1614	Y	18.2
321	D001	379	Y	1.6
322	D001	947	Y	0.7
323	D001	377	Y	6.6
324	D001	557	Y	12.3
325	D001	881	Y	14.0
326	D001	1486	Y	97.2
327	D001	740	Y	0.6
328	D001	812	Y	14.8
329	D001	356	Y	0.9
330	D001	671	Y	0.7
331	D001	1351	Y	56.3
332	D001	656	Y	9.8
333	D001	893	Y	24.5
334	D001	383	Y	0.7
335	D001	1485	Y	201.8
336	D001	374	Y	6.1
337	D001	1649	Y	18.6
338	D001	560	Y	12.2
339	D001	950	Y	0.7
340	D001	884	Y	14.1
341	D001	743	Y	0.6
342	D001	359	Y	1.0
343	D001	815	Y	14.8
344	D001	1488	Y	98.5
345	D001	659	Y	7.0
346	D001	896	Y	24.3
347	D001	386	Y	0.8
348	D001	371	Y	6.1
349	D001	1487	Y	205.0
350	D001	1344	Y	276.9
351	D001	563	Y	12.2
352	D001	953	Y	0.7
353	D001	887	Y	14.1
354	D001	362	Y	1.0
355	D001	746	Y	0.6
356	D001	1615	Y	0.3
357	D001	818	Y	14.9
358	D001	674	Y	0.5
359	D001	1415	Y	72.8
360	D001	389	Y	0.8

361	D001	367	Y	7.4
362	D001	899	Y	24.1
363	D001	1348	Y	480.4
364	D001	1470	Y	1312.5
365	D001	1409	Y	188.1
366	D001	566	Y	12.2
367	D001	1461	Y	246.9
368	D001	1363	Y	132.0
369	D001	365	Y	2.2
370	D001	677	Y	0.5
371	D001	956	Y	0.7
372	D001	749	Y	7.0
373	D001	821	Y	14.9
374	D001	392	Y	12.4
375	D001	417	Y	3.9
376	D001	1425	Y	187.5
377	D001	1462	Y	118.7
378	D001	1489	Y	84.4
379	D001	902	Y	18.8
380	D001	750	Y	2.2
381	D001	1371	Y	72.7
382	D001	569	Y	12.2
383	D001	680	Y	0.5
384	D001	912	Y	7.6
385	D001	1490	Y	163.2
386	D001	824	Y	16.9
387	D001	1037	Y	0.6
388	D001	395	Y	0.9
389	D001	1328	Y	16.7
390	D001	422	Y	5.5
391	D001	905	Y	15.9
392	D001	1491	Y	102.6
393	D001	755	Y	0.7
394	D001	572	Y	5.7
395	D001	681	Y	2.6
396	D001	1034	Y	0.6
397	D001	917	Y	13.8
398	D001	827	Y	14.8
399	D001	959	Y	0.6
400	D001	1346	Y	317.5
401	D001	1492	Y	215.0
402	D001	398	Y	0.9
403	D001	1331	Y	16.7
404	D001	425	Y	5.6
405	D001	908	Y	15.9
406	D001	1031	Y	8.1
407	D001	758	Y	0.7
408	D001	1493	Y	103.9
409	D001	686	Y	0.7
410	D001	920	Y	13.8
411	D001	830	Y	14.7
412	D001	962	Y	0.6
413	D001	401	Y	0.9
414	D001	1372	Y	40.8
415	D001	1494	Y	218.3
416	D001	1028	Y	0.7
417	D001	428	Y	13.5
418	D001	911	Y	15.9
419	D001	761	Y	0.7
420	D001	1175	Y	10.6
421	D001	1424	Y	44.0
422	D001	1416	Y	71.6
423	D001	689	Y	0.7
424	D001	923	Y	13.9
425	D001	833	Y	14.7
426	D001	965	Y	0.6
427	D001	1374	Y	495.6
428	D001	404	Y	1.3
429	D001	1431	Y	107.6
430	D001	1115	Y	0.6
431	D001	1475	Y	576.8
432	D001	405	Y	12.5
433	D001	431	Y	4.7
434	D001	1463	Y	254.0
435	D001	1364	Y	76.7
436	D001	1025	Y	0.7
437	D001	764	Y	8.0
438	D001	1476	Y	59.3
439	D001	1178	Y	10.9
440	D001	1412	Y	148.1
441	D001	1362	Y	939.6
442	D001	692	Y	0.7
443	D001	1464	Y	100.7
444	D001	836	Y	14.7
445	D001	926	Y	13.1
446	D001	968	Y	0.6
447	D001	1118	Y	0.6
448	D001	434	Y	4.8

449	D001	765	Y	4.5
450	D001	1022	Y	16.2
451	D001	1465	Y	182.1
452	D001	1408	Y	145.4
453	D001	1352	Y	263.0
454	D001	1121	Y	13.3
455	D001	695	Y	0.7
456	D001	839	Y	14.7
457	D001	929	Y	14.4
458	D001	1500	Y	25.4
459	D001	768	Y	2.9
460	D001	437	Y	5.0
461	D001	1495	Y	116.4
462	D001	983	Y	7.4
463	D001	1373	Y	280.8
464	D001	1154	Y	14.4
465	D001	1019	Y	10.3
466	D001	1181	Y	9.0
467	D001	1124	Y	0.8
468	D001	1496	Y	250.9
469	D001	1478	Y	4.9
470	D001	440	Y	6.1
471	D001	698	Y	9.3
472	D001	932	Y	13.9
473	D001	773	Y	0.7
474	D001	971	Y	0.7
475	D001	1497	Y	109.3
476	D001	986	Y	7.4
477	D001	416	Y	44.8
478	D001	1184	Y	9.2
479	D001	1157	Y	14.8
480	D001	1016	Y	10.2
481	D001	1127	Y	0.8
482	D001	1498	Y	228.9
483	D001	1426	Y	183.4
484	D001	701	Y	0.6
485	D001	935	Y	13.8
486	D001	776	Y	0.7
487	D001	1193	Y	1.1
488	D001	1397	Y	62.9
489	D001	974	Y	0.7
490	D001	1187	Y	9.6
491	D001	989	Y	7.4
492	D001	1417	Y	85.9
493	D001	1130	Y	17.0
494	D001	1013	Y	10.2
495	D001	704	Y	0.6
496	D001	938	Y	13.8
497	D001	1466	Y	283.7
498	D001	779	Y	2.5
499	D001	1413	Y	274.1
500	D001	1377	Y	437.7
501	D001	1190	Y	8.2
502	D001	977	Y	0.8
503	D001	780	Y	2.8
504	D001	46	Y	4.3
505	D001	992	Y	7.5
506	D001	1160	Y	12.3
507	D001	24	Y	4.4
508	D001	1394	Y	589.0
509	D001	1133	Y	0.9
510	D001	783	Y	15.9
511	D001	1467	Y	151.8
512	D001	1477	Y	50.0
513	D001	1360	Y	906.1
514	D001	1502	Y	366.5
515	D001	1375	Y	121.0
516	D001	707	Y	0.7
517	D001	941	Y	13.4
518	D001	176	Y	6.4
519	D001	1196	Y	0.9
520	D001	1163	Y	12.6
521	D001	1040	Y	0.8
522	D001	980	Y	8.8
523	D001	1479	Y	396.6
524	D001	20	Y	1.1
525	D001	1136	Y	0.9
526	D001	178	Y	24.9
527	D001	788	Y	18.7
528	D001	1353	Y	489.2
529	D001	710	Y	0.7
530	D001	944	Y	12.1
531	D001	1199	Y	0.9
532	D001	1166	Y	13.0
533	D001	1007	Y	7.4
534	D001	1043	Y	0.8
535	D001	16	Y	1.1
536	D001	187	Y	1.1



537	D001	1139	Y	0.9
538	D001	791	Y	19.3
539	D001	713	Y	9.6
540	D001	1169	Y	9.7
541	D001	1010	Y	7.4
542	D001	1170	Y	54.8
543	D001	1393	Y	529.8
544	D001	1046	Y	0.8
545	D001	12	Y	1.2
546	D001	191	Y	7.5
547	D001	1376	Y	43.6
548	D001	794	Y	14.7
549	D001	716	Y	0.7
550	D001	1396	Y	284.9
551	D001	1433	Y	292.6
552	D001	1439	Y	381.9
553	D001	1003	Y	9.4
554	D001	1613	Y	128.6
555	D001	1398	Y	603.0
556	D001	1202	Y	1.0
557	D001	1049	Y	0.8
558	D001	1480	Y	380.6
559	D001	795	Y	8.0
560	D001	1434	Y	333.0
561	D001	8	Y	1.2
562	D001	798	Y	14.4
563	D001	195	Y	13.8
564	D001	719	Y	2.0
565	D001	995	Y	4.0
566	D001	998	Y	4.8
567	D001	1001	Y	5.0
568	D001	1482	Y	70.7
569	D001	1361	Y	409.7
570	D001	1052	Y	1.2
571	D001	1142	Y	0.9
572	D001	1205	Y	1.0
573	D001	1428	Y	61.4
574	D001	7	Y	163.5
575	D001	803	Y	19.2
576	D001	1053	Y	8.5
577	D001	199	Y	13.8
578	D001	1145	Y	0.9
579	D001	1208	Y	1.0
580	D001	806	Y	19.8
581	D001	1058	Y	9.8
582	D001	1354	Y	397.4
583	D001	44	Y	1.4
584	D001	175	Y	63.9
585	D001	1395	Y	947.9
586	D001	171	Y	10.3
587	D001	1148	Y	0.9
588	D001	1061	Y	10.0
589	D001	809	Y	58.1
590	D001	1435	Y	292.3
591	D001	1611	Y	76.8
592	D001	40	Y	1.4
593	D001	1355	Y	87.9
594	D001	1436	Y	145.4
595	D001	167	Y	10.3
596	D001	1380	Y	311.0
597	D001	1151	Y	0.9
598	D001	1064	Y	10.2
599	D001	1211	Y	1.0
600	D001	1410	Y	332.3
601	D001	1411	Y	73.7
602	D001	36	Y	1.5
603	D001	159	Y	12.4
604	D001	1437	Y	79.0
605	D001	1405	Y	1391.6
606	D001	1378	Y	242.3
607	D001	1067	Y	8.8
608	D001	1214	Y	1.0
609	D001	1068	Y	10.0
610	D001	157	Y	14.3
611	D001	32	Y	1.5
612	D001	1391	Y	1625.5
613	D001	1217	Y	1.0
614	D001	1223	Y	0.8
615	D001	1073	Y	16.4
616	D001	153	Y	53.1
617	D001	31	Y	3.6
618	D001	143	Y	11.4
619	D001	49	Y	18.9
620	D001	1438	Y	17.4
621	D001	1226	Y	0.8
622	D001	1612	Y	697.8
623	D001	1220	Y	1.0
624	D001	1076	Y	16.7

625	D001	1503	Y	0.9
626	D001	144	Y	0.7
627	D001	1399	Y	211.5
628	D001	56	Y	22.6
629	D001	1505	Y	3.6
630	D001	1229	Y	9.2
631	D001	146	Y	18.1
632	D001	1079	Y	15.9
633	D001	1230	Y	0.9
634	D001	1610	Y	57.5
635	D001	1379	Y	229.8
636	D001	1514	Y	5.8
637	D001	1445	Y	350.5
638	D001	1304	Y	14.1
639	D001	1082	Y	15.3
640	D001	1566	Y	1.2
641	D001	1085	Y	15.9
642	D001	1518	Y	3.6
643	D001	1307	Y	16.4
644	D001	1570	Y	1.2
645	D001	1235	Y	0.9
646	D001	1389	Y	841.4
647	D001	1443	Y	610.5
648	D001	1440	Y	71.2
649	D001	1401	Y	129.8
650	D001	1088	Y	16.6
651	D001	1522	Y	1.5
652	D001	1310	Y	13.8
653	D001	1574	Y	1.2
654	D001	1400	Y	2152.7
655	D001	1091	Y	9.9
656	D001	1092	Y	3.5
657	D001	1238	Y	1.0
658	D001	1381	Y	311.4
659	D001	1095	Y	8.2
660	D001	1444	Y	316.7
661	D001	121	Y	115.9
662	D001	1526	Y	1.5
663	D001	1313	Y	14.5
664	D001	1578	Y	1.3
665	D001	1274	Y	1.0
666	D001	1446	Y	318.9
667	D001	1100	Y	7.6
668	D001	76	Y	102.3
669	D001	1241	Y	2.2
670	D001	1530	Y	1.5
671	D001	1316	Y	15.3
672	D001	1582	Y	1.4
673	D001	1277	Y	1.0
674	D001	1242	Y	8.3
675	D001	1103	Y	7.9
676	D001	1280	Y	20.5
677	D001	1534	Y	1.3
678	D001	1586	Y	1.4
679	D001	1247	Y	6.6
680	D001	1106	Y	8.0
681	D001	1538	Y	1.3
682	D001	1283	Y	1.1
683	D001	1451	Y	429.7
684	D001	1319	Y	16.6
685	D001	1452	Y	25.1
686	D001	1250	Y	6.9
687	D001	1590	Y	1.4
688	D001	1387	Y	96.6
689	D001	1109	Y	8.4
690	D001	1392	Y	1058.5
691	D001	1110	Y	1.9
692	D001	1542	Y	1.3
693	D001	1286	Y	1.1
694	D001	1253	Y	7.2
695	D001	1322	Y	17.2
696	D001	1594	Y	1.5
697	D001	1289	Y	1.1
698	D001	1402	Y	1177.2
699	D001	1447	Y	99.2
700	D001	1546	Y	1.3
701	D001	1256	Y	11.4
702	D001	92	Y	52.4
703	D001	1382	Y	90.8
704	D001	1325	Y	17.7
705	D001	1609	Y	15.2
706	D001	1292	Y	1.1
707	D001	1598	Y	1.5
708	D001	1550	Y	1.3
709	D001	1385	Y	689.9
710	D001	1259	Y	8.7
711	D001	1295	Y	13.4
712	D001	1602	Y	2.2

713	D001	1554	Y	3.5
714	D001	1262	Y	9.0
715	D001	1388	Y	49.1
716	D001	1603	Y	3.4
717	D001	1555	Y	0.9
718	D001	1298	Y	1.2
719	D001	1450	Y	150.8
720	D001	1557	Y	1.3
721	D001	1265	Y	9.3
722	D001	1301	Y	1.2
723	D001	1383	Y	326.9
724	D001	1403	Y	57.4
725	D001	1268	Y	9.0
726	D001	1441	Y	439.9
727	D001	1269	Y	0.9
728	D001	1448	Y	315.1
729	D001	1384	Y	51.8
730	D001	1449	Y	107.6
731	D002	1636	X	0.1
732	D002	1637	X	9.1
733	D002	275	X	0.3
734	D002	276	X	1.1
735	D002	1634	X	0.2
736	D002	239	X	0.9
737	D002	272	X	0.1
738	D002	281	X	0.8
739	D002	1635	X	9.6
740	D002	236	X	0.8
741	D002	1645	X	0.6
742	D002	269	X	1.6
743	D002	1633	X	8.2
744	D002	284	X	0.8
745	D002	233	X	0.8
746	D002	266	X	0.1
747	D002	515	X	2.0
748	D002	287	X	0.8
749	D002	1421	X	27.6
750	D002	232	X	0.5
751	D002	263	X	0.1
752	D002	1341	X	23.7
753	D002	518	X	2.0
754	D002	290	X	0.8
755	D002	1632	X	8.6
756	D002	1644	X	0.6
757	D002	1337	X	38.6
758	D002	1643	X	1.6
759	D002	293	X	0.9
760	D002	521	X	1.9
761	D002	294	X	0.2
762	D002	1340	X	87.2
763	D002	254	X	1.3
764	D002	255	X	0.4
765	D002	524	X	1.9
766	D002	299	X	0.1
767	D002	1638	X	9.5
768	D002	479	X	1.7
769	D002	1642	X	1.5
770	D002	500	X	0.8
771	D002	302	X	1.3
772	D002	303	X	0.8
773	D002	1336	X	20.4
774	D002	476	X	1.5
775	D002	503	X	0.8
776	D002	482	X	1.1
777	D002	308	X	0.1
778	D002	1365	X	12.7
779	D002	506	X	0.8
780	D002	455	X	0.8
781	D002	1422	X	26.6
782	D002	1631	X	8.2
783	D002	485	X	1.0
784	D002	311	X	0.1
785	D002	1339	X	56.4
786	D002	1639	X	7.0
787	D002	1419	X	32.4
788	D002	509	X	0.8
789	D002	488	X	0.9
790	D002	314	X	0.1
791	D002	512	X	0.8
792	D002	1366	X	35.8
793	D002	491	X	1.5
794	D002	317	X	0.1
795	D002	1423	X	53.6
796	D002	1404	X	1.7
797	D002	1641	X	0.6
798	D002	1625	X	2.1
799	D002	1474	X	138.3
800	D002	1629	X	0.3

801	D002	320	X	1.9
802	D002	494	X	1.6
803	D002	1630	X	6.2
804	D002	1338	X	34.1
805	D002	323	X	0.1
806	D002	1623	X	1.1
807	D002	842	X	2.2
808	D002	497	X	1.4
809	D002	1626	X	2.3
810	D002	326	X	0.1
811	D002	470	X	0.2
812	D002	845	X	2.0
813	D002	471	X	0.9
814	D002	1368	X	7.6
815	D002	1640	X	1.1
816	D002	1621	X	0.1
817	D002	329	X	0.1
818	D002	1420	X	54.1
819	D002	1620	X	1.0
820	D002	848	X	1.9
821	D002	527	X	0.4
822	D002	1473	X	4.0
823	D002	332	X	0.1
824	D002	1628	X	0.2
825	D002	1627	X	0.4
826	D002	851	X	1.6
827	D002	1619	X	0.1
828	D002	530	X	0.2
829	D002	1468	X	286.4
830	D002	335	X	1.9
831	D002	1624	X	0.1
832	D002	854	X	1.4
833	D002	338	X	0.1
834	D002	866	X	2.2
835	D002	1349	X	5.2
836	D002	1418	X	18.4
837	D002	857	X	1.2
838	D002	341	X	0.1
839	D002	1472	X	1.7
840	D002	869	X	2.0
841	D002	860	X	0.9
842	D002	344	X	0.1
843	D002	872	X	1.8
844	D002	1350	X	3.0
845	D002	347	X	0.1
846	D002	863	X	0.6
847	D002	1414	X	7.0
848	D002	1471	X	0.5
849	D002	875	X	1.6
850	D002	1469	X	285.0
851	D002	1460	X	7.4
852	D002	350	X	2.6
853	D002	734	X	0.1
854	D002	878	X	1.4
855	D002	1484	X	6.4
856	D002	735	X	0.2
857	D002	353	X	0.1
858	D002	890	X	3.5
859	D002	1483	X	13.2
860	D002	379	X	0.3
861	D002	377	X	1.4
862	D002	881	X	1.2
863	D002	1486	X	6.1
864	D002	356	X	0.1
865	D002	1351	X	0.5
866	D002	893	X	3.0
867	D002	383	X	0.2
868	D002	1485	X	12.3
869	D002	374	X	1.2
870	D002	884	X	0.9
871	D002	359	X	0.1
872	D002	1488	X	6.1
873	D002	896	X	2.8
874	D002	386	X	0.2
875	D002	371	X	1.0
876	D002	1487	X	12.3
877	D002	887	X	0.5
878	D002	362	X	0.1
879	D002	1415	X	4.5
880	D002	389	X	0.2
881	D002	367	X	1.2
882	D002	899	X	2.6
883	D002	1470	X	286.6
884	D002	1461	X	14.7
885	D002	1363	X	8.0
886	D002	365	X	0.3
887	D002	749	X	0.1
888	D002	392	X	2.5

889	D002	417	X	0.6
890	D002	1425	X	49.5
891	D002	1462	X	7.0
892	D002	1489	X	5.1
893	D002	902	X	1.8
894	D002	1371	X	18.9
895	D002	912	X	0.1
896	D002	1490	X	9.5
897	D002	395	X	0.2
898	D002	1328	X	3.0
899	D002	422	X	0.8
900	D002	905	X	1.2
901	D002	1491	X	6.1
902	D002	1492	X	12.3
903	D002	398	X	0.2
904	D002	1331	X	2.7
905	D002	425	X	0.8
906	D002	908	X	0.9
907	D002	1031	X	0.9
908	D002	1493	X	6.1
909	D002	401	X	0.2
910	D002	1372	X	8.9
911	D002	1494	X	12.3
912	D002	428	X	1.9
913	D002	911	X	0.6
914	D002	1175	X	1.2
915	D002	1424	X	9.2
916	D002	1416	X	4.2
917	D002	1374	X	126.2
918	D002	404	X	0.2
919	D002	1431	X	22.4
920	D002	1475	X	120.3
921	D002	405	X	2.3
922	D002	431	X	0.7
923	D002	1463	X	14.2
924	D002	1364	X	4.4
925	D002	764	X	0.1
926	D002	1476	X	12.3
927	D002	1178	X	1.2
928	D002	1412	X	8.5
929	D002	1464	X	5.6
930	D002	434	X	0.7
931	D002	1022	X	1.4
932	D002	1465	X	10.1
933	D002	1121	X	1.5
934	D002	1500	X	3.9
935	D002	437	X	0.7
936	D002	1495	X	6.6
937	D002	1373	X	47.8
938	D002	1154	X	1.2
939	D002	1019	X	0.7
940	D002	1181	X	1.0
941	D002	1496	X	13.7
942	D002	1478	X	0.8
943	D002	440	X	0.8
944	D002	1497	X	6.1
945	D002	416	X	5.9
946	D002	1184	X	1.0
947	D002	1157	X	1.2
948	D002	1016	X	0.5
949	D002	1498	X	12.4
950	D002	1426	X	45.0
951	D002	1193	X	0.1
952	D002	1397	X	15.2
953	D002	1187	X	1.0
954	D002	1417	X	4.7
955	D002	1130	X	1.3
956	D002	1013	X	0.4
957	D002	1466	X	15.2
958	D002	1413	X	14.9
959	D002	1377	X	54.1
960	D002	1190	X	0.9
961	D002	46	X	0.6
962	D002	1160	X	0.9
963	D002	24	X	0.6
964	D002	1394	X	97.2
965	D002	783	X	0.3
966	D002	1467	X	8.1
967	D002	1477	X	6.2
968	D002	1502	X	79.1
969	D002	1375	X	6.5
970	D002	176	X	0.8
971	D002	1163	X	0.9
972	D002	1479	X	20.9
973	D002	20	X	0.1
974	D002	178	X	2.9
975	D002	788	X	0.3
976	D002	1166	X	0.9

977	D002	16	X	0.1
978	D002	187	X	0.1
979	D002	791	X	0.3
980	D002	1169	X	0.7
981	D002	1170	X	3.9
982	D002	1393	X	63.5
983	D002	12	X	0.1
984	D002	191	X	0.7
985	D002	1376	X	2.3
986	D002	794	X	0.2
987	D002	1396	X	45.5
988	D002	1433	X	15.3
989	D002	1439	X	79.7
990	D002	1613	X	20.5
991	D002	1398	X	125.6
992	D002	1480	X	19.5
993	D002	795	X	0.1
994	D002	1434	X	17.3
995	D002	8	X	0.1
996	D002	798	X	0.2
997	D002	195	X	1.2
998	D002	1482	X	3.6
999	D002	1428	X	11.5
1000	D002	7	X	19.5
1001	D002	803	X	0.3
1002	D002	199	X	1.0
1003	D002	806	X	0.3
1004	D002	44	X	0.2
1005	D002	175	X	3.9
1006	D002	1395	X	109.6
1007	D002	171	X	0.5
1008	D002	809	X	0.8
1009	D002	1435	X	14.8
1010	D002	1611	X	11.8
1011	D002	40	X	0.2
1012	D002	1436	X	7.3
1013	D002	167	X	0.4
1014	D002	1380	X	15.6
1015	D002	36	X	0.2
1016	D002	159	X	0.4
1017	D002	1405	X	276.7
1018	D002	157	X	0.4
1019	D002	32	X	0.2
1020	D002	1391	X	182.1
1021	D002	153	X	0.7
1022	D002	31	X	0.4
1023	D002	143	X	0.1
1024	D002	49	X	2.0
1025	D002	1438	X	0.8
1026	D002	1612	X	31.1
1027	D002	1399	X	11.3
1028	D002	56	X	2.2
1029	D002	1505	X	0.4
1030	D002	1610	X	5.1
1031	D002	1514	X	0.6
1032	D002	1518	X	0.3
1033	D002	1389	X	39.8
1034	D002	1443	X	116.3
1035	D002	1440	X	3.1
1036	D002	1401	X	24.3
1037	D002	1522	X	0.1
1038	D002	1400	X	230.2
1039	D002	121	X	0.7
1040	D002	1526	X	0.1
1041	D002	76	X	5.4
1042	D002	1392	X	43.7
1043	D002	1402	X	120.3
1044	D002	92	X	0.5
1045	D002	1609	X	0.1
1046	D002	1403	X	2.4
1047	D002	1441	X	17.3
1048	D002	1636	Y	0.1
1049	D002	1637	Y	12.7
1050	D002	275	Y	0.3
1051	D002	276	Y	1.2
1052	D002	1634	Y	0.2
1053	D002	239	Y	2.5
1054	D002	272	Y	0.2
1055	D002	281	Y	0.9
1056	D002	1635	Y	27.8
1057	D002	242	Y	0.2
1058	D002	236	Y	2.9
1059	D002	1645	Y	1.0
1060	D002	269	Y	2.2
1061	D002	1633	Y	8.4
1062	D002	284	Y	0.8
1063	D002	245	Y	0.2
1064	D002	233	Y	2.9

1065	D002	266	Y	0.2
1066	D002	515	Y	2.7
1067	D002	287	Y	0.8
1068	D002	1421	Y	23.6
1069	D002	248	Y	0.2
1070	D002	232	Y	2.2
1071	D002	263	Y	0.2
1072	D002	1341	Y	20.1
1073	D002	518	Y	2.5
1074	D002	290	Y	0.8
1075	D002	1632	Y	18.2
1076	D002	1644	Y	0.6
1077	D002	1337	Y	68.5
1078	D002	1643	Y	1.1
1079	D002	251	Y	0.2
1080	D002	443	Y	0.2
1081	D002	260	Y	0.2
1082	D002	293	Y	0.8
1083	D002	521	Y	2.3
1084	D002	294	Y	0.2
1085	D002	1340	Y	86.1
1086	D002	254	Y	3.0
1087	D002	446	Y	0.2
1088	D002	255	Y	1.0
1089	D002	524	Y	2.2
1090	D002	299	Y	0.1
1091	D002	1638	Y	18.5
1092	D002	479	Y	4.6
1093	D002	1642	Y	2.0
1094	D002	449	Y	0.2
1095	D002	500	Y	1.7
1096	D002	302	Y	1.5
1097	D002	303	Y	0.9
1098	D002	1336	Y	56.0
1099	D002	476	Y	4.6
1100	D002	503	Y	1.6
1101	D002	452	Y	0.2
1102	D002	482	Y	1.4
1103	D002	308	Y	0.2
1104	D002	1365	Y	8.5
1105	D002	506	Y	1.5
1106	D002	455	Y	3.0
1107	D002	1422	Y	17.6
1108	D002	1631	Y	14.2
1109	D002	485	Y	1.4
1110	D002	311	Y	0.2
1111	D002	1339	Y	82.1
1112	D002	1639	Y	16.9
1113	D002	1419	Y	46.9
1114	D002	509	Y	1.4
1115	D002	458	Y	0.2
1116	D002	488	Y	1.4
1117	D002	314	Y	0.1
1118	D002	512	Y	1.3
1119	D002	1366	Y	27.4
1120	D002	461	Y	0.2
1121	D002	491	Y	2.6
1122	D002	317	Y	0.1
1123	D002	1423	Y	42.5
1124	D002	1404	Y	1.3
1125	D002	1641	Y	0.8
1126	D002	1625	Y	9.5
1127	D002	1474	Y	108.9
1128	D002	464	Y	0.2
1129	D002	1629	Y	2.4
1130	D002	320	Y	1.6
1131	D002	494	Y	3.3
1132	D002	1630	Y	14.1
1133	D002	1338	Y	77.0
1134	D002	573	Y	0.4
1135	D002	574	Y	1.7
1136	D002	467	Y	0.1
1137	D002	323	Y	0.1
1138	D002	1623	Y	8.5
1139	D002	842	Y	2.1
1140	D002	497	Y	3.3
1141	D002	599	Y	0.2
1142	D002	1626	Y	9.0
1143	D002	581	Y	1.5
1144	D002	470	Y	0.4
1145	D002	845	Y	2.1
1146	D002	471	Y	2.5
1147	D002	602	Y	0.2
1148	D002	1368	Y	8.7
1149	D002	1640	Y	2.0
1150	D002	1621	Y	7.1
1151	D002	1420	Y	60.7
1152	D002	584	Y	1.5

1153	D002	1620	Y	7.3
1154	D002	848	Y	2.1
1155	D002	605	Y	2.3
1156	D002	527	Y	1.6
1157	D002	1473	Y	4.4
1158	D002	1628	Y	1.6
1159	D002	587	Y	1.5
1160	D002	1627	Y	1.5
1161	D002	626	Y	2.6
1162	D002	851	Y	2.1
1163	D002	608	Y	0.2
1164	D002	1619	Y	7.5
1165	D002	530	Y	1.5
1166	D002	1407	Y	38.2
1167	D002	1468	Y	168.2
1168	D002	1342	Y	24.7
1169	D002	335	Y	1.0
1170	D002	531	Y	1.3
1171	D002	1624	Y	0.9
1172	D002	590	Y	1.5
1173	D002	629	Y	2.6
1174	D002	1617	Y	9.0
1175	D002	854	Y	2.1
1176	D002	611	Y	0.2
1177	D002	536	Y	1.5
1178	D002	722	Y	0.1
1179	D002	866	Y	1.3
1180	D002	1349	Y	9.1
1181	D002	1622	Y	1.3
1182	D002	1418	Y	32.0
1183	D002	632	Y	2.6
1184	D002	593	Y	1.5
1185	D002	857	Y	2.1
1186	D002	594	Y	0.3
1187	D002	1618	Y	6.2
1188	D002	1472	Y	3.1
1189	D002	614	Y	2.0
1190	D002	539	Y	1.5
1191	D002	725	Y	0.1
1192	D002	869	Y	1.3
1193	D002	1345	Y	104.8
1194	D002	635	Y	2.6
1195	D002	662	Y	0.2
1196	D002	860	Y	2.1
1197	D002	617	Y	0.1
1198	D002	542	Y	1.8
1199	D002	644	Y	2.5
1200	D002	728	Y	0.1
1201	D002	1616	Y	3.1
1202	D002	1646	Y	7.9
1203	D002	872	Y	1.3
1204	D002	638	Y	2.6
1205	D002	665	Y	0.2
1206	D002	1350	Y	8.3
1207	D002	545	Y	1.3
1208	D002	620	Y	0.1
1209	D002	863	Y	2.1
1210	D002	647	Y	2.5
1211	D002	1414	Y	22.0
1212	D002	1471	Y	1.3
1213	D002	875	Y	1.3
1214	D002	641	Y	2.0
1215	D002	548	Y	1.3
1216	D002	1469	Y	111.2
1217	D002	1648	Y	7.7
1218	D002	623	Y	0.1
1219	D002	1460	Y	23.9
1220	D002	350	Y	0.6
1221	D002	650	Y	2.5
1222	D002	734	Y	1.1
1223	D002	551	Y	1.5
1224	D002	878	Y	1.3
1225	D002	1484	Y	18.8
1226	D002	1343	Y	13.6
1227	D002	552	Y	1.7
1228	D002	668	Y	0.2
1229	D002	735	Y	1.5
1230	D002	1406	Y	37.2
1231	D002	890	Y	0.9
1232	D002	1647	Y	1.7
1233	D002	1347	Y	97.7
1234	D002	653	Y	2.5
1235	D002	1483	Y	39.6
1236	D002	1614	Y	6.3
1237	D002	947	Y	0.1
1238	D002	557	Y	2.6
1239	D002	881	Y	1.3
1240	D002	1486	Y	16.7



1241	D002	812	Y	2.1
1242	D002	671	Y	0.2
1243	D002	1351	Y	11.5
1244	D002	656	Y	2.5
1245	D002	893	Y	0.9
1246	D002	1485	Y	34.4
1247	D002	1649	Y	6.1
1248	D002	560	Y	2.6
1249	D002	950	Y	0.1
1250	D002	884	Y	1.3
1251	D002	815	Y	2.1
1252	D002	1488	Y	15.5
1253	D002	659	Y	1.8
1254	D002	896	Y	0.9
1255	D002	1487	Y	32.0
1256	D002	1344	Y	84.4
1257	D002	563	Y	2.6
1258	D002	953	Y	0.1
1259	D002	887	Y	1.4
1260	D002	818	Y	2.1
1261	D002	674	Y	0.1
1262	D002	1415	Y	10.4
1263	D002	899	Y	0.9
1264	D002	1348	Y	97.9
1265	D002	1470	Y	54.3
1266	D002	1409	Y	38.3
1267	D002	566	Y	2.6
1268	D002	1461	Y	35.0
1269	D002	1363	Y	17.9
1270	D002	677	Y	0.1
1271	D002	956	Y	0.1
1272	D002	749	Y	0.7
1273	D002	821	Y	2.1
1274	D002	1462	Y	15.9
1275	D002	1489	Y	10.8
1276	D002	902	Y	0.7
1277	D002	750	Y	0.2
1278	D002	569	Y	2.6
1279	D002	680	Y	0.1
1280	D002	912	Y	0.6
1281	D002	1490	Y	20.8
1282	D002	824	Y	2.4
1283	D002	905	Y	0.6
1284	D002	1491	Y	11.8
1285	D002	572	Y	1.2
1286	D002	681	Y	0.5
1287	D002	917	Y	1.2
1288	D002	827	Y	2.1
1289	D002	1346	Y	80.1
1290	D002	1492	Y	24.6
1291	D002	908	Y	0.6
1292	D002	1493	Y	10.6
1293	D002	686	Y	0.1
1294	D002	920	Y	1.2
1295	D002	830	Y	2.1
1296	D002	1494	Y	22.2
1297	D002	911	Y	0.6
1298	D002	1416	Y	6.4
1299	D002	689	Y	0.1
1300	D002	923	Y	1.2
1301	D002	833	Y	2.1
1302	D002	1463	Y	22.7
1303	D002	1364	Y	6.4
1304	D002	764	Y	0.3
1305	D002	1412	Y	11.7
1306	D002	1362	Y	127.3
1307	D002	692	Y	0.1
1308	D002	1464	Y	8.4
1309	D002	836	Y	2.1
1310	D002	926	Y	1.1
1311	D002	765	Y	0.1
1312	D002	1465	Y	14.3
1313	D002	1408	Y	29.6
1314	D002	1352	Y	53.1
1315	D002	839	Y	2.1
1316	D002	929	Y	1.2
1317	D002	1495	Y	7.5
1318	D002	983	Y	0.2
1319	D002	1496	Y	16.1
1320	D002	698	Y	1.3
1321	D002	932	Y	1.2
1322	D002	1497	Y	5.7
1323	D002	986	Y	0.2
1324	D002	1498	Y	12.1
1325	D002	935	Y	1.2
1326	D002	989	Y	0.2
1327	D002	1417	Y	3.5
1328	D002	938	Y	1.2

1329	D002	1466	Y	11.7
1330	D002	1413	Y	9.3
1331	D002	992	Y	0.2
1332	D002	1467	Y	5.2
1333	D002	1360	Y	71.4
1334	D002	1375	Y	3.2
1335	D002	941	Y	1.2
1336	D002	980	Y	0.3
1337	D002	1479	Y	10.7
1338	D002	1353	Y	66.2
1339	D002	944	Y	1.0
1340	D002	1007	Y	0.2
1341	D002	713	Y	0.8
1342	D002	1010	Y	0.3
1343	D002	1003	Y	0.3
1344	D002	719	Y	0.1
1345	D002	995	Y	0.2
1346	D002	998	Y	0.2
1347	D002	1001	Y	0.2
1348	D002	1361	Y	13.9
1349	D002	1354	Y	31.3
1350	D002	1355	Y	3.0
1351	D002	1410	Y	18.7
1352	D002	1411	Y	2.5
1353	D003	1636	X	0.4
1354	D003	1637	X	20.7
1355	D003	275	X	0.8
1356	D003	276	X	3.1
1357	D003	1634	X	0.6
1358	D003	239	X	6.9
1359	D003	272	X	0.5
1360	D003	281	X	2.4
1361	D003	1635	X	48.1
1362	D003	242	X	0.6
1363	D003	236	X	8.3
1364	D003	1645	X	1.9
1365	D003	269	X	6.3
1366	D003	1633	X	18.8
1367	D003	284	X	2.4
1368	D003	245	X	0.6
1369	D003	233	X	8.5
1370	D003	266	X	0.6
1371	D003	515	X	7.8
1372	D003	287	X	2.4
1373	D003	1421	X	81.9
1374	D003	248	X	0.6
1375	D003	232	X	6.9
1376	D003	263	X	0.6
1377	D003	1341	X	70.3
1378	D003	518	X	7.8
1379	D003	290	X	2.4
1380	D003	1632	X	44.7
1381	D003	1644	X	1.9
1382	D003	1337	X	223.3
1383	D003	1643	X	4.0
1384	D003	251	X	0.6
1385	D003	443	X	0.7
1386	D003	260	X	0.6
1387	D003	293	X	2.7
1388	D003	521	X	7.7
1389	D003	294	X	0.7
1390	D003	1340	X	313.5
1391	D003	254	X	10.1
1392	D003	446	X	0.7
1393	D003	255	X	3.3
1394	D003	524	X	7.6
1395	D003	299	X	0.5
1396	D003	1638	X	60.4
1397	D003	479	X	16.1
1398	D003	1642	X	7.6
1399	D003	449	X	0.7
1400	D003	500	X	6.0
1401	D003	302	X	5.3
1402	D003	303	X	3.5
1403	D003	1336	X	194.8
1404	D003	476	X	16.5
1405	D003	503	X	5.9
1406	D003	452	X	0.7
1407	D003	1650	X	0.3
1408	D003	482	X	5.4
1409	D003	308	X	0.6
1410	D003	1365	X	37.6
1411	D003	506	X	5.9
1412	D003	455	X	10.9
1413	D003	1422	X	78.8
1414	D003	1631	X	51.6
1415	D003	485	X	5.6
1416	D003	311	X	0.6

1417	D003	1339	X	325.7
1418	D003	1639	X	61.2
1419	D003	1419	X	187.2
1420	D003	509	X	5.8
1421	D003	458	X	0.7
1422	D003	488	X	5.9
1423	D003	314	X	0.6
1424	D003	512	X	5.7
1425	D003	1366	X	128.3
1426	D003	461	X	0.7
1427	D003	491	X	11.4
1428	D003	317	X	0.6
1429	D003	1423	X	201.9
1430	D003	1404	X	6.2
1431	D003	1641	X	3.5
1432	D003	1625	X	34.7
1433	D003	1474	X	524.5
1434	D003	464	X	0.7
1435	D003	1629	X	9.2
1436	D003	1651	X	0.3
1437	D003	320	X	8.3
1438	D003	494	X	15.1
1439	D003	1630	X	55.7
1440	D003	1338	X	325.3
1441	D003	573	X	1.7
1442	D003	574	X	6.6
1443	D003	467	X	0.7
1444	D003	323	X	0.6
1445	D003	1623	X	32.7
1446	D003	842	X	11.6
1447	D003	497	X	15.5
1448	D003	599	X	0.7
1449	D003	1626	X	36.6
1450	D003	581	X	6.1
1451	D003	326	X	0.6
1452	D003	470	X	2.1
1453	D003	845	X	12.3
1454	D003	471	X	11.9
1455	D003	602	X	0.7
1456	D003	1368	X	43.7
1457	D003	1640	X	9.7
1458	D003	1621	X	28.4
1459	D003	329	X	0.6
1460	D003	1420	X	312.5
1461	D003	584	X	6.2
1462	D003	1620	X	30.4
1463	D003	848	X	13.0
1464	D003	605	X	9.8
1465	D003	527	X	8.1
1466	D003	1473	X	22.8
1467	D003	332	X	0.6
1468	D003	1628	X	6.9
1469	D003	587	X	6.4
1470	D003	1627	X	7.0
1471	D003	626	X	11.6
1472	D003	851	X	13.5
1473	D003	608	X	0.9
1474	D003	1619	X	31.6
1475	D003	530	X	7.8
1476	D003	1407	X	160.0
1477	D003	1468	X	1085.8
1478	D003	1342	X	103.9
1479	D003	335	X	8.2
1480	D003	531	X	6.6
1481	D003	1624	X	4.0
1482	D003	590	X	6.5
1483	D003	629	X	11.8
1484	D003	1617	X	35.9
1485	D003	854	X	13.9
1486	D003	611	X	0.9
1487	D003	338	X	0.6
1488	D003	536	X	8.3
1489	D003	722	X	0.7
1490	D003	866	X	11.5
1491	D003	1349	X	49.1
1492	D003	1622	X	6.1
1493	D003	1418	X	175.7
1494	D003	632	X	12.0
1495	D003	593	X	6.6
1496	D003	857	X	14.3
1497	D003	594	X	1.4
1498	D003	1618	X	26.0
1499	D003	341	X	0.6
1500	D003	1472	X	16.8
1501	D003	614	X	10.0
1502	D003	539	X	8.6
1503	D003	725	X	0.7
1504	D003	869	X	12.2

1505	D003	1345	X	483.8
1506	D003	635	X	12.2
1507	D003	662	X	0.8
1508	D003	860	X	14.7
1509	D003	617	X	0.7
1510	D003	344	X	0.6
1511	D003	542	X	10.5
1512	D003	644	X	12.9
1513	D003	728	X	0.6
1514	D003	1616	X	13.6
1515	D003	1646	X	32.9
1516	D003	872	X	12.8
1517	D003	638	X	12.5
1518	D003	665	X	0.8
1519	D003	1350	X	47.2
1520	D003	545	X	7.6
1521	D003	620	X	0.7
1522	D003	347	X	0.6
1523	D003	863	X	15.1
1524	D003	647	X	13.1
1525	D003	731	X	0.6
1526	D003	1414	X	126.8
1527	D003	1471	X	7.4
1528	D003	875	X	13.4
1529	D003	641	X	10.0
1530	D003	548	X	7.8
1531	D003	1469	X	1078.9
1532	D003	1648	X	33.7
1533	D003	623	X	0.7
1534	D003	1460	X	137.4
1535	D003	350	X	11.3
1536	D003	650	X	13.4
1537	D003	734	X	7.8
1538	D003	551	X	9.2
1539	D003	878	X	13.9
1540	D003	1484	X	117.0
1541	D003	1343	X	62.3
1542	D003	552	X	10.3
1543	D003	668	X	1.1
1544	D003	735	X	11.3
1545	D003	1406	X	170.5
1546	D003	353	X	0.6
1547	D003	890	X	18.2
1548	D003	1647	X	7.7
1549	D003	1347	X	521.6
1550	D003	653	X	13.7
1551	D003	1483	X	244.2
1552	D003	1614	X	27.8
1553	D003	379	X	0.9
1554	D003	947	X	0.9
1555	D003	377	X	3.6
1556	D003	557	X	16.0
1557	D003	881	X	14.1
1558	D003	1486	X	111.0
1559	D003	740	X	0.7
1560	D003	812	X	16.7
1561	D003	356	X	0.6
1562	D003	671	X	1.1
1563	D003	1351	X	69.6
1564	D003	656	X	14.0
1565	D003	893	X	19.1
1566	D003	383	X	0.4
1567	D003	1485	X	227.2
1568	D003	374	X	3.5
1569	D003	1649	X	27.7
1570	D003	560	X	16.4
1571	D003	950	X	0.9
1572	D003	884	X	14.5
1573	D003	743	X	0.7
1574	D003	359	X	0.6
1575	D003	815	X	17.0
1576	D003	1488	X	111.0
1577	D003	659	X	10.2
1578	D003	896	X	20.2
1579	D003	386	X	0.4
1580	D003	371	X	3.5
1581	D003	1487	X	227.3
1582	D003	1344	X	426.1
1583	D003	563	X	16.9
1584	D003	953	X	0.9
1585	D003	887	X	14.9
1586	D003	362	X	0.6
1587	D003	746	X	0.7
1588	D003	1615	X	0.4
1589	D003	818	X	17.8
1590	D003	674	X	0.8
1591	D003	1415	X	81.0
1592	D003	389	X	0.4

1593	D003	367	X	4.5
1594	D003	899	X	21.2
1595	D003	1348	X	618.2
1596	D003	1470	X	1083.6
1597	D003	1409	X	242.8
1598	D003	566	X	17.3
1599	D003	1461	X	270.1
1600	D003	1363	X	145.8
1601	D003	365	X	1.4
1602	D003	677	X	0.8
1603	D003	956	X	0.8
1604	D003	749	X	7.6
1605	D003	821	X	18.3
1606	D003	392	X	6.3
1607	D003	417	X	2.4
1608	D003	1425	X	135.6
1609	D003	1462	X	128.5
1610	D003	1489	X	92.6
1611	D003	902	X	17.2
1612	D003	750	X	2.4
1613	D003	1371	X	52.9
1614	D003	569	X	17.6
1615	D003	680	X	0.8
1616	D003	912	X	8.1
1617	D003	1490	X	175.3
1618	D003	824	X	21.3
1619	D003	1037	X	0.4
1620	D003	395	X	0.4
1621	D003	1328	X	9.0
1622	D003	422	X	3.4
1623	D003	905	X	14.9
1624	D003	1491	X	111.1
1625	D003	755	X	0.7
1626	D003	572	X	8.4
1627	D003	681	X	3.8
1628	D003	1034	X	0.4
1629	D003	917	X	15.1
1630	D003	827	X	19.1
1631	D003	959	X	0.8
1632	D003	1346	X	467.5
1633	D003	1492	X	227.4
1634	D003	398	X	0.4
1635	D003	1331	X	9.4
1636	D003	425	X	3.4
1637	D003	908	X	15.0
1638	D003	1031	X	5.7
1639	D003	758	X	0.7
1640	D003	1493	X	111.1
1641	D003	686	X	1.0
1642	D003	920	X	15.7
1643	D003	830	X	19.5
1644	D003	962	X	0.8
1645	D003	401	X	0.4
1646	D003	1372	X	31.6
1647	D003	1494	X	227.3
1648	D003	1028	X	0.5
1649	D003	428	X	8.1
1650	D003	911	X	15.3
1651	D003	761	X	0.7
1652	D003	1175	X	7.3
1653	D003	1424	X	34.6
1654	D003	1416	X	75.7
1655	D003	689	X	0.9
1656	D003	923	X	16.5
1657	D003	833	X	20.2
1658	D003	965	X	0.8
1659	D003	1374	X	345.7
1660	D003	404	X	0.6
1661	D003	1431	X	84.1
1662	D003	1115	X	0.4
1663	D003	1475	X	455.1
1664	D003	405	X	5.9
1665	D003	431	X	2.8
1666	D003	1463	X	261.0
1667	D003	1364	X	80.6
1668	D003	1025	X	0.6
1669	D003	764	X	8.0
1670	D003	1476	X	46.7
1671	D003	1178	X	7.4
1672	D003	1412	X	154.8
1673	D003	1362	X	1134.4
1674	D003	692	X	0.9
1675	D003	1464	X	102.9
1676	D003	836	X	20.6
1677	D003	926	X	15.8
1678	D003	968	X	0.8
1679	D003	1118	X	0.4
1680	D003	434	X	2.8

1681	D003	765	X	4.4
1682	D003	1022	X	13.0
1683	D003	1465	X	185.2
1684	D003	1408	X	205.3
1685	D003	1352	X	370.8
1686	D003	1121	X	8.9
1687	D003	695	X	0.9
1688	D003	839	X	21.0
1689	D003	929	X	17.7
1690	D003	1500	X	13.0
1691	D003	768	X	2.8
1692	D003	437	X	2.8
1693	D003	1495	X	119.9
1694	D003	983	X	7.5
1695	D003	1373	X	230.9
1696	D003	1154	X	11.3
1697	D003	1019	X	8.6
1698	D003	1181	X	5.9
1699	D003	1124	X	0.6
1700	D003	1496	X	251.6
1701	D003	1478	X	4.1
1702	D003	440	X	3.3
1703	D003	698	X	13.4
1704	D003	932	X	17.5
1705	D003	773	X	0.7
1706	D003	971	X	0.9
1707	D003	1497	X	111.2
1708	D003	986	X	7.8
1709	D003	416	X	24.4
1710	D003	1184	X	5.9
1711	D003	1157	X	11.2
1712	D003	1016	X	8.6
1713	D003	1127	X	0.6
1714	D003	1498	X	227.1
1715	D003	1426	X	123.4
1716	D003	701	X	0.9
1717	D003	935	X	18.1
1718	D003	776	X	0.7
1719	D003	1193	X	0.6
1720	D003	1397	X	42.6
1721	D003	974	X	0.9
1722	D003	1187	X	5.9
1723	D003	989	X	8.1
1724	D003	1417	X	86.4
1725	D003	1130	X	12.7
1726	D003	1013	X	8.8
1727	D003	704	X	0.9
1728	D003	938	X	19.1
1729	D003	1466	X	278.4
1730	D003	779	X	2.3
1731	D003	1413	X	273.3
1732	D003	1377	X	382.4
1733	D003	1190	X	5.0
1734	D003	977	X	0.9
1735	D003	780	X	2.5
1736	D003	46	X	2.0
1737	D003	992	X	8.4
1738	D003	1160	X	9.0
1739	D003	24	X	2.0
1740	D003	1394	X	469.7
1741	D003	1133	X	0.7
1742	D003	783	X	14.1
1743	D003	1467	X	148.2
1744	D003	1477	X	43.4
1745	D003	1360	X	1034.7
1746	D003	1502	X	258.6
1747	D003	1375	X	119.8
1748	D003	707	X	0.9
1749	D003	941	X	18.7
1750	D003	176	X	3.0
1751	D003	1196	X	0.6
1752	D003	1163	X	9.0
1753	D003	1040	X	0.7
1754	D003	980	X	10.1
1755	D003	1479	X	384.0
1756	D003	20	X	0.5
1757	D003	1136	X	0.7
1758	D003	178	X	11.9
1759	D003	788	X	16.2
1760	D003	1353	X	648.2
1761	D003	710	X	0.9
1762	D003	944	X	17.2
1763	D003	1199	X	0.6
1764	D003	1166	X	9.1
1765	D003	1007	X	8.6
1766	D003	1043	X	0.8
1767	D003	16	X	0.5
1768	D003	187	X	0.6

1769	D003	1139	X	0.7
1770	D003	791	X	16.3
1771	D003	713	X	13.8
1772	D003	1169	X	6.8
1773	D003	1010	X	8.9
1774	D003	1170	X	37.9
1775	D003	1393	X	448.8
1776	D003	1046	X	0.8
1777	D003	12	X	0.5
1778	D003	191	X	3.9
1779	D003	1376	X	41.9
1780	D003	794	X	12.3
1781	D003	716	X	1.0
1782	D003	1396	X	219.9
1783	D003	1433	X	280.3
1784	D003	1439	X	260.9
1785	D003	1003	X	11.7
1786	D003	1613	X	98.9
1787	D003	1398	X	411.2
1788	D003	1202	X	0.7
1789	D003	1049	X	0.8
1790	D003	1480	X	357.9
1791	D003	795	X	6.6
1792	D003	1434	X	317.6
1793	D003	8	X	0.5
1794	D003	798	X	11.8
1795	D003	195	X	7.5
1796	D003	719	X	2.7
1797	D003	995	X	5.4
1798	D003	998	X	6.5
1799	D003	1001	X	6.4
1800	D003	1482	X	66.2
1801	D003	1361	X	446.4
1802	D003	1052	X	1.2
1803	D003	1142	X	0.8
1804	D003	1205	X	0.7
1805	D003	1428	X	43.4
1806	D003	7	X	65.8
1807	D003	803	X	15.4
1808	D003	1053	X	8.9
1809	D003	199	X	7.9
1810	D003	1145	X	0.8
1811	D003	1208	X	0.8
1812	D003	806	X	15.4
1813	D003	1058	X	10.0
1814	D003	1354	X	498.8
1815	D003	44	X	0.6
1816	D003	175	X	38.2
1817	D003	1395	X	774.5
1818	D003	171	X	6.3
1819	D003	1148	X	0.8
1820	D003	1061	X	10.1
1821	D003	809	X	44.8
1822	D003	1435	X	270.1
1823	D003	1611	X	57.2
1824	D003	40	X	0.6
1825	D003	1355	X	100.7
1826	D003	1436	X	133.6
1827	D003	167	X	6.4
1828	D003	1380	X	285.3
1829	D003	1151	X	0.8
1830	D003	1064	X	10.1
1831	D003	1211	X	0.8
1832	D003	1410	X	407.9
1833	D003	1411	X	85.5
1834	D003	36	X	0.6
1835	D003	159	X	7.8
1836	D003	1437	X	82.8
1837	D003	1405	X	906.8
1838	D003	1378	X	253.6
1839	D003	1067	X	8.5
1840	D003	1214	X	0.8
1841	D003	1068	X	9.7
1842	D003	157	X	9.0
1843	D003	32	X	0.6
1844	D003	1391	X	1287.7
1845	D003	1217	X	0.8
1846	D003	1223	X	0.8
1847	D003	1073	X	15.4
1848	D003	153	X	34.7
1849	D003	31	X	1.3
1850	D003	143	X	7.5
1851	D003	49	X	7.0
1852	D003	1438	X	15.5
1853	D003	1226	X	0.8
1854	D003	1612	X	625.5
1855	D003	1220	X	0.8
1856	D003	1076	X	15.4

1857	D003	1503	X	0.3
1858	D003	144	X	0.5
1859	D003	1399	X	111.4
1860	D003	56	X	8.8
1861	D003	1505	X	1.3
1862	D003	1229	X	9.6
1863	D003	146	X	12.5
1864	D003	1079	X	14.3
1865	D003	1230	X	1.0
1866	D003	1610	X	23.3
1867	D003	1379	X	231.6
1868	D003	1514	X	2.2
1869	D003	1445	X	352.4
1870	D003	1304	X	14.5
1871	D003	1082	X	13.2
1872	D003	1566	X	0.8
1873	D003	1085	X	13.3
1874	D003	1518	X	1.5
1875	D003	1307	X	16.4
1876	D003	1570	X	0.8
1877	D003	1235	X	1.0
1878	D003	1389	X	727.1
1879	D003	1443	X	381.0
1880	D003	1440	X	61.8
1881	D003	1401	X	81.4
1882	D003	1088	X	13.4
1883	D003	1522	X	0.6
1884	D003	1310	X	13.3
1885	D003	1574	X	0.8
1886	D003	1400	X	1627.9
1887	D003	1091	X	7.9
1888	D003	1092	X	2.8
1889	D003	1238	X	1.0
1890	D003	1381	X	328.2
1891	D003	1095	X	6.5
1892	D003	1444	X	309.6
1893	D003	121	X	68.7
1894	D003	1526	X	0.7
1895	D003	1313	X	13.4
1896	D003	1578	X	0.8
1897	D003	1274	X	0.8
1898	D003	1446	X	340.3
1899	D003	1100	X	5.9
1900	D003	76	X	50.6
1901	D003	1241	X	2.4
1902	D003	1530	X	0.7
1903	D003	1316	X	13.5
1904	D003	1582	X	0.9
1905	D003	1277	X	0.8
1906	D003	1242	X	8.7
1907	D003	1103	X	5.9
1908	D003	90	X	0.1
1909	D003	1280	X	17.5
1910	D003	1534	X	0.6
1911	D003	1586	X	0.9
1912	D003	1247	X	6.8
1913	D003	1106	X	5.9
1914	D003	1538	X	0.6
1915	D003	1283	X	1.0
1916	D003	1451	X	407.3
1917	D003	1319	X	13.9
1918	D003	1452	X	23.8
1919	D003	1250	X	6.8
1920	D003	1590	X	0.9
1921	D003	1387	X	91.4
1922	D003	1109	X	6.0
1923	D003	1392	X	877.4
1924	D003	1110	X	1.4
1925	D003	1542	X	0.7
1926	D003	1286	X	1.0
1927	D003	1253	X	6.8
1928	D003	1322	X	14.0
1929	D003	1594	X	0.9
1930	D003	1289	X	0.8
1931	D003	1402	X	851.0
1932	D003	1447	X	107.3
1933	D003	1546	X	0.7
1934	D003	1256	X	10.6
1935	D003	92	X	28.5
1936	D003	1382	X	97.8
1937	D003	1325	X	14.0
1938	D003	1609	X	8.3
1939	D003	1292	X	0.8
1940	D003	1598	X	0.9
1941	D003	1550	X	0.7
1942	D003	1385	X	685.3
1943	D003	1259	X	7.9
1944	D003	1295	X	10.3



1945	D003	1602	X	1.2
1946	D003	1554	X	1.9
1947	D003	1262	X	7.9
1948	D003	1388	X	44.9
1949	D003	1603	X	1.9
1950	D003	1555	X	0.5
1951	D003	1298	X	1.0
1952	D003	1450	X	137.7
1953	D003	1557	X	0.7
1954	D003	1265	X	7.9
1955	D003	1301	X	1.0
1956	D003	1383	X	340.5
1957	D003	1403	X	45.2
1958	D003	1268	X	7.6
1959	D003	1441	X	348.2
1960	D003	1269	X	0.7
1961	D003	1448	X	301.4
1962	D003	1384	X	52.0
1963	D003	1449	X	108.0
1964	D003	1425	Y	0.1
1965	D003	1374	Y	0.7
1966	D003	1475	Y	0.4
1967	D003	1373	Y	0.2
1968	D003	416	Y	0.2
1969	D003	1426	Y	0.4
1970	D003	1397	Y	0.1
1971	D003	1377	Y	0.3
1972	D003	1394	Y	0.8
1973	D003	1502	Y	0.8
1974	D003	178	Y	0.1
1975	D003	1170	Y	0.2
1976	D003	1393	Y	0.8
1977	D003	1396	Y	0.6
1978	D003	1433	Y	0.2
1979	D003	1439	Y	1.1
1980	D003	1613	Y	0.3
1981	D003	1398	Y	1.7
1982	D003	1480	Y	0.2
1983	D003	1434	Y	0.3
1984	D003	1428	Y	0.2
1985	D003	7	Y	0.9
1986	D003	175	Y	0.3
1987	D003	1395	Y	2.1
1988	D003	809	Y	0.2
1989	D003	1435	Y	0.4
1990	D003	1611	Y	0.2
1991	D003	1436	Y	0.2
1992	D003	1380	Y	0.5
1993	D003	1405	Y	5.1
1994	D003	1378	Y	0.2
1995	D003	1391	Y	4.6
1996	D003	153	Y	0.2
1997	D003	49	Y	0.1
1998	D003	1612	Y	1.5
1999	D003	1399	Y	1.1
2000	D003	56	Y	0.1
2001	D003	1610	Y	0.3
2002	D003	1379	Y	0.4
2003	D003	1445	Y	0.6
2004	D003	1389	Y	2.4
2005	D003	1443	Y	2.8
2006	D003	1440	Y	0.2
2007	D003	1401	Y	0.6
2008	D003	1400	Y	8.0
2009	D003	1381	Y	0.5
2010	D003	1444	Y	0.7
2011	D003	121	Y	0.6
2012	D003	1446	Y	0.5
2013	D003	76	Y	0.6
2014	D003	1451	Y	1.2
2015	D003	1387	Y	0.3
2016	D003	1392	Y	3.9
2017	D003	1402	Y	5.3
2018	D003	1447	Y	0.2
2019	D003	92	Y	0.3
2020	D003	1382	Y	0.2
2021	D003	1385	Y	1.9
2022	D003	1388	Y	0.2
2023	D003	1450	Y	0.5
2024	D003	1383	Y	0.9
2025	D003	1403	Y	0.3
2026	D003	1441	Y	2.0
2027	D003	1448	Y	1.1
2028	D003	1384	Y	0.2
2029	D003	1449	Y	0.4
2030	D004	276	X	0.3
2031	D004	239	X	0.5
2032	D004	281	X	0.2

2033	D004	1635	X	11.9
2034	D004	236	X	0.6
2035	D004	1645	X	0.2
2036	D004	269	X	0.6
2037	D004	284	X	0.2
2038	D004	233	X	0.5
2039	D004	515	X	0.7
2040	D004	287	X	0.2
2041	D004	1421	X	0.3
2042	D004	232	X	0.4
2043	D004	1341	X	0.3
2044	D004	518	X	0.7
2045	D004	290	X	0.2
2046	D004	1632	X	11.8
2047	D004	1644	X	0.2
2048	D004	293	X	0.3
2049	D004	521	X	0.7
2050	D004	1340	X	1.1
2051	D004	254	X	0.7
2052	D004	255	X	0.2
2053	D004	524	X	0.7
2054	D004	1638	X	1.1
2055	D004	479	X	1.1
2056	D004	1642	X	1.9
2057	D004	500	X	0.4
2058	D004	302	X	0.5
2059	D004	303	X	0.3
2060	D004	476	X	1.0
2061	D004	503	X	0.4
2062	D004	482	X	0.5
2063	D004	1365	X	0.2
2064	D004	506	X	0.4
2065	D004	455	X	0.6
2066	D004	1422	X	0.5
2067	D004	1631	X	0.6
2068	D004	485	X	0.4
2069	D004	509	X	0.4
2070	D004	488	X	0.4
2071	D004	512	X	0.4
2072	D004	1366	X	0.7
2073	D004	491	X	0.8
2074	D004	1423	X	0.4
2075	D004	1474	X	3.2
2076	D004	320	X	0.7
2077	D004	494	X	0.9
2078	D004	842	X	1.0
2079	D004	497	X	0.8
2080	D004	845	X	0.9
2081	D004	471	X	0.5
2082	D004	848	X	0.9
2083	D004	605	X	0.1
2084	D004	527	X	0.3
2085	D004	1473	X	0.1
2086	D004	851	X	0.9
2087	D004	530	X	0.3
2088	D004	1468	X	6.9
2089	D004	335	X	0.7
2090	D004	531	X	0.2
2091	D004	1617	X	0.1
2092	D004	854	X	0.8
2093	D004	536	X	0.3
2094	D004	866	X	0.9
2095	D004	857	X	0.7
2096	D004	614	X	0.1
2097	D004	539	X	0.2
2098	D004	869	X	0.9
2099	D004	860	X	0.6
2100	D004	542	X	0.2
2101	D004	644	X	0.1
2102	D004	872	X	0.9
2103	D004	545	X	0.1
2104	D004	863	X	0.5
2105	D004	875	X	0.8
2106	D004	1469	X	8.0
2107	D004	350	X	1.0
2108	D004	734	X	0.3
2109	D004	878	X	0.7
2110	D004	552	X	0.1
2111	D004	735	X	0.4
2112	D004	890	X	1.4
2113	D004	377	X	0.4
2114	D004	557	X	0.1
2115	D004	881	X	0.7
2116	D004	812	X	0.5
2117	D004	893	X	1.4
2118	D004	374	X	0.4
2119	D004	884	X	0.6
2120	D004	815	X	0.5

2121	D004	896	X	1.3
2122	D004	371	X	0.3
2123	D004	887	X	0.5
2124	D004	818	X	0.3
2125	D004	367	X	0.4
2126	D004	899	X	1.3
2127	D004	1470	X	9.1
2128	D004	365	X	0.1
2129	D004	749	X	0.2
2130	D004	821	X	0.3
2131	D004	392	X	0.7
2132	D004	417	X	0.2
2133	D004	1425	X	1.3
2134	D004	902	X	0.9
2135	D004	1371	X	0.5
2136	D004	912	X	0.3
2137	D004	824	X	0.2
2138	D004	1328	X	1.0
2139	D004	422	X	0.3
2140	D004	905	X	0.7
2141	D004	917	X	0.4
2142	D004	827	X	0.2
2143	D004	1331	X	0.9
2144	D004	425	X	0.3
2145	D004	908	X	0.6
2146	D004	1031	X	0.4
2147	D004	920	X	0.3
2148	D004	830	X	0.1
2149	D004	1372	X	0.2
2150	D004	428	X	0.7
2151	D004	911	X	0.5
2152	D004	1175	X	0.5
2153	D004	1424	X	0.2
2154	D004	923	X	0.2
2155	D004	1374	X	4.0
2156	D004	1431	X	0.5
2157	D004	1475	X	3.7
2158	D004	405	X	0.7
2159	D004	431	X	0.2
2160	D004	764	X	0.2
2161	D004	1476	X	0.4
2162	D004	1178	X	0.5
2163	D004	926	X	0.2
2164	D004	434	X	0.2
2165	D004	765	X	0.1
2166	D004	1022	X	0.7
2167	D004	1121	X	0.6
2168	D004	929	X	0.2
2169	D004	1500	X	1.3
2170	D004	437	X	0.2
2171	D004	983	X	0.2
2172	D004	1373	X	1.0
2173	D004	1154	X	0.6
2174	D004	1019	X	0.4
2175	D004	1181	X	0.4
2176	D004	440	X	0.3
2177	D004	932	X	0.1
2178	D004	986	X	0.2
2179	D004	416	X	2.1
2180	D004	1184	X	0.4
2181	D004	1157	X	0.6
2182	D004	1016	X	0.3
2183	D004	1426	X	1.6
2184	D004	1397	X	0.5
2185	D004	1187	X	0.4
2186	D004	989	X	0.1
2187	D004	1130	X	0.7
2188	D004	1013	X	0.3
2189	D004	1377	X	0.5
2190	D004	1190	X	0.3
2191	D004	46	X	0.2
2192	D004	1160	X	0.5
2193	D004	24	X	0.2
2194	D004	1394	X	1.8
2195	D004	783	X	0.4
2196	D004	1502	X	2.8
2197	D004	176	X	0.3
2198	D004	1163	X	0.5
2199	D004	178	X	1.0
2200	D004	788	X	0.5
2201	D004	1166	X	0.5
2202	D004	791	X	0.5
2203	D004	1169	X	0.3
2204	D004	1170	X	1.9
2205	D004	1393	X	0.5
2206	D004	191	X	0.3
2207	D004	794	X	0.4
2208	D004	1396	X	1.1

2209	D004	1439	X	2.7
2210	D004	1613	X	0.5
2211	D004	1398	X	4.2
2212	D004	795	X	0.2
2213	D004	798	X	0.3
2214	D004	195	X	0.5
2215	D004	1428	X	0.4
2216	D004	7	X	6.4
2217	D004	803	X	0.4
2218	D004	199	X	0.5
2219	D004	806	X	0.4
2220	D004	175	X	1.9
2221	D004	1395	X	1.2
2222	D004	171	X	0.3
2223	D004	809	X	1.3
2224	D004	1611	X	0.3
2225	D004	167	X	0.2
2226	D004	159	X	0.3
2227	D004	1405	X	9.3
2228	D004	157	X	0.3
2229	D004	1391	X	1.8
2230	D004	153	X	1.0
2231	D004	31	X	0.1
2232	D004	143	X	0.2
2233	D004	49	X	0.7
2234	D004	1399	X	5.4
2235	D004	56	X	0.8
2236	D004	1505	X	0.1
2237	D004	146	X	0.3
2238	D004	1610	X	1.8
2239	D004	1514	X	0.2
2240	D004	1518	X	0.1
2241	D004	1443	X	3.9
2242	D004	1401	X	0.8
2243	D004	1400	X	1.8
2244	D004	121	X	1.9
2245	D004	76	X	2.5
2246	D004	1402	X	1.0
2247	D004	92	X	0.8
2248	D004	1609	X	0.2
2249	D004	1637	Y	17.0
2250	D004	1635	Y	37.1
2251	D004	1645	Y	1.3
2252	D004	1633	Y	9.8
2253	D004	518	Y	0.1
2254	D004	1632	Y	21.5
2255	D004	1644	Y	0.5
2256	D004	521	Y	0.1
2257	D004	254	Y	0.1
2258	D004	524	Y	0.1
2259	D004	1638	Y	12.5
2260	D004	479	Y	0.2
2261	D004	1642	Y	0.1
2262	D004	302	Y	0.1
2263	D004	476	Y	0.2
2264	D004	482	Y	0.1
2265	D004	455	Y	0.1
2266	D004	1631	Y	10.8
2267	D004	485	Y	0.1
2268	D004	1639	Y	9.1
2269	D004	488	Y	0.1
2270	D004	512	Y	0.1
2271	D004	491	Y	0.2
2272	D004	1641	Y	0.1
2273	D004	1625	Y	3.8
2274	D004	320	Y	0.2
2275	D004	494	Y	0.3
2276	D004	1630	Y	8.6
2277	D004	1623	Y	2.1
2278	D004	842	Y	0.3
2279	D004	497	Y	0.3
2280	D004	1626	Y	3.3
2281	D004	845	Y	0.3
2282	D004	471	Y	0.2
2283	D004	1640	Y	0.5
2284	D004	1621	Y	1.3
2285	D004	1620	Y	1.7
2286	D004	848	Y	0.3
2287	D004	527	Y	0.1
2288	D004	1627	Y	0.3
2289	D004	851	Y	0.3
2290	D004	1619	Y	1.4
2291	D004	530	Y	0.1
2292	D004	335	Y	0.3
2293	D004	531	Y	0.1
2294	D004	1624	Y	0.1
2295	D004	1617	Y	1.2
2296	D004	854	Y	0.3

2297	D004	536	Y	0.1
2298	D004	866	Y	0.3
2299	D004	1622	Y	0.2
2300	D004	857	Y	0.3
2301	D004	1618	Y	0.9
2302	D004	614	Y	0.1
2303	D004	539	Y	0.1
2304	D004	869	Y	0.3
2305	D004	860	Y	0.3
2306	D004	542	Y	0.2
2307	D004	644	Y	0.1
2308	D004	1616	Y	0.3
2309	D004	1646	Y	0.7
2310	D004	872	Y	0.3
2311	D004	545	Y	0.1
2312	D004	863	Y	0.3
2313	D004	647	Y	0.1
2314	D004	875	Y	0.3
2315	D004	548	Y	0.1
2316	D004	1648	Y	0.8
2317	D004	350	Y	0.4
2318	D004	650	Y	0.1
2319	D004	734	Y	0.2
2320	D004	551	Y	0.1
2321	D004	878	Y	0.3
2322	D004	552	Y	0.2
2323	D004	735	Y	0.2
2324	D004	890	Y	0.7
2325	D004	1647	Y	0.2
2326	D004	653	Y	0.1
2327	D004	1614	Y	0.1
2328	D004	377	Y	0.2
2329	D004	557	Y	0.2
2330	D004	881	Y	0.3
2331	D004	812	Y	0.3
2332	D004	656	Y	0.1
2333	D004	893	Y	0.7
2334	D004	374	Y	0.2
2335	D004	1649	Y	0.6
2336	D004	560	Y	0.2
2337	D004	884	Y	0.3
2338	D004	815	Y	0.3
2339	D004	896	Y	0.7
2340	D004	371	Y	0.2
2341	D004	563	Y	0.2
2342	D004	887	Y	0.3
2343	D004	818	Y	0.3
2344	D004	367	Y	0.2
2345	D004	899	Y	0.7
2346	D004	566	Y	0.2
2347	D004	749	Y	0.2
2348	D004	821	Y	0.3
2349	D004	392	Y	0.4
2350	D004	417	Y	0.1
2351	D004	902	Y	0.5
2352	D004	569	Y	0.2
2353	D004	912	Y	0.2
2354	D004	824	Y	0.4
2355	D004	1328	Y	0.6
2356	D004	422	Y	0.2
2357	D004	905	Y	0.5
2358	D004	572	Y	0.1
2359	D004	917	Y	0.4
2360	D004	827	Y	0.3
2361	D004	1331	Y	0.6
2362	D004	425	Y	0.2
2363	D004	908	Y	0.5
2364	D004	1031	Y	0.3
2365	D004	920	Y	0.4
2366	D004	830	Y	0.3
2367	D004	428	Y	0.5
2368	D004	911	Y	0.5
2369	D004	1175	Y	0.4
2370	D004	923	Y	0.3
2371	D004	833	Y	0.3
2372	D004	405	Y	0.5
2373	D004	431	Y	0.2
2374	D004	764	Y	0.2
2375	D004	1178	Y	0.4
2376	D004	836	Y	0.3
2377	D004	926	Y	0.3
2378	D004	434	Y	0.2
2379	D004	765	Y	0.1
2380	D004	1022	Y	0.5
2381	D004	1121	Y	0.5
2382	D004	839	Y	0.3
2383	D004	929	Y	0.4
2384	D004	1500	Y	1.1

2385	D004	437	Y	0.2
2386	D004	983	Y	0.2
2387	D004	1154	Y	0.5
2388	D004	1019	Y	0.3
2389	D004	1181	Y	0.3
2390	D004	440	Y	0.3
2391	D004	698	Y	0.2
2392	D004	932	Y	0.3
2393	D004	986	Y	0.2
2394	D004	416	Y	1.9
2395	D004	1184	Y	0.4
2396	D004	1157	Y	0.5
2397	D004	1016	Y	0.3
2398	D004	935	Y	0.3
2399	D004	1187	Y	0.4
2400	D004	989	Y	0.2
2401	D004	1130	Y	0.6
2402	D004	1013	Y	0.3
2403	D004	938	Y	0.3
2404	D004	1190	Y	0.3
2405	D004	46	Y	0.2
2406	D004	992	Y	0.2
2407	D004	1160	Y	0.5
2408	D004	24	Y	0.2
2409	D004	783	Y	0.5
2410	D004	941	Y	0.3
2411	D004	176	Y	0.3
2412	D004	1163	Y	0.5
2413	D004	980	Y	0.3
2414	D004	178	Y	1.3
2415	D004	788	Y	0.7
2416	D004	944	Y	0.3
2417	D004	1166	Y	0.5
2418	D004	1007	Y	0.2
2419	D004	791	Y	0.7
2420	D004	713	Y	0.2
2421	D004	1169	Y	0.4
2422	D004	1010	Y	0.2
2423	D004	1170	Y	2.4
2424	D004	191	Y	0.4
2425	D004	794	Y	0.6
2426	D004	1439	Y	1.2
2427	D004	1003	Y	0.3
2428	D004	1398	Y	2.0
2429	D004	795	Y	0.3
2430	D004	798	Y	0.6
2431	D004	195	Y	0.7
2432	D004	995	Y	0.1
2433	D004	998	Y	0.1
2434	D004	1001	Y	0.1
2435	D004	1428	Y	0.2
2436	D004	7	Y	10.2
2437	D004	803	Y	0.8
2438	D004	1053	Y	0.3
2439	D004	199	Y	0.7
2440	D004	806	Y	0.8
2441	D004	1058	Y	0.3
2442	D004	175	Y	3.3
2443	D004	171	Y	0.5
2444	D004	1061	Y	0.4
2445	D004	809	Y	2.6
2446	D004	1611	Y	0.2
2447	D004	167	Y	0.5
2448	D004	1064	Y	0.4
2449	D004	159	Y	0.6
2450	D004	1405	Y	11.2
2451	D004	1067	Y	0.3
2452	D004	1068	Y	0.4
2453	D004	157	Y	0.7
2454	D004	1391	Y	5.4
2455	D004	1073	Y	0.7
2456	D004	153	Y	2.7
2457	D004	31	Y	0.2
2458	D004	143	Y	0.6
2459	D004	49	Y	1.2
2460	D004	1076	Y	0.7
2461	D004	1399	Y	12.7
2462	D004	56	Y	1.4
2463	D004	1505	Y	0.2
2464	D004	1229	Y	0.4
2465	D004	146	Y	0.9
2466	D004	1079	Y	0.7
2467	D004	1610	Y	3.7
2468	D004	1514	Y	0.4
2469	D004	1304	Y	0.6
2470	D004	1082	Y	0.7
2471	D004	1085	Y	0.8
2472	D004	1518	Y	0.2

2473	D004	1307	Y	0.7
2474	D004	1389	Y	2.8
2475	D004	1443	Y	7.3
2476	D004	1440	Y	0.2
2477	D004	1401	Y	1.6
2478	D004	1088	Y	0.8
2479	D004	1310	Y	0.6
2480	D004	1400	Y	16.7
2481	D004	1091	Y	0.5
2482	D004	1092	Y	0.2
2483	D004	1095	Y	0.4
2484	D004	121	Y	6.7
2485	D004	1313	Y	0.7
2486	D004	1100	Y	0.4
2487	D004	76	Y	6.5
2488	D004	1316	Y	0.7
2489	D004	1242	Y	0.4
2490	D004	1103	Y	0.4
2491	D004	1280	Y	1.0
2492	D004	1247	Y	0.3
2493	D004	1106	Y	0.4
2494	D004	1451	Y	1.3
2495	D004	1319	Y	0.8
2496	D004	1250	Y	0.3
2497	D004	1387	Y	0.3
2498	D004	1109	Y	0.5
2499	D004	1392	Y	8.2
2500	D004	1110	Y	0.1
2501	D004	1253	Y	0.3
2502	D004	1322	Y	0.9
2503	D004	1402	Y	14.1
2504	D004	1256	Y	0.6
2505	D004	92	Y	3.3
2506	D004	1325	Y	0.9
2507	D004	1609	Y	1.0
2508	D004	1385	Y	2.1
2509	D004	1259	Y	0.4
2510	D004	1295	Y	0.7
2511	D004	1602	Y	0.1
2512	D004	1554	Y	0.2
2513	D004	1262	Y	0.5
2514	D004	1388	Y	0.3
2515	D004	1603	Y	0.2
2516	D004	1450	Y	1.1
2517	D004	1265	Y	0.5
2518	D004	1383	Y	1.0
2519	D004	1403	Y	0.7
2520	D004	1268	Y	0.5
2521	D004	1441	Y	5.1
2522	D004	1448	Y	2.2
2523	D004	1384	Y	0.4
2524	D004	1449	Y	0.8
2525	D005	1635	X	1.1
2526	D005	1421	X	0.2
2527	D005	1341	X	0.1
2528	D005	1632	X	1.1
2529	D005	1340	X	0.4
2530	D005	1642	X	0.2
2531	D005	1422	X	0.2
2532	D005	1366	X	0.2
2533	D005	1423	X	0.2
2534	D005	573	X	0.2
2535	D005	574	X	0.7
2536	D005	581	X	0.7
2537	D005	584	X	0.8
2538	D005	605	X	1.0
2539	D005	527	X	0.2
2540	D005	587	X	0.8
2541	D005	626	X	1.3
2542	D005	530	X	0.3
2543	D005	531	X	0.3
2544	D005	590	X	0.9
2545	D005	629	X	1.4
2546	D005	536	X	0.5
2547	D005	632	X	1.6
2548	D005	593	X	0.9
2549	D005	594	X	0.2
2550	D005	614	X	1.0
2551	D005	539	X	0.6
2552	D005	635	X	1.7
2553	D005	662	X	0.1
2554	D005	860	X	0.2
2555	D005	542	X	0.9
2556	D005	644	X	1.5
2557	D005	638	X	1.7
2558	D005	665	X	0.1
2559	D005	545	X	0.7
2560	D005	863	X	0.5

2561	D005	647	X	1.6
2562	D005	641	X	1.4
2563	D005	548	X	0.8
2564	D005	650	X	1.8
2565	D005	734	X	0.4
2566	D005	551	X	1.0
2567	D005	552	X	1.1
2568	D005	668	X	0.2
2569	D005	735	X	0.5
2570	D005	653	X	1.9
2571	D005	557	X	1.9
2572	D005	812	X	1.0
2573	D005	671	X	0.2
2574	D005	656	X	2.0
2575	D005	560	X	2.1
2576	D005	884	X	0.2
2577	D005	815	X	1.2
2578	D005	659	X	1.5
2579	D005	563	X	2.2
2580	D005	887	X	0.5
2581	D005	818	X	1.6
2582	D005	674	X	0.1
2583	D005	566	X	2.4
2584	D005	677	X	0.1
2585	D005	749	X	0.4
2586	D005	821	X	1.9
2587	D005	1425	X	0.4
2588	D005	750	X	0.1
2589	D005	1371	X	0.2
2590	D005	569	X	2.5
2591	D005	680	X	0.1
2592	D005	912	X	0.4
2593	D005	824	X	2.4
2594	D005	572	X	1.3
2595	D005	681	X	0.6
2596	D005	917	X	1.0
2597	D005	827	X	2.4
2598	D005	686	X	0.1
2599	D005	920	X	1.3
2600	D005	830	X	2.7
2601	D005	911	X	0.4
2602	D005	689	X	0.1
2603	D005	923	X	1.6
2604	D005	833	X	2.9
2605	D005	1374	X	1.1
2606	D005	1431	X	0.1
2607	D005	764	X	0.4
2608	D005	692	X	0.2
2609	D005	836	X	3.1
2610	D005	926	X	1.7
2611	D005	765	X	0.2
2612	D005	695	X	0.2
2613	D005	839	X	3.3
2614	D005	929	X	2.2
2615	D005	768	X	0.1
2616	D005	983	X	0.5
2617	D005	1373	X	0.2
2618	D005	698	X	2.2
2619	D005	932	X	2.4
2620	D005	971	X	0.1
2621	D005	986	X	0.7
2622	D005	1426	X	0.4
2623	D005	701	X	0.2
2624	D005	935	X	2.7
2625	D005	1397	X	0.1
2626	D005	974	X	0.1
2627	D005	989	X	0.8
2628	D005	1013	X	0.2
2629	D005	704	X	0.2
2630	D005	938	X	3.4
2631	D005	779	X	0.1
2632	D005	977	X	0.1
2633	D005	780	X	0.1
2634	D005	992	X	1.0
2635	D005	1394	X	0.4
2636	D005	783	X	0.7
2637	D005	1502	X	0.7
2638	D005	707	X	0.2
2639	D005	941	X	3.3
2640	D005	980	X	1.3
2641	D005	788	X	0.8
2642	D005	710	X	0.2
2643	D005	944	X	3.1
2644	D005	1007	X	1.2
2645	D005	791	X	0.7
2646	D005	713	X	2.5
2647	D005	1010	X	1.4
2648	D005	794	X	0.6



2649	D005	716	X	0.2
2650	D005	1396	X	0.2
2651	D005	1439	X	0.6
2652	D005	1003	X	2.0
2653	D005	1613	X	0.1
2654	D005	1398	X	1.0
2655	D005	795	X	0.3
2656	D005	798	X	0.6
2657	D005	719	X	0.5
2658	D005	995	X	1.1
2659	D005	998	X	1.3
2660	D005	1001	X	1.2
2661	D005	1052	X	0.2
2662	D005	803	X	0.7
2663	D005	1053	X	1.2
2664	D005	806	X	0.7
2665	D005	1058	X	1.4
2666	D005	1395	X	0.2
2667	D005	1061	X	1.4
2668	D005	809	X	2.0
2669	D005	167	X	0.1
2670	D005	1151	X	0.1
2671	D005	1064	X	1.4
2672	D005	1405	X	2.2
2673	D005	1067	X	1.2
2674	D005	1068	X	1.4
2675	D005	1391	X	0.4
2676	D005	1223	X	0.1
2677	D005	1073	X	2.3
2678	D005	153	X	1.4
2679	D005	143	X	0.3
2680	D005	1226	X	0.1
2681	D005	1220	X	0.1
2682	D005	1076	X	2.3
2683	D005	1229	X	1.8
2684	D005	146	X	0.9
2685	D005	1079	X	2.2
2686	D005	1230	X	0.2
2687	D005	1304	X	2.7
2688	D005	1082	X	2.1
2689	D005	1085	X	2.1
2690	D005	1307	X	3.1
2691	D005	1235	X	0.2
2692	D005	1443	X	0.9
2693	D005	1401	X	0.2
2694	D005	1088	X	2.1
2695	D005	1310	X	2.6
2696	D005	1400	X	0.5
2697	D005	1091	X	1.2
2698	D005	1092	X	0.4
2699	D005	1238	X	0.2
2700	D005	1095	X	1.0
2701	D005	121	X	3.4
2702	D005	1313	X	2.6
2703	D005	1274	X	0.1
2704	D005	1100	X	0.9
2705	D005	1241	X	0.5
2706	D005	1316	X	2.7
2707	D005	1277	X	0.2
2708	D005	1242	X	2.0
2709	D005	1103	X	0.9
2710	D005	90	X	0.3
2711	D005	1280	X	3.5
2712	D005	1247	X	1.6
2713	D005	1106	X	0.9
2714	D005	1283	X	0.2
2715	D005	1319	X	2.8
2716	D005	1250	X	1.6
2717	D005	1109	X	1.0
2718	D005	1110	X	0.2
2719	D005	1286	X	0.2
2720	D005	1253	X	1.6
2721	D005	1322	X	2.8
2722	D005	1289	X	0.1
2723	D005	1402	X	0.3
2724	D005	1256	X	2.5
2725	D005	92	X	0.8
2726	D005	1325	X	2.9
2727	D005	1609	X	0.3
2728	D005	1292	X	0.2
2729	D005	1259	X	1.9
2730	D005	1295	X	2.1
2731	D005	1262	X	1.9
2732	D005	1298	X	0.2
2733	D005	1265	X	1.9
2734	D005	1301	X	0.2
2735	D005	1268	X	1.8
2736	D005	1269	X	0.2

2737	D005	287	Y	0.8
2738	D005	1421	Y	1.3
2739	D005	1341	Y	1.1
2740	D005	518	Y	0.4
2741	D005	290	Y	1.6
2742	D005	1337	Y	5.3
2743	D005	293	Y	2.7
2744	D005	521	Y	2.4
2745	D005	294	Y	0.7
2746	D005	1340	Y	4.8
2747	D005	524	Y	4.8
2748	D005	299	Y	0.5
2749	D005	302	Y	5.5
2750	D005	303	Y	3.6
2751	D005	1336	Y	4.3
2752	D005	482	Y	5.5
2753	D005	308	Y	0.9
2754	D005	1365	Y	0.4
2755	D005	506	Y	1.3
2756	D005	1422	Y	0.8
2757	D005	485	Y	5.6
2758	D005	311	Y	1.1
2759	D005	1339	Y	4.7
2760	D005	1419	Y	2.8
2761	D005	509	Y	2.8
2762	D005	488	Y	5.6
2763	D005	314	Y	1.3
2764	D005	512	Y	4.5
2765	D005	1366	Y	1.2
2766	D005	491	Y	10.4
2767	D005	317	Y	1.5
2768	D005	1423	Y	1.8
2769	D005	1404	Y	0.2
2770	D005	1474	Y	19.2
2771	D005	464	Y	0.1
2772	D005	1629	Y	0.2
2773	D005	320	Y	22.3
2774	D005	494	Y	13.2
2775	D005	1338	Y	4.5
2776	D005	467	Y	0.3
2777	D005	323	Y	1.8
2778	D005	842	Y	30.0
2779	D005	497	Y	13.2
2780	D005	326	Y	2.0
2781	D005	470	Y	1.6
2782	D005	845	Y	29.8
2783	D005	471	Y	9.7
2784	D005	1368	Y	0.4
2785	D005	329	Y	2.2
2786	D005	1420	Y	2.9
2787	D005	848	Y	29.5
2788	D005	527	Y	6.4
2789	D005	1473	Y	0.8
2790	D005	332	Y	2.4
2791	D005	851	Y	29.2
2792	D005	530	Y	6.1
2793	D005	1407	Y	2.3
2794	D005	1468	Y	58.3
2795	D005	1342	Y	1.5
2796	D005	335	Y	34.4
2797	D005	531	Y	5.1
2798	D005	854	Y	28.9
2799	D005	338	Y	2.8
2800	D005	536	Y	6.1
2801	D005	722	Y	0.7
2802	D005	866	Y	46.4
2803	D005	1349	Y	0.4
2804	D005	1418	Y	1.5
2805	D005	857	Y	28.7
2806	D005	341	Y	3.1
2807	D005	1472	Y	0.5
2808	D005	539	Y	6.0
2809	D005	725	Y	0.8
2810	D005	869	Y	46.5
2811	D005	1345	Y	5.8
2812	D005	860	Y	28.4
2813	D005	344	Y	3.4
2814	D005	542	Y	7.0
2815	D005	728	Y	0.9
2816	D005	872	Y	46.3
2817	D005	1350	Y	0.4
2818	D005	545	Y	5.0
2819	D005	620	Y	0.2
2820	D005	347	Y	3.7
2821	D005	863	Y	28.3
2822	D005	731	Y	1.0
2823	D005	1414	Y	0.9
2824	D005	1471	Y	0.2

2825	D005	875	Y	46.1
2826	D005	548	Y	5.0
2827	D005	1469	Y	70.7
2828	D005	623	Y	0.3
2829	D005	1460	Y	4.1
2830	D005	350	Y	73.2
2831	D005	734	Y	14.3
2832	D005	551	Y	5.8
2833	D005	878	Y	45.8
2834	D005	1484	Y	0.4
2835	D005	1343	Y	0.9
2836	D005	552	Y	6.5
2837	D005	735	Y	22.5
2838	D005	1406	Y	2.4
2839	D005	353	Y	4.3
2840	D005	890	Y	111.8
2841	D005	1347	Y	4.5
2842	D005	1483	Y	8.4
2843	D005	379	Y	9.0
2844	D005	947	Y	0.7
2845	D005	377	Y	36.9
2846	D005	557	Y	9.9
2847	D005	881	Y	45.5
2848	D005	740	Y	1.5
2849	D005	812	Y	32.6
2850	D005	356	Y	4.6
2851	D005	1351	Y	0.4
2852	D005	893	Y	111.4
2853	D005	383	Y	4.3
2854	D005	1485	Y	8.5
2855	D005	374	Y	34.3
2856	D005	560	Y	9.9
2857	D005	950	Y	0.9
2858	D005	884	Y	45.2
2859	D005	743	Y	1.7
2860	D005	359	Y	5.0
2861	D005	815	Y	32.5
2862	D005	896	Y	110.7
2863	D005	386	Y	4.6
2864	D005	371	Y	34.3
2865	D005	1487	Y	9.2
2866	D005	1344	Y	4.4
2867	D005	563	Y	9.9
2868	D005	953	Y	1.0
2869	D005	887	Y	44.9
2870	D005	362	Y	5.3
2871	D005	746	Y	1.8
2872	D005	818	Y	32.4
2873	D005	389	Y	4.9
2874	D005	367	Y	41.8
2875	D005	899	Y	110.2
2876	D005	1348	Y	3.2
2877	D005	1470	Y	52.8
2878	D005	1409	Y	1.2
2879	D005	566	Y	9.8
2880	D005	1461	Y	10.8
2881	D005	365	Y	12.5
2882	D005	677	Y	0.2
2883	D005	956	Y	1.2
2884	D005	749	Y	22.4
2885	D005	821	Y	32.4
2886	D005	392	Y	79.9
2887	D005	417	Y	22.3
2888	D005	1462	Y	5.8
2889	D005	902	Y	85.8
2890	D005	750	Y	7.4
2891	D005	569	Y	9.8
2892	D005	680	Y	0.3
2893	D005	912	Y	26.2
2894	D005	1490	Y	8.0
2895	D005	824	Y	36.8
2896	D005	1037	Y	3.5
2897	D005	395	Y	5.8
2898	D005	1328	Y	108.7
2899	D005	422	Y	33.0
2900	D005	905	Y	72.5
2901	D005	755	Y	2.4
2902	D005	572	Y	4.6
2903	D005	681	Y	2.1
2904	D005	1034	Y	3.4
2905	D005	917	Y	47.6
2906	D005	827	Y	32.3
2907	D005	959	Y	1.6
2908	D005	1346	Y	3.1
2909	D005	1492	Y	11.6
2910	D005	398	Y	6.1
2911	D005	1331	Y	108.8
2912	D005	425	Y	35.5

2913	D005	908	Y	72.0
2914	D005	1031	Y	46.5
2915	D005	758	Y	2.6
2916	D005	686	Y	0.7
2917	D005	920	Y	47.5
2918	D005	830	Y	32.4
2919	D005	962	Y	1.7
2920	D005	401	Y	6.5
2921	D005	1494	Y	12.8
2922	D005	1028	Y	4.3
2923	D005	428	Y	88.7
2924	D005	911	Y	71.5
2925	D005	761	Y	2.8
2926	D005	1175	Y	63.9
2927	D005	689	Y	1.0
2928	D005	923	Y	47.2
2929	D005	833	Y	32.3
2930	D005	965	Y	1.8
2931	D005	404	Y	9.5
2932	D005	1115	Y	4.2
2933	D005	1475	Y	14.1
2934	D005	405	Y	91.8
2935	D005	431	Y	31.8
2936	D005	1463	Y	14.6
2937	D005	1025	Y	4.3
2938	D005	764	Y	36.2
2939	D005	1476	Y	1.4
2940	D005	1178	Y	68.9
2941	D005	692	Y	1.2
2942	D005	1464	Y	5.6
2943	D005	836	Y	32.2
2944	D005	926	Y	43.9
2945	D005	968	Y	1.9
2946	D005	1118	Y	4.2
2947	D005	434	Y	33.6
2948	D005	765	Y	21.2
2949	D005	1022	Y	94.5
2950	D005	1465	Y	10.1
2951	D005	1408	Y	0.7
2952	D005	1352	Y	1.6
2953	D005	1121	Y	87.4
2954	D005	695	Y	1.3
2955	D005	839	Y	32.1
2956	D005	929	Y	48.0
2957	D005	1500	Y	187.2
2958	D005	768	Y	13.9
2959	D005	437	Y	35.5
2960	D005	983	Y	34.4
2961	D005	1154	Y	87.8
2962	D005	1019	Y	60.4
2963	D005	1181	Y	61.1
2964	D005	1124	Y	5.2
2965	D005	1496	Y	12.3
2966	D005	1478	Y	0.1
2967	D005	440	Y	44.1
2968	D005	698	Y	20.2
2969	D005	932	Y	46.4
2970	D005	773	Y	3.7
2971	D005	971	Y	2.6
2972	D005	986	Y	34.3
2973	D005	416	Y	331.7
2974	D005	1184	Y	64.1
2975	D005	1157	Y	95.6
2976	D005	1016	Y	60.2
2977	D005	1127	Y	5.2
2978	D005	1498	Y	9.8
2979	D005	701	Y	1.5
2980	D005	935	Y	46.4
2981	D005	776	Y	4.1
2982	D005	1193	Y	7.7
2983	D005	974	Y	2.9
2984	D005	1187	Y	68.5
2985	D005	989	Y	34.0
2986	D005	1130	Y	112.8
2987	D005	1013	Y	60.5
2988	D005	704	Y	1.8
2989	D005	938	Y	45.8
2990	D005	1466	Y	11.4
2991	D005	779	Y	14.5
2992	D005	1190	Y	59.8
2993	D005	977	Y	3.2
2994	D005	780	Y	16.4
2995	D005	46	Y	36.7
2996	D005	992	Y	33.9
2997	D005	1160	Y	83.4
2998	D005	24	Y	37.9
2999	D005	1133	Y	6.1
3000	D005	783	Y	94.5

3001	D005	1467	Y	4.9
3002	D005	1477	Y	1.2
3003	D005	707	Y	2.0
3004	D005	941	Y	44.3
3005	D005	176	Y	54.8
3006	D005	1196	Y	6.3
3007	D005	1163	Y	87.5
3008	D005	1040	Y	4.6
3009	D005	980	Y	39.8
3010	D005	1479	Y	11.0
3011	D005	20	Y	9.8
3012	D005	1136	Y	6.1
3013	D005	178	Y	213.5
3014	D005	788	Y	116.7
3015	D005	710	Y	2.1
3016	D005	944	Y	39.9
3017	D005	1199	Y	6.3
3018	D005	1166	Y	92.8
3019	D005	1007	Y	33.1
3020	D005	1043	Y	4.6
3021	D005	16	Y	10.2
3022	D005	187	Y	9.5
3023	D005	1139	Y	6.1
3024	D005	791	Y	125.8
3025	D005	713	Y	31.6
3026	D005	1169	Y	71.2
3027	D005	1010	Y	33.1
3028	D005	1170	Y	408.0
3029	D005	1046	Y	4.6
3030	D005	12	Y	10.9
3031	D005	191	Y	64.6
3032	D005	794	Y	99.7
3033	D005	716	Y	2.5
3034	D005	1003	Y	41.5
3035	D005	1202	Y	7.5
3036	D005	1049	Y	4.6
3037	D005	1480	Y	9.6
3038	D005	795	Y	55.0
3039	D005	8	Y	11.8
3040	D005	798	Y	99.7
3041	D005	195	Y	119.4
3042	D005	719	Y	8.0
3043	D005	995	Y	16.1
3044	D005	998	Y	20.1
3045	D005	1001	Y	22.1
3046	D005	1482	Y	1.6
3047	D005	1052	Y	6.7
3048	D005	1142	Y	6.1
3049	D005	1205	Y	7.5
3050	D005	7	Y	1680.0
3051	D005	803	Y	137.8
3052	D005	1053	Y	49.4
3053	D005	199	Y	119.1
3054	D005	1145	Y	6.1
3055	D005	1208	Y	7.5
3056	D005	806	Y	147.5
3057	D005	1058	Y	60.2
3058	D005	44	Y	13.9
3059	D005	175	Y	548.3
3060	D005	171	Y	88.0
3061	D005	1148	Y	6.1
3062	D005	1061	Y	64.5
3063	D005	809	Y	440.2
3064	D005	40	Y	14.3
3065	D005	167	Y	87.9
3066	D005	1151	Y	6.1
3067	D005	1064	Y	68.6
3068	D005	1211	Y	7.2
3069	D005	36	Y	14.8
3070	D005	159	Y	106.1
3071	D005	1067	Y	60.5
3072	D005	1214	Y	7.3
3073	D005	1068	Y	69.8
3074	D005	157	Y	120.9
3075	D005	32	Y	15.1
3076	D005	1217	Y	7.4
3077	D005	1223	Y	5.6
3078	D005	1073	Y	117.6
3079	D005	153	Y	445.9
3080	D005	31	Y	35.5
3081	D005	143	Y	95.3
3082	D005	49	Y	188.5
3083	D005	1226	Y	5.6
3084	D005	1220	Y	7.4
3085	D005	1076	Y	124.4
3086	D005	1503	Y	9.0
3087	D005	144	Y	5.9
3088	D005	1399	Y	2061.9

3089	D005	56	Y	226.4
3090	D005	1505	Y	36.6
3091	D005	1229	Y	63.9
3092	D005	146	Y	150.5
3093	D005	1079	Y	121.4
3094	D005	1230	Y	6.4
3095	D005	1610	Y	577.0
3096	D005	1514	Y	58.2
3097	D005	1304	Y	101.7
3098	D005	1082	Y	119.5
3099	D005	1566	Y	9.9
3100	D005	1085	Y	127.4
3101	D005	1518	Y	36.7
3102	D005	1307	Y	122.7
3103	D005	1570	Y	10.4
3104	D005	1235	Y	6.8
3105	D005	1088	Y	135.1
3106	D005	1522	Y	15.1
3107	D005	1310	Y	106.3
3108	D005	1574	Y	11.0
3109	D005	1091	Y	82.2
3110	D005	1092	Y	28.7
3111	D005	1238	Y	7.1
3112	D005	1095	Y	68.2
3113	D005	121	Y	1087.9
3114	D005	1526	Y	15.1
3115	D005	1313	Y	114.8
3116	D005	1578	Y	11.6
3117	D005	1274	Y	8.2
3118	D005	1100	Y	64.5
3119	D005	76	Y	1025.3
3120	D005	1241	Y	16.6
3121	D005	1530	Y	15.0
3122	D005	1316	Y	123.6
3123	D005	1582	Y	13.3
3124	D005	1277	Y	8.2
3125	D005	1242	Y	63.0
3126	D005	1103	Y	68.1
3127	D005	90	Y	1.3
3128	D005	1280	Y	167.4
3129	D005	1534	Y	13.0
3130	D005	1586	Y	13.3
3131	D005	1247	Y	51.7
3132	D005	1106	Y	70.8
3133	D005	1538	Y	12.8
3134	D005	1283	Y	8.9
3135	D005	1319	Y	139.3
3136	D005	1250	Y	55.3
3137	D005	1590	Y	13.8
3138	D005	1109	Y	74.9
3139	D005	1110	Y	17.6
3140	D005	1542	Y	12.8
3141	D005	1286	Y	8.9
3142	D005	1253	Y	58.5
3143	D005	1322	Y	147.6
3144	D005	1594	Y	14.5
3145	D005	1289	Y	10.0
3146	D005	1546	Y	12.8
3147	D005	1256	Y	93.1
3148	D005	92	Y	520.9
3149	D005	1325	Y	155.5
3150	D005	1609	Y	150.8
3151	D005	1292	Y	10.0
3152	D005	1598	Y	14.9
3153	D005	1550	Y	12.8
3154	D005	1259	Y	72.9
3155	D005	1295	Y	118.3
3156	D005	1602	Y	21.6
3157	D005	1554	Y	34.8
3158	D005	1262	Y	76.7
3159	D005	1603	Y	34.3
3160	D005	1555	Y	9.0
3161	D005	1298	Y	10.7
3162	D005	1557	Y	12.9
3163	D005	1265	Y	80.5
3164	D005	1301	Y	10.7
3165	D005	1268	Y	79.3
3166	D005	1269	Y	7.9
3167	D006	1637	X	13.4
3168	D006	275	X	2.0
3169	D006	276	X	7.8
3170	D006	239	X	11.9
3171	D006	272	X	1.1
3172	D006	281	X	6.1
3173	D006	1635	X	35.2
3174	D006	242	X	1.1
3175	D006	236	X	13.8
3176	D006	1645	X	1.2

3177	D006	269	X	14.1
3178	D006	1633	X	11.5
3179	D006	284	X	6.1
3180	D006	245	X	1.1
3181	D006	233	X	13.6
3182	D006	266	X	1.2
3183	D006	515	X	17.6
3184	D006	287	X	6.1
3185	D006	248	X	1.1
3186	D006	232	X	10.3
3187	D006	263	X	1.2
3188	D006	518	X	17.5
3189	D006	290	X	6.1
3190	D006	1632	X	29.8
3191	D006	1644	X	1.1
3192	D006	1337	X	13.1
3193	D006	1643	X	1.9
3194	D006	251	X	1.1
3195	D006	443	X	1.1
3196	D006	260	X	1.2
3197	D006	293	X	6.9
3198	D006	521	X	17.3
3199	D006	294	X	1.7
3200	D006	254	X	18.2
3201	D006	446	X	1.1
3202	D006	255	X	5.9
3203	D006	524	X	17.2
3204	D006	299	X	1.1
3205	D006	1638	X	228.2
3206	D006	479	X	27.7
3207	D006	1642	X	4.8
3208	D006	449	X	1.1
3209	D006	500	X	10.9
3210	D006	302	X	11.9
3211	D006	303	X	7.6
3212	D006	1336	X	6.9
3213	D006	476	X	27.2
3214	D006	503	X	10.9
3215	D006	452	X	1.1
3216	D006	1650	X	0.4
3217	D006	482	X	11.3
3218	D006	308	X	1.4
3219	D006	506	X	10.9
3220	D006	455	X	16.8
3221	D006	1631	X	198.0
3222	D006	485	X	11.2
3223	D006	311	X	1.4
3224	D006	1339	X	12.4
3225	D006	1639	X	171.1
3226	D006	1419	X	7.0
3227	D006	509	X	10.9
3228	D006	458	X	1.1
3229	D006	488	X	11.5
3230	D006	314	X	1.4
3231	D006	512	X	10.7
3232	D006	461	X	1.1
3233	D006	491	X	21.4
3234	D006	317	X	1.4
3235	D006	1423	X	0.5
3236	D006	1641	X	12.8
3237	D006	1625	X	62.8
3238	D006	464	X	1.1
3239	D006	1629	X	0.2
3240	D006	1651	X	0.4
3241	D006	320	X	18.2
3242	D006	494	X	26.9
3243	D006	1630	X	156.1
3244	D006	1338	X	10.4
3245	D006	573	X	1.5
3246	D006	574	X	5.9
3247	D006	467	X	1.1
3248	D006	323	X	1.3
3249	D006	1623	X	35.4
3250	D006	842	X	24.4
3251	D006	497	X	26.1
3252	D006	599	X	0.7
3253	D006	1626	X	64.3
3254	D006	581	X	5.2
3255	D006	326	X	1.3
3256	D006	470	X	3.4
3257	D006	845	X	24.5
3258	D006	471	X	18.7
3259	D006	602	X	0.7
3260	D006	1368	X	1.3
3261	D006	1640	X	25.7
3262	D006	1621	X	19.7
3263	D006	329	X	1.3
3264	D006	1420	X	9.0

3265	D006	584	X	5.1
3266	D006	1620	X	30.7
3267	D006	848	X	25.2
3268	D006	605	X	8.9
3269	D006	527	X	11.9
3270	D006	332	X	1.3
3271	D006	587	X	4.9
3272	D006	1627	X	12.4
3273	D006	626	X	10.1
3274	D006	851	X	24.9
3275	D006	608	X	0.9
3276	D006	1619	X	21.3
3277	D006	530	X	10.7
3278	D006	335	X	18.1
3279	D006	531	X	8.7
3280	D006	1624	X	4.2
3281	D006	590	X	4.7
3282	D006	629	X	9.8
3283	D006	1617	X	2.8
3284	D006	854	X	24.4
3285	D006	611	X	0.9
3286	D006	338	X	1.3
3287	D006	536	X	10.4
3288	D006	722	X	0.9
3289	D006	866	X	24.2
3290	D006	1349	X	1.4
3291	D006	1622	X	3.9
3292	D006	1418	X	4.9
3293	D006	632	X	9.5
3294	D006	593	X	4.4
3295	D006	857	X	23.5
3296	D006	594	X	0.9
3297	D006	1618	X	2.0
3298	D006	341	X	1.3
3299	D006	614	X	9.2
3300	D006	539	X	10.1
3301	D006	725	X	0.9
3302	D006	869	X	24.2
3303	D006	635	X	9.1
3304	D006	662	X	0.5
3305	D006	860	X	22.3
3306	D006	617	X	0.6
3307	D006	344	X	1.3
3308	D006	542	X	11.5
3309	D006	644	X	11.4
3310	D006	728	X	0.9
3311	D006	1616	X	1.0
3312	D006	872	X	24.7
3313	D006	638	X	8.7
3314	D006	665	X	0.5
3315	D006	1350	X	0.5
3316	D006	545	X	8.0
3317	D006	620	X	0.6
3318	D006	347	X	1.3
3319	D006	863	X	21.5
3320	D006	647	X	11.0
3321	D006	731	X	0.9
3322	D006	1414	X	0.6
3323	D006	875	X	24.8
3324	D006	641	X	6.5
3325	D006	548	X	7.8
3326	D006	623	X	0.6
3327	D006	350	X	25.0
3328	D006	650	X	10.7
3329	D006	734	X	10.5
3330	D006	551	X	8.7
3331	D006	878	X	24.4
3332	D006	1484	X	0.4
3333	D006	552	X	9.7
3334	D006	668	X	0.7
3335	D006	735	X	15.2
3336	D006	353	X	1.4
3337	D006	890	X	38.1
3338	D006	653	X	10.2
3339	D006	379	X	2.4
3340	D006	947	X	0.8
3341	D006	377	X	9.8
3342	D006	557	X	14.3
3343	D006	881	X	23.6
3344	D006	1486	X	0.1
3345	D006	740	X	0.9
3346	D006	812	X	21.5
3347	D006	356	X	1.4
3348	D006	671	X	0.7
3349	D006	656	X	9.8
3350	D006	893	X	37.6
3351	D006	383	X	1.1
3352	D006	374	X	9.0



3353	D006	560	X	14.0
3354	D006	950	X	0.8
3355	D006	884	X	22.4
3356	D006	743	X	0.9
3357	D006	359	X	1.4
3358	D006	815	X	21.0
3359	D006	659	X	6.6
3360	D006	896	X	38.5
3361	D006	386	X	1.1
3362	D006	371	X	8.8
3363	D006	563	X	13.5
3364	D006	953	X	0.8
3365	D006	887	X	21.6
3366	D006	362	X	1.4
3367	D006	746	X	0.9
3368	D006	818	X	20.0
3369	D006	674	X	0.5
3370	D006	389	X	1.1
3371	D006	367	X	10.5
3372	D006	899	X	38.9
3373	D006	566	X	12.9
3374	D006	365	X	3.1
3375	D006	677	X	0.5
3376	D006	956	X	0.8
3377	D006	749	X	10.4
3378	D006	821	X	19.3
3379	D006	392	X	17.7
3380	D006	417	X	5.5
3381	D006	902	X	30.2
3382	D006	750	X	3.3
3383	D006	569	X	12.4
3384	D006	680	X	0.5
3385	D006	912	X	11.1
3386	D006	824	X	20.9
3387	D006	1037	X	0.8
3388	D006	395	X	1.2
3389	D006	1328	X	23.9
3390	D006	422	X	7.7
3391	D006	905	X	24.9
3392	D006	755	X	0.9
3393	D006	572	X	5.5
3394	D006	681	X	2.5
3395	D006	1034	X	0.8
3396	D006	917	X	19.6
3397	D006	827	X	17.7
3398	D006	959	X	0.8
3399	D006	398	X	1.2
3400	D006	1331	X	23.2
3401	D006	425	X	7.8
3402	D006	908	X	23.6
3403	D006	1031	X	11.2
3404	D006	758	X	1.0
3405	D006	686	X	0.6
3406	D006	920	X	19.2
3407	D006	830	X	17.2
3408	D006	962	X	0.8
3409	D006	401	X	1.3
3410	D006	1028	X	1.0
3411	D006	428	X	18.4
3412	D006	911	X	22.5
3413	D006	761	X	1.0
3414	D006	1175	X	14.6
3415	D006	689	X	0.6
3416	D006	923	X	18.5
3417	D006	833	X	16.5
3418	D006	965	X	0.8
3419	D006	404	X	1.8
3420	D006	1115	X	0.9
3421	D006	405	X	17.1
3422	D006	431	X	6.3
3423	D006	1025	X	1.0
3424	D006	764	X	11.2
3425	D006	1178	X	14.7
3426	D006	692	X	0.6
3427	D006	836	X	16.0
3428	D006	926	X	16.6
3429	D006	968	X	0.8
3430	D006	1118	X	0.9
3431	D006	434	X	6.4
3432	D006	765	X	6.2
3433	D006	1022	X	22.6
3434	D006	1121	X	17.7
3435	D006	695	X	0.6
3436	D006	839	X	15.3
3437	D006	929	X	17.5
3438	D006	1500	X	33.6
3439	D006	768	X	3.8
3440	D006	437	X	6.5

3441	D006	983	X	9.8
3442	D006	1154	X	19.7
3443	D006	1019	X	14.2
3444	D006	1181	X	11.9
3445	D006	1124	X	1.0
3446	D006	440	X	7.8
3447	D006	698	X	8.9
3448	D006	932	X	16.4
3449	D006	773	X	0.9
3450	D006	971	X	0.9
3451	D006	986	X	9.6
3452	D006	416	X	57.0
3453	D006	1184	X	12.0
3454	D006	1157	X	19.7
3455	D006	1016	X	13.6
3456	D006	1127	X	1.0
3457	D006	701	X	0.6
3458	D006	935	X	15.8
3459	D006	776	X	0.9
3460	D006	1193	X	1.3
3461	D006	974	X	0.9
3462	D006	1187	X	12.1
3463	D006	989	X	9.2
3464	D006	1130	X	22.2
3465	D006	1013	X	13.1
3466	D006	704	X	0.6
3467	D006	938	X	15.5
3468	D006	779	X	3.1
3469	D006	1190	X	10.3
3470	D006	977	X	0.9
3471	D006	780	X	3.5
3472	D006	46	X	5.0
3473	D006	992	X	8.9
3474	D006	1160	X	15.8
3475	D006	24	X	5.1
3476	D006	1133	X	1.2
3477	D006	783	X	19.7
3478	D006	707	X	0.6
3479	D006	941	X	14.2
3480	D006	176	X	7.3
3481	D006	1196	X	1.1
3482	D006	1163	X	15.9
3483	D006	1040	X	1.0
3484	D006	980	X	10.0
3485	D006	20	X	1.3
3486	D006	1136	X	1.1
3487	D006	178	X	28.0
3488	D006	788	X	22.7
3489	D006	710	X	0.6
3490	D006	944	X	12.2
3491	D006	1199	X	1.1
3492	D006	1166	X	16.2
3493	D006	1007	X	8.0
3494	D006	1043	X	0.9
3495	D006	16	X	1.3
3496	D006	187	X	1.2
3497	D006	1139	X	1.1
3498	D006	791	X	22.8
3499	D006	713	X	9.2
3500	D006	1169	X	12.0
3501	D006	1010	X	7.8
3502	D006	1170	X	67.3
3503	D006	1046	X	0.9
3504	D006	12	X	1.3
3505	D006	191	X	8.1
3506	D006	794	X	17.2
3507	D006	716	X	0.7
3508	D006	1003	X	9.6
3509	D006	1202	X	1.2
3510	D006	1049	X	0.8
3511	D006	795	X	9.2
3512	D006	8	X	1.3
3513	D006	798	X	16.5
3514	D006	195	X	15.0
3515	D006	719	X	1.8
3516	D006	995	X	3.8
3517	D006	998	X	4.8
3518	D006	1001	X	5.0
3519	D006	1052	X	1.2
3520	D006	1142	X	1.0
3521	D006	1205	X	1.2
3522	D006	7	X	170.1
3523	D006	803	X	21.6
3524	D006	1053	X	8.6
3525	D006	199	X	14.9
3526	D006	1145	X	0.9
3527	D006	1208	X	1.1
3528	D006	806	X	21.8

3529	D006	1058	X	9.7
3530	D006	44	X	1.4
3531	D006	175	X	68.6
3532	D006	171	X	10.7
3533	D006	1148	X	0.9
3534	D006	1061	X	9.8
3535	D006	809	X	63.7
3536	D006	40	X	1.4
3537	D006	167	X	10.5
3538	D006	1151	X	0.9
3539	D006	1064	X	9.9
3540	D006	1211	X	1.0
3541	D006	36	X	1.4
3542	D006	159	X	12.4
3543	D006	1067	X	8.2
3544	D006	1214	X	1.0
3545	D006	1068	X	9.4
3546	D006	157	X	13.7
3547	D006	32	X	1.4
3548	D006	1217	X	0.9
3549	D006	1223	X	0.7
3550	D006	1073	X	14.9
3551	D006	153	X	49.6
3552	D006	31	X	3.3
3553	D006	143	X	10.4
3554	D006	49	X	17.6
3555	D006	1226	X	0.7
3556	D006	1220	X	0.9
3557	D006	1076	X	14.9
3558	D006	1503	X	0.8
3559	D006	144	X	0.6
3560	D006	1399	X	200.1
3561	D006	56	X	21.2
3562	D006	1505	X	3.4
3563	D006	1229	X	7.7
3564	D006	146	X	15.9
3565	D006	1079	X	13.8
3566	D006	1230	X	0.8
3567	D006	1610	X	53.8
3568	D006	1514	X	5.3
3569	D006	1304	X	11.6
3570	D006	1082	X	12.7
3571	D006	1566	X	1.0
3572	D006	1085	X	12.7
3573	D006	1518	X	3.4
3574	D006	1307	X	13.2
3575	D006	1570	X	1.0
3576	D006	1235	X	0.7
3577	D006	1088	X	12.7
3578	D006	1522	X	1.4
3579	D006	1310	X	10.7
3580	D006	1574	X	1.0
3581	D006	1091	X	7.5
3582	D006	1092	X	2.6
3583	D006	1238	X	0.7
3584	D006	1095	X	6.1
3585	D006	121	X	96.4
3586	D006	1526	X	1.3
3587	D006	1313	X	10.6
3588	D006	1578	X	1.0
3589	D006	1274	X	0.7
3590	D006	1100	X	5.6
3591	D006	76	X	90.7
3592	D006	1241	X	1.5
3593	D006	1530	X	1.3
3594	D006	1316	X	10.6
3595	D006	1582	X	1.1
3596	D006	1277	X	0.7
3597	D006	1242	X	5.6
3598	D006	1103	X	5.6
3599	D006	1280	X	13.8
3600	D006	1534	X	1.1
3601	D006	1586	X	1.1
3602	D006	1247	X	4.4
3603	D006	1106	X	5.6
3604	D006	1538	X	1.1
3605	D006	1283	X	0.7
3606	D006	1319	X	11.0
3607	D006	1250	X	4.3
3608	D006	1590	X	1.1
3609	D006	1109	X	5.7
3610	D006	1110	X	1.3
3611	D006	1542	X	1.1
3612	D006	1286	X	0.7
3613	D006	1253	X	4.3
3614	D006	1322	X	11.0
3615	D006	1594	X	1.1
3616	D006	1289	X	0.7

3617	D006	1546	X	1.0
3618	D006	1256	X	6.7
3619	D006	92	X	40.2
3620	D006	1325	X	11.0
3621	D006	1609	X	11.5
3622	D006	1292	X	0.7
3623	D006	1598	X	1.1
3624	D006	1550	X	1.0
3625	D006	1259	X	5.0
3626	D006	1295	X	8.1
3627	D006	1602	X	1.6
3628	D006	1554	X	2.6
3629	D006	1262	X	5.0
3630	D006	1603	X	2.5
3631	D006	1555	X	0.7
3632	D006	1298	X	0.7
3633	D006	1557	X	0.9
3634	D006	1265	X	5.1
3635	D006	1301	X	0.7
3636	D006	1268	X	4.8
3637	D006	1269	X	0.5
3638	D006	275	Y	0.5
3639	D006	276	Y	1.8
3640	D006	239	Y	3.3
3641	D006	272	Y	0.3
3642	D006	281	Y	1.3
3643	D006	242	Y	0.3
3644	D006	236	Y	3.9
3645	D006	269	Y	3.3
3646	D006	284	Y	1.3
3647	D006	245	Y	0.3
3648	D006	233	Y	3.9
3649	D006	266	Y	0.3
3650	D006	515	Y	4.0
3651	D006	287	Y	1.3
3652	D006	1421	Y	0.4
3653	D006	248	Y	0.3
3654	D006	232	Y	3.0
3655	D006	263	Y	0.3
3656	D006	1341	Y	0.4
3657	D006	518	Y	3.9
3658	D006	290	Y	1.2
3659	D006	1337	Y	2.0
3660	D006	251	Y	0.3
3661	D006	443	Y	0.3
3662	D006	260	Y	0.3
3663	D006	293	Y	1.3
3664	D006	521	Y	3.7
3665	D006	294	Y	0.3
3666	D006	1340	Y	1.5
3667	D006	254	Y	4.4
3668	D006	446	Y	0.3
3669	D006	255	Y	1.4
3670	D006	524	Y	3.6
3671	D006	299	Y	0.2
3672	D006	1638	Y	9.9
3673	D006	479	Y	6.8
3674	D006	449	Y	0.3
3675	D006	500	Y	2.6
3676	D006	302	Y	2.4
3677	D006	303	Y	1.6
3678	D006	1336	Y	2.0
3679	D006	476	Y	6.8
3680	D006	503	Y	2.5
3681	D006	452	Y	0.3
3682	D006	1650	Y	0.1
3683	D006	482	Y	2.3
3684	D006	308	Y	0.3
3685	D006	506	Y	2.4
3686	D006	455	Y	4.3
3687	D006	1422	Y	0.1
3688	D006	485	Y	2.3
3689	D006	311	Y	0.3
3690	D006	1339	Y	1.4
3691	D006	1639	Y	12.9
3692	D006	1419	Y	0.6
3693	D006	509	Y	2.3
3694	D006	458	Y	0.3
3695	D006	488	Y	2.3
3696	D006	314	Y	0.2
3697	D006	512	Y	2.2
3698	D006	1366	Y	0.2
3699	D006	461	Y	0.3
3700	D006	491	Y	4.3
3701	D006	317	Y	0.2
3702	D006	1423	Y	0.4
3703	D006	1625	Y	5.0
3704	D006	464	Y	0.3

3705	D006	1651	Y	0.1
3706	D006	320	Y	3.1
3707	D006	494	Y	5.5
3708	D006	1338	Y	1.2
3709	D006	573	Y	0.6
3710	D006	574	Y	2.3
3711	D006	467	Y	0.2
3712	D006	323	Y	0.2
3713	D006	1623	Y	3.1
3714	D006	842	Y	4.2
3715	D006	497	Y	5.5
3716	D006	599	Y	0.2
3717	D006	1626	Y	0.7
3718	D006	581	Y	2.1
3719	D006	326	Y	0.2
3720	D006	470	Y	0.7
3721	D006	845	Y	4.2
3722	D006	471	Y	4.1
3723	D006	602	Y	0.2
3724	D006	1621	Y	1.9
3725	D006	329	Y	0.2
3726	D006	584	Y	2.1
3727	D006	1620	Y	0.8
3728	D006	848	Y	4.2
3729	D006	605	Y	3.2
3730	D006	527	Y	2.7
3731	D006	332	Y	0.2
3732	D006	587	Y	2.1
3733	D006	626	Y	3.8
3734	D006	851	Y	4.2
3735	D006	608	Y	0.3
3736	D006	1619	Y	0.7
3737	D006	530	Y	2.5
3738	D006	1407	Y	1.5
3739	D006	1468	Y	1.4
3740	D006	1342	Y	1.0
3741	D006	335	Y	2.6
3742	D006	531	Y	2.1
3743	D006	590	Y	2.1
3744	D006	629	Y	3.8
3745	D006	1617	Y	2.1
3746	D006	854	Y	4.2
3747	D006	611	Y	0.3
3748	D006	338	Y	0.2
3749	D006	536	Y	2.5
3750	D006	722	Y	0.2
3751	D006	866	Y	3.4
3752	D006	632	Y	3.8
3753	D006	593	Y	2.1
3754	D006	857	Y	4.2
3755	D006	594	Y	0.4
3756	D006	1618	Y	0.5
3757	D006	341	Y	0.2
3758	D006	614	Y	3.0
3759	D006	539	Y	2.5
3760	D006	725	Y	0.2
3761	D006	869	Y	3.4
3762	D006	1345	Y	2.0
3763	D006	635	Y	3.8
3764	D006	662	Y	0.3
3765	D006	860	Y	4.2
3766	D006	617	Y	0.2
3767	D006	344	Y	0.2
3768	D006	542	Y	3.0
3769	D006	644	Y	3.9
3770	D006	728	Y	0.2
3771	D006	1646	Y	1.0
3772	D006	872	Y	3.4
3773	D006	638	Y	3.8
3774	D006	665	Y	0.2
3775	D006	545	Y	2.2
3776	D006	620	Y	0.2
3777	D006	347	Y	0.2
3778	D006	863	Y	4.2
3779	D006	647	Y	3.9
3780	D006	731	Y	0.2
3781	D006	875	Y	3.4
3782	D006	641	Y	2.9
3783	D006	548	Y	2.2
3784	D006	1648	Y	0.7
3785	D006	623	Y	0.2
3786	D006	350	Y	2.8
3787	D006	650	Y	3.9
3788	D006	734	Y	2.1
3789	D006	551	Y	2.5
3790	D006	878	Y	3.4
3791	D006	1343	Y	0.5
3792	D006	552	Y	2.8

3793	D006	668	Y	0.3
3794	D006	735	Y	3.0
3795	D006	1406	Y	1.4
3796	D006	353	Y	0.1
3797	D006	890	Y	4.2
3798	D006	653	Y	3.9
3799	D006	1483	Y	0.8
3800	D006	1614	Y	0.3
3801	D006	379	Y	0.1
3802	D006	947	Y	0.2
3803	D006	377	Y	0.6
3804	D006	557	Y	4.4
3805	D006	881	Y	3.3
3806	D006	740	Y	0.2
3807	D006	812	Y	4.3
3808	D006	356	Y	0.1
3809	D006	671	Y	0.3
3810	D006	656	Y	3.9
3811	D006	893	Y	4.2
3812	D006	1485	Y	1.5
3813	D006	374	Y	0.6
3814	D006	1649	Y	0.5
3815	D006	560	Y	4.4
3816	D006	950	Y	0.2
3817	D006	884	Y	3.3
3818	D006	743	Y	0.2
3819	D006	359	Y	0.1
3820	D006	815	Y	4.3
3821	D006	659	Y	2.8
3822	D006	896	Y	4.2
3823	D006	371	Y	0.6
3824	D006	1487	Y	2.1
3825	D006	1344	Y	1.6
3826	D006	563	Y	4.4
3827	D006	953	Y	0.2
3828	D006	887	Y	3.3
3829	D006	746	Y	0.2
3830	D006	818	Y	4.3
3831	D006	674	Y	0.2
3832	D006	367	Y	0.7
3833	D006	899	Y	4.2
3834	D006	566	Y	4.4
3835	D006	1461	Y	1.8
3836	D006	365	Y	0.2
3837	D006	677	Y	0.2
3838	D006	956	Y	0.2
3839	D006	749	Y	1.7
3840	D006	821	Y	4.3
3841	D006	392	Y	0.8
3842	D006	417	Y	0.4
3843	D006	1462	Y	0.4
3844	D006	902	Y	3.2
3845	D006	750	Y	0.5
3846	D006	569	Y	4.4
3847	D006	680	Y	0.2
3848	D006	912	Y	1.7
3849	D006	1490	Y	0.6
3850	D006	824	Y	4.9
3851	D006	1328	Y	1.1
3852	D006	422	Y	0.5
3853	D006	905	Y	2.7
3854	D006	755	Y	0.1
3855	D006	572	Y	2.1
3856	D006	681	Y	0.9
3857	D006	917	Y	3.0
3858	D006	827	Y	4.3
3859	D006	959	Y	0.2
3860	D006	1331	Y	1.1
3861	D006	425	Y	0.4
3862	D006	908	Y	2.7
3863	D006	1031	Y	0.8
3864	D006	758	Y	0.1
3865	D006	686	Y	0.2
3866	D006	920	Y	3.0
3867	D006	830	Y	4.3
3868	D006	962	Y	0.2
3869	D006	428	Y	0.9
3870	D006	911	Y	2.6
3871	D006	761	Y	0.1
3872	D006	1175	Y	1.0
3873	D006	689	Y	0.2
3874	D006	923	Y	3.0
3875	D006	833	Y	4.3
3876	D006	965	Y	0.2
3877	D006	405	Y	0.4
3878	D006	431	Y	0.3
3879	D006	764	Y	1.3
3880	D006	1178	Y	0.8

3881	D006	692	Y	0.2
3882	D006	836	Y	4.3
3883	D006	926	Y	2.8
3884	D006	968	Y	0.1
3885	D006	434	Y	0.3
3886	D006	765	Y	0.7
3887	D006	1022	Y	1.6
3888	D006	1121	Y	0.9
3889	D006	695	Y	0.2
3890	D006	839	Y	4.3
3891	D006	929	Y	3.1
3892	D006	1500	Y	0.8
3893	D006	768	Y	0.4
3894	D006	437	Y	0.2
3895	D006	983	Y	1.1
3896	D006	1154	Y	1.3
3897	D006	1019	Y	1.0
3898	D006	1181	Y	0.5
3899	D006	440	Y	0.2
3900	D006	698	Y	2.7
3901	D006	932	Y	3.0
3902	D006	971	Y	0.1
3903	D006	986	Y	1.1
3904	D006	416	Y	1.4
3905	D006	1184	Y	0.5
3906	D006	1157	Y	1.2
3907	D006	1016	Y	1.1
3908	D006	1426	Y	0.1
3909	D006	701	Y	0.2
3910	D006	935	Y	3.0
3911	D006	974	Y	0.1
3912	D006	1187	Y	0.4
3913	D006	989	Y	1.1
3914	D006	1130	Y	1.2
3915	D006	1013	Y	1.1
3916	D006	704	Y	0.2
3917	D006	938	Y	3.0
3918	D006	779	Y	0.3
3919	D006	1190	Y	0.3
3920	D006	977	Y	0.1
3921	D006	780	Y	0.3
3922	D006	992	Y	1.1
3923	D006	1160	Y	0.8
3924	D006	783	Y	1.7
3925	D006	1502	Y	0.1
3926	D006	707	Y	0.2
3927	D006	941	Y	2.9
3928	D006	1163	Y	0.7
3929	D006	980	Y	1.3
3930	D006	788	Y	1.8
3931	D006	710	Y	0.2
3932	D006	944	Y	2.6
3933	D006	1166	Y	0.6
3934	D006	1007	Y	1.1
3935	D006	791	Y	1.7
3936	D006	713	Y	2.1
3937	D006	1169	Y	0.4
3938	D006	1010	Y	1.1
3939	D006	1170	Y	2.2
3940	D006	794	Y	1.1
3941	D006	716	Y	0.1
3942	D006	1439	Y	0.4
3943	D006	1003	Y	1.4
3944	D006	1398	Y	0.7
3945	D006	795	Y	0.6
3946	D006	798	Y	1.0
3947	D006	719	Y	0.4
3948	D006	995	Y	0.7
3949	D006	998	Y	0.8
3950	D006	1001	Y	0.7
3951	D006	1052	Y	0.1
3952	D006	803	Y	1.2
3953	D006	1053	Y	1.0
3954	D006	806	Y	1.1
3955	D006	1058	Y	1.0
3956	D006	1061	Y	1.0
3957	D006	809	Y	2.4
3958	D006	1611	Y	0.1
3959	D006	1064	Y	0.9
3960	D006	1405	Y	4.6
3961	D006	1067	Y	0.6
3962	D006	1068	Y	0.7
3963	D006	1391	Y	2.2
3964	D006	1073	Y	1.0
3965	D006	1076	Y	0.8
3966	D006	1229	Y	0.7
3967	D006	1079	Y	0.6
3968	D006	1304	Y	0.8

3969	D006	1082	Y	0.4
3970	D006	1085	Y	0.3
3971	D006	1307	Y	0.8
3972	D006	1389	Y	1.1
3973	D006	1443	Y	3.4
3974	D006	1401	Y	0.7
3975	D006	1088	Y	0.2
3976	D006	1310	Y	0.5
3977	D006	1400	Y	7.0
3978	D006	1313	Y	0.4
3979	D006	1316	Y	0.2
3980	D006	1242	Y	0.3
3981	D006	1247	Y	0.2
3982	D006	1451	Y	0.6
3983	D006	1250	Y	0.1
3984	D006	1387	Y	0.1
3985	D006	1392	Y	3.8
3986	D006	1402	Y	7.3
3987	D006	1385	Y	0.9
3988	D006	1388	Y	0.2
3989	D006	1450	Y	0.5
3990	D006	1383	Y	0.4
3991	D006	1403	Y	0.4
3992	D006	1441	Y	2.8
3993	D006	1448	Y	1.0
3994	D006	1384	Y	0.2
3995	D006	1449	Y	0.3
3996	D007	275	X	5.0
3997	D007	276	X	19.4
3998	D007	239	X	42.8
3999	D007	272	X	3.1
4000	D007	281	X	15.2
4001	D007	242	X	4.0
4002	D007	236	X	52.2
4003	D007	269	X	39.7
4004	D007	284	X	15.1
4005	D007	245	X	4.0
4006	D007	233	X	53.6
4007	D007	266	X	3.5
4008	D007	515	X	49.4
4009	D007	287	X	15.1
4010	D007	248	X	4.0
4011	D007	232	X	42.9
4012	D007	263	X	3.7
4013	D007	518	X	49.4
4014	D007	290	X	15.1
4015	D007	251	X	4.0
4016	D007	443	X	4.4
4017	D007	260	X	3.9
4018	D007	293	X	17.2
4019	D007	521	X	49.5
4020	D007	294	X	4.3
4021	D007	254	X	64.9
4022	D007	446	X	4.4
4023	D007	255	X	21.1
4024	D007	524	X	49.4
4025	D007	299	X	3.0
4026	D007	479	X	104.7
4027	D007	449	X	4.4
4028	D007	500	X	38.9
4029	D007	302	X	34.4
4030	D007	303	X	22.8
4031	D007	476	X	107.4
4032	D007	503	X	39.1
4033	D007	452	X	4.4
4034	D007	1650	X	2.1
4035	D007	482	X	36.3
4036	D007	308	X	4.1
4037	D007	506	X	39.6
4038	D007	455	X	70.8
4039	D007	485	X	38.4
4040	D007	311	X	4.2
4041	D007	509	X	40.1
4042	D007	458	X	4.6
4043	D007	488	X	41.1
4044	D007	314	X	4.2
4045	D007	512	X	39.7
4046	D007	461	X	4.6
4047	D007	491	X	79.5
4048	D007	317	X	4.2
4049	D007	1404	X	0.5
4050	D007	1474	X	39.2
4051	D007	464	X	4.6
4052	D007	1651	X	2.1
4053	D007	320	X	55.6
4054	D007	494	X	106.9
4055	D007	573	X	11.3
4056	D007	574	X	45.0



4057	D007	467	X	4.7
4058	D007	323	X	4.1
4059	D007	842	X	80.6
4060	D007	497	X	109.0
4061	D007	599	X	5.0
4062	D007	581	X	42.5
4063	D007	326	X	4.1
4064	D007	470	X	14.7
4065	D007	845	X	86.8
4066	D007	471	X	82.1
4067	D007	602	X	5.0
4068	D007	329	X	4.2
4069	D007	584	X	44.0
4070	D007	848	X	92.3
4071	D007	605	X	67.1
4072	D007	527	X	56.2
4073	D007	1473	X	0.3
4074	D007	332	X	4.2
4075	D007	587	X	44.8
4076	D007	626	X	80.2
4077	D007	851	X	96.5
4078	D007	608	X	6.5
4079	D007	530	X	54.7
4080	D007	1468	X	79.7
4081	D007	335	X	57.2
4082	D007	531	X	46.2
4083	D007	590	X	45.2
4084	D007	629	X	82.9
4085	D007	1617	X	1.4
4086	D007	854	X	100.6
4087	D007	611	X	6.5
4088	D007	338	X	4.3
4089	D007	536	X	57.8
4090	D007	722	X	4.6
4091	D007	866	X	82.7
4092	D007	632	X	84.9
4093	D007	593	X	44.6
4094	D007	857	X	101.0
4095	D007	594	X	9.7
4096	D007	1618	X	0.9
4097	D007	341	X	4.3
4098	D007	614	X	69.2
4099	D007	539	X	59.4
4100	D007	725	X	4.6
4101	D007	869	X	89.2
4102	D007	635	X	85.6
4103	D007	662	X	5.6
4104	D007	860	X	102.6
4105	D007	617	X	4.9
4106	D007	344	X	4.3
4107	D007	542	X	73.1
4108	D007	644	X	90.7
4109	D007	728	X	4.6
4110	D007	1616	X	0.4
4111	D007	1646	X	5.2
4112	D007	872	X	93.4
4113	D007	638	X	86.0
4114	D007	665	X	5.5
4115	D007	545	X	53.9
4116	D007	620	X	4.9
4117	D007	347	X	4.3
4118	D007	863	X	106.3
4119	D007	647	X	93.4
4120	D007	731	X	4.6
4121	D007	875	X	97.1
4122	D007	641	X	67.4
4123	D007	548	X	55.1
4124	D007	1469	X	73.2
4125	D007	1648	X	5.4
4126	D007	623	X	4.9
4127	D007	350	X	80.7
4128	D007	650	X	95.0
4129	D007	734	X	55.7
4130	D007	551	X	65.2
4131	D007	878	X	102.5
4132	D007	552	X	73.5
4133	D007	668	X	7.2
4134	D007	735	X	80.5
4135	D007	353	X	4.4
4136	D007	890	X	135.8
4137	D007	1647	X	1.3
4138	D007	653	X	95.1
4139	D007	379	X	5.4
4140	D007	947	X	6.1
4141	D007	377	X	23.0
4142	D007	557	X	115.8
4143	D007	881	X	102.7
4144	D007	740	X	4.9

4145	D007	812	X	121.3
4146	D007	356	X	4.4
4147	D007	671	X	7.2
4148	D007	656	X	96.9
4149	D007	893	X	143.8
4150	D007	383	X	2.5
4151	D007	374	X	23.2
4152	D007	560	X	118.6
4153	D007	950	X	6.1
4154	D007	884	X	102.9
4155	D007	743	X	4.9
4156	D007	359	X	4.4
4157	D007	815	X	125.8
4158	D007	659	X	69.3
4159	D007	896	X	150.5
4160	D007	386	X	2.5
4161	D007	371	X	24.5
4162	D007	563	X	119.6
4163	D007	953	X	6.2
4164	D007	887	X	106.8
4165	D007	362	X	4.4
4166	D007	746	X	4.9
4167	D007	818	X	129.6
4168	D007	674	X	5.4
4169	D007	389	X	2.6
4170	D007	367	X	31.6
4171	D007	899	X	155.9
4172	D007	1470	X	64.5
4173	D007	566	X	120.1
4174	D007	365	X	9.9
4175	D007	677	X	5.4
4176	D007	956	X	6.2
4177	D007	749	X	55.5
4178	D007	821	X	133.9
4179	D007	392	X	42.0
4180	D007	417	X	17.3
4181	D007	902	X	127.7
4182	D007	750	X	17.3
4183	D007	569	X	123.0
4184	D007	680	X	5.4
4185	D007	912	X	59.2
4186	D007	824	X	155.7
4187	D007	1037	X	2.8
4188	D007	395	X	2.9
4189	D007	1328	X	63.2
4190	D007	422	X	24.4
4191	D007	905	X	110.6
4192	D007	755	X	5.0
4193	D007	572	X	58.4
4194	D007	681	X	26.3
4195	D007	1034	X	3.0
4196	D007	917	X	112.1
4197	D007	827	X	140.6
4198	D007	959	X	5.8
4199	D007	398	X	3.0
4200	D007	1331	X	67.2
4201	D007	425	X	24.7
4202	D007	908	X	108.8
4203	D007	1031	X	41.7
4204	D007	758	X	5.1
4205	D007	686	X	6.7
4206	D007	920	X	117.0
4207	D007	830	X	144.8
4208	D007	962	X	5.8
4209	D007	401	X	3.1
4210	D007	1028	X	4.0
4211	D007	428	X	58.5
4212	D007	911	X	110.7
4213	D007	761	X	5.1
4214	D007	1175	X	54.0
4215	D007	689	X	6.7
4216	D007	923	X	119.2
4217	D007	833	X	145.6
4218	D007	965	X	5.8
4219	D007	404	X	4.3
4220	D007	1115	X	2.9
4221	D007	1475	X	28.8
4222	D007	405	X	42.6
4223	D007	431	X	20.1
4224	D007	1025	X	4.2
4225	D007	764	X	59.8
4226	D007	1476	X	3.0
4227	D007	1178	X	54.3
4228	D007	692	X	6.7
4229	D007	836	X	151.1
4230	D007	926	X	114.4
4231	D007	968	X	5.8
4232	D007	1118	X	3.0

4233	D007	434	X	20.3
4234	D007	765	X	33.1
4235	D007	1022	X	96.3
4236	D007	1121	X	65.3
4237	D007	695	X	6.7
4238	D007	839	X	153.0
4239	D007	929	X	129.3
4240	D007	1500	X	96.7
4241	D007	768	X	20.6
4242	D007	437	X	20.5
4243	D007	983	X	57.6
4244	D007	1154	X	83.9
4245	D007	1019	X	64.2
4246	D007	1181	X	43.8
4247	D007	1124	X	4.1
4248	D007	1478	X	0.3
4249	D007	440	X	24.7
4250	D007	698	X	95.6
4251	D007	932	X	129.6
4252	D007	773	X	5.1
4253	D007	971	X	6.4
4254	D007	986	X	60.2
4255	D007	416	X	181.6
4256	D007	1184	X	44.1
4257	D007	1157	X	83.6
4258	D007	1016	X	63.9
4259	D007	1127	X	4.2
4260	D007	701	X	6.5
4261	D007	935	X	133.0
4262	D007	776	X	5.1
4263	D007	1193	X	4.6
4264	D007	974	X	6.4
4265	D007	1187	X	44.5
4266	D007	989	X	60.1
4267	D007	1130	X	94.4
4268	D007	1013	X	66.1
4269	D007	704	X	6.5
4270	D007	938	X	136.7
4271	D007	779	X	16.9
4272	D007	1190	X	37.7
4273	D007	977	X	6.4
4274	D007	780	X	18.9
4275	D007	46	X	14.5
4276	D007	992	X	61.3
4277	D007	1160	X	67.5
4278	D007	24	X	14.9
4279	D007	1133	X	5.2
4280	D007	783	X	106.4
4281	D007	1477	X	0.8
4282	D007	707	X	6.6
4283	D007	941	X	133.3
4284	D007	176	X	22.3
4285	D007	1196	X	4.2
4286	D007	1163	X	67.9
4287	D007	1040	X	5.6
4288	D007	980	X	73.2
4289	D007	20	X	3.7
4290	D007	1136	X	5.2
4291	D007	178	X	89.4
4292	D007	788	X	122.6
4293	D007	710	X	6.6
4294	D007	944	X	123.0
4295	D007	1199	X	4.4
4296	D007	1166	X	69.3
4297	D007	1007	X	63.0
4298	D007	1043	X	5.8
4299	D007	16	X	3.7
4300	D007	187	X	4.1
4301	D007	1139	X	5.4
4302	D007	791	X	122.6
4303	D007	713	X	99.5
4304	D007	1169	X	51.5
4305	D007	1010	X	65.8
4306	D007	1170	X	289.9
4307	D007	1046	X	5.8
4308	D007	12	X	3.7
4309	D007	191	X	29.6
4310	D007	794	X	92.3
4311	D007	716	X	7.2
4312	D007	1003	X	85.3
4313	D007	1202	X	5.6
4314	D007	1049	X	5.8
4315	D007	795	X	49.6
4316	D007	8	X	3.7
4317	D007	798	X	89.0
4318	D007	195	X	57.7
4319	D007	719	X	19.9
4320	D007	995	X	39.6

4321	D007	998	X	47.3
4322	D007	1001	X	46.9
4323	D007	1052	X	8.7
4324	D007	1142	X	5.7
4325	D007	1205	X	5.8
4326	D007	7	X	495.0
4327	D007	803	X	116.5
4328	D007	1053	X	63.2
4329	D007	199	X	60.3
4330	D007	1145	X	5.8
4331	D007	1208	X	5.7
4332	D007	806	X	117.5
4333	D007	1058	X	71.4
4334	D007	44	X	4.2
4335	D007	175	X	296.3
4336	D007	171	X	48.5
4337	D007	1148	X	5.9
4338	D007	1061	X	72.4
4339	D007	809	X	342.9
4340	D007	40	X	4.2
4341	D007	167	X	49.7
4342	D007	1151	X	6.0
4343	D007	1064	X	72.7
4344	D007	1211	X	5.7
4345	D007	36	X	4.2
4346	D007	159	X	60.2
4347	D007	1067	X	60.8
4348	D007	1214	X	5.8
4349	D007	1068	X	69.1
4350	D007	157	X	68.9
4351	D007	32	X	4.2
4352	D007	1217	X	5.9
4353	D007	1223	X	5.7
4354	D007	1073	X	110.4
4355	D007	153	X	266.1
4356	D007	31	X	9.7
4357	D007	143	X	57.0
4358	D007	49	X	52.1
4359	D007	1226	X	5.9
4360	D007	1220	X	6.0
4361	D007	1076	X	110.7
4362	D007	1503	X	2.4
4363	D007	144	X	3.6
4364	D007	1399	X	867.2
4365	D007	56	X	67.2
4366	D007	1505	X	9.8
4367	D007	1229	X	68.8
4368	D007	146	X	93.4
4369	D007	1079	X	102.3
4370	D007	1230	X	7.0
4371	D007	1610	X	180.4
4372	D007	1514	X	16.7
4373	D007	1304	X	103.4
4374	D007	1082	X	94.6
4375	D007	1566	X	5.9
4376	D007	1085	X	94.9
4377	D007	1518	X	11.2
4378	D007	1307	X	117.1
4379	D007	1570	X	5.9
4380	D007	1235	X	7.1
4381	D007	1088	X	95.0
4382	D007	1522	X	4.8
4383	D007	1310	X	94.6
4384	D007	1574	X	6.0
4385	D007	1091	X	55.9
4386	D007	1092	X	19.5
4387	D007	1238	X	7.3
4388	D007	1095	X	45.8
4389	D007	121	X	528.6
4390	D007	1526	X	5.1
4391	D007	1313	X	94.7
4392	D007	1578	X	6.0
4393	D007	1274	X	5.7
4394	D007	1100	X	41.5
4395	D007	76	X	390.6
4396	D007	1241	X	16.5
4397	D007	1530	X	5.4
4398	D007	1316	X	94.7
4399	D007	1582	X	6.6
4400	D007	1277	X	5.9
4401	D007	1242	X	60.5
4402	D007	1103	X	41.7
4403	D007	90	X	1.6
4404	D007	1280	X	122.7
4405	D007	1534	X	4.9
4406	D007	1586	X	6.4
4407	D007	1247	X	47.0
4408	D007	1106	X	41.8

4409	D007	1538	X	4.9
4410	D007	1283	X	6.7
4411	D007	1319	X	97.5
4412	D007	1250	X	47.0
4413	D007	1590	X	6.4
4414	D007	1109	X	42.4
4415	D007	1110	X	9.8
4416	D007	1542	X	5.0
4417	D007	1286	X	6.8
4418	D007	1253	X	47.0
4419	D007	1322	X	97.9
4420	D007	1594	X	6.4
4421	D007	1289	X	5.8
4422	D007	1546	X	5.0
4423	D007	1256	X	72.5
4424	D007	92	X	214.6
4425	D007	1325	X	98.3
4426	D007	1609	X	62.3
4427	D007	1292	X	5.9
4428	D007	1598	X	6.4
4429	D007	1550	X	5.1
4430	D007	1259	X	54.5
4431	D007	1295	X	72.4
4432	D007	1602	X	9.0
4433	D007	1554	X	14.1
4434	D007	1262	X	54.6
4435	D007	1603	X	14.2
4436	D007	1555	X	3.7
4437	D007	1298	X	6.7
4438	D007	1557	X	5.3
4439	D007	1265	X	54.7
4440	D007	1301	X	6.8
4441	D007	1268	X	52.0
4442	D007	1269	X	5.1
4443	D007	275	Y	8.7
4444	D007	276	Y	33.8
4445	D007	239	Y	62.2
4446	D007	272	Y	5.0
4447	D007	281	Y	26.1
4448	D007	242	Y	5.6
4449	D007	236	Y	72.5
4450	D007	269	Y	62.6
4451	D007	284	Y	25.6
4452	D007	245	Y	5.6
4453	D007	233	Y	72.5
4454	D007	266	Y	5.3
4455	D007	515	Y	76.8
4456	D007	287	Y	25.1
4457	D007	248	Y	5.5
4458	D007	232	Y	56.3
4459	D007	263	Y	5.3
4460	D007	518	Y	75.3
4461	D007	290	Y	24.5
4462	D007	251	Y	5.3
4463	D007	443	Y	5.6
4464	D007	260	Y	5.3
4465	D007	293	Y	27.1
4466	D007	521	Y	74.0
4467	D007	294	Y	6.8
4468	D007	254	Y	85.2
4469	D007	446	Y	5.5
4470	D007	255	Y	27.6
4471	D007	524	Y	72.1
4472	D007	299	Y	4.5
4473	D007	479	Y	131.7
4474	D007	1642	Y	0.3
4475	D007	449	Y	5.5
4476	D007	500	Y	49.8
4477	D007	302	Y	48.7
4478	D007	303	Y	31.5
4479	D007	476	Y	131.6
4480	D007	503	Y	48.6
4481	D007	452	Y	5.3
4482	D007	1650	Y	2.4
4483	D007	482	Y	47.5
4484	D007	308	Y	5.6
4485	D007	506	Y	47.8
4486	D007	455	Y	84.3
4487	D007	485	Y	47.5
4488	D007	311	Y	5.4
4489	D007	1639	Y	1.3
4490	D007	509	Y	46.7
4491	D007	458	Y	5.3
4492	D007	488	Y	47.5
4493	D007	314	Y	5.4
4494	D007	512	Y	44.7
4495	D007	461	Y	5.2
4496	D007	491	Y	88.3

4497	D007	317	Y	5.3
4498	D007	464	Y	5.0
4499	D007	1651	Y	2.2
4500	D007	320	Y	67.8
4501	D007	494	Y	111.9
4502	D007	573	Y	10.8
4503	D007	574	Y	42.9
4504	D007	467	Y	4.9
4505	D007	323	Y	4.8
4506	D007	842	Y	91.4
4507	D007	497	Y	111.8
4508	D007	599	Y	4.7
4509	D007	581	Y	39.2
4510	D007	326	Y	4.7
4511	D007	470	Y	15.0
4512	D007	845	Y	91.5
4513	D007	471	Y	83.1
4514	D007	602	Y	4.6
4515	D007	329	Y	4.6
4516	D007	584	Y	39.2
4517	D007	848	Y	91.5
4518	D007	605	Y	61.8
4519	D007	527	Y	54.6
4520	D007	332	Y	4.4
4521	D007	587	Y	39.2
4522	D007	626	Y	71.7
4523	D007	851	Y	91.4
4524	D007	608	Y	5.8
4525	D007	530	Y	51.2
4526	D007	1468	Y	41.2
4527	D007	335	Y	56.9
4528	D007	531	Y	42.5
4529	D007	590	Y	39.1
4530	D007	629	Y	72.0
4531	D007	854	Y	91.2
4532	D007	611	Y	5.7
4533	D007	338	Y	4.0
4534	D007	536	Y	51.8
4535	D007	722	Y	4.1
4536	D007	866	Y	76.7
4537	D007	632	Y	72.0
4538	D007	593	Y	38.3
4539	D007	857	Y	91.1
4540	D007	594	Y	8.3
4541	D007	341	Y	3.9
4542	D007	614	Y	59.0
4543	D007	539	Y	51.8
4544	D007	725	Y	4.0
4545	D007	869	Y	76.8
4546	D007	635	Y	72.1
4547	D007	662	Y	4.7
4548	D007	860	Y	91.0
4549	D007	617	Y	4.1
4550	D007	344	Y	3.7
4551	D007	542	Y	61.7
4552	D007	644	Y	75.1
4553	D007	728	Y	4.0
4554	D007	872	Y	76.9
4555	D007	638	Y	71.9
4556	D007	665	Y	4.6
4557	D007	545	Y	44.4
4558	D007	620	Y	4.0
4559	D007	347	Y	3.5
4560	D007	863	Y	91.0
4561	D007	647	Y	75.3
4562	D007	731	Y	3.9
4563	D007	875	Y	77.1
4564	D007	641	Y	55.7
4565	D007	548	Y	44.4
4566	D007	1469	Y	95.0
4567	D007	623	Y	3.9
4568	D007	350	Y	61.6
4569	D007	650	Y	75.4
4570	D007	734	Y	46.1
4571	D007	551	Y	51.3
4572	D007	878	Y	77.1
4573	D007	552	Y	57.5
4574	D007	668	Y	5.8
4575	D007	735	Y	65.1
4576	D007	353	Y	3.1
4577	D007	890	Y	94.2
4578	D007	653	Y	75.5
4579	D007	379	Y	3.7
4580	D007	947	Y	4.7
4581	D007	377	Y	15.2
4582	D007	557	Y	87.9
4583	D007	881	Y	77.2
4584	D007	740	Y	3.8

4585	D007	812	Y	94.1
4586	D007	356	Y	2.9
4587	D007	671	Y	5.6
4588	D007	656	Y	75.6
4589	D007	893	Y	94.3
4590	D007	383	Y	1.5
4591	D007	374	Y	13.9
4592	D007	560	Y	88.1
4593	D007	950	Y	4.6
4594	D007	884	Y	77.4
4595	D007	743	Y	3.7
4596	D007	359	Y	2.6
4597	D007	815	Y	94.0
4598	D007	659	Y	53.7
4599	D007	896	Y	94.8
4600	D007	386	Y	1.4
4601	D007	371	Y	13.8
4602	D007	1487	Y	2.6
4603	D007	563	Y	88.4
4604	D007	953	Y	4.5
4605	D007	887	Y	77.4
4606	D007	362	Y	2.4
4607	D007	746	Y	3.6
4608	D007	818	Y	94.1
4609	D007	674	Y	4.2
4610	D007	389	Y	1.3
4611	D007	367	Y	16.7
4612	D007	899	Y	95.3
4613	D007	1470	Y	86.2
4614	D007	566	Y	88.7
4615	D007	1461	Y	6.5
4616	D007	365	Y	5.0
4617	D007	677	Y	4.0
4618	D007	956	Y	4.4
4619	D007	749	Y	38.8
4620	D007	821	Y	94.2
4621	D007	392	Y	17.3
4622	D007	417	Y	8.4
4623	D007	1425	Y	0.1
4624	D007	1462	Y	4.6
4625	D007	902	Y	74.8
4626	D007	750	Y	11.8
4627	D007	569	Y	88.9
4628	D007	680	Y	3.9
4629	D007	912	Y	39.7
4630	D007	1490	Y	7.2
4631	D007	824	Y	106.4
4632	D007	1037	Y	1.3
4633	D007	395	Y	1.0
4634	D007	1328	Y	23.5
4635	D007	422	Y	10.5
4636	D007	905	Y	63.7
4637	D007	755	Y	3.3
4638	D007	572	Y	41.8
4639	D007	681	Y	18.8
4640	D007	1034	Y	1.3
4641	D007	917	Y	72.0
4642	D007	827	Y	92.8
4643	D007	959	Y	3.8
4644	D007	1492	Y	12.4
4645	D007	398	Y	0.9
4646	D007	1331	Y	23.7
4647	D007	425	Y	9.3
4648	D007	908	Y	63.8
4649	D007	1031	Y	17.2
4650	D007	758	Y	3.1
4651	D007	686	Y	4.7
4652	D007	920	Y	71.9
4653	D007	830	Y	92.7
4654	D007	962	Y	3.7
4655	D007	401	Y	0.8
4656	D007	1494	Y	15.6
4657	D007	1028	Y	1.6
4658	D007	428	Y	19.2
4659	D007	911	Y	64.0
4660	D007	761	Y	3.0
4661	D007	1175	Y	20.2
4662	D007	689	Y	4.5
4663	D007	923	Y	71.8
4664	D007	833	Y	93.0
4665	D007	965	Y	3.5
4666	D007	404	Y	0.9
4667	D007	1115	Y	0.9
4668	D007	1475	Y	29.4
4669	D007	405	Y	8.6
4670	D007	431	Y	5.9
4671	D007	1463	Y	19.9
4672	D007	1025	Y	1.6

4673	D007	764	Y	32.5
4674	D007	1476	Y	2.9
4675	D007	1178	Y	17.7
4676	D007	692	Y	4.2
4677	D007	1464	Y	8.1
4678	D007	836	Y	93.3
4679	D007	926	Y	67.3
4680	D007	968	Y	3.4
4681	D007	1118	Y	0.9
4682	D007	434	Y	5.1
4683	D007	765	Y	16.9
4684	D007	1022	Y	34.3
4685	D007	1465	Y	15.0
4686	D007	1121	Y	18.7
4687	D007	695	Y	4.1
4688	D007	839	Y	93.7
4689	D007	929	Y	73.5
4690	D007	1500	Y	17.6
4691	D007	768	Y	9.8
4692	D007	437	Y	4.5
4693	D007	983	Y	27.4
4694	D007	1373	Y	0.1
4695	D007	1154	Y	27.3
4696	D007	1019	Y	21.8
4697	D007	1181	Y	11.3
4698	D007	1124	Y	1.1
4699	D007	1496	Y	18.3
4700	D007	1478	Y	0.3
4701	D007	440	Y	4.6
4702	D007	698	Y	58.9
4703	D007	932	Y	70.7
4704	D007	773	Y	2.1
4705	D007	971	Y	3.5
4706	D007	986	Y	27.5
4707	D007	416	Y	31.0
4708	D007	1184	Y	9.9
4709	D007	1157	Y	23.2
4710	D007	1016	Y	21.8
4711	D007	1127	Y	1.1
4712	D007	1498	Y	14.4
4713	D007	701	Y	4.0
4714	D007	935	Y	70.8
4715	D007	776	Y	1.8
4716	D007	1193	Y	0.8
4717	D007	974	Y	3.2
4718	D007	1187	Y	8.6
4719	D007	989	Y	27.8
4720	D007	1130	Y	23.6
4721	D007	1013	Y	21.3
4722	D007	704	Y	3.8
4723	D007	938	Y	70.9
4724	D007	1466	Y	19.2
4725	D007	779	Y	5.5
4726	D007	1377	Y	0.5
4727	D007	1190	Y	6.1
4728	D007	977	Y	3.0
4729	D007	780	Y	6.0
4730	D007	46	Y	0.6
4731	D007	992	Y	27.8
4732	D007	1160	Y	15.5
4733	D007	24	Y	0.5
4734	D007	1133	Y	1.2
4735	D007	783	Y	33.0
4736	D007	1467	Y	8.4
4737	D007	1477	Y	2.8
4738	D007	707	Y	3.5
4739	D007	941	Y	68.8
4740	D007	176	Y	0.9
4741	D007	1196	Y	0.6
4742	D007	1163	Y	13.9
4743	D007	1040	Y	1.7
4744	D007	980	Y	32.5
4745	D007	1479	Y	15.5
4746	D007	1136	Y	1.2
4747	D007	178	Y	3.3
4748	D007	788	Y	34.3
4749	D007	710	Y	3.4
4750	D007	944	Y	62.2
4751	D007	1199	Y	0.6
4752	D007	1166	Y	11.7
4753	D007	1007	Y	27.0
4754	D007	1043	Y	1.7
4755	D007	187	Y	0.1
4756	D007	1139	Y	1.2
4757	D007	791	Y	29.1
4758	D007	713	Y	49.4
4759	D007	1169	Y	7.1
4760	D007	1010	Y	26.9



4761	D007	1170	Y	36.6
4762	D007	1046	Y	1.7
4763	D007	191	Y	0.9
4764	D007	794	Y	18.9
4765	D007	716	Y	3.4
4766	D007	1003	Y	33.9
4767	D007	1202	Y	0.7
4768	D007	1049	Y	1.7
4769	D007	1480	Y	19.7
4770	D007	795	Y	9.3
4771	D007	798	Y	16.0
4772	D007	195	Y	1.6
4773	D007	719	Y	8.4
4774	D007	995	Y	16.3
4775	D007	998	Y	18.8
4776	D007	1001	Y	18.1
4777	D007	1482	Y	3.8
4778	D007	1052	Y	2.5
4779	D007	1142	Y	1.0
4780	D007	1205	Y	0.7
4781	D007	803	Y	17.3
4782	D007	1053	Y	17.9
4783	D007	199	Y	1.5
4784	D007	1145	Y	1.0
4785	D007	1208	Y	0.7
4786	D007	806	Y	14.4
4787	D007	1058	Y	17.7
4788	D007	175	Y	6.3
4789	D007	171	Y	0.9
4790	D007	1148	Y	1.0
4791	D007	1061	Y	15.1
4792	D007	809	Y	36.7
4793	D007	167	Y	0.9
4794	D007	1151	Y	1.0
4795	D007	1064	Y	12.8
4796	D007	1211	Y	0.6
4797	D007	159	Y	1.0
4798	D007	1067	Y	9.4
4799	D007	1214	Y	0.6
4800	D007	1068	Y	10.3
4801	D007	157	Y	1.0
4802	D007	1217	Y	0.6
4803	D007	1223	Y	0.8
4804	D007	1073	Y	14.0
4805	D007	153	Y	3.9
4806	D007	143	Y	0.9
4807	D007	1226	Y	0.8
4808	D007	1220	Y	0.5
4809	D007	1076	Y	11.8
4810	D007	1229	Y	9.2
4811	D007	146	Y	1.6
4812	D007	1079	Y	8.9
4813	D007	1230	Y	0.9
4814	D007	1304	Y	11.8
4815	D007	1082	Y	6.4
4816	D007	1085	Y	4.6
4817	D007	1307	Y	11.1
4818	D007	1235	Y	0.8
4819	D007	1088	Y	2.9
4820	D007	1310	Y	7.2
4821	D007	1091	Y	0.9
4822	D007	1092	Y	0.3
4823	D007	1238	Y	0.7
4824	D007	1095	Y	0.5
4825	D007	1313	Y	5.1
4826	D007	1241	Y	1.5
4827	D007	1316	Y	3.0
4828	D007	1242	Y	4.7
4829	D007	1280	Y	1.7
4830	D007	1247	Y	2.9
4831	D007	1250	Y	2.0
4832	D007	1253	Y	1.2
4833	D007	1256	Y	0.9
4834	D008	275	X	8.4
4835	D008	276	X	32.8
4836	D008	239	X	42.6
4837	D008	272	X	4.7
4838	D008	281	X	25.7
4839	D008	242	X	3.9
4840	D008	236	X	47.9
4841	D008	269	X	57.0
4842	D008	284	X	25.8
4843	D008	245	X	4.0
4844	D008	233	X	45.7
4845	D008	266	X	4.7
4846	D008	515	X	71.1
4847	D008	287	X	25.8
4848	D008	248	X	4.0

4849	D008	232	X	33.7
4850	D008	263	X	4.5
4851	D008	518	X	71.0
4852	D008	290	X	25.8
4853	D008	251	X	4.0
4854	D008	443	X	3.4
4855	D008	260	X	4.3
4856	D008	293	X	29.2
4857	D008	521	X	70.8
4858	D008	294	X	7.3
4859	D008	254	X	65.9
4860	D008	446	X	3.4
4861	D008	255	X	21.4
4862	D008	524	X	70.5
4863	D008	299	X	4.7
4864	D008	479	X	97.7
4865	D008	449	X	3.5
4866	D008	500	X	39.8
4867	D008	302	X	49.0
4868	D008	303	X	31.1
4869	D008	476	X	93.5
4870	D008	503	X	40.1
4871	D008	452	X	3.5
4872	D008	1650	X	1.1
4873	D008	482	X	45.3
4874	D008	308	X	5.6
4875	D008	506	X	40.5
4876	D008	455	X	56.4
4877	D008	485	X	44.3
4878	D008	311	X	5.6
4879	D008	509	X	40.9
4880	D008	458	X	3.7
4881	D008	488	X	44.5
4882	D008	314	X	5.6
4883	D008	512	X	40.5
4884	D008	461	X	3.7
4885	D008	491	X	80.9
4886	D008	317	X	5.6
4887	D008	1404	X	0.7
4888	D008	1474	X	60.6
4889	D008	464	X	3.7
4890	D008	1651	X	1.2
4891	D008	320	X	74.7
4892	D008	494	X	100.3
4893	D008	573	X	3.7
4894	D008	574	X	14.6
4895	D008	467	X	3.8
4896	D008	323	X	5.5
4897	D008	842	X	98.4
4898	D008	497	X	95.6
4899	D008	599	X	1.6
4900	D008	581	X	12.2
4901	D008	326	X	5.5
4902	D008	470	X	11.9
4903	D008	845	X	96.7
4904	D008	471	X	66.6
4905	D008	602	X	1.6
4906	D008	329	X	5.5
4907	D008	584	X	11.2
4908	D008	848	X	97.2
4909	D008	605	X	22.3
4910	D008	527	X	40.8
4911	D008	1473	X	1.6
4912	D008	332	X	5.5
4913	D008	587	X	10.1
4914	D008	626	X	23.9
4915	D008	851	X	94.1
4916	D008	608	X	2.2
4917	D008	530	X	35.9
4918	D008	1468	X	123.0
4919	D008	335	X	74.3
4920	D008	531	X	28.9
4921	D008	590	X	9.0
4922	D008	629	X	22.2
4923	D008	854	X	91.4
4924	D008	611	X	2.2
4925	D008	338	X	5.5
4926	D008	536	X	33.0
4927	D008	722	X	2.9
4928	D008	866	X	97.6
4929	D008	632	X	20.5
4930	D008	593	X	7.6
4931	D008	857	X	86.2
4932	D008	594	X	1.6
4933	D008	341	X	5.5
4934	D008	1472	X	0.5
4935	D008	614	X	23.4
4936	D008	539	X	30.8

4937	D008	725	X	2.9
4938	D008	869	X	95.7
4939	D008	635	X	18.4
4940	D008	662	X	0.9
4941	D008	860	X	80.0
4942	D008	617	X	1.7
4943	D008	344	X	5.5
4944	D008	542	X	34.1
4945	D008	644	X	27.4
4946	D008	728	X	2.9
4947	D008	1646	X	3.8
4948	D008	872	X	96.4
4949	D008	638	X	16.3
4950	D008	665	X	0.9
4951	D008	545	X	22.9
4952	D008	620	X	1.7
4953	D008	347	X	5.5
4954	D008	863	X	75.0
4955	D008	647	X	25.3
4956	D008	731	X	2.9
4957	D008	875	X	94.5
4958	D008	641	X	11.0
4959	D008	548	X	21.4
4960	D008	1469	X	119.6
4961	D008	1648	X	4.0
4962	D008	623	X	1.7
4963	D008	350	X	103.4
4964	D008	650	X	23.2
4965	D008	734	X	35.6
4966	D008	551	X	22.9
4967	D008	878	X	92.6
4968	D008	552	X	25.2
4969	D008	668	X	1.2
4970	D008	735	X	51.5
4971	D008	353	X	5.7
4972	D008	890	X	152.9
4973	D008	1647	X	1.0
4974	D008	653	X	20.8
4975	D008	1614	X	0.1
4976	D008	379	X	10.7
4977	D008	947	X	2.2
4978	D008	377	X	43.9
4979	D008	557	X	35.2
4980	D008	881	X	87.5
4981	D008	740	X	3.1
4982	D008	812	X	70.3
4983	D008	356	X	5.8
4984	D008	671	X	1.2
4985	D008	656	X	18.3
4986	D008	893	X	147.7
4987	D008	383	X	4.9
4988	D008	374	X	39.7
4989	D008	560	X	32.7
4990	D008	950	X	2.2
4991	D008	884	X	81.3
4992	D008	743	X	3.1
4993	D008	359	X	5.9
4994	D008	815	X	66.0
4995	D008	659	X	11.1
4996	D008	896	X	150.1
4997	D008	386	X	4.9
4998	D008	371	X	38.2
4999	D008	563	X	29.8
5000	D008	953	X	2.2
5001	D008	887	X	76.4
5002	D008	362	X	5.9
5003	D008	746	X	3.2
5004	D008	818	X	60.1
5005	D008	674	X	0.9
5006	D008	389	X	5.0
5007	D008	367	X	44.8
5008	D008	899	X	150.0
5009	D008	1470	X	114.2
5010	D008	566	X	26.6
5011	D008	365	X	13.2
5012	D008	677	X	0.9
5013	D008	956	X	2.2
5014	D008	749	X	35.7
5015	D008	821	X	55.2
5016	D008	392	X	80.0
5017	D008	417	X	23.1
5018	D008	902	X	115.3
5019	D008	750	X	11.1
5020	D008	569	X	23.3
5021	D008	680	X	0.9
5022	D008	912	X	38.1
5023	D008	824	X	56.8
5024	D008	1037	X	3.5

5025	D008	395	X	5.5
5026	D008	1328	X	106.3
5027	D008	422	X	32.5
5028	D008	905	X	92.9
5029	D008	755	X	3.2
5030	D008	572	X	9.3
5031	D008	681	X	4.2
5032	D008	1034	X	3.4
5033	D008	917	X	64.9
5034	D008	827	X	45.2
5035	D008	959	X	2.1
5036	D008	398	X	5.6
5037	D008	1331	X	100.8
5038	D008	425	X	33.1
5039	D008	908	X	86.8
5040	D008	1031	X	44.9
5041	D008	758	X	3.3
5042	D008	686	X	1.1
5043	D008	920	X	61.3
5044	D008	830	X	41.0
5045	D008	962	X	2.1
5046	D008	401	X	5.7
5047	D008	1028	X	4.1
5048	D008	428	X	78.3
5049	D008	911	X	81.2
5050	D008	761	X	3.3
5051	D008	1175	X	58.7
5052	D008	689	X	1.1
5053	D008	923	X	57.3
5054	D008	833	X	36.8
5055	D008	965	X	2.2
5056	D008	404	X	8.0
5057	D008	1115	X	3.6
5058	D008	1475	X	48.8
5059	D008	405	X	77.6
5060	D008	431	X	26.9
5061	D008	1025	X	4.1
5062	D008	764	X	38.4
5063	D008	1476	X	5.0
5064	D008	1178	X	59.4
5065	D008	692	X	1.1
5066	D008	836	X	33.2
5067	D008	926	X	48.7
5068	D008	968	X	2.2
5069	D008	1118	X	3.6
5070	D008	434	X	27.2
5071	D008	765	X	21.2
5072	D008	1022	X	86.3
5073	D008	1121	X	71.7
5074	D008	695	X	1.1
5075	D008	839	X	28.7
5076	D008	929	X	48.5
5077	D008	1500	X	147.8
5078	D008	768	X	13.2
5079	D008	437	X	27.5
5080	D008	983	X	32.3
5081	D008	1154	X	75.4
5082	D008	1019	X	53.0
5083	D008	1181	X	48.2
5084	D008	1124	X	4.1
5085	D008	1496	X	0.3
5086	D008	1478	X	0.3
5087	D008	440	X	33.1
5088	D008	698	X	14.9
5089	D008	932	X	42.4
5090	D008	773	X	3.2
5091	D008	971	X	2.4
5092	D008	986	X	30.2
5093	D008	416	X	243.2
5094	D008	1184	X	48.7
5095	D008	1157	X	75.7
5096	D008	1016	X	50.1
5097	D008	1127	X	4.1
5098	D008	1498	X	0.4
5099	D008	701	X	1.0
5100	D008	935	X	38.4
5101	D008	776	X	3.3
5102	D008	1193	X	5.6
5103	D008	974	X	2.4
5104	D008	1187	X	49.4
5105	D008	989	X	28.3
5106	D008	1130	X	85.5
5107	D008	1013	X	47.1
5108	D008	704	X	1.0
5109	D008	938	X	35.5
5110	D008	1466	X	0.6
5111	D008	779	X	10.9
5112	D008	1190	X	42.0

5113	D008	977	X	2.4
5114	D008	780	X	12.1
5115	D008	46	X	22.0
5116	D008	992	X	26.4
5117	D008	1160	X	61.1
5118	D008	24	X	22.5
5119	D008	1133	X	4.4
5120	D008	783	X	68.3
5121	D008	1467	X	0.4
5122	D008	1477	X	2.0
5123	D008	707	X	1.0
5124	D008	941	X	30.1
5125	D008	176	X	31.8
5126	D008	1196	X	4.4
5127	D008	1163	X	61.5
5128	D008	1040	X	3.2
5129	D008	980	X	28.1
5130	D008	1479	X	1.2
5131	D008	20	X	5.6
5132	D008	1136	X	4.1
5133	D008	178	X	119.7
5134	D008	788	X	78.9
5135	D008	710	X	1.0
5136	D008	944	X	23.0
5137	D008	1199	X	4.3
5138	D008	1166	X	62.5
5139	D008	1007	X	21.1
5140	D008	1043	X	3.0
5141	D008	16	X	5.6
5142	D008	187	X	5.0
5143	D008	1139	X	3.9
5144	D008	791	X	79.3
5145	D008	713	X	14.8
5146	D008	1169	X	46.3
5147	D008	1010	X	18.9
5148	D008	1170	X	260.5
5149	D008	1046	X	2.8
5150	D008	12	X	5.6
5151	D008	191	X	33.4
5152	D008	794	X	60.0
5153	D008	716	X	1.1
5154	D008	1003	X	21.5
5155	D008	1202	X	4.6
5156	D008	1049	X	2.5
5157	D008	1480	X	2.1
5158	D008	795	X	32.2
5159	D008	8	X	5.7
5160	D008	798	X	57.8
5161	D008	195	X	60.7
5162	D008	719	X	2.9
5163	D008	995	X	6.8
5164	D008	998	X	9.4
5165	D008	1001	X	10.5
5166	D008	1482	X	0.4
5167	D008	1361	X	0.3
5168	D008	1052	X	3.4
5169	D008	1142	X	3.4
5170	D008	1205	X	4.3
5171	D008	7	X	747.4
5172	D008	803	X	75.8
5173	D008	1053	X	24.5
5174	D008	199	X	59.2
5175	D008	1145	X	3.0
5176	D008	1208	X	4.0
5177	D008	806	X	76.8
5178	D008	1058	X	27.6
5179	D008	1354	X	3.8
5180	D008	44	X	6.4
5181	D008	175	X	266.3
5182	D008	171	X	40.5
5183	D008	1148	X	2.8
5184	D008	1061	X	27.7
5185	D008	809	X	224.5
5186	D008	40	X	6.4
5187	D008	1355	X	0.6
5188	D008	167	X	39.1
5189	D008	1151	X	2.6
5190	D008	1064	X	27.8
5191	D008	1211	X	3.4
5192	D008	1410	X	4.4
5193	D008	1411	X	1.3
5194	D008	36	X	6.3
5195	D008	159	X	45.9
5196	D008	1437	X	0.7
5197	D008	1378	X	2.2
5198	D008	1067	X	23.2
5199	D008	1214	X	3.1
5200	D008	1068	X	26.4

5201	D008	157	X	50.0
5202	D008	32	X	6.3
5203	D008	1217	X	2.9
5204	D008	1223	X	1.9
5205	D008	1073	X	42.0
5206	D008	153	X	175.3
5207	D008	31	X	14.6
5208	D008	143	X	36.6
5209	D008	49	X	77.2
5210	D008	1226	X	1.7
5211	D008	1220	X	2.6
5212	D008	1076	X	42.0
5213	D008	1503	X	3.6
5214	D008	144	X	2.2
5215	D008	1399	X	778.0
5216	D008	56	X	91.4
5217	D008	1505	X	14.7
5218	D008	1229	X	17.6
5219	D008	146	X	53.1
5220	D008	1079	X	38.6
5221	D008	1230	X	1.6
5222	D008	1610	X	228.5
5223	D008	1379	X	3.1
5224	D008	1514	X	23.1
5225	D008	1445	X	4.7
5226	D008	1304	X	26.5
5227	D008	1082	X	35.6
5228	D008	1566	X	3.4
5229	D008	1085	X	35.6
5230	D008	1518	X	14.3
5231	D008	1307	X	30.1
5232	D008	1570	X	3.4
5233	D008	1235	X	1.4
5234	D008	1389	X	0.5
5235	D008	1088	X	35.6
5236	D008	1522	X	5.7
5237	D008	1310	X	24.3
5238	D008	1574	X	3.4
5239	D008	1091	X	21.0
5240	D008	1092	X	7.3
5241	D008	1238	X	1.3
5242	D008	1381	X	7.3
5243	D008	1095	X	17.2
5244	D008	1444	X	4.5
5245	D008	121	X	337.9
5246	D008	1526	X	5.5
5247	D008	1313	X	24.3
5248	D008	1578	X	3.4
5249	D008	1274	X	1.9
5250	D008	1446	X	6.7
5251	D008	1100	X	15.6
5252	D008	76	X	356.9
5253	D008	1241	X	2.4
5254	D008	1530	X	5.3
5255	D008	1316	X	24.3
5256	D008	1582	X	3.7
5257	D008	1277	X	1.7
5258	D008	1242	X	8.9
5259	D008	1103	X	15.6
5260	D008	1280	X	31.5
5261	D008	1534	X	4.5
5262	D008	1586	X	3.7
5263	D008	1247	X	6.9
5264	D008	1106	X	15.6
5265	D008	1538	X	4.2
5266	D008	1283	X	1.4
5267	D008	1451	X	7.2
5268	D008	1319	X	25.1
5269	D008	1452	X	0.4
5270	D008	1250	X	6.9
5271	D008	1590	X	3.7
5272	D008	1387	X	1.6
5273	D008	1109	X	15.8
5274	D008	1392	X	0.9
5275	D008	1110	X	3.7
5276	D008	1542	X	4.0
5277	D008	1286	X	1.2
5278	D008	1253	X	6.9
5279	D008	1322	X	25.1
5280	D008	1594	X	3.7
5281	D008	1289	X	1.9
5282	D008	1447	X	3.4
5283	D008	1546	X	3.8
5284	D008	1256	X	10.7
5285	D008	92	X	144.0
5286	D008	1382	X	3.2
5287	D008	1325	X	25.1
5288	D008	1609	X	41.0

5289	D008	1292	X	1.7
5290	D008	1598	X	3.7
5291	D008	1550	X	3.6
5292	D008	1385	X	18.6
5293	D008	1259	X	8.0
5294	D008	1295	X	18.5
5295	D008	1602	X	5.3
5296	D008	1554	X	9.3
5297	D008	1262	X	8.0
5298	D008	1388	X	0.9
5299	D008	1603	X	8.4
5300	D008	1555	X	2.3
5301	D008	1298	X	1.5
5302	D008	1450	X	2.8
5303	D008	1557	X	3.1
5304	D008	1265	X	8.0
5305	D008	1301	X	1.2
5306	D008	1383	X	12.3
5307	D008	1403	X	0.1
5308	D008	1268	X	7.6
5309	D008	1269	X	0.7
5310	D008	1448	X	9.2
5311	D008	1384	X	2.0
5312	D008	1449	X	4.2
5313	D008	1637	Y	1.6
5314	D008	275	Y	9.1
5315	D008	276	Y	35.4
5316	D008	239	Y	67.0
5317	D008	272	Y	5.3
5318	D008	281	Y	27.2
5319	D008	1635	Y	3.5
5320	D008	242	Y	6.1
5321	D008	236	Y	78.1
5322	D008	1645	Y	0.2
5323	D008	269	Y	65.4
5324	D008	1633	Y	2.3
5325	D008	284	Y	26.6
5326	D008	245	Y	5.9
5327	D008	233	Y	78.2
5328	D008	266	Y	5.5
5329	D008	515	Y	80.2
5330	D008	287	Y	26.0
5331	D008	248	Y	5.8
5332	D008	232	Y	60.8
5333	D008	263	Y	5.5
5334	D008	518	Y	78.4
5335	D008	290	Y	25.4
5336	D008	1632	Y	6.7
5337	D008	1644	Y	0.3
5338	D008	1643	Y	0.5
5339	D008	251	Y	5.6
5340	D008	443	Y	6.1
5341	D008	260	Y	5.5
5342	D008	293	Y	28.0
5343	D008	521	Y	76.4
5344	D008	294	Y	7.0
5345	D008	254	Y	89.2
5346	D008	446	Y	5.9
5347	D008	255	Y	28.9
5348	D008	524	Y	74.5
5349	D008	299	Y	4.7
5350	D008	479	Y	138.2
5351	D008	1642	Y	1.4
5352	D008	449	Y	5.8
5353	D008	500	Y	52.0
5354	D008	302	Y	50.2
5355	D008	303	Y	32.4
5356	D008	476	Y	138.4
5357	D008	503	Y	50.9
5358	D008	452	Y	5.7
5359	D008	1650	Y	2.6
5360	D008	482	Y	48.8
5361	D008	308	Y	5.7
5362	D008	506	Y	49.8
5363	D008	455	Y	88.8
5364	D008	1631	Y	13.3
5365	D008	485	Y	48.8
5366	D008	311	Y	5.6
5367	D008	509	Y	48.0
5368	D008	458	Y	5.5
5369	D008	488	Y	48.8
5370	D008	314	Y	5.3
5371	D008	512	Y	46.0
5372	D008	461	Y	5.4
5373	D008	491	Y	91.0
5374	D008	317	Y	5.2
5375	D008	1404	Y	0.1
5376	D008	1641	Y	1.3

5377	D008	1625	Y	0.6
5378	D008	1474	Y	8.8
5379	D008	464	Y	5.3
5380	D008	1651	Y	2.3
5381	D008	320	Y	67.6
5382	D008	494	Y	115.9
5383	D008	1630	Y	9.4
5384	D008	573	Y	11.6
5385	D008	574	Y	46.1
5386	D008	467	Y	5.1
5387	D008	323	Y	4.9
5388	D008	1623	Y	0.4
5389	D008	842	Y	91.2
5390	D008	497	Y	115.6
5391	D008	599	Y	5.0
5392	D008	1626	Y	6.9
5393	D008	581	Y	42.2
5394	D008	326	Y	4.8
5395	D008	470	Y	15.6
5396	D008	845	Y	91.2
5397	D008	471	Y	86.3
5398	D008	602	Y	5.0
5399	D008	1640	Y	3.5
5400	D008	1621	Y	0.7
5401	D008	329	Y	4.5
5402	D008	584	Y	42.2
5403	D008	1620	Y	3.6
5404	D008	848	Y	91.3
5405	D008	605	Y	65.9
5406	D008	527	Y	56.8
5407	D008	1473	Y	0.3
5408	D008	332	Y	4.3
5409	D008	587	Y	42.3
5410	D008	1627	Y	2.1
5411	D008	626	Y	76.5
5412	D008	851	Y	91.4
5413	D008	608	Y	6.2
5414	D008	1619	Y	3.7
5415	D008	530	Y	53.1
5416	D008	335	Y	57.0
5417	D008	531	Y	44.1
5418	D008	1624	Y	0.8
5419	D008	590	Y	42.3
5420	D008	629	Y	76.7
5421	D008	1617	Y	1.7
5422	D008	854	Y	91.5
5423	D008	611	Y	6.0
5424	D008	338	Y	4.1
5425	D008	536	Y	53.7
5426	D008	722	Y	4.2
5427	D008	866	Y	76.7
5428	D008	1622	Y	0.9
5429	D008	632	Y	76.9
5430	D008	593	Y	41.4
5431	D008	857	Y	91.5
5432	D008	594	Y	8.9
5433	D008	1618	Y	3.2
5434	D008	341	Y	3.9
5435	D008	1472	Y	0.1
5436	D008	614	Y	62.5
5437	D008	539	Y	53.7
5438	D008	725	Y	4.1
5439	D008	869	Y	76.4
5440	D008	635	Y	76.9
5441	D008	662	Y	5.1
5442	D008	860	Y	91.6
5443	D008	617	Y	4.3
5444	D008	344	Y	3.6
5445	D008	542	Y	63.9
5446	D008	644	Y	79.4
5447	D008	728	Y	4.1
5448	D008	1616	Y	2.0
5449	D008	1646	Y	1.8
5450	D008	872	Y	76.4
5451	D008	638	Y	77.0
5452	D008	665	Y	5.0
5453	D008	545	Y	46.0
5454	D008	620	Y	4.2
5455	D008	347	Y	3.4
5456	D008	863	Y	91.7
5457	D008	647	Y	79.6
5458	D008	731	Y	4.0
5459	D008	875	Y	76.3
5460	D008	641	Y	59.6
5461	D008	548	Y	46.1
5462	D008	1648	Y	1.9
5463	D008	623	Y	4.1
5464	D008	1460	Y	0.4



5465	D008	350	Y	61.1
5466	D008	650	Y	79.8
5467	D008	734	Y	46.4
5468	D008	551	Y	53.2
5469	D008	878	Y	76.1
5470	D008	552	Y	59.7
5471	D008	668	Y	6.2
5472	D008	735	Y	65.6
5473	D008	353	Y	3.1
5474	D008	890	Y	93.5
5475	D008	1647	Y	1.2
5476	D008	653	Y	79.9
5477	D008	379	Y	3.4
5478	D008	947	Y	4.8
5479	D008	377	Y	13.8
5480	D008	557	Y	91.4
5481	D008	881	Y	76.0
5482	D008	740	Y	3.8
5483	D008	812	Y	95.0
5484	D008	356	Y	2.9
5485	D008	671	Y	6.1
5486	D008	656	Y	80.1
5487	D008	893	Y	93.7
5488	D008	383	Y	1.4
5489	D008	374	Y	12.7
5490	D008	1649	Y	0.1
5491	D008	560	Y	91.8
5492	D008	950	Y	4.7
5493	D008	884	Y	75.8
5494	D008	743	Y	3.7
5495	D008	359	Y	2.5
5496	D008	815	Y	95.2
5497	D008	659	Y	56.9
5498	D008	896	Y	94.0
5499	D008	386	Y	1.3
5500	D008	371	Y	12.7
5501	D008	563	Y	92.2
5502	D008	953	Y	4.6
5503	D008	887	Y	75.8
5504	D008	362	Y	2.3
5505	D008	746	Y	3.5
5506	D008	818	Y	95.3
5507	D008	674	Y	4.3
5508	D008	389	Y	1.2
5509	D008	367	Y	15.6
5510	D008	899	Y	93.9
5511	D008	566	Y	92.4
5512	D008	365	Y	4.7
5513	D008	677	Y	4.2
5514	D008	956	Y	4.5
5515	D008	749	Y	37.9
5516	D008	821	Y	95.5
5517	D008	392	Y	17.4
5518	D008	417	Y	8.0
5519	D008	902	Y	73.2
5520	D008	750	Y	11.5
5521	D008	569	Y	92.6
5522	D008	680	Y	4.1
5523	D008	912	Y	38.5
5524	D008	824	Y	108.1
5525	D008	1037	Y	1.3
5526	D008	395	Y	1.0
5527	D008	1328	Y	23.6
5528	D008	422	Y	10.4
5529	D008	905	Y	62.0
5530	D008	755	Y	3.2
5531	D008	572	Y	43.6
5532	D008	681	Y	19.5
5533	D008	1034	Y	1.3
5534	D008	917	Y	70.0
5535	D008	827	Y	94.5
5536	D008	959	Y	3.8
5537	D008	398	Y	0.9
5538	D008	1331	Y	23.3
5539	D008	425	Y	9.3
5540	D008	908	Y	61.7
5541	D008	1031	Y	17.1
5542	D008	758	Y	3.0
5543	D008	686	Y	4.8
5544	D008	920	Y	70.0
5545	D008	830	Y	94.6
5546	D008	962	Y	3.7
5547	D008	401	Y	0.8
5548	D008	1028	Y	1.6
5549	D008	428	Y	19.1
5550	D008	911	Y	61.5
5551	D008	761	Y	2.8
5552	D008	1175	Y	20.4

5553	D008	689	Y	4.7
5554	D008	923	Y	70.0
5555	D008	833	Y	94.9
5556	D008	965	Y	3.5
5557	D008	404	Y	0.8
5558	D008	1115	Y	0.9
5559	D008	405	Y	7.6
5560	D008	431	Y	5.8
5561	D008	1025	Y	1.6
5562	D008	764	Y	31.2
5563	D008	1178	Y	18.0
5564	D008	692	Y	4.6
5565	D008	836	Y	95.2
5566	D008	926	Y	65.5
5567	D008	968	Y	3.4
5568	D008	1118	Y	0.9
5569	D008	434	Y	5.2
5570	D008	765	Y	16.4
5571	D008	1022	Y	35.1
5572	D008	1121	Y	19.0
5573	D008	695	Y	4.4
5574	D008	839	Y	95.5
5575	D008	929	Y	71.7
5576	D008	1500	Y	16.0
5577	D008	768	Y	9.7
5578	D008	437	Y	4.4
5579	D008	983	Y	26.7
5580	D008	1154	Y	28.3
5581	D008	1019	Y	22.6
5582	D008	1181	Y	11.3
5583	D008	1124	Y	1.1
5584	D008	440	Y	4.5
5585	D008	698	Y	60.0
5586	D008	932	Y	69.2
5587	D008	773	Y	2.2
5588	D008	971	Y	3.3
5589	D008	986	Y	26.7
5590	D008	416	Y	29.4
5591	D008	1184	Y	10.4
5592	D008	1157	Y	24.9
5593	D008	1016	Y	22.9
5594	D008	1127	Y	1.2
5595	D008	701	Y	3.9
5596	D008	935	Y	69.4
5597	D008	776	Y	2.0
5598	D008	1193	Y	0.8
5599	D008	974	Y	3.1
5600	D008	1187	Y	8.7
5601	D008	989	Y	26.7
5602	D008	1130	Y	25.1
5603	D008	1013	Y	23.2
5604	D008	704	Y	3.7
5605	D008	938	Y	69.5
5606	D008	779	Y	6.2
5607	D008	1190	Y	6.5
5608	D008	977	Y	2.9
5609	D008	780	Y	6.7
5610	D008	992	Y	26.7
5611	D008	1160	Y	16.4
5612	D008	1133	Y	1.4
5613	D008	783	Y	36.4
5614	D008	707	Y	3.6
5615	D008	941	Y	67.5
5616	D008	1196	Y	0.7
5617	D008	1163	Y	14.6
5618	D008	1040	Y	1.9
5619	D008	980	Y	31.3
5620	D008	1136	Y	1.4
5621	D008	788	Y	37.8
5622	D008	710	Y	3.4
5623	D008	944	Y	61.0
5624	D008	1199	Y	0.7
5625	D008	1166	Y	12.8
5626	D008	1007	Y	26.0
5627	D008	1043	Y	1.9
5628	D008	1139	Y	1.4
5629	D008	791	Y	33.9
5630	D008	713	Y	48.4
5631	D008	1169	Y	8.1
5632	D008	1010	Y	26.0
5633	D008	1170	Y	42.8
5634	D008	1046	Y	1.9
5635	D008	794	Y	22.4
5636	D008	716	Y	3.3
5637	D008	1439	Y	1.3
5638	D008	1003	Y	32.7
5639	D008	1398	Y	2.6
5640	D008	1202	Y	0.8

5641	D008	1049	Y	1.9
5642	D008	795	Y	11.3
5643	D008	798	Y	19.7
5644	D008	719	Y	8.4
5645	D008	995	Y	15.9
5646	D008	998	Y	18.3
5647	D008	1001	Y	17.5
5648	D008	1052	Y	2.8
5649	D008	1142	Y	1.2
5650	D008	1205	Y	0.8
5651	D008	1428	Y	0.2
5652	D008	803	Y	22.8
5653	D008	1053	Y	20.0
5654	D008	1145	Y	1.2
5655	D008	1208	Y	0.8
5656	D008	806	Y	19.3
5657	D008	1058	Y	20.7
5658	D008	1148	Y	1.2
5659	D008	1061	Y	18.8
5660	D008	809	Y	45.9
5661	D008	1611	Y	0.2
5662	D008	1151	Y	1.2
5663	D008	1064	Y	16.9
5664	D008	1211	Y	0.7
5665	D008	1405	Y	36.7
5666	D008	1067	Y	12.3
5667	D008	1214	Y	0.7
5668	D008	1068	Y	13.5
5669	D008	1391	Y	5.0
5670	D008	1217	Y	0.7
5671	D008	1223	Y	1.1
5672	D008	1073	Y	18.5
5673	D008	1226	Y	1.1
5674	D008	1220	Y	0.7
5675	D008	1076	Y	15.6
5676	D008	1229	Y	12.3
5677	D008	1079	Y	11.5
5678	D008	1230	Y	1.2
5679	D008	1304	Y	15.8
5680	D008	1082	Y	8.1
5681	D008	1085	Y	5.5
5682	D008	1307	Y	14.7
5683	D008	1235	Y	1.1
5684	D008	1389	Y	2.2
5685	D008	1443	Y	27.1
5686	D008	1440	Y	0.2
5687	D008	1401	Y	5.8
5688	D008	1088	Y	2.7
5689	D008	1310	Y	9.2
5690	D008	1400	Y	52.3
5691	D008	1091	Y	0.2
5692	D008	1238	Y	1.0
5693	D008	1313	Y	6.3
5694	D008	1241	Y	1.9
5695	D008	1316	Y	3.1
5696	D008	1242	Y	6.1
5697	D008	1280	Y	0.4
5698	D008	1247	Y	3.6
5699	D008	1451	Y	0.4
5700	D008	1250	Y	2.4
5701	D008	1387	Y	0.2
5702	D008	1392	Y	25.0
5703	D008	1253	Y	1.2
5704	D008	1402	Y	52.3
5705	D008	1256	Y	0.2
5706	D008	1385	Y	0.7
5707	D008	1388	Y	1.0
5708	D008	1450	Y	3.1
5709	D008	1383	Y	0.3
5710	D008	1403	Y	2.4
5711	D008	1441	Y	18.6
5712	D008	1448	Y	6.4
5713	D008	1384	Y	1.0
5714	D008	1449	Y	2.3
5715	SX	74	X	0.0
5716	SX	123	X	0.0
5717	SX	1335	X	0.0
5718	SX	90	X	0.0
5719	SX	1399	X	855.7
5720	SX	662	X	4.4
5721	SX	665	X	4.4
5722	SX	668	X	5.7
5723	SX	671	X	5.7
5724	SX	674	X	4.3
5725	SX	677	X	4.3
5726	SX	680	X	4.3
5727	SX	581	X	32.6
5728	SX	584	X	32.6

5729	SX	587	X	32.6
5730	SX	590	X	32.6
5731	SX	593	X	35.2
5732	SX	594	X	5.6
5733	SX	626	X	61.7
5734	SX	629	X	61.6
5735	SX	632	X	61.6
5736	SX	635	X	61.6
5737	SX	638	X	61.6
5738	SX	641	X	51.3
5739	SX	644	X	69.2
5740	SX	647	X	69.2
5741	SX	650	X	69.2
5742	SX	653	X	69.2
5743	SX	656	X	69.2
5744	SX	659	X	54.1
5745	SX	623	X	4.3
5746	SX	599	X	4.4
5747	SX	602	X	4.4
5748	SX	608	X	5.7
5749	SX	611	X	5.7
5750	SX	617	X	4.3
5751	SX	620	X	4.3
5752	SX	574	X	35.2
5753	SX	573	X	6.6
5754	SX	605	X	52.2
5755	SX	614	X	55.0
5756	SX	689	X	5.2
5757	SX	692	X	5.2
5758	SX	704	X	5.0
5759	SX	995	X	26.4
5760	SX	719	X	13.7
5761	SX	950	X	5.4
5762	SX	953	X	5.4
5763	SX	962	X	5.0
5764	SX	974	X	5.5
5765	SX	977	X	5.5
5766	SX	443	X	5.1
5767	SX	446	X	5.1
5768	SX	449	X	5.1
5769	SX	452	X	5.1
5770	SX	461	X	5.3
5771	SX	464	X	5.3
5772	SX	467	X	5.3
5773	SX	242	X	5.1
5774	SX	245	X	5.1
5775	SX	248	X	5.1
5776	SX	251	X	5.1
5777	SX	503	X	45.0
5778	SX	506	X	45.0
5779	SX	509	X	45.0
5780	SX	233	X	58.4
5781	SX	236	X	58.4
5782	SX	232	X	47.2
5783	SX	239	X	47.2
5784	SX	260	X	5.2
5785	SX	263	X	5.2
5786	SX	476	X	115.5
5787	SX	479	X	115.5
5788	SX	455	X	78.4
5789	SX	458	X	5.3
5790	SX	254	X	76.2
5791	SX	255	X	25.3
5792	SX	500	X	45.0
5793	SX	281	X	23.9
5794	SX	284	X	23.9
5795	SX	287	X	23.9
5796	SX	290	X	23.9
5797	SX	272	X	5.0
5798	SX	275	X	5.3
5799	SX	276	X	30.1
5800	SX	482	X	47.2
5801	SX	485	X	47.2
5802	SX	488	X	47.2
5803	SX	494	X	111.3
5804	SX	497	X	111.3
5805	SX	545	X	44.7
5806	SX	548	X	44.7
5807	SX	557	X	87.8
5808	SX	560	X	87.8
5809	SX	563	X	87.8
5810	SX	566	X	87.8
5811	SX	569	X	87.8
5812	SX	686	X	5.2
5813	SX	572	X	45.4
5814	SX	681	X	18.4
5815	SX	947	X	5.4
5816	SX	551	X	52.2

5817	SX	552	X	57.9
5818	SX	470	X	18.6
5819	SX	471	X	83.8
5820	SX	527	X	55.2
5821	SX	491	X	88.3
5822	SX	512	X	47.0
5823	SX	293	X	30.1
5824	SX	294	X	5.3
5825	SX	299	X	5.0
5826	SX	728	X	4.7
5827	SX	731	X	4.7
5828	SX	743	X	5.0
5829	SX	758	X	5.1
5830	SX	761	X	5.1
5831	SX	530	X	54.6
5832	SX	531	X	40.1
5833	SX	536	X	52.3
5834	SX	539	X	52.3
5835	SX	542	X	63.9
5836	SX	722	X	4.7
5837	SX	725	X	4.7
5838	SX	768	X	19.8
5839	SX	773	X	5.0
5840	SX	1100	X	31.3
5841	SX	1103	X	31.3
5842	SX	1106	X	31.3
5843	SX	1109	X	34.7
5844	SX	1110	X	6.0
5845	SX	1229	X	48.2
5846	SX	1230	X	4.5
5847	SX	1235	X	5.3
5848	SX	1238	X	5.3
5849	SX	1241	X	12.2
5850	SX	1242	X	40.5
5851	SX	1247	X	31.0
5852	SX	1250	X	31.0
5853	SX	1253	X	31.0
5854	SX	1256	X	51.4
5855	SX	1259	X	35.9
5856	SX	1262	X	35.9
5857	SX	1265	X	35.9
5858	SX	1268	X	37.4
5859	SX	1269	X	6.4
5860	SX	1280	X	87.1
5861	SX	1283	X	5.0
5862	SX	1286	X	5.0
5863	SX	1289	X	4.6
5864	SX	1292	X	4.6
5865	SX	1295	X	54.1
5866	SX	1298	X	5.0
5867	SX	1301	X	5.0
5868	SX	1304	X	71.9
5869	SX	1307	X	80.6
5870	SX	1310	X	66.3
5871	SX	1313	X	65.9
5872	SX	1316	X	65.9
5873	SX	1319	X	67.8
5874	SX	1322	X	67.8
5875	SX	1325	X	67.8
5876	SX	159	X	51.4
5877	SX	167	X	43.0
5878	SX	171	X	43.0
5879	SX	175	X	292.8
5880	SX	176	X	26.9
5881	SX	178	X	139.3
5882	SX	187	X	5.1
5883	SX	191	X	31.6
5884	SX	195	X	58.1
5885	SX	199	X	58.1
5886	SX	374	X	34.5
5887	SX	377	X	37.4
5888	SX	379	X	6.8
5889	SX	383	X	4.5
5890	SX	386	X	4.5
5891	SX	389	X	4.5
5892	SX	392	X	64.2
5893	SX	395	X	4.9
5894	SX	398	X	4.9
5895	SX	401	X	4.9
5896	SX	404	X	7.9
5897	SX	405	X	57.3
5898	SX	416	X	190.0
5899	SX	425	X	31.2
5900	SX	428	X	74.0
5901	SX	431	X	25.0
5902	SX	434	X	25.0
5903	SX	437	X	25.0
5904	SX	440	X	28.4

5905	SX	1016	X	60.1
5906	SX	1019	X	60.1
5907	SX	1022	X	88.7
5908	SX	1025	X	4.7
5909	SX	1028	X	4.7
5910	SX	1031	X	49.4
5911	SX	1034	X	3.8
5912	SX	1037	X	3.8
5913	SX	1058	X	55.7
5914	SX	1115	X	3.8
5915	SX	1118	X	3.8
5916	SX	1121	X	73.2
5917	SX	1124	X	4.7
5918	SX	1127	X	4.7
5919	SX	1130	X	94.0
5920	SX	1133	X	5.5
5921	SX	1136	X	5.5
5922	SX	1139	X	5.5
5923	SX	1148	X	5.2
5924	SX	1151	X	5.2
5925	SX	1154	X	81.7
5926	SX	1157	X	81.7
5927	SX	1160	X	65.3
5928	SX	1163	X	65.3
5929	SX	1166	X	65.3
5930	SX	1169	X	51.3
5931	SX	1170	X	238.7
5932	SX	1175	X	59.4
5933	SX	1178	X	59.4
5934	SX	1181	X	47.5
5935	SX	1184	X	47.5
5936	SX	1187	X	47.5
5937	SX	1190	X	44.4
5938	SX	1193	X	5.7
5939	SX	1196	X	4.7
5940	SX	1199	X	4.7
5941	SX	1202	X	5.5
5942	SX	1205	X	5.5
5943	SX	1208	X	5.5
5944	SX	1217	X	5.2
5945	SX	1220	X	5.2
5946	SX	1331	X	88.1
5947	SX	1328	X	88.1
5948	SX	1013	X	60.1
5949	SX	1046	X	5.2
5950	SX	1049	X	5.2
5951	SX	1052	X	9.0
5952	SX	1053	X	49.6
5953	SX	1061	X	55.7
5954	SX	1064	X	55.7
5955	SX	1067	X	52.2
5956	SX	1068	X	49.2
5957	SX	1073	X	83.5
5958	SX	1076	X	83.5
5959	SX	1079	X	79.9
5960	SX	1082	X	71.0
5961	SX	1085	X	71.0
5962	SX	1088	X	71.0
5963	SX	1091	X	41.6
5964	SX	1092	X	50.5
5965	SX	1095	X	34.2
5966	SX	1223	X	4.6
5967	SX	1226	X	4.6
5968	SX	1274	X	4.6
5969	SX	1277	X	4.6
5970	SX	56	X	73.5
5971	SX	76	X	357.3
5972	SX	121	X	399.4
5973	SX	776	X	5.0
5974	SX	143	X	36.2
5975	SX	153	X	259.5
5976	SX	157	X	59.7
5977	SX	788	X	106.9
5978	SX	791	X	106.9
5979	SX	794	X	83.7
5980	SX	795	X	41.3
5981	SX	798	X	76.2
5982	SX	803	X	99.1
5983	SX	806	X	99.1
5984	SX	809	X	261.1
5985	SX	779	X	18.5
5986	SX	780	X	14.3
5987	SX	783	X	94.4
5988	SX	92	X	191.1
5989	SX	146	X	47.9
5990	SX	1145	X	5.2
5991	SX	1214	X	5.2
5992	SX	1043	X	5.2

5993	SX	144	X	3.3
5994	SX	1142	X	5.2
5995	SX	1211	X	5.2
5996	SX	1040	X	5.2
5997	SX	7	X	566.9
5998	SX	8	X	5.1
5999	SX	12	X	5.1
6000	SX	16	X	5.1
6001	SX	20	X	5.1
6002	SX	36	X	5.7
6003	SX	40	X	5.7
6004	SX	44	X	5.7
6005	SX	24	X	18.5
6006	SX	46	X	32.0
6007	SX	371	X	34.5
6008	SX	1500	X	108.4
6009	SX	31	X	12.8
6010	SX	32	X	5.7
6011	SX	49	X	62.1
6012	SX	701	X	5.0
6013	SX	959	X	5.0
6014	SX	740	X	5.0
6015	SX	842	X	101.9
6016	SX	845	X	101.9
6017	SX	848	X	101.9
6018	SX	851	X	101.9
6019	SX	854	X	101.9
6020	SX	857	X	101.9
6021	SX	860	X	101.9
6022	SX	695	X	5.2
6023	SX	956	X	5.4
6024	SX	863	X	101.9
6025	SX	818	X	107.6
6026	SX	821	X	107.6
6027	SX	827	X	105.6
6028	SX	830	X	105.7
6029	SX	833	X	105.7
6030	SX	836	X	105.7
6031	SX	839	X	105.7
6032	SX	698	X	71.2
6033	SX	824	X	124.1
6034	SX	734	X	54.9
6035	SX	735	X	73.4
6036	SX	812	X	107.6
6037	SX	815	X	107.6
6038	SX	716	X	5.4
6039	SX	971	X	5.5
6040	SX	755	X	4.0
6041	SX	866	X	101.2
6042	SX	869	X	101.2
6043	SX	872	X	101.2
6044	SX	875	X	101.2
6045	SX	878	X	101.2
6046	SX	881	X	101.2
6047	SX	884	X	101.2
6048	SX	707	X	5.0
6049	SX	710	X	5.0
6050	SX	965	X	5.0
6051	SX	968	X	5.0
6052	SX	746	X	5.0
6053	SX	749	X	54.4
6054	SX	887	X	101.2
6055	SX	923	X	97.9
6056	SX	926	X	90.9
6057	SX	932	X	96.3
6058	SX	935	X	96.3
6059	SX	938	X	96.3
6060	SX	941	X	93.3
6061	SX	944	X	84.2
6062	SX	713	X	73.0
6063	SX	929	X	102.8
6064	SX	750	X	17.9
6065	SX	912	X	51.5
6066	SX	917	X	97.9
6067	SX	920	X	97.9
6068	SX	893	X	158.5
6069	SX	896	X	158.5
6070	SX	899	X	158.0
6071	SX	902	X	125.1
6072	SX	905	X	105.9
6073	SX	908	X	105.9
6074	SX	998	X	31.9
6075	SX	911	X	105.9
6076	SX	989	X	48.5
6077	SX	992	X	48.5
6078	SX	1007	X	47.3
6079	SX	1010	X	47.3
6080	SX	1001	X	35.9

6081	SX	1003	X	57.1
6082	SX	980	X	65.6
6083	SX	764	X	57.2
6084	SX	765	X	28.0
6085	SX	983	X	48.5
6086	SX	986	X	48.5
6087	SX	314	X	6.3
6088	SX	317	X	6.3
6089	SX	326	X	6.2
6090	SX	329	X	6.2
6091	SX	341	X	6.2
6092	SX	344	X	6.2
6093	SX	347	X	6.2
6094	SX	356	X	6.3
6095	SX	359	X	6.3
6096	SX	266	X	5.2
6097	SX	518	X	69.4
6098	SX	521	X	69.4
6099	SX	524	X	69.4
6100	SX	269	X	55.2
6101	SX	515	X	69.4
6102	SX	311	X	6.3
6103	SX	302	X	53.7
6104	SX	303	X	27.9
6105	SX	308	X	6.3
6106	SX	362	X	6.3
6107	SX	365	X	16.0
6108	SX	367	X	44.2
6109	SX	417	X	18.8
6110	SX	422	X	31.2
6111	SX	320	X	75.7
6112	SX	323	X	6.2
6113	SX	332	X	6.2
6114	SX	335	X	75.4
6115	SX	338	X	6.2
6116	SX	350	X	103.9
6117	SX	353	X	6.3
6118	SX	1503	X	3.3
6119	SX	1566	X	5.3
6120	SX	1570	X	5.3
6121	SX	1574	X	5.3
6122	SX	1578	X	5.3
6123	SX	1582	X	18.5
6124	SX	1586	X	5.7
6125	SX	1590	X	5.7
6126	SX	1594	X	5.7
6127	SX	1598	X	5.7
6128	SX	1602	X	15.2
6129	SX	1603	X	11.6
6130	SX	1609	X	57.0
6131	SX	1505	X	11.3
6132	SX	1514	X	19.3
6133	SX	1518	X	15.7
6134	SX	1522	X	5.4
6135	SX	1526	X	5.4
6136	SX	1530	X	5.4
6137	SX	1534	X	11.6
6138	SX	1538	X	4.7
6139	SX	1542	X	4.7
6140	SX	1546	X	4.7
6141	SX	1550	X	4.7
6142	SX	1554	X	18.8
6143	SX	1555	X	3.3
6144	SX	1557	X	7.4
6145	SX	1610	X	180.6
6146	SX	890	X	158.5
6147	SX	1650	X	2.1
6148	SX	1651	X	2.1
6149	SX	1336	X	227.1
6150	SX	1337	X	227.0
6151	SX	1338	X	426.6
6152	SX	1339	X	381.2
6153	SX	1340	X	387.4
6154	SX	1341	X	77.2
6155	SX	1342	X	81.1
6156	SX	1343	X	81.1
6157	SX	1344	X	437.7
6158	SX	1345	X	438.0
6159	SX	1346	X	478.8
6160	SX	1347	X	478.8
6161	SX	1348	X	590.9
6162	SX	1349	X	80.6
6163	SX	1350	X	79.3
6164	SX	1351	X	76.7
6165	SX	1352	X	317.5
6166	SX	1353	X	617.9
6167	SX	1354	X	486.8
6168	SX	1355	X	65.1



6169	SX	1360	X	1043.2
6170	SX	1361	X	623.4
6171	SX	1362	X	1146.9
6172	SX	1363	X	141.0
6173	SX	1364	X	91.2
6174	SX	1365	X	77.2
6175	SX	1366	X	216.6
6176	SX	1368	X	72.1
6177	SX	1371	X	57.2
6178	SX	1372	X	60.1
6179	SX	1373	X	350.5
6180	SX	1374	X	473.8
6181	SX	1377	X	349.0
6182	SX	1378	X	232.3
6183	SX	1379	X	288.5
6184	SX	1380	X	291.8
6185	SX	1381	X	301.1
6186	SX	1382	X	69.0
6187	SX	1383	X	339.4
6188	SX	1384	X	71.1
6189	SX	1385	X	655.3
6190	SX	1387	X	68.3
6191	SX	1388	X	68.6
6192	SX	1389	X	837.9
6193	SX	1391	X	1549.8
6194	SX	1392	X	906.0
6195	SX	1393	X	539.8
6196	SX	1394	X	603.1
6197	SX	1395	X	913.9
6198	SX	1396	X	304.1
6199	SX	1397	X	49.8
6200	SX	1398	X	550.2
6201	SX	1401	X	89.4
6202	SX	1402	X	1061.1
6203	SX	1403	X	73.3
6204	SX	1405	X	1206.6
6205	SX	1400	X	2070.9
6206	SX	1406	X	137.1
6207	SX	1407	X	137.3
6208	SX	1408	X	245.2
6209	SX	1409	X	240.0
6210	SX	1410	X	300.0
6211	SX	1411	X	180.5
6212	SX	1412	X	134.8
6213	SX	1413	X	209.8
6214	SX	1414	X	103.7
6215	SX	1415	X	97.1
6216	SX	1416	X	92.5
6217	SX	1417	X	101.5
6218	SX	1419	X	238.3
6219	SX	1421	X	98.4
6220	SX	1422	X	97.9
6221	SX	1424	X	48.1
6222	SX	1425	X	172.5
6223	SX	1426	X	203.4
6224	SX	1428	X	47.6
6225	SX	1431	X	81.2
6226	SX	1433	X	215.0
6227	SX	1434	X	378.0
6228	SX	1435	X	350.7
6229	SX	1436	X	118.7
6230	SX	1437	X	173.2
6231	SX	1438	X	40.1
6232	SX	1439	X	369.2
6233	SX	1440	X	46.2
6234	SX	1441	X	409.7
6235	SX	1443	X	554.1
6236	SX	1444	X	337.7
6237	SX	1445	X	307.8
6238	SX	1446	X	236.6
6239	SX	1447	X	186.5
6240	SX	1448	X	319.7
6241	SX	1449	X	126.2
6242	SX	1450	X	116.8
6243	SX	1451	X	410.9
6244	SX	1452	X	48.5
6245	SX	1423	X	232.8
6246	SX	1420	X	391.4
6247	SX	1418	X	219.3
6248	SX	1375	X	97.2
6249	SX	1376	X	89.2
6250	SX	1484	X	132.2
6251	SX	1486	X	122.7
6252	SX	1488	X	122.7
6253	SX	1489	X	93.9
6254	SX	1491	X	122.7
6255	SX	1493	X	122.7
6256	SX	1495	X	136.3

6257	SX	1497	X	122.7
6258	SX	1502	X	375.0
6259	SX	1611	X	66.0
6260	SX	1612	X	664.0
6261	SX	1613	X	80.0
6262	SX	1614	X	16.3
6263	SX	1615	X	16.3
6264	SX	1628	X	8.7
6265	SX	1629	X	8.7
6266	SX	1649	X	27.1
6267	SX	1636	X	0.6
6268	SX	1634	X	0.8
6269	SX	1404	X	7.2
6270	SX	1460	X	163.2
6271	SX	1461	X	379.3
6272	SX	1463	X	368.9
6273	SX	1464	X	125.2
6274	SX	1465	X	220.7
6275	SX	1466	X	389.3
6276	SX	1467	X	179.6
6277	SX	1468	X	1511.6
6278	SX	1469	X	1502.8
6279	SX	1470	X	1511.1
6280	SX	1471	X	15.7
6281	SX	1472	X	24.5
6282	SX	1473	X	30.5
6283	SX	1474	X	677.0
6284	SX	1475	X	713.4
6285	SX	1476	X	67.2
6286	SX	1477	X	33.9
6287	SX	1478	X	25.6
6288	SX	1479	X	456.8
6289	SX	1480	X	443.0
6290	SX	1482	X	94.3
6291	SX	1462	X	155.9
6292	SX	1483	X	296.7
6293	SX	1485	X	275.4
6294	SX	1487	X	275.4
6295	SX	1490	X	210.3
6296	SX	1492	X	275.4
6297	SX	1494	X	275.4
6298	SX	1496	X	306.0
6299	SX	1498	X	275.4
6300	SX	1616	X	22.3
6301	SX	1617	X	22.6
6302	SX	1618	X	31.6
6303	SX	1619	X	30.6
6304	SX	1620	X	32.4
6305	SX	1621	X	18.2
6306	SX	1622	X	18.3
6307	SX	1623	X	19.5
6308	SX	1624	X	19.5
6309	SX	1632	X	62.1
6310	SX	1633	X	26.2
6311	SX	1635	X	37.9
6312	SX	1637	X	15.6
6313	SX	1642	X	37.9
6314	SX	1643	X	15.6
6315	SX	1644	X	2.7
6316	SX	1645	X	2.7
6317	SX	1646	X	20.7
6318	SX	1647	X	20.7
6319	SX	1648	X	30.5
6320	SY	74	Y	0.0
6321	SY	123	Y	0.0
6322	SY	1335	Y	0.0
6323	SY	90	Y	0.0
6324	SY	1399	Y	855.7
6325	SY	662	Y	4.4
6326	SY	665	Y	4.4
6327	SY	668	Y	5.7
6328	SY	671	Y	5.7
6329	SY	674	Y	4.3
6330	SY	677	Y	4.3
6331	SY	680	Y	4.3
6332	SY	581	Y	32.6
6333	SY	584	Y	32.6
6334	SY	587	Y	32.6
6335	SY	590	Y	32.6
6336	SY	593	Y	35.2
6337	SY	594	Y	5.6
6338	SY	626	Y	61.7
6339	SY	629	Y	61.6
6340	SY	632	Y	61.6
6341	SY	635	Y	61.6
6342	SY	638	Y	61.6
6343	SY	641	Y	51.3
6344	SY	644	Y	69.2

6345	SY	647	Y	69.2
6346	SY	650	Y	69.2
6347	SY	653	Y	69.2
6348	SY	656	Y	69.2
6349	SY	659	Y	54.1
6350	SY	623	Y	4.3
6351	SY	599	Y	4.4
6352	SY	602	Y	4.4
6353	SY	608	Y	5.7
6354	SY	611	Y	5.7
6355	SY	617	Y	4.3
6356	SY	620	Y	4.3
6357	SY	574	Y	35.2
6358	SY	573	Y	6.6
6359	SY	605	Y	52.2
6360	SY	614	Y	55.0
6361	SY	689	Y	5.2
6362	SY	692	Y	5.2
6363	SY	704	Y	5.0
6364	SY	995	Y	26.4
6365	SY	719	Y	13.7
6366	SY	950	Y	5.4
6367	SY	953	Y	5.4
6368	SY	962	Y	5.0
6369	SY	974	Y	5.5
6370	SY	977	Y	5.5
6371	SY	443	Y	5.1
6372	SY	446	Y	5.1
6373	SY	449	Y	5.1
6374	SY	452	Y	5.1
6375	SY	461	Y	5.3
6376	SY	464	Y	5.3
6377	SY	467	Y	5.3
6378	SY	242	Y	5.1
6379	SY	245	Y	5.1
6380	SY	248	Y	5.1
6381	SY	251	Y	5.1
6382	SY	503	Y	45.0
6383	SY	506	Y	45.0
6384	SY	509	Y	45.0
6385	SY	233	Y	58.4
6386	SY	236	Y	58.4
6387	SY	232	Y	47.2
6388	SY	239	Y	47.2
6389	SY	260	Y	5.2
6390	SY	263	Y	5.2
6391	SY	476	Y	115.5
6392	SY	479	Y	115.5
6393	SY	455	Y	78.4
6394	SY	458	Y	5.3
6395	SY	254	Y	76.2
6396	SY	255	Y	25.3
6397	SY	500	Y	45.0
6398	SY	281	Y	23.9
6399	SY	284	Y	23.9
6400	SY	287	Y	23.9
6401	SY	290	Y	23.9
6402	SY	272	Y	5.0
6403	SY	275	Y	5.3
6404	SY	276	Y	30.1
6405	SY	482	Y	47.2
6406	SY	485	Y	47.2
6407	SY	488	Y	47.2
6408	SY	494	Y	111.3
6409	SY	497	Y	111.3
6410	SY	545	Y	44.7
6411	SY	548	Y	44.7
6412	SY	557	Y	87.8
6413	SY	560	Y	87.8
6414	SY	563	Y	87.8
6415	SY	566	Y	87.8
6416	SY	569	Y	87.8
6417	SY	686	Y	5.2
6418	SY	572	Y	45.4
6419	SY	681	Y	18.4
6420	SY	947	Y	5.4
6421	SY	551	Y	52.2
6422	SY	552	Y	57.9
6423	SY	470	Y	18.6
6424	SY	471	Y	83.8
6425	SY	527	Y	55.2
6426	SY	491	Y	88.3
6427	SY	512	Y	47.0
6428	SY	293	Y	30.1
6429	SY	294	Y	5.3
6430	SY	299	Y	5.0
6431	SY	728	Y	4.7
6432	SY	731	Y	4.7

6433	SY	743	Y	5.0
6434	SY	758	Y	5.1
6435	SY	761	Y	5.1
6436	SY	530	Y	54.6
6437	SY	531	Y	40.1
6438	SY	536	Y	52.3
6439	SY	539	Y	52.3
6440	SY	542	Y	63.9
6441	SY	722	Y	4.7
6442	SY	725	Y	4.7
6443	SY	768	Y	19.8
6444	SY	773	Y	5.0
6445	SY	1100	Y	31.3
6446	SY	1103	Y	31.3
6447	SY	1106	Y	31.3
6448	SY	1109	Y	34.7
6449	SY	1110	Y	6.0
6450	SY	1229	Y	48.2
6451	SY	1230	Y	4.5
6452	SY	1235	Y	5.3
6453	SY	1238	Y	5.3
6454	SY	1241	Y	12.2
6455	SY	1242	Y	40.5
6456	SY	1247	Y	31.0
6457	SY	1250	Y	31.0
6458	SY	1253	Y	31.0
6459	SY	1256	Y	51.4
6460	SY	1259	Y	35.9
6461	SY	1262	Y	35.9
6462	SY	1265	Y	35.9
6463	SY	1268	Y	37.4
6464	SY	1269	Y	6.4
6465	SY	1280	Y	87.1
6466	SY	1283	Y	5.0
6467	SY	1286	Y	5.0
6468	SY	1289	Y	4.6
6469	SY	1292	Y	4.6
6470	SY	1295	Y	54.1
6471	SY	1298	Y	5.0
6472	SY	1301	Y	5.0
6473	SY	1304	Y	71.9
6474	SY	1307	Y	80.6
6475	SY	1310	Y	66.3
6476	SY	1313	Y	65.9
6477	SY	1316	Y	65.9
6478	SY	1319	Y	67.8
6479	SY	1322	Y	67.8
6480	SY	1325	Y	67.8
6481	SY	159	Y	51.4
6482	SY	167	Y	43.0
6483	SY	171	Y	43.0
6484	SY	175	Y	292.8
6485	SY	176	Y	26.9
6486	SY	178	Y	139.3
6487	SY	187	Y	5.1
6488	SY	191	Y	31.6
6489	SY	195	Y	58.1
6490	SY	199	Y	58.1
6491	SY	374	Y	34.5
6492	SY	377	Y	37.4
6493	SY	379	Y	6.8
6494	SY	383	Y	4.5
6495	SY	386	Y	4.5
6496	SY	389	Y	4.5
6497	SY	392	Y	64.2
6498	SY	395	Y	4.9
6499	SY	398	Y	4.9
6500	SY	401	Y	4.9
6501	SY	404	Y	7.9
6502	SY	405	Y	57.3
6503	SY	416	Y	190.0
6504	SY	425	Y	31.2
6505	SY	428	Y	74.0
6506	SY	431	Y	25.0
6507	SY	434	Y	25.0
6508	SY	437	Y	25.0
6509	SY	440	Y	28.4
6510	SY	1016	Y	60.1
6511	SY	1019	Y	60.1
6512	SY	1022	Y	88.7
6513	SY	1025	Y	4.7
6514	SY	1028	Y	4.7
6515	SY	1031	Y	49.4
6516	SY	1034	Y	3.8
6517	SY	1037	Y	3.8
6518	SY	1058	Y	55.7
6519	SY	1115	Y	3.8
6520	SY	1118	Y	3.8

6521	SY	1121	Y	73.2
6522	SY	1124	Y	4.7
6523	SY	1127	Y	4.7
6524	SY	1130	Y	94.0
6525	SY	1133	Y	5.5
6526	SY	1136	Y	5.5
6527	SY	1139	Y	5.5
6528	SY	1148	Y	5.2
6529	SY	1151	Y	5.2
6530	SY	1154	Y	81.7
6531	SY	1157	Y	81.7
6532	SY	1160	Y	65.3
6533	SY	1163	Y	65.3
6534	SY	1166	Y	65.3
6535	SY	1169	Y	51.3
6536	SY	1170	Y	238.7
6537	SY	1175	Y	59.4
6538	SY	1178	Y	59.4
6539	SY	1181	Y	47.5
6540	SY	1184	Y	47.5
6541	SY	1187	Y	47.5
6542	SY	1190	Y	44.4
6543	SY	1193	Y	5.7
6544	SY	1196	Y	4.7
6545	SY	1199	Y	4.7
6546	SY	1202	Y	5.5
6547	SY	1205	Y	5.5
6548	SY	1208	Y	5.5
6549	SY	1217	Y	5.2
6550	SY	1220	Y	5.2
6551	SY	1331	Y	88.1
6552	SY	1328	Y	88.1
6553	SY	1013	Y	60.1
6554	SY	1046	Y	5.2
6555	SY	1049	Y	5.2
6556	SY	1052	Y	9.0
6557	SY	1053	Y	49.6
6558	SY	1061	Y	55.7
6559	SY	1064	Y	55.7
6560	SY	1067	Y	52.2
6561	SY	1068	Y	49.2
6562	SY	1073	Y	83.5
6563	SY	1076	Y	83.5
6564	SY	1079	Y	79.9
6565	SY	1082	Y	71.0
6566	SY	1085	Y	71.0
6567	SY	1088	Y	71.0
6568	SY	1091	Y	41.6
6569	SY	1092	Y	50.5
6570	SY	1095	Y	34.2
6571	SY	1223	Y	4.6
6572	SY	1226	Y	4.6
6573	SY	1274	Y	4.6
6574	SY	1277	Y	4.6
6575	SY	56	Y	73.5
6576	SY	76	Y	357.3
6577	SY	121	Y	399.4
6578	SY	776	Y	5.0
6579	SY	143	Y	36.2
6580	SY	153	Y	259.5
6581	SY	157	Y	59.7
6582	SY	788	Y	106.9
6583	SY	791	Y	106.9
6584	SY	794	Y	83.7
6585	SY	795	Y	41.3
6586	SY	798	Y	76.2
6587	SY	803	Y	99.1
6588	SY	806	Y	99.1
6589	SY	809	Y	261.1
6590	SY	779	Y	18.5
6591	SY	780	Y	14.3
6592	SY	783	Y	94.4
6593	SY	92	Y	191.1
6594	SY	146	Y	47.9
6595	SY	1145	Y	5.2
6596	SY	1214	Y	5.2
6597	SY	1043	Y	5.2
6598	SY	144	Y	3.3
6599	SY	1142	Y	5.2
6600	SY	1211	Y	5.2
6601	SY	1040	Y	5.2
6602	SY	7	Y	566.9
6603	SY	8	Y	5.1
6604	SY	12	Y	5.1
6605	SY	16	Y	5.1
6606	SY	20	Y	5.1
6607	SY	36	Y	5.7
6608	SY	40	Y	5.7

6609	SY	44	Y	5.7
6610	SY	24	Y	18.5
6611	SY	46	Y	32.0
6612	SY	371	Y	34.5
6613	SY	1500	Y	108.4
6614	SY	31	Y	12.8
6615	SY	32	Y	5.7
6616	SY	49	Y	62.1
6617	SY	701	Y	5.0
6618	SY	959	Y	5.0
6619	SY	740	Y	5.0
6620	SY	842	Y	101.9
6621	SY	845	Y	101.9
6622	SY	848	Y	101.9
6623	SY	851	Y	101.9
6624	SY	854	Y	101.9
6625	SY	857	Y	101.9
6626	SY	860	Y	101.9
6627	SY	695	Y	5.2
6628	SY	956	Y	5.4
6629	SY	863	Y	101.9
6630	SY	818	Y	107.6
6631	SY	821	Y	107.6
6632	SY	827	Y	105.6
6633	SY	830	Y	105.7
6634	SY	833	Y	105.7
6635	SY	836	Y	105.7
6636	SY	839	Y	105.7
6637	SY	698	Y	71.2
6638	SY	824	Y	124.1
6639	SY	734	Y	54.9
6640	SY	735	Y	73.4
6641	SY	812	Y	107.6
6642	SY	815	Y	107.6
6643	SY	716	Y	5.4
6644	SY	971	Y	5.5
6645	SY	755	Y	4.0
6646	SY	866	Y	101.2
6647	SY	869	Y	101.2
6648	SY	872	Y	101.2
6649	SY	875	Y	101.2
6650	SY	878	Y	101.2
6651	SY	881	Y	101.2
6652	SY	884	Y	101.2
6653	SY	707	Y	5.0
6654	SY	710	Y	5.0
6655	SY	965	Y	5.0
6656	SY	968	Y	5.0
6657	SY	746	Y	5.0
6658	SY	749	Y	54.4
6659	SY	887	Y	101.2
6660	SY	923	Y	97.9
6661	SY	926	Y	90.9
6662	SY	932	Y	96.3
6663	SY	935	Y	96.3
6664	SY	938	Y	96.3
6665	SY	941	Y	93.3
6666	SY	944	Y	84.2
6667	SY	713	Y	73.0
6668	SY	929	Y	102.8
6669	SY	750	Y	17.9
6670	SY	912	Y	51.5
6671	SY	917	Y	97.9
6672	SY	920	Y	97.9
6673	SY	893	Y	158.5
6674	SY	896	Y	158.5
6675	SY	899	Y	158.0
6676	SY	902	Y	125.1
6677	SY	905	Y	105.9
6678	SY	908	Y	105.9
6679	SY	998	Y	31.9
6680	SY	911	Y	105.9
6681	SY	989	Y	48.5
6682	SY	992	Y	48.5
6683	SY	1007	Y	47.3
6684	SY	1010	Y	47.3
6685	SY	1001	Y	35.9
6686	SY	1003	Y	57.1
6687	SY	980	Y	65.6
6688	SY	764	Y	57.2
6689	SY	765	Y	28.0
6690	SY	983	Y	48.5
6691	SY	986	Y	48.5
6692	SY	314	Y	6.3
6693	SY	317	Y	6.3
6694	SY	326	Y	6.2
6695	SY	329	Y	6.2
6696	SY	341	Y	6.2

6697	SY	344	Y	6.2
6698	SY	347	Y	6.2
6699	SY	356	Y	6.3
6700	SY	359	Y	6.3
6701	SY	266	Y	5.2
6702	SY	518	Y	69.4
6703	SY	521	Y	69.4
6704	SY	524	Y	69.4
6705	SY	269	Y	55.2
6706	SY	515	Y	69.4
6707	SY	311	Y	6.3
6708	SY	302	Y	53.7
6709	SY	303	Y	27.9
6710	SY	308	Y	6.3
6711	SY	362	Y	6.3
6712	SY	365	Y	16.0
6713	SY	367	Y	44.2
6714	SY	417	Y	18.8
6715	SY	422	Y	31.2
6716	SY	320	Y	75.7
6717	SY	323	Y	6.2
6718	SY	332	Y	6.2
6719	SY	335	Y	75.4
6720	SY	338	Y	6.2
6721	SY	350	Y	103.9
6722	SY	353	Y	6.3
6723	SY	1503	Y	3.3
6724	SY	1566	Y	5.3
6725	SY	1570	Y	5.3
6726	SY	1574	Y	5.3
6727	SY	1578	Y	5.3
6728	SY	1582	Y	18.5
6729	SY	1586	Y	5.7
6730	SY	1590	Y	5.7
6731	SY	1594	Y	5.7
6732	SY	1598	Y	5.7
6733	SY	1602	Y	15.2
6734	SY	1603	Y	11.6
6735	SY	1609	Y	57.0
6736	SY	1505	Y	11.3
6737	SY	1514	Y	19.3
6738	SY	1518	Y	15.7
6739	SY	1522	Y	5.4
6740	SY	1526	Y	5.4
6741	SY	1530	Y	5.4
6742	SY	1534	Y	11.6
6743	SY	1538	Y	4.7
6744	SY	1542	Y	4.7
6745	SY	1546	Y	4.7
6746	SY	1550	Y	4.7
6747	SY	1554	Y	18.8
6748	SY	1555	Y	3.3
6749	SY	1557	Y	7.4
6750	SY	1610	Y	180.6
6751	SY	890	Y	158.5
6752	SY	1650	Y	2.1
6753	SY	1651	Y	2.1
6754	SY	1336	Y	227.1
6755	SY	1337	Y	227.0
6756	SY	1338	Y	426.6
6757	SY	1339	Y	381.2
6758	SY	1340	Y	387.4
6759	SY	1341	Y	77.2
6760	SY	1342	Y	81.1
6761	SY	1343	Y	81.1
6762	SY	1344	Y	437.7
6763	SY	1345	Y	438.0
6764	SY	1346	Y	478.8
6765	SY	1347	Y	478.8
6766	SY	1348	Y	590.9
6767	SY	1349	Y	80.6
6768	SY	1350	Y	79.3
6769	SY	1351	Y	76.7
6770	SY	1352	Y	317.5
6771	SY	1353	Y	617.9
6772	SY	1354	Y	486.8
6773	SY	1355	Y	65.1
6774	SY	1360	Y	1043.2
6775	SY	1361	Y	623.4
6776	SY	1362	Y	1146.9
6777	SY	1363	Y	141.0
6778	SY	1364	Y	91.2
6779	SY	1365	Y	77.2
6780	SY	1366	Y	216.6
6781	SY	1368	Y	72.1
6782	SY	1371	Y	57.2
6783	SY	1372	Y	60.1
6784	SY	1373	Y	350.5

6785	SY	1374	Y	473.8
6786	SY	1377	Y	349.0
6787	SY	1378	Y	232.3
6788	SY	1379	Y	288.5
6789	SY	1380	Y	291.8
6790	SY	1381	Y	301.1
6791	SY	1382	Y	69.0
6792	SY	1383	Y	339.4
6793	SY	1384	Y	71.1
6794	SY	1385	Y	655.3
6795	SY	1387	Y	68.3
6796	SY	1388	Y	68.6
6797	SY	1389	Y	837.9
6798	SY	1391	Y	1549.8
6799	SY	1392	Y	906.0
6800	SY	1393	Y	539.8
6801	SY	1394	Y	603.1
6802	SY	1395	Y	913.9
6803	SY	1396	Y	304.1
6804	SY	1397	Y	49.8
6805	SY	1398	Y	550.2
6806	SY	1401	Y	89.4
6807	SY	1402	Y	1061.1
6808	SY	1403	Y	73.3
6809	SY	1405	Y	1206.6
6810	SY	1400	Y	2070.9
6811	SY	1406	Y	137.1
6812	SY	1407	Y	137.3
6813	SY	1408	Y	245.2
6814	SY	1409	Y	240.0
6815	SY	1410	Y	300.0
6816	SY	1411	Y	180.5
6817	SY	1412	Y	134.8
6818	SY	1413	Y	209.8
6819	SY	1414	Y	103.7
6820	SY	1415	Y	97.1
6821	SY	1416	Y	92.5
6822	SY	1417	Y	101.5
6823	SY	1419	Y	238.3
6824	SY	1421	Y	98.4
6825	SY	1422	Y	97.9
6826	SY	1424	Y	48.1
6827	SY	1425	Y	172.5
6828	SY	1426	Y	203.4
6829	SY	1428	Y	47.6
6830	SY	1431	Y	81.2
6831	SY	1433	Y	215.0
6832	SY	1434	Y	378.0
6833	SY	1435	Y	350.7
6834	SY	1436	Y	118.7
6835	SY	1437	Y	173.2
6836	SY	1438	Y	40.1
6837	SY	1439	Y	369.2
6838	SY	1440	Y	46.2
6839	SY	1441	Y	409.7
6840	SY	1443	Y	554.1
6841	SY	1444	Y	337.7
6842	SY	1445	Y	307.8
6843	SY	1446	Y	236.6
6844	SY	1447	Y	186.5
6845	SY	1448	Y	319.7
6846	SY	1449	Y	126.2
6847	SY	1450	Y	116.8
6848	SY	1451	Y	410.9
6849	SY	1452	Y	48.5
6850	SY	1423	Y	232.8
6851	SY	1420	Y	391.4
6852	SY	1418	Y	219.3
6853	SY	1375	Y	97.2
6854	SY	1376	Y	89.2
6855	SY	1484	Y	132.2
6856	SY	1486	Y	122.7
6857	SY	1488	Y	122.7
6858	SY	1489	Y	93.9
6859	SY	1491	Y	122.7
6860	SY	1493	Y	122.7
6861	SY	1495	Y	136.3
6862	SY	1497	Y	122.7
6863	SY	1502	Y	375.0
6864	SY	1611	Y	66.0
6865	SY	1612	Y	664.0
6866	SY	1613	Y	80.0
6867	SY	1614	Y	16.3
6868	SY	1615	Y	16.3
6869	SY	1628	Y	8.7
6870	SY	1629	Y	8.7
6871	SY	1649	Y	27.1
6872	SY	1636	Y	0.6



6873	SY	1634	Y	0.8
6874	SY	1404	Y	7.2
6875	SY	1460	Y	163.2
6876	SY	1461	Y	379.3
6877	SY	1463	Y	368.9
6878	SY	1464	Y	125.2
6879	SY	1465	Y	220.7
6880	SY	1466	Y	389.3
6881	SY	1467	Y	179.6
6882	SY	1468	Y	1511.6
6883	SY	1469	Y	1502.8
6884	SY	1470	Y	1511.1
6885	SY	1471	Y	15.7
6886	SY	1472	Y	24.5
6887	SY	1473	Y	30.5
6888	SY	1474	Y	677.0
6889	SY	1475	Y	713.4
6890	SY	1476	Y	67.2
6891	SY	1477	Y	33.9
6892	SY	1478	Y	25.6
6893	SY	1479	Y	456.8
6894	SY	1480	Y	443.0
6895	SY	1482	Y	94.3
6896	SY	1462	Y	155.9
6897	SY	1483	Y	296.7
6898	SY	1485	Y	275.4
6899	SY	1487	Y	275.4
6900	SY	1490	Y	210.3
6901	SY	1492	Y	275.4
6902	SY	1494	Y	275.4
6903	SY	1496	Y	306.0
6904	SY	1498	Y	275.4
6905	SY	1616	Y	22.3
6906	SY	1617	Y	22.6
6907	SY	1618	Y	31.6
6908	SY	1619	Y	30.6
6909	SY	1620	Y	32.4
6910	SY	1621	Y	18.2
6911	SY	1622	Y	18.3
6912	SY	1623	Y	19.5
6913	SY	1624	Y	19.5
6914	SY	1632	Y	62.1
6915	SY	1633	Y	26.2
6916	SY	1635	Y	37.9
6917	SY	1637	Y	15.6
6918	SY	1642	Y	37.9
6919	SY	1643	Y	15.6
6920	SY	1644	Y	2.7
6921	SY	1645	Y	2.7
6922	SY	1646	Y	20.7
6923	SY	1647	Y	20.7
6924	SY	1648	Y	30.5
6925	MadX	74	X	0.0
6926	MadX	123	X	0.0
6927	MadX	1335	X	0.0
6928	MadX	90	X	0.0
6929	MadX	1399	X	-78.1
6930	MadX	662	X	1.4
6931	MadX	665	X	1.4
6932	MadX	668	X	1.9
6933	MadX	671	X	1.9
6934	MadX	674	X	1.4
6935	MadX	677	X	1.4
6936	MadX	680	X	1.4
6937	MadX	581	X	6.8
6938	MadX	584	X	7.8
6939	MadX	587	X	8.7
6940	MadX	590	X	9.7
6941	MadX	593	X	11.5
6942	MadX	594	X	1.9
6943	MadX	626	X	12.3
6944	MadX	629	X	14.0
6945	MadX	632	X	15.6
6946	MadX	635	X	17.2
6947	MadX	638	X	18.9
6948	MadX	641	X	17.1
6949	MadX	644	X	13.8
6950	MadX	647	X	15.7
6951	MadX	650	X	17.5
6952	MadX	653	X	19.3
6953	MadX	656	X	21.2
6954	MadX	659	X	18.0
6955	MadX	623	X	0.7
6956	MadX	599	X	0.8
6957	MadX	602	X	0.8
6958	MadX	608	X	1.0
6959	MadX	611	X	1.0
6960	MadX	617	X	0.7

6961	MadX	620	X	0.7
6962	MadX	574	X	6.3
6963	MadX	573	X	1.1
6964	MadX	605	X	9.0
6965	MadX	614	X	9.5
6966	MadX	689	X	1.7
6967	MadX	692	X	1.7
6968	MadX	704	X	1.7
6969	MadX	995	X	8.2
6970	MadX	719	X	4.6
6971	MadX	950	X	0.9
6972	MadX	953	X	0.9
6973	MadX	962	X	0.8
6974	MadX	974	X	0.9
6975	MadX	977	X	0.9
6976	MadX	443	X	-0.2
6977	MadX	446	X	-0.2
6978	MadX	449	X	-0.2
6979	MadX	452	X	-0.2
6980	MadX	461	X	-0.2
6981	MadX	464	X	-0.2
6982	MadX	467	X	-0.2
6983	MadX	242	X	-0.7
6984	MadX	245	X	-0.7
6985	MadX	248	X	-0.7
6986	MadX	251	X	-0.7
6987	MadX	503	X	-5.9
6988	MadX	506	X	-5.9
6989	MadX	509	X	-5.9
6990	MadX	233	X	-4.2
6991	MadX	236	X	-5.9
6992	MadX	232	X	-2.0
6993	MadX	239	X	-6.2
6994	MadX	260	X	-0.8
6995	MadX	263	X	-1.0
6996	MadX	476	X	-8.3
6997	MadX	479	X	-11.7
6998	MadX	455	X	-3.4
6999	MadX	458	X	-0.2
7000	MadX	254	X	-9.9
7001	MadX	255	X	-3.3
7002	MadX	500	X	-5.9
7003	MadX	281	X	-7.1
7004	MadX	284	X	-7.1
7005	MadX	287	X	-7.1
7006	MadX	290	X	-7.1
7007	MadX	272	X	-1.4
7008	MadX	275	X	-1.6
7009	MadX	276	X	-9.0
7010	MadX	482	X	-9.8
7011	MadX	485	X	-8.6
7012	MadX	488	X	-7.4
7013	MadX	494	X	-11.3
7014	MadX	497	X	-8.0
7015	MadX	545	X	5.6
7016	MadX	548	X	6.6
7017	MadX	557	X	17.5
7018	MadX	560	X	19.9
7019	MadX	563	X	22.2
7020	MadX	566	X	24.5
7021	MadX	569	X	26.9
7022	MadX	686	X	1.7
7023	MadX	572	X	15.1
7024	MadX	681	X	6.1
7025	MadX	947	X	0.9
7026	MadX	551	X	8.8
7027	MadX	552	X	10.0
7028	MadX	470	X	-0.8
7029	MadX	471	X	-3.6
7030	MadX	527	X	-0.7
7031	MadX	491	X	-11.5
7032	MadX	512	X	-6.1
7033	MadX	293	X	-9.0
7034	MadX	294	X	-1.6
7035	MadX	299	X	-1.4
7036	MadX	728	X	0.1
7037	MadX	731	X	0.1
7038	MadX	743	X	0.1
7039	MadX	758	X	0.1
7040	MadX	761	X	0.1
7041	MadX	530	X	0.9
7042	MadX	531	X	1.2
7043	MadX	536	X	2.8
7044	MadX	539	X	4.1
7045	MadX	542	X	6.7
7046	MadX	722	X	0.1
7047	MadX	725	X	0.1
7048	MadX	768	X	0.6

7049	MadX	773	X	0.1
7050	MadX	1100	X	5.4
7051	MadX	1103	X	5.4
7052	MadX	1106	X	5.4
7053	MadX	1109	X	6.0
7054	MadX	1110	X	1.0
7055	MadX	1229	X	12.0
7056	MadX	1230	X	1.2
7057	MadX	1235	X	1.5
7058	MadX	1238	X	1.7
7059	MadX	1241	X	4.1
7060	MadX	1242	X	13.5
7061	MadX	1247	X	10.3
7062	MadX	1250	X	10.3
7063	MadX	1253	X	10.3
7064	MadX	1256	X	17.1
7065	MadX	1259	X	11.9
7066	MadX	1262	X	11.9
7067	MadX	1265	X	11.9
7068	MadX	1268	X	12.4
7069	MadX	1269	X	2.1
7070	MadX	1280	X	21.8
7071	MadX	1283	X	1.4
7072	MadX	1286	X	1.5
7073	MadX	1289	X	0.9
7074	MadX	1292	X	1.0
7075	MadX	1295	X	13.5
7076	MadX	1298	X	1.4
7077	MadX	1301	X	1.5
7078	MadX	1304	X	18.0
7079	MadX	1307	X	20.1
7080	MadX	1310	X	16.6
7081	MadX	1313	X	16.5
7082	MadX	1316	X	16.5
7083	MadX	1319	X	16.9
7084	MadX	1322	X	16.9
7085	MadX	1325	X	16.9
7086	MadX	159	X	-1.5
7087	MadX	167	X	-2.1
7088	MadX	171	X	-3.0
7089	MadX	175	X	-26.7
7090	MadX	176	X	-6.8
7091	MadX	178	X	-32.3
7092	MadX	187	X	-1.0
7093	MadX	191	X	-5.6
7094	MadX	195	X	-8.6
7095	MadX	199	X	-6.9
7096	MadX	374	X	-10.2
7097	MadX	377	X	-11.9
7098	MadX	379	X	-2.2
7099	MadX	383	X	-1.5
7100	MadX	386	X	-1.5
7101	MadX	389	X	-1.5
7102	MadX	392	X	-20.8
7103	MadX	395	X	-1.6
7104	MadX	398	X	-1.6
7105	MadX	401	X	-1.6
7106	MadX	404	X	-2.6
7107	MadX	405	X	-18.2
7108	MadX	416	X	-44.1
7109	MadX	425	X	-7.2
7110	MadX	428	X	-17.2
7111	MadX	431	X	-5.8
7112	MadX	434	X	-5.8
7113	MadX	437	X	-5.8
7114	MadX	440	X	-6.6
7115	MadX	1016	X	-1.9
7116	MadX	1019	X	-3.7
7117	MadX	1022	X	-8.1
7118	MadX	1025	X	-0.6
7119	MadX	1028	X	-0.7
7120	MadX	1031	X	-8.4
7121	MadX	1034	X	-0.7
7122	MadX	1037	X	-0.8
7123	MadX	1058	X	9.6
7124	MadX	1115	X	-0.8
7125	MadX	1118	X	-0.7
7126	MadX	1121	X	-12.4
7127	MadX	1124	X	-0.7
7128	MadX	1127	X	-0.6
7129	MadX	1130	X	-8.6
7130	MadX	1133	X	-0.3
7131	MadX	1136	X	-0.2
7132	MadX	1139	X	0.0
7133	MadX	1148	X	0.6
7134	MadX	1151	X	0.8
7135	MadX	1154	X	-7.5
7136	MadX	1157	X	-7.5

7137	MadX	1160	X	-6.0
7138	MadX	1163	X	-6.0
7139	MadX	1166	X	-6.0
7140	MadX	1169	X	-4.7
7141	MadX	1170	X	-21.8
7142	MadX	1175	X	-10.1
7143	MadX	1178	X	-10.1
7144	MadX	1181	X	-8.1
7145	MadX	1184	X	-8.1
7146	MadX	1187	X	-8.1
7147	MadX	1190	X	-7.5
7148	MadX	1193	X	-1.1
7149	MadX	1196	X	-0.7
7150	MadX	1199	X	-0.6
7151	MadX	1202	X	-0.3
7152	MadX	1205	X	-0.2
7153	MadX	1208	X	0.0
7154	MadX	1217	X	0.6
7155	MadX	1220	X	0.8
7156	MadX	1331	X	-23.2
7157	MadX	1328	X	-25.9
7158	MadX	1013	X	-0.1
7159	MadX	1046	X	0.6
7160	MadX	1049	X	0.8
7161	MadX	1052	X	1.6
7162	MadX	1053	X	8.6
7163	MadX	1061	X	9.6
7164	MadX	1064	X	9.6
7165	MadX	1067	X	9.0
7166	MadX	1068	X	8.5
7167	MadX	1073	X	14.5
7168	MadX	1076	X	14.5
7169	MadX	1079	X	13.8
7170	MadX	1082	X	12.3
7171	MadX	1085	X	12.3
7172	MadX	1088	X	12.3
7173	MadX	1091	X	7.2
7174	MadX	1092	X	8.7
7175	MadX	1095	X	5.9
7176	MadX	1223	X	0.9
7177	MadX	1226	X	1.0
7178	MadX	1274	X	0.9
7179	MadX	1277	X	1.0
7180	MadX	56	X	-17.3
7181	MadX	76	X	-32.6
7182	MadX	121	X	14.8
7183	MadX	776	X	0.1
7184	MadX	143	X	1.3
7185	MadX	153	X	7.6
7186	MadX	157	X	0.0
7187	MadX	788	X	3.1
7188	MadX	791	X	3.1
7189	MadX	794	X	2.4
7190	MadX	795	X	1.2
7191	MadX	798	X	2.2
7192	MadX	803	X	2.9
7193	MadX	806	X	2.9
7194	MadX	809	X	7.6
7195	MadX	779	X	0.5
7196	MadX	780	X	0.4
7197	MadX	783	X	2.8
7198	MadX	92	X	5.9
7199	MadX	146	X	3.5
7200	MadX	1145	X	0.5
7201	MadX	1214	X	0.5
7202	MadX	1043	X	0.5
7203	MadX	144	X	0.2
7204	MadX	1142	X	0.3
7205	MadX	1211	X	0.3
7206	MadX	1040	X	0.3
7207	MadX	7	X	-153.7
7208	MadX	8	X	-1.4
7209	MadX	12	X	-1.4
7210	MadX	16	X	-1.4
7211	MadX	20	X	-1.4
7212	MadX	36	X	-1.5
7213	MadX	40	X	-1.5
7214	MadX	44	X	-1.5
7215	MadX	24	X	-5.0
7216	MadX	46	X	-8.7
7217	MadX	371	X	-9.4
7218	MadX	1500	X	-29.4
7219	MadX	31	X	-3.5
7220	MadX	32	X	-1.5
7221	MadX	49	X	-16.5
7222	MadX	701	X	1.7
7223	MadX	959	X	0.8
7224	MadX	740	X	0.1

7225	MadX	842	X	-20.7
7226	MadX	845	X	-17.7
7227	MadX	848	X	-14.8
7228	MadX	851	X	-11.8
7229	MadX	854	X	-8.9
7230	MadX	857	X	-5.9
7231	MadX	860	X	-2.9
7232	MadX	695	X	1.7
7233	MadX	956	X	0.9
7234	MadX	863	X	0.0
7235	MadX	818	X	12.1
7236	MadX	821	X	15.1
7237	MadX	827	X	20.7
7238	MadX	830	X	23.6
7239	MadX	833	X	26.5
7240	MadX	836	X	29.4
7241	MadX	839	X	32.3
7242	MadX	698	X	23.7
7243	MadX	824	X	20.9
7244	MadX	734	X	1.6
7245	MadX	735	X	2.1
7246	MadX	812	X	6.1
7247	MadX	815	X	9.1
7248	MadX	716	X	1.8
7249	MadX	971	X	0.9
7250	MadX	755	X	0.1
7251	MadX	866	X	-20.5
7252	MadX	869	X	-17.6
7253	MadX	872	X	-14.7
7254	MadX	875	X	-11.7
7255	MadX	878	X	-8.8
7256	MadX	881	X	-5.9
7257	MadX	884	X	-2.9
7258	MadX	707	X	1.7
7259	MadX	710	X	1.7
7260	MadX	965	X	0.8
7261	MadX	968	X	0.8
7262	MadX	746	X	0.1
7263	MadX	749	X	1.6
7264	MadX	887	X	0.0
7265	MadX	923	X	11.0
7266	MadX	926	X	12.8
7267	MadX	932	X	18.9
7268	MadX	935	X	21.5
7269	MadX	938	X	24.1
7270	MadX	941	X	25.9
7271	MadX	944	X	25.7
7272	MadX	713	X	24.3
7273	MadX	929	X	17.3
7274	MadX	750	X	0.5
7275	MadX	912	X	1.5
7276	MadX	917	X	5.6
7277	MadX	920	X	8.3
7278	MadX	893	X	-27.6
7279	MadX	896	X	-23.0
7280	MadX	899	X	-18.3
7281	MadX	902	X	-10.9
7282	MadX	905	X	-6.1
7283	MadX	908	X	-3.1
7284	MadX	998	X	9.3
7285	MadX	911	X	0.0
7286	MadX	989	X	5.5
7287	MadX	992	X	6.8
7288	MadX	1007	X	9.2
7289	MadX	1010	X	10.5
7290	MadX	1001	X	9.7
7291	MadX	1003	X	14.3
7292	MadX	980	X	11.1
7293	MadX	764	X	1.7
7294	MadX	765	X	0.8
7295	MadX	983	X	2.8
7296	MadX	986	X	4.1
7297	MadX	314	X	-1.5
7298	MadX	317	X	-1.5
7299	MadX	326	X	-1.4
7300	MadX	329	X	-1.4
7301	MadX	341	X	-1.4
7302	MadX	344	X	-1.4
7303	MadX	347	X	-1.4
7304	MadX	356	X	-1.5
7305	MadX	359	X	-1.5
7306	MadX	266	X	-1.1
7307	MadX	518	X	-17.0
7308	MadX	521	X	-17.0
7309	MadX	524	X	-17.0
7310	MadX	269	X	-13.5
7311	MadX	515	X	-17.0
7312	MadX	311	X	-1.5

7313	MadX	302	X	-13.1
7314	MadX	303	X	-6.5
7315	MadX	308	X	-1.5
7316	MadX	362	X	-1.5
7317	MadX	365	X	-3.7
7318	MadX	367	X	-11.0
7319	MadX	417	X	-4.4
7320	MadX	422	X	-7.2
7321	MadX	320	X	-17.6
7322	MadX	323	X	-1.4
7323	MadX	332	X	-1.4
7324	MadX	335	X	-17.5
7325	MadX	338	X	-1.4
7326	MadX	350	X	-24.1
7327	MadX	353	X	-1.5
7328	MadX	1503	X	-0.9
7329	MadX	1566	X	0.4
7330	MadX	1570	X	0.4
7331	MadX	1574	X	0.4
7332	MadX	1578	X	0.4
7333	MadX	1582	X	1.4
7334	MadX	1586	X	0.4
7335	MadX	1590	X	0.4
7336	MadX	1594	X	0.4
7337	MadX	1598	X	0.4
7338	MadX	1602	X	1.1
7339	MadX	1603	X	0.8
7340	MadX	1609	X	2.1
7341	MadX	1505	X	-3.1
7342	MadX	1514	X	-4.7
7343	MadX	1518	X	-3.3
7344	MadX	1522	X	-1.0
7345	MadX	1526	X	-0.8
7346	MadX	1530	X	-0.7
7347	MadX	1534	X	-1.1
7348	MadX	1538	X	-0.3
7349	MadX	1542	X	-0.2
7350	MadX	1546	X	-0.1
7351	MadX	1550	X	0.1
7352	MadX	1554	X	0.7
7353	MadX	1555	X	0.2
7354	MadX	1557	X	0.5
7355	MadX	1610	X	-38.1
7356	MadX	890	X	-32.2
7357	MadX	1650	X	0.1
7358	MadX	1651	X	0.1
7359	MadX	1336	X	-12.0
7360	MadX	1337	X	-29.6
7361	MadX	1338	X	-22.5
7362	MadX	1339	X	-49.7
7363	MadX	1340	X	-89.7
7364	MadX	1341	X	-21.6
7365	MadX	1342	X	11.7
7366	MadX	1343	X	22.3
7367	MadX	1344	X	122.7
7368	MadX	1345	X	60.8
7369	MadX	1346	X	134.2
7370	MadX	1347	X	66.4
7371	MadX	1348	X	79.5
7372	MadX	1349	X	-4.2
7373	MadX	1350	X	0.0
7374	MadX	1351	X	6.0
7375	MadX	1352	X	89.0
7376	MadX	1353	X	173.2
7377	MadX	1354	X	136.4
7378	MadX	1355	X	13.5
7379	MadX	1360	X	140.4
7380	MadX	1361	X	83.9
7381	MadX	1362	X	154.4
7382	MadX	1363	X	1.6
7383	MadX	1364	X	1.0
7384	MadX	1365	X	-21.6
7385	MadX	1366	X	-50.2
7386	MadX	1368	X	-9.4
7387	MadX	1371	X	-17.0
7388	MadX	1372	X	-14.1
7389	MadX	1373	X	-57.8
7390	MadX	1374	X	-143.2
7391	MadX	1377	X	-33.4
7392	MadX	1378	X	32.2
7393	MadX	1379	X	40.0
7394	MadX	1380	X	3.3
7395	MadX	1381	X	62.2
7396	MadX	1382	X	19.3
7397	MadX	1383	X	95.1
7398	MadX	1384	X	19.9
7399	MadX	1385	X	135.5
7400	MadX	1387	X	9.5

7401	MadX	1388	X	9.5
7402	MadX	1389	X	9.3
7403	MadX	1391	X	-148.2
7404	MadX	1392	X	16.4
7405	MadX	1393	X	-51.6
7406	MadX	1394	X	-99.5
7407	MadX	1395	X	-87.4
7408	MadX	1396	X	-50.2
7409	MadX	1397	X	-14.8
7410	MadX	1398	X	-140.4
7411	MadX	1401	X	-22.3
7412	MadX	1402	X	-101.5
7413	MadX	1403	X	0.9
7414	MadX	1405	X	-307.9
7415	MadX	1400	X	-198.1
7416	MadX	1406	X	38.4
7417	MadX	1407	X	19.1
7418	MadX	1408	X	68.7
7419	MadX	1409	X	33.3
7420	MadX	1410	X	84.1
7421	MadX	1411	X	40.6
7422	MadX	1412	X	1.5
7423	MadX	1413	X	2.3
7424	MadX	1414	X	1.2
7425	MadX	1415	X	1.1
7426	MadX	1416	X	1.0
7427	MadX	1417	X	1.1
7428	MadX	1419	X	-31.1
7429	MadX	1421	X	-27.6
7430	MadX	1422	X	-27.4
7431	MadX	1424	X	-10.6
7432	MadX	1425	X	-52.1
7433	MadX	1426	X	-61.5
7434	MadX	1428	X	-10.5
7435	MadX	1431	X	-17.9
7436	MadX	1433	X	2.4
7437	MadX	1434	X	4.2
7438	MadX	1435	X	3.9
7439	MadX	1436	X	1.3
7440	MadX	1437	X	24.0
7441	MadX	1438	X	0.4
7442	MadX	1439	X	-94.2
7443	MadX	1440	X	0.8
7444	MadX	1441	X	7.4
7445	MadX	1443	X	-141.4
7446	MadX	1444	X	46.9
7447	MadX	1445	X	42.7
7448	MadX	1446	X	53.3
7449	MadX	1447	X	52.3
7450	MadX	1448	X	66.1
7451	MadX	1449	X	35.4
7452	MadX	1450	X	16.2
7453	MadX	1451	X	57.0
7454	MadX	1452	X	6.7
7455	MadX	1423	X	-51.3
7456	MadX	1420	X	-51.0
7457	MadX	1418	X	-11.5
7458	MadX	1375	X	1.1
7459	MadX	1376	X	1.0
7460	MadX	1484	X	1.5
7461	MadX	1486	X	1.4
7462	MadX	1488	X	1.4
7463	MadX	1489	X	1.0
7464	MadX	1491	X	1.4
7465	MadX	1493	X	1.4
7466	MadX	1495	X	1.5
7467	MadX	1497	X	1.4
7468	MadX	1502	X	-95.7
7469	MadX	1611	X	-10.9
7470	MadX	1612	X	12.0
7471	MadX	1613	X	-13.2
7472	MadX	1614	X	4.6
7473	MadX	1615	X	4.6
7474	MadX	1628	X	0.4
7475	MadX	1629	X	0.4
7476	MadX	1649	X	7.6
7477	MadX	1636	X	-0.2
7478	MadX	1634	X	-0.2
7479	MadX	1404	X	-1.5
7480	MadX	1460	X	33.5
7481	MadX	1461	X	77.8
7482	MadX	1463	X	75.7
7483	MadX	1464	X	25.7
7484	MadX	1465	X	45.3
7485	MadX	1466	X	79.9
7486	MadX	1467	X	36.8
7487	MadX	1468	X	-284.4
7488	MadX	1469	X	-282.7

7489	MadX	1470	X	-284.3
7490	MadX	1471	X	2.9
7491	MadX	1472	X	2.4
7492	MadX	1473	X	-1.1
7493	MadX	1474	X	-127.4
7494	MadX	1475	X	-134.2
7495	MadX	1476	X	-12.6
7496	MadX	1477	X	0.8
7497	MadX	1478	X	-2.4
7498	MadX	1479	X	93.7
7499	MadX	1480	X	90.9
7500	MadX	1482	X	19.3
7501	MadX	1462	X	32.0
7502	MadX	1483	X	60.9
7503	MadX	1485	X	56.5
7504	MadX	1487	X	56.5
7505	MadX	1490	X	43.1
7506	MadX	1492	X	56.5
7507	MadX	1494	X	56.5
7508	MadX	1496	X	62.8
7509	MadX	1498	X	56.5
7510	MadX	1616	X	9.4
7511	MadX	1617	X	9.5
7512	MadX	1618	X	13.3
7513	MadX	1619	X	9.8
7514	MadX	1620	X	8.4
7515	MadX	1621	X	5.9
7516	MadX	1622	X	5.9
7517	MadX	1623	X	5.1
7518	MadX	1624	X	5.1
7519	MadX	1632	X	-12.9
7520	MadX	1633	X	-7.6
7521	MadX	1635	X	-7.8
7522	MadX	1637	X	-4.5
7523	MadX	1642	X	-7.8
7524	MadX	1643	X	-4.5
7525	MadX	1644	X	-0.7
7526	MadX	1645	X	-0.7
7527	MadX	1646	X	11.2
7528	MadX	1647	X	11.2
7529	MadX	1648	X	16.4
7530	MadY	74	Y	0.0
7531	MadY	123	Y	0.0
7532	MadY	1335	Y	0.0
7533	MadY	90	Y	0.0
7534	MadY	1399	Y	210.4
7535	MadY	662	Y	-1.4
7536	MadY	665	Y	-1.4
7537	MadY	668	Y	-1.7
7538	MadY	671	Y	-1.6
7539	MadY	674	Y	-1.1
7540	MadY	677	Y	-1.0
7541	MadY	680	Y	-1.0
7542	MadY	581	Y	-11.1
7543	MadY	584	Y	-11.1
7544	MadY	587	Y	-11.1
7545	MadY	590	Y	-11.1
7546	MadY	593	Y	-12.0
7547	MadY	594	Y	-1.9
7548	MadY	626	Y	-18.9
7549	MadY	629	Y	-18.9
7550	MadY	632	Y	-18.9
7551	MadY	635	Y	-18.9
7552	MadY	638	Y	-18.9
7553	MadY	641	Y	-15.7
7554	MadY	644	Y	-18.1
7555	MadY	647	Y	-18.1
7556	MadY	650	Y	-18.1
7557	MadY	653	Y	-18.1
7558	MadY	656	Y	-18.1
7559	MadY	659	Y	-14.1
7560	MadY	623	Y	-1.0
7561	MadY	599	Y	-1.4
7562	MadY	602	Y	-1.4
7563	MadY	608	Y	-1.7
7564	MadY	611	Y	-1.6
7565	MadY	617	Y	-1.1
7566	MadY	620	Y	-1.0
7567	MadY	574	Y	-12.0
7568	MadY	573	Y	-2.2
7569	MadY	605	Y	-16.0
7570	MadY	614	Y	-14.4
7571	MadY	689	Y	-1.0
7572	MadY	692	Y	-0.9
7573	MadY	704	Y	-0.6
7574	MadY	995	Y	-1.1
7575	MadY	719	Y	-0.7
7576	MadY	950	Y	-1.0



7577	MadY	953	Y	-0.9
7578	MadY	962	Y	-0.6
7579	MadY	974	Y	-0.3
7580	MadY	977	Y	-0.2
7581	MadY	443	Y	-1.8
7582	MadY	446	Y	-1.7
7583	MadY	449	Y	-1.6
7584	MadY	452	Y	-1.5
7585	MadY	461	Y	-1.4
7586	MadY	464	Y	-1.3
7587	MadY	467	Y	-1.2
7588	MadY	242	Y	-1.8
7589	MadY	245	Y	-1.7
7590	MadY	248	Y	-1.6
7591	MadY	251	Y	-1.5
7592	MadY	503	Y	-11.7
7593	MadY	506	Y	-11.2
7594	MadY	509	Y	-10.6
7595	MadY	233	Y	-20.8
7596	MadY	236	Y	-20.8
7597	MadY	232	Y	-16.8
7598	MadY	239	Y	-16.8
7599	MadY	260	Y	-1.5
7600	MadY	263	Y	-1.5
7601	MadY	476	Y	-33.4
7602	MadY	479	Y	-33.4
7603	MadY	455	Y	-22.7
7604	MadY	458	Y	-1.5
7605	MadY	254	Y	-22.0
7606	MadY	255	Y	-7.3
7607	MadY	500	Y	-12.3
7608	MadY	281	Y	-6.5
7609	MadY	284	Y	-6.2
7610	MadY	287	Y	-5.9
7611	MadY	290	Y	-5.5
7612	MadY	272	Y	-1.4
7613	MadY	275	Y	-1.5
7614	MadY	276	Y	-8.6
7615	MadY	482	Y	-10.2
7616	MadY	485	Y	-10.2
7617	MadY	488	Y	-10.2
7618	MadY	494	Y	-24.1
7619	MadY	497	Y	-24.1
7620	MadY	545	Y	-9.7
7621	MadY	548	Y	-9.7
7622	MadY	557	Y	-19.0
7623	MadY	560	Y	-19.0
7624	MadY	563	Y	-19.0
7625	MadY	566	Y	-19.0
7626	MadY	569	Y	-19.0
7627	MadY	686	Y	-1.1
7628	MadY	572	Y	-9.8
7629	MadY	681	Y	-3.9
7630	MadY	947	Y	-1.1
7631	MadY	551	Y	-11.3
7632	MadY	552	Y	-12.5
7633	MadY	470	Y	-4.1
7634	MadY	471	Y	-18.1
7635	MadY	527	Y	-11.9
7636	MadY	491	Y	-19.1
7637	MadY	512	Y	-10.4
7638	MadY	293	Y	-6.6
7639	MadY	294	Y	-1.1
7640	MadY	299	Y	-1.1
7641	MadY	728	Y	-0.8
7642	MadY	731	Y	-0.8
7643	MadY	743	Y	-0.6
7644	MadY	758	Y	-0.3
7645	MadY	761	Y	-0.2
7646	MadY	530	Y	-11.8
7647	MadY	531	Y	-8.7
7648	MadY	536	Y	-11.3
7649	MadY	539	Y	-11.3
7650	MadY	542	Y	-13.8
7651	MadY	722	Y	-1.0
7652	MadY	725	Y	-0.9
7653	MadY	768	Y	-0.2
7654	MadY	773	Y	0.0
7655	MadY	1100	Y	6.0
7656	MadY	1103	Y	6.4
7657	MadY	1106	Y	6.8
7658	MadY	1109	Y	8.0
7659	MadY	1110	Y	1.4
7660	MadY	1229	Y	4.3
7661	MadY	1230	Y	0.4
7662	MadY	1235	Y	0.5
7663	MadY	1238	Y	0.6
7664	MadY	1241	Y	1.5

7665	MadY	1242	Y	5.1
7666	MadY	1247	Y	4.3
7667	MadY	1250	Y	4.7
7668	MadY	1253	Y	5.0
7669	MadY	1256	Y	9.0
7670	MadY	1259	Y	6.8
7671	MadY	1262	Y	7.3
7672	MadY	1265	Y	7.8
7673	MadY	1268	Y	8.6
7674	MadY	1269	Y	1.5
7675	MadY	1280	Y	15.2
7676	MadY	1283	Y	0.9
7677	MadY	1286	Y	0.9
7678	MadY	1289	Y	1.1
7679	MadY	1292	Y	1.1
7680	MadY	1295	Y	12.6
7681	MadY	1298	Y	1.2
7682	MadY	1301	Y	1.2
7683	MadY	1304	Y	7.5
7684	MadY	1307	Y	9.5
7685	MadY	1310	Y	8.8
7686	MadY	1313	Y	9.6
7687	MadY	1316	Y	10.6
7688	MadY	1319	Y	12.8
7689	MadY	1322	Y	13.8
7690	MadY	1325	Y	14.8
7691	MadY	159	Y	9.0
7692	MadY	167	Y	7.6
7693	MadY	171	Y	7.6
7694	MadY	175	Y	51.5
7695	MadY	176	Y	4.7
7696	MadY	178	Y	24.5
7697	MadY	187	Y	0.9
7698	MadY	191	Y	5.6
7699	MadY	195	Y	10.2
7700	MadY	199	Y	10.2
7701	MadY	374	Y	1.1
7702	MadY	377	Y	1.2
7703	MadY	379	Y	0.2
7704	MadY	383	Y	0.2
7705	MadY	386	Y	0.3
7706	MadY	389	Y	0.3
7707	MadY	392	Y	5.1
7708	MadY	395	Y	0.5
7709	MadY	398	Y	0.5
7710	MadY	401	Y	0.6
7711	MadY	404	Y	1.0
7712	MadY	405	Y	7.5
7713	MadY	416	Y	24.9
7714	MadY	425	Y	2.0
7715	MadY	428	Y	5.9
7716	MadY	431	Y	2.3
7717	MadY	434	Y	2.6
7718	MadY	437	Y	2.8
7719	MadY	440	Y	3.6
7720	MadY	1016	Y	2.2
7721	MadY	1019	Y	2.2
7722	MadY	1022	Y	3.2
7723	MadY	1025	Y	0.2
7724	MadY	1028	Y	0.2
7725	MadY	1031	Y	1.8
7726	MadY	1034	Y	0.1
7727	MadY	1037	Y	0.1
7728	MadY	1058	Y	2.6
7729	MadY	1115	Y	0.3
7730	MadY	1118	Y	0.3
7731	MadY	1121	Y	5.8
7732	MadY	1124	Y	0.4
7733	MadY	1127	Y	0.4
7734	MadY	1130	Y	7.5
7735	MadY	1133	Y	0.4
7736	MadY	1136	Y	0.4
7737	MadY	1139	Y	0.4
7738	MadY	1148	Y	0.5
7739	MadY	1151	Y	0.5
7740	MadY	1154	Y	4.2
7741	MadY	1157	Y	5.3
7742	MadY	1160	Y	5.9
7743	MadY	1163	Y	6.7
7744	MadY	1166	Y	7.4
7745	MadY	1169	Y	6.4
7746	MadY	1170	Y	30.9
7747	MadY	1175	Y	3.0
7748	MadY	1178	Y	3.9
7749	MadY	1181	Y	4.3
7750	MadY	1184	Y	4.9
7751	MadY	1187	Y	5.4
7752	MadY	1190	Y	5.6

7753	MadY	1193	Y	0.7
7754	MadY	1196	Y	0.6
7755	MadY	1199	Y	0.6
7756	MadY	1202	Y	0.7
7757	MadY	1205	Y	0.7
7758	MadY	1208	Y	0.7
7759	MadY	1217	Y	0.7
7760	MadY	1220	Y	0.7
7761	MadY	1331	Y	7.0
7762	MadY	1328	Y	7.0
7763	MadY	1013	Y	2.2
7764	MadY	1046	Y	0.2
7765	MadY	1049	Y	0.2
7766	MadY	1052	Y	0.3
7767	MadY	1053	Y	1.7
7768	MadY	1061	Y	3.4
7769	MadY	1064	Y	4.1
7770	MadY	1067	Y	4.5
7771	MadY	1068	Y	4.4
7772	MadY	1073	Y	8.6
7773	MadY	1076	Y	9.7
7774	MadY	1079	Y	10.3
7775	MadY	1082	Y	10.0
7776	MadY	1085	Y	10.8
7777	MadY	1088	Y	11.6
7778	MadY	1091	Y	7.3
7779	MadY	1092	Y	8.9
7780	MadY	1095	Y	6.1
7781	MadY	1223	Y	0.4
7782	MadY	1226	Y	0.4
7783	MadY	1274	Y	0.8
7784	MadY	1277	Y	0.8
7785	MadY	56	Y	23.6
7786	MadY	76	Y	114.6
7787	MadY	121	Y	98.2
7788	MadY	776	Y	0.1
7789	MadY	143	Y	6.4
7790	MadY	153	Y	45.6
7791	MadY	157	Y	10.5
7792	MadY	788	Y	5.4
7793	MadY	791	Y	7.0
7794	MadY	794	Y	6.6
7795	MadY	795	Y	3.6
7796	MadY	798	Y	6.8
7797	MadY	803	Y	10.2
7798	MadY	806	Y	11.5
7799	MadY	809	Y	33.8
7800	MadY	779	Y	0.5
7801	MadY	780	Y	0.4
7802	MadY	783	Y	3.5
7803	MadY	92	Y	61.3
7804	MadY	146	Y	8.4
7805	MadY	1145	Y	0.5
7806	MadY	1214	Y	0.7
7807	MadY	1043	Y	0.2
7808	MadY	144	Y	0.6
7809	MadY	1142	Y	0.5
7810	MadY	1211	Y	0.7
7811	MadY	1040	Y	0.2
7812	MadY	7	Y	139.4
7813	MadY	8	Y	1.2
7814	MadY	12	Y	1.1
7815	MadY	16	Y	1.0
7816	MadY	20	Y	1.0
7817	MadY	36	Y	1.6
7818	MadY	40	Y	1.6
7819	MadY	44	Y	1.5
7820	MadY	24	Y	3.3
7821	MadY	46	Y	5.6
7822	MadY	371	Y	1.1
7823	MadY	1500	Y	14.2
7824	MadY	31	Y	4.1
7825	MadY	32	Y	1.7
7826	MadY	49	Y	19.9
7827	MadY	701	Y	-0.7
7828	MadY	959	Y	-0.7
7829	MadY	740	Y	-0.7
7830	MadY	842	Y	-15.7
7831	MadY	845	Y	-15.7
7832	MadY	848	Y	-15.7
7833	MadY	851	Y	-15.7
7834	MadY	854	Y	-15.7
7835	MadY	857	Y	-15.7
7836	MadY	860	Y	-15.7
7837	MadY	695	Y	-0.8
7838	MadY	956	Y	-0.9
7839	MadY	863	Y	-15.7
7840	MadY	818	Y	-15.6

7841	MadY	821	Y	-15.6
7842	MadY	827	Y	-15.4
7843	MadY	830	Y	-15.4
7844	MadY	833	Y	-15.4
7845	MadY	836	Y	-15.4
7846	MadY	839	Y	-15.4
7847	MadY	698	Y	-10.3
7848	MadY	824	Y	-18.0
7849	MadY	734	Y	-8.5
7850	MadY	735	Y	-10.7
7851	MadY	812	Y	-15.6
7852	MadY	815	Y	-15.6
7853	MadY	716	Y	-0.3
7854	MadY	971	Y	-0.4
7855	MadY	755	Y	-0.3
7856	MadY	866	Y	-9.4
7857	MadY	869	Y	-9.4
7858	MadY	872	Y	-9.4
7859	MadY	875	Y	-9.4
7860	MadY	878	Y	-9.4
7861	MadY	881	Y	-9.4
7862	MadY	884	Y	-9.4
7863	MadY	707	Y	-0.5
7864	MadY	710	Y	-0.5
7865	MadY	965	Y	-0.5
7866	MadY	968	Y	-0.5
7867	MadY	746	Y	-0.5
7868	MadY	749	Y	-5.0
7869	MadY	887	Y	-9.4
7870	MadY	923	Y	-7.8
7871	MadY	926	Y	-7.2
7872	MadY	932	Y	-7.6
7873	MadY	935	Y	-7.6
7874	MadY	938	Y	-7.6
7875	MadY	941	Y	-7.4
7876	MadY	944	Y	-6.7
7877	MadY	713	Y	-5.8
7878	MadY	929	Y	-8.2
7879	MadY	750	Y	-1.5
7880	MadY	912	Y	-4.1
7881	MadY	917	Y	-7.8
7882	MadY	920	Y	-7.8
7883	MadY	893	Y	-4.9
7884	MadY	896	Y	-4.9
7885	MadY	899	Y	-4.9
7886	MadY	902	Y	-3.9
7887	MadY	905	Y	-3.3
7888	MadY	908	Y	-3.3
7889	MadY	998	Y	-1.0
7890	MadY	911	Y	-3.3
7891	MadY	989	Y	-1.0
7892	MadY	992	Y	-1.0
7893	MadY	1007	Y	-1.0
7894	MadY	1010	Y	-1.0
7895	MadY	1001	Y	-0.8
7896	MadY	1003	Y	-1.2
7897	MadY	980	Y	-1.4
7898	MadY	764	Y	-1.8
7899	MadY	765	Y	-0.6
7900	MadY	983	Y	-1.0
7901	MadY	986	Y	-1.0
7902	MadY	314	Y	-1.1
7903	MadY	317	Y	-1.0
7904	MadY	326	Y	-0.8
7905	MadY	329	Y	-0.7
7906	MadY	341	Y	-0.4
7907	MadY	344	Y	-0.3
7908	MadY	347	Y	-0.3
7909	MadY	356	Y	0.0
7910	MadY	359	Y	0.0
7911	MadY	266	Y	-1.5
7912	MadY	518	Y	-17.9
7913	MadY	521	Y	-17.0
7914	MadY	524	Y	-16.0
7915	MadY	269	Y	-15.8
7916	MadY	515	Y	-18.9
7917	MadY	311	Y	-1.2
7918	MadY	302	Y	-11.6
7919	MadY	303	Y	-6.0
7920	MadY	308	Y	-1.3
7921	MadY	362	Y	0.1
7922	MadY	365	Y	0.5
7923	MadY	367	Y	1.4
7924	MadY	417	Y	0.7
7925	MadY	422	Y	1.6
7926	MadY	320	Y	-11.7
7927	MadY	323	Y	-0.9
7928	MadY	332	Y	-0.7

7929	MadY	335	Y	-7.0
7930	MadY	338	Y	-0.5
7931	MadY	350	Y	-3.2
7932	MadY	353	Y	-0.1
7933	MadY	1503	Y	1.1
7934	MadY	1566	Y	1.0
7935	MadY	1570	Y	1.1
7936	MadY	1574	Y	1.2
7937	MadY	1578	Y	1.2
7938	MadY	1582	Y	4.6
7939	MadY	1586	Y	1.5
7940	MadY	1590	Y	1.6
7941	MadY	1594	Y	1.6
7942	MadY	1598	Y	1.7
7943	MadY	1602	Y	4.9
7944	MadY	1603	Y	3.8
7945	MadY	1609	Y	18.3
7946	MadY	1505	Y	3.8
7947	MadY	1514	Y	6.5
7948	MadY	1518	Y	5.3
7949	MadY	1522	Y	1.8
7950	MadY	1526	Y	1.8
7951	MadY	1530	Y	1.8
7952	MadY	1534	Y	3.9
7953	MadY	1538	Y	1.6
7954	MadY	1542	Y	1.6
7955	MadY	1546	Y	1.6
7956	MadY	1550	Y	1.6
7957	MadY	1554	Y	6.4
7958	MadY	1555	Y	1.1
7959	MadY	1557	Y	2.5
7960	MadY	1610	Y	57.9
7961	MadY	890	Y	-4.9
7962	MadY	1650	Y	-0.7
7963	MadY	1651	Y	-0.6
7964	MadY	1336	Y	-77.1
7965	MadY	1337	Y	-77.0
7966	MadY	1338	Y	-119.3
7967	MadY	1339	Y	-106.6
7968	MadY	1340	Y	-107.6
7969	MadY	1341	Y	-21.2
7970	MadY	1342	Y	-26.4
7971	MadY	1343	Y	-26.4
7972	MadY	1344	Y	-129.1
7973	MadY	1345	Y	-129.2
7974	MadY	1346	Y	-122.2
7975	MadY	1347	Y	-122.2
7976	MadY	1348	Y	-127.3
7977	MadY	1349	Y	-17.6
7978	MadY	1350	Y	-17.1
7979	MadY	1351	Y	-16.5
7980	MadY	1352	Y	-67.9
7981	MadY	1353	Y	-94.4
7982	MadY	1354	Y	-46.0
7983	MadY	1355	Y	-2.8
7984	MadY	1360	Y	-98.6
7985	MadY	1361	Y	-27.0
7986	MadY	1362	Y	-175.2
7987	MadY	1363	Y	-21.5
7988	MadY	1364	Y	-9.1
7989	MadY	1365	Y	-16.8
7990	MadY	1366	Y	-46.7
7991	MadY	1368	Y	-15.9
7992	MadY	1371	Y	0.2
7993	MadY	1372	Y	0.2
7994	MadY	1373	Y	2.7
7995	MadY	1374	Y	21.6
7996	MadY	1377	Y	2.7
7997	MadY	1378	Y	1.3
7998	MadY	1379	Y	15.0
7999	MadY	1380	Y	15.9
8000	MadY	1381	Y	16.5
8001	MadY	1382	Y	6.0
8002	MadY	1383	Y	43.9
8003	MadY	1384	Y	12.7
8004	MadY	1385	Y	84.8
8005	MadY	1387	Y	9.1
8006	MadY	1388	Y	12.2
8007	MadY	1389	Y	109.4
8008	MadY	1391	Y	202.3
8009	MadY	1392	Y	174.2
8010	MadY	1393	Y	24.6
8011	MadY	1394	Y	27.5
8012	MadY	1395	Y	82.0
8013	MadY	1396	Y	26.1
8014	MadY	1397	Y	4.5
8015	MadY	1398	Y	73.3
8016	MadY	1401	Y	23.1

8017	MadY	1402	Y	274.1
8018	MadY	1403	Y	18.9
8019	MadY	1405	Y	232.0
8020	MadY	1400	Y	398.2
8021	MadY	1406	Y	-44.6
8022	MadY	1407	Y	-44.7
8023	MadY	1408	Y	-52.8
8024	MadY	1409	Y	-51.7
8025	MadY	1410	Y	-20.9
8026	MadY	1411	Y	-7.8
8027	MadY	1412	Y	-12.7
8028	MadY	1413	Y	-9.1
8029	MadY	1414	Y	-22.3
8030	MadY	1415	Y	-15.6
8031	MadY	1416	Y	-9.8
8032	MadY	1417	Y	-5.3
8033	MadY	1419	Y	-66.2
8034	MadY	1421	Y	-27.3
8035	MadY	1422	Y	-21.1
8036	MadY	1424	Y	0.2
8037	MadY	1425	Y	0.5
8038	MadY	1426	Y	18.6
8039	MadY	1428	Y	6.2
8040	MadY	1431	Y	0.6
8041	MadY	1433	Y	0.7
8042	MadY	1434	Y	2.9
8043	MadY	1435	Y	16.0
8044	MadY	1436	Y	6.2
8045	MadY	1437	Y	0.5
8046	MadY	1438	Y	3.6
8047	MadY	1439	Y	48.2
8048	MadY	1440	Y	6.0
8049	MadY	1441	Y	105.8
8050	MadY	1443	Y	143.1
8051	MadY	1444	Y	30.3
8052	MadY	1445	Y	16.8
8053	MadY	1446	Y	12.9
8054	MadY	1447	Y	15.1
8055	MadY	1448	Y	57.8
8056	MadY	1449	Y	22.8
8057	MadY	1450	Y	21.1
8058	MadY	1451	Y	53.2
8059	MadY	1452	Y	6.3
8060	MadY	1423	Y	-50.2
8061	MadY	1420	Y	-84.3
8062	MadY	1418	Y	-47.3
8063	MadY	1375	Y	-3.4
8064	MadY	1376	Y	0.0
8065	MadY	1484	Y	-26.5
8066	MadY	1486	Y	-22.9
8067	MadY	1488	Y	-21.3
8068	MadY	1489	Y	-13.7
8069	MadY	1491	Y	-16.3
8070	MadY	1493	Y	-14.7
8071	MadY	1495	Y	-10.7
8072	MadY	1497	Y	-8.0
8073	MadY	1502	Y	34.2
8074	MadY	1611	Y	8.6
8075	MadY	1612	Y	59.6
8076	MadY	1613	Y	7.2
8077	MadY	1614	Y	-5.3
8078	MadY	1615	Y	-4.8
8079	MadY	1628	Y	-2.5
8080	MadY	1629	Y	-2.9
8081	MadY	1649	Y	-8.4
8082	MadY	1636	Y	-0.2
8083	MadY	1634	Y	-0.3
8084	MadY	1404	Y	-2.2
8085	MadY	1460	Y	-49.9
8086	MadY	1461	Y	-53.9
8087	MadY	1463	Y	7.2
8088	MadY	1464	Y	4.9
8089	MadY	1465	Y	11.9
8090	MadY	1466	Y	70.4
8091	MadY	1467	Y	37.1
8092	MadY	1468	Y	-214.7
8093	MadY	1469	Y	29.1
8094	MadY	1470	Y	273.2
8095	MadY	1471	Y	-4.8
8096	MadY	1472	Y	-7.5
8097	MadY	1473	Y	-9.3
8098	MadY	1474	Y	-206.9
8099	MadY	1475	Y	245.6
8100	MadY	1476	Y	24.0
8101	MadY	1477	Y	12.1
8102	MadY	1478	Y	9.2
8103	MadY	1479	Y	106.0
8104	MadY	1480	Y	149.0

8105	MadY	1482	Y	33.7
8106	MadY	1462	Y	-18.6
8107	MadY	1483	Y	-77.2
8108	MadY	1485	Y	-60.8
8109	MadY	1487	Y	-50.0
8110	MadY	1490	Y	-20.8
8111	MadY	1492	Y	-16.3
8112	MadY	1494	Y	-5.5
8113	MadY	1496	Y	31.2
8114	MadY	1498	Y	38.9
8115	MadY	1616	Y	-12.1
8116	MadY	1617	Y	-14.3
8117	MadY	1618	Y	-18.5
8118	MadY	1619	Y	-17.9
8119	MadY	1620	Y	-19.0
8120	MadY	1621	Y	-11.8
8121	MadY	1622	Y	-9.7
8122	MadY	1623	Y	-12.7
8123	MadY	1624	Y	-10.1
8124	MadY	1632	Y	-36.2
8125	MadY	1633	Y	-15.2
8126	MadY	1635	Y	-25.5
8127	MadY	1637	Y	-10.5
8128	MadY	1642	Y	-18.6
8129	MadY	1643	Y	-7.7
8130	MadY	1644	Y	-1.4
8131	MadY	1645	Y	-1.7
8132	MadY	1646	Y	-13.1
8133	MadY	1647	Y	-11.2
8134	MadY	1648	Y	-17.9

CARICHI DI SOLAIO-								num.=	53
Nome	Cos X	Cos Y	Cos Z	Cond.	Rifer.	Intens.	Quota		
1	-1.0000	0.0023	0.0000	1	glob	-400.0	135.00		
2	-1.0000	0.0000	0.0000	1	glob	-400.0	135.00		
3	-0.0014	-1.0000	0.0000	1	glob	-400.0	135.00		
4	-1.0000	0.0007	0.0000	1	glob	-400.0	135.00		
5	1.0000	-0.0078	0.0000	1	glob	-400.0	135.00		
6	-1.0000	0.0000	0.0000	1	glob	-400.0	475.00		
7	0.0000	-1.0000	0.0000	1	glob	-400.0	475.00		
8	-1.0000	0.0000	0.0000	1	glob	-400.0	475.00		
9	0.0000	-1.0000	0.0000	1	glob	-400.0	525.00		
10	1.0000	0.0000	0.0000	1	glob	-400.0	135.00		
11	0.0000	1.0000	0.0000	1	glob	-400.0	0.00		
12	-1.0000	0.0023	0.0000	1	glob	-300.0	135.00		
13	-1.0000	0.0000	0.0000	1	glob	-300.0	135.00		
14	-0.0014	-1.0000	0.0000	1	glob	-300.0	135.00		
15	-1.0000	0.0007	0.0000	1	glob	-300.0	135.00		
16	1.0000	-0.0078	0.0000	1	glob	-300.0	135.00		
17	-1.0000	0.0000	0.0000	1	glob	-300.0	475.00		
18	0.0000	-1.0000	0.0000	1	glob	-300.0	475.00		
19	-1.0000	0.0000	0.0000	1	glob	-300.0	475.00		
20	0.0000	-1.0000	0.0000	1	glob	-300.0	525.00		
21	1.0000	0.0000	0.0000	1	glob	-300.0	135.00		
22	0.0000	1.0000	0.0000	1	glob	-300.0	0.00		
23	-1.0000	0.0082	0.0000	1	glob	-400.0	135.00		
24	0.0000	-1.0000	0.0000	1	glob	-400.0	135.00		
25	-0.9999	0.0130	0.0000	1	glob	-400.0	135.00		
26	0.0000	0.0000	0.0000	1	glob	-400.0	0.00		
27	0.0000	0.0000	0.0000	1	glob	-400.0	0.00		
28	0.0000	0.0000	0.0000	1	glob	-500.0	0.00		
29	-1.0000	0.0082	0.0000	1	glob	-200.0	135.00		
30	0.0000	-1.0000	0.0000	1	glob	-200.0	135.00		
31	-0.9999	0.0130	0.0000	1	glob	-200.0	135.00		
32	0.0000	0.0000	0.0000	1	glob	-200.0	0.00		
33	0.0000	0.0000	0.0000	1	glob	-200.0	0.00		
34	0.0000	0.0000	0.0000	1	glob	-600.0	0.00		
35	0.0000	1.0000	0.0000	1	glob	-700.0	135.00		
36	0.0000	1.0000	0.0000	1	glob	-200.0	135.00		
37	-1.0000	0.0023	0.0000	2	glob	-500.0	135.00		
38	-1.0000	0.0000	0.0000	2	glob	-500.0	135.00		
39	-0.0014	-1.0000	0.0000	2	glob	-500.0	135.00		
40	-1.0000	0.0007	0.0000	2	glob	-500.0	135.00		
41	1.0000	-0.0078	0.0000	2	glob	-500.0	135.00		
42	-1.0000	0.0000	0.0000	2	glob	-500.0	475.00		
43	0.0000	-1.0000	0.0000	2	glob	-500.0	475.00		
44	-1.0000	0.0000	0.0000	2	glob	-500.0	475.00		
45	0.0000	-1.0000	0.0000	2	glob	-500.0	525.00		
46	1.0000	0.0000	0.0000	2	glob	-500.0	135.00		
47	0.0000	1.0000	0.0000	2	glob	-500.0	0.00		
48	-1.0000	0.0082	0.0000	4	glob	-200.0	135.00		
49	0.0000	-1.0000	0.0000	4	glob	-200.0	135.00		
50	-0.9999	0.0130	0.0000	4	glob	-200.0	135.00		
51	0.0000	0.0000	0.0000	4	glob	-200.0	0.00		
52	0.0000	0.0000	0.0000	4	glob	-200.0	0.00		
53	0.0000	1.0000	0.0000	4	glob	-200.0	135.00		

CARICHI	ASTE	-----	-----	-----	-----	-----	num.=	2638		
Nome	Asta	Dir	Tip	RIF	Parametro 1	Parametro 2	Parametro 3	Parametro 4		
8135	tampnature	1014	Z	FD glo	-800.0					
8136	tampnature	1084	Z	FD glo	-800.0					
8137	metalllicasecondaria	1363	Z	FD glo	-100.0					
8138	metalllicasecondaria	1364	Z	FD glo	-100.0					
8139	metalllicasecondaria	1365	Z	FD glo	-300.0					
8140	metalllicasecondaria	1377	Z	FD glo	-300.0					
8141	metalllicasecondaria	1366	Z	FD glo	-300.0					
8142	metalllicasecondaria	1378	Z	FD glo	-300.0					
8143	metalllicasecondaria	1383	Z	FD glo	-300.0					
8144	metalllicasecondaria	1384	Z	FD glo	-300.0					
8145	metalllicasecondaria	1342	Z	FD glo	-200.0					
8146	metalllicasecondaria	1343	Z	FD glo	-200.0					
8147	metalllicasecondaria	1340	Z	FD glo	-200.0					
8148	metalllicasecondaria	1341	Z	FD glo	-200.0					
8149	metalllicasecondaria	1338	Z	FD glo	-200.0					
8150	metalllicasecondaria	1339	Z	FD glo	-200.0					
8151	metalllicasecondaria	1403	Z	FD glo	-300.0					
8152	metalllicasecondaria	1412	Z	FD glo	-300.0					
8153	metalllicasecondaria	1405	Z	FD glo	-300.0					
8154	metalllicasecondaria	1409	Z	FD glo	-300.0					
8155	metalllicasecondaria	1408	Z	FD glo	-300.0					
8156	metalllicasecondaria	1404	Z	FD glo	-300.0					
8157	tampnature	1008	Z	FD glo	-800.0					
8158	tampnature	1114	Z	FD glo	-800.0					
8159	S001-pesoproprioH=25	9	Z	FT glo	-460.0	-460.0	0.000	0.000		
8160	S001-pesoproprioH=25	10	Z	FT glo	-460.0	-460.0	0.000	0.000		
8161	S001-pesoproprioH=25	11	Z	FT glo	-460.0	-460.0	0.000	0.000		
8162	S001-pesoproprioH=25	12	Z	FT glo	-460.0	-460.0	0.000	0.000		
8163	S001-pesoproprioH=25	13	Z	FT glo	-460.0	-460.0	0.000	0.000		
8164	S001-pesoproprioH=25	14	Z	FT glo	-460.0	-460.0	0.000	0.000		
8165	S001-pesoproprioH=25	473	Z	FT glo	-1060.2	-1059.8	0.000	0.000		
8166	S001-pesoproprioH=25	474	Z	FT glo	-1060.0	-1060.0	0.000	0.000		
8167	S001-pesoproprioH=25	475	Z	FT glo	-1060.0	-1060.0	0.000	0.000		
8168	S001-pesoproprioH=25	476	Z	FT glo	-1060.0	-1060.0	0.000	0.000		
8169	S001-pesoproprioH=25	477	Z	FT glo	-1060.0	-1060.0	0.000	0.000		
8170	S001-pesoproprioH=25	478	Z	FT glo	-1128.1	-1026.7	0.000	0.000		
8171	S001-pesoproprioH=25	485	Z	FT glo	-1201.0	-1201.0	0.000	0.000		
8172	S001-pesoproprioH=25	486	Z	FT glo	-1201.0	-1201.0	0.000	0.000		
8173	S001-pesoproprioH=25	487	Z	FT glo	-1201.0	-1201.0	0.000	0.000		
8174	S001-pesoproprioH=25	488	Z	FT glo	-1201.0	-1201.0	0.000	0.000		
8175	S001-pesoproprioH=25	489	Z	FT glo	-1201.0	-1201.0	0.000	0.000		
8176	S001-pesoproprioH=25	490	Z	FT glo	-1234.3	-1133.0	0.000	0.000		
8177	S001-pesoproprioH=25	8	Z	FT glo	-754.9	-322.0	0.000	0.000		
8178	S001-pesoproprioH=25	533	Z	FT glo	-239.9	-369.5	0.000	0.000		
8179	S001-pesoproprioH=25	534	Z	FT glo	-357.4	-450.4	0.000	0.000		
8180	S001-pesoproprioH=25	498	Z	FT glo	-1580.7	-1479.1	0.000	0.000		
8181	S001-pesoproprioH=25	499	Z	FT glo	-1547.3	-1547.3	0.000	0.000		
8182	S001-pesoproprioH=25	500	Z	FT glo	-1547.3	-1547.3	0.000	0.000		
8183	S001-pesoproprioH=25	501	Z	FT glo	-1547.3	-1547.3	0.000	0.000		
8184	S001-pesoproprioH=25	502	Z	FT glo	-1547.3	-1547.3	0.000	0.000		
8185	S001-pesoproprioH=25	503	Z	FT glo	-1547.3	-1547.3	0.000	0.000		
8186	S001-pesoproprioH=25	544	Z	FT glo	-2362.3	-2445.8	0.000	0.000		
8187	S001-pesoproprioH=25	514	Z	FT glo	-1904.8	-1663.8	0.000	0.000		
8188	S001-pesoproprioH=25	515	Z	FT glo	-1826.3	-1826.3	0.000	0.000		
8189	S001-pesoproprioH=25	516	Z	FT glo	-1826.3	-1826.3	0.000	0.000		
8190	S001-pesoproprioH=25	517	Z	FT glo	-1826.3	-1826.3	0.000	0.000		
8191	S001-pesoproprioH=25	518	Z	FT glo	-1826.3	-1826.3	0.000	0.000		
8192	S001-pesoproprioH=25	519	Z	FT glo	-1599.9	-1932.7	0.000	0.000		
8193	S001-pesoproprioH=25	527	Z	FT glo	-1504.9	-1119.4	0.000	0.000		
8194	S001-pesoproprioH=25	528	Z	FT glo	-1613.2	-1436.7	0.000	0.000		
8195	S001-pesoproprioH=25	529	Z	FT glo	-1662.2	-1637.5	0.000	0.000		
8196	S001-pesoproprioH=25	530	Z	FT glo	-1654.7	-1654.7	0.000	0.000		
8197	S001-pesoproprioH=25	531	Z	FT glo	-1654.7	-1654.7	0.000	0.000		
8198	S001-pesoproprioH=25	532	Z	FT glo	-1653.7	-1655.7	0.000	0.000		
8199	S001-pesoproprioH=25	535	Z	FT glo	-450.4	-543.3	0.000	0.000		
8200	S001-pesoproprioH=25	537	Z	FT glo	-774.7	-774.7	0.000	0.000		
8201	S001-pesoproprioH=25	538	Z	FT glo	-774.7	-774.7	0.000	0.000		
8202	S001-pesoproprioH=25	539	Z	FT glo	-774.7	-774.7	0.000	0.000		
8203	S001-pesoproprioH=25	536	Z	FT glo	-774.7	-774.7	0.000	0.000		
8204	S002-pesoproprioH=25	556	Z	FT glo	-946.3	-946.3	0.000	0.000		
8205	S002-pesoproprioH=25	557	Z	FT glo	-946.3	-946.3	0.000	0.000		
8206	S002-pesoproprioH=25	555	Z	FT glo	-946.3	-946.3	0.000	0.000		
8207	S002-pesoproprioH=25	558	Z	FT glo	-946.3	-946.3	0.000	0.000		
8208	S002-pesoproprioH=25	559	Z	FT glo	-946.3	-946.3	0.000	0.000		
8209	S002-pesoproprioH=25	560	Z	FT glo	-946.2	-946.5	0.000	0.000		
8210	S002-pesoproprioH=25	579	Z	FT glo	-1826.4	-1826.3	0.000	0.000		
8211	S002-pesoproprioH=25	580	Z	FT glo	-1826.3	-1826.3	0.000	0.000		
8212	S002-pesoproprioH=25	581	Z	FT glo	-1826.3	-1826.3	0.000	0.000		
8213	S002-pesoproprioH=25	582	Z	FT glo	-1826.3	-1826.3	0.000	0.000		
8214	S002-pesoproprioH=25	583	Z	FT glo	-1826.2	-1826.5	0.000	0.000		
8215	S002-pesoproprioH=25	584	Z	FT glo	-1682.0	-843.3	0.000	0.000		
8216	S002-pesoproprioH=25	585	Z	FT glo	-1654.7	-1654.7	0.000	0.000		
8217	S002-pesoproprioH=25	586	Z	FT glo	-1654.7	-1654.7	0.000	0.000		
8218	S002-pesoproprioH=25	587	Z	FT glo	-1654.7	-1654.7	0.000	0.000		
8219	S002-pesoproprioH=25	588	Z	FT glo	-1654.6	-1654.8	0.000	0.000		
8220	S002-pesoproprioH=25	589	Z	FT glo	-789.9	-744.1	0.000	0.000		





8309	S008-pesoproprioH=25	846	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
8310	S008-pesoproprioH=25	847	Z	FT	glo	-1020.8	-1019.1	0.000	0.000
8311	S008-pesoproprioH=25	848	Z	FT	glo	-530.0	-530.0	0.000	0.000
8312	S008-pesoproprioH=25	849	Z	FT	glo	-530.0	-530.0	0.000	0.000
8313	S008-pesoproprioH=25	850	Z	FT	glo	-530.0	-530.0	0.000	0.000
8314	S008-pesoproprioH=25	851	Z	FT	glo	-530.0	-530.0	0.000	0.000
8315	S008-pesoproprioH=25	852	Z	FT	glo	-555.9	-504.1	0.000	0.000
8316	S008-pesoproprioH=25	859	Z	FT	glo	-489.9	-489.9	0.000	0.000
8317	S008-pesoproprioH=25	860	Z	FT	glo	-489.9	-489.9	0.000	0.000
8318	S008-pesoproprioH=25	802	Z	FT	glo	-402.3	-532.2	0.000	0.000
8319	S008-pesoproprioH=25	803	Z	FT	glo	-489.9	-489.9	0.000	0.000
8320	S008-pesoproprioH=25	804	Z	FT	glo	-489.9	-489.9	0.000	0.000
8321	S008-pesoproprioH=25	805	Z	FT	glo	-489.9	-489.9	0.000	0.000
8322	S008-pesoproprioH=25	806	Z	FT	glo	-489.9	-489.9	0.000	0.000
8323	S008-pesoproprioH=25	807	Z	FT	glo	-489.9	-489.9	0.000	0.000
8324	S008-pesoproprioH=25	808	Z	FT	glo	-489.9	-489.9	0.000	0.000
8325	S008-pesoproprioH=25	809	Z	FT	glo	-489.9	-489.9	0.000	0.000
8326	S008-pesoproprioH=25	815	Z	FT	glo	-489.9	-489.9	0.000	0.000
8327	S006-pesoproprioH=25	749	Z	FT	glo	-899.9	-899.9	0.000	0.000
8328	S006-pesoproprioH=25	750	Z	FT	glo	-899.9	-900.0	0.000	0.000
8329	S006-pesoproprioH=25	751	Z	FT	glo	-900.0	-900.0	0.000	0.000
8330	S006-pesoproprioH=25	752	Z	FT	glo	-900.0	-900.0	0.000	0.000
8331	S006-pesoproprioH=25	753	Z	FT	glo	-900.0	-900.0	0.000	0.000
8332	S006-pesoproprioH=25	754	Z	FT	glo	-900.0	-900.0	0.000	0.000
8333	S006-pesoproprioH=25	755	Z	FT	glo	-900.0	-900.0	0.000	0.000
8334	S006-pesoproprioH=25	756	Z	FT	glo	-1270.8	-1269.6	0.000	0.000
8335	S006-pesoproprioH=25	757	Z	FT	glo	-1270.0	-1270.0	0.000	0.000
8336	S006-pesoproprioH=25	758	Z	FT	glo	-1270.0	-1270.0	0.000	0.000
8337	S006-pesoproprioH=25	759	Z	FT	glo	-1270.0	-1270.0	0.000	0.000
8338	S006-pesoproprioH=25	760	Z	FT	glo	-1270.0	-1270.0	0.000	0.000
8339	S006-pesoproprioH=25	761	Z	FT	glo	-1270.0	-1270.0	0.000	0.000
8340	S006-pesoproprioH=25	762	Z	FT	glo	-1270.0	-1270.0	0.000	0.000
8341	S006-pesoproprioH=25	763	Z	FT	glo	-1670.0	-1670.0	0.000	0.000
8342	S006-pesoproprioH=25	792	Z	FT	glo	-920.1	-920.1	0.000	0.000
8343	S006-pesoproprioH=25	793	Z	FT	glo	-920.1	-920.1	0.000	0.000
8344	S006-pesoproprioH=25	467	Z	FT	glo	-1670.0	-1670.0	0.000	0.000
8345	S006-pesoproprioH=25	468	Z	FT	glo	-900.0	-900.0	0.000	0.000
8346	S006-pesoproprioH=25	791	Z	FT	glo	-920.1	-920.1	0.000	0.000
8347	S006-pesoproprioH=25	794	Z	FT	glo	-920.1	-920.1	0.000	0.000
8348	S006-pesoproprioH=25	795	Z	FT	glo	-920.1	-920.1	0.000	0.000
8349	S006-pesoproprioH=25	796	Z	FT	glo	-920.1	-920.1	0.000	0.000
8350	S006-pesoproprioH=25	802	Z	FT	glo	-920.1	-920.1	0.000	0.000
8351	S006-pesoproprioH=25	803	Z	FT	glo	-920.1	-920.1	0.000	0.000
8352	S006-pesoproprioH=25	804	Z	FT	glo	-920.1	-920.1	0.000	0.000
8353	S006-pesoproprioH=25	805	Z	FT	glo	-920.1	-920.1	0.000	0.000
8354	S006-pesoproprioH=25	806	Z	FT	glo	-920.1	-920.1	0.000	0.000
8355	S006-pesoproprioH=25	807	Z	FT	glo	-920.1	-920.1	0.000	0.000
8356	S006-pesoproprioH=25	808	Z	FT	glo	-920.1	-920.1	0.000	0.000
8357	S006-pesoproprioH=25	809	Z	FT	glo	-920.1	-920.1	0.000	0.000
8358	S006-pesoproprioH=25	770	Z	FT	glo	-1690.2	-1690.1	0.000	0.000
8359	S006-pesoproprioH=25	771	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8360	S006-pesoproprioH=25	772	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8361	S006-pesoproprioH=25	773	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8362	S006-pesoproprioH=25	774	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8363	S006-pesoproprioH=25	775	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8364	S006-pesoproprioH=25	776	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8365	S006-pesoproprioH=25	777	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8366	S006-pesoproprioH=25	466	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8367	S006-pesoproprioH=25	705	Z	FT	glo	-920.1	-920.1	0.000	0.000
8368	S006-pesoproprioH=25	737	Z	FT	glo	-400.0	-400.0	0.000	0.000
8369	S006-pesoproprioH=25	738	Z	FT	glo	-400.0	-400.0	0.000	0.000
8370	S006-pesoproprioH=25	739	Z	FT	glo	-400.0	-400.0	0.000	0.000
8371	S006-pesoproprioH=25	740	Z	FT	glo	-400.0	-400.0	0.000	0.000
8372	S006-pesoproprioH=25	741	Z	FT	glo	-400.0	-400.0	0.000	0.000
8373	S006-pesoproprioH=25	742	Z	FT	glo	-400.0	-400.0	0.000	0.000
8374	S006-pesoproprioH=25	743	Z	FT	glo	-900.0	-900.0	0.000	0.000
8375	S006-pesoproprioH=25	736	Z	FT	glo	-401.0	-399.5	0.000	0.000
8376	S007-pesoproprioH=25	717	Z	FT	glo	-640.3	-640.4	0.000	0.000
8377	S007-pesoproprioH=25	718	Z	FT	glo	-640.2	-640.3	0.000	0.000
8378	S007-pesoproprioH=25	719	Z	FT	glo	-640.0	-640.2	0.000	0.000
8379	S007-pesoproprioH=25	720	Z	FT	glo	-612.4	-667.7	0.000	0.000
8380	S007-pesoproprioH=25	729	Z	FT	glo	-690.9	-690.8	0.000	0.000
8381	S007-pesoproprioH=25	733	Z	FT	glo	-1332.1	-1329.8	0.000	0.000
8382	S007-pesoproprioH=25	734	Z	FT	glo	-1330.9	-1330.9	0.000	0.000
8383	S007-pesoproprioH=25	735	Z	FT	glo	-1329.5	-1332.4	0.000	0.000
8384	S007-pesoproprioH=25	897	Z	FT	glo	-659.9	-453.8	0.000	0.000
8385	S007-pesoproprioH=25	898	Z	FT	glo	-593.5	-593.5	0.000	0.000
8386	S007-pesoproprioH=25	1220	Z	FT	glo	-690.8	-690.6	0.000	0.000
8387	S007-pesoproprioH=25	1221	Z	FT	glo	-1330.4	-1188.0	0.000	0.000
8388	S007-pesoproprioH=25	716	Z	FT	glo	-640.4	-640.5	0.000	0.000
8389	S009-pesoproprioH=25	1218	Z	FT	glo	-1929.9	-1930.1	0.000	0.000
8390	S009-pesoproprioH=25	1219	Z	FT	glo	-3117.4	-1720.9	0.000	0.000
8391	S009-pesoproprioH=25	888	Z	FT	glo	-933.2	-933.2	0.000	0.000
8392	S009-pesoproprioH=25	889	Z	FT	glo	-933.2	-933.2	0.000	0.000
8393	S009-pesoproprioH=25	890	Z	FT	glo	-933.2	-933.2	0.000	0.000
8394	S009-pesoproprioH=25	891	Z	FT	glo	-933.2	-933.2	0.000	0.000
8395	S009-pesoproprioH=25	892	Z	FT	glo	-933.2	-933.2	0.000	0.000
8396	S009-pesoproprioH=25	893	Z	FT	glo	-933.2	-933.2	0.000	0.000

8397	S009-pesoproprioH=25	894	Z	FT	glo	-933.2	-933.2	0.000	0.000
8398	S009-pesoproprioH=25	911	Z	FT	glo	-996.9	-996.9	0.000	0.000
8399	S009-pesoproprioH=25	886	Z	FT	glo	-933.2	-933.1	0.000	0.000
8400	S009-pesoproprioH=25	887	Z	FT	glo	-933.2	-933.2	0.000	0.000
8401	S009-pesoproprioH=25	910	Z	FT	glo	-996.9	-996.9	0.000	0.000
8402	S009-pesoproprioH=25	1281	Z	FT	glo	-1034.2	-959.5	0.000	0.000
8403	S009-pesoproprioH=25	1282	Z	FT	glo	-996.9	-996.9	0.000	0.000
8404	S009-pesoproprioH=25	1314	Z	FT	glo	-996.9	-996.9	0.000	0.000
8405	S009-pesoproprioH=25	1315	Z	FT	glo	-996.9	-996.9	0.000	0.000
8406	S015-pesoproprioH=25	1279	Z	FT	glo	-230.1	-230.1	0.000	0.000
8407	S015-pesoproprioH=25	1298	Z	FT	glo	-230.1	-230.1	0.000	0.000
8408	S015-pesoproprioH=25	1299	Z	FT	glo	-230.1	-230.1	0.000	0.000
8409	S016-pesoproprioH=25	911	Z	FT	glo	-230.0	-230.0	0.000	0.000
8410	S016-pesoproprioH=25	910	Z	FT	glo	-230.0	-230.0	0.000	0.000
8411	S016-pesoproprioH=25	1311	Z	FT	glo	-230.0	-230.0	0.000	0.000
8412	S016-pesoproprioH=25	1312	Z	FT	glo	-230.0	-230.0	0.000	0.000
8413	S016-pesoproprioH=25	1315	Z	FT	glo	-230.0	-230.0	0.000	0.000
8414	S001-pesosott.+pavim	9	Z	FT	glo	-345.0	-345.0	0.000	0.000
8415	S001-pesosott.+pavim	10	Z	FT	glo	-345.0	-345.0	0.000	0.000
8416	S001-pesosott.+pavim	11	Z	FT	glo	-345.0	-345.0	0.000	0.000
8417	S001-pesosott.+pavim	12	Z	FT	glo	-345.0	-345.0	0.000	0.000
8418	S001-pesosott.+pavim	13	Z	FT	glo	-345.0	-345.0	0.000	0.000
8419	S001-pesosott.+pavim	14	Z	FT	glo	-345.0	-345.0	0.000	0.000
8420	S001-pesosott.+pavim	473	Z	FT	glo	-795.2	-794.8	0.000	0.000
8421	S001-pesosott.+pavim	474	Z	FT	glo	-795.0	-795.0	0.000	0.000
8422	S001-pesosott.+pavim	475	Z	FT	glo	-795.0	-795.0	0.000	0.000
8423	S001-pesosott.+pavim	476	Z	FT	glo	-795.0	-795.0	0.000	0.000
8424	S001-pesosott.+pavim	477	Z	FT	glo	-795.0	-795.0	0.000	0.000
8425	S001-pesosott.+pavim	478	Z	FT	glo	-846.1	-770.0	0.000	0.000
8426	S001-pesosott.+pavim	485	Z	FT	glo	-900.8	-900.8	0.000	0.000
8427	S001-pesosott.+pavim	486	Z	FT	glo	-900.8	-900.8	0.000	0.000
8428	S001-pesosott.+pavim	487	Z	FT	glo	-900.8	-900.8	0.000	0.000
8429	S001-pesosott.+pavim	488	Z	FT	glo	-900.8	-900.8	0.000	0.000
8430	S001-pesosott.+pavim	489	Z	FT	glo	-900.8	-900.8	0.000	0.000
8431	S001-pesosott.+pavim	490	Z	FT	glo	-925.7	-849.7	0.000	0.000
8432	S001-pesosott.+pavim	8	Z	FT	glo	-566.1	-241.5	0.000	0.000
8433	S001-pesosott.+pavim	533	Z	FT	glo	-179.9	-277.1	0.000	0.000
8434	S001-pesosott.+pavim	534	Z	FT	glo	-268.1	-337.8	0.000	0.000
8435	S001-pesosott.+pavim	498	Z	FT	glo	-1185.5	-1109.3	0.000	0.000
8436	S001-pesosott.+pavim	499	Z	FT	glo	-1160.5	-1160.5	0.000	0.000
8437	S001-pesosott.+pavim	500	Z	FT	glo	-1160.5	-1160.5	0.000	0.000
8438	S001-pesosott.+pavim	501	Z	FT	glo	-1160.5	-1160.5	0.000	0.000
8439	S001-pesosott.+pavim	502	Z	FT	glo	-1160.5	-1160.5	0.000	0.000
8440	S001-pesosott.+pavim	503	Z	FT	glo	-1160.5	-1160.5	0.000	0.000
8441	S001-pesosott.+pavim	544	Z	FT	glo	-1771.7	-1834.3	0.000	0.000
8442	S001-pesosott.+pavim	514	Z	FT	glo	-1428.6	-1247.8	0.000	0.000
8443	S001-pesosott.+pavim	515	Z	FT	glo	-1369.7	-1369.7	0.000	0.000
8444	S001-pesosott.+pavim	516	Z	FT	glo	-1369.7	-1369.7	0.000	0.000
8445	S001-pesosott.+pavim	517	Z	FT	glo	-1369.7	-1369.7	0.000	0.000
8446	S001-pesosott.+pavim	518	Z	FT	glo	-1369.7	-1369.7	0.000	0.000
8447	S001-pesosott.+pavim	519	Z	FT	glo	-1199.9	-1449.5	0.000	0.000
8448	S001-pesosott.+pavim	527	Z	FT	glo	-1128.7	-839.5	0.000	0.000
8449	S001-pesosott.+pavim	528	Z	FT	glo	-1209.9	-1077.5	0.000	0.000
8450	S001-pesosott.+pavim	529	Z	FT	glo	-1246.6	-1228.1	0.000	0.000
8451	S001-pesosott.+pavim	530	Z	FT	glo	-1241.0	-1241.0	0.000	0.000
8452	S001-pesosott.+pavim	531	Z	FT	glo	-1241.0	-1241.0	0.000	0.000
8453	S001-pesosott.+pavim	532	Z	FT	glo	-1240.3	-1241.8	0.000	0.000
8454	S001-pesosott.+pavim	535	Z	FT	glo	-337.8	-407.5	0.000	0.000
8455	S001-pesosott.+pavim	537	Z	FT	glo	-581.0	-581.0	0.000	0.000
8456	S001-pesosott.+pavim	538	Z	FT	glo	-581.0	-581.0	0.000	0.000
8457	S001-pesosott.+pavim	539	Z	FT	glo	-581.0	-581.0	0.000	0.000
8458	S001-pesosott.+pavim	536	Z	FT	glo	-581.0	-581.0	0.000	0.000
8459	S002-pesosott.+pavim	556	Z	FT	glo	-709.7	-709.7	0.000	0.000
8460	S002-pesosott.+pavim	557	Z	FT	glo	-709.7	-709.7	0.000	0.000
8461	S002-pesosott.+pavim	555	Z	FT	glo	-709.7	-709.7	0.000	0.000
8462	S002-pesosott.+pavim	558	Z	FT	glo	-709.7	-709.7	0.000	0.000
8463	S002-pesosott.+pavim	559	Z	FT	glo	-709.7	-709.7	0.000	0.000
8464	S002-pesosott.+pavim	560	Z	FT	glo	-709.6	-709.9	0.000	0.000
8465	S002-pesosott.+pavim	579	Z	FT	glo	-1369.8	-1369.7	0.000	0.000
8466	S002-pesosott.+pavim	580	Z	FT	glo	-1369.7	-1369.7	0.000	0.000
8467	S002-pesosott.+pavim	581	Z	FT	glo	-1369.7	-1369.7	0.000	0.000
8468	S002-pesosott.+pavim	582	Z	FT	glo	-1369.7	-1369.7	0.000	0.000
8469	S002-pesosott.+pavim	583	Z	FT	glo	-1369.7	-1369.8	0.000	0.000
8470	S002-pesosott.+pavim	584	Z	FT	glo	-1261.5	-632.5	0.000	0.000
8471	S002-pesosott.+pavim	585	Z	FT	glo	-1241.0	-1241.0	0.000	0.000
8472	S002-pesosott.+pavim	586	Z	FT	glo	-1241.0	-1241.0	0.000	0.000
8473	S002-pesosott.+pavim	587	Z	FT	glo	-1241.0	-1241.0	0.000	0.000
8474	S002-pesosott.+pavim	588	Z	FT	glo	-1241.0	-1241.1	0.000	0.000
8475	S002-pesosott.+pavim	589	Z	FT	glo	-592.4	-558.0	0.000	0.000
8476	S002-pesosott.+pavim	590	Z	FT	glo	-581.0	-581.0	0.000	0.000
8477	S002-pesosott.+pavim	591	Z	FT	glo	-581.0	-581.0	0.000	0.000
8478	S002-pesosott.+pavim	592	Z	FT	glo	-581.0	-581.0	0.000	0.000
8479	S002-pesosott.+pavim	593	Z	FT	glo	-581.0	-581.0	0.000	0.000
8480	S003-pesosott.+pavim	608	Z	FT	glo	-676.5	-676.5	0.000	0.000
8481	S003-pesosott.+pavim	609	Z	FT	glo	-676.5	-676.5	0.000	0.000
8482	S003-pesosott.+pavim	610	Z	FT	glo	-676.5	-676.5	0.000	0.000
8483	S003-pesosott.+pavim	623	Z	FT	glo	-1404.0	-1404.0	0.000	0.000
8484	S003-pesosott.+pavim	624	Z	FT	glo	-1404.0	-1404.0	0.000	0.000



8573	S008-pesosott.+pavim	802	Z	FT	glo	-301.7	-399.1	0.000	0.000
8574	S008-pesosott.+pavim	803	Z	FT	glo	-367.5	-367.5	0.000	0.000
8575	S008-pesosott.+pavim	804	Z	FT	glo	-367.5	-367.5	0.000	0.000
8576	S008-pesosott.+pavim	805	Z	FT	glo	-367.5	-367.5	0.000	0.000
8577	S008-pesosott.+pavim	806	Z	FT	glo	-367.5	-367.5	0.000	0.000
8578	S008-pesosott.+pavim	807	Z	FT	glo	-367.5	-367.5	0.000	0.000
8579	S008-pesosott.+pavim	808	Z	FT	glo	-367.5	-367.5	0.000	0.000
8580	S008-pesosott.+pavim	809	Z	FT	glo	-367.5	-367.5	0.000	0.000
8581	S008-pesosott.+pavim	815	Z	FT	glo	-367.5	-367.5	0.000	0.000
8582	S006-pesosott.+pavim	749	Z	FT	glo	-674.9	-675.0	0.000	0.000
8583	S006-pesosott.+pavim	750	Z	FT	glo	-675.0	-675.0	0.000	0.000
8584	S006-pesosott.+pavim	751	Z	FT	glo	-675.0	-675.0	0.000	0.000
8585	S006-pesosott.+pavim	752	Z	FT	glo	-675.0	-675.0	0.000	0.000
8586	S006-pesosott.+pavim	753	Z	FT	glo	-675.0	-675.0	0.000	0.000
8587	S006-pesosott.+pavim	754	Z	FT	glo	-675.0	-675.0	0.000	0.000
8588	S006-pesosott.+pavim	755	Z	FT	glo	-675.0	-675.0	0.000	0.000
8589	S006-pesosott.+pavim	756	Z	FT	glo	-953.1	-952.2	0.000	0.000
8590	S006-pesosott.+pavim	757	Z	FT	glo	-952.5	-952.5	0.000	0.000
8591	S006-pesosott.+pavim	758	Z	FT	glo	-952.5	-952.5	0.000	0.000
8592	S006-pesosott.+pavim	759	Z	FT	glo	-952.5	-952.5	0.000	0.000
8593	S006-pesosott.+pavim	760	Z	FT	glo	-952.5	-952.5	0.000	0.000
8594	S006-pesosott.+pavim	761	Z	FT	glo	-952.5	-952.5	0.000	0.000
8595	S006-pesosott.+pavim	762	Z	FT	glo	-952.5	-952.5	0.000	0.000
8596	S006-pesosott.+pavim	763	Z	FT	glo	-1252.5	-1252.5	0.000	0.000
8597	S006-pesosott.+pavim	792	Z	FT	glo	-690.1	-690.1	0.000	0.000
8598	S006-pesosott.+pavim	793	Z	FT	glo	-690.1	-690.1	0.000	0.000
8599	S006-pesosott.+pavim	467	Z	FT	glo	-1252.5	-1252.5	0.000	0.000
8600	S006-pesosott.+pavim	468	Z	FT	glo	-675.0	-675.0	0.000	0.000
8601	S006-pesosott.+pavim	791	Z	FT	glo	-690.1	-690.1	0.000	0.000
8602	S006-pesosott.+pavim	794	Z	FT	glo	-690.1	-690.1	0.000	0.000
8603	S006-pesosott.+pavim	795	Z	FT	glo	-690.1	-690.1	0.000	0.000
8604	S006-pesosott.+pavim	796	Z	FT	glo	-690.1	-690.1	0.000	0.000
8605	S006-pesosott.+pavim	802	Z	FT	glo	-690.1	-690.1	0.000	0.000
8606	S006-pesosott.+pavim	803	Z	FT	glo	-690.1	-690.1	0.000	0.000
8607	S006-pesosott.+pavim	804	Z	FT	glo	-690.1	-690.1	0.000	0.000
8608	S006-pesosott.+pavim	805	Z	FT	glo	-690.1	-690.1	0.000	0.000
8609	S006-pesosott.+pavim	806	Z	FT	glo	-690.1	-690.1	0.000	0.000
8610	S006-pesosott.+pavim	807	Z	FT	glo	-690.1	-690.1	0.000	0.000
8611	S006-pesosott.+pavim	808	Z	FT	glo	-690.1	-690.1	0.000	0.000
8612	S006-pesosott.+pavim	809	Z	FT	glo	-690.1	-690.1	0.000	0.000
8613	S006-pesosott.+pavim	770	Z	FT	glo	-1267.6	-1267.6	0.000	0.000
8614	S006-pesosott.+pavim	771	Z	FT	glo	-1267.6	-1267.6	0.000	0.000
8615	S006-pesosott.+pavim	772	Z	FT	glo	-1267.6	-1267.6	0.000	0.000
8616	S006-pesosott.+pavim	773	Z	FT	glo	-1267.6	-1267.6	0.000	0.000
8617	S006-pesosott.+pavim	774	Z	FT	glo	-1267.6	-1267.6	0.000	0.000
8618	S006-pesosott.+pavim	775	Z	FT	glo	-1267.6	-1267.6	0.000	0.000
8619	S006-pesosott.+pavim	776	Z	FT	glo	-1267.6	-1267.6	0.000	0.000
8620	S006-pesosott.+pavim	777	Z	FT	glo	-1267.6	-1267.6	0.000	0.000
8621	S006-pesosott.+pavim	466	Z	FT	glo	-1267.6	-1267.6	0.000	0.000
8622	S006-pesosott.+pavim	705	Z	FT	glo	-690.1	-690.1	0.000	0.000
8623	S006-pesosott.+pavim	737	Z	FT	glo	-300.0	-300.0	0.000	0.000
8624	S006-pesosott.+pavim	738	Z	FT	glo	-300.0	-300.0	0.000	0.000
8625	S006-pesosott.+pavim	739	Z	FT	glo	-300.0	-300.0	0.000	0.000
8626	S006-pesosott.+pavim	740	Z	FT	glo	-300.0	-300.0	0.000	0.000
8627	S006-pesosott.+pavim	741	Z	FT	glo	-300.0	-300.0	0.000	0.000
8628	S006-pesosott.+pavim	742	Z	FT	glo	-300.0	-300.0	0.000	0.000
8629	S006-pesosott.+pavim	743	Z	FT	glo	-675.0	-675.0	0.000	0.000
8630	S006-pesosott.+pavim	736	Z	FT	glo	-300.8	-299.6	0.000	0.000
8631	S007-pesosott.+pavim	717	Z	FT	glo	-480.2	-480.3	0.000	0.000
8632	S007-pesosott.+pavim	718	Z	FT	glo	-480.1	-480.2	0.000	0.000
8633	S007-pesosott.+pavim	719	Z	FT	glo	-480.0	-480.1	0.000	0.000
8634	S007-pesosott.+pavim	720	Z	FT	glo	-459.3	-500.8	0.000	0.000
8635	S007-pesosott.+pavim	729	Z	FT	glo	-518.2	-518.1	0.000	0.000
8636	S007-pesosott.+pavim	733	Z	FT	glo	-999.0	-997.3	0.000	0.000
8637	S007-pesosott.+pavim	734	Z	FT	glo	-998.2	-998.2	0.000	0.000
8638	S007-pesosott.+pavim	735	Z	FT	glo	-997.1	-999.3	0.000	0.000
8639	S007-pesosott.+pavim	897	Z	FT	glo	-494.9	-340.4	0.000	0.000
8640	S007-pesosott.+pavim	898	Z	FT	glo	-445.1	-445.1	0.000	0.000
8641	S007-pesosott.+pavim	1220	Z	FT	glo	-518.1	-517.9	0.000	0.000
8642	S007-pesosott.+pavim	1221	Z	FT	glo	-997.8	-891.0	0.000	0.000
8643	S007-pesosott.+pavim	716	Z	FT	glo	-480.3	-480.4	0.000	0.000
8644	S009-pesosott.+pavim	1218	Z	FT	glo	-1447.4	-1447.6	0.000	0.000
8645	S009-pesosott.+pavim	1219	Z	FT	glo	-2338.0	-1290.7	0.000	0.000
8646	S009-pesosott.+pavim	888	Z	FT	glo	-699.9	-699.9	0.000	0.000
8647	S009-pesosott.+pavim	889	Z	FT	glo	-699.9	-699.9	0.000	0.000
8648	S009-pesosott.+pavim	890	Z	FT	glo	-699.9	-699.9	0.000	0.000
8649	S009-pesosott.+pavim	891	Z	FT	glo	-699.9	-699.9	0.000	0.000
8650	S009-pesosott.+pavim	892	Z	FT	glo	-699.9	-699.9	0.000	0.000
8651	S009-pesosott.+pavim	893	Z	FT	glo	-699.9	-699.9	0.000	0.000
8652	S009-pesosott.+pavim	894	Z	FT	glo	-699.9	-699.9	0.000	0.000
8653	S009-pesosott.+pavim	911	Z	FT	glo	-747.6	-747.6	0.000	0.000
8654	S009-pesosott.+pavim	886	Z	FT	glo	-699.9	-699.9	0.000	0.000
8655	S009-pesosott.+pavim	887	Z	FT	glo	-699.9	-699.9	0.000	0.000
8656	S009-pesosott.+pavim	910	Z	FT	glo	-747.6	-747.6	0.000	0.000
8657	S009-pesosott.+pavim	1281	Z	FT	glo	-775.7	-719.6	0.000	0.000
8658	S009-pesosott.+pavim	1282	Z	FT	glo	-747.6	-747.6	0.000	0.000
8659	S009-pesosott.+pavim	1314	Z	FT	glo	-747.6	-747.6	0.000	0.000
8660	S009-pesosott.+pavim	1315	Z	FT	glo	-747.6	-747.6	0.000	0.000

8661	S015-pesosott.+pavim	1279	Z	FT	glo	-172.6	-172.6	0.000	0.000
8662	S015-pesosott.+pavim	1298	Z	FT	glo	-172.6	-172.6	0.000	0.000
8663	S015-pesosott.+pavim	1299	Z	FT	glo	-172.6	-172.6	0.000	0.000
8664	S016-pesosott.+pavim	911	Z	FT	glo	-172.5	-172.5	0.000	0.000
8665	S016-pesosott.+pavim	910	Z	FT	glo	-172.5	-172.5	0.000	0.000
8666	S016-pesosott.+pavim	1311	Z	FT	glo	-172.5	-172.5	0.000	0.000
8667	S016-pesosott.+pavim	1312	Z	FT	glo	-172.5	-172.5	0.000	0.000
8668	S016-pesosott.+pavim	1315	Z	FT	glo	-172.5	-172.5	0.000	0.000
8669	S010-pesoproprioH=25	992	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
8670	S010-pesoproprioH=25	996	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
8671	S010-pesoproprioH=25	998	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
8672	S010-pesoproprioH=25	999	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
8673	S010-pesoproprioH=25	1001	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
8674	S010-pesoproprioH=25	1002	Z	FT	glo	-1020.0	-1020.0	0.000	0.000
8675	S010-pesoproprioH=25	1004	Z	FT	glo	-1050.0	-1050.0	0.000	0.000
8676	S010-pesoproprioH=25	1005	Z	FT	glo	-1050.0	-1050.0	0.000	0.000
8677	S010-pesoproprioH=25	1006	Z	FT	glo	-1050.0	-1050.0	0.000	0.000
8678	S010-pesoproprioH=25	1007	Z	FT	glo	-1050.0	-1050.0	0.000	0.000
8679	S010-pesoproprioH=25	1008	Z	FT	glo	-742.5	-461.4	0.000	0.000
8680	S010-pesoproprioH=25	1017	Z	FT	glo	-1940.1	-1940.1	0.000	0.000
8681	S010-pesoproprioH=25	1016	Z	FT	glo	-1940.1	-1940.1	0.000	0.000
8682	S010-pesoproprioH=25	1012	Z	FT	glo	-2039.4	-1636.7	0.000	0.000
8683	S010-pesoproprioH=25	1021	Z	FT	glo	-890.0	-890.0	0.000	0.000
8684	S010-pesoproprioH=25	1024	Z	FT	glo	-890.0	-890.0	0.000	0.000
8685	S010-pesoproprioH=25	1026	Z	FT	glo	-890.0	-890.0	0.000	0.000
8686	S010-pesoproprioH=25	1027	Z	FT	glo	-890.0	-890.0	0.000	0.000
8687	S010-pesoproprioH=25	1020	Z	FT	glo	-890.0	-890.0	0.000	0.000
8688	S010-pesoproprioH=25	1192	Z	FT	glo	-890.0	-890.0	0.000	0.000
8689	S010-pesoproprioH=25	1193	Z	FT	glo	-890.0	-890.0	0.000	0.000
8690	S010-pesoproprioH=25	1194	Z	FT	glo	-890.0	-890.0	0.000	0.000
8691	S010-pesoproprioH=25	1023	Z	FT	glo	-890.0	-890.0	0.000	0.000
8692	S010-pesoproprioH=25	1195	Z	FT	glo	-890.0	-890.0	0.000	0.000
8693	S010-pesoproprioH=25	1196	Z	FT	glo	-890.0	-890.0	0.000	0.000
8694	S010-pesoproprioH=25	1197	Z	FT	glo	-890.0	-890.0	0.000	0.000
8695	S010-pesoproprioH=25	1025	Z	FT	glo	-890.0	-890.0	0.000	0.000
8696	S010-pesoproprioH=25	1198	Z	FT	glo	-890.0	-890.0	0.000	0.000
8697	S010-pesoproprioH=25	1199	Z	FT	glo	-890.0	-890.0	0.000	0.000
8698	S011-pesoproprioH=25	1028	Z	FT	glo	-902.0	-902.0	0.000	0.000
8699	S011-pesoproprioH=25	1039	Z	FT	glo	-940.0	-940.0	0.000	0.000
8700	S011-pesoproprioH=25	1041	Z	FT	glo	-940.0	-940.0	0.000	0.000
8701	S011-pesoproprioH=25	1042	Z	FT	glo	-940.0	-940.0	0.000	0.000
8702	S011-pesoproprioH=25	1036	Z	FT	glo	-1872.0	-1872.0	0.000	0.000
8703	S011-pesoproprioH=25	1046	Z	FT	glo	-970.0	-970.0	0.000	0.000
8704	S011-pesoproprioH=25	1047	Z	FT	glo	-940.0	-940.0	0.000	0.000
8705	S011-pesoproprioH=25	1048	Z	FT	glo	-940.0	-940.0	0.000	0.000
8706	S013-pesoproprioH=25	1112	Z	FT	glo	-1130.0	-1130.0	0.000	0.000
8707	S013-pesoproprioH=25	1113	Z	FT	glo	-1130.0	-1130.0	0.000	0.000
8708	S013-pesoproprioH=25	1114	Z	FT	glo	-799.0	-517.9	0.000	0.000
8709	S013-pesoproprioH=25	1120	Z	FT	glo	-1979.2	-1531.9	0.000	0.000
8710	S013-pesoproprioH=25	1121	Z	FT	glo	-774.7	-774.7	0.000	0.000
8711	S013-pesoproprioH=25	1123	Z	FT	glo	-774.7	-774.7	0.000	0.000
8712	S013-pesoproprioH=25	1126	Z	FT	glo	-1904.7	-1904.7	0.000	0.000
8713	S020-pesoproprioH=25	1127	Z	FT	glo	-870.1	-918.8	0.000	0.000
8714	S020-pesoproprioH=25	1128	Z	FT	glo	-918.8	-920.1	0.000	0.000
8715	S020-pesoproprioH=25	1423	Z	FT	glo	-867.2	-917.1	0.000	0.000
8716	S021-pesoproprioH=25	1054	Z	FT	glo	-831.1	-1062.5	0.000	0.000
8717	S021-pesoproprioH=25	1055	Z	FT	glo	-969.4	-1033.1	0.000	0.000
8718	S021-pesoproprioH=25	1063	Z	FT	glo	-2260.0	-2389.9	0.000	0.000
8719	S021-pesoproprioH=25	1081	Z	FT	glo	-1690.2	-1690.1	0.000	0.000
8720	S021-pesoproprioH=25	1082	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8721	S021-pesoproprioH=25	1083	Z	FT	glo	-1690.1	-1690.1	0.000	0.000
8722	S021-pesoproprioH=25	1110	Z	FT	glo	-920.1	-870.1	0.000	0.000
8723	S021-pesoproprioH=25	1111	Z	FT	glo	-920.1	-920.1	0.000	0.000
8724	S021-pesoproprioH=25	1085	Z	FT	glo	-920.1	-920.1	0.000	0.000
8725	S021-pesoproprioH=25	1230	Z	FT	glo	-920.1	-920.1	0.000	0.000
8726	S021-pesoproprioH=25	1215	Z	FT	glo	-2591.1	-2460.4	0.000	0.000
8727	S021-pesoproprioH=25	1079	Z	FT	glo	-1270.6	-1269.6	0.000	0.000
8728	S021-pesoproprioH=25	1318	Z	FT	glo	-1489.9	-1490.0	0.000	0.000
8729	S021-pesoproprioH=25	1319	Z	FT	glo	-1490.0	-1490.0	0.000	0.000
8730	S021-pesoproprioH=25	1327	Z	FT	glo	-1261.8	-1317.9	0.000	0.000
8731	S021-pesoproprioH=25	1320	Z	FT	glo	-1490.0	-1490.0	0.000	0.000
8732	S021-pesoproprioH=25	1420	Z	FT	glo	-1682.6	-1682.6	0.000	0.000
8733	S022-pesoproprioH=30	1094	Z	FT	glo	-1437.5	-1437.5	0.000	0.000
8734	S022-pesoproprioH=30	1101	Z	FT	glo	-1025.0	-1025.0	0.000	0.000
8735	S022-pesoproprioH=30	1131	Z	FT	glo	-1437.5	-1437.5	0.000	0.000
8736	S022-pesoproprioH=30	1104	Z	FT	glo	-1437.5	-1437.5	0.000	0.000
8737	S022-pesoproprioH=30	1225	Z	FT	glo	-1437.5	-1437.5	0.000	0.000
8738	S022-pesoproprioH=30	1098	Z	FT	glo	-2462.5	-2462.5	0.000	0.000
8739	S022-pesoproprioH=30	1097	Z	FT	glo	-2400.0	-2462.5	0.000	0.000
8740	S022-pesoproprioH=30	1328	Z	FT	glo	-2551.3	-2357.4	0.000	0.000
8741	S022-pesoproprioH=30	1423	Z	FT	glo	-1021.6	-959.3	0.000	0.000
8742	S022-pesoproprioH=30	1424	Z	FT	glo	-961.1	-1023.5	0.000	0.000
8743	S010-permsott.+strut	992	Z	FT	glo	-510.0	-510.0	0.000	0.000
8744	S010-permsott.+strut	996	Z	FT	glo	-510.0	-510.0	0.000	0.000
8745	S010-permsott.+strut	998	Z	FT	glo	-510.0	-510.0	0.000	0.000
8746	S010-permsott.+strut	999	Z	FT	glo	-510.0	-510.0	0.000	0.000
8747	S010-permsott.+strut	1001	Z	FT	glo	-510.0	-510.0	0.000	0.000
8748	S010-permsott.+strut	1002	Z	FT	glo	-510.0	-510.0	0.000	0.000

8749	S010-permsott.+strut	1004	Z	FT	glo	-525.0	-525.0	0.000	0.000
8750	S010-permsott.+strut	1005	Z	FT	glo	-525.0	-525.0	0.000	0.000
8751	S010-permsott.+strut	1006	Z	FT	glo	-525.0	-525.0	0.000	0.000
8752	S010-permsott.+strut	1007	Z	FT	glo	-525.0	-525.0	0.000	0.000
8753	S010-permsott.+strut	1008	Z	FT	glo	-371.2	-230.7	0.000	0.000
8754	S010-permsott.+strut	1017	Z	FT	glo	-970.0	-970.0	0.000	0.000
8755	S010-permsott.+strut	1016	Z	FT	glo	-970.0	-970.0	0.000	0.000
8756	S010-permsott.+strut	1012	Z	FT	glo	-1019.7	-818.3	0.000	0.000
8757	S010-permsott.+strut	1021	Z	FT	glo	-445.0	-445.0	0.000	0.000
8758	S010-permsott.+strut	1024	Z	FT	glo	-445.0	-445.0	0.000	0.000
8759	S010-permsott.+strut	1026	Z	FT	glo	-445.0	-445.0	0.000	0.000
8760	S010-permsott.+strut	1027	Z	FT	glo	-445.0	-445.0	0.000	0.000
8761	S010-permsott.+strut	1020	Z	FT	glo	-445.0	-445.0	0.000	0.000
8762	S010-permsott.+strut	1192	Z	FT	glo	-445.0	-445.0	0.000	0.000
8763	S010-permsott.+strut	1193	Z	FT	glo	-445.0	-445.0	0.000	0.000
8764	S010-permsott.+strut	1194	Z	FT	glo	-445.0	-445.0	0.000	0.000
8765	S010-permsott.+strut	1023	Z	FT	glo	-445.0	-445.0	0.000	0.000
8766	S010-permsott.+strut	1195	Z	FT	glo	-445.0	-445.0	0.000	0.000
8767	S010-permsott.+strut	1196	Z	FT	glo	-445.0	-445.0	0.000	0.000
8768	S010-permsott.+strut	1197	Z	FT	glo	-445.0	-445.0	0.000	0.000
8769	S010-permsott.+strut	1025	Z	FT	glo	-445.0	-445.0	0.000	0.000
8770	S010-permsott.+strut	1198	Z	FT	glo	-445.0	-445.0	0.000	0.000
8771	S010-permsott.+strut	1199	Z	FT	glo	-445.0	-445.0	0.000	0.000
8772	S011-permsott.+strut	1028	Z	FT	glo	-451.0	-451.0	0.000	0.000
8773	S011-permsott.+strut	1039	Z	FT	glo	-470.0	-470.0	0.000	0.000
8774	S011-permsott.+strut	1041	Z	FT	glo	-470.0	-470.0	0.000	0.000
8775	S011-permsott.+strut	1042	Z	FT	glo	-470.0	-470.0	0.000	0.000
8776	S011-permsott.+strut	1036	Z	FT	glo	-936.0	-936.0	0.000	0.000
8777	S011-permsott.+strut	1046	Z	FT	glo	-485.0	-485.0	0.000	0.000
8778	S011-permsott.+strut	1047	Z	FT	glo	-470.0	-470.0	0.000	0.000
8779	S011-permsott.+strut	1048	Z	FT	glo	-470.0	-470.0	0.000	0.000
8780	S013-permsott.+strut	1112	Z	FT	glo	-565.0	-565.0	0.000	0.000
8781	S013-permsott.+strut	1113	Z	FT	glo	-565.0	-565.0	0.000	0.000
8782	S013-permsott.+strut	1114	Z	FT	glo	-399.5	-258.9	0.000	0.000
8783	S013-permsott.+strut	1120	Z	FT	glo	-989.6	-765.9	0.000	0.000
8784	S013-permsott.+strut	1121	Z	FT	glo	-387.3	-387.3	0.000	0.000
8785	S013-permsott.+strut	1123	Z	FT	glo	-387.3	-387.3	0.000	0.000
8786	S013-permsott.+strut	1126	Z	FT	glo	-952.3	-952.3	0.000	0.000
8787	S020-permsott.+strut	1127	Z	FT	glo	-435.0	-459.4	0.000	0.000
8788	S020-permsott.+strut	1128	Z	FT	glo	-459.4	-460.0	0.000	0.000
8789	S020-permsott.+strut	1423	Z	FT	glo	-433.6	-458.5	0.000	0.000
8790	S021-permsott.+strut	1054	Z	FT	glo	-415.5	-531.2	0.000	0.000
8791	S021-permsott.+strut	1055	Z	FT	glo	-484.7	-516.5	0.000	0.000
8792	S021-permsott.+strut	1063	Z	FT	glo	-1130.0	-1194.9	0.000	0.000
8793	S021-permsott.+strut	1081	Z	FT	glo	-845.1	-845.0	0.000	0.000
8794	S021-permsott.+strut	1082	Z	FT	glo	-845.0	-845.0	0.000	0.000
8795	S021-permsott.+strut	1083	Z	FT	glo	-845.0	-845.0	0.000	0.000
8796	S021-permsott.+strut	1110	Z	FT	glo	-460.0	-435.0	0.000	0.000
8797	S021-permsott.+strut	1111	Z	FT	glo	-460.0	-460.0	0.000	0.000
8798	S021-permsott.+strut	1085	Z	FT	glo	-460.0	-460.0	0.000	0.000
8799	S021-permsott.+strut	1230	Z	FT	glo	-460.0	-460.0	0.000	0.000
8800	S021-permsott.+strut	1215	Z	FT	glo	-1295.5	-1230.1	0.000	0.000
8801	S021-permsott.+strut	1079	Z	FT	glo	-635.3	-634.8	0.000	0.000
8802	S021-permsott.+strut	1318	Z	FT	glo	-744.9	-745.0	0.000	0.000
8803	S021-permsott.+strut	1319	Z	FT	glo	-745.0	-745.0	0.000	0.000
8804	S021-permsott.+strut	1327	Z	FT	glo	-630.9	-658.9	0.000	0.000
8805	S021-permsott.+strut	1320	Z	FT	glo	-745.0	-745.0	0.000	0.000
8806	S021-permsott.+strut	1420	Z	FT	glo	-841.3	-841.3	0.000	0.000
8807	S022-giardinopensile	1094	Z	FT	glo	-1725.0	-1725.0	0.000	0.000
8808	S022-giardinopensile	1101	Z	FT	glo	-1230.0	-1230.0	0.000	0.000
8809	S022-giardinopensile	1131	Z	FT	glo	-1725.0	-1725.0	0.000	0.000
8810	S022-giardinopensile	1104	Z	FT	glo	-1725.0	-1725.0	0.000	0.000
8811	S022-giardinopensile	1225	Z	FT	glo	-1725.0	-1725.0	0.000	0.000
8812	S022-giardinopensile	1098	Z	FT	glo	-2955.0	-2955.0	0.000	0.000
8813	S022-giardinopensile	1097	Z	FT	glo	-2880.0	-2955.0	0.000	0.000
8814	S022-giardinopensile	1328	Z	FT	glo	-3061.6	-2828.9	0.000	0.000
8815	S022-giardinopensile	1423	Z	FT	glo	-1226.0	-1151.2	0.000	0.000
8816	S022-giardinopensile	1424	Z	FT	glo	-1153.3	-1228.2	0.000	0.000
8817	S014-pesoproprioH=36	1136	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8818	S014-pesoproprioH=36	1138	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8819	S014-pesoproprioH=36	1140	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8820	S014-pesoproprioH=36	1143	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8821	S014-pesoproprioH=36	1157	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8822	S014-pesoproprioH=36	1158	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8823	S014-pesoproprioH=36	1135	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8824	S014-pesoproprioH=36	1200	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8825	S014-pesoproprioH=36	1201	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8826	S014-pesoproprioH=36	1202	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8827	S014-pesoproprioH=36	1137	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8828	S014-pesoproprioH=36	1203	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8829	S014-pesoproprioH=36	1204	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8830	S014-pesoproprioH=36	1205	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8831	S014-pesoproprioH=36	1139	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8832	S014-pesoproprioH=36	1206	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8833	S014-pesoproprioH=36	1207	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8834	S014-pesoproprioH=36	1212	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8835	S014-pesoproprioH=36	1165	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8836	S014-pesoproprioH=36	1166	Z	FT	glo	-2922.5	-2922.5	0.000	0.000

8837	S014-pesoproprioH=36	1167	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8838	S014-pesoproprioH=36	1168	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8839	S014-pesoproprioH=36	1154	Z	FT	glo	-2922.5	-2922.5	0.000	0.000
8840	S014-permsott.+strut	1136	Z	FT	glo	-835.0	-835.0	0.000	0.000
8841	S014-permsott.+strut	1138	Z	FT	glo	-835.0	-835.0	0.000	0.000
8842	S014-permsott.+strut	1140	Z	FT	glo	-835.0	-835.0	0.000	0.000
8843	S014-permsott.+strut	1143	Z	FT	glo	-835.0	-835.0	0.000	0.000
8844	S014-permsott.+strut	1157	Z	FT	glo	-835.0	-835.0	0.000	0.000
8845	S014-permsott.+strut	1158	Z	FT	glo	-835.0	-835.0	0.000	0.000
8846	S014-permsott.+strut	1135	Z	FT	glo	-835.0	-835.0	0.000	0.000
8847	S014-permsott.+strut	1200	Z	FT	glo	-835.0	-835.0	0.000	0.000
8848	S014-permsott.+strut	1201	Z	FT	glo	-835.0	-835.0	0.000	0.000
8849	S014-permsott.+strut	1202	Z	FT	glo	-835.0	-835.0	0.000	0.000
8850	S014-permsott.+strut	1137	Z	FT	glo	-835.0	-835.0	0.000	0.000
8851	S014-permsott.+strut	1203	Z	FT	glo	-835.0	-835.0	0.000	0.000
8852	S014-permsott.+strut	1204	Z	FT	glo	-835.0	-835.0	0.000	0.000
8853	S014-permsott.+strut	1205	Z	FT	glo	-835.0	-835.0	0.000	0.000
8854	S014-permsott.+strut	1139	Z	FT	glo	-835.0	-835.0	0.000	0.000
8855	S014-permsott.+strut	1206	Z	FT	glo	-835.0	-835.0	0.000	0.000
8856	S014-permsott.+strut	1207	Z	FT	glo	-835.0	-835.0	0.000	0.000
8857	S014-permsott.+strut	1212	Z	FT	glo	-835.0	-835.0	0.000	0.000
8858	S014-permsott.+strut	1165	Z	FT	glo	-835.0	-835.0	0.000	0.000
8859	S014-permsott.+strut	1166	Z	FT	glo	-835.0	-835.0	0.000	0.000
8860	S014-permsott.+strut	1167	Z	FT	glo	-835.0	-835.0	0.000	0.000
8861	S014-permsott.+strut	1168	Z	FT	glo	-835.0	-835.0	0.000	0.000
8862	S014-permsott.+strut	1154	Z	FT	glo	-835.0	-835.0	0.000	0.000
8863	S001-varscuola	9	Z	FT	glo	-575.0	-575.0	0.000	0.000
8864	S001-varscuola	10	Z	FT	glo	-575.0	-575.0	0.000	0.000
8865	S001-varscuola	11	Z	FT	glo	-575.0	-575.0	0.000	0.000
8866	S001-varscuola	12	Z	FT	glo	-575.0	-575.0	0.000	0.000
8867	S001-varscuola	13	Z	FT	glo	-575.0	-575.0	0.000	0.000
8868	S001-varscuola	14	Z	FT	glo	-575.0	-575.0	0.000	0.000
8869	S001-varscuola	473	Z	FT	glo	-1325.3	-1324.7	0.000	0.000
8870	S001-varscuola	474	Z	FT	glo	-1325.0	-1325.0	0.000	0.000
8871	S001-varscuola	475	Z	FT	glo	-1325.0	-1325.0	0.000	0.000
8872	S001-varscuola	476	Z	FT	glo	-1325.0	-1325.0	0.000	0.000
8873	S001-varscuola	477	Z	FT	glo	-1325.0	-1325.0	0.000	0.000
8874	S001-varscuola	478	Z	FT	glo	-1410.1	-1283.4	0.000	0.000
8875	S001-varscuola	485	Z	FT	glo	-1501.2	-1501.2	0.000	0.000
8876	S001-varscuola	486	Z	FT	glo	-1501.2	-1501.2	0.000	0.000
8877	S001-varscuola	487	Z	FT	glo	-1501.2	-1501.2	0.000	0.000
8878	S001-varscuola	488	Z	FT	glo	-1501.2	-1501.2	0.000	0.000
8879	S001-varscuola	489	Z	FT	glo	-1501.2	-1501.2	0.000	0.000
8880	S001-varscuola	490	Z	FT	glo	-1542.8	-1416.2	0.000	0.000
8881	S001-varscuola	8	Z	FT	glo	-943.6	-402.5	0.000	0.000
8882	S001-varscuola	533	Z	FT	glo	-299.9	-461.9	0.000	0.000
8883	S001-varscuola	534	Z	FT	glo	-446.8	-562.9	0.000	0.000
8884	S001-varscuola	498	Z	FT	glo	-1975.9	-1848.8	0.000	0.000
8885	S001-varscuola	499	Z	FT	glo	-1934.1	-1934.1	0.000	0.000
8886	S001-varscuola	500	Z	FT	glo	-1934.1	-1934.1	0.000	0.000
8887	S001-varscuola	501	Z	FT	glo	-1934.1	-1934.1	0.000	0.000
8888	S001-varscuola	502	Z	FT	glo	-1934.1	-1934.1	0.000	0.000
8889	S001-varscuola	503	Z	FT	glo	-1934.1	-1934.1	0.000	0.000
8890	S001-varscuola	544	Z	FT	glo	-2952.8	-3057.2	0.000	0.000
8891	S001-varscuola	514	Z	FT	glo	-2381.0	-2079.7	0.000	0.000
8892	S001-varscuola	515	Z	FT	glo	-2282.9	-2282.9	0.000	0.000
8893	S001-varscuola	516	Z	FT	glo	-2282.9	-2282.9	0.000	0.000
8894	S001-varscuola	517	Z	FT	glo	-2282.9	-2282.9	0.000	0.000
8895	S001-varscuola	518	Z	FT	glo	-2282.9	-2282.9	0.000	0.000
8896	S001-varscuola	519	Z	FT	glo	-1999.8	-2415.8	0.000	0.000
8897	S001-varscuola	527	Z	FT	glo	-1881.1	-1399.2	0.000	0.000
8898	S001-varscuola	528	Z	FT	glo	-2016.4	-1795.9	0.000	0.000
8899	S001-varscuola	529	Z	FT	glo	-2077.7	-2046.8	0.000	0.000
8900	S001-varscuola	530	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
8901	S001-varscuola	531	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
8902	S001-varscuola	532	Z	FT	glo	-2067.1	-2069.6	0.000	0.000
8903	S001-varscuola	535	Z	FT	glo	-562.9	-679.1	0.000	0.000
8904	S001-varscuola	537	Z	FT	glo	-968.3	-968.3	0.000	0.000
8905	S001-varscuola	538	Z	FT	glo	-968.3	-968.3	0.000	0.000
8906	S001-varscuola	539	Z	FT	glo	-968.3	-968.4	0.000	0.000
8907	S001-varscuola	536	Z	FT	glo	-968.3	-968.3	0.000	0.000
8908	S002-varscuola	556	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
8909	S002-varscuola	557	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
8910	S002-varscuola	555	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
8911	S002-varscuola	558	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
8912	S002-varscuola	559	Z	FT	glo	-1182.9	-1182.9	0.000	0.000
8913	S002-varscuola	560	Z	FT	glo	-1182.7	-1183.1	0.000	0.000
8914	S002-varscuola	579	Z	FT	glo	-2283.0	-2282.8	0.000	0.000
8915	S002-varscuola	580	Z	FT	glo	-2282.9	-2282.9	0.000	0.000
8916	S002-varscuola	581	Z	FT	glo	-2282.9	-2282.9	0.000	0.000
8917	S002-varscuola	582	Z	FT	glo	-2282.9	-2282.9	0.000	0.000
8918	S002-varscuola	583	Z	FT	glo	-2282.7	-2283.0	0.000	0.000
8919	S002-varscuola	584	Z	FT	glo	-2102.4	-1054.1	0.000	0.000
8920	S002-varscuola	585	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
8921	S002-varscuola	586	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
8922	S002-varscuola	587	Z	FT	glo	-2068.3	-2068.3	0.000	0.000
8923	S002-varscuola	588	Z	FT	glo	-2068.2	-2068.4	0.000	0.000
8924	S002-varscuola	589	Z	FT	glo	-987.3	-930.1	0.000	0.000



8925	S002-varscuola	590	Z	FT	glo	-968.4	-968.4	0.000	0.000
8926	S002-varscuola	591	Z	FT	glo	-968.4	-968.4	0.000	0.000
8927	S002-varscuola	592	Z	FT	glo	-968.4	-968.4	0.000	0.000
8928	S002-varscuola	593	Z	FT	glo	-968.4	-968.4	0.000	0.000
8929	S003-varscuola	608	Z	FT	glo	-1127.5	-1127.5	0.000	0.000
8930	S003-varscuola	609	Z	FT	glo	-1127.5	-1127.5	0.000	0.000
8931	S003-varscuola	610	Z	FT	glo	-1127.5	-1127.5	0.000	0.000
8932	S003-varscuola	623	Z	FT	glo	-2340.0	-2340.0	0.000	0.000
8933	S003-varscuola	624	Z	FT	glo	-2340.0	-2340.0	0.000	0.000
8934	S003-varscuola	625	Z	FT	glo	-2340.0	-2340.0	0.000	0.000
8935	S003-varscuola	630	Z	FT	glo	-1212.5	-1212.5	0.000	0.000
8936	S003-varscuola	631	Z	FT	glo	-1212.5	-1212.5	0.000	0.000
8937	S003-varscuola	632	Z	FT	glo	-1212.5	-1212.5	0.000	0.000
8938	S004-varscuola	618	Z	FT	glo	-912.5	-912.5	0.000	0.000
8939	S004-varscuola	619	Z	FT	glo	-912.5	-912.5	0.000	0.000
8940	S004-varscuola	620	Z	FT	glo	-912.5	-912.5	0.000	0.000
8941	S004-varscuola	621	Z	FT	glo	-912.5	-912.5	0.000	0.000
8942	S004-varscuola	617	Z	FT	glo	-891.7	-922.9	0.000	0.000
8943	S004-varscuola	646	Z	FT	glo	-437.5	-437.5	0.000	0.000
8944	S004-varscuola	647	Z	FT	glo	-437.5	-437.5	0.000	0.000
8945	S004-varscuola	648	Z	FT	glo	-437.5	-437.5	0.000	0.000
8946	S004-varscuola	649	Z	FT	glo	-437.5	-437.5	0.000	0.000
8947	S004-varscuola	916	Z	FT	glo	-437.5	-437.5	0.000	0.000
8948	S004-varscuola	650	Z	FT	glo	-437.5	-437.5	0.000	0.000
8949	S004-varscuola	622	Z	FT	glo	-912.5	-912.5	0.000	0.000
8950	S004-varscuola	919	Z	FT	glo	-437.5	-437.4	0.000	0.000
8951	S004-varscuola	638	Z	FT	glo	-1350.0	-1350.0	0.000	0.000
8952	S004-varscuola	639	Z	FT	glo	-1350.0	-1350.0	0.000	0.000
8953	S004-varscuola	640	Z	FT	glo	-1350.0	-1350.0	0.000	0.000
8954	S004-varscuola	641	Z	FT	glo	-1350.0	-1350.0	0.000	0.000
8955	S004-varscuola	637	Z	FT	glo	-1350.0	-1350.0	0.000	0.000
8956	S005-varscuola	595	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8957	S005-varscuola	630	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8958	S005-varscuola	631	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8959	S005-varscuola	632	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8960	S005-varscuola	633	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8961	S005-varscuola	634	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8962	S005-varscuola	635	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8963	S005-varscuola	636	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8964	S005-varscuola	596	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8965	S005-varscuola	594	Z	FT	glo	-1038.9	-1038.9	0.000	0.000
8966	S005-varscuola	707	Z	FT	glo	-1124.8	-1124.8	0.000	0.000
8967	S005-varscuola	708	Z	FT	glo	-1124.8	-1124.8	0.000	0.000
8968	S005-varscuola	709	Z	FT	glo	-1124.8	-1124.8	0.000	0.000
8969	S005-varscuola	706	Z	FT	glo	-1132.2	-1109.8	0.000	0.000
8970	S005-varscuola	664	Z	FT	glo	-2063.9	-2063.9	0.000	0.000
8971	S005-varscuola	665	Z	FT	glo	-2063.9	-2063.9	0.000	0.000
8972	S005-varscuola	666	Z	FT	glo	-2063.9	-2063.9	0.000	0.000
8973	S005-varscuola	667	Z	FT	glo	-2063.9	-2063.9	0.000	0.000
8974	S005-varscuola	668	Z	FT	glo	-2063.9	-2063.9	0.000	0.000
8975	S005-varscuola	669	Z	FT	glo	-2063.9	-2063.9	0.000	0.000
8976	S005-varscuola	670	Z	FT	glo	-2063.9	-2063.9	0.000	0.000
8977	S005-varscuola	671	Z	FT	glo	-2063.9	-2063.9	0.000	0.000
8978	S005-varscuola	663	Z	FT	glo	-2063.9	-2063.9	0.000	0.000
8979	S005-varscuola	673	Z	FT	glo	-2050.0	-2050.0	0.000	0.000
8980	S005-varscuola	674	Z	FT	glo	-2050.0	-2050.0	0.000	0.000
8981	S005-varscuola	675	Z	FT	glo	-2050.0	-2050.0	0.000	0.000
8982	S005-varscuola	676	Z	FT	glo	-2050.0	-2050.0	0.000	0.000
8983	S005-varscuola	677	Z	FT	glo	-2050.0	-2050.0	0.000	0.000
8984	S005-varscuola	678	Z	FT	glo	-2050.0	-2050.0	0.000	0.000
8985	S005-varscuola	679	Z	FT	glo	-2050.0	-2050.0	0.000	0.000
8986	S005-varscuola	680	Z	FT	glo	-2050.0	-2050.0	0.000	0.000
8987	S005-varscuola	672	Z	FT	glo	-2056.4	-2037.1	0.000	0.000
8988	S005-varscuola	682	Z	FT	glo	-2149.8	-2149.8	0.000	0.000
8989	S005-varscuola	683	Z	FT	glo	-2149.8	-2149.8	0.000	0.000
8990	S005-varscuola	684	Z	FT	glo	-2149.8	-2149.8	0.000	0.000
8991	S005-varscuola	685	Z	FT	glo	-3531.8	-2687.4	0.000	0.000
8992	S005-varscuola	686	Z	FT	glo	-3274.5	-3274.5	0.000	0.000
8993	S005-varscuola	687	Z	FT	glo	-3274.5	-3274.5	0.000	0.000
8994	S005-varscuola	688	Z	FT	glo	-3274.5	-3274.5	0.000	0.000
8995	S005-varscuola	689	Z	FT	glo	-3259.0	-3282.3	0.000	0.000
8996	S005-varscuola	681	Z	FT	glo	-2156.2	-2136.9	0.000	0.000
8997	S008-varscuola	816	Z	FT	glo	-612.4	-612.4	0.000	0.000
8998	S008-varscuola	817	Z	FT	glo	-612.4	-612.4	0.000	0.000
8999	S008-varscuola	818	Z	FT	glo	-612.4	-612.4	0.000	0.000
9000	S008-varscuola	822	Z	FT	glo	-930.3	-1404.8	0.000	0.000
9001	S008-varscuola	823	Z	FT	glo	-1401.0	-1864.1	0.000	0.000
9002	S008-varscuola	824	Z	FT	glo	-1623.1	-1124.8	0.000	0.000
9003	S008-varscuola	825	Z	FT	glo	-1274.9	-1274.9	0.000	0.000
9004	S008-varscuola	826	Z	FT	glo	-1274.9	-1274.9	0.000	0.000
9005	S008-varscuola	827	Z	FT	glo	-1274.9	-1274.9	0.000	0.000
9006	S008-varscuola	835	Z	FT	glo	-662.5	-662.5	0.000	0.000
9007	S008-varscuola	836	Z	FT	glo	-662.5	-662.5	0.000	0.000
9008	S008-varscuola	837	Z	FT	glo	-662.5	-662.5	0.000	0.000
9009	S008-varscuola	838	Z	FT	glo	-662.5	-662.5	0.000	0.000
9010	S008-varscuola	839	Z	FT	glo	-662.5	-662.5	0.000	0.000
9011	S008-varscuola	844	Z	FT	glo	-1274.9	-1274.9	0.000	0.000
9012	S008-varscuola	845	Z	FT	glo	-1274.9	-1274.9	0.000	0.000

9013	S008-varscuola	846	Z	FT	glo	-1274.9	-1274.9	0.000	0.000
9014	S008-varscuola	847	Z	FT	glo	-1276.0	-1273.8	0.000	0.000
9015	S008-varscuola	848	Z	FT	glo	-662.5	-662.5	0.000	0.000
9016	S008-varscuola	849	Z	FT	glo	-662.5	-662.5	0.000	0.000
9017	S008-varscuola	850	Z	FT	glo	-662.5	-662.5	0.000	0.000
9018	S008-varscuola	851	Z	FT	glo	-662.5	-662.5	0.000	0.000
9019	S008-varscuola	852	Z	FT	glo	-694.9	-630.1	0.000	0.000
9020	S008-varscuola	859	Z	FT	glo	-612.4	-612.4	0.000	0.000
9021	S008-varscuola	860	Z	FT	glo	-612.4	-612.4	0.000	0.000
9022	S008-varscuola	802	Z	FT	glo	-502.9	-665.2	0.000	0.000
9023	S008-varscuola	803	Z	FT	glo	-612.4	-612.4	0.000	0.000
9024	S008-varscuola	804	Z	FT	glo	-612.4	-612.4	0.000	0.000
9025	S008-varscuola	805	Z	FT	glo	-612.4	-612.4	0.000	0.000
9026	S008-varscuola	806	Z	FT	glo	-612.4	-612.4	0.000	0.000
9027	S008-varscuola	807	Z	FT	glo	-612.4	-612.4	0.000	0.000
9028	S008-varscuola	808	Z	FT	glo	-612.4	-612.4	0.000	0.000
9029	S008-varscuola	809	Z	FT	glo	-612.4	-612.4	0.000	0.000
9030	S008-varscuola	815	Z	FT	glo	-612.4	-612.4	0.000	0.000
9031	S006-varscuola	749	Z	FT	glo	-1124.9	-1124.9	0.000	0.000
9032	S006-varscuola	750	Z	FT	glo	-1124.9	-1124.9	0.000	0.000
9033	S006-varscuola	751	Z	FT	glo	-1124.9	-1125.0	0.000	0.000
9034	S006-varscuola	752	Z	FT	glo	-1125.0	-1125.0	0.000	0.000
9035	S006-varscuola	753	Z	FT	glo	-1125.0	-1125.0	0.000	0.000
9036	S006-varscuola	754	Z	FT	glo	-1125.0	-1125.0	0.000	0.000
9037	S006-varscuola	755	Z	FT	glo	-1125.0	-1125.0	0.000	0.000
9038	S006-varscuola	756	Z	FT	glo	-1588.5	-1586.9	0.000	0.000
9039	S006-varscuola	757	Z	FT	glo	-1587.4	-1587.4	0.000	0.000
9040	S006-varscuola	758	Z	FT	glo	-1587.4	-1587.4	0.000	0.000
9041	S006-varscuola	759	Z	FT	glo	-1587.4	-1587.4	0.000	0.000
9042	S006-varscuola	760	Z	FT	glo	-1587.4	-1587.4	0.000	0.000
9043	S006-varscuola	761	Z	FT	glo	-1587.4	-1587.4	0.000	0.000
9044	S006-varscuola	762	Z	FT	glo	-1587.4	-1587.5	0.000	0.000
9045	S006-varscuola	763	Z	FT	glo	-2087.5	-2087.5	0.000	0.000
9046	S006-varscuola	792	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9047	S006-varscuola	793	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9048	S006-varscuola	467	Z	FT	glo	-2087.5	-2087.5	0.000	0.000
9049	S006-varscuola	468	Z	FT	glo	-1125.0	-1125.0	0.000	0.000
9050	S006-varscuola	791	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9051	S006-varscuola	794	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9052	S006-varscuola	795	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9053	S006-varscuola	796	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9054	S006-varscuola	802	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9055	S006-varscuola	803	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9056	S006-varscuola	804	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9057	S006-varscuola	805	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9058	S006-varscuola	806	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9059	S006-varscuola	807	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9060	S006-varscuola	808	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9061	S006-varscuola	809	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9062	S006-varscuola	770	Z	FT	glo	-2112.7	-2112.6	0.000	0.000
9063	S006-varscuola	771	Z	FT	glo	-2112.6	-2112.6	0.000	0.000
9064	S006-varscuola	772	Z	FT	glo	-2112.6	-2112.6	0.000	0.000
9065	S006-varscuola	773	Z	FT	glo	-2112.6	-2112.6	0.000	0.000
9066	S006-varscuola	774	Z	FT	glo	-2112.6	-2112.6	0.000	0.000
9067	S006-varscuola	775	Z	FT	glo	-2112.6	-2112.6	0.000	0.000
9068	S006-varscuola	776	Z	FT	glo	-2112.6	-2112.6	0.000	0.000
9069	S006-varscuola	777	Z	FT	glo	-2112.6	-2112.6	0.000	0.000
9070	S006-varscuola	466	Z	FT	glo	-2112.6	-2112.6	0.000	0.000
9071	S006-varscuola	705	Z	FT	glo	-1150.1	-1150.1	0.000	0.000
9072	S006-varscuola	737	Z	FT	glo	-500.0	-500.0	0.000	0.000
9073	S006-varscuola	738	Z	FT	glo	-500.0	-500.0	0.000	0.000
9074	S006-varscuola	739	Z	FT	glo	-500.0	-500.0	0.000	0.000
9075	S006-varscuola	740	Z	FT	glo	-500.0	-500.0	0.000	0.000
9076	S006-varscuola	741	Z	FT	glo	-500.0	-500.0	0.000	0.000
9077	S006-varscuola	742	Z	FT	glo	-500.0	-500.0	0.000	0.000
9078	S006-varscuola	743	Z	FT	glo	-1125.0	-1125.0	0.000	0.000
9079	S006-varscuola	736	Z	FT	glo	-501.3	-499.4	0.000	0.000
9080	S007-varscuola	717	Z	FT	glo	-800.4	-800.5	0.000	0.000
9081	S007-varscuola	718	Z	FT	glo	-800.2	-800.4	0.000	0.000
9082	S007-varscuola	719	Z	FT	glo	-800.0	-800.2	0.000	0.000
9083	S007-varscuola	720	Z	FT	glo	-765.4	-834.6	0.000	0.000
9084	S007-varscuola	729	Z	FT	glo	-863.6	-863.5	0.000	0.000
9085	S007-varscuola	733	Z	FT	glo	-1665.0	-1662.2	0.000	0.000
9086	S007-varscuola	734	Z	FT	glo	-1663.6	-1663.6	0.000	0.000
9087	S007-varscuola	735	Z	FT	glo	-1661.8	-1665.4	0.000	0.000
9088	S007-varscuola	897	Z	FT	glo	-824.9	-567.3	0.000	0.000
9089	S007-varscuola	898	Z	FT	glo	-741.8	-741.8	0.000	0.000
9090	S007-varscuola	1220	Z	FT	glo	-863.5	-863.2	0.000	0.000
9091	S007-varscuola	1221	Z	FT	glo	-1662.9	-1485.0	0.000	0.000
9092	S007-varscuola	716	Z	FT	glo	-800.5	-800.6	0.000	0.000
9093	S009-varscuola	1218	Z	FT	glo	-2412.4	-2412.6	0.000	0.000
9094	S009-varscuola	1219	Z	FT	glo	-3896.7	-2151.1	0.000	0.000
9095	S009-varscuola	888	Z	FT	glo	-1166.4	-1166.4	0.000	0.000
9096	S009-varscuola	889	Z	FT	glo	-1166.4	-1166.4	0.000	0.000
9097	S009-varscuola	890	Z	FT	glo	-1166.4	-1166.4	0.000	0.000
9098	S009-varscuola	891	Z	FT	glo	-1166.4	-1166.4	0.000	0.000
9099	S009-varscuola	892	Z	FT	glo	-1166.4	-1166.4	0.000	0.000
9100	S009-varscuola	893	Z	FT	glo	-1166.4	-1166.4	0.000	0.000

9101	S009-varscuola	894	Z	FT	glo	-1166.5	-1166.4	0.000	0.000
9102	S009-varscuola	911	Z	FT	glo	-1246.1	-1246.1	0.000	0.000
9103	S009-varscuola	886	Z	FT	glo	-1166.4	-1166.4	0.000	0.000
9104	S009-varscuola	887	Z	FT	glo	-1166.4	-1166.4	0.000	0.000
9105	S009-varscuola	910	Z	FT	glo	-1246.1	-1246.1	0.000	0.000
9106	S009-varscuola	1281	Z	FT	glo	-1292.8	-1199.4	0.000	0.000
9107	S009-varscuola	1282	Z	FT	glo	-1246.1	-1246.1	0.000	0.000
9108	S009-varscuola	1314	Z	FT	glo	-1246.1	-1246.1	0.000	0.000
9109	S009-varscuola	1315	Z	FT	glo	-1246.1	-1246.1	0.000	0.000
9110	S015-varscuola	1279	Z	FT	glo	-287.6	-287.6	0.000	0.000
9111	S015-varscuola	1298	Z	FT	glo	-287.6	-287.6	0.000	0.000
9112	S015-varscuola	1299	Z	FT	glo	-287.6	-287.6	0.000	0.000
9113	S016-varscuola	911	Z	FT	glo	-287.5	-287.5	0.000	0.000
9114	S016-varscuola	910	Z	FT	glo	-287.5	-287.5	0.000	0.000
9115	S016-varscuola	1311	Z	FT	glo	-287.5	-287.5	0.000	0.000
9116	S016-varscuola	1312	Z	FT	glo	-287.5	-287.5	0.000	0.000
9117	S016-varscuola	1315	Z	FT	glo	-287.5	-287.5	0.000	0.000
9118	tampnature	470	Z	FD	glo	-800.0			
9119	tampnature	471	Z	FD	glo	-800.0			
9120	tampnature	472	Z	FD	glo	-800.0			
9121	tampnature	491	Z	FD	glo	-800.0			
9122	tampnature	492	Z	FD	glo	-800.0			
9123	tampnature	493	Z	FD	glo	-800.0			
9124	tampnature	494	Z	FD	glo	-800.0			
9125	tampnature	495	Z	FD	glo	-800.0			
9126	tampnature	496	Z	FD	glo	-800.0			
9127	tampnature	497	Z	FD	glo	-800.0			
9128	tampnature	14	Z	FD	glo	-800.0			
9129	tampnature	510	Z	FD	glo	-800.0			
9130	tampnature	511	Z	FD	glo	-800.0			
9131	tampnature	512	Z	FD	glo	-800.0			
9132	tampnature	521	Z	FD	glo	-800.0			
9133	tampnature	522	Z	FD	glo	-800.0			
9134	tampnature	526	Z	FD	glo	-800.0			
9135	tampnature	533	Z	FD	glo	-800.0			
9136	tampnature	509	Z	FD	glo	-800.0			
9137	tampnature	508	Z	FD	glo	-800.0			
9138	tampnature	520	Z	FD	glo	-800.0			
9139	tampnature	513	Z	FD	glo	-800.0			
9140	tampnature	525	Z	FD	glo	-800.0			
9141	tampnature	523	Z	FD	glo	-800.0			
9142	tampnature	524	Z	FD	glo	-800.0			
9143	tampnature	9	Z	FD	glo	-800.0			
9144	tampnature	10	Z	FD	glo	-800.0			
9145	tampnature	11	Z	FD	glo	-800.0			
9146	tampnature	12	Z	FD	glo	-800.0			
9147	tampnature	13	Z	FD	glo	-800.0			
9148	tampnature	14	Z	FD	glo	-800.0			
9149	tampnature	8	Z	FD	glo	-800.0			
9150	tampnature	506	Z	FD	glo	-800.0			
9151	tampnature	507	Z	FD	glo	-800.0			
9152	tampnature	479	Z	FD	glo	-800.0			
9153	tampnature	480	Z	FD	glo	-800.0			
9154	tampnature	481	Z	FD	glo	-800.0			
9155	tampnature	482	Z	FD	glo	-800.0			
9156	tampnature	483	Z	FD	glo	-800.0			
9157	tampnature	484	Z	FD	glo	-800.0			
9158	tampnature	504	Z	FD	glo	-800.0			
9159	tampnature	505	Z	FD	glo	-800.0			
9160	tampnature	8	Z	FD	glo	-800.0			
9161	tampnature	545	Z	FD	glo	-800.0			
9162	tampnature	544	Z	FD	glo	-800.0			
9163	tampnature	507	Z	FD	glo	-800.0			
9164	tampnature	556	Z	FD	glo	-800.0			
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9167	tampnature	555	Z	FD	glo	-800.0			
9168	tampnature	544	Z	FD	glo	-800.0			
9169	tampnature	596	Z	FD	glo	-800.0			
9170	tampnature	597	Z	FD	glo	-800.0			
9171	tampnature	558	Z	FD	glo	-800.0			
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9186	tampnature	597	Z	FD	glo	-800.0			
9187	tampnature	608	Z	FD	glo	-800.0			
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9192	tampnature	613	Z	FD	glo	-800.0
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9199	tampnature	616	Z	FD	glo	-800.0
9200	tampnature	650	Z	FD	glo	-800.0
9201	tampnature	651	Z	FD	glo	-800.0
9202	tampnature	652	Z	FD	glo	-800.0
9203	tampnature	629	Z	FD	glo	-800.0
9204	tampnature	646	Z	FD	glo	-800.0
9205	tampnature	647	Z	FD	glo	-800.0
9206	tampnature	648	Z	FD	glo	-800.0
9207	tampnature	649	Z	FD	glo	-800.0
9208	tampnature	916	Z	FD	glo	-800.0
9209	tampnature	650	Z	FD	glo	-800.0
9210	tampnature	919	Z	FD	glo	-800.0
9211	tampnature	917	Z	FD	glo	-800.0
9212	tampnature	918	Z	FD	glo	-800.0
9213	tampnature	919	Z	FD	glo	-800.0
9214	tampnature	642	Z	FD	glo	-800.0
9215	tampnature	642	Z	FD	glo	-800.0
9216	tampnature	716	Z	FD	glo	-800.0
9217	tampnature	655	Z	FD	glo	-800.0
9218	tampnature	656	Z	FD	glo	-800.0
9219	tampnature	657	Z	FD	glo	-800.0
9220	tampnature	659	Z	FD	glo	-800.0
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9222	tampnature	661	Z	FD	glo	-800.0
9223	tampnature	691	Z	FD	glo	-800.0
9224	tampnature	692	Z	FD	glo	-800.0
9225	tampnature	693	Z	FD	glo	-800.0
9226	tampnature	694	Z	FD	glo	-800.0
9227	tampnature	696	Z	FD	glo	-800.0
9228	tampnature	697	Z	FD	glo	-800.0
9229	tampnature	698	Z	FD	glo	-800.0
9230	tampnature	654	Z	FD	glo	-800.0
9231	tampnature	653	Z	FD	glo	-800.0
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9234	tampnature	658	Z	FD	glo	-800.0
9235	tampnature	662	Z	FD	glo	-800.0
9236	tampnature	690	Z	FD	glo	-800.0
9237	tampnature	695	Z	FD	glo	-800.0
9238	tampnature	717	Z	FD	glo	-800.0
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9241	tampnature	720	Z	FD	glo	-800.0
9242	tampnature	716	Z	FD	glo	-800.0
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9244	tampnature	720	Z	FD	glo	-800.0
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9260	tampnature	904	Z	FD	glo	-800.0
9261	tampnature	906	Z	FD	glo	-800.0
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9269	tampnature	911	Z	FD	glo	-800.0
9270	tampnature	910	Z	FD	glo	-800.0
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9272	tampnature	1282	Z	FD	glo	-800.0
9273	tampnature	1286	Z	FD	glo	-800.0
9274	tampnature	1314	Z	FD	glo	-800.0
9275	tampnature	1315	Z	FD	glo	-800.0
9276	tampnature	870	Z	FD	glo	-800.0

9277	tampnature	886	Z	FD	glo	-800.0
9278	tampnature	1277	Z	FD	glo	-800.0
9279	tampnature	1278	Z	FD	glo	-800.0
9280	tampnature	1281	Z	FD	glo	-800.0
9281	tampnature	922	Z	FD	glo	-800.0
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9284	tampnature	830	Z	FD	glo	-800.0
9285	tampnature	870	Z	FD	glo	-800.0
9286	tampnature	886	Z	FD	glo	-800.0
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9288	tampnature	816	Z	FD	glo	-800.0
9289	tampnature	817	Z	FD	glo	-800.0
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9293	tampnature	809	Z	FD	glo	-800.0
9294	tampnature	815	Z	FD	glo	-800.0
9295	tampnature	852	Z	FD	glo	-800.0
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9299	tampnature	856	Z	FD	glo	-800.0
9300	tampnature	857	Z	FD	glo	-800.0
9301	tampnature	858	Z	FD	glo	-800.0
9302	tampnature	859	Z	FD	glo	-800.0
9303	tampnature	835	Z	FD	glo	-800.0
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9307	tampnature	839	Z	FD	glo	-800.0
9308	tampnature	848	Z	FD	glo	-800.0
9309	tampnature	849	Z	FD	glo	-800.0
9310	tampnature	850	Z	FD	glo	-800.0
9311	tampnature	851	Z	FD	glo	-800.0
9312	tampnature	852	Z	FD	glo	-800.0
9313	tampnature	822	Z	FD	glo	-800.0
9314	tampnature	823	Z	FD	glo	-800.0
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9316	tampnature	831	Z	FD	glo	-800.0
9317	tampnature	832	Z	FD	glo	-800.0
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9319	tampnature	834	Z	FD	glo	-800.0
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9322	tampnature	831	Z	FD	glo	-800.0
9323	tampnature	796	Z	FD	glo	-800.0
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9325	tampnature	820	Z	FD	glo	-800.0
9326	tampnature	792	Z	FD	glo	-800.0
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9330	tampnature	795	Z	FD	glo	-800.0
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9332	tampnature	788	Z	FD	glo	-800.0
9333	tampnature	789	Z	FD	glo	-800.0
9334	tampnature	790	Z	FD	glo	-800.0
9335	tampnature	704	Z	FD	glo	-800.0
9336	tampnature	786	Z	FD	glo	-800.0
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9340	tampnature	702	Z	FD	glo	-800.0
9341	tampnature	703	Z	FD	glo	-800.0
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9348	tampnature	589	Z	FD	glo	-800.0
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9350	tampnature	591	Z	FD	glo	-800.0
9351	tampnature	536	Z	FD	glo	-800.0
9352	tampnature	592	Z	FD	glo	-800.0
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9354	tampnature	533	Z	FD	glo	-800.0
9355	tampnature	534	Z	FD	glo	-800.0
9356	tampnature	535	Z	FD	glo	-800.0
9357	nevepensilina	1363	Z	FD	glo	-200.0
9358	nevepensilina	1364	Z	FD	glo	-200.0
9359	nevepensilina	1365	Z	FD	glo	-600.0
9360	nevepensilina	1377	Z	FD	glo	-600.0
9361	nevepensilina	1366	Z	FD	glo	-600.0
9362	nevepensilina	1378	Z	FD	glo	-600.0
9363	nevepensilina	1383	Z	FD	glo	-600.0
9364	nevepensilina	1384	Z	FD	glo	-600.0

9365	nevepensilina	1342	Z	FD	glo	-400.0				
9366	nevepensilina	1343	Z	FD	glo	-400.0				
9367	nevepensilina	1340	Z	FD	glo	-400.0				
9368	nevepensilina	1341	Z	FD	glo	-400.0				
9369	nevepensilina	1338	Z	FD	glo	-400.0				
9370	nevepensilina	1339	Z	FD	glo	-400.0				
9371	nevepensilina	1403	Z	FD	glo	-600.0				
9372	nevepensilina	1412	Z	FD	glo	-600.0				
9373	nevepensilina	1405	Z	FD	glo	-600.0				
9374	nevepensilina	1409	Z	FD	glo	-600.0				
9375	nevepensilina	1404	Z	FD	glo	-400.0				
9376	nevepensilina	1408	Z	FD	glo	-400.0				
9377	nevepensilina	1014	Z	FD	glo	-400.0				
9378	nevepensilina	1084	Z	FD	glo	-400.0				
9379	nevepensilina	1008	Z	FD	glo	-400.0				
9380	nevepensilina	1114	Z	FD	glo	-400.0				
9381	S010-varcop. (neve)	992	Z	FT	glo	-510.0	-510.0	0.000	0.000	
9382	S010-varcop. (neve)	996	Z	FT	glo	-510.0	-510.0	0.000	0.000	
9383	S010-varcop. (neve)	998	Z	FT	glo	-510.0	-510.0	0.000	0.000	
9384	S010-varcop. (neve)	999	Z	FT	glo	-510.0	-510.0	0.000	0.000	
9385	S010-varcop. (neve)	1001	Z	FT	glo	-510.0	-510.0	0.000	0.000	
9386	S010-varcop. (neve)	1002	Z	FT	glo	-510.0	-510.0	0.000	0.000	
9387	S010-varcop. (neve)	1004	Z	FT	glo	-525.0	-525.0	0.000	0.000	
9388	S010-varcop. (neve)	1005	Z	FT	glo	-525.0	-525.0	0.000	0.000	
9389	S010-varcop. (neve)	1006	Z	FT	glo	-525.0	-525.0	0.000	0.000	
9390	S010-varcop. (neve)	1007	Z	FT	glo	-525.0	-525.0	0.000	0.000	
9391	S010-varcop. (neve)	1008	Z	FT	glo	-371.2	-230.7	0.000	0.000	
9392	S010-varcop. (neve)	1017	Z	FT	glo	-970.0	-970.0	0.000	0.000	
9393	S010-varcop. (neve)	1016	Z	FT	glo	-970.0	-970.0	0.000	0.000	
9394	S010-varcop. (neve)	1012	Z	FT	glo	-1019.7	-818.3	0.000	0.000	
9395	S010-varcop. (neve)	1021	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9396	S010-varcop. (neve)	1024	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9397	S010-varcop. (neve)	1026	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9398	S010-varcop. (neve)	1027	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9399	S010-varcop. (neve)	1020	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9400	S010-varcop. (neve)	1192	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9401	S010-varcop. (neve)	1193	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9402	S010-varcop. (neve)	1194	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9403	S010-varcop. (neve)	1023	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9404	S010-varcop. (neve)	1195	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9405	S010-varcop. (neve)	1196	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9406	S010-varcop. (neve)	1197	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9407	S010-varcop. (neve)	1025	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9408	S010-varcop. (neve)	1198	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9409	S010-varcop. (neve)	1199	Z	FT	glo	-445.0	-445.0	0.000	0.000	
9410	S011-varcop. (neve)	1028	Z	FT	glo	-451.0	-451.0	0.000	0.000	
9411	S011-varcop. (neve)	1039	Z	FT	glo	-470.0	-470.0	0.000	0.000	
9412	S011-varcop. (neve)	1041	Z	FT	glo	-470.0	-470.0	0.000	0.000	
9413	S011-varcop. (neve)	1042	Z	FT	glo	-470.0	-470.0	0.000	0.000	
9414	S011-varcop. (neve)	1036	Z	FT	glo	-936.0	-936.0	0.000	0.000	
9415	S011-varcop. (neve)	1046	Z	FT	glo	-485.0	-485.0	0.000	0.000	
9416	S011-varcop. (neve)	1047	Z	FT	glo	-470.0	-470.0	0.000	0.000	
9417	S011-varcop. (neve)	1048	Z	FT	glo	-470.0	-470.0	0.000	0.000	
9418	S013-varcop. (neve)	1112	Z	FT	glo	-565.0	-565.0	0.000	0.000	
9419	S013-varcop. (neve)	1113	Z	FT	glo	-565.0	-565.0	0.000	0.000	
9420	S013-varcop. (neve)	1114	Z	FT	glo	-399.5	-258.9	0.000	0.000	
9421	S013-varcop. (neve)	1120	Z	FT	glo	-989.6	-765.9	0.000	0.000	
9422	S013-varcop. (neve)	1121	Z	FT	glo	-387.3	-387.3	0.000	0.000	
9423	S013-varcop. (neve)	1123	Z	FT	glo	-387.3	-387.3	0.000	0.000	
9424	S013-varcop. (neve)	1126	Z	FT	glo	-952.3	-952.3	0.000	0.000	
9425	S021-varcop. (neve)	1054	Z	FT	glo	-415.5	-531.2	0.000	0.000	
9426	S021-varcop. (neve)	1055	Z	FT	glo	-484.7	-516.5	0.000	0.000	
9427	S021-varcop. (neve)	1063	Z	FT	glo	-1130.0	-1194.9	0.000	0.000	
9428	S021-varcop. (neve)	1081	Z	FT	glo	-845.1	-845.0	0.000	0.000	
9429	S021-varcop. (neve)	1082	Z	FT	glo	-845.0	-845.0	0.000	0.000	
9430	S021-varcop. (neve)	1083	Z	FT	glo	-845.0	-845.0	0.000	0.000	
9431	S021-varcop. (neve)	1110	Z	FT	glo	-460.0	-435.0	0.000	0.000	
9432	S021-varcop. (neve)	1111	Z	FT	glo	-460.0	-460.0	0.000	0.000	
9433	S021-varcop. (neve)	1085	Z	FT	glo	-460.0	-460.0	0.000	0.000	
9434	S021-varcop. (neve)	1230	Z	FT	glo	-460.0	-460.0	0.000	0.000	
9435	S021-varcop. (neve)	1215	Z	FT	glo	-1295.5	-1230.1	0.000	0.000	
9436	S021-varcop. (neve)	1079	Z	FT	glo	-635.3	-634.8	0.000	0.000	
9437	S021-varcop. (neve)	1318	Z	FT	glo	-744.9	-745.0	0.000	0.000	
9438	S021-varcop. (neve)	1319	Z	FT	glo	-745.0	-745.0	0.000	0.000	
9439	S021-varcop. (neve)	1327	Z	FT	glo	-630.9	-658.9	0.000	0.000	
9440	S021-varcop. (neve)	1320	Z	FT	glo	-745.0	-745.0	0.000	0.000	
9441	S021-varcop. (neve)	1420	Z	FT	glo	-841.3	-841.3	0.000	0.000	
9442	S022-varcop. (neve)	1094	Z	FT	glo	-575.0	-575.0	0.000	0.000	
9443	S022-varcop. (neve)	1101	Z	FT	glo	-410.0	-410.0	0.000	0.000	
9444	S022-varcop. (neve)	1131	Z	FT	glo	-575.0	-575.0	0.000	0.000	
9445	S022-varcop. (neve)	1104	Z	FT	glo	-575.0	-575.0	0.000	0.000	
9446	S022-varcop. (neve)	1225	Z	FT	glo	-575.0	-575.0	0.000	0.000	
9447	S022-varcop. (neve)	1098	Z	FT	glo	-985.0	-985.0	0.000	0.000	
9448	S022-varcop. (neve)	1097	Z	FT	glo	-960.0	-985.0	0.000	0.000	
9449	S022-varcop. (neve)	1328	Z	FT	glo	-1020.5	-942.9	0.000	0.000	
9450	S022-varcop. (neve)	1423	Z	FT	glo	-408.7	-383.7	0.000	0.000	
9451	S022-varcop. (neve)	1424	Z	FT	glo	-384.4	-409.4	0.000	0.000	
9452	S014-varcop. (neve)	1136	Z	FT	glo	-835.0	-835.0	0.000	0.000	

9453	S014-varcop.(neve)	1138	Z	FT	glo	-835.0	-835.0	0.000	0.000
9454	S014-varcop.(neve)	1140	Z	FT	glo	-835.0	-835.0	0.000	0.000
9455	S014-varcop.(neve)	1143	Z	FT	glo	-835.0	-835.0	0.000	0.000
9456	S014-varcop.(neve)	1157	Z	FT	glo	-835.0	-835.0	0.000	0.000
9457	S014-varcop.(neve)	1158	Z	FT	glo	-835.0	-835.0	0.000	0.000
9458	S014-varcop.(neve)	1135	Z	FT	glo	-835.0	-835.0	0.000	0.000
9459	S014-varcop.(neve)	1200	Z	FT	glo	-835.0	-835.0	0.000	0.000
9460	S014-varcop.(neve)	1201	Z	FT	glo	-835.0	-835.0	0.000	0.000
9461	S014-varcop.(neve)	1202	Z	FT	glo	-835.0	-835.0	0.000	0.000
9462	S014-varcop.(neve)	1137	Z	FT	glo	-835.0	-835.0	0.000	0.000
9463	S014-varcop.(neve)	1203	Z	FT	glo	-835.0	-835.0	0.000	0.000
9464	S014-varcop.(neve)	1204	Z	FT	glo	-835.0	-835.0	0.000	0.000
9465	S014-varcop.(neve)	1205	Z	FT	glo	-835.0	-835.0	0.000	0.000
9466	S014-varcop.(neve)	1139	Z	FT	glo	-835.0	-835.0	0.000	0.000
9467	S014-varcop.(neve)	1206	Z	FT	glo	-835.0	-835.0	0.000	0.000
9468	S014-varcop.(neve)	1207	Z	FT	glo	-835.0	-835.0	0.000	0.000
9469	S014-varcop.(neve)	1212	Z	FT	glo	-835.0	-835.0	0.000	0.000
9470	S014-varcop.(neve)	1165	Z	FT	glo	-835.0	-835.0	0.000	0.000
9471	S014-varcop.(neve)	1166	Z	FT	glo	-835.0	-835.0	0.000	0.000
9472	S014-varcop.(neve)	1167	Z	FT	glo	-835.0	-835.0	0.000	0.000
9473	S014-varcop.(neve)	1168	Z	FT	glo	-835.0	-835.0	0.000	0.000
9474	S014-varcop.(neve)	1154	Z	FT	glo	-835.0	-835.0	0.000	0.000

PESI PROPRI ASTE--|-----|-----|-----|-----|  
Cond. Nome Carichi Aste  
1 9475-10302 8-14, 466-468, 470-642, 646-729, 733-840, 842-860, 869-870, 886-911, 916-919, 922-942, 945-951, 953, 956-973, 975, 977-982, 984-988, 990-1048, 1053-1058, 1063, 1065-1067, 1073-1074, 1077, 1079-1086, 1089, 1092-1095, 1097-1101, 1104-1131, 1135-1149, 1154-1158, 1161-1212, 1214-1221, 1224-1225, 1227-1228, 1230, 1232-1236, 1276-1282, 1284, 1286-1315, 1317-1320, 1322, 1324, 1326-1330, 1332-1414, 1420, 1423-1424  
3 10303-10772 1-7, 15-134, 136-266, 270-404, 416-417, 426-455, 920-921, 1222-1223, 1240-1275, 1415-1419

Nome	Guscio	Dir	Tip	RIF	Intensita`	num.=
10773 spintaterra	1	Z	FD	glo	1500.0	1124
10774 spintaterra	2	Z	FD	glo	900.0	
10775 spintaterra	3	Z	FD	glo	300.0	
10776 spintaterra	4	Z	FD	glo	1500.0	
10777 spintaterra	5	Z	FD	glo	900.0	
10778 spintaterra	6	Z	FD	glo	300.0	
10779 spintaterra	7	Z	FD	glo	1500.0	
10780 spintaterra	8	Z	FD	glo	900.0	
10781 spintaterra	9	Z	FD	glo	300.0	
10782 spintaterra	10	Z	FD	glo	1500.0	
10783 spintaterra	11	Z	FD	glo	900.0	
10784 spintaterra	12	Z	FD	glo	300.0	
10785 spintaterra	13	Z	FD	glo	1500.0	
10786 spintaterra	14	Z	FD	glo	900.0	
10787 spintaterra	15	Z	FD	glo	300.0	
10788 spintaterra	16	Z	FD	glo	1500.0	
10789 spintaterra	17	Z	FD	glo	900.0	
10790 spintaterra	18	Z	FD	glo	300.0	
10791 spintaterra	19	Z	FD	glo	1500.0	
10792 spintaterra	20	Z	FD	glo	900.0	
10793 spintaterra	21	Z	FD	glo	300.0	
10794 spintaterra	22	Z	FD	glo	1500.0	
10795 spintaterra	23	Z	FD	glo	900.0	
10796 spintaterra	24	Z	FD	glo	300.0	
10797 spintaterra	25	Z	FD	glo	1500.0	
10798 spintaterra	26	Z	FD	glo	900.0	
10799 spintaterra	27	Z	FD	glo	300.0	
10800 spintaterra	28	Z	FD	glo	1500.0	
10801 spintaterra	29	Z	FD	glo	900.0	
10802 spintaterra	30	Z	FD	glo	300.0	
10803 spintaterra	31	Z	FD	glo	300.0	
10804 spintaterra	32	Z	FD	glo	900.0	
10805 spintaterra	33	Z	FD	glo	1500.0	
10806 spintaterra	34	Z	FD	glo	0.0	
10807 spintaterra	35	Z	FD	glo	900.0	
10808 spintaterra	36	Z	FD	glo	1500.0	
10809 spintaterra	37	Z	FD	glo	1500.0	
10810 spintaterra	38	Z	FD	glo	900.0	
10811 spintaterra	39	Z	FD	glo	0.0	
10812 spintaterra	103	Z	FD	glo	0.0	
10813 spintaterra	104	Z	FD	glo	0.0	
10814 spintaterra	105	Z	FD	glo	900.0	
10815 spintaterra	106	Z	FD	glo	900.0	
10816 spintaterra	107	Z	FD	glo	1500.0	
10817 spintaterra	108	Z	FD	glo	1500.0	
10818 spintaterra	109	Z	FD	glo	300.0	
10819 spintaterra	110	Z	FD	glo	900.0	
10820 spintaterra	111	Z	FD	glo	1500.0	
10821 spintaterra	112	Z	FD	glo	300.0	

10822	spintaterra	113	Z	FD	glo	300.0
10823	spintaterra	114	Z	FD	glo	900.0
10824	spintaterra	115	Z	FD	glo	900.0
10825	spintaterra	116	Z	FD	glo	1500.0
10826	spintaterra	117	Z	FD	glo	1500.0
10827	spintaterra	118	Z	FD	glo	1500.0
10828	spintaterra	119	Z	FD	glo	900.0
10829	spintaterra	120	Z	FD	glo	300.0
10830	spintaterra	121	Z	FD	glo	1500.0
10831	spintaterra	122	Z	FD	glo	900.0
10832	spintaterra	123	Z	FD	glo	300.0
10833	spintaterra	124	Z	FD	glo	1500.0
10834	spintaterra	125	Z	FD	glo	900.0
10835	spintaterra	126	Z	FD	glo	300.0
10836	spintaterra	127	Z	FD	glo	0.0
10837	spintaterra	128	Z	FD	glo	0.0
10838	spintaterra	129	Z	FD	glo	900.0
10839	spintaterra	130	Z	FD	glo	900.0
10840	spintaterra	131	Z	FD	glo	1500.0
10841	spintaterra	132	Z	FD	glo	1500.0
10842	spintaterra	133	Z	FD	glo	1500.0
10843	spintaterra	134	Z	FD	glo	900.0
10844	spintaterra	135	Z	FD	glo	0.0
10845	spintaterra	136	Z	FD	glo	1500.0
10846	spintaterra	137	Z	FD	glo	900.0
10847	spintaterra	138	Z	FD	glo	0.0
10848	spintaterra	139	Z	FD	glo	1500.0
10849	spintaterra	140	Z	FD	glo	900.0
10850	spintaterra	141	Z	FD	glo	0.0
10851	spintaterra	142	Z	FD	glo	1500.0
10852	spintaterra	143	Z	FD	glo	900.0
10853	spintaterra	144	Z	FD	glo	0.0
10854	spintaterra	145	Z	FD	glo	1500.0
10855	spintaterra	146	Z	FD	glo	900.0
10856	spintaterra	147	Z	FD	glo	0.0
10857	spintaterra	995	Z	FD	glo	0.0
10858	spintaterra	996	Z	FD	glo	0.0
10859	spintaterra	997	Z	FD	glo	900.0
10860	spintaterra	998	Z	FD	glo	900.0
10861	spintaterra	999	Z	FD	glo	1500.0
10862	spintaterra	1000	Z	FD	glo	1500.0
10863	spintaterra	1001	Z	FD	glo	1500.0
10864	spintaterra	1002	Z	FD	glo	900.0
10865	spintaterra	1003	Z	FD	glo	0.0
10866	spintaterra	1004	Z	FD	glo	1500.0
10867	spintaterra	1005	Z	FD	glo	900.0
10868	spintaterra	1006	Z	FD	glo	0.0
10869	spintaterra	1007	Z	FD	glo	1500.0
10870	spintaterra	1008	Z	FD	glo	900.0
10871	spintaterra	1009	Z	FD	glo	0.0
10872	spintaterra	1010	Z	FD	glo	1500.0
10873	spintaterra	1011	Z	FD	glo	900.0
10874	spintaterra	1012	Z	FD	glo	0.0
10875	spintaterra	1013	Z	FD	glo	1500.0
10876	spintaterra	1014	Z	FD	glo	900.0
10877	spintaterra	1015	Z	FD	glo	0.0
10878	spintaterra	1016	Z	FD	glo	1500.0
10879	spintaterra	1017	Z	FD	glo	900.0
10880	spintaterra	1018	Z	FD	glo	0.0
10881	spintaterra	1019	Z	FD	glo	1500.0
10882	spintaterra	1020	Z	FD	glo	900.0
10883	spintaterra	1021	Z	FD	glo	0.0
10884	spintaterra	1022	Z	FD	glo	1500.0
10885	spintaterra	1023	Z	FD	glo	900.0
10886	spintaterra	1024	Z	FD	glo	0.0
10887	spintaterra	1025	Z	FD	glo	1500.0
10888	spintaterra	1026	Z	FD	glo	900.0
10889	spintaterra	1027	Z	FD	glo	0.0
10890	spintaterra	1028	Z	FD	glo	1500.0
10891	spintaterra	1029	Z	FD	glo	900.0
10892	spintaterra	1030	Z	FD	glo	0.0
10893	spintaterra	1031	Z	FD	glo	1500.0
10894	spintaterra	1032	Z	FD	glo	900.0
10895	spintaterra	1033	Z	FD	glo	0.0
10896	spintaterra	1034	Z	FD	glo	0.0
10897	spintaterra	1035	Z	FD	glo	0.0
10898	spintaterra	1036	Z	FD	glo	900.0
10899	spintaterra	1037	Z	FD	glo	900.0
10900	spintaterra	1038	Z	FD	glo	1500.0
10901	spintaterra	1039	Z	FD	glo	1500.0
10902	spintaterra	1040	Z	FD	glo	1500.0
10903	spintaterra	1041	Z	FD	glo	900.0
10904	spintaterra	1042	Z	FD	glo	0.0
10905	spintaterra	1043	Z	FD	glo	1500.0
10906	spintaterra	1044	Z	FD	glo	900.0
10907	spintaterra	1045	Z	FD	glo	0.0
10908	spintaterra	1046	Z	FD	glo	1500.0
10909	spintaterra	1047	Z	FD	glo	900.0



10910	spintaterra	1048	Z	FD	glo	0.0
10911	spintaterra	1049	Z	FD	glo	1500.0
10912	spintaterra	1050	Z	FD	glo	900.0
10913	spintaterra	1051	Z	FD	glo	0.0
10914	spintaterra	1052	Z	FD	glo	1500.0
10915	spintaterra	1053	Z	FD	glo	900.0
10916	spintaterra	1054	Z	FD	glo	0.0
10917	spintaterra	1055	Z	FD	glo	1500.0
10918	spintaterra	1056	Z	FD	glo	900.0
10919	spintaterra	1057	Z	FD	glo	0.0
10920	spintaterra	1058	Z	FD	glo	1500.0
10921	spintaterra	1059	Z	FD	glo	900.0
10922	spintaterra	1060	Z	FD	glo	0.0
10923	spintaterra	1061	Z	FD	glo	1500.0
10924	spintaterra	1062	Z	FD	glo	900.0
10925	spintaterra	1063	Z	FD	glo	0.0
10926	spintaterra	1064	Z	FD	glo	1500.0
10927	spintaterra	1065	Z	FD	glo	900.0
10928	spintaterra	1066	Z	FD	glo	0.0
10929	spintaterra	1067	Z	FD	glo	1500.0
10930	spintaterra	1068	Z	FD	glo	900.0
10931	spintaterra	1069	Z	FD	glo	0.0
10932	spintaterra	1070	Z	FD	glo	0.0
10933	spintaterra	1071	Z	FD	glo	0.0
10934	spintaterra	1072	Z	FD	glo	900.0
10935	spintaterra	1073	Z	FD	glo	900.0
10936	spintaterra	1074	Z	FD	glo	1500.0
10937	spintaterra	1075	Z	FD	glo	1500.0

PESI PROPRI	GUSCI				
Cond.	Nome Carichi	Gusci			
3	10938-11896	1-39, 103-147, 172-289, 296-535, 538-963, 985-1075			

CONDIZIONI DI CARICO-----|-----|-----|-----|num.= 24

- | Nome                   |                        | N. carichi: |
|------------------------|------------------------|-------------|
| 1 Perm_____            |                        | 1556        |
| Lista carichi:         | 8135-8862, 9475-10302  |             |
| 2 Var_____             |                        | 255         |
| Lista carichi:         | 8863-9117              |             |
| 3 Perm_fond_____       |                        | 1833        |
| Lista carichi:         | 9118-9356, 10303-11896 |             |
| 4 Neve_____            |                        | 118         |
| Lista carichi:         | 9357-9474              |             |
| 5 Sisma_X_____         |                        | 605         |
| Lista carichi:         | 5715-6319              |             |
| 6 Sisma_Y_____         |                        | 605         |
| Lista carichi:         | 6320-6924              |             |
| 7 Torcente_add._X_____ |                        | 605         |
| Lista carichi:         | 6925-7529              |             |
| 8 Torcente_add._Y_____ |                        | 605         |
| Lista carichi:         | 7530-8134              |             |
| 9 Autovett_001_(X)     |                        | 120         |
| Lista carichi:         | 1-120                  |             |
| 10 Autovett_001_(Y)    |                        | 610         |
| Lista carichi:         | 121-730                |             |
| 11 Autovett_002_(X)    |                        | 317         |
| Lista carichi:         | 731-1047               |             |
| 12 Autovett_002_(Y)    |                        | 305         |
| Lista carichi:         | 1048-1352              |             |
| 13 Autovett_003_(X)    |                        | 611         |
| Lista carichi:         | 1353-1963              |             |
| 14 Autovett_003_(Y)    |                        | 66          |
| Lista carichi:         | 1964-2029              |             |
| 15 Autovett_004_(X)    |                        | 219         |
| Lista carichi:         | 2030-2248              |             |
| 16 Autovett_004_(Y)    |                        | 276         |
| Lista carichi:         | 2249-2524              |             |
| 17 Autovett_005_(X)    |                        | 212         |
| Lista carichi:         | 2525-2736              |             |
| 18 Autovett_005_(Y)    |                        | 430         |
| Lista carichi:         | 2737-3166              |             |
| 19 Autovett_006_(X)    |                        | 471         |
| Lista carichi:         | 3167-3637              |             |
| 20 Autovett_006_(Y)    |                        | 358         |
| Lista carichi:         | 3638-3995              |             |
| 21 Autovett_007_(X)    |                        | 447         |
| Lista carichi:         | 3996-4442              |             |
| 22 Autovett_007_(Y)    |                        | 391         |
| Lista carichi:         | 4443-4833              |             |
| 23 Autovett_008_(X)    |                        | 479         |
| Lista carichi:         | 4834-5312              |             |
| 24 Autovett_008_(Y)    |                        | 402         |
| Lista carichi:         | 5313-5714              |             |

## DATI ANALISI SISMICA:

ANALISI DINAMICA

Lavoro : \THU610

PARAMETRI DI CALCOLO:

Calcolo secondo Ordinanza P.C.M. 3274

Modello generale

Assi di vibrazione: X Y

Combinazione quadratica completa (CQC)

Accelerazione di picco al suolo = 0.05g

Zona sismica = 4

Categoria del suolo di fondazione = C

Fattore di struttura q = 3.276

$q = q_0 * K_D * K_R$  dove :

$q_0 = 4.5$  ( Strutture a telaio ) \* 1.3 ( Edifici a telaio con più piani e più campate )

$K_D = 0.7$  ( Classe di duttilità "B" )

$K_R = 0.8$  ( Edifici non regolari in altezza)

CONDIZIONI DI RIFERIMENTO	COEFFICIENTE	PESO RISULTANTE
1.	1.000	[kgf] 1317376.8
2.	0.300	97219.4
2.	0.200	64812.9

\*\*\* TABELLA AUTOVETTORI \*\*\*

n	PERIODO [sec]	MASSA ATTIVATA			COEFFICIENTI DI CORRELAZIONE						
		%X	%Y	%Z	n+1	n+2	n+3	n+4	n+5	n+6	n+7
1	0.063041	0.136	55.609	0.000	0.622	0.165	0.002	0.002	0.001	0.001	0.001
2	0.058320	4.296	1.281	0.000	0.319	0.003	0.002	0.002	0.001	0.001	
3	0.050411	51.161	0.007	0.000	0.003	0.003	0.002	0.002	0.002	0.002	
4	0.012214	0.132	0.073	0.000	0.657	0.106	0.091	0.085			
5	0.011364	0.077	21.978	0.000	0.176	0.145	0.134				
6	0.009164	4.295	0.448	0.000	0.937	0.880					
7	0.008930	22.921	9.980	0.000	0.988						
8	0.008832	16.075	9.744	0.000							
-----		MASSA TOTALE	99.094	99.121	0.000						
-----											

### VERIFICA SPOSTAMENTI SISMICI

spostamento limite interpiano = 0.5% dell'altezza

CASO n. 6 - SLD SISMAX PRINC:

Zinf [cm]	Zsup [cm]	h [cm]	spost.max [cm]	%h	nodo	sest.	ver.
135.00	475.00	340.00	0.011983	0.004	1443	12	SI
475.00	525.00	50.00	0.001525	0.003	1469	12	SI

CASO n. 7 - SLD SISMAX PRINC:

Zinf [cm]	Zsup [cm]	h [cm]	spost.max [cm]	%h	nodo	sest.	ver.
135.00	475.00	340.00	0.015071	0.004	1443	15	SI
475.00	525.00	50.00	0.001877	0.004	1469	15	SI

## DESCRIZIONE CASI DI CARICO:

NOME	DESCRIZIONE	TIPO	CONDIZ. INSERITE			CASI INSERITI	
			Num.	Coeff.	Segno	Num.	Coeff.
1	SLU SENZA SISMA	somma	1	1.400	+		
			2	1.500	+		
			3	1.400	+		
			4	1.500	+		
2	SISMAX SLU	somma	7	1.000	±		
			9	1.000	quadr.		
			11	1.000	quadr.		
			13	1.000	quadr.		
			15	1.000	quadr.		
			17	1.000	quadr.		
			19	1.000	quadr.		
			21	1.000	quadr.		
			23	1.000	quadr.		
3	SISMAY SLU	somma	8	1.000	±		
			10	1.000	quadr.		
			12	1.000	quadr.		
			14	1.000	quadr.		
			16	1.000	quadr.		
			18	1.000	quadr.		
			20	1.000	quadr.		
			22	1.000	quadr.		
4	SLU SISMAX PRINC	somma	1	1.000	+	2	1.000
			2	0.600	+	3	0.300
			3	1.000	+		
			4	0.200	+		
5	SLU SISMAY PRINC	somma	1	1.000	+	3	1.000
			2	0.600	+	2	0.300
			3	1.000	+		
			4	0.200	+		
6	SLD SISMAX PRINC	somma	1	1.000	+	2	1.310
			2	0.600	+	3	0.393
			3	1.000	+		
			4	0.200	+		
7	SLD SISMAY PRINC	somma	1	1.000	+	3	1.310
			2	0.600	+	2	0.393
			3	1.000	+		
			4	0.200	+		
8	Rara	somma	1	1.000	+		
			2	1.000	+		
			3	1.000	+		
			4	1.000	+		
9	Frequente	somma	1	1.000	+		
			2	0.600	+		
			3	1.000	+		
			4	0.200	+		
10	Quasi Perm	somma	1	1.000	+		
			2	0.300	+		
			3	1.000	+		



## PROGETTO / VERIFICA DI ELEMENTI IN C.A.

PROGETTO ELEMENTI IN CEMENTO ARMATO - lavoro: THU210

Unita` di misura:  
 DIM.SEZIONI: cm  
 FORZE: kgf  
 LUNGHEZZE: cm  
 COPPIE: kgfm  
 TENSIONI: daN/cm2  
 BARRE: mm  
 AREA BARRE: cm2

PILASTRATA : N. 150 P031 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
923	0.	340.	232	1336					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		So11.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 923											
ARMATURE Long.	: TOT		N	4	A	6.15752	%	0.51313			
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.04				
VALORI Max	Ea 0.92	P 340.	Ec -0.66	P 340.	etZ .01	P 0.	etY .01	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m					
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1					

PILASTRATA : N. 151 P021 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
924	0.	340.	239	1337					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		So11.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 924											
ARMATURE Long.	: TOT		N	4	A	6.15752	%	0.51313			
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.04				
VALORI Max	Ea 0.63	P 340.	Ec -0.51	P 340.	etZ .01	P 0.	etY .01	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m					
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1					

PILASTRATA : N. 152 P032 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
925	0.	340.	455	1338					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		So11.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 925											
ARMATURE Long.	: TOT		N	4	A	6.15752	%	0.51313			
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.01	cy 1.06				
VALORI Max	Ea 0.79	P 340.	Ec -0.66	P 340.	etZ .01	P 0.	etY .01	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m					
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1					

PILASTRATA : N. 153 P022 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
926	0.	340.	254	1339					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		So11.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 926											
ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313				
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.09				
VALORI Max	Ea -0.32	P 0.	Ec -0.39	P 340.	etZ .01	P 0.	etY .01	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m								
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1								

PILASTRATA : N. 154 P004 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
928	0.	340.	276	1341					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		So11.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 928											
ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313				
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.03				
VALORI Max	Ea 0.92	P 340.	Ec -0.58	P 340.	etZ .00	P 0.	etY .02	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m								
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1								

PILASTRATA : N. 155 P076 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
931	0.	340.	641	1344					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		So11.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 931											
ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313				
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.03				
VALORI Max	Ea 0.81	P 340.	Ec -0.61	P 340.	etZ .01	P 0.	etY .01	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m								
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1								

PILASTRATA : N. 156 P064 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
932	0.	340.	605	1345					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		So11.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 932											
ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313				
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.03				
VALORI Max	Ea 0.60	P 340.	Ec -0.50	P 340.	etZ .01	P 0.	etY .01	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m								
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1								

PILASTRATA : N. 157 P077 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
933	0.	340.	659	1346					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 933

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.03	
VALORI Max	Ea 0.88	P 340.	Ec -0.65	P 340.	etZ .01	P 0.	etY .01	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m					
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1					

PILASTRATA : N. 158 P065 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
934	0.	340.	614	1347

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 934

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.03	
VALORI Max	Ea 0.65	P 340.	Ec -0.46	P 340.	etZ .01	P 0.	etY .01	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m					
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1					

PILASTRATA : N. 159 P033 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
936	0.	340.	470	1349

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 936

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.01	cy 1.06	
VALORI Max	Ea -0.25	P 0.	Ec -0.31	P 0.	etZ .01	P 0.	etY .01	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m					
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1					

PILASTRATA : N. 160 P078 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
939	0.	340.	681	1352

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 939

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.04	
VALORI Max	Ea 0.42	P 340.	Ec -0.46	P 340.	etZ .01	P 0.	etY .01	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m					
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1					



PILASTRATA : N. 161 P079 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
940	0.	340.	698	1353					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 940

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.01	cy 1.05
VALORI Max	Ea 0.39	P 340.	Ec -0.47	P 340.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	85. 8 10.	10.1 10.1	170. 11 15.	6.7 6.7	85. 8 10.	10.1 10.1	

PILASTRATA : N. 162 P046 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
949	0.	340.	750	1364					
1189	340.	390.	1364	1464					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	390.	390.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 949

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.02	cy 1.21
VALORI Max	Ea -0.57	P 0.	Ec -0.58	P 0.	etZ .00	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	85. 8 10.	10.1 10.1	170. 11 15.	6.7 6.7	85. 8 10.	10.1 10.1	

----- ASTA 1189

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 9	L 50.	om 1.00	cz 1.00	cy 1.00
VALORI Max	Ea 0.84	P 390.	Ec -0.57	P 390.	etZ .02	P 340.	etY .02
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 3			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	13. 1 10.	10.1 10.1	25. 1 15.	6.7 6.7	13. 1 10.	10.1 10.1	

PILASTRATA : N. 163 P005 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
950	0.	340.	293	1365					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 950

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.03
VALORI Max	Ea 0.53	P 340.	Ec -0.45	P 340.	etZ .00	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	85. 8 10.	10.1 10.1	170. 11 15.	6.7 6.7	85. 8 10.	10.1 10.1	

PILASTRATA : N. 164 P011 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.					
951	0.	340.	302	1366					
987	340.	390.	1366	1404					
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	390.	390.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 951

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.11 |  
 VALORI Max |Ea 1.61 P 340. |Ec -0.94 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

----- ASTA 987

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 1.46 P 340. |Ec -0.87 P 340. |etZ .05 P 340. |etY .05 P 340. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |

PILASTRATA : N. 165 P023 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
953	0.	340.	512	1368

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 953

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.08 |  
 VALORI Max |Ea -0.35 P 340. |Ec -0.42 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 166 P001 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
959	0.	340.	392	1374

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 959

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.04 |  
 VALORI Max |Ea -0.20 P 340. |Ec -0.24 P 0. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 167 P052 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
960	0.	340.	768	1375
1190	340.	390.	1375	1479

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	390.	390.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 960

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.11 |  
 VALORI Max |Ea 1.24 P 340. |Ec -0.87 P 340. |etZ .00 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

----- ASTA 1190  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 1.21 P 340. |Ec -0.85 P 340. |etZ .00 P 340. |etY .11 P 340. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |

PILASTRATA : N. 168 P053 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.	H	S1	S2	S3	S4
961	0.	340.	779	1376	60.	0.	0.	0.	0.
1191	340.	390.	1376	1480					
Sez.	Progr.I.	Progr.F.	L	B					
Rett.	0.	390.	390.	20.					

CASI DI CARICO

N	Descrizione	Soll.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 961  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.07 |  
 VALORI Max |Ea -0.32 P 340. |Ec -0.38 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

----- ASTA 1191  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea -0.30 P 340. |Ec -0.36 P 340. |etZ .01 P 340. |etY .03 P 340. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |

PILASTRATA : N. 169 P025 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.	H	S1	S2	S3	S4
962	0.	340.	1022	1377	60.	0.	0.	0.	0.
1210	340.	390.	1377	1477					
Sez.	Progr.I.	Progr.F.	L	B					
Rett.	0.	390.	390.	20.					

CASI DI CARICO

N	Descrizione	Soll.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 962  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.03 |  
 VALORI Max |Ea 1.21 P 340. |Ec -0.66 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

----- ASTA 1210  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 1.19 P 340. |Ec -0.65 P 340. |etZ .03 P 340. |etY .05 P 340. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |

PILASTRATA : N. 170 P066 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.	H	S1	S2	S3	S4
963	0.	340.	1053	1378	60.	0.	0.	0.	0.
Sez.	Progr.I.	Progr.F.	L	B					
Rett.	0.	340.	340.	20.					

CASI DI CARICO

N	Descrizione	Soll.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 963

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.02 |  
 VALORI Max |Ea 0.44 P 340. |Ec -0.32 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 171 P067 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
964	0.	340.	1067	1379						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 964

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.06 |  
 VALORI Max |Ea -0.43 P 340. |Ec -0.52 P 340. |etZ .00 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 172 P055 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
965	0.	340.	798	1380						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 965

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.09 |  
 VALORI Max |Ea -0.57 P 340. |Ec -0.63 P 340. |etZ .00 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 173 P081 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
967	0.	340.	1242	1382						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 967

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.02 |  
 VALORI Max |Ea 0.52 P 340. |Ec -0.37 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 174 P082 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
968	0.	340.	1256	1383						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 968

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.02 |  
 VALORI Max |Ea 0.51 P 340. |Ec -0.39 P 340. |etZ .01 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 175 P083 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
969	0.	340.	1268	1384						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 969

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.01 |  
 VALORI Max |Ea 0.43 P 340. |Ec -0.29 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 176 P069 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
972	0.	340.	1109	1388						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 972

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.01 |  
 VALORI Max |Ea 0.54 P 340. |Ec -0.33 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 177 P026 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
977	0.	340.	1130	1393						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 977

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.04 |  
 VALORI Max |Ea -0.20 P 340. |Ec -0.26 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 178 P020 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
978	0.	340.	1121	1394						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 978

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.04 |  
 VALORI Max |Ea -0.23 P 340. |Ec -0.27 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 179 P027 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
979	0.	340.	1170	1395						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 979

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.04 |  
 VALORI Max |Ea 0.34 P 340. |Ec -0.38 P 340. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 180 P019 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
980	0.	340.	1190	1396						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 980

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.05 |  
 VALORI Max |Ea 0.31 P 340. |Ec -0.39 P 340. |etZ .00 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 181 P006 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
982	0.	340.	24	1398						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 982

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.06 |  
 VALORI Max |Ea 0.49 P 340. |Ec -0.58 P 340. |etZ .01 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 182 P010 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
927	0.	340.	269	1340						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 927

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.06 |  
 VALORI Max |Ea 0.94 P 340. |Ec -0.79 P 340. |etZ .01 P 0. |etY .03 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 183 P009 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
957	0.	340.	367	1372						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 957

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.05 |  
 VALORI Max |Ea 0.59 P 340. |Ec -0.49 P 340. |etZ .00 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 184 P002 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
956	0.	340.	377	1371						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 956

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.01 |  
 VALORI Max |Ea 0.80 P 340. |Ec -0.41 P 340. |etZ .00 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 185 P070 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
929	0.	340.	574	1342						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 929

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.01 |  
 VALORI Max |Ea 0.85 P 340. |Ec -0.37 P 340. |etZ .00 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 186 P075 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.						
930	0.	340.	593	1343						
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4	
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.	

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 930  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.01 |  
 VALORI Max |Ea 0.86 P 340. |Ec -0.44 P 340. |etZ .00 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 187 P035 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
937	0.	340.	530	1350
1174	340.	390.	1350	1471

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	390.	390.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 937  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.09 |  
 VALORI Max |Ea 1.56 P 340. |Ec -0.95 P 340. |etZ .00 P 0. |etY .03 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

----- ASTA 1174  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 9 |L 50. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea 1.41 P 340. |Ec -0.88 P 340. |etZ .04 P 340. |etY .05 P 340. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 3 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 13. 1 10. 10.1 10.1 | 25. 1 15. 6.7 6.7 | 13. 1 10. 10.1 10.1 |

PILASTRATA : N. 188 P059 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
938	0.	340.	542	1351

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 938  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.02 |  
 VALORI Max |Ea 1.52 P 340. |Ec -0.72 P 340. |etZ .00 P 0. |etY .03 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 189 P062 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
935	0.	340.	551	1348

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 935  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.07 |  
 VALORI Max |Ea 0.95 P 340. |Ec -0.88 P 340. |etZ .01 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 190 P060 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
947	0.	340.	824	1362

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.



CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 947

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.01	cy 1.09	
VALORI Max	Ea -0.39	P 0.	Ec -0.44	P 0.	etZ .00	P 0.	etY .02	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m					
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1					

PILASTRATA : N. 191 P063 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
945	0.	340.	929	1360

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 945

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.01	cy 1.09	
VALORI Max	Ea -0.33	P 0.	Ec -0.36	P 0.	etZ .00	P 0.	etY .01	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m					
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1					

PILASTRATA : N. 192 P061 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
946	0.	340.	980	1361

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 946

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.03	
VALORI Max	Ea 1.47	P 340.	Ec -1.00	P 340.	etZ .01	P 0.	etY .02	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m					
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1					

PILASTRATA : N. 193 P071 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
942	0.	340.	1003	1355

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 942

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313	
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.02	
VALORI Max	Ea 0.95	P 340.	Ec -0.55	P 340.	etZ .00	P 0.	etY .02	P 0.
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27				
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m					
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1					

PILASTRATA : N. 194 P041 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
948	0.	340.	735	1363
1188	340.	390.	1363	1462

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	390.	390.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		Soil.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 948											
ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313				
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.02	cy 1.23				
VALORI Max	Ea -0.64	P 340.	Ec -0.65	P 340.	etZ .00	P 0.	etY .01	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m					
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1					

----- ASTA 1188											
ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313				
SNELLEZZA	roz 17.	roy 6.	Lamb 9	L 50.	om 1.00	cz 1.00	cy 1.00				
VALORI Max	Ea 0.76	P 390.	Ec -0.60	P 390.	etZ .02	P 340.	etY .08	P 340.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 3							
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m					
	13.	1 10. 10.1 10.1	25.	1 15. 6.7 6.7	13.	1 10. 10.1 10.1					

PILASTRATA : N. 195 P003 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.	Sez. Rett.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
981	0.	340.	405	1397		0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		Soil.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 981											
ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313				
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.02				
VALORI Max	Ea 0.43	P 340.	Ec -0.33	P 340.	etZ .00	P 0.	etY .02	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m					
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1					

PILASTRATA : N. 196 P056 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.	Sez. Rett.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
973	0.	340.	153	1389		0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		Soil.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 973											
ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313				
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.01	cy 1.07				
VALORI Max	Ea -0.52	P 340.	Ec -0.64	P 340.	etZ .01	P 0.	etY .02	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m					
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1					

PILASTRATA : N. 197 P073 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.	Sez. Rett.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
970	0.	340.	1280	1385		0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO		Soil.
N	Descrizione	
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 970											
ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313				
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.01	cy 1.06				
VALORI Max	Ea -0.38	P 340.	Ec -0.45	P 340.	etZ .00	P 0.	etY .02	P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27							
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m					
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1					

PILASTRATA : N. 198 P072

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
966	0.	340.	1229	1381							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 966

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.04
VALORI Max	Ea 0.46 P 340.	Ec -0.44 P 340.	etZ .00 P 0.	etY .02 P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m				
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1				

PILASTRATA : N. 199 P008

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
984	0.	340.	49	1401							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 984

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.04
VALORI Max	Ea 0.91 P 340.	Ec -0.73 P 340.	etZ .01 P 0.	etY .01 P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m				
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1				

PILASTRATA : N. 200 P057

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
1233	0.	295.	90	92							
986	295.	635.	92	1403							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	295.	295.	70.	30.	0.	0.	0.	0.		
Rett.	295.	635.	340.	20.	60.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 1233

ARMATURE Long.	: TOT	N	8	A	12.31504	%	0.58643
SNELLEZZA	roz 9.	roy 20.	Lamb 34	L 295.	om 1.00	cz 1.00	cy 1.00
VALORI Max	Ea 1.17 P 295.	Ec -0.61 P 295.	etZ .01 P 0.	etY .00 P 0.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 23			
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m				
	74. 7 10. 10.1 10.1	148. 9 15. 6.7 6.7	74. 7 10. 10.1 10.1				

----- ASTA 986

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.03
VALORI Max	Ea 1.15 P 295.	Ec -0.86 P 295.	etZ .01 P 295.	etY .02 P 295.			
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m	Lung. N. Ps Az/m Ay/m				
	85. 8 10. 10.1 10.1	170. 11 15. 6.7 6.7	85. 8 10. 10.1 10.1				

PILASTRATA : N. 201 P028

CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.							
975	0.	340.	175	1391							
Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4		
Rett.	0.	340.	340.	30.	30.	0.	0.	0.	0.		

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 975

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.68417 |  
 SNELLEZZA |roz 9. |roy 9. |Lamb 39 |L 340. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea -1.51 P 340. |Ec -1.85 P 340. |etZ .01 P 0. |etY .03 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 202 P029 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
990	0.	295.	1335	1399
991	295.	635.	1399	1400

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	635.	635.	60.	30.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 990

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.34208 |  
 SNELLEZZA |roz 9. |roy 17. |Lamb 34 |L 295. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea -1.14 P 295. |Ec -1.27 P 295. |etZ .01 P 0. |etY .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 23 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 74. 7 10. 10.1 10.1 | 148. 9 15. 6.7 6.7 | 74. 7 10. 10.1 10.1 |

----- ASTA 991

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.34208 |  
 SNELLEZZA |roz 9. |roy 17. |Lamb 39 |L 340. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea -0.77 P 295. |Ec -0.89 P 295. |etZ .01 P 295. |etY .02 P 295. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 203 P080 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
941	0.	340.	713	1354

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	120.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 941

ARMATURE Long. : TOT | N | 8 | A | 12.31504 | % | 0.51313 |  
 SNELLEZZA |roz 35. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.03 |  
 VALORI Max |Ea 0.22 P 340. |Ec -0.25 P 0. |etZ .00 P 0. |etY .01 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 222 P068 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
971	0.	340.	1095	1387

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	So11.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 971

ARMATURE Long. : TOT | N | 4 | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.05 |  
 VALORI Max |Ea 0.65 P 340. |Ec -0.58 P 340. |etZ .00 P 0. |etY .02 P 340. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 225 P013 CRITERI : 1

Asta	Progr.I.	Progr.F.	Nodo I.	Nodo F.
1162	0.	390.	320	1468

Sez.	Progr.I.	Progr.F.	L	B	H	S1	S2	S3	S4
Circ.	0.	390.	390.	40.	0.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 1162  
 ARMATURE Long. : TOT | N 8 | A 12.31504 | % 0.98000 |  
 SNELLEZZA |roz 10. |roy 10. |Lamb 39 |L 390. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea -1.22 P 390. |Ec -0.91 P 390. |eta .02 P 0. |

PILASTRATA : N. 226 P014 CRITERI : 1  
 | Asta | Progr. I. | Progr. F. | Nodo I. | Nodo F. |  
 | 1163 | 0. | 390. | 335 | 1469 |

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Circ.	0.	390.	390.	40.	0.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 1163  
 ARMATURE Long. : TOT | N 8 | A 12.31504 | % 0.98000 |  
 SNELLEZZA |roz 10. |roy 10. |Lamb 39 |L 390. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea -1.37 P 390. |Ec -0.98 P 390. |eta .02 P 0. |

PILASTRATA : N. 227 P015 CRITERI : 1  
 | Asta | Progr. I. | Progr. F. | Nodo I. | Nodo F. |  
 | 1164 | 0. | 390. | 350 | 1470 |

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Circ.	0.	390.	390.	40.	0.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 1164  
 ARMATURE Long. : TOT | N 8 | A 12.31504 | % 0.98000 |  
 SNELLEZZA |roz 10. |roy 10. |Lamb 39 |L 390. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea -0.62 P 390. |Ec -0.57 P 390. |eta .01 P 0. |

PILASTRATA : N. 228 P058 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
1234	0.	295.	123	121
1235	295.	635.	121	1392

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	295.	295.	60.	30.	0.	0.	0.	0.
Rett.	295.	635.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 1234  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.34208 |  
 SNELLEZZA |roz 9. |roy 17. |Lamb 34 |L 295. |om 1.00 |cz 1.00 |cy 1.00 |  
 VALORI Max |Ea -0.61 P 295. |Ec -0.69 P 295. |etZ .00 P 0. |etY .01 P 0. |

ARMATURE Tras. |Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 23 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 74. 7 10. 10.1 10.1 | 148. 9 15. 6.7 6.7 | 74. 7 10. 10.1 10.1 |

----- ASTA 1235  
 ARMATURE Long. : TOT | N 4 | A 6.15752 | % 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.01 |cy 1.07 |  
 VALORI Max |Ea -0.51 P 635. |Ec -0.64 P 295. |etZ .01 P 295. |etY .01 P 295. |  
 ARMATURE Tras. |Diam 8 | N. braccia z 2 | N. braccia y 2 | N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

PILASTRATA : N. 229 P018 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
958	0.	340.	1031	1373
1209	340.	390.	1373	1478

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	390.	390.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 958

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.00	cy 1.04
VALORI Max	Ea 0.66	P 340.	Ec -0.36	P 340.	etZ .00	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1	

----- ASTA 1209

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 9	L 50.	om 1.00	cz 1.00	cy 1.00
VALORI Max	Ea 0.64	P 340.	Ec -0.35	P 340.	etZ .02	P 340.	etY .04
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 3			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	13.	1 10. 10.1 10.1	25.	1 15. 6.7 6.7	13.	1 10. 10.1 10.1	

PILASTRATA : N. 230 P007 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
988	0.	340.	7	1405

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 988

ARMATURE Long.	: TOT	N	4	A	6.15752	%	0.51313
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.01	cy 1.10
VALORI Max	Ea 1.11	P 0.	Ec -1.49	P 0.	etZ .02	P 340.	etY .02
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1	

PILASTRATA : N. 231 P030 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
1232	0.	295.	74	76
985	295.	635.	76	1402

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	295.	295.	60.	30.	0.	0.	0.	0.
Rett.	295.	635.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soil.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAY PRINC	16

----- ASTA 1232

ARMATURE Long.	: TOT	N	8	A	12.31504	%	0.68417
SNELLEZZA	roz 9.	roy 17.	Lamb 34	L 295.	om 1.00	cz 1.00	cy 1.00
VALORI Max	Ea 1.53	P 295.	Ec -1.15	P 295.	etZ .01	P 0.	etY .01
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 23			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	74.	7 10. 10.1 10.1	148.	9 15. 6.7 6.7	74.	7 10. 10.1 10.1	

----- ASTA 985

ARMATURE Long.	: TOT	N	8	A	12.31504	%	1.02625
SNELLEZZA	roz 17.	roy 6.	Lamb 59	L 340.	om 1.04	cz 1.01	cy 1.07
VALORI Max	Ea 1.73	P 635.	Ec -1.47	P 635.	etZ .01	P 295.	etY .08
ARMATURE Tras.	Diam 8	N. braccia z 2	N. braccia y 2	N. tot. 27			
	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	Lung. N. Ps	Az/m Ay/m	
	85.	8 10. 10.1 10.1	170.	11 15. 6.7 6.7	85.	8 10. 10.1 10.1	

PILASTRATA : N. 232 P074 CRITERI : 1

Asta	Progr. I.	Progr. F.	Nodo I.	Nodo F.
1317	0.	340.	1295	1448

Sez.	Progr. I.	Progr. F.	L	B	H	S1	S2	S3	S4
Rett.	0.	340.	340.	20.	60.	0.	0.	0.	0.

CASI DI CARICO

N	Descrizione	Soll.
1	SLU SENZA SISMA	1
4	SLU SISMAX PRINC	16
5	SLU SISMAX PRINC	16

----- ASTA 1317  
 ARMATURE Long. : TOT | N | A | 6.15752 | % | 0.51313 |  
 SNELLEZZA |roz 17. |roy 6. |Lamb 59 |L 340. |om 1.04 |cz 1.00 |cy 1.03 |  
 VALORI Max |Ea 0.58 P 340. |Ec -0.39 P 340. |etz .00 P 0. |ety .02 P 0. |  
 ARMATURE Tras. |Diam 8 |N. braccia z 2 |N. braccia y 2 |N. tot. 27 |  
 | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m | Lung. N. Ps Az/m Ay/m |  
 | 85. 8 10. 10.1 10.1 | 170. 11 15. 6.7 6.7 | 85. 8 10. 10.1 10.1 |

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR24  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : Scls(rara)=149.4; Scls(quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: Sacc(rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1329	2	2	2	0	165.	125.
2	A1329	2	2	2	0	345.	325.
3	A1329	2	2	2	0	250.	230.
4	A1326	2	2	2	0	400.	380.
5	C5	2	2	2	0	435.	415.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 675.	165.	2. 1.	-10.45	-.001	.002	-9382.05	-1.17	10.	2.	.104	898.2	SI
675.	165.	2. 1.	7.43	0.	.001	16451.12	-2.03	10.	2.	.169	2215.	SI
696.	186.	2. 3.	-3.15	0.	0.	-23146.36	-2.11	10.	2.	.174	7357.	SI
696.	186.	2. 3.	1958.52	-.09	.221	16602.37	-1.45	10.	2.	.126	8.477	SI
718.	208.	2. 4.	7.43	0.	.001	25793.46	-1.96	10.	2.	.164	3474.	SI
722.	212.	2. 4.	2015.57	-.082	.148	25793.46	-1.96	10.	2.	.164	12.8	SI
754.	244.	2. 4.	-1138.	!.046	.092	-23274.49	-1.73	10.	2.	.147	20.45	SI
754.	244.	2. 4.	1012.	!.041	.074	25793.46	-1.96	10.	2.	.164	25.49	SI
> 766.	6.	2. 4.	-2532.66	!.103	.205	-23274.49	-1.73	10.	2.	.147	9.19	SI
806.	46.	2. 5.	-2543.38	!.135	.213	-22762.36	-2.82	10.	2.	.22	8.95	SI
820.	60.	2. 5.	-2554.82	!.135	.214	-22762.36	-2.82	10.	2.	.22	8.91	SI
868.	108.	2. 6.	103.31	!.006	.021	9383.26	-1.12	10.	2.	.101	90.83	SI
933.	173.	2. 7.	1648.36	!.116	.331	9366.57	-1.38	10.	2.	.121	5.682	SI
1111.	351.	2. 10	-140.58	!.007	.014	-18621.14	-1.71	10.	2.	.146	132.5	SI
1111.	351.	2. 10	1486.38	!.071	.151	18621.14	-1.71	10.	2.	.146	12.53	SI
1157.	397.	2. 10	-572.03	!.027	.058	-18621.14	-1.71	10.	2.	.146	32.55	SI
1157.	397.	2. 10	419.8	!.02	.043	18621.14	-1.71	10.	2.	.146	44.36	SI
>1163.	3.	2. 10	-581.29	!.028	.059	-18621.14	-1.71	10.	2.	.146	32.03	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	vcd	Vwd	Asw	s	Ve	
> 675.	165.	2.	-6.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
675.	165.	2.	3.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
754.	244.	2.	-4944.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
> 766.	6.	2.	-5031.!	4769.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
787.	27.	2.	-5031.!	4769.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
820.	60.	2.	2946.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
1157.	397.	2.	-1676.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
>1163.	3.	2.	-1652.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	Sc s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
> 675.	165.	2.	1.	-4.3 !	0.!	1.8!	4.52	7.5	.001	14.92	0.!	SI
681.	171.	2.	2.	3.06	0.	.7	8.04	7.5	0.	12.55	0.!	SI
688.	178.	2.	2.	3.06	0.	.7	8.04	7.5	0.	12.55	0.!	SI
722.	212.	2.	4.	1431.71!	-8.!	216.!	12.57	7.5	.063	10.32	.007!	SI
754.	244.	2.	4.	-778.69!	-4.3!	129.5!	11.31	7.5	.038	10.87	.004!	SI
> 766.	6.	2.	4.	-813.42!	-4.5!	135.3!	11.31	7.5	.04	10.87	.004!	SI
820.	60.	2.	5.	-1818.99!	-12.9!	311.9!	11.31	7.5	.091	10.87	.01!	SI
957.	197.	2.	7.	1170.71!	-11.1!	482.4!	4.52	7.5	.141	14.92	.021!	SI
1157.	397.	2.	10	-394.01!	-2.6!	82.!	9.05	7.5	.024	11.54	.003!	SI
>1163.	3.	2.	10	-412.46!	-2.7!	85.9!	9.05	7.5	.025	11.54	.003!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	Sc s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
> 675.	165.	2.	1.	-3.01!	0.!	1.2!	4.52	7.5	0.	14.92	0.!	SI
681.	171.	2.	2.	2.14	0.	.5	8.04	7.5	0.	12.55	0.!	SI
688.	178.	2.	2.	2.14	0.	.5	8.04	7.5	0.	12.55	0.!	SI
722.	212.	2.	4.	1321.24!	-7.4!	199.4!	12.57	7.5	.058	10.32	.006!	SI
754.	244.	2.	4.	-625.58!	-3.5!	104.1!	11.31	7.5	.03	10.87	.003!	SI
> 766.	6.	2.	4.	-656.46!	-3.6!	109.2!	11.31	7.5	.032	10.87	.003!	SI
820.	60.	2.	5.	-1677.89!	-11.9!	287.7!	11.31	7.5	.084	10.87	.009!	SI
957.	197.	2.	7.	1097.46!	-10.4!	452.2!	4.52	7.5	.132	14.92	.02!	SI
1157.	397.	2.	10	-368.36!	-2.4!	76.7!	9.05	7.5	.022	11.54	.003!	SI
>1163.	3.	2.	10	-380.6 !	-2.5!	79.3!	9.05	7.5	.023	11.54	.003!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	Sc s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
> 675.	165.	2.	1.	-2.47!	0.!	1.!	4.52	7.5	0.	14.92	0.!	SI
681.	171.	2.	2.	1.76	0.	.4	8.04	7.5	0.	12.55	0.!	SI
688.	178.	2.	2.	1.76	0.	.4	8.04	7.5	0.	12.55	0.!	SI
722.	212.	2.	4.	1304.17!	-7.3!	196.8!	12.57	7.5	.058	10.32	.006!	SI
754.	244.	2.	4.	-578.52!	-3.2!	96.2!	11.31	7.5	.028	10.87	.003!	SI
> 766.	6.	2.	4.	-608.45!	-3.4!	101.2!	11.31	7.5	.03	10.87	.003!	SI
820.	60.	2.	5.	-1653.49!	-11.7!	283.5!	11.31	7.5	.083	10.87	.009!	SI
957.	197.	2.	7.	1078.29!	-10.2!	444.3!	4.52	7.5	.13	14.92	.019!	SI
1157.	397.	2.	10	-361.89!	-2.4!	75.4!	9.05	7.5	.022	11.54	.003!	SI
>1163.	3.	2.	10	-373.2 !	-2.4!	77.7!	9.05	7.5	.023	11.54	.003!	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	12.57	1.047	4.52	.377	4d12	8.04	.67	4d16
2	17.09	1.424	9.05	.754	4d12 +4d12	8.04	.67	4d16
3	19.35	1.613	11.31	.942	2d12 +4d12 +4d12	8.04	.67	4d16
4	23.88	1.99	11.31	.942	2d12 +4d12 +4d12	12.57	1.047	4d16 +4d12
5	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
6	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
7	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
8	11.31	.942	6.79	.565	4d12 +2d12	4.52	.377	4d12
9	13.57	1.131	9.05	.754	2d12 +4d12 +2d12	4.52	.377	4d12
10	18.1	1.508	9.05	.754	2d12 +4d12 +2d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR29  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.



TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : Sc1s(rara)=149.4; Sc1s(quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: Sacc(rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=30.; Ac1s=1800. .  
 4) Rettangolare: base=20.; alt.=60.; Ac1s=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1322	3	3	3	0	575.	550.
2	A1236	3	3	3	0	400.	355.
3	A1095	3	3	3	0	30.	0.
4	A1130	4	4	4	0	425.	415.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-2.21	0.	0.	-8598.26	-2.03	10.	2.	.169	3884.	SI
0.	0.	3. 1.	.94	0.	0.	6508.72	-1.67	10.	2.	.143	6939.	SI
172.	172.	3. 2.	.94	0.	0.	6514.74	-1.73	10.	2.	.147	6946.	SI
325.	325.	3. 2.	-388.51	-.042	.112	-6514.74	-1.73	10.	2.	.147	16.77	SI
443.	443.	3. 3.	-388.51	-.031	.05	-14685.1	-2.97	10.	2.	.229	37.8	SI
513.	513.	3. 4.	-388.51	-.028	.049	-14784.1	-2.42	10.	2.	.195	38.05	SI
575.	575.	3. 4.	-388.51	-.028	.049	-14784.1	-2.42	10.	2.	.195	38.05	SI
> 575.	0.	3. 4.	-606.66	-.043	.077	-14784.1	-2.42	10.	2.	.195	24.37	SI
575.	0.	3. 4.	715.77	-.052	.105	12736.57	-2.12	10.	2.	.175	17.79	SI
685.	110.	3. 5.	-364.47	-.031	.054	-12681.99	-2.64	10.	2.	.209	34.8	SI
685.	110.	3. 5.	715.77	-.069	.206	6498.67	-1.59	10.	2.	.137	9.079	SI
808.	233.	3. 2.	-60.67	-.007	.018	-6514.74	-1.73	10.	2.	.147	107.4	SI
808.	233.	3. 2.	715.77	-.078	.207	6514.74	-1.73	10.	2.	.147	9.102	SI
975.	400.	3. 6.	-1001.47	-.091	.177	-10653.66	-2.33	10.	2.	.189	10.64	SI
> 975.	0.	3. 7.	-3.74	0.	-.001	-21528.72	-1.05	-12.1	4.	.095	5754.	SI
975.	0.	3. 7.	8.83	0.	.001	15705.7	-1.29	10.	2.	.114	1778.	SI
1005.	30.	3. 7.	-3.74	0.	-.001	-21528.72	-1.05	-12.1	4.	.095	5754.	SI
1005.	30.	3. 7.	8.83	0.	.001	15705.7	-1.29	10.	2.	.114	1778.	SI
>1005.	0.	4. 8.	742.9	-.044	.125	15489.19	-1.81	10.	2.	.154	20.85	SI
1072.	67.	4. 9.	742.9	-.04	.147	9383.96	-1.05	10.	2.	.095	12.63	SI
1197.	192.	4. 10	742.9	-.052	.149	9366.57	-1.38	10.	2.	.121	12.61	SI
1363.	358.	4. 11	-240.06	-.015	.033	-13941.51	-1.8	10.	2.	.152	58.08	SI
1417.	412.	4. 11	6.58	0.	.001	9379.17	-1.23	10.	2.	.109	1425.	SI
1430.	425.	4. 11	-545.95	-.033	.074	-13941.51	-1.8	10.	2.	.152	25.54	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Ar	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3. 1.	-7.	6264.	77125.	29933.	11304.	18629.	1.01	5.	SI
0.	0.	3. 1.	17.	6264.	77125.	29933.	11304.	18629.	1.01	5.	SI
575.	575.	3. 3.	-1325.	9326.	77125.	29933.	11304.	18629.	1.01	5.	SI
> 575.	0.	3. 3.	-1156.	8888.	77125.	29933.	11304.	18629.	1.01	5.	SI
975.	400.	3. 3.	-1778.	8451.	77125.	29933.	11304.	18629.	1.01	5.	SI
> 975.	0.	3. 3.	-12.	7139.	77125.	0.	0.	0.	***	**	SI
975.	0.	3. 3.	5.	7139.	77125.	0.	0.	0.	***	**	SI
1005.	30.	3. 3.	-12.	7139.	77125.	0.	0.	0.	***	**	SI
1005.	30.	3. 3.	5.	7139.	77125.	0.	0.	0.	***	**	SI
>1005.	0.	4. 4.	-474.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
1030.	25.	4. 4.	-474.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
1430.	425.	4. 4.	-1083.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-91.	0.	.4	9.05	7.25	0.	17.97	0.	SI
46.	46.	3. 1.	-91.	0.	.4	9.05	7.25	0.	17.97	0.	SI
325.	325.	3. 2.	-282.02	-4.1	166.7	6.79	7.5	.049	21.69	.011	SI
575.	575.	3. 4.	-282.02	-2.7	73.3	15.83	6.76	.021	13.39	.003	SI
> 575.	0.	3. 4.	-429.42	-4.2	111.6	15.83	6.76	.033	13.39	.004	SI
575.	0.	3. 4.	506.04	-5.	152.2	13.57	7.03	.045	14.5	.006	SI
808.	233.	3. 2.	506.04	-7.4	299.1	6.79	7.5	.088	21.69	.019	SI
975.	400.	3. 6.	-718.1	-8.8	259.6	11.31	6.98	.076	15.71	.012	SI
> 975.	0.	3. 7.	3.64	0.	1.2	***	***	****	****	****	SI
1005.	30.	3. 7.	3.64	0.	1.2	***	***	****	****	****	SI
>1005.	0.	4. 8.	529.26	-4.3	182.6	4.52	7.5	.053	14.92	.008	SI
1197.	192.	4. 10	529.26	-5.	218.1	4.52	7.5	.064	14.92	.01	SI
1430.	425.	4. 11	-372.67	-3.1	104.	6.79	7.5	.03	12.67	.004	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	- .64!	0.	.3	9.05	7.25	0.	17.97	0.	SI
46.	46.	3.	1.	- .64!	0.	.3	9.05	7.25	0.	17.97	0.	SI
325.	325.	3.	2.	-319.5	-4.7!	188.8!	6.79	7.5	.055	21.69	.012!	SI
575.	575.	3.	4.	-319.5	-3.1!	83.	15.83	6.76	.024	13.39	.003!	SI
> 575.	0.	3.	4.	-397.42!	-3.9!	103.3!	15.83	6.76	.03	13.39	.004!	SI
575.	0.	3.	4.	463.36!	-4.6!	139.4!	13.57	7.03	.041	14.5	.006!	SI
808.	233.	3.	2.	463.36!	-6.8!	273.9!	6.79	7.5	.08	21.69	.017!	SI
975.	400.	3.	6.	-667.37!	-8.1!	241.3!	11.31	6.98	.071	15.71	.011!	SI
> 975.	0.	3.	7.	2.54!	0.	.8!	***	***	*****	*****	*****!	SI
1005.	30.	3.	7.	2.54!	0.	.8!	***	***	*****	*****	*****!	SI
>1005.	0.	4.	8.	521.01!	-4.2!	179.7!	4.52	7.5	.053	14.92	.008!	SI
1197.	192.	4.	10	521.01!	-4.9!	214.7!	4.52	7.5	.063	14.92	.009!	SI
1430.	425.	4.	11	-350.87!	-2.9!	97.9!	6.79	7.5	.029	12.67	.004!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	Sc1s	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	- .52!	0.	.2	9.05	7.25	0.	17.97	0.	SI
46.	46.	3.	1.	- .52!	0.	.2	9.05	7.25	0.	17.97	0.	SI
325.	325.	3.	2.	-335.41!	-4.9!	198.2!	6.79	7.5	.058	21.69	.013!	SI
575.	575.	3.	4.	-335.41!	-3.3!	87.2!	15.83	6.76	.026	13.39	.003!	SI
> 575.	0.	3.	4.	-383.53!	-3.7!	99.7!	15.83	6.76	.029	13.39	.004!	SI
575.	0.	3.	4.	444.79!	-4.4!	133.8!	13.57	7.03	.039	14.5	.006!	SI
808.	233.	3.	2.	444.79!	-6.5!	262.9!	6.79	7.5	.077	21.69	.017!	SI
975.	400.	3.	6.	-645.37!	-7.9!	233.3!	11.31	6.98	.068	15.71	.011!	SI
> 975.	0.	3.	7.	2.09!	0.	.7!	***	***	*****	*****	*****!	SI
1005.	30.	3.	7.	2.09!	0.	.7!	***	***	*****	*****	*****!	SI
>1005.	0.	4.	8.	515.33!	-4.2!	177.8!	4.52	7.5	.052	14.92	.008!	SI
1197.	192.	4.	10	515.33!	-4.9!	212.4!	4.52	7.5	.062	14.92	.009!	SI
1430.	425.	4.	11	-345.74!	-2.9!	96.5!	6.79	7.5	.028	12.67	.004!	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	15.83	.88	9.05	.503	2d12 +6d12	6.79	.377	6d12
2	13.57	.754	6.79	.377	6d12	6.79	.377	6d12
3	22.62	1.257	15.83	.88	2d12 +6d12 +6d12	6.79	.377	6d12
4	29.41	1.634	15.83	.88	2d12 +6d12 +6d12	13.57	.754	6d12 +6d12
5	20.36	1.131	13.57	.754	6d12 +6d12	6.79	.377	6d12
6	18.1	1.005	11.31	.628	6d12 +4d12	6.79	.377	6d12
7	22.62	1.257	11.31	.628	6d12 +4d12	11.31	.628	6d12 +4d12
8	22.62	1.885	18.1	1.508	6d12 +6d12 +4d12	4.52	.377	4d12
9	15.83	1.319	11.31	.942	6d12 +4d12	4.52	.377	4d12
10	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
11	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TRF01  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : Sc1s(rara)=149.4; Sc1s(quasi permanente)=112. ; fbd(eserczio)= 25.7  
 ACCIAIO: Sacc(rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=80.; alt.=100.; Ac1s=8000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1415	3	3	3	0	122.	97.
2	A1416	3	3	3	0	295.	245.
3	A1417	3	3	3	0	122.	97.

CASI DI CARICO DA MODELLO 3D

SLU		RARE		QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.
4.	SLU SISMAX PRINC	16			
5.	SLU SISMAX PRINC	16			

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	Se	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 15.	15.	3. 1.	-2.61	0.	0.	-112068.9	-1.27	10.	2.	.113	42908	SI
15.	15.	3. 1.	1.11	0.	0.	112068.86	-1.27	10.	2.	.113	.1E6	SI
107.	107.	3. 2.	1.11	0.	0.	223768.61	-1.56	10.	2.	.135	.2E6	SI
122.	122.	3. 2.	-2.61	0.	0.	-223768.6	-1.56	10.	2.	.135	85675	SI
122.	122.	3. 2.	1.11	0.	0.	223768.61	-1.56	10.	2.	.135	.2E6	SI
> 122.	0.	3. 2.	-2180.74	-.009	.018	-223768.6	-1.56	10.	2.	.135	102.6	SI
196.	74.	3. 3.	-2180.74	-.01	.036	-112602.4	-.966	10.	2.	.088	51.64	SI
233.	111.	3. 1.	-2180.74	-.013	.037	-112068.9	-1.27	10.	2.	.113	51.39	SI
343.	221.	3. 3.	356.03	-.002	.003	220917.81	-2.12	10.	2.	.175	620.5	SI
379.	257.	3. 2.	2512.82	-.01	.021	223768.61	-1.56	10.	2.	.135	89.05	SI
417.	295.	3. 2.	-632.52	-.002	.005	-223768.6	-1.56	10.	2.	.135	353.8	SI
417.	295.	3. 2.	2512.82	-.01	.021	223768.61	-1.56	10.	2.	.135	89.05	SI
> 417.	0.	3. 2.	-3.24	0.	0.	-223768.6	-1.56	10.	2.	.135	69088	SI
417.	0.	3. 2.	7.64	0.	0.	223768.61	-1.56	10.	2.	.135	29273	SI
478.	61.	3. 1.	-3.24	0.	0.	-112068.9	-1.27	10.	2.	.113	34601	SI
478.	61.	3. 1.	7.64	0.	0.	112068.86	-1.27	10.	2.	.113	14660	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	-3.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI
0.	0.	3.	6.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI
122.	122.	3.	-3.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI
122.	122.	3.	6.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI
> 122.	0.	3.	4225.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI
233.	111.	3.	4225.	27129.	369438.	89234.	54148.	44617.	2.01	15.	SI
417.	295.	3.	7425.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI
> 417.	0.	3.	-13.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI
417.	0.	3.	5.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI
539.	122.	3.	-13.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI
539.	122.	3.	5.	22562.	369438.	89234.	54148.	44617.	2.01	15.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	Sc	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 15.	15.	3. 1.	-1.08	0.	0.	31.42	7.5	0.	13.29	0.	SI
107.	107.	3. 2.	-1.08	0.	0.	0.	0.	0.	0.	0.	SI
122.	122.	3. 2.	-1.08	0.	0.	0.	0.	0.	0.	0.	SI
> 122.	0.	3. 2.	-1522.91	-.8	26.5	62.83	7.5	.008	10.05	.001	SI
233.	111.	3. 1.	-1522.91	-1.2	52.7	31.42	7.5	.015	13.29	.002	SI
417.	295.	3. 2.	1758.02	-.9	30.6	62.83	7.5	.009	10.05	.001	SI
> 417.	0.	3. 2.	3.15	0.	.1	62.83	7.5	0.	10.05	0.	SI
478.	61.	3. 1.	3.15	0.	.1	31.42	7.5	0.	13.29	0.	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	Sc	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 15.	15.	3. 1.	-.75	0.	0.	0.	0.	0.	0.	0.	SI
107.	107.	3. 2.	-.75	0.	0.	0.	0.	0.	0.	0.	SI
122.	122.	3. 2.	-.75	0.	0.	0.	0.	0.	0.	0.	SI
> 122.	0.	3. 2.	-1195.49	-.6	20.8	62.83	7.5	.006	10.05	.001	SI
233.	111.	3. 1.	-1195.49	-.9	41.4	31.42	7.5	.012	13.29	.002	SI
417.	295.	3. 2.	1425.35	-.8	24.8	62.83	7.5	.007	10.05	.001	SI
> 417.	0.	3. 2.	2.2	0.	0.	62.83	7.5	0.	10.05	0.	SI
478.	61.	3. 1.	2.2	0.	.1	31.42	7.5	0.	13.29	0.	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	Sc	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve
> 15.	15.	3. 1.	-.62	0.	0.	0.	0.	0.	0.	0.	SI
107.	107.	3. 2.	-.62	0.	0.	0.	0.	0.	0.	0.	SI
122.	122.	3. 2.	-.62	0.	0.	0.	0.	0.	0.	0.	SI
> 122.	0.	3. 2.	-1082.65	-.6	18.9	62.83	7.5	.006	10.05	.001	SI
233.	111.	3. 1.	-1082.65	-.9	37.5	31.42	7.5	.011	13.29	.001	SI
417.	295.	3. 2.	1302.17	-.7	22.7	62.83	7.5	.007	10.05	.001	SI
> 417.	0.	3. 2.	1.81	0.	0.	62.83	7.5	0.	10.05	0.	SI
478.	61.	3. 1.	1.81	0.	.1	31.42	7.5	0.	13.29	0.	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	62.83	.785	31.42	.393 10d20	31.42	.393	10d20
2	125.7	1.571	62.83	.785 10d20 +10d20	62.83	.785	10d20 +10d20
3	94.25	1.178	31.42	.393 10d20	62.83	.785	10d20 +10d20

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TRPAR2  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
CLS : Scls(rara)=149.4; Scls(quasi permanente)=112. ; fbd(esercizio)= 25.7  
ACCIAIO: Sacc(rara)=3010.; Coeff.Omegein.= 15  
FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=110.; Acls=2200. .  
5) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1021	2	2	2	0	465.	425.
2	A1027	2	2	2	0	410.	350.
3	A1073	2	2	2	0	490.	430.
4	A1074	2	2	2	0	265.	205.
5	A1083	5	5	5	0	390.	330.
6	A1423	5	5	5	0	590.	550.
7	A1424	5	5	5	0	470.	430.
8	A1101	5	5	5	0	495.	455.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	2.	1.	-6.45	0.	0.	-40072.14	-1.36	10.	2.	.12	6216.	SI
0.	0.	2.	1.	15.21	0.	.001	37175.17	-1.25	10.	2.	.111	2443.	SI
137.	137.	2.	2.	15.21	0.	.001	37055.48	-1.39	10.	2.	.122	2436.	SI
357.	357.	2.	4.	-6.45	0.	0.	-69306.36	-2.08	10.	2.	.172	10751	SI
357.	357.	2.	4.	15.21	0.	.001	37334.33	-0.986	10.	2.	.09	2454.	SI
408.	408.	2.	5.	15.21	0.	0.	74169.23	-1.62	10.	2.	.139	4875.	SI
465.	465.	2.	5.	-3.15	0.	0.	-70195.97	-1.51	10.	2.	.131	22310	SI
465.	465.	2.	5.	7.43	0.	0.	74169.23	-1.62	10.	2.	.139	9988.	SI
> 465.	0.	2.	5.	-6.45	0.	0.	-70195.97	-1.51	10.	2.	.131	10889	SI
465.	0.	2.	5.	15.21	0.	0.	74169.23	-1.62	10.	2.	.139	4875.	SI
543.	78.	2.	4.	-6.45	0.	0.	-69306.36	-2.08	10.	2.	.172	10751	SI
543.	78.	2.	4.	15.21	0.	.001	37334.33	-0.986	10.	2.	.09	2454.	SI
620.	155.	2.	2.	15.21	0.	.001	37055.48	-1.39	10.	2.	.122	2436.	SI
824.	359.	2.	5.	-6.45	0.	0.	-70195.97	-1.51	10.	2.	.131	10889	SI
824.	359.	2.	5.	15.21	0.	0.	74169.23	-1.62	10.	2.	.139	4875.	SI
875.	410.	2.	5.	-3.15	0.	0.	-70195.97	-1.51	10.	2.	.131	22310	SI
875.	410.	2.	5.	7.43	0.	0.	74169.23	-1.62	10.	2.	.139	9988.	SI
> 875.	0.	2.	5.	-6.45	0.	0.	-70195.97	-1.51	10.	2.	.131	10889	SI
875.	0.	2.	5.	15.21	0.	0.	74169.23	-1.62	10.	2.	.139	4875.	SI
937.	62.	2.	4.	-6.45	0.	0.	-69306.36	-2.08	10.	2.	.172	10751	SI
937.	62.	2.	4.	15.21	0.	.001	37334.33	-0.986	10.	2.	.09	2454.	SI
1035.	160.	2.	2.	15.21	0.	.001	37055.48	-1.39	10.	2.	.122	2436.	SI
1365.	490.	2.	6.	-3.15	0.	0.	-70101.8	-1.58	10.	2.	.137	22280	SI
1365.	490.	2.	6.	7.43	0.	0.	67212.28	-1.5	10.	2.	.13	9051.	SI
>1365.	0.	2.	6.	-951.28	-0.012	.026	-70101.8	-1.58	10.	2.	.137	73.69	SI
1365.	0.	2.	6.	66.12	-0.001	.002	67212.28	-1.5	10.	2.	.13	1017.	SI
1428.	63.	2.	7.	96.76	-0.002	.006	30276.71	-0.86	10.	2.	.079	312.9	SI
1552.	187.	2.	9.	-980.8	-0.02	.062	-30112.1	-1.2	10.	2.	.107	30.7	SI
1567.	202.	2.	10	-1085.38	-0.023	.06	-41813.06	-1.83	10.	2.	.154	38.52	SI
1582.	217.	2.	11	147.94	-0.002	.005	68371.65	-3.02	10.	2.	.232	462.2	SI
1630.	265.	2.	11	-1122.8	-0.02	.061	-42391.01	-1.37	10.	2.	.121	37.76	SI
1630.	265.	2.	11	147.94	-0.002	.005	68371.65	-3.02	10.	2.	.232	462.2	SI
>1630.	0.	5.	12	-6.45	0.	.001	-12468.35	-1.4	10.	2.	.123	1934.	SI
1630.	0.	5.	12	15.21	-0.001	.002	15693.57	-1.78	10.	2.	.151	1031.	SI
1893.	263.	5.	12	-6218.37	-0.359	.938	-12468.35	-1.4	10.	2.	.123	2.005	SI
1930.	300.	5.	13	-6499.8	-0.292	.42	-29506.47	-2.9	10.	2.	.225	4.54	SI
1930.	300.	5.	13	10.57	0.	.001	15780.56	-1.26	10.	2.	.112	1493.	SI
1954.	324.	5.	13	-8814.28	-0.4	.57	-29506.47	-2.9	10.	2.	.225	3.348	SI
1967.	337.	5.	14	10.57	0.	.001	31346.04	-1.98	10.	2.	.166	2965.	SI
2020.	390.	5.	14	-4.48	0.	0.	-30023.33	-1.88	10.	2.	.158	6702.	SI
2020.	390.	5.	14	10.57	0.	.001	31346.04	-1.98	10.	2.	.166	2965.	SI
>2020.	0.	5.	14	-1409.35	-0.05	.089	-30023.33	-1.88	10.	2.	.158	21.3	SI
2020.	0.	5.	14	5664.31	-0.203	.342	31346.04	-1.98	10.	2.	.166	5.534	SI
2115.	95.	5.	13	-809.13	-0.036	.052	-29506.47	-2.9	10.	2.	.225	36.47	SI

2115.	95.	5.	13	5664.31	- .242	.669	15780.56	-1.26	10.	2.	.112	2.786	SI
2191.	171.	5.	15	-155.79	- .007	.012	-24628.59	-2.27	10.	2.	.185	158.1	SI
2293.	273.	5.	12	5959.76	- .34	.721	15693.57	-1.78	10.	2.	.151	2.633	SI
2293.	273.	5.	12	-6250.68	- .361	.943	-12468.35	-1.4	10.	2.	.123	1.995	SI
2610.	590.	5.	14	-9214.87	- .33	.58	-30023.33	-1.88	10.	2.	.158	3.258	SI
>2610.	0.	5.	14	0.	0.	0.	-30023.33	-1.88	10.	2.	.158	***	SI
2610.	0.	5.	14	484.73	- .017	.029	31346.04	-1.98	10.	2.	.166	64.67	SI
2688.	78.	5.	13	484.73	- .02	.057	15780.56	-1.26	10.	2.	.112	32.56	SI
2856.	246.	5.	12	-68.93	- .004	.01	-12468.35	-1.4	10.	2.	.123	180.9	SI
2982.	372.	5.	13	-5466.22	- .245	.353	-29506.47	-2.9	10.	2.	.225	5.398	SI
3080.	470.	5.	14	-10178.11	- .365	.641	-30023.33	-1.88	10.	2.	.158	2.95	SI
>3080.	0.	5.	14	0.	0.	0.	-30023.33	-1.88	10.	2.	.158	***	SI
3080.	0.	5.	14	3072.9	- .109	.186	31346.04	-1.98	10.	2.	.166	10.2	SI
3181.	101.	5.	13	3072.9	- .131	.363	15780.56	-1.26	10.	2.	.112	5.135	SI
3365.	285.	5.	12	3493.25	- .197	.422	15693.57	-1.78	10.	2.	.151	4.493	SI
3549.	470.	5.	16	47.68	- .002	.006	15742.9	-1.56	10.	2.	.135	330.2	SI
3575.	495.	5.	16	-3276.9	- .168	.352	-17636.96	-1.77	10.	2.	.15	5.382	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	-7.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
0.	0.	2.	17.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
137.	137.	2.	-7.	7332.	101881.	51845.	14933.	36913.	1.01	10.	SI
465.	465.	2.	-5.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
465.	465.	2.	2.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
> 465.	0.	2.	-7.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
465.	0.	2.	17.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
567.	102.	2.	-7.	7332.	101881.	51845.	14933.	36913.	1.01	10.	SI
824.	359.	2.	-7.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
824.	359.	2.	17.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
875.	410.	2.	-5.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
875.	410.	2.	2.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
> 875.	0.	2.	-5.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
875.	0.	2.	2.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
913.	38.	2.	-7.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
913.	38.	2.	17.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
974.	99.	2.	-7.	7332.	101881.	51845.	14933.	36913.	1.01	10.	SI
1365.	490.	2.	-5.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
1365.	490.	2.	2.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
>1365.	0.	2.	-5750.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
1479.	114.	2.	-5750.	7332.	101881.	51845.	14933.	36913.	1.01	10.	SI
1630.	265.	2.	-5755.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
>1630.	0.	5.	-7.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
1630.	0.	5.	17.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
1682.	52.	5.	-7.	4317.	54273.	27619.	7955.	19664.	1.01	10.	SI
1954.	324.	5.	-13234.	4317.	54273.	27619.	7955.	19664.	1.01	10.	SI
2020.	390.	5.	-48.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
2020.	390.	5.	20.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
>2020.	0.	5.	4811.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
2610.	590.	5.	-13744.	5601.	54273.	27619.	7955.	19664.	1.01	10.	SI
>2610.	0.	5.	-1566.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
3080.	470.	5.	-8929.	5601.	54273.	27619.	7955.	19664.	1.01	10.	SI
>3080.	0.	5.	2598.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
3122.	43.	5.	2598.	4557.	54273.	27619.	7955.	19664.	1.01	10.	SI
3575.	495.	5.	-7420.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momemto	ScIs	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
0.	0.	2.	1.	6.26	0.	.7	9.42	7.5	0.	12.21	0.	SI
24.	24.	2.	1.	6.26	0.	.7	9.42	7.5	0.	12.21	0.	SI
137.	137.	2.	2.	6.26	0.	.7	9.42	7.5	0.	12.21	0.	SI
408.	408.	2.	5.	- .39	0.	0.	0.	0.	0.	0.	0.	SI
465.	465.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
465.	465.	2.	5.	3.06	0.	.2	18.85	7.5	0.	9.51	0.	SI
> 465.	0.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
465.	0.	2.	5.	6.26	0.	.3	18.85	7.5	0.	9.51	0.	SI
620.	155.	2.	2.	6.26	0.	.7	9.42	7.5	0.	12.21	0.	SI
824.	359.	2.	5.	6.26	0.	.3	18.85	7.5	0.	9.51	0.	SI
824.	359.	2.	5.	- .41	0.	0.	0.	0.	0.	0.	0.	SI
875.	410.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
875.	410.	2.	5.	3.06	0.	.2	18.85	7.5	0.	9.51	0.	SI
> 875.	0.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
875.	0.	2.	5.	3.06	0.	.2	18.85	7.5	0.	9.51	0.	SI
913.	38.	2.	5.	6.26	0.	.3	18.85	7.5	0.	9.51	0.	SI
1035.	160.	2.	2.	6.26	0.	.7	9.42	7.5	0.	12.21	0.	SI
1365.	490.	2.	6.	0.	0.	0.	0.	0.	0.	0.	0.	SI
1365.	490.	2.	6.	3.06	0.	.2	17.06	7.5	0.	9.64	0.	SI
>1365.	0.	2.	6.	-659.28	-1.2	36.7	17.81	7.5	.011	9.72	.001	SI
1582.	217.	2.	11	96.64	- .2	6.2	15.27	7.5	.002	10.15	0.	SI
1630.	265.	2.	11	-780.04	-1.9	86.5	7.63	7.5	.025	13.15	.003	SI
>1630.	0.	5.	12	0.	0.	0.	0.	0.	0.	0.	0.	SI
1630.	0.	5.	12	6.26	0.	1.6	7.63	7.5	0.	13.15	0.	SI

1682.	52.	5.	12	-3949.96	-30.5	1220.9	6.03	7.5	.436	14.24	.062	SI
1954.	324.	5.	13	-6218.87	-37.2	823.9	14.61	7.5	.317	9.98	.032	SI
2020.	390.	5.	14	0.	0.	0.	0.	0.	0.	0.	0.	SI
2020.	390.	5.	14	4.35	0.	.5	15.27	7.5	0.	10.15	0.	SI
>2020.	0.	5.	14	-993.29	-4.8	128.3	14.61	7.5	.038	9.98	.004	SI
2020.	0.	5.	14	4025.68	-19.7	499.4	15.27	7.5	.16	10.15	.016	SI
2293.	273.	5.	12	4235.91	-32.1	1049.2	7.63	7.5	.379	13.15	.05	SI
2293.	273.	5.	12	-5182.44	-40.	1601.8	6.03	7.5	.622	14.24	.089	SI
2610.	590.	5.	14	-6537.67	-31.8	844.7	14.61	7.5	.327	9.98	.033	SI
>2610.	0.	5.	14	0.	0.	0.	0.	0.	0.	0.	0.	SI
2610.	0.	5.	14	336.58	-1.6	41.8	15.27	7.5	.012	10.15	.001	SI
3080.	470.	5.	14	-7197.92	-35.	930.	14.61	7.5	.368	9.98	.037	SI
>3080.	0.	5.	14	0.	0.	0.	0.	0.	0.	0.	0.	SI
3080.	0.	5.	14	2176.1	-10.6	269.9	15.27	7.5	.079	10.15	.008	SI
3365.	285.	5.	12	2473.28	-18.7	612.6	7.63	7.5	.179	13.15	.024	SI
3575.	495.	5.	16	-2308.14	-16.	508.3	8.58	7.5	.149	12.05	.018	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	ScIs	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
0.	0.	2.	1.	4.38	0.	.5	9.42	7.5	0.	12.21	0.	SI
24.	24.	2.	1.	4.38	0.	.5	9.42	7.5	0.	12.21	0.	SI
137.	137.	2.	2.	4.38	0.	.5	9.42	7.5	0.	12.21	0.	SI
408.	408.	2.	5.	-28	0.	0.	0.	0.	0.	0.	0.	SI
465.	465.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
465.	465.	2.	5.	2.14	0.	.1	18.85	7.5	0.	9.51	0.	SI
>465.	0.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
465.	0.	2.	5.	4.38	0.	.2	18.85	7.5	0.	9.51	0.	SI
620.	155.	2.	2.	4.38	0.	.5	9.42	7.5	0.	12.21	0.	SI
824.	359.	2.	5.	4.38	0.	.2	18.85	7.5	0.	9.51	0.	SI
824.	359.	2.	5.	-29	0.	0.	0.	0.	0.	0.	0.	SI
875.	410.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
875.	410.	2.	5.	2.14	0.	.1	18.85	7.5	0.	9.51	0.	SI
>875.	0.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
875.	0.	2.	5.	2.14	0.	.1	18.85	7.5	0.	9.51	0.	SI
913.	38.	2.	5.	4.38	0.	.2	18.85	7.5	0.	9.51	0.	SI
1035.	160.	2.	2.	4.38	0.	.5	9.42	7.5	0.	12.21	0.	SI
1365.	490.	2.	6.	0.	0.	0.	0.	0.	0.	0.	0.	SI
1365.	490.	2.	6.	2.14	0.	.1	17.06	7.5	0.	9.64	0.	SI
>1365.	0.	2.	6.	-523.43	-.9	29.2	17.81	7.5	.009	9.72	.001	SI
1582.	217.	2.	11	87.26	-.2	5.6	15.27	7.5	.002	10.15	0.	SI
1630.	265.	2.	11	-632.24	-1.5	70.1	7.63	7.5	.021	13.15	.003	SI
>1630.	0.	5.	12	0.	0.	0.	0.	0.	0.	0.	0.	SI
1630.	0.	5.	12	4.38	0.	1.1	7.63	7.5	0.	13.15	0.	SI
1682.	52.	5.	12	-3381.09	-26.1	1045.1	6.03	7.5	.35	14.24	.05	SI
1954.	324.	5.	13	-5295.34	-31.7	701.6	14.61	7.5	.257	9.98	.026	SI
2020.	390.	5.	14	0.	0.	0.	0.	0.	0.	0.	0.	SI
2020.	390.	5.	14	3.05	0.	.4	15.27	7.5	0.	10.15	0.	SI
>2020.	0.	5.	14	-837.93	-4.1	108.3	14.61	7.5	.032	9.98	.003	SI
2020.	0.	5.	14	3814.29	-18.6	473.1	15.27	7.5	.148	10.15	.015	SI
2293.	273.	5.	12	4015.03	-30.4	994.5	7.63	7.5	.352	13.15	.046	SI
2293.	273.	5.	12	-4699.81	-36.3	1452.7	6.03	7.5	.549	14.24	.078	SI
2610.	590.	5.	14	-5933.9	-28.8	766.7	14.61	7.5	.289	9.98	.029	SI
>2610.	0.	5.	14	0.	0.	0.	0.	0.	0.	0.	0.	SI
2610.	0.	5.	14	257.5	-1.3	31.9	15.27	7.5	.009	10.15	.001	SI
3080.	470.	5.	14	-6329.96	-30.8	817.8	14.61	7.5	.314	9.98	.031	SI
>3080.	0.	5.	14	0.	0.	0.	0.	0.	0.	0.	0.	SI
3080.	0.	5.	14	1949.62	-9.5	241.8	15.27	7.5	.071	10.15	.007	SI
3365.	285.	5.	12	2211.58	-16.8	547.8	7.63	7.5	.16	13.15	.021	SI
3575.	495.	5.	16	-2057.41	-14.3	453.1	8.58	7.5	.133	12.05	.016	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	ScIs	Sacc	As	hc,ef	Eps	Sr,max	wk	Ve	
0.	0.	2.	1.	3.6	0.	.4	9.42	7.5	0.	12.21	0.	SI
24.	24.	2.	1.	3.6	0.	.4	9.42	7.5	0.	12.21	0.	SI
137.	137.	2.	2.	3.6	0.	.4	9.42	7.5	0.	12.21	0.	SI
408.	408.	2.	5.	-23	0.	0.	0.	0.	0.	0.	0.	SI
465.	465.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
465.	465.	2.	5.	1.76	0.	.1	18.85	7.5	0.	9.51	0.	SI
>465.	0.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
465.	0.	2.	5.	3.6	0.	.2	18.85	7.5	0.	9.51	0.	SI
620.	155.	2.	2.	3.6	0.	.4	9.42	7.5	0.	12.21	0.	SI
824.	359.	2.	5.	3.6	0.	.2	18.85	7.5	0.	9.51	0.	SI
824.	359.	2.	5.	-24	0.	0.	0.	0.	0.	0.	0.	SI
875.	410.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
875.	410.	2.	5.	1.76	0.	.1	18.85	7.5	0.	9.51	0.	SI
>875.	0.	2.	5.	0.	0.	0.	0.	0.	0.	0.	0.	SI
875.	0.	2.	5.	1.76	0.	.1	18.85	7.5	0.	9.51	0.	SI
913.	38.	2.	5.	3.6	0.	.2	18.85	7.5	0.	9.51	0.	SI
1035.	160.	2.	2.	3.6	0.	.4	9.42	7.5	0.	12.21	0.	SI
1365.	490.	2.	6.	0.	0.	0.	0.	0.	0.	0.	0.	SI
1365.	490.	2.	6.	1.76	0.	.1	17.06	7.5	0.	9.64	0.	SI
>1365.	0.	2.	6.	-444.22	-.8	24.8	17.81	7.5	.007	9.72	.001	SI
1582.	217.	2.	11	86.89	-.2	5.6	15.27	7.5	.002	10.15	0.	SI
1630.	265.	2.	11	-546.2	-1.3	60.6	7.63	7.5	.018	13.15	.002	SI
>1630.	0.	5.	12	0.	0.	0.	0.	0.	0.	0.	0.	SI
1630.	0.	5.	12	3.6	0.	.9	7.63	7.5	0.	13.15	0.	SI

1682.	52.	5.	12	-3235.85	-25.	1000.2	6.03	7.5	.328	14.24	.047	SI
1954.	324.	5.	13	-5067.62	-30.3	671.4	14.61	7.5	.242	9.98	.024	SI
2020.	390.	5.	14	0.	0.	0.	0.	0.	0.	0.	0.	SI
2020.	390.	5.	14	2.5	0.	.3	15.27	7.5	0.	10.15	0.	SI
>2020.	0.	5.	14	-801.76	-3.9	103.6	14.61	7.5	.03	9.98	.003	SI
2020.	0.	5.	14	3753.7	-18.4	465.6	15.27	7.5	.144	10.15	.015	SI
2293.	273.	5.	12	3952.3	-29.9	978.9	7.63	7.5	.344	13.15	.045	SI
2293.	273.	5.	12	-4565.63	-35.2	1411.2	6.03	7.5	.529	14.24	.075	SI
2610.	590.	5.	14	-5769.39	-28.	745.4	14.61	7.5	.278	9.98	.028	SI
>2610.	0.	5.	14	0.	0.	0.	0.	0.	0.	0.	0.	SI
2610.	0.	5.	14	223.18	-1.1	27.7	15.27	7.5	.008	10.15	.001	SI
3080.	470.	5.	14	-6110.07	-29.7	789.4	14.61	7.5	.3	9.98	.03	SI
>3080.	0.	5.	14	0.	0.	0.	0.	0.	0.	0.	0.	SI
3080.	0.	5.	14	1900.78	-9.3	235.8	15.27	7.5	.069	10.15	.007	SI
3365.	285.	5.	12	2154.39	-16.3	533.6	7.63	7.5	.156	13.15	.021	SI
3575.	495.	5.	16	-1983.68	-13.8	436.9	8.58	7.5	.128	12.05	.015	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	19.6	.891	10.18	.463	1d18 +3d18	9.42	.428	3d20
2	17.06	.775	7.63	.347	3d18	9.42	.428	3d20
3	24.69	1.122	15.27	.694	3d18 +3d18	9.42	.428	3d20
4	27.24	1.238	17.81	.81	1d18 +3d18 +3d18	9.42	.428	3d20
5	36.66	1.666	17.81	.81	1d18 +3d18 +3d18	18.85	.857	3d20 +3d20
6	34.87	1.585	17.81	.81	1d18 +3d18 +3d18	17.06	.775	3d20 +3d18
7	25.45	1.157	17.81	.81	1d18 +3d18 +3d18	7.63	.347	3d18
8	22.9	1.041	15.27	.694	3d18 +3d18	7.63	.347	3d18
9	15.27	.694	7.63	.347	3d18	7.63	.347	3d18
10	21.3	.968	13.67	.621	3d18 +3d16	7.63	.347	3d18
11	28.93	1.315	13.67	.621	3d18 +3d16	15.27	.694	3d18 +3d18
12	13.67	1.139	6.03	.503	3d16	7.63	.636	3d18
13	22.24	1.854	14.61	1.217	1d18 +3d16 +3d16	7.63	.636	3d18
14	29.88	2.49	14.61	1.217	1d18 +3d16 +3d16	15.27	1.272	3d18 +3d18
15	19.7	1.641	12.06	1.005	3d16 +3d16	7.63	.636	3d18
16	16.21	1.351	8.58	.715	1d18 +3d16	7.63	.636	3d18

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 233 - Travata T150  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σ (rara)=149.4; σc (quasi permanente)=112. ; fbd(esesercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=40.; Acl=3600. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A466	3	3	3	0	308.	278.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-948.48	-.035	.092	-19474.26	-1.64	10.	2.	.141	20.53	SI
277.	277.	3.	1.	15.14	-.001	.002	16538.77	-1.45	10.	2.	.127	1092.	SI
292.	292.	3.	1.	156.85	-.006	.018	16538.77	-1.45	10.	2.	.127	105.4	SI
308.	308.	3.	1.	-468.97	-.017	.045	-19474.26	-1.64	10.	2.	.141	41.53	SI
308.	308.	3.	1.	156.85	-.006	.018	16538.77	-1.45	10.	2.	.127	105.4	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	-153.	14537.	158535.	74293.	23236.	51057.	2.01	5.	SI
0.	0.	3.	748.	14537.	158535.	74293.	23236.	51057.	2.01	5.	SI
72.	72.	3.	-172.	14133.	158535.	74293.	23236.	51057.	2.01	5.	SI
308.	308.	3.	1177.	11909.	158535.	74293.	23236.	51057.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-642.44	-3.2	127.2	14.7	7.5	.037	17.53	.007	SI
17.	17.	3.	1.	-610.8	-3.1	120.9	14.7	7.5	.035	17.53	.006	SI
72.	72.	3.	1.	58.29	-0.3	13.5	12.44	7.5	.004	19.23	.001	SI
308.	308.	3.	1.	-237.85	-1.2	47.1	14.7	7.5	.014	17.53	.002	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
17.	17.	3.	1.	-494.08	-2.5	97.8	14.7	7.5	.029	17.53	.005	SI
154.	154.	3.	2.	-594.62	-3.2	138.3	12.44	7.5	.04	19.23	.008	SI
308.	308.	3.	1.	-10.49	-1.1	2.1	14.7	7.5	.001	17.53	0.	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-295.81	-1.5	58.6	14.7	7.5	.017	17.53	.003	SI
15.	15.	3.	1.	-377.26	-1.9	74.7	14.7	7.5	.022	17.53	.004	SI
154.	154.	3.	2.	-881.66	-4.7	205.1	12.44	7.5	.06	19.23	.012	SI
308.	308.	3.	1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
308.	308.	3.	1.	198.73	-1.	46.2	12.44	7.5	.014	19.23	.003	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	27.14	.754	14.7	.408	2d12	+11d12	12.44
2	24.88	.691	12.44	.346	11d12		12.44

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 234 - Travata T151  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc=1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; Coeff.Omogenein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=40.; alt.=40.; Acl=1600. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1224	3	3	3	0	297.	267.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						



VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.1.	-285.29	-.022	.052	-10435.59	-1.84	10.	2.	.155	36.58	SI
0.	0.	3.1.	456.49	-.038	.114	7511.98	-1.42	10.	2.	.124	16.46	SI
32.	32.	3.1.	176.88	-.015	.044	7511.98	-1.42	10.	2.	.124	42.47	SI
148.	148.	3.2.	-1981.12	-.175	.496	-7515.12	-1.51	10.	2.	.131	3.793	SI
280.	280.	3.1.	2271.45	-.189	.566	7511.98	-1.42	10.	2.	.124	3.307	SI
297.	297.	3.1.	-333.77	-.026	.06	-10435.59	-1.84	10.	2.	.155	31.27	SI
297.	297.	3.1.	2271.45	-.189	.566	7511.98	-1.42	10.	2.	.124	3.307	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.1.	-3062.	5293.	70460.	35856.	10327.	25528.	1.01	5.	SI
71.	71.	3.1.	-1681.	6304.	70460.	35856.	10327.	25528.	1.01	5.	SI
297.	297.	3.1.	4632.	5293.	70460.	35856.	10327.	25528.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
0.	0.	3.1.	309.13	-3.5	157.8	5.65	7.5	.046	18.98	.009	SI
148.	148.	3.2.	-1861.	-22.	953.	5.65	7.5	.279	18.98	.053	SI
297.	297.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
297.	297.	3.1.	1603.29	-18.	818.7	5.65	7.5	.24	18.98	.045	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
0.	0.	3.1.	193.2	-2.2	98.7	5.65	7.5	.029	18.98	.005	SI
148.	148.	3.2.	-1616.72	-19.1	827.9	5.65	7.5	.242	18.98	.046	SI
297.	297.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
297.	297.	3.1.	1459.78	-16.4	745.4	5.65	7.5	.218	18.98	.041	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
0.	0.	3.1.	127.31	-1.4	65.	5.65	7.5	.019	18.98	.004	SI
148.	148.	3.2.	-1489.82	-17.6	762.9	5.65	7.5	.223	18.98	.042	SI
297.	297.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
297.	297.	3.1.	1388.28	-15.6	708.9	5.65	7.5	.207	18.98	.039	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Infer.	Barre
1	13.57	.848	.495	2d12 +5d12
2	11.31	.707	.353	5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 235 - Travata T153  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=300.; fck=249.; fctk=18.2; fctm=26.1; Ec=311769.;  
 gc=1.6; fcd=155.6; fbd=25.7; fctd=11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300.; fyk=4300.; Ea=2050000.;  
 ga=1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=149.4; σc (quasi permanente)=112.; fbd(esercizio)=25.7  
 ACCIAIO: σf (rara)=3010.; Coeff.Omogein.=15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4; wk(q.p.)=.2;  
 c/cmin=1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=40.; Ac1s=3600. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A468	3	3	3	0	293.	263.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.1.	-605.87	-.024	.069	-16541.83	-1.5	10.	2.	.13	27.3	SI
0.	0.	3.1.	303.59	-.012	.034	16541.83	-1.5	10.	2.	.13	54.49	SI
146.	146.	3.1.	-3471.52	-.138	.394	-16541.83	-1.5	10.	2.	.13	4.765	SI
277.	277.	3.1.	3354.79	-.133	.381	16541.83	-1.5	10.	2.	.13	4.931	SI
293.	293.	3.1.	-627.38	-.025	.071	-16541.83	-1.5	10.	2.	.13	26.37	SI
293.	293.	3.1.	3354.79	-.133	.381	16541.83	-1.5	10.	2.	.13	4.931	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.1.	-4646.	11909.	158535.	74293.	23236.	51057.	2.01	5.	SI
31.	31.	3.1.	-3752.	14133.	158535.	74293.	23236.	51057.	2.01	5.	SI
293.	293.	3.1.	7500.	11909.	158535.	74293.	23236.	51057.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
146.	146.	3.1.	-2941.26	-15.6	684.3	12.44	7.5	.2	19.23	.039	SI
293.	293.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
293.	293.	3.1.	2397.49	-12.8	557.8	12.44	7.5	.163	19.23	.031	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
146.	146.	3.1.	-2865.43	-15.2	666.6	12.44	7.5	.195	19.23	.038	SI
293.	293.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
293.	293.	3.1.	2346.78	-12.5	546.	12.44	7.5	.16	19.23	.031	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
146.	146.	3.1.	-2922.75	-15.5	680.	12.44	7.5	.199	19.23	.038	SI
293.	293.	3.1.	0.	0.	0.	0.	0.	0.	0.	0.	SI
293.	293.	3.1.	2366.26	-12.6	550.5	12.44	7.5	.161	19.23	.031	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	24.88	.691	.346	12.44	.346

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR154  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=300.; fck=249.; fctk=18.2; fctm=26.1; Ec=311769.;  
 gc=1.6; fcd=155.6; fbd=25.7; fctd=11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300.; fyk=4300.; Ea=2050000.;  
 ga=1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=149.4; σc (quasi permanente)=112.; fbd(esesrcizio)=25.7  
 ACCIAIO: σf (rara)=3010.; Coeff.Omogein.=15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4; wk(q.p.)=.2;  
 c/cmin=1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=40.; Acl=3600. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A922	3	3	3	0	315.	285.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	-799.54	-.031	.091	-16541.83	-1.5	10.	2.	.13	20.69	SI
0.	0.	3.	2684.51	-.106	.305	16541.83	-1.5	10.	2.	.13	6.162	SI
158.	158.	3.	-5297.36	-.211	.602	-16541.83	-1.5	10.	2.	.13	3.123	SI
242.	242.	3.	182.11	-.007	.021	16541.83	-1.5	10.	2.	.13	90.83	SI
299.	299.	3.	3823.66	-.152	.434	16541.83	-1.5	10.	2.	.13	4.326	SI
315.	315.	3.	-755.85	-.03	.086	-16541.83	-1.5	10.	2.	.13	21.89	SI
315.	315.	3.	3823.66	-.152	.434	16541.83	-1.5	10.	2.	.13	4.326	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	-8592.	11909.	158535.	74293.	23236.	51057.	2.01	5.	SI
31.	31.	3.	-6649.	14133.	158535.	74293.	23236.	51057.	2.01	5.	SI
315.	315.	3.	8846.	11909.	158535.	74293.	23236.	51057.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	SI
158.	158.	3.	-4726.82	-25.1	1099.7	12.44	7.5	.322	19.23	.062	SI
315.	315.	3.	0.	0.	0.	0.	0.	0.	0.	0.	SI
315.	315.	3.	2680.34	-14.3	623.6	12.44	7.5	.183	19.23	.035	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	SI
158.	158.	3.	-4211.53	-22.4	979.8	12.44	7.5	.287	19.23	.055	SI
315.	315.	3.	0.	0.	0.	0.	0.	0.	0.	0.	SI
315.	315.	3.	2314.96	-12.3	538.6	12.44	7.5	.158	19.23	.03	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	0.	0.	0.	0.	0.	0.	0.	0.	SI
158.	158.	3.	-3949.03	-21.	918.7	12.44	7.5	.269	19.23	.052	SI
315.	315.	3.	0.	0.	0.	0.	0.	0.	0.	0.	SI
315.	315.	3.	2121.6	-11.3	493.6	12.44	7.5	.144	19.23	.028	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Infer.	Barre	% Barre
1	24.88	.691	12.44	.346	11d12
					12.44
					.346
					11d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR156-166-169-M  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=25.; AcIs=1500. .

## DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1277	3	3	3	0	467.	422.
2	A1279	3	3	3	0	495.	450.
3	C3	1	1	1	0	120.	90.

## CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

## VERIFICHE ALLO STATO LIMITE ULTIMO

## FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-2585.01	-.372	.802	-6066.83	-2.17	10.	2.	.178	2.347	SI
226.	226.	3. 2.	2572.77	-.392	.821	5909.56	-2.23	10.	2.	.182	2.297	SI
360.	360.	3. 4.	-190.49	-.022	.035	-10133.75	-3.	10.	2.	.231	53.2	SI
360.	360.	3. 4.	1432.03	-.184	.455	5895.83	-1.98	10.	2.	.165	4.117	SI
427.	427.	3. 5.	163.14	-.016	.027	11473.33	-2.78	10.	2.	.217	70.33	SI
467.	467.	3. 5.	-2489.34	-.256	.457	-10166.13	-2.5	10.	2.	.2	4.084	SI
> 467.	0.	3. 5.	-3134.49	-.324	.576	-10166.13	-2.5	10.	2.	.2	3.243	SI
527.	60.	3. 5.	317.59	-.032	.052	11473.33	-2.78	10.	2.	.217	36.13	SI
554.	88.	3. 4.	-603.02	-.071	.111	-10133.75	-3.	10.	2.	.231	16.81	SI
666.	199.	3. 2.	2585.75	-.394	.825	5909.56	-2.23	10.	2.	.182	2.285	SI
777.	311.	3. 2.	-7.52	-.001	.003	-4403.9	-1.85	10.	2.	.156	585.4	SI
869.	402.	3. 7.	-2863.12	-.371	.887	-6057.28	-2.01	10.	2.	.167	2.116	SI
962.	495.	3. 7.	-2570.28	-.332	.796	-6057.28	-2.01	10.	2.	.167	2.357	SI

## VERIFICHE A TAGLIO

## TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	3590.	6884.	62843.	24390.	9211.	15179.	1.01	5.	SI
467.	467.	3. 1.	-3401.	8019.	62843.	24390.	9211.	15179.	1.01	5.	SI
> 467.	0.	3. 1.	3765.	8019.	62843.	24390.	9211.	15179.	1.01	5.	SI
869.	402.	3. 1.	-4012.	6840.	62843.	24390.	9211.	15179.	1.01	5.	SI
962.	495.	3. 1.	-3228.	6884.	62843.	24390.	9211.	15179.	1.01	5.	SI

## VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

## TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1842.8	-34.9	1166.9	7.92	6.06	.342	17.53	.06	SI
10.	10.	3. 1.	-1764.82	-33.4	1117.5	7.92	6.06	.327	17.53	.057	SI
15.	15.	3. 1.	-1663.79	-31.5	1053.5	7.92	6.06	.308	17.53	.054	SI
58.	58.	3. 1.	-628.78	-11.9	398.1	7.92	6.06	.117	17.53	.02	SI
226.	226.	3. 2.	1838.11	-36.5	1196.5	7.7	6.03	.35	19.01	.067	SI
467.	467.	3. 5.	-1780.56	-24.6	668.4	13.57	5.72	.196	13.32	.026	SI
> 467.	0.	3. 5.	-2238.56	-31.	840.4	13.57	5.72	.248	13.32	.033	SI
666.	199.	3. 2.	1843.77	-36.6	1200.2	7.7	6.03	.351	19.01	.067	SI
869.	402.	3. 7.	-2067.43	-35.6	1308.3	7.92	6.21	.383	17.75	.068	SI
962.	495.	3. 7.	-1835.91	-31.7	1161.8	7.92	6.21	.34	17.75	.06	SI

## TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1828.14	-34.6	1157.6	7.92	6.06	.339	17.53	.059	SI
10.	10.	3. 1.	-1750.37	-33.1	1108.3	7.92	6.06	.324	17.53	.057	SI
15.	15.	3. 1.	-1649.6	-31.2	1044.5	7.92	6.06	.306	17.53	.054	SI
58.	58.	3. 1.	-617.31	-11.7	390.9	7.92	6.06	.114	17.53	.02	SI
226.	226.	3. 2.	1838.74	-36.5	1196.9	7.7	6.03	.35	19.01	.067	SI
467.	467.	3. 5.	-1793.75	-24.8	673.4	13.57	5.72	.197	13.32	.026	SI
> 467.	0.	3. 5.	-2236.27	-31.	839.5	13.57	5.72	.248	13.32	.033	SI
666.	199.	3. 2.	1845.12	-36.7	1201.1	7.7	6.03	.352	19.01	.067	SI
869.	402.	3. 7.	-2215.7	-38.2	1402.1	7.92	6.21	.412	17.75	.073	SI
962.	495.	3. 7.	-1835.91	-31.7	1161.8	7.92	6.21	.34	17.75	.06	SI

## TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1811.41	-34.3	1147.	7.92	6.06	.336	17.53	.059	SI
10.	10.	3. 1.	-1733.84	-32.8	1097.9	7.92	6.06	.321	17.53	.056	SI
15.	15.	3. 1.	-1633.33	-30.9	1034.2	7.92	6.06	.303	17.53	.053	SI
58.	58.	3. 1.	-603.71	-11.4	382.3	7.92	6.06	.112	17.53	.02	SI
226.	226.	3. 2.	1840.92	-36.6	1198.4	7.7	6.03	.351	19.01	.067	SI
467.	467.	3. 5.	-1804.23	-25.	677.3	13.57	5.72	.198	13.32	.026	SI
> 467.	0.	3. 5.	-2234.84	-30.9	839.	13.57	5.72	.247	13.32	.033	SI
666.	199.	3. 2.	1853.59	-36.8	1206.6	7.7	6.03	.353	19.01	.067	SI
869.	402.	3. 7.	-2303.77	-39.7	1457.8	7.92	6.21	.439	17.75	.078	SI
962.	495.	3. 7.	-1835.91	-31.7	1161.8	7.92	6.21	.34	17.75	.06	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	15.61	1.041	7.92	.528	2d12 +5d12	7.7	.513	5d14
2	13.35	.89	5.65	.377	5d12	7.7	.513	5d14
3	19.01	1.267	11.31	.754	5d12 +5d12	7.7	.513	5d14
4	21.27	1.418	13.57	.905	2d12 +5d12 +5d12	7.7	.513	5d14
5	28.97	1.931	13.57	.905	2d12 +5d12 +5d12	15.39	1.026	5d14 +5d14
6	15.61	1.041	7.92	.528	5d12 +2d12	7.7	.513	5d14
7	21.27	1.418	7.92	.528	5d12 +2d12	13.35	.89	5d14 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 96 - Travata T061  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=149.4;  $\sigma$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma$  f (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmIn= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=120.; alt.=25.; Acl=3000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1276	3	3	3	0	120.	90.
2	A1218	3	3	3	0	410.	380.
3	A1219	3	3	3	0	575.	545.

CASI DI CARICO DA MODELLO 3D

SLU		RARE		QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16			
5.	SLU SISMAX PRINC	16			

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-2938.25	-0.261	.697	-7979.54	-1.81	10.	2.	.153	2.716	SI
71.	71.	3. 1.	-3082.84	-0.274	.732	-7979.54	-1.81	10.	2.	.153	2.588	SI
71.	71.	3. 1.	21.99	-0.002	.005	7979.54	-1.81	10.	2.	.153	362.9	SI
94.	94.	3. 2.	92.36	-0.005	.009	19105.05	-2.46	10.	2.	.197	206.8	SI
120.	120.	3. 2.	-3298.29	-0.173	.284	-21677.95	-2.73	10.	2.	.215	6.572	SI
120.	120.	3. 2.	117.04	-0.006	.011	19105.05	-2.46	10.	2.	.197	163.2	SI
> 120.	0.	3. 2.	-9894.83	-0.536	.855	-21677.95	-2.73	10.	2.	.215	2.191	SI
145.	25.	3. 2.	640.99	-0.034	.063	19105.05	-2.46	10.	2.	.197	29.81	SI
210.	90.	3. 3.	-132.31	-0.008	.011	-21598.86	-3.15	10.	2.	.24	163.2	SI
309.	189.	3. 4.	9914.25	-0.72	1.598	11713.91	-2.07	10.	2.	.172	1.182	SI
407.	287.	3. 5.	-728.15	-0.039	.049	-27554.57	-3.5	8.297	3.	.297	37.84	SI
407.	287.	3. 5.	6471.61	-0.39	1.039	11684.77	-1.89	10.	2.	.159	1.806	SI
530.	410.	3. 6.	-16457.51	-0.714	1.099	-27964.71	-2.69	10.	2.	.212	1.699	SI
> 530.	0.	3. 6.	-26819.73	-1.21	1.797	-27964.71	-2.69	10.	2.	.212	1.043	SI
660.	130.	3. 7.	-1281.89	-0.06	.086	-27893.11	-3.1	10.	2.	.237	21.76	SI
730.	200.	3. 9.	22909.8	-1.32	1.452	29870.33	-3.5	8.533	3.	.291	1.304	SI
835.	305.	3. 9.	27430.07	-1.64	1.747	29870.33	-3.5	8.533	3.	.291	1.089	SI
940.	410.	3. 8.	21044.13	-2.44	1.738	21102.48	-2.92	10.	2.	.226	1.003	SI
975.	445.	3. 10	16449.97	-0.76	1.451	21153.24	-2.29	10.	2.	.186	1.286	SI
1105.	575.	3. 10	-27697.77	-1.39	1.517	-34554.9	-3.5	9.502	3.	.269	1.248	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	860.	12634.	125685.	48780.	18421.	30358.	2.01	5.	SI
120.	120.	3.	-820.	12634.	125685.	48780.	18421.	30358.	2.01	5.	SI
120.	120.	3.	90.	12634.	125685.	48780.	18421.	30358.	2.01	5.	SI
> 120.	0.	3.	17956.	12634.	125685.	48780.	18421.	30358.	2.01	5.	SI
530.	410.	3.	-20019.	18155.	125685.	48780.	18421.	30358.	2.01	5.	SI
> 530.	0.	3.	28791.	18155.	125685.	48780.	18421.	30358.	2.01	5.	SI
765.	235.	3.	7167.	18785.	125685.	20239.	18421.	10119.	2.01	15.	SI
1105.	575.	3.	-34133.	16265.	125685.	48780.	18421.	30358.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
16.	16.	3. 1.	-2070.07	-24.3	1003.5	10.18	6.38	.294	23.51	.069	SI
16.	16.	3. 1.	14.51	-.2	7.	10.18	6.38	.002	23.51	0.	SI
49.	49.	3. 1.	76.77	-.9	37.2	10.18	6.38	.011	23.51	.003	SI
71.	71.	3. 1.	-2110.04	-24.7	1022.9	10.18	6.38	.299	23.51	.07	SI
120.	120.	3. 2.	-2279.65	-16.1	401.8	29.03	5.58	.118	12.76	.015	SI
> 120.	0.	3. 2.	-6886.68	-48.7	1213.8	29.03	5.58	.442	12.76	.056	SI
309.	189.	3. 4.	6902.93	-64.3	2262.8	15.27	6.14	.825	23.96	.198	SI
530.	410.	3. 6.	-11448.07	-65.1	1559.3	37.7	5.51	.638	12.76	.081	SI
> 530.	0.	3. 6.	-18653.65	-106.1	2540.7	37.7	5.51	1.117	12.76	.143	SI
835.	305.	3. 9.	19077.67	-129.5	2435.7	40.84	5.08	1.079	11.88	.128	SI
940.	410.	3. 8.	13823.36	-104.5	2505.8	28.27	5.51	1.07	14.75	.158	SI
1105.	575.	3. 10	-19269.39	-115.8	2132.9	47.12	5.04	.942	9.76	.092	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1966.55	-23.1	953.3	10.18	6.38	.279	23.51	.066	SI
16.	16.	3. 1.	-1929.66	-22.6	935.4	10.18	6.38	.274	23.51	.064	SI
16.	16.	3. 1.	17.32	-.2	8.4	10.18	6.38	.002	23.51	.001	SI
71.	71.	3. 1.	81.79	-.1	39.6	10.18	6.38	.012	23.51	.003	SI
120.	120.	3. 2.	-1873.6	-13.3	330.2	29.03	5.58	.097	12.76	.012	SI
> 120.	0.	3. 2.	-5872.83	-41.6	1035.1	29.03	5.58	.355	12.76	.045	SI
309.	189.	3. 4.	5899.64	-54.9	1934.	15.27	6.14	.665	23.96	.159	SI
530.	410.	3. 6.	-9750.75	-55.5	1328.1	37.7	5.51	.526	12.76	.067	SI
> 530.	0.	3. 6.	-15850.05	-90.2	2158.8	37.7	5.51	.931	12.76	.119	SI
835.	305.	3. 9.	16191.38	-109.9	2067.2	40.84	5.08	.899	11.88	.107	SI
1105.	575.	3. 10	-16376.53	-98.4	1812.7	47.12	5.04	.786	9.76	.077	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1916.94	-22.5	929.2	10.18	6.38	.272	23.51	.064	SI
16.	16.	3. 1.	-1858.63	-21.8	901.	10.18	6.38	.264	23.51	.062	SI
16.	16.	3. 1.	18.74	-.2	9.1	10.18	6.38	.003	23.51	.001	SI
71.	71.	3. 1.	86.14	-.1	41.8	10.18	6.38	.012	23.51	.003	SI
120.	120.	3. 2.	-1547.98	-11.	272.8	29.03	5.58	.08	12.76	.01	SI
> 120.	0.	3. 2.	-5112.43	-36.2	901.1	29.03	5.58	.289	12.76	.037	SI
309.	189.	3. 4.	5149.82	-47.9	1688.2	15.27	6.14	.545	23.96	.131	SI
530.	410.	3. 6.	-8454.23	-48.1	1151.5	37.7	5.51	.439	12.76	.056	SI
> 530.	0.	3. 6.	-13732.46	-78.1	1870.4	37.7	5.51	.79	12.76	.101	SI
835.	305.	3. 9.	14027.64	-95.2	1791.	40.84	5.08	.765	11.88	.091	SI
1105.	575.	3. 10	-14217.25	-85.4	1573.7	47.12	5.04	.669	9.76	.065	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	20.36	.679	10.18	.339	9d12	10.18	.339	9d12
2	54.48	1.816	29.03	.968	9d12 +6d20	25.45	.848	9d12 +6d18
3	44.3	1.477	29.03	.968	9d12 +6d20	15.27	.509	6d18
4	34.12	1.137	18.85	.628	6d20	15.27	.509	6d18
5	52.97	1.766	37.7	1.257	6d20 +6d20	15.27	.509	6d18
6	81.24	2.708	37.7	1.257	6d20 +6d20	43.54	1.451	6d18 +9d20
7	65.97	2.199	37.7	1.257	6d20 +6d20	28.27	.942	9d20
8	47.12	1.571	18.85	.628	6d20	28.27	.942	9d20
9	59.69	1.99	18.85	.628	6d20	40.84	1.361	9d20 +4d20
10	75.4	2.513	47.12	1.571	25d12 +6d20	28.27	.942	9d20

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR M-168-169  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omgein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE  
 3) Rettangolo: base=60.; alt.=25.; Acl=1500. .  
 DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1314	3	3	3	0	545.	515.
2	A1282	3	3	3	0	390.	340.
3	A1280	3	3	3	0	135.	85.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-5479.68	-.73	1.605	-6427.05	-2.09	10.	2.	.173	1.173	SI
212.	212.	3. 2.	6255.41	-.853	1.306	9049.09	-2.92	10.	2.	.226	1.447	SI
361.	361.	3. 2.	-45.69	-.006	.018	-4767.34	-1.84	10.	2.	.156	104.3	SI
460.	460.	3. 3.	-4462.45	-.443	.569	-14702.	-3.4	10.	2.	.254	3.295	SI
460.	460.	3. 3.	246.33	-.024	.051	9073.02	-2.23	10.	2.	.182	36.83	SI
545.	545.	3. 4.	-9490.28	-.785	1.198	-14779.43	-2.68	10.	2.	.211	1.557	SI
> 545.	0.	3. 4.	-7775.19	-.636	.981	-14779.43	-2.68	10.	2.	.211	1.901	SI
602.	57.	3. 4.	1270.39	-.101	.133	17759.23	-3.19	10.	2.	.242	13.98	SI
730.	185.	3. 2.	5718.06	-.773	1.193	9049.09	-2.92	10.	2.	.226	1.583	SI
913.	368.	3. 7.	22.71	-.002	.003	13119.51	-3.16	10.	2.	.24	577.6	SI
935.	390.	3. 7.	-6540.66	-.7	1.376	-8891.88	-2.26	10.	2.	.185	1.359	SI
> 935.	0.	3. 7.	-44.28	-.005	.009	-8891.88	-2.26	10.	2.	.185	200.8	SI
935.	0.	3. 7.	1186.2	-.119	.169	13119.51	-3.16	10.	2.	.24	11.06	SI
955.	20.	3. 7.	-15.22	-.002	.003	-8891.88	-2.26	10.	2.	.185	584.2	SI
955.	20.	3. 7.	1381.65	-.139	.197	13119.51	-3.16	10.	2.	.24	9.496	SI
1070.	135.	3. 8.	-2196.81	-.374	.943	-4408.41	-1.89	10.	2.	.159	2.007	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	10261.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI
545.	545.	3. 1.	-12925.	9298.	62843.	24390.	9211.	15179.	1.01	5.	SI
> 545.	0.	3. 1.	11262.	9298.	62843.	24390.	9211.	15179.	1.01	5.	SI
935.	390.	3. 1.	-11428.	7666.	62843.	24390.	9211.	15179.	1.01	5.	SI
> 935.	0.	3. 1.	1707.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
1070.	135.	3. 1.	-3573.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-3832.32	-65.9	2284.8	8.42	6.12	.86	17.7	.152	SI
64.	64.	3. 1.	1503.99	-24.3	635.2	12.06	5.66	.186	15.13	.028	SI
113.	113.	3. 1.	2896.43	-46.9	1223.3	12.06	5.66	.42	15.13	.064	SI
212.	212.	3. 2.	4374.25	-73.9	1851.3	12.06	5.59	.729	15.04	.11	SI
545.	545.	3. 4.	-6636.73	-71.9	1709.2	19.95	5.5	.717	11.38	.082	SI
> 545.	0.	3. 4.	-5438.42	-58.9	1400.6	19.95	5.5	.566	11.38	.064	SI
730.	185.	3. 2.	3999.33	-67.6	1692.7	12.06	5.59	.651	15.04	.098	SI
935.	390.	3. 7.	-4572.65	-64.	1961.5	11.81	5.92	.771	14.41	.111	SI
> 935.	0.	3. 7.	-31.63	-.4	13.6	11.81	5.92	.004	14.41	.001	SI
935.	0.	3. 7.	663.74	-9.	193.4	17.72	5.32	.057	11.82	.007	SI
955.	20.	3. 7.	980.44	-13.3	285.7	17.72	5.32	.084	11.82	.01	SI
1070.	135.	3. 8.	-1590.97	-35.4	1393.5	5.65	6.31	.408	21.81	.089	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-3374.58	-58.	2011.9	8.42	6.12	.726	17.7	.129	SI
64.	64.	3. 1.	1321.43	-21.4	558.1	12.06	5.66	.163	15.13	.025	SI
113.	113.	3. 1.	2547.8	-41.2	1076.1	12.06	5.66	.349	15.13	.053	SI
212.	212.	3. 2.	3849.59	-65.1	1629.3	12.06	5.59	.62	15.04	.093	SI
545.	545.	3. 4.	-5844.71	-63.3	1505.3	19.95	5.5	.617	11.38	.07	SI
> 545.	0.	3. 4.	-4794.15	-52.	1234.7	19.95	5.5	.485	11.38	.055	SI
730.	185.	3. 2.	3522.73	-59.5	1490.9	12.06	5.59	.553	15.04	.083	SI
935.	390.	3. 7.	-4017.11	-56.2	1723.2	11.81	5.92	.654	14.41	.094	SI
> 935.	0.	3. 7.	-31.63	-.4	13.6	11.81	5.92	.004	14.41	.001	SI
935.	0.	3. 7.	577.93	-7.8	168.4	17.72	5.32	.049	11.82	.006	SI
955.	20.	3. 7.	926.95	-12.5	270.1	17.72	5.32	.079	11.82	.009	SI
1070.	135.	3. 8.	-1475.73	-32.9	1292.6	5.65	6.31	.378	21.81	.083	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	Wk	Ve	
> 0.	0.	3.	1.	-3031.28	-52.1	1807.3	8.42	6.12	.627	17.7	.111	SI
64.	64.	3.	1.	1197.76	-19.4	505.9	12.06	5.66	.148	15.13	.022	SI
113.	113.	3.	1.	2304.23	-37.3	973.2	12.06	5.66	.298	15.13	.045	SI
212.	212.	3.	2.	3483.32	-58.9	1474.3	12.06	5.59	.545	15.04	.082	SI
545.	545.	3.	4.	-5247.32	-56.9	1351.4	19.95	5.5	.542	11.38	.062	SI
> 545.	0.	3.	4.	-4309.65	-46.7	1109.9	19.95	5.5	.424	11.38	.048	SI
730.	185.	3.	2.	3165.86	-53.5	1339.9	12.06	5.59	.479	15.04	.072	SI
935.	390.	3.	7.	-3600.2	-50.4	1544.4	11.81	5.92	.567	14.41	.082	SI
> 935.	0.	3.	7.	-31.63	-.4	13.6	11.81	5.92	.004	14.41	.001	SI
935.	0.	3.	7.	542.83	-7.3	158.2	17.72	5.32	.046	11.82	.005	SI
955.	20.	3.	7.	904.17	-12.2	263.5	17.72	5.32	.077	11.82	.009	SI
1070.	135.	3.	8.	-1410.44	-31.4	1235.4	5.65	6.31	.362	21.81	.079	SI

ARMATURE LONGITUDINALI											
Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre			
1	20.48	1.366	8.42	.561	2d12 +4d14	12.06	.804	6d16			
2	18.22	1.215	6.16	.411	4d14	12.06	.804	6d16			
3	32.01	2.134	19.95	1.33	3d18 +4d14 +4d14	12.06	.804	6d16			
4	44.08	2.938	19.95	1.33	3d18 +4d14 +4d14	24.13	1.608	6d16 +6d16			
5	25.86	1.724	13.79	.919	3d18 +4d14	12.06	.804	6d16			
6	23.88	1.592	11.81	.787	4d14 +5d12	12.06	.804	6d16			
7	29.53	1.969	11.81	.787	4d14 +5d12	17.72	1.181	6d16 +5d12			
8	11.31	.754	5.65	.377	5d12	5.65	.377	5d12			

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR 154-165-168-M  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm<sup>2</sup>; deform.\*1000.  
 Unità particolari : fessure [Wk]:mm - ferri:mm e cm<sup>2</sup> - sezioni:cm e derivate.

MATERIALI

CLS : Rck=300.; fck=249.; fctk=18.2; fctm=26.1; Ec=311769.;  
 gc=1.6; fcd=155.6; fbd=25.7; fctd=11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300.; fyk=4300.; Ea=2050000.;  
 ga=1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=149.4; σc (quasi permanente)=112.; fbd(esercizio)=25.7  
 ACCIAIO: σf (rara)=3010.; Coeff.Omogein.=15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4; wk(q.p.)=.2;  
 c/cmin=1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=40.; Acl=3600. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A428	3	3	3	0	467.	422.
2	A427	3	3	3	0	498.	438.
3	A1266	3	3	3	0	140.	95.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:													
Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	9644.17	-.325	.752	24184.33	-1.78	10.	2.	.151	2.508	SI
60.	60.	3.	1.	-849.22	-.028	.075	-21268.02	-1.6	10.	2.	.138	25.04	SI
234.	234.	3.	2.	-9133.42	-.322	.808	-21266.29	-1.64	10.	2.	.141	2.328	SI
364.	364.	3.	3.	-1366.79	-.039	.12	-21254.38	-1.38	10.	2.	.121	15.55	SI
364.	364.	3.	3.	4146.5	-.113	.177	44503.37	-2.75	10.	2.	.216	10.73	SI
450.	450.	3.	4.	22861.86	-.547	.961	44927.19	-2.13	10.	2.	.176	1.965	SI
467.	467.	3.	4.	22865.52	-.547	.961	44927.19	-2.13	10.	2.	.176	1.965	SI
> 467.	0.	3.	4.	23463.55	-.562	.986	44927.19	-2.13	10.	2.	.176	1.915	SI
530.	63.	3.	3.	12284.39	-.342	.525	44503.37	-2.75	10.	2.	.216	3.623	SI
577.	110.	3.	3.	-1745.69	-.05	.153	-21254.38	-1.38	10.	2.	.121	12.18	SI
623.	156.	3.	2.	-5841.85	-.204	.517	-21266.29	-1.64	10.	2.	.141	3.64	SI
716.	249.	3.	2.	-9337.23	-.329	.827	-21266.29	-1.64	10.	2.	.141	2.278	SI
855.	388.	3.	5.	174.76	-.005	.009	36971.33	-2.38	10.	2.	.192	211.5	SI
965.	498.	3.	6.	11143.37	-.286	.564	37169.92	-1.97	10.	2.	.165	3.336	SI
> 965.	0.	3.	6.	8132.45	-.208	.412	37169.92	-1.97	10.	2.	.165	4.571	SI
1018.	53.	3.	7.	5261.75	-.176	.599	16350.29	-1.28	10.	2.	.113	3.107	SI
1085.	120.	3.	8.	-74.25	-.003	.009	-16378.58	-1.49	10.	2.	.13	220.6	SI
1105.	140.	3.	8.	-197.15	-.008	.023	-16378.58	-1.49	10.	2.	.13	83.08	SI
1105.	140.	3.	8.	543.16	-.021	.062	16378.58	-1.49	10.	2.	.13	30.15	SI



VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	-16399.	11909.	158535.	74293.	23236.	51057.	2.01	5.	SI
450.	450.	3.	25931.	18065.	158535.	74293.	23236.	51057.	2.01	5.	SI
467.	467.	3.	28100.	18065.	158535.	74293.	23236.	51057.	2.01	5.	SI
> 467.	0.	3.	-28197.	18065.	158535.	74293.	23236.	51057.	2.01	5.	SI
965.	498.	3.	15395.	14111.	158535.	74293.	23236.	51057.	2.01	5.	SI
> 965.	0.	3.	-10583.	14111.	158535.	74293.	23236.	51057.	2.01	5.	SI
1105.	140.	3.	-4025.	11909.	158535.	74293.	23236.	51057.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
17.	17.	3.	5127.48	-22.9	817.8	18.35	7.5	.239	16.99	.041	SI
234.	234.	3.	-6425.13	-30.	1163.3	16.08	7.5	.34	18.89	.064	SI
467.	467.	3.	16067.68	-50.7	1381.2	34.43	7.5	.541	12.66	.068	SI
> 467.	0.	3.	16487.68	-52.	1417.3	34.43	7.5	.559	12.66	.071	SI
716.	249.	3.	-6567.1	-30.7	1189.	16.08	7.5	.348	18.89	.066	SI
965.	498.	3.	7845.9	-27.	813.9	28.4	7.5	.243	13.54	.033	SI
> 965.	0.	3.	5717.34	-19.7	593.1	28.4	7.5	.174	13.54	.024	SI
1018.	53.	3.	2858.43	-13.	667.	12.32	7.5	.195	20.87	.041	SI
1105.	140.	3.	-110.33	-.6	25.9	12.32	7.5	.008	20.87	.002	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	6182.07	-27.6	985.9	18.35	7.5	.289	16.99	.049	SI
234.	234.	3.	-5712.83	-26.7	1034.3	16.08	7.5	.303	18.89	.057	SI
467.	467.	3.	14181.45	-44.7	1219.1	34.43	7.5	.462	12.66	.058	SI
> 467.	0.	3.	14547.17	-45.9	1250.5	34.43	7.5	.477	12.66	.06	SI
716.	249.	3.	-5835.31	-27.2	1056.5	16.08	7.5	.309	18.89	.058	SI
965.	498.	3.	7012.89	-24.2	727.5	28.4	7.5	.213	13.54	.029	SI
> 965.	0.	3.	5077.07	-17.5	526.7	28.4	7.5	.154	13.54	.021	SI
1018.	53.	3.	2600.74	-11.8	606.9	12.32	7.5	.178	20.87	.037	SI
1105.	140.	3.	111.43	-.6	26.2	12.32	7.5	.008	20.87	.002	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	5855.12	-26.1	933.8	18.35	7.5	.273	16.99	.046	SI
234.	234.	3.	-5337.94	-24.9	966.5	16.08	7.5	.283	18.89	.053	SI
467.	467.	3.	13169.91	-41.5	1132.1	34.43	7.5	.419	12.66	.053	SI
> 467.	0.	3.	13509.14	-42.6	1161.3	34.43	7.5	.434	12.66	.055	SI
716.	249.	3.	-5445.09	-25.4	985.9	16.08	7.5	.289	18.89	.055	SI
965.	498.	3.	6584.72	-22.7	683.1	28.4	7.5	.2	13.54	.027	SI
> 965.	0.	3.	4724.47	-16.3	490.1	28.4	7.5	.143	13.54	.019	SI
1018.	53.	3.	2455.5	-11.2	573.	12.32	7.5	.168	20.87	.035	SI
1105.	140.	3.	226.71	-1.2	53.3	12.32	7.5	.016	20.87	.003	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	34.43	.956	16.08	.447	8d16	18.35	.51	2d12 +8d16
2	32.17	.894	16.08	.447	8d16	16.08	.447	8d16
3	50.52	1.403	16.08	.447	8d16	34.43	.956	2d12 +8d16 +8d16
4	66.6	1.85	32.17	.894	8d16 +8d16	34.43	.956	2d12 +8d16 +8d16
5	44.48	1.236	16.08	.447	8d16	28.4	.789	8d16 +8d14
6	56.8	1.578	28.4	.789	8d16 +8d14	28.4	.789	8d16 +8d14
7	40.72	1.131	28.4	.789	8d16 +8d14	12.32	.342	8d14
8	24.63	.684	12.32	.342	8d14	12.32	.342	8d14

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR164-165-166-M  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FE844k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=40.; AcIs=3600. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1246	3	3	3	0	125.	95.
2	A426	3	3	3	0	410.	380.
3	A429	3	3	3	0	580.	550.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-581.27	-.022	.061	-18009.86	-1.55	10.	2.	.134	30.98	SI
0.	0.	3. 1.	321.5	-.012	.034	18009.86	-1.55	10.	2.	.134	56.02	SI
77.	77.	3. 2.	5237.75	-.174	.543	17993.63	-1.36	10.	2.	.119	3.435	SI
107.	107.	3. 3.	7951.7	-.214	.441	33927.47	-1.92	10.	2.	.161	4.267	SI
125.	125.	3. 3.	8091.64	-.218	.449	33927.47	-1.92	10.	2.	.161	4.193	SI
> 125.	0.	3. 3.	6819.69	-.183	.378	33927.47	-1.92	10.	2.	.161	4.975	SI
184.	59.	3. 3.	-1677.96	-.045	.093	-33927.47	-1.92	10.	2.	.161	20.22	SI
267.	142.	3. 4.	-6245.46	-.251	.717	-16378.58	-1.49	10.	2.	.13	2.622	SI
309.	184.	3. 4.	-6671.83	-.269	.766	-16378.58	-1.49	10.	2.	.13	2.455	SI
435.	310.	3. 5.	-654.46	-.018	.038	-32305.92	-1.89	10.	2.	.159	49.36	SI
518.	393.	3. 5.	22907.9	-.658	1.338	32305.92	-1.89	10.	2.	.159	1.41	SI
535.	410.	3. 5.	22907.9	-.658	1.338	32305.92	-1.89	10.	2.	.159	1.41	SI
> 535.	0.	3. 5.	23330.75	-.671	1.363	32305.92	-1.89	10.	2.	.159	1.385	SI
643.	108.	3. 5.	-1235.36	-.034	.072	-32305.92	-1.89	10.	2.	.159	26.15	SI
688.	153.	3. 6.	-5460.47	-.19	.623	-16357.07	-1.31	10.	2.	.116	2.996	SI
825.	290.	3. 4.	-10693.63	-.437	1.23	-16378.58	-1.49	10.	2.	.13	1.532	SI
1007.	472.	3. 7.	290.51	-.011	.028	19311.61	-1.64	10.	2.	.141	66.47	SI
1115.	580.	3. 7.	10625.78	-.409	1.038	19311.61	-1.64	10.	2.	.141	1.817	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Ar	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3. 1.	4213.	11909.	158535.	74293.	23236.	51057.	2.01	5.	SI
18.	18.	3. 1.	5098.	14335.	158535.	74293.	23236.	51057.	2.01	5.	SI
125.	125.	3. 3.	11143.	14335.	158535.	74293.	23236.	51057.	2.01	5.	SI
> 125.	0.	3. 3.	-13898.	14335.	158535.	74293.	23236.	51057.	2.01	5.	SI
518.	393.	3. 3.	25656.	16313.	158535.	74293.	23236.	51057.	2.01	5.	SI
535.	410.	3. 5.	27886.	16313.	158535.	74293.	23236.	51057.	2.01	5.	SI
> 535.	0.	3. 5.	-27358.	16313.	158535.	74293.	23236.	51057.	2.01	5.	SI
1115.	580.	3. 7.	15792.	11909.	158535.	74293.	23236.	51057.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-377.77	-1.9	80.7	13.57	7.5	.024	18.31	.004	SI
18.	18.	3. 1.	166.02	-.8	35.5	13.57	7.5	.01	18.31	.002	SI
125.	125.	3. 3.	5688.97	-20.6	646.4	25.89	7.5	.189	13.49	.026	SI
> 125.	0.	3. 3.	4808.82	-17.4	546.4	25.89	7.5	.16	13.49	.022	SI
309.	184.	3. 4.	-4693.31	-25.1	1102.7	12.32	7.5	.323	20.87	.067	SI
535.	410.	3. 5.	16093.37	-60.	1920.2	24.63	7.5	.764	14.34	.11	SI
> 535.	0.	3. 5.	16411.79	-61.2	1958.2	24.63	7.5	.783	14.34	.112	SI
825.	290.	3. 4.	-7532.68	-40.3	1769.9	12.32	7.5	.551	20.87	.115	SI
1115.	580.	3. 7.	7535.76	-37.9	1504.5	14.58	7.5	.465	18.53	.086	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-127.08	-.6	27.2	13.57	7.5	.008	18.31	.001	SI
18.	18.	3. 1.	319.92	-1.6	68.4	13.57	7.5	.02	18.31	.004	SI
125.	125.	3. 3.	5072.78	-18.4	576.4	25.89	7.5	.169	13.49	.023	SI
> 125.	0.	3. 3.	4354.45	-15.8	494.8	25.89	7.5	.145	13.49	.02	SI
309.	184.	3. 4.	-4176.75	-22.3	981.4	12.32	7.5	.287	20.87	.06	SI
535.	410.	3. 5.	14192.37	-52.9	1693.4	24.63	7.5	.653	14.34	.094	SI
> 535.	0.	3. 5.	14559.1	-54.3	1737.1	24.63	7.5	.675	14.34	.097	SI
825.	290.	3. 4.	-6751.13	-36.1	1586.2	12.32	7.5	.464	20.87	.097	SI
1115.	580.	3. 7.	7029.11	-35.4	1403.3	14.58	7.5	.416	18.53	.077	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	SE	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	19.81	-1.	4.2	13.57	7.5	.001	18.31	0.	SI
18.	18.	3. 1.	408.88	-2.1	87.4	13.57	7.5	.026	18.31	.005	SI
125.	125.	3. 3.	4718.48	-17.1	536.2	25.89	7.5	.157	13.49	.021	SI
> 125.	0.	3. 3.	4118.67	-14.9	468.	25.89	7.5	.137	13.49	.018	SI
309.	184.	3. 4.	-3901.1	-20.9	916.6	12.32	7.5	.268	20.87	.056	SI
535.	410.	3. 5.	13158.91	-49.	1570.1	24.63	7.5	.593	14.34	.085	SI
> 535.	0.	3. 5.	13605.29	-50.7	1623.3	24.63	7.5	.619	14.34	.089	SI
825.	290.	3. 4.	-6354.99	-34.	1493.2	12.32	7.5	.437	20.87	.091	SI
1115.	580.	3. 7.	6852.93	-34.5	1368.2	14.58	7.5	.4	18.53	.074	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	27.14	.754	13.57	.377	12d12	13.57	.377	12d12
2	39.46	1.096	25.89	.719	12d12 +8d14	13.57	.377	12d12
3	51.77	1.438	25.89	.719	12d12 +8d14	25.89	.719	12d12 +8d14
4	24.63	.684	12.32	.342	8d14	12.32	.342	8d14
5	49.26	1.368	24.63	.684	8d14 +8d14	24.63	.684	8d14 +8d14
6	36.95	1.026	12.32	.342	8d14	24.63	.684	8d14 +8d14
7	26.89	.747	12.32	.342	8d14	14.58	.405	2d12 +8d14

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR01  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; AcIs=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A995	3	3	3	0	30.	0.
2	A994	3	3	3	0	470.	410.
3	A993	3	3	3	0	30.	0.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 30.	0.	3. 2.	-2460.87	-.11	.269	-17121.25	-1.44	10.	2.	.126	6.957	SI
30.	0.	3. 2.	2765.26	-.126	.214	24666.1	-2.19	10.	2.	.179	8.92	SI
130.	100.	3. 3.	-1541.74	-.075	.23	-12485.82	-1.19	10.	2.	.106	8.098	SI
130.	100.	3. 3.	2183.7	-.107	.17	24486.2	-2.54	10.	2.	.203	11.21	SI
220.	190.	3. 3.	-371.95	-.018	.055	-12485.82	-1.19	10.	2.	.106	33.57	SI
457.	427.	3. 2.	-3214.03	-.144	.352	-17121.25	-1.44	10.	2.	.126	5.327	SI
470.	440.	3. 4.	1802.03	-.076	.138	24756.68	-1.96	10.	2.	.164	13.74	SI
500.	470.	3. 4.	-3344.36	-.14	.29	-21733.79	-1.68	10.	2.	.144	6.499	SI
500.	470.	3. 4.	1816.46	-.077	.139	24756.68	-1.96	10.	2.	.164	13.63	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	vsd	VRd1	VRd2	vrd3	vcd	vwd	Asw	s	Ve
> 0.	0.	3.	-3068.!	3414.!	54273.!	0.!	0.!	***	**	SI
30.	30.	3.	-3154.!	3414.!	54273.!	0.!	0.!	***	**	SI
> 30.	0.	3.	-736.!	4317.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!
30.	0.	3.	1680.!	4317.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!
265.	235.	3.	-1363.!	5220.!	54273.!	17787.!	7955.!	9832.!	1.01	20.!
500.	470.	3.	-1991.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!
500.	470.	3.	242.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!
> 500.	0.	3.	3096.!	3414.!	54273.!	0.!	0.!	***	**	SI
530.	30.	3.	3010.!	3414.!	54273.!	0.!	0.!	***	**	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 30.	30.	3.	1.	-201.18!	-1.6!	0.!	***	***	****	****	SI
> 30.	0.	3.	2.	-422.39!	-2.6!	94.9	8.29	7.5	.028	11.91	.003
30.	0.	3.	2.	47.13	-3!	7.5	12.06	7.5	.002	10.86	0.!
43.	13.	3.	2.	-356.72!	-2.2!	80.1	8.29	7.5	.023	11.91	.003
43.	13.	3.	2.	100.	-6!	15.9	12.06	7.5	.005	10.86	.001
175.	145.	3.	3.	440.54!	-2.9!	70.5	12.06	7.5	.021	10.86	.002
457.	427.	3.	2.	-653.1!	-4.!	146.7	8.29	7.5	.043	11.91	.005
500.	470.	3.	4.	-860.39!	-4.9!	153.2!	10.56	7.5	.045	10.79	.005
> 500.	0.	3.	1.	-173.52!	-1.4!	0.!	***	***	****	****	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 30.	30.	3.	1.	-130.08!	-1.1!	0.!	***	***	****	****	SI
> 30.	0.	3.	2.	-422.39!	-2.6!	94.9	8.29	7.5	.028	11.91	.003
30.	0.	3.	2.	32.97	-2!	5.2	12.06	7.5	.002	10.86	0.!
43.	13.	3.	2.	-355.11!	-2.2!	79.8	8.29	7.5	.023	11.91	.003
43.	13.	3.	2.	87.83!	-5!	13.9	12.06	7.5	.004	10.86	0.!
220.	190.	3.	3.	454.57!	-3.!	72.8	12.06	7.5	.021	10.86	.002
457.	427.	3.	2.	-599.67!	-3.7!	134.7	8.29	7.5	.039	11.91	.005
500.	470.	3.	4.	-803.35!	-4.6!	143.!	10.56	7.5	.042	10.79	.005
> 500.	0.	3.	1.	-104.43!	-9!	0.!	***	***	****	****	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 30.	30.	3.	1.	-112.12!	-9!	0.!	***	***	****	****	SI
> 30.	0.	3.	2.	-422.39!	-2.6!	94.9	8.29	7.5	.028	11.91	.003
30.	0.	3.	2.	26.63	-2!	4.2	12.06	7.5	.001	10.86	0.!
43.	13.	3.	2.	-354.6!	-2.2!	79.7	8.29	7.5	.023	11.91	.003
43.	13.	3.	2.	82.17!	-5!	13.	12.06	7.5	.004	10.86	0.!
220.	190.	3.	3.	458.38!	-3.!	73.4	12.06	7.5	.021	10.86	.002
457.	427.	3.	2.	-582.66!	-3.6!	130.9	8.29	7.5	.038	11.91	.005
500.	470.	3.	4.	-785.19!	-4.5!	139.8!	10.56	7.5	.041	10.79	.004
> 500.	0.	3.	1.	-87.42!	-7!	0.!	***	***	****	****	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	0.	0.	0.	0.		0.	0.	
2	20.36	1.696	8.29	.691	2d12 +3d16	12.06	1.005	3d16 +3d16
3	18.1	1.508	6.03	.503	3d16	12.06	1.005	3d16 +3d16
4	22.62	1.885	10.56	.88	2d12 +2d12 +3d16	12.06	1.005	3d16 +3d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR02  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σ (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=25.; Acl=2250. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A997	3	3	3	0	510.	490.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.1.	-1305.42	-136.313	-7865.52	-2.09	10.	2.	.173	6.025	SI	
0.	0.	3.1.	53.1	-0.006	6189.53	-1.81	10.	2.	.153	116.6	SI	
154.	154.	3.2.	1263.6	-145.386	6194.34	-1.84	10.	2.	.155	4.902	SI	
255.	255.	3.2.	1578.29	-182.482	6194.34	-1.84	10.	2.	.155	3.925	SI	
510.	510.	3.1.	-1347.97	-141.323	-7865.52	-2.09	10.	2.	.173	5.835	SI	

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	vcd	Vwd	Asw	s	Ve
> 0.	0.	3.1.	2004.	7944.	94264.	44174.	13816.	30358.	2.01	5.
53.	53.	3.1.	1574.	9532.	94264.	44174.	13816.	30358.	2.01	5.
510.	510.	3.1.	-2027.	7944.	94264.	44174.	13816.	30358.	2.01	5.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3.1.	-804.46	-11.2	394.1	10.18	6.14	.115	19.23	.022	SI
255.	255.	3.2.	1127.52	-17.3	703.7	7.92	6.36	.206	22.9	.047	SI
510.	510.	3.1.	-932.44	-13.	456.8	10.18	6.14	.134	19.23	.026	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3.1.	-804.46	-11.2	394.1	10.18	6.14	.115	19.23	.022	SI
255.	255.	3.2.	1128.96	-17.3	704.6	7.92	6.36	.206	22.9	.047	SI
510.	510.	3.1.	-932.44	-13.	456.8	10.18	6.14	.134	19.23	.026	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3.1.	-804.46	-11.2	394.1	10.18	6.14	.115	19.23	.022	SI
255.	255.	3.2.	1129.56	-17.3	704.9	7.92	6.36	.206	22.9	.047	SI
510.	510.	3.1.	-932.44	-13.	456.8	10.18	6.14	.134	19.23	.026	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Infer.	Barre
1	18.1	.804	10.18	.452   2d12 +7d12
2	15.83	.704	7.92	.352   7d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR03  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σ (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=25.; Acl=2250. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1000	3	3	3	0	510.	490.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	Ve
> 0.	0.	3.	1.	-1305.42	-.136	.313	-7865.52	-2.09	10.	2.	.173	6.025
0.	0.	3.	1.	28.34	-.003	.009	6189.53	-1.81	10.	2.	.153	218.4
154.	154.	3.	2.	1316.66	-.151	.402	6194.34	-1.84	10.	2.	.155	4.705
255.	255.	3.	2.	1653.55	-.191	.505	6194.34	-1.84	10.	2.	.155	3.746
500.	500.	3.	1.	19.17	-.002	.006	6189.53	-1.81	10.	2.	.153	322.9
510.	510.	3.	1.	-1305.42	-.136	.313	-7865.52	-2.09	10.	2.	.173	6.025

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	1.	2033.	7944.	94264.	44174.	13816.	30358.	2.01	5.
53.	53.	3.	1.	1604.	9532.	94264.	44174.	13816.	30358.	2.01	5.
510.	510.	3.	1.	-2086.	7944.	94264.	44174.	13816.	30358.	2.01	5.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3.	1.	-804.46	-11.2	394.1	10.18	6.14	.115	19.23	.022
255.	255.	3.	2.	1179.84	-18.1	736.3	7.92	6.36	.216	22.9	.049
510.	510.	3.	1.	-932.44	-13.	456.8	10.18	6.14	.134	19.23	.026

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3.	1.	-804.46	-11.2	394.1	10.18	6.14	.115	19.23	.022
255.	255.	3.	2.	1179.84	-18.1	736.3	7.92	6.36	.216	22.9	.049
510.	510.	3.	1.	-932.44	-13.	456.8	10.18	6.14	.134	19.23	.026

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3.	1.	-804.46	-11.2	394.1	10.18	6.14	.115	19.23	.022
255.	255.	3.	2.	1179.84	-18.1	736.3	7.92	6.36	.216	22.9	.049
510.	510.	3.	1.	-932.44	-13.	456.8	10.18	6.14	.134	19.23	.026

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	18.1	.804	10.18	.452	2d12	7.92	.352	7d12
2	15.83	.704	7.92	.352	7d12	7.92	.352	7d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR04  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk (rara)=\*\*\* ; wk (fre.)=.4 ; wk (q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=40.; alt.=25.; AcIs=1000. .

DESCRIZIONE CAMPATE									
Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta		
1	A1022	3	3	3	0	445.	405.		
2	A1015	3	3	3	0	525.	485.		

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-441.74	-.089	.192	-4318.79	-2.22	10.	2.	.181	9.777	SI
0.	0.	3. 1.	337.5	-.068	.147	4318.79	-2.22	10.	2.	.181	12.8	SI
90.	90.	3. 1.	-43.91	-.009	.019	-4318.79	-2.22	10.	2.	.181	98.35	SI
160.	160.	3. 2.	504.87	-.11	.22	4320.41	-2.4	10.	2.	.193	8.557	SI
265.	265.	3. 2.	-97.12	-.024	.069	-2655.75	-1.76	10.	2.	.15	27.34	SI
405.	405.	3. 4.	247.74	-.036	.055	8398.44	-2.94	10.	2.	.227	33.9	SI
445.	445.	3. 4.	-1147.17	-.171	.315	-6778.16	-2.44	10.	2.	.196	5.909	SI
445.	445.	3. 4.	98.56	-.014	.022	8398.44	-2.94	10.	2.	.227	85.21	SI
> 445.	0.	3. 4.	-947.18	-.141	.26	-6778.16	-2.44	10.	2.	.196	7.156	SI
445.	0.	3. 4.	163.25	-.024	.036	8398.44	-2.94	10.	2.	.227	51.45	SI
521.	76.	3. 3.	459.25	-.085	.199	4313.79	-2.06	10.	2.	.171	9.393	SI
700.	255.	3. 2.	704.88	-.154	.307	4320.41	-2.4	10.	2.	.193	6.129	SI
843.	398.	3. 1.	-71.08	-.014	.031	-4318.79	-2.22	10.	2.	.181	60.76	SI
970.	525.	3. 1.	-801.9	-.163	.348	-4318.79	-2.22	10.	2.	.181	5.386	SI
970.	525.	3. 1.	177.82	-.036	.077	4318.79	-2.22	10.	2.	.181	24.29	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	676.!	3531.	41895.	21320.	6140.	15179.	1.01	5.	SI
445.	445.	3. 1.	-918.!	4665.	41895.	21320.	6140.	15179.	1.01	5.	SI
> 445.	0.	3. 1.	968.!	4665.	41895.	21320.	6140.	15179.	1.01	5.	SI
970.	525.	3. 1.	-879.!	3531.	41895.	21320.	6140.	15179.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3. 1.	8.22	-.2	7.3	5.65	6.02	.002	16.84	0.	SI
10.	10.	3. 1.	8.6	-.2	7.6	5.65	6.02	.002	16.84	0.	SI
160.	160.	3. 2.	360.56	-10.5	320.8	5.65	5.92	.094	16.7	.016	SI
445.	445.	3. 4.	-684.23	-13.9	385.!	9.05	5.76	.113	13.36	.015	SI
> 445.	0.	3. 4.	-474.05	-9.6	266.7	9.05	5.76	.078	13.36	.01	SI
700.	255.	3. 2.	501.13	-14.6	445.9	5.65	5.92	.131	16.7	.022	SI
970.	525.	3. 1.	-418.3	-11.4	371.7	5.65	6.02	.109	16.84	.018	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3. 1.	-275.87	-7.5	245.1	5.65	6.02	.072	16.84	.012	SI
20.	20.	3. 1.	37.07	-1.	32.9	5.65	6.02	.01	16.84	.002	SI
160.	160.	3. 2.	360.49	-10.5	320.7	5.65	5.92	.094	16.7	.016	SI
445.	445.	3. 4.	-669.68	-13.6	376.8	9.05	5.76	.11	13.36	.015	SI
> 445.	0.	3. 4.	-486.97	-9.9	274.	9.05	5.76	.08	13.36	.011	SI
700.	255.	3. 2.	505.38	-14.7	449.7	5.65	5.92	.132	16.7	.022	SI
970.	525.	3. 1.	-439.16	-12.	390.2	5.65	6.02	.114	16.84	.019	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3. 1.	-275.78	-7.5	245.	5.65	6.02	.072	16.84	.012	SI
20.	20.	3. 1.	35.38	-1.	31.4	5.65	6.02	.009	16.84	.002	SI
160.	160.	3. 2.	362.68	-10.6	322.7	5.65	5.92	.094	16.7	.016	SI
445.	445.	3. 4.	-666.16	-13.5	374.8	9.05	5.76	.11	13.36	.015	SI
> 445.	0.	3. 4.	-490.49	-9.9	276.	9.05	5.76	.081	13.36	.011	SI
700.	255.	3. 2.	505.23	-14.7	449.5	5.65	5.92	.132	16.7	.022	SI
970.	525.	3. 1.	-439.16	-12.	390.2	5.65	6.02	.114	16.84	.019	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	1.131	5.65	.565	2d12 +3d12	5.65	.565	5d12
2	9.05	.905	3.39	.339	3d12	5.65	.565	5d12
3	14.7	1.47	9.05	.905	2d12 +3d12 +3d12	5.65	.565	5d12
4	20.36	2.036	9.05	.905	2d12 +3d12 +3d12	11.31	1.131	5d12 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR05  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=149.4;  $\sigma$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma$ f (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=40.; alt.=25.; Acls=1000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1013	3	3	3	0	445.	415.
2	A1011	3	3	3	0	525.	485.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-398.51	-.105	.283	-2659.85	-1.81	10.	2.	.153	6.675	SI
0.	0.	3. 1.	203.08	-.053	.144	2659.85	-1.81	10.	2.	.153	13.1	SI
10.	10.	3. 2.	-398.51	-.098	.284	-2655.75	-1.76	10.	2.	.15	6.664	SI
10.	10.	3. 2.	222.23	-.048	.097	4320.41	-2.4	10.	2.	.193	19.44	SI
76.	76.	3. 2.	-71.39	-.017	.051	-2655.75	-1.76	10.	2.	.15	37.2	SI
175.	175.	3. 2.	359.77	-.078	.156	4320.41	-2.4	10.	2.	.193	12.01	SI
372.	372.	3. 5.	86.38	-.02	.062	2652.92	-1.73	10.	2.	.147	30.71	SI
445.	445.	3. 6.	-1045.87	-.165	.233	-8376.93	-3.23	10.	2.	.244	8.01	SI
> 445.	0.	3. 6.	-876.14	-.138	.195	-8376.93	-3.23	10.	2.	.244	9.561	SI
445.	0.	3. 6.	240.07	-.039	.087	5136.13	-2.14	10.	2.	.176	21.4	SI
521.	76.	3. 5.	513.98	-.12	.366	2652.92	-1.73	10.	2.	.147	5.162	SI
700.	255.	3. 2.	702.89	-.154	.306	4320.41	-2.4	10.	2.	.193	6.147	SI
807.	362.	3. 2.	-42.28	-.01	.03	-2655.75	-1.76	10.	2.	.15	62.81	SI
970.	525.	3. 4.	-1011.82	-.185	.318	-5953.26	-2.69	10.	2.	.212	5.884	SI
970.	525.	3. 4.	174.21	-.033	.076	4315.5	-2.1	10.	2.	.174	24.77	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	598.	3531.	41895.	21320.	6140.	15179.	1.01	5.	SI
445.	445.	3. 1.	-889.	5119.	41895.	21320.	6140.	15179.	1.01	5.	SI
> 445.	0.	3. 1.	910.	4211.	41895.	21320.	6140.	15179.	1.01	5.	SI
628.	183.	3. 1.	372.	4665.	41895.	10119.	6140.	5060.	1.01	15.	SI
970.	525.	3. 1.	-942.	3531.	41895.	21320.	6140.	15179.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma$ c	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-89.75	-3.2	130.5	3.39	6.38	.038	24.89	.01	SI
109.	109.	3. 2.	218.35	-6.4	194.3	5.65	5.92	.057	16.7	.009	SI
142.	142.	3. 2.	244.71	-7.1	217.7	5.65	5.92	.064	16.7	.011	SI
175.	175.	3. 2.	256.54	-7.5	228.3	5.65	5.92	.067	16.7	.011	SI
445.	445.	3. 6.	-633.05	-13.4	289.	11.31	5.33	.085	12.	.01	SI
> 445.	0.	3. 6.	-490.52	-10.4	223.9	11.31	5.33	.066	12.	.008	SI
700.	255.	3. 2.	505.97	-14.7	450.2	5.65	5.92	.132	16.7	.022	SI
970.	525.	3. 4.	-608.62	-14.8	391.4	7.92	5.68	.115	14.01	.016	SI



TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-107.29	-3.8	156.	3.39	6.38	.046	24.89	.011	SI
109.	109.	3. 2.	209.	-6.1	186.	5.65	5.92	.054	16.7	.009	SI
142.	142.	3. 2.	237.84	-6.9	211.6	5.65	5.92	.062	16.7	.01	SI
175.	175.	3. 2.	252.16	-7.3	224.4	5.65	5.92	.066	16.7	.011	SI
445.	445.	3. 6.	-618.18	-13.1	282.2	11.31	5.33	.083	12.	.01	SI
> 445.	0.	3. 6.	-425.07	-9.	194.	11.31	5.33	.057	12.	.007	SI
700.	255.	3. 2.	502.57	-14.6	447.2	5.65	5.92	.131	16.7	.022	SI
970.	525.	3. 4.	-581.42	-14.2	373.9	7.92	5.68	.109	14.01	.015	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-111.77	-3.9	162.5	3.39	6.38	.048	24.89	.012	SI
109.	109.	3. 2.	206.48	-6.	183.7	5.65	5.92	.054	16.7	.009	SI
142.	142.	3. 2.	235.91	-6.9	209.9	5.65	5.92	.061	16.7	.01	SI
175.	175.	3. 2.	250.82	-7.3	223.2	5.65	5.92	.065	16.7	.011	SI
445.	445.	3. 6.	-614.92	-13.	280.7	11.31	5.33	.082	12.	.01	SI
> 445.	0.	3. 6.	-429.34	-9.1	196.	11.31	5.33	.057	12.	.007	SI
700.	255.	3. 2.	503.24	-14.7	447.8	5.65	5.92	.131	16.7	.022	SI
970.	525.	3. 4.	-574.55	-14.	369.5	7.92	5.68	.108	14.01	.015	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	6.79	.679	3.39	.339	3d12	3.39	.339	3d12
2	9.05	.905	3.39	.339	3d12	5.65	.565	2d12 +3d12
3	11.31	1.131	5.65	.565	2d12 +3d12	5.65	.565	2d12 +3d12
4	13.57	1.357	7.92	.792	2d12 +2d12 +3d12	5.65	.565	2d12 +3d12
5	11.31	1.131	7.92	.792	2d12 +2d12 +3d12	3.39	.339	3d12
6	18.1	1.81	11.31	1.131	2d12 +2d12 +3d1 ...	6.79	.679	3d12 +3d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR06  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1014	3	3	3	0	485.	455.
2	A1010	3	3	3	0	200.	140.
3	A1009	3	3	3	0	66.	36.

CASI DI CARICO DA MODELLO 3D

SLU		RARE		QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.
4.	SLU SISMAX PRINC	16			
5.	SLU SISMAX PRINC	16			

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-303.83	-.021	.06	-9559.49	-1.39	10.	2.	.122	31.46	SI
0.	0.	3. 1.	783.6	-.054	.154	9559.49	-1.39	10.	2.	.122	12.2	SI
14.	14.	3. 2.	-303.83	-.02	.06	-9569.8	-1.28	10.	2.	.113	31.5	SI
375.	375.	3. 3.	393.27	-.019	.039	19006.87	-1.72	10.	2.	.147	48.33	SI
471.	471.	3. 3.	38.55	-.002	.004	19006.87	-1.72	10.	2.	.147	493.	SI
485.	485.	3. 3.	-1893.76	-.09	.188	-19006.87	-1.72	10.	2.	.147	10.04	SI
> 485.	0.	3. 3.	-1745.75	-.083	.174	-19006.87	-1.72	10.	2.	.147	10.89	SI
485.	0.	3. 3.	1663.12	-.079	.165	19006.87	-1.72	10.	2.	.147	11.43	SI
585.	100.	3. 1.	280.74	-.019	.055	9559.49	-1.39	10.	2.	.122	34.05	SI
685.	200.	3. 1.	-2440.61	-.17	.481	-9559.49	-1.39	10.	2.	.122	3.917	SI
685.	200.	3. 1.	1247.67	-.086	.246	9559.49	-1.39	10.	2.	.122	7.662	SI
> 685.	0.	3. 1.	-1055.37	-.073	.208	-9559.49	-1.39	10.	2.	.122	9.058	SI
711.	26.	3. 1.	14.38	-.001	.003	9559.49	-1.39	10.	2.	.122	664.7	SI
725.	40.	3. 1.	85.61	-.006	.017	9559.49	-1.39	10.	2.	.122	111.7	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	709.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
485.	485.	3. 3.	-1297.	4105.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 485.	0.	3. 3.	-1450.	4105.	54273.	27619.	7955.	19664.	1.01	10.	SI
485.	0.	3. 3.	1663.	4105.	54273.	27619.	7955.	19664.	1.01	10.	SI
685.	200.	3. 1.	-2006.	4105.	54273.	27619.	7955.	19664.	1.01	10.	SI
685.	200.	3. 1.	867.	4105.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 685.	0.	3. 1.	1150.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
751.	66.	3. 1.	996.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
14.	14.	3. 2.	328.99	-2.8	100.7	6.16	7.5	.029	13.62	.004	SI
127.	127.	3. 2.	493.83	-4.2	151.2	6.16	7.5	.044	13.62	.006	SI
485.	485.	3. 3.	-1037.91	-6.7	211.8	9.24	7.5	.062	11.69	.007	SI
> 485.	0.	3. 3.	-168.46	-1.1	34.4	9.24	7.5	.01	11.69	.001	SI
556.	71.	3. 1.	133.46	-1.3	53.9	4.62	7.5	.016	15.55	.002	SI
685.	200.	3. 1.	-746.96	-7.	301.6	4.62	7.5	.088	15.55	.014	SI
> 685.	0.	3. 1.	-683.28	-6.4	275.9	4.62	7.5	.081	15.55	.013	SI
740.	55.	3. 1.	-354.39	-3.3	143.1	4.62	7.5	.042	15.55	.007	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
14.	14.	3. 2.	277.2	-2.4	84.9	6.16	7.5	.025	13.62	.003	SI
127.	127.	3. 2.	466.27	-4.	142.7	6.16	7.5	.042	13.62	.006	SI
485.	485.	3. 3.	-991.98	-6.4	202.4	9.24	7.5	.059	11.69	.007	SI
> 485.	0.	3. 3.	-176.	-1.1	35.9	9.24	7.5	.011	11.69	.001	SI
585.	100.	3. 1.	129.52	-1.2	52.3	4.62	7.5	.015	15.55	.002	SI
685.	200.	3. 1.	-687.68	-6.5	277.7	4.62	7.5	.081	15.55	.013	SI
> 685.	0.	3. 1.	-622.21	-5.8	251.3	4.62	7.5	.074	15.55	.011	SI
740.	55.	3. 1.	-309.23	-2.9	124.9	4.62	7.5	.037	15.55	.006	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
14.	14.	3. 2.	264.41	-2.3	80.9	6.16	7.5	.024	13.62	.003	SI
127.	127.	3. 2.	458.85	-3.9	140.5	6.16	7.5	.041	13.62	.006	SI
485.	485.	3. 3.	-983.11	-6.4	200.6	9.24	7.5	.059	11.69	.007	SI
> 485.	0.	3. 3.	-174.26	-1.1	35.6	9.24	7.5	.01	11.69	.001	SI
585.	100.	3. 1.	131.38	-1.2	53.1	4.62	7.5	.016	15.55	.002	SI
685.	200.	3. 1.	-675.05	-6.3	272.6	4.62	7.5	.08	15.55	.012	SI
> 685.	0.	3. 1.	-603.66	-5.7	243.8	4.62	7.5	.071	15.55	.011	SI
740.	55.	3. 1.	-295.35	-2.8	119.3	4.62	7.5	.035	15.55	.005	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	9.24	.77	4.62	.385	3d14	4.62	.385	3d14
2	10.78	.898	4.62	.385	3d14	6.16	.513	1d14 +3d14
3	18.47	1.539	9.24	.77	3d14 +3d14	9.24	.77	3d14 +3d14

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR08  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A992	2	2	2	0	230.	190.
2	A998	2	2	2	0	300.	240.
3	A1004	2	2	2	0	312.	252.
4	A1005	2	2	2	0	475.	415.
5	A1006	2	2	2	0	490.	400.
6	A1007	2	2	2	0	125.	65.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	2.	-1108.89	-.068	.151	-13941.51	-1.8	10.	2.	.152	12.57	SI
0.	0.	2.	722.07	-.046	.144	9379.17	-1.23	10.	2.	.109	12.99	SI
63.	63.	2.	1294.	-.083	.258	9379.17	-1.23	10.	2.	.109	7.248	SI
100.	100.	2.	1281.07	-.09	.258	9366.57	-1.38	10.	2.	.121	7.312	SI
174.	174.	2.	689.32	-.031	.069	18653.97	-1.56	10.	2.	.135	27.06	SI
217.	217.	2.	168.95	-.007	.017	18653.97	-1.56	10.	2.	.135	110.4	SI
230.	230.	2.	-1637.56	-.074	.134	-23188.01	-2.01	10.	2.	.167	14.16	SI
> 230.	0.	2.	-1912.21	-.086	.157	-23188.01	-2.01	10.	2.	.167	12.13	SI
230.	0.	2.	630.72	-.028	.064	18653.97	-1.56	10.	2.	.135	29.58	SI
323.	93.	2.	-264.42	-.015	.027	-18441.	-2.22	10.	2.	.182	69.74	SI
323.	93.	2.	1822.23	-.107	.362	9383.26	-1.12	10.	2.	.101	5.149	SI
361.	131.	2.	1896.8	-.133	.381	9366.57	-1.38	10.	2.	.121	4.938	SI
530.	300.	2.	-1839.25	-.083	.151	-23188.01	-2.01	10.	2.	.167	12.61	SI
530.	300.	2.	393.55	-.017	.04	18653.97	-1.56	10.	2.	.135	47.4	SI
> 530.	0.	2.	-1876.46	-.084	.154	-23188.01	-2.01	10.	2.	.167	12.36	SI
530.	0.	2.	769.47	-.034	.078	18653.97	-1.56	10.	2.	.135	24.24	SI
626.	96.	2.	-275.84	-.015	.029	-18441.	-2.22	10.	2.	.182	66.85	SI
626.	96.	2.	1864.57	-.11	.37	9383.26	-1.12	10.	2.	.101	5.032	SI
666.	136.	2.	1909.06	-.134	.384	9366.57	-1.38	10.	2.	.121	4.906	SI
842.	312.	2.	-3084.57	-.139	.253	-23188.01	-2.01	10.	2.	.167	7.517	SI
842.	312.	2.	281.13	-.012	.028	18653.97	-1.56	10.	2.	.135	66.35	SI
> 842.	0.	2.	-4313.17	-.196	.353	-23188.01	-2.01	10.	2.	.167	5.376	SI
868.	26.	2.	466.5	-.021	.047	18653.97	-1.56	10.	2.	.135	39.99	SI
944.	102.	2.	-899.22	-.047	.075	-22762.36	-2.82	10.	2.	.22	25.31	SI
944.	102.	2.	2700.22	-.148	.534	9383.96	-1.05	10.	2.	.095	3.475	SI
1080.	238.	2.	4590.63	-.328	.924	9366.57	-1.38	10.	2.	.121	2.04	SI
1291.	449.	2.	250.06	-.011	.025	18653.97	-1.56	10.	2.	.135	74.6	SI
1317.	475.	2.	-5011.66	-.228	.411	-23188.01	-2.01	10.	2.	.167	4.627	SI
>1317.	0.	2.	-4772.16	-.217	.391	-23188.01	-2.01	10.	2.	.167	4.859	SI
1317.	0.	2.	29.35	-.001	.003	18653.97	-1.56	10.	2.	.135	635.6	SI
1426.	109.	2.	-1300.05	-.068	.109	-22762.36	-2.82	10.	2.	.22	17.51	SI
1426.	109.	2.	2604.55	-.143	.515	9383.96	-1.05	10.	2.	.095	3.603	SI
1569.	252.	2.	4178.36	-.298	.841	9366.57	-1.38	10.	2.	.121	2.242	SI
1807.	490.	2.	-3978.99	-.192	.404	-18621.14	-1.71	10.	2.	.146	4.68	SI
1807.	490.	2.	480.02	-.023	.049	18621.14	-1.71	10.	2.	.146	38.79	SI
>1807.	0.	2.	-3409.47	-.164	.346	-18621.14	-1.71	10.	2.	.146	5.462	SI
1855.	48.	2.	139.39	-.007	.014	18621.14	-1.71	10.	2.	.146	133.6	SI
1898.	91.	2.	-1028.16	-.06	.204	-9383.26	-1.12	10.	2.	.101	9.126	SI
1898.	91.	2.	747.77	-.042	.077	18441.	-2.22	10.	2.	.182	24.66	SI
1915.	108.	2.	825.51	-.058	.166	9366.57	-1.38	10.	2.	.121	11.35	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	4475.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
> 230.	230.	2.	-3280.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
> 230.	0.	2.	6549.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
> 530.	300.	2.	-3241.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
> 530.	0.	2.	6362.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
> 842.	312.	2.	-3630.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
> 842.	0.	2.	6774.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
> 1317.	475.	2.	-7066.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
>1317.	0.	2.	7548.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
1807.	490.	2.	-5666.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
>1807.	0.	2.	3563.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
1932.	125.	2.	-25.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI
1932.	125.	2.	409.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.!	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	2.	-779.83!	-6.5!	217.6	6.79	7.5	.064	12.67	.008	SI
> 13.	13.	2.	-446.41!	-3.7!	124.5	6.79	7.5	.036	12.67	.005	SI
> 26.	26.	2.	483.11!	-4.2!	197.7	4.52	7.5	.058	14.92	.009	SI
> 63.	63.	2.	909.89!	-7.9!	372.4!	4.52	7.5	.109	14.92	.016	SI
> 100.	100.	2.	881.02!	-8.4!	363.1!	4.52	7.5	.106	14.92	.016	SI
> 230.	230.	2.	-1093.29!	-6.7!	183.8	11.31	7.5	.054	10.87	.006	SI
> 230.	0.	2.	-1790.07!	-11.!	301.!	11.31	7.5	.088	10.87	.01	SI
> 361.	131.	2.	1333.92!	-12.6!	549.7!	4.52	7.5	.161	14.92	.024	SI
> 530.	300.	2.	-1242.59!	-7.6!	208.9	11.31	7.5	.061	10.87	.007	SI
> 530.	0.	2.	-1755.9!	-10.8!	295.2!	11.31	7.5	.086	10.87	.009	SI
> 666.	136.	2.	1342.88!	-12.7!	553.4!	4.52	7.5	.162	14.92	.024	SI
> 842.	312.	2.	-2168.99!	-13.3!	364.7!	11.31	7.5	.107	10.87	.012	SI
> 842.	0.	2.	-3034.92!	-18.6!	510.3!	11.31	7.5	.149	10.87	.016	SI
> 1080.	238.	2.	3228.47!	-30.6!	1330.4!	4.52	7.5	.447	14.92	.067	SI
> 1317.	475.	2.	-3524.02!	-21.6!	592.5!	11.31	7.5	.188	10.87	.02	SI
>1317.	0.	2.	-3357.78!	-20.6!	564.6!	11.31	7.5	.175	10.87	.019	SI
>1569.	252.	2.	2938.75!	-27.9!	1211.!	4.52	7.5	.389	14.92	.058	SI
>1807.	490.	2.	-3911.8!	-25.6!	814.6!	9.05	7.5	.28	11.54	.032	SI
>1807.	0.	2.	-2367.89!	-15.5!	493.1!	9.05	7.5	.144	11.54	.017	SI
>1923.	116.	2.	525.6!	-5.!	216.6!	4.52	7.5	.063	14.92	.009	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	2.	-642.83!	-5.3!	179.3	6.79	7.5	.052	12.67	.007	SI
> 13.	13.	2.	-368.72!	-3.1!	102.9	6.79	7.5	.03	12.67	.004	SI
> 26.	26.	2.	395.06!	-3.4!	161.7!	4.52	7.5	.047	14.92	.007	SI
> 63.	63.	2.	748.61!	-6.5!	306.4!	4.52	7.5	.09	14.92	.013	SI
> 100.	100.	2.	729.06!	-6.9!	300.4!	4.52	7.5	.088	14.92	.013	SI
> 230.	230.	2.	-893.22!	-5.5!	150.2!	11.31	7.5	.044	10.87	.005	SI
> 230.	0.	2.	-1479.37!	-9.1!	248.7!	11.31	7.5	.073	10.87	.008	SI
> 361.	131.	2.	1099.76!	-10.4!	453.2!	4.52	7.5	.133	14.92	.02	SI
> 530.	300.	2.	-1022.62!	-6.3!	171.9!	11.31	7.5	.05	10.87	.005	SI
> 530.	0.	2.	-1455.02!	-8.9!	244.6!	11.31	7.5	.072	10.87	.008	SI
> 666.	136.	2.	1110.87!	-10.5!	457.8!	4.52	7.5	.134	14.92	.02	SI
> 842.	312.	2.	-1788.97!	-11.!	300.8!	11.31	7.5	.088	10.87	.01	SI
> 842.	0.	2.	-2516.71!	-15.5!	423.1!	11.31	7.5	.124	10.87	.013	SI
> 1080.	238.	2.	2663.21!	-25.3!	1097.5!	4.52	7.5	.334	14.92	.05	SI
> 1317.	475.	2.	-2901.45!	-17.8!	487.8!	11.31	7.5	.143	10.87	.016	SI
>1317.	0.	2.	-2773.89!	-17.!	466.4!	11.31	7.5	.137	10.87	.015	SI
>1569.	252.	2.	2424.38!	-23.!	999.!	4.52	7.5	.292	14.92	.044	SI
>1807.	490.	2.	-3230.42!	-21.1!	672.7!	9.05	7.5	.211	11.54	.024	SI
>1807.	0.	2.	-2034.16!	-13.3!	423.6!	9.05	7.5	.124	11.54	.014	SI
>1923.	116.	2.	440.12!	-4.2!	181.4!	4.52	7.5	.053	14.92	.008	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	2.	-608.58!	-5.!	169.8	6.79	7.5	.05	12.67	.006	SI
> 13.	13.	2.	-349.2!	-2.9!	97.4	6.79	7.5	.029	12.67	.004	SI
> 26.	26.	2.	372.69!	-3.2!	152.5!	4.52	7.5	.045	14.92	.007	SI
> 63.	63.	2.	708.33!	-6.2!	289.9!	4.52	7.5	.085	14.92	.013	SI
> 100.	100.	2.	691.52!	-6.6!	285.!	4.52	7.5	.083	14.92	.012	SI
> 230.	230.	2.	-841.46!	-5.2!	141.5!	11.31	7.5	.041	10.87	.004	SI
> 230.	0.	2.	-1403.35!	-8.6!	235.9!	11.31	7.5	.069	10.87	.008	SI
> 361.	131.	2.	1041.07!	-9.9!	429.!	4.52	7.5	.126	14.92	.019	SI
> 530.	300.	2.	-966.12!	-5.9!	162.4!	11.31	7.5	.048	10.87	.005	SI
> 530.	0.	2.	-1381.77!	-8.5!	232.3!	11.31	7.5	.068	10.87	.007	SI
> 666.	136.	2.	1052.76!	-10.!	433.8!	4.52	7.5	.127	14.92	.019	SI
> 842.	312.	2.	-1692.04!	-10.4!	284.5!	11.31	7.5	.083	10.87	.009	SI
> 842.	0.	2.	-2389.11!	-14.7!	401.7!	11.31	7.5	.118	10.87	.013	SI
> 1080.	238.	2.	2521.44!	-23.9!	1039.!	4.52	7.5	.305	14.92	.046	SI
> 1317.	475.	2.	-2744.98!	-16.9!	461.5!	11.31	7.5	.135	10.87	.015	SI
>1317.	0.	2.	-2633.28!	-16.2!	442.7!	11.31	7.5	.13	10.87	.014	SI
>1569.	252.	2.	2296.49!	-21.8!	946.3!	4.52	7.5	.277	14.92	.041	SI
>1807.	490.	2.	-3052.74!	-20.!	635.7!	9.05	7.5	.193	11.54	.022	SI
>1807.	0.	2.	-1955.15!	-12.8!	407.1!	9.05	7.5	.119	11.54	.014	SI
>1923.	116.	2.	416.52!	-3.9!	171.6!	4.52	7.5	.05	14.92	.007	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
4	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
5	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
6	13.57	1.131	9.05	.754	2d12 +4d12 +2d12	4.52	.377	4d12
7	18.1	1.508	9.05	.754	2d12 +4d12 +2d12	9.05	.754	4d12 +4d12
8	13.57	1.131	4.52	.377	2d12 +2d12	9.05	.754	4d12 +4d12
9	9.05	.754	4.52	.377	2d12 +2d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR09/A  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010. ; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A996	2	2	2	0	230.	190.
2	A999	2	2	2	0	300.	240.
3	A1002	2	2	2	0	300.	260.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	2.	1.	-1108.89	-.068	.151	-13941.51	-1.8	10.	2.	.152	12.57	SI
0.	0.	2.	1.	702.56	-.045	.14	9379.17	-1.23	10.	2.	.109	13.35	SI
63.	63.	2.	1.	1302.43	-.083	.26	9379.17	-1.23	10.	2.	.109	7.201	SI
100.	100.	2.	2.	1298.25	-.091	.261	9366.57	-1.38	10.	2.	.121	7.215	SI
174.	174.	2.	3.	714.6	-.032	.072	18653.97	-1.56	10.	2.	.135	26.1	SI
230.	230.	2.	3.	-1512.3	-.068	.124	-23188.01	-2.01	10.	2.	.167	15.33	SI
230.	230.	2.	3.	19.61	-.001	.002	18653.97	-1.56	10.	2.	.135	951.4	SI
> 230.	0.	2.	3.	-1964.47	-.088	.161	-23188.01	-2.01	10.	2.	.167	11.8	SI
230.	0.	2.	3.	595.59	-.026	.06	18653.97	-1.56	10.	2.	.135	31.32	SI
323.	93.	2.	4.	-267.01	-.015	.028	-18441.	-2.22	10.	2.	.182	69.07	SI
323.	93.	2.	4.	1813.67	-.107	.36	9383.26	-1.12	10.	2.	.101	5.174	SI
361.	131.	2.	2.	1894.59	-.133	.381	9366.57	-1.38	10.	2.	.121	4.944	SI
530.	300.	2.	3.	-1788.42	-.081	.146	-23188.01	-2.01	10.	2.	.167	12.97	SI
530.	300.	2.	3.	467.28	-.021	.047	18653.97	-1.56	10.	2.	.135	39.92	SI
> 530.	0.	2.	3.	-1951.48	-.088	.16	-23188.01	-2.01	10.	2.	.167	11.88	SI
530.	0.	2.	3.	1106.27	-.049	.111	18653.97	-1.56	10.	2.	.135	16.86	SI
629.	99.	2.	4.	-386.84	-.022	.04	-18441.	-2.22	10.	2.	.182	47.67	SI
629.	99.	2.	4.	2172.84	-.128	.431	9383.26	-1.12	10.	2.	.101	4.318	SI
673.	143.	2.	2.	-68.39	-.005	.014	-9366.57	-1.38	10.	2.	.121	137.	SI
830.	300.	2.	1.	-3753.88	-.234	.511	-13941.51	-1.8	10.	2.	.152	3.714	SI
830.	300.	2.	1.	377.21	-.024	.075	9379.17	-1.23	10.	2.	.109	24.87	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	4545.!	3414.	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
230.	230.	2.	-3204.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
> 230.	0.	2.	6605.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
530.	300.	2.	-3198.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
> 530.	0.	2.	6243.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
830.	300.	2.	-3926.!	3414.	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	166.34	-1.5	68.1	4.52	7.5	.02	14.92	.003	SI
26.	26.	2. 1.	-102.35	-.8	28.6	6.79	7.5	.008	12.67	.001	SI
63.	63.	2. 1.	915.88	-8.	374.9	4.52	7.5	.11	14.92	.016	SI
100.	100.	2. 2.	906.9	-8.6	373.7	4.52	7.5	.109	14.92	.016	SI
230.	230.	2. 3.	-1004.09	-6.2	168.8	11.31	7.5	.049	10.87	.005	SI
> 230.	0.	2. 3.	-1843.14	-11.3	309.9	11.31	7.5	.091	10.87	.01	SI
361.	131.	2. 2.	1332.37	-12.6	549.	4.52	7.5	.161	14.92	.024	SI
530.	300.	2. 3.	-1184.7	-7.3	199.2	11.31	7.5	.058	10.87	.006	SI
> 530.	0.	2. 3.	-1828.06	-11.2	307.4	11.31	7.5	.09	10.87	.01	SI
673.	143.	2. 2.	1533.57	-14.5	632.	4.52	7.5	.185	14.92	.028	SI
830.	300.	2. 1.	-2638.49	-21.9	736.1	6.79	7.5	.215	12.67	.027	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	133.14	-1.2	54.5	4.52	7.5	.016	14.92	.002	SI
26.	26.	2. 1.	-84.94	-.7	23.7	6.79	7.5	.007	12.67	.001	SI
63.	63.	2. 1.	754.31	-6.6	308.8	4.52	7.5	.09	14.92	.013	SI
100.	100.	2. 2.	752.79	-7.1	310.2	4.52	7.5	.091	14.92	.014	SI
230.	230.	2. 3.	-812.1	-5.	136.5	11.31	7.5	.04	10.87	.004	SI
> 230.	0.	2. 3.	-1522.91	-9.4	256.1	11.31	7.5	.075	10.87	.008	SI
361.	131.	2. 2.	1097.56	-10.4	452.3	4.52	7.5	.132	14.92	.02	SI
530.	300.	2. 3.	-977.74	-6.	164.4	11.31	7.5	.048	10.87	.005	SI
> 530.	0.	2. 3.	-1531.03	-9.4	257.4	11.31	7.5	.075	10.87	.008	SI
673.	143.	2. 2.	1266.65	-12.	522.	4.52	7.5	.153	14.92	.023	SI
830.	300.	2. 1.	-2153.7	-17.9	600.9	6.79	7.5	.176	12.67	.022	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	124.88	-1.1	51.1	4.52	7.5	.015	14.92	.002	SI
26.	26.	2. 1.	-80.6	-.7	22.5	6.79	7.5	.007	12.67	.001	SI
100.	100.	2. 2.	714.22	-6.8	294.3	4.52	7.5	.086	14.92	.013	SI
230.	230.	2. 3.	-764.27	-4.7	128.5	11.31	7.5	.038	10.87	.004	SI
> 230.	0.	2. 3.	-1441.83	-8.9	242.4	11.31	7.5	.071	10.87	.008	SI
361.	131.	2. 2.	1039.18	-9.9	428.2	4.52	7.5	.125	14.92	.019	SI
530.	300.	2. 3.	-926.28	-5.7	155.7	11.31	7.5	.046	10.87	.005	SI
> 530.	0.	2. 3.	-1454.76	-8.9	244.6	11.31	7.5	.072	10.87	.008	SI
673.	143.	2. 2.	1200.26	-11.4	494.6	4.52	7.5	.145	14.92	.022	SI
830.	300.	2. 1.	-2033.21	-16.9	567.3	6.79	7.5	.166	12.67	.021	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
4	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR09B  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=300.; fck=249.; fctk=18.2; fctm=26.1; Ec=311769.;  
 gc=1.6; fcd=155.6; fbd=25.7; fctd=11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300.; fyk=4300.; Ea=2050000.;  
 ga=1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112.; fbd(esercizio)=25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.=15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4; wk(q.p.)=.2;  
 c/cmin=1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=100.; alt.=25.; Acls=2500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1017	3	3	3	0	473.	453.
2	A1016	3	3	3	0	440.	420.
3	A1012	3	3	3	0	387.	367.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-8495.11	-.898	2.612	-8723.44	-1.96	10.	2.	.164	1.027	SI
53.	53.	3. 1.	2394.09	-.194	.368	12210.58	-2.48	10.	2.	.198	5.1	SI
87.	87.	3. 1.	-690.4	-.059	.149	-8723.44	-1.96	10.	2.	.164	12.64	SI
220.	220.	3. 2.	10320.75	-.931	1.603	12205.97	-2.58	10.	2.	.205	1.183	SI
386.	386.	3. 4.	-2658.58	-.188	.325	-15295.92	-2.65	10.	2.	.209	5.753	SI
473.	473.	3. 5.	-11657.86	-.754	1.426	-15306.93	-2.32	10.	2.	.188	1.313	SI
> 473.	0.	3. 5.	-10965.15	-.707	1.341	-15306.93	-2.32	10.	2.	.188	1.396	SI
526.	53.	3. 6.	-6073.4	-.463	.747	-15275.76	-2.84	10.	2.	.221	2.515	SI
526.	53.	3. 6.	1038.83	-.083	.21	9269.51	-1.96	10.	2.	.164	8.923	SI
593.	120.	3. 7.	-160.22	-.012	.022	-13658.87	-2.63	10.	2.	.208	85.25	SI
626.	153.	3. 8.	6355.44	-.61	1.295	9291.52	-2.16	10.	2.	.178	1.462	SI
693.	220.	3. 8.	7810.36	-.761	1.594	9291.52	-2.16	10.	2.	.178	1.19	SI
913.	440.	3. 9.	-9268.3	-.619	1.134	-15307.23	-2.41	10.	2.	.194	1.652	SI
> 913.	0.	3. 9.	-9284.36	-.62	1.136	-15307.23	-2.41	10.	2.	.194	1.649	SI
968.	55.	3. 6.	-4810.49	-.363	.591	-15275.76	-2.84	10.	2.	.221	3.176	SI
1037.	124.	3. 8.	-25.79	-.003	.007	-7062.16	-1.83	10.	2.	.154	273.8	SI
1037.	124.	3. 8.	4483.61	-.422	.911	9291.52	-2.16	10.	2.	.178	2.072	SI
1106.	194.	3. 8.	6577.78	-.633	1.34	9291.52	-2.16	10.	2.	.178	1.413	SI
1300.	387.	3. 10	-5748.74	-.538	1.244	-8731.89	-2.02	10.	2.	.168	1.519	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3. 1.	14078.!	8827.!	104738.!	45709.!	15351.!	30358.!	2.01	5. SI
473.	473.	3. 1.	-15232.!	12911.!	104738.!	45709.!	15351.!	30358.!	2.01	5. SI
> 473.	0.	3. 1.	13879.!	12911.!	104738.!	45709.!	15351.!	30358.!	2.01	5. SI
913.	440.	3. 1.	-13201.!	12911.!	104738.!	45709.!	15351.!	30358.!	2.01	5. SI
> 913.	0.	3. 1.	13419.!	12911.!	104738.!	45709.!	15351.!	30358.!	2.01	5. SI
1300.	387.	3. 10	-10845.!	8827.!	104738.!	45709.!	15351.!	30358.!	2.01	5. SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3. 1.	-5975.74	-69.5	2634.3	11.31	6.25	.971	19.44	.189	SI
10.	10.	3. 1.	-5532.35	-64.3	2438.8	11.31	6.25	.875	19.44	.17	SI
53.	53.	3. 1.	-1697.02	-19.7	748.1	11.31	6.25	.219	19.44	.043	SI
220.	220.	3. 2.	7260.74	-80.4	2283.3	16.08	5.8	.897	17.29	.155	SI
473.	473.	3. 5.	-8201.43	-68.9	2044.	20.36	5.87	.817	14.04	.115	SI
> 473.	0.	3. 5.	-7714.27	-64.8	1922.6	20.36	5.87	.758	14.04	.106	SI
693.	220.	3. 8.	5494.38	-67.3	2276.6	12.06	6.08	.821	23.72	.195	SI
913.	440.	3. 9.	-6520.38	-56.9	1626.6	20.36	5.81	.615	13.98	.086	SI
> 913.	0.	3. 9.	-6532.18	-57.	1629.6	20.36	5.81	.617	13.98	.086	SI
1106.	194.	3. 8.	4628.17	-56.7	1917.7	12.06	6.08	.646	23.72	.153	SI
1300.	387.	3. 10	-4044.69	-49.	1782.9	11.31	6.19	.558	19.33	.108	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3. 1.	-4943.25	-57.5	2179.1	11.31	6.25	.749	19.44	.146	SI
10.	10.	3. 1.	-4576.1	-53.2	2017.3	11.31	6.25	.67	19.44	.13	SI
53.	53.	3. 1.	-1400.21	-16.3	617.2	11.31	6.25	.181	19.44	.035	SI
220.	220.	3. 2.	6015.51	-66.6	1891.7	16.08	5.8	.706	17.29	.122	SI
473.	473.	3. 5.	-6793.14	-57.1	1693.	20.36	5.87	.646	14.04	.091	SI
> 473.	0.	3. 5.	-6390.96	-53.7	1592.8	20.36	5.87	.597	14.04	.084	SI
693.	220.	3. 8.	4549.1	-55.7	1884.9	12.06	6.08	.63	23.72	.149	SI
913.	440.	3. 9.	-5402.46	-47.1	1347.7	20.36	5.81	.479	13.98	.067	SI
> 913.	0.	3. 9.	-5415.55	-47.2	1351.	20.36	5.81	.481	13.98	.067	SI
1106.	194.	3. 8.	3841.45	-47.	1591.7	12.06	6.08	.487	23.72	.115	SI
1300.	387.	3. 10	-3355.28	-40.7	1479.	11.31	6.19	.433	19.33	.084	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3. 1.	-4685.09	-54.5	2065.3	11.31	6.25	.693	19.44	.135	SI
10.	10.	3. 1.	-4337.01	-50.4	1911.9	11.31	6.25	.618	19.44	.12	SI
53.	53.	3. 1.	-1326.06	-15.4	584.6	11.31	6.25	.171	19.44	.033	SI
220.	220.	3. 2.	5703.98	-63.2	1793.7	16.08	5.8	.658	17.29	.114	SI
473.	473.	3. 5.	-6441.8	-54.1	1605.5	20.36	5.87	.603	14.04	.085	SI
> 473.	0.	3. 5.	-6061.08	-50.9	1510.6	20.36	5.87	.557	14.04	.078	SI
693.	220.	3. 8.	4312.48	-52.8	1786.9	12.06	6.08	.582	23.72	.138	SI
913.	440.	3. 9.	-5122.88	-44.7	1278.	20.36	5.81	.445	13.98	.062	SI
> 913.	0.	3. 9.	-5137.47	-44.8	1281.6	20.36	5.81	.447	13.98	.062	SI
1106.	194.	3. 8.	3644.74	-44.6	1510.2	12.06	6.08	.447	23.72	.106	SI
1300.	387.	3. 10	-3182.93	-38.6	1403.1	11.31	6.19	.411	19.33	.079	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	27.39	1.096	11.31	.452	2d12 +8d12	16.08	.643	8d16
2	25.13	1.005	9.05	.362	8d12	16.08	.643	8d16
3	34.18	1.367	18.1	.724	8d12 +8d12	16.08	.643	8d16
4	36.44	1.458	20.36	.814	2d12 +8d12 +8d12	16.08	.643	8d16
5	48.51	1.94	20.36	.814	2d12 +8d12 +8d12	28.15	1.126	8d16 +6d16
6	32.42	1.297	20.36	.814	2d12 +8d12 +8d12	12.06	.483	6d16
7	30.16	1.206	18.1	.724	8d12 +8d12	12.06	.483	6d16
8	21.11	.844	9.05	.362	8d12	12.06	.483	6d16
9	44.48	1.779	20.36	.814	2d12 +8d12 +8d12	24.13	.965	6d16 +6d16
10	23.37	.935	11.31	.452	2d12 +8d12	12.06	.483	6d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR10  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1028	3	3	3	0	280.	260.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-2018.29	-.124	.275	-13941.51	-1.8	10.	2.	.152	6.908	SI
0.	0.	3.	1.	1259.75	-.081	.251	9379.17	-1.23	10.	2.	.109	7.445	SI
77.	77.	3.	1.	-304.37	-.019	.041	-13941.51	-1.8	10.	2.	.152	45.8	SI
119.	119.	3.	2.	3566.89	-.254	.718	9366.57	-1.38	10.	2.	.121	2.626	SI
280.	280.	3.	1.	-2018.29	-.124	.275	-13941.51	-1.8	10.	2.	.152	6.908	SI
280.	280.	3.	1.	1135.54	-.073	.227	9379.17	-1.23	10.	2.	.109	8.26	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	5754.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
77.	77.	3.	2567.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
280.	280.	3.	-5842.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
10.	10.	3.	1.	189.54	-1.7	77.6	4.52	7.5	.023	14.92	.003	SI
119.	119.	3.	2.	2519.76	-23.9	1038.3	4.52	7.5	.305	14.92	.045	SI
280.	280.	3.	1.	-1425.85	-11.8	397.8	6.79	7.5	.116	12.67	.015	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
10.	10.	3.	1.	169.9	-1.5	69.5	4.52	7.5	.02	14.92	.003	SI
119.	119.	3.	2.	2204.98	-20.9	908.6	4.52	7.5	.266	14.92	.04	SI
280.	280.	3.	1.	-1249.07	-10.4	348.5	6.79	7.5	.102	12.67	.013	SI



TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3.	164.74	-1.4	67.4	4.52	7.5	.02	14.92	.003	SI
119.	119.	3.	2126.79	-20.2	876.4	4.52	7.5	.257	14.92	.038	SI
280.	280.	3.	-1204.87	-10.	336.2	6.79	7.5	.098	12.67	.012	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR11  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [Wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogenein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=90.; alt.=25.; Acls=2250. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1036	3	3	3	0	280.	260.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	-4284.48	-1.462	1.03	-7865.52	-2.09	10.	2.	.173	1.836	SI
54.	54.	3.	1341.35	-1.15	.41	6189.53	-1.81	10.	2.	.153	4.614	SI
89.	89.	3.	2906.24	-1.34	.889	6194.34	-1.84	10.	2.	.155	2.131	SI
157.	157.	3.	4075.98	-1.483	1.248	6194.34	-1.84	10.	2.	.155	1.52	SI
280.	280.	3.	-3556.52	-1.381	.854	-7865.52	-2.09	10.	2.	.173	2.212	SI
280.	280.	3.	74.05	-1.008	.023	6189.53	-1.81	10.	2.	.153	83.59	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	10487.	7944.	94264.	44174.	13816.	30358.	2.01	5.	SI
54.	54.	3.	7278.	9532.	94264.	44174.	13816.	30358.	2.01	5.	SI
280.	280.	3.	-9830.	7944.	94264.	44174.	13816.	30358.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	-3021.61	-42.2	1480.2	10.18	6.14	.433	19.23	.083	SI
10.	10.	3.	-2693.11	-37.6	1319.3	10.18	6.14	.386	19.23	.074	SI
157.	157.	3.	2873.47	-44.1	1793.3	7.92	6.36	.525	22.9	.12	SI
280.	280.	3.	-2507.61	-35.	1228.4	10.18	6.14	.36	19.23	.069	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	-2586.95	-36.1	1267.3	10.18	6.14	.371	19.23	.071	SI
10.	10.	3.	-2306.38	-32.2	1129.8	10.18	6.14	.331	19.23	.064	SI
157.	157.	3.	2447.63	-37.6	1527.5	7.92	6.36	.447	22.9	.102	SI
280.	280.	3.	-2140.71	-29.9	1048.7	10.18	6.14	.307	19.23	.059	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	Wk	Ve	
> 0.	0.	3.	1.	-2478.71	-34.6	1214.3	10.18	6.14	.355	19.23	.068	SI
10.	10.	3.	1.	-2210.12	-30.9	1082.7	10.18	6.14	.317	19.23	.061	SI
157.	157.	3.	2.	2341.59	-36.	1461.3	7.92	6.36	.428	22.9	.098	SI
280.	280.	3.	1.	-2048.98	-28.6	1003.7	10.18	6.14	.294	19.23	.056	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Infer.	Barre	Infer.	%	Barre
1	18.1	.804	10.18	2d12 +7d12	7.92	.352	7d12
2	15.83	.704	7.92	.352	7d12		

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR12  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1029	2	2	2	0	450.	390.
2	A1033	2	2	2	0	475.	405.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	2.	1.	-1799.7	-.111	.245	-13941.51	-1.8	10.	2.	.152	7.747	SI
0.	0.	2.	1.	736.21	-.047	.147	9379.17	-1.23	10.	2.	.109	12.74	SI
225.	225.	2.	2.	2244.66	-.158	.451	9366.57	-1.38	10.	2.	.121	4.173	SI
310.	310.	2.	3.	-167.41	-.009	.017	-18441.	-2.22	10.	2.	.182	110.2	SI
352.	352.	2.	4.	-1034.61	-.054	.086	-22762.36	-2.82	10.	2.	.22	22.	SI
352.	352.	2.	4.	1372.68	-.075	.271	9383.96	-1.05	10.	2.	.095	6.836	SI
394.	394.	2.	5.	859.53	-.038	.087	18653.97	-1.56	10.	2.	.135	21.7	SI
450.	450.	2.	5.	-2554.47	-.115	.209	-23188.01	-2.01	10.	2.	.167	9.077	SI
> 450.	0.	2.	5.	-2579.46	-.116	.211	-23188.01	-2.01	10.	2.	.167	8.989	SI
450.	0.	2.	5.	849.29	-.038	.086	18653.97	-1.56	10.	2.	.135	21.96	SI
546.	96.	2.	4.	-1313.18	-.069	.11	-22762.36	-2.82	10.	2.	.22	17.33	SI
546.	96.	2.	4.	1965.92	-.107	.389	9383.96	-1.05	10.	2.	.095	4.773	SI
673.	223.	2.	2.	2390.56	-.169	.481	9366.57	-1.38	10.	2.	.121	3.918	SI
896.	446.	2.	1.	-4393.85	-.275	.599	-13941.51	-1.8	10.	2.	.152	3.173	SI
896.	446.	2.	1.	23.61	-.002	.005	9379.17	-1.23	10.	2.	.109	397.3	SI
925.	475.	2.	1.	-4077.15	-.254	.556	-13941.51	-1.8	10.	2.	.152	3.419	SI
925.	475.	2.	1.	187.36	-.012	.037	9379.17	-1.23	10.	2.	.109	50.06	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve		
> 0.	0.	2.	2.	3264.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
450.	450.	2.	2.	-3334.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 450.	0.	2.	2.	3667.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
896.	446.	2.	2.	-4242.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
896.	446.	2.	2.	12464.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
925.	475.	2.	2.	12154.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	2.	-915.19	-7.6	255.3	6.79	7.5	.075	12.67	.009	SI
225.	225.	2.	1603.25	-15.2	660.7	4.52	7.5	.193	14.92	.029	SI
450.	450.	2.	-1778.09	-10.9	299.	11.31	7.5	.087	10.87	.01	SI
> 450.	0.	2.	-1795.26	-11.	301.8	11.31	7.5	.088	10.87	.01	SI
673.	223.	2.	1709.17	-16.2	704.3	4.52	7.5	.206	14.92	.031	SI
896.	446.	2.	-3160.33	-26.2	881.7	6.79	7.5	.285	12.67	.036	SI
925.	475.	2.	-1494.54	-12.4	417.	6.79	7.5	.122	12.67	.015	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	2.	-915.19	-7.6	255.3	6.79	7.5	.075	12.67	.009	SI
225.	225.	2.	1617.96	-15.3	666.7	4.52	7.5	.195	14.92	.029	SI
450.	450.	2.	-1792.63	-11.	301.4	11.31	7.5	.088	10.87	.01	SI
> 450.	0.	2.	-1813.98	-11.1	305.	11.31	7.5	.089	10.87	.01	SI
673.	223.	2.	1706.34	-16.2	703.1	4.52	7.5	.206	14.92	.031	SI
896.	446.	2.	-3087.57	-25.6	861.4	6.79	7.5	.275	12.67	.035	SI
925.	475.	2.	-1494.54	-12.4	417.	6.79	7.5	.122	12.67	.015	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
26.	26.	2.	-915.19	-7.6	255.3	6.79	7.5	.075	12.67	.009	SI
225.	225.	2.	1617.92	-15.3	666.7	4.52	7.5	.195	14.92	.029	SI
450.	450.	2.	-1797.85	-11.	302.3	11.31	7.5	.088	10.87	.01	SI
> 450.	0.	2.	-1814.41	-11.1	305.1	11.31	7.5	.089	10.87	.01	SI
673.	223.	2.	1710.13	-16.2	704.7	4.52	7.5	.206	14.92	.031	SI
896.	446.	2.	-3080.03	-25.5	859.3	6.79	7.5	.274	12.67	.035	SI
925.	475.	2.	-1494.54	-12.4	417.	6.79	7.5	.122	12.67	.015	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
4	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
5	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR13  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omomein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

- 3) Rettangolare: base=20.; alt.=60.; Ac[s]=1200. .
- 4) Rettangolare: base=40.; alt.=25.; Ac[s]=1000. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1034	3	3	3	0	451.	391.
2	A1035	3	3	3	0	30.	0.
3	A1037	4	4	4	0	435.	405.
4	A1038	3	3	3	0	35.	5.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	Se	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-1972.6	-.102	.202	-18560.97	-1.92	10.	2.	.161	9.409	SI
0.	0.	3. 1.	922.84	-.048	.124	14018.63	-1.42	10.	2.	.124	15.19	SI
226.	226.	3. 3.	2266.65	-.14	.309	13941.51	-1.8	10.	2.	.152	6.151	SI
310.	310.	3. 4.	1872.14	-.107	.203	21217.93	-2.45	10.	2.	.197	11.33	SI
451.	451.	3. 5.	-2952.62	-.188	.394	-17229.79	-3.27	10.	2.	.247	5.835	SI
451.	451.	3. 5.	296.88	-.019	.043	16728.5	-2.09	10.	2.	.173	56.35	SI
> 481.	0.	4. 7.	-2041.76	-.339	.887	-4306.47	-1.92	10.	2.	.161	2.109	SI
561.	80.	4. 8.	164.33	-.027	.041	7473.51	-3.14	10.	2.	.239	45.48	SI
701.	220.	4. 8.	1108.92	-.188	.278	7473.51	-3.14	10.	2.	.239	6.739	SI
771.	290.	4. 9.	703.76	-.103	.175	7503.29	-2.61	10.	2.	.207	10.66	SI
916.	435.	4. 9.	-2257.27	-.334	.527	-7998.45	-2.76	10.	2.	.216	3.543	SI
> 916.	0.	3. 10	-4998.41	-.081	.274	-35940.65	-1.34	10.	2.	.118	7.19	SI
916.	0.	3. 10	387.53	-.002	-.021	56374.48	-.181	-11.4	4.	.018	145.5	SI
925.	9.	3. 10	1869.44	-.01	-.101	56374.48	-.181	-11.4	4.	.018	30.16	SI
951.	35.	3. 11	-3156.43	-.052	.172	-34610.66	-1.13	10.	2.	.102	10.97	SI
951.	35.	3. 11	1869.44	***	***	34825.33	0.	10.	2.	.2	18.63	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 3.	3257.	3414.	54273.	47282.	7955.	39328.	1.01	5.	SI
141.	141.	3. 3.	1307.	4430.	54273.	47282.	7955.	39328.	1.01	5.	SI
451.	451.	3. 3.	-3367.	3753.	54273.	47282.	7955.	39328.	1.01	5.	SI
> 451.	0.	3. 3.	3061.	4261.	54273.	0.	0.	0.	***	**	SI
> 481.	0.	4. 4.	3061.	4665.	41895.	21320.	6140.	15179.	1.01	5.	SI
841.	360.	4. 4.	-2258.	5686.	41895.	21320.	6140.	15179.	1.01	5.	SI
916.	435.	4. 4.	-2921.	4665.	41895.	21320.	6140.	15179.	1.01	5.	SI
> 916.	0.	3. 3.	19936.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
951.	35.	3. 3.	19395.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1405.9	-9.9	295.1	9.05	7.5	.086	11.54	.01	SI
30.	30.	3. 1.	-915.82	-6.4	192.2	9.05	7.5	.056	11.54	.006	SI
43.	43.	3. 1.	-657.22	-4.6	137.9	9.05	7.5	.04	11.54	.005	SI
226.	226.	3. 3.	1619.65	-13.4	451.9	6.79	7.5	.132	12.67	.017	SI
451.	451.	3. 5.	-1920.34	-16.4	523.8	6.79	7.5	.153	12.67	.019	SI
> 451.	0.	3. 6.	-2151.86	-22.4	457.6	5.65	7.5	.134	13.57	.018	SI
481.	30.	3. 6.	-1660.45	-17.3	353.1	5.65	7.5	.103	13.57	.014	SI
> 481.	0.	4. 7.	-1460.48	-32.8	1296.7	5.65	6.32	.38	17.28	.066	SI
701.	220.	4. 8.	792.71	-17.9	405.7	10.05	5.41	.119	13.34	.016	SI
916.	435.	4. 9.	-1609.26	-31.8	768.1	10.74	5.52	.237	11.93	.028	SI
> 916.	0.	3. 10	-3543.61	-7.8	398.	***	***	*****	*****	*****	SI
951.	35.	3. 11	1322.64	0.	142.	7.63	7.5	.042	13.15	.005	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1405.9	-9.9	295.1	9.05	7.5	.086	11.54	.01	SI
30.	30.	3. 1.	-915.82	-6.4	192.2	9.05	7.5	.056	11.54	.006	SI
43.	43.	3. 1.	-657.17	-4.6	138.	9.05	7.5	.04	11.54	.005	SI
226.	226.	3. 3.	1609.28	-13.3	449.	6.79	7.5	.131	12.67	.017	SI
451.	451.	3. 5.	-1918.61	-16.4	523.3	6.79	7.5	.153	12.67	.019	SI
> 451.	0.	3. 6.	-2126.56	-22.1	452.2	5.65	7.5	.132	13.57	.018	SI
481.	30.	3. 6.	-1689.	-17.6	359.2	5.65	7.5	.105	13.57	.014	SI
> 481.	0.	4. 7.	-1486.59	-33.4	1319.9	5.65	6.32	.386	17.28	.067	SI
701.	220.	4. 8.	799.91	-18.1	409.4	10.05	5.41	.12	13.34	.016	SI
916.	435.	4. 9.	-1571.78	-31.1	750.2	10.74	5.52	.228	11.93	.027	SI
> 916.	0.	3. 10	-3242.56	-7.1	364.2	***	***	*****	*****	*****	SI
951.	35.	3. 11	1180.2	0.	126.7	7.63	7.5	.037	13.15	.005	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1405.9	-9.9	295.1	9.05	7.5	.086	11.54	.01	SI
30.	30.	3. 1.	-915.82	-6.4	192.2	9.05	7.5	.056	11.54	.006	SI
43.	43.	3. 1.	-657.3	-4.6	138.	9.05	7.5	.04	11.54	.005	SI
226.	226.	3. 3.	1611.02	-13.4	449.5	6.79	7.5	.132	12.67	.017	SI
451.	451.	3. 5.	-1922.8	-16.4	524.5	6.79	7.5	.153	12.67	.019	SI
> 451.	0.	3. 6.	-2118.82	-22.	450.6	5.65	7.5	.132	13.57	.018	SI
481.	30.	3. 6.	-1694.82	-17.6	360.4	5.65	7.5	.105	13.57	.014	SI
> 481.	0.	4. 7.	-1491.71	-33.5	1324.4	5.65	6.32	.388	17.28	.067	SI
701.	220.	4. 8.	801.58	-18.1	410.3	10.05	5.41	.12	13.34	.016	SI
916.	435.	4. 9.	-1563.94	-30.9	746.5	10.74	5.52	.226	11.93	.027	SI
> 916.	0.	3. 10	-3168.41	-7.	355.9	***	***	*****	*****	*****	SI
951.	35.	3. 11	1144.85	0.	122.9	7.63	7.5	.036	13.15	.005	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	15.83	1.319	9.05	.754	2d12 +2d12 +4d12	6.79	.565	2d12 +4d12
2	13.57	1.131	6.79	.565	2d12 +4d12	6.79	.565	2d12 +4d12
3	11.31	.942	4.52	.377	4d12	6.79	.565	2d12 +4d12
4	19.23	1.602	6.79	.565	2d12 +4d12	12.44	1.037	2d12 +4d12 +5d12
5	16.96	1.414	6.79	.565	2d12 +4d12	10.18	.848	4d12 +5d12
6	20.23	1.686	20.23	1.686	4d12 +5d12 +5d16	0.	0.	
7	20.23	2.023	5.65	.565	5d12	14.58	1.458	4d12 +5d16
8	15.71	1.571	5.65	.565	5d12	10.05	1.005	5d16
9	20.8	2.08	10.74	1.074	2d18 +5d12	10.05	1.005	5d16
10	20.92	1.744	7.63	.636	3d18	13.29	1.107	5d12 +3d18
11	15.27	1.272	7.63	.636	3d18	7.63	.636	3d18

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR14  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=25.; AcIs=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1040	3	3	3	0	470.	450.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	3.	1.	-2285.42	-343.71	-6069.81	-2.26	10.	2.	.185	2.656	SI	
20.	20.	3.	1.	81.37	-.035	4403.46	-1.85	10.	2.	.156	54.12	SI	
157.	157.	3.	2.	2338.14	-.399	1.004	4408.41	-1.89	10.	2.	.159	1.885	SI
225.	225.	3.	2.	2613.06	-.448	1.123	4408.41	-1.89	10.	2.	.159	1.687	SI
470.	470.	3.	1.	-3264.48	-.498	1.016	-6069.81	-2.26	10.	2.	.185	1.859	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	3735.!	5296.!	62843.!	24390.!	9211.!	15179.!	1.01	5.	SI
430.	430.	3.	-3569.!	6884.!	62843.!	24390.!	9211.!	15179.!	1.01	5.	SI
470.	470.	3.	-4064.!	5296.!	62843.!	24390.!	9211.!	15179.!	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
10.	10.	3.	1.	-1406.97	-27.7	891.4	7.92	6.	.261	17.44	.046	SI
225.	225.	3.	2.	1866.66	-41.6	1635.!	5.65	6.31	.479	21.81	.104	SI
470.	470.	3.	1.	-2331.91	-45.9	1477.5	7.92	6.	.456	17.44	.08	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
10.	10.	3.	1.	-1406.93	-27.7	891.4	7.92	6.	.261	17.44	.046	SI
225.	225.	3.	2.	1868.8	-41.6	1636.9	5.65	6.31	.479	21.81	.105	SI
470.	470.	3.	1.	-2329.9	-45.8	1476.2	7.92	6.	.456	17.44	.079	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3.	1.	-1406.95	-27.7	891.4	7.92	6.	.261	17.44	.046
225.	225.	3.	2.	1869.32	-41.6	1637.3	5.65	6.31	.479	21.81	.105
470.	470.	3.	1.	-2331.2	-45.9	1477.	7.92	6.	.456	17.44	.08

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	13.57	.905	7.92	.528	2d12	5.65	.377	5d12
2	11.31	.754	5.65	.377	5d12	5.65	.377	5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR15  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; AcIs=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1043	3	3	3	0	30.	0.
2	A1044	3	3	3	0	430.	370.
3	A1045	3	3	3	0	30.	0.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 30.	30.	3.	1.	-192.94	-.013	.039	-9366.57	-1.38	10.	2.	.121	48.55
30.	30.	3.	1.	525.19	-.037	.106	9366.57	-1.38	10.	2.	.121	17.84
> 30.	0.	3.	2.	-2077.55	-.1	.211	-18621.14	-1.71	10.	2.	.146	8.963
30.	0.	3.	2.	515.31	-.025	.052	18621.14	-1.71	10.	2.	.146	36.14
131.	101.	3.	3.	-587.96	-.033	.061	-18441.	-2.22	10.	2.	.182	31.36
131.	101.	3.	3.	1483.07	-.087	.294	9383.26	-1.12	10.	2.	.101	6.327
222.	192.	3.	1.	1797.07	-.126	.361	9366.57	-1.38	10.	2.	.121	5.212
404.	374.	3.	5.	1181.17	-.056	.12	18621.14	-1.71	10.	2.	.146	15.77
460.	430.	3.	5.	-2181.76	-.105	.221	-18621.14	-1.71	10.	2.	.146	8.535
460.	430.	3.	5.	522.05	-.025	.053	18621.14	-1.71	10.	2.	.146	35.67
> 460.	0.	3.	1.	-297.71	-.021	.06	-9366.57	-1.38	10.	2.	.121	31.46

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3.	-2789.	3414.	54273.	0.	0.	0.	***	**
0.	0.	3.	518.	3414.	54273.	0.	0.	0.	***	**
30.	30.	3.	-3010.	3414.	54273.	0.	0.	0.	***	**
30.	30.	3.	297.	3414.	54273.	0.	0.	0.	***	**
> 30.	0.	3.	3318.	4091.	54273.	27619.	7955.	19664.	1.01	10.
460.	430.	3.	-2876.	4091.	54273.	27619.	7955.	19664.	1.01	10.
> 460.	0.	3.	2389.	3414.	54273.	0.	0.	0.	***	**
490.	30.	3.	2389.	3414.	54273.	0.	0.	0.	***	**

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 30.	30.	3.	97.2 !	- .9!	40.1!	4.52	7.5	.012	14.92	.002	SI
> 30.	0.	3.	-1278.02!	-8.4!	266.1!	9.05	7.5	.078	11.54	.009	SI
43.	13.	3.	-1011.2	-6.6!	210.6!	9.05	7.5	.062	11.54	.007	SI
56.	26.	3.	-820.08	-5.4!	170.8!	9.05	7.5	.05	11.54	.006	SI
60.	30.	3.	-820.08	-5.4!	170.8!	9.05	7.5	.05	11.54	.006	SI
222.	192.	3.	1285.04!	-12.2!	529.5!	4.52	7.5	.155	14.92	.023	SI
460.	430.	3.	-1278.02!	-8.4!	266.1!	9.05	7.5	.078	11.54	.009	SI
> 460.	0.	3.	-209.69!	-2. !	86.4!	4.52	7.5	.025	14.92	.004	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 30.	30.	3.	131.02!	-1.2!	54. !	4.52	7.5	.016	14.92	.002	SI
> 30.	0.	3.	-1278.02!	-8.4!	266.1!	9.05	7.5	.078	11.54	.009	SI
43.	13.	3.	-1011.2	-6.6!	210.6!	9.05	7.5	.062	11.54	.007	SI
56.	26.	3.	-820.08	-5.4!	170.8!	9.05	7.5	.05	11.54	.006	SI
60.	30.	3.	-820.08	-5.4!	170.8!	9.05	7.5	.05	11.54	.006	SI
222.	192.	3.	1286.87!	-12.2!	530.3!	4.52	7.5	.155	14.92	.023	SI
460.	430.	3.	-1278.02!	-8.4!	266.1!	9.05	7.5	.078	11.54	.009	SI
> 460.	0.	3.	-185.02!	-1.8!	76.2!	4.52	7.5	.022	14.92	.003	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 30.	30.	3.	139.25!	-1.3!	57.4!	4.52	7.5	.017	14.92	.003	SI
> 30.	0.	3.	-1278.02!	-8.4!	266.1!	9.05	7.5	.078	11.54	.009	SI
43.	13.	3.	-1011.2	-6.6!	210.6!	9.05	7.5	.062	11.54	.007	SI
56.	26.	3.	-820.08	-5.4!	170.8!	9.05	7.5	.05	11.54	.006	SI
60.	30.	3.	-820.08	-5.4!	170.8!	9.05	7.5	.05	11.54	.006	SI
222.	192.	3.	1291.4 !	-12.2!	532.2!	4.52	7.5	.156	14.92	.023	SI
460.	430.	3.	-1278.02!	-8.4!	266.1!	9.05	7.5	.078	11.54	.009	SI
> 460.	0.	3.	-178.69!	-1.7!	73.6!	4.52	7.5	.022	14.92	.003	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	9.05	.754	4.52	.377	4d12
2	18.1	1.508	9.05	.754	2d12 +2d12 +4d12
3	13.57	1.131	9.05	.754	2d12 +2d12 +4d12
4	13.57	1.131	9.05	.754	2d12 +4d12 +2d12
5	18.1	1.508	9.05	.754	2d12 +4d12 +2d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR16  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Ac1s=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1041	2	2	2	0	165.	125.
2	A1039	2	2	2	0	370.	330.

CASI DI CARICO DA MODELLO 3D

SLU		RARE		QUASI PERMANENTI	
Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.
4.	SLU SISMAX PRINC	16			
5.	SLU SISMAX PRINC	16			

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	2. 1.	-809.02	-.05	.11	-13941.51	-1.8	10.	2.	.152	17.23	SI
0.	0.	2. 1.	680.23	-.043	.136	9379.17	-1.23	10.	2.	.109	13.79	SI
83.	83.	2. 2.	-1759.96	-.124	.354	-9366.57	-1.38	10.	2.	.121	5.322	SI
113.	113.	2. 3.	943.06	-.042	.095	18653.97	-1.56	10.	2.	.135	19.78	SI
165.	165.	2. 3.	-3508.02	-.159	.287	-23188.01	-2.01	10.	2.	.167	6.61	SI
165.	165.	2. 3.	763.94	-.034	.077	18653.97	-1.56	10.	2.	.135	24.42	SI
> 165.	0.	2. 3.	-3652.25	-.166	.299	-23188.01	-2.01	10.	2.	.167	6.349	SI
165.	0.	2. 3.	1067.03	-.047	.108	18653.97	-1.56	10.	2.	.135	17.48	SI
262.	97.	2. 4.	-851.34	-.045	.071	-22762.36	-2.82	10.	2.	.22	26.74	SI
262.	97.	2. 4.	3429.93	-.188	.679	9383.96	-1.05	10.	2.	.095	2.736	SI
345.	180.	2. 2.	4030.79	-.287	.811	9366.57	-1.38	10.	2.	.121	2.324	SI
522.	357.	2. 1.	326.91	-.021	.065	9379.17	-1.23	10.	2.	.109	28.69	SI
535.	370.	2. 1.	-4094.99	-.255	.558	-13941.51	-1.8	10.	2.	.152	3.405	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	-518.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
0.	0.	2.	2987.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
165.	165.	2.	-4302.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 165.	0.	2.	7578.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
535.	370.	2.	-7533.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
12.	12.	2. 1.	-398.24	-3.3	111.1	6.79	7.5	.033	12.67	.004	SI
54.	54.	2. 2.	655.75	-6.2	270.2	4.52	7.5	.079	14.92	.012	SI
165.	165.	2. 3.	-1728.28	-10.6	290.6	11.31	7.5	.085	10.87	.009	SI
> 165.	0.	2. 3.	-2530.07	-15.5	425.4	11.31	7.5	.125	10.87	.014	SI
345.	180.	2. 2.	2848.28	-27.	1173.7	4.52	7.5	.371	14.92	.055	SI
535.	370.	2. 1.	-2890.9	-24.	806.6	6.79	7.5	.248	12.67	.031	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
12.	12.	2. 1.	-350.01	-2.9	97.7	6.79	7.5	.029	12.67	.004	SI
54.	54.	2. 2.	572.95	-5.4	236.1	4.52	7.5	.069	14.92	.01	SI
165.	165.	2. 3.	-1534.44	-9.4	258.	11.31	7.5	.076	10.87	.008	SI
> 165.	0.	2. 3.	-2209.66	-13.6	371.5	11.31	7.5	.109	10.87	.012	SI
345.	180.	2. 2.	2479.33	-23.5	1021.7	4.52	7.5	.299	14.92	.045	SI
535.	370.	2. 1.	-2489.8	-20.6	694.6	6.79	7.5	.203	12.67	.026	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
12.	12.	2. 1.	-337.93	-2.8	94.3	6.79	7.5	.028	12.67	.003	SI
54.	54.	2. 2.	552.16	-5.2	227.5	4.52	7.5	.067	14.92	.01	SI
165.	165.	2. 3.	-1485.72	-9.1	249.8	11.31	7.5	.073	10.87	.008	SI
> 165.	0.	2. 3.	-2130.44	-13.1	358.2	11.31	7.5	.105	10.87	.011	SI
345.	180.	2. 2.	2393.59	-22.7	986.4	4.52	7.5	.289	14.92	.043	SI
535.	370.	2. 1.	-2390.11	-19.8	666.8	6.79	7.5	.195	12.67	.025	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
4	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR17  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FE844k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.



TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).

CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7

ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15

FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;

c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acls=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1115	3	3	3	0	50.	20.
2	A1116	3	3	3	0	305.	245.
3	A1118	3	3	3	0	375.	315.
4	A1122	3	3	3	0	30.	0.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	VE
19.	19.	3. 1.	330.48	-.016	.034	18621.14	-1.71	10.	2.	.146	56.35	SI
26.	26.	3. 1.	321.72	-.015	.033	18621.14	-1.71	10.	2.	.146	57.88	SI
50.	50.	3. 1.	-1446.68	-.069	.147	-18621.14	-1.71	10.	2.	.146	12.87	SI
> 50.	0.	3. 1.	-1654.64	-.079	.168	-18621.14	-1.71	10.	2.	.146	11.25	SI
50.	0.	3. 1.	454.13	-.022	.046	18621.14	-1.71	10.	2.	.146	41.	SI
143.	93.	3. 2.	-1012.43	-.057	.105	-18441.	-2.22	10.	2.	.182	18.22	SI
143.	93.	3. 2.	388.37	-.023	.077	9383.26	-1.12	10.	2.	.101	24.16	SI
262.	212.	3. 4.	-425.39	-.024	.044	-18441.	-2.22	10.	2.	.182	43.35	SI
301.	251.	3. 5.	676.6	-.03	.068	18653.97	-1.56	10.	2.	.135	27.57	SI
330.	280.	3. 5.	794.91	-.035	.08	18653.97	-1.56	10.	2.	.135	23.47	SI
355.	305.	3. 5.	-852.33	-.038	.07	-23188.01	-2.01	10.	2.	.167	27.21	SI
355.	305.	3. 5.	794.91	-.035	.08	18653.97	-1.56	10.	2.	.135	23.47	SI
> 355.	0.	3. 5.	-922.46	-.041	.076	-23188.01	-2.01	10.	2.	.167	25.14	SI
355.	0.	3. 5.	716.67	-.032	.072	18653.97	-1.56	10.	2.	.135	26.03	SI
455.	100.	3. 6.	-398.79	-.021	.033	-22762.36	-2.82	10.	2.	.22	57.08	SI
455.	100.	3. 6.	565.5	-.031	.112	9383.96	-1.05	10.	2.	.095	16.59	SI
499.	144.	3. 3.	-85.83	-.006	.017	-9366.57	-1.38	10.	2.	.121	109.1	SI
730.	375.	3. 8.	-1470.57	-.07	.149	-18621.14	-1.71	10.	2.	.146	12.66	SI
730.	375.	3. 8.	685.87	-.033	.07	18621.14	-1.71	10.	2.	.146	27.15	SI
> 730.	0.	3. 3.	-299.9	-.021	.06	-9366.57	-1.38	10.	2.	.121	31.23	SI
730.	0.	3. 3.	7.7	-.001	.002	9366.57	-1.38	10.	2.	.121	1217.	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Ar	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3.	-3365.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
50.	50.	3.	-3449.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 50.	0.	3.	-65.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
50.	0.	3.	1319.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
355.	305.	3.	-845.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
355.	305.	3.	349.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 355.	0.	3.	-169.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
355.	0.	3.	1037.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
730.	375.	3.	-1113.	3753.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 730.	0.	3.	2975.	3414.	54273.	0.	0.	0.	***	**	SI
760.	30.	3.	2890.	3414.	54273.	0.	0.	0.	***	**	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 19.	19.	3. 1.	-584.43	-3.8	121.7	9.05	7.5	.036	11.54	.004	SI
24.	24.	3. 1.	-686.01	-4.5	142.9	9.05	7.5	.042	11.54	.005	SI
26.	26.	3. 1.	-733.39	-4.8	152.7	9.05	7.5	.045	11.54	.005	SI
50.	50.	3. 1.	-963.12	-6.3	200.6	9.05	7.5	.059	11.54	.007	SI
> 50.	0.	3. 1.	-700.23	-4.6	145.8	9.05	7.5	.043	11.54	.005	SI
222.	172.	3. 3.	194.78	-1.8	80.3	4.52	7.5	.023	14.92	.004	SI
355.	305.	3. 5.	-192.35	-1.2	32.3	11.31	7.5	.009	10.87	.001	SI
> 355.	0.	3. 5.	-258.	-1.6	43.4	11.31	7.5	.013	10.87	.001	SI
499.	144.	3. 3.	258.65	-2.5	106.6	4.52	7.5	.031	14.92	.005	SI
730.	375.	3. 8.	-456.23	-3.	95.	9.05	7.5	.028	11.54	.003	SI
> 730.	0.	3. 3.	-400.66	-3.8	165.1	4.52	7.5	.048	14.92	.007	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 19.	19.	3. 1.	-496. !	-3.2	103.3	9.05	7.5	.03	11.54	.003	SI
24.	24.	3. 1.	-583.06	-3.8	121.4	9.05	7.5	.036	11.54	.004	SI
26.	26.	3. 1.	-623.69	-4.1	129.9	9.05	7.5	.038	11.54	.004	SI
50.	50.	3. 1.	-820.65!	-5.4!	170.9!	9.05	7.5	.05	11.54	.006!	SI
> 50.	0.	3. 1.	-607.4 !	-4. !	126.5!	9.05	7.5	.037	11.54	.004!	SI
222.	172.	3. 3.	192.88!	-1.8!	79.5!	4.52	7.5	.023	14.92	.003!	SI
355.	305.	3. 5.	-192.35	-1.2	32.3	11.31	7.5	.009	10.87	.001	SI
> 355.	0.	3. 5.	-258.	-1.6	43.4	11.31	7.5	.013	10.87	.001	SI
542.	188.	3. 3.	258.64!	-2.5!	106.6!	4.52	7.5	.031	14.92	.005!	SI
730.	375.	3. 8.	-396.59!	-2.6!	82.6!	9.05	7.5	.024	11.54	.003!	SI
> 730.	0.	3. 3.	-334.39!	-3.2!	137.8!	4.52	7.5	.04	14.92	.006!	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 19.	19.	3. 1.	-474.91!	-3.1	98.9	9.05	7.5	.029	11.54	.003	SI
24.	24.	3. 1.	-558.37	-3.6	116.3	9.05	7.5	.034	11.54	.004	SI
26.	26.	3. 1.	-597.32	-3.9	124.4	9.05	7.5	.036	11.54	.004	SI
50.	50.	3. 1.	-786.16!	-5.1!	163.7!	9.05	7.5	.048	11.54	.006!	SI
> 50.	0.	3. 1.	-589.08!	-3.8!	122.7!	9.05	7.5	.036	11.54	.004!	SI
222.	172.	3. 3.	195.07!	-1.8!	80.4!	4.52	7.5	.024	14.92	.004	SI
355.	305.	3. 5.	-192.35	-1.2	32.3	11.31	7.5	.009	10.87	.001	SI
> 355.	0.	3. 5.	-258.	-1.6	43.4	11.31	7.5	.013	10.87	.001	SI
542.	188.	3. 3.	260.76!	-2.5!	107.5!	4.52	7.5	.031	14.92	.005!	SI
730.	375.	3. 8.	-374.91!	-2.5!	78.1!	9.05	7.5	.023	11.54	.003!	SI
> 730.	0.	3. 3.	-317.99!	-3. !	131. !	4.52	7.5	.038	14.92	.006!	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	18.1	1.508	9.05	.754	2d12 +2d12 +4d12	9.05	.754	4d12 +4d12
2	13.57	1.131	9.05	.754	2d12 +2d12 +4d12	4.52	.377	4d12
3	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
4	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
5	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
6	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
7	13.57	1.131	9.05	.754	2d12 +4d12 +2d12	4.52	.377	4d12
8	18.1	1.508	9.05	.754	2d12 +4d12 +2d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR18  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010. ; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=25.; Acls=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	s.ini	Sez.	s.fin	Incl.	L.assi	L.netta
1	A1117	3	3	3	0	565.	545.
2	A1119	3	3	3	0	387.	367.

CASI DI CARICO DA MODELLO 3D

SLU		RARE		QUASI PERMANENTI				
Nome	Descrizione	Sest	Nome	Descrizione	Sest			
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-1068.11	-.158	.331	-6069.81	-2.26	10.	2.	.185	5.683	SI
160.	160.	3. 2.	937.74	-.156	.402	4408.41	-1.89	10.	2.	.159	4.701	SI
265.	265.	3. 2.	1224.55	-.205	.525	4408.41	-1.89	10.	2.	.159	3.6	SI
440.	440.	3. 4.	-29.87	-.004	.006	-10104.22	-3.25	10.	2.	.245	338.3	SI
440.	440.	3. 4.	578.43	-.084	.248	4394.88	-1.78	10.	2.	.151	7.598	SI
565.	565.	3. 5.	-1284.97	-.141	.236	-10157.43	-2.71	10.	2.	.213	7.905	SI
> 565.	0.	3. 5.	-1080.11	-.118	.199	-10157.43	-2.71	10.	2.	.213	9.404	SI
618.	53.	3. 4.	-680.41	-.083	.126	-10104.22	-3.25	10.	2.	.245	14.85	SI
618.	53.	3. 4.	139.33	-.02	.06	4394.88	-1.78	10.	2.	.151	31.54	SI
716.	151.	3. 2.	-2.01	0.	.001	-4408.41	-1.89	10.	2.	.159	2191.	SI
716.	151.	3. 2.	417.6	-.069	.179	4408.41	-1.89	10.	2.	.159	10.56	SI
814.	249.	3. 2.	575.15	-.095	.246	4408.41	-1.89	10.	2.	.159	7.665	SI
952.	387.	3. 1.	-677.7	-.099	.21	-6069.81	-2.26	10.	2.	.185	8.956	SI
952.	387.	3. 1.	271.24	-.043	.116	4403.46	-1.85	10.	2.	.156	16.23	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	1478.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI
565.	565.	3. 1.	-1530.	8019.	62843.	24390.	9211.	15179.	1.01	5.	SI
> 565.	0.	3. 1.	1156.	8019.	62843.	24390.	9211.	15179.	1.01	5.	SI
952.	387.	3. 1.	-871.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3. 1.	-672.04	-13.2	425.8	7.92	6.	.125	17.44	.022	SI
55.	55.	3. 1.	-263.78	-5.2	167.1	7.92	6.	.049	17.44	.009	SI
265.	265.	3. 2.	873.93	-19.5	765.5	5.65	6.31	.224	21.81	.049	SI
565.	565.	3. 5.	-918.65	-13.6	345.8	13.57	5.61	.101	13.22	.013	SI
> 565.	0.	3. 5.	-771.45	-11.4	290.4	13.57	5.61	.085	13.22	.011	SI
781.	216.	3. 2.	413.94	-9.2	362.6	5.65	6.31	.106	21.81	.023	SI
952.	387.	3. 1.	-358.57	-7.1	227.2	7.92	6.	.066	17.44	.012	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3. 1.	-672.2	-13.2	425.9	7.92	6.	.125	17.44	.022	SI
55.	55.	3. 1.	-264.68	-5.2	167.7	7.92	6.	.049	17.44	.009	SI
265.	265.	3. 2.	874.13	-19.5	765.6	5.65	6.31	.224	21.81	.049	SI
565.	565.	3. 5.	-927.84	-13.7	349.2	13.57	5.61	.102	13.22	.014	SI
> 565.	0.	3. 5.	-764.26	-11.3	287.7	13.57	5.61	.084	13.22	.011	SI
781.	216.	3. 2.	412.78	-9.2	361.6	5.65	6.31	.106	21.81	.023	SI
952.	387.	3. 1.	-358.57	-7.1	227.2	7.92	6.	.066	17.44	.012	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3. 1.	-672.24	-13.2	425.9	7.92	6.	.125	17.44	.022	SI
55.	55.	3. 1.	-264.91	-5.2	167.8	7.92	6.	.049	17.44	.009	SI
265.	265.	3. 2.	871.99	-19.4	763.8	5.65	6.31	.224	21.81	.049	SI
565.	565.	3. 5.	-930.12	-13.8	350.1	13.57	5.61	.102	13.22	.014	SI
> 565.	0.	3. 5.	-763.86	-11.3	287.5	13.57	5.61	.084	13.22	.011	SI
781.	216.	3. 2.	408.93	-9.1	358.2	5.65	6.31	.105	21.81	.023	SI
952.	387.	3. 1.	-358.57	-7.1	227.2	7.92	6.	.066	17.44	.012	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	13.57	.905	7.92	.528	2d12 +5d12	5.65	.377	5d12
2	11.31	.754	5.65	.377	5d12	5.65	.377	5d12
3	16.96	1.131	11.31	.754	5d12 +5d12	5.65	.377	5d12
4	19.23	1.282	13.57	.905	2d12 +5d12 +5d12	5.65	.377	5d12
5	24.88	1.659	13.57	.905	2d12 +5d12 +5d12	11.31	.754	5d12 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR18  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).

CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7

ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15

FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=25.; Acl=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1117	3	3	3	0	565.	545.
2	A1119	3	3	3	0	387.	367.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-1068.11	-.158	.331	-6069.81	-2.26	10.	2.	.185	5.683	SI
160.	160.	3. 2.	937.74	-.156	.402	4408.41	-1.89	10.	2.	.159	4.701	SI
265.	265.	3. 2.	1224.55	-.205	.525	4408.41	-1.89	10.	2.	.159	3.6	SI
440.	440.	3. 4.	-29.87	-.004	.006	-10104.22	-3.25	10.	2.	.245	338.3	SI
440.	440.	3. 4.	578.43	-.084	.248	4394.88	-1.78	10.	2.	.151	7.598	SI
565.	565.	3. 5.	-1284.97	-.141	.236	-10157.43	-2.71	10.	2.	.213	7.905	SI
> 565.	0.	3. 5.	-1080.11	-.118	.199	-10157.43	-2.71	10.	2.	.213	9.404	SI
618.	53.	3. 4.	-680.41	-.083	.126	-10104.22	-3.25	10.	2.	.245	14.85	SI
618.	53.	3. 4.	139.33	-.02	.06	4394.88	-1.78	10.	2.	.151	31.54	SI
716.	151.	3. 2.	-2.01	0.	.001	-4408.41	-1.89	10.	2.	.159	2191.	SI
716.	151.	3. 2.	417.6	-.069	.179	4408.41	-1.89	10.	2.	.159	10.56	SI
814.	249.	3. 2.	575.15	-.095	.246	4408.41	-1.89	10.	2.	.159	7.665	SI
952.	387.	3. 1.	-677.7	-.099	.21	-6069.81	-2.26	10.	2.	.185	8.956	SI
952.	387.	3. 1.	271.24	-.043	.116	4403.46	-1.85	10.	2.	.156	16.23	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3. 1.	1478.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI
565.	565.	3. 1.	-1530.	8019.	62843.	24390.	9211.	15179.	1.01	5.	SI
> 565.	0.	3. 1.	1156.	8019.	62843.	24390.	9211.	15179.	1.01	5.	SI
952.	387.	3. 1.	-871.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3. 1.	-672.04	-13.2	425.8	7.92	6.	.125	17.44	.022	SI
55.	55.	3. 1.	-263.78	-5.2	167.7	7.92	6.	.049	17.44	.009	SI
265.	265.	3. 2.	873.93	-19.5	765.5	5.65	6.31	.224	21.81	.049	SI
565.	565.	3. 5.	-918.65	-13.6	345.8	13.57	5.61	.101	13.22	.013	SI
> 565.	0.	3. 5.	-771.45	-11.4	290.4	13.57	5.61	.085	13.22	.011	SI
781.	216.	3. 2.	413.94	-9.2	362.6	5.65	6.31	.106	21.81	.023	SI
952.	387.	3. 1.	-358.57	-7.1	227.2	7.92	6.	.066	17.44	.012	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3. 1.	-672.2	-13.2	425.9	7.92	6.	.125	17.44	.022	SI
55.	55.	3. 1.	-264.68	-5.2	167.7	7.92	6.	.049	17.44	.009	SI
265.	265.	3. 2.	874.13	-19.5	765.6	5.65	6.31	.224	21.81	.049	SI
565.	565.	3. 5.	-927.84	-13.7	349.2	13.57	5.61	.102	13.22	.014	SI
> 565.	0.	3. 5.	-764.26	-11.3	287.7	13.57	5.61	.084	13.22	.011	SI
781.	216.	3. 2.	412.78	-9.2	361.6	5.65	6.31	.106	21.81	.023	SI
952.	387.	3. 1.	-358.57	-7.1	227.2	7.92	6.	.066	17.44	.012	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
10.	10.	3. 1.	-672.24	-13.2	425.9	7.92	6.	.125	17.44	.022	SI
55.	55.	3. 1.	-264.91	-5.2	167.8	7.92	6.	.049	17.44	.009	SI
265.	265.	3. 2.	871.99	-19.4	763.8	5.65	6.31	.224	21.81	.049	SI
565.	565.	3. 5.	-930.12	-13.8	350.1	13.57	5.61	.102	13.22	.014	SI
> 565.	0.	3. 5.	-763.86	-11.3	287.5	13.57	5.61	.084	13.22	.011	SI
781.	216.	3. 2.	408.93	-9.1	358.2	5.65	6.31	.105	21.81	.023	SI
952.	387.	3. 1.	-358.57	-7.1	227.2	7.92	6.	.066	17.44	.012	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	13.57	.905	7.92	.528	2d12 +5d12	5.65	.377	5d12
2	11.31	.754	5.65	.377	5d12	5.65	.377	5d12
3	16.96	1.131	11.31	.754	5d12 +5d12	5.65	.377	5d12
4	19.23	1.282	13.57	.905	2d12 +5d12 +5d12	5.65	.377	5d12
5	24.88	1.659	13.57	.905	2d12 +5d12 +5d12	11.31	.754	5d12 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR19  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=149.4;  $\sigma$  (quasi permanente)=112. ; fbd(esesercizio)= 25.7  
 ACCIAIO:  $\sigma$  f (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Ac1s=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1085	3	3	3	0	30.	0.
2	A1230	3	3	3	0	350.	290.
3	A1129	3	3	3	0	610.	550.
4	A1125	3	3	3	0	342.	282.
5	A1124	3	3	3	0	30.	0.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epscl	Epsac	Mrd	Epscl	Epsac	Cam	x/d	Mr/Ms	VE
> 30.	30.	3. 1.	-130.89	-.009	.026	-9366.57	-1.38	10.	2.	.121	71.56	SI
> 30.	30.	3. 1.	4.35	0.	.001	9366.57	-1.38	10.	2.	.121	2154.	SI
> 30.	0.	3. 2.	-2331.14	-.112	.237	-18621.14	-1.71	10.	2.	.146	7.988	SI
> 30.	0.	3. 2.	1334.12	-.064	.135	18621.14	-1.71	10.	2.	.146	13.96	SI
165.	135.	3. 1.	2363.6	-.167	.475	9366.57	-1.38	10.	2.	.121	3.963	SI
285.	255.	3. 4.	-2842.36	-.151	.238	-22762.36	-2.82	10.	2.	.22	8.008	SI
285.	255.	3. 4.	1704.07	-.093	.337	9383.96	-1.05	10.	2.	.095	5.507	SI
324.	294.	3. 5.	1255.77	-.056	.127	18653.97	-1.56	10.	2.	.135	14.86	SI
380.	350.	3. 5.	-5791.23	-.265	.475	-23188.01	-2.01	10.	2.	.167	4.004	SI
380.	350.	3. 5.	221.6	-.01	.022	18653.97	-1.56	10.	2.	.135	84.18	SI
> 380.	0.	3. 5.	-8615.01	-.398	.707	-23188.01	-2.01	10.	2.	.167	2.692	SI
468.	88.	3. 4.	-4026.27	-.215	.337	-22762.36	-2.82	10.	2.	.22	5.653	SI
468.	88.	3. 4.	403.03	-.022	.08	9383.96	-1.05	10.	2.	.095	23.28	SI
665.	285.	3. 1.	7170.24	-.522	1.445	9366.57	-1.38	10.	2.	.121	1.306	SI
853.	473.	3. 4.	-85.81	-.004	.007	-22762.36	-2.82	10.	2.	.22	265.3	SI
990.	610.	3. 5.	-7552.48	-.347	.619	-23188.01	-2.01	10.	2.	.167	3.07	SI
> 990.	0.	3. 5.	-4290.81	-.195	.352	-23188.01	-2.01	10.	2.	.167	5.404	SI
1084.	94.	3. 4.	-3234.32	-.172	.271	-22762.36	-2.82	10.	2.	.22	7.038	SI
1123.	133.	3. 1.	-2543.	-.18	.511	-9366.57	-1.38	10.	2.	.121	3.683	SI
1199.	209.	3. 1.	106.66	-.007	.021	9366.57	-1.38	10.	2.	.121	87.82	SI
1238.	248.	3. 7.	563.76	-.033	.112	9383.26	-1.12	10.	2.	.101	16.64	SI
1276.	286.	3. 8.	983.31	-.047	.1	18621.14	-1.71	10.	2.	.146	18.94	SI
1306.	316.	3. 8.	1281.64	-.061	.13	18621.14	-1.71	10.	2.	.146	14.53	SI
1332.	342.	3. 8.	-928.98	-.044	.094	-18621.14	-1.71	10.	2.	.146	20.05	SI
1332.	342.	3. 8.	1281.64	-.061	.13	18621.14	-1.71	10.	2.	.146	14.53	SI
>1332.	0.	3. 1.	-226.8	-.016	.046	-9366.57	-1.38	10.	2.	.121	41.3	SI
1332.	0.	3. 1.	55.03	-.004	.011	9366.57	-1.38	10.	2.	.121	170.2	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	vrd3	vcd	vwd	Asw	s	Ve	
> 0.	0.	3.	-990.	3414.	54273.	0.	0.	0.	***	**	SI
> 30.	30.	3.	-990.	3414.	54273.	0.	0.	0.	***	**	SI
> 30.	0.	3.	4502.	3753.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 380.	350.	3.	-6016.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 380.	0.	3.	9322.	5107.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 990.	610.	3.	-8821.	5107.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 990.	0.	3.	2036.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
1332.	342.	3.	-166.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
1332.	342.	3.	930.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
>1332.	0.	3.	2619.	3414.	54273.	0.	0.	0.	***	**	SI
1362.	30.	3.	2534.	3414.	54273.	0.	0.	0.	***	**	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 30.	30.	3.	1.	-175.64	-1.7	72.4	4.52	7.5	.021	14.92	.003	SI
> 30.	0.	3.	2.	-1639.99	-10.7	341.5	9.05	7.5	.1	11.54	.012	SI
> 43.	13.	3.	2.	-1331.94	-8.7	277.4	9.05	7.5	.081	11.54	.009	SI
> 56.	26.	3.	2.	-1023.89	-6.7	213.2	9.05	7.5	.062	11.54	.007	SI
> 56.	26.	3.	2.	172.93	-1.1	36.	9.05	7.5	.011	11.54	.001	SI
> 165.	135.	3.	1.	1661.76	-15.8	684.8	4.52	7.5	.2	14.92	.03	SI
> 380.	350.	3.	5.	-4096.98	-25.2	688.8	11.31	7.5	.235	10.87	.026	SI
> 380.	0.	3.	5.	-6068.82	-37.3	1020.4	11.31	7.5	.397	10.87	.043	SI
> 665.	285.	3.	1.	5054.72	-47.9	2083.	4.52	7.5	.814	14.92	.122	SI
> 990.	610.	3.	5.	-5320.77	-32.7	894.6	11.31	7.5	.336	10.87	.036	SI
> 990.	0.	3.	5.	-3045.3	-18.7	512.	11.31	7.5	.15	10.87	.016	SI
> 1123.	133.	3.	1.	-1652.11	-15.7	680.8	4.52	7.5	.199	14.92	.03	SI
> 1289.	299.	3.	8.	226.34	-1.5	47.1	9.05	7.5	.014	11.54	.002	SI
> 1332.	342.	3.	8.	-224.3	-1.5	46.7	9.05	7.5	.014	11.54	.002	SI
> 1332.	342.	3.	8.	210.66	-1.4	43.9	9.05	7.5	.013	11.54	.001	SI
>1332.	0.	3.	1.	-312.47	-3.	128.8	4.52	7.5	.038	14.92	.006	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 30.	30.	3.	1.	-166.77	-1.6	68.7	4.52	7.5	.02	14.92	.003	SI
> 30.	0.	3.	2.	-1358.75	-8.9	282.9	9.05	7.5	.083	11.54	.01	SI
> 43.	13.	3.	2.	-1105.07	-7.2	230.1	9.05	7.5	.067	11.54	.008	SI
> 56.	26.	3.	2.	-851.38	-5.6	177.3	9.05	7.5	.052	11.54	.006	SI
> 56.	26.	3.	2.	137.38	-.9	28.6	9.05	7.5	.008	11.54	.001	SI
> 165.	135.	3.	1.	1364.09	-12.9	562.1	4.52	7.5	.165	14.92	.025	SI
> 380.	350.	3.	5.	-3434.57	-21.1	577.5	11.31	7.5	.181	10.87	.02	SI
> 380.	0.	3.	5.	-5115.03	-31.4	860.	11.31	7.5	.319	10.87	.035	SI
> 665.	285.	3.	1.	4305.96	-40.8	1774.4	4.52	7.5	.664	14.92	.099	SI
> 990.	610.	3.	5.	-4495.71	-27.6	755.9	11.31	7.5	.268	10.87	.029	SI
> 990.	0.	3.	5.	-2603.36	-16.	437.7	11.31	7.5	.128	10.87	.014	SI
> 1123.	133.	3.	1.	-1369.01	-13.	564.1	4.52	7.5	.165	14.92	.025	SI
> 1276.	286.	3.	8.	224.66	-1.5	46.8	9.05	7.5	.014	11.54	.002	SI
> 1332.	342.	3.	8.	-224.3	-1.5	46.7	9.05	7.5	.014	11.54	.002	SI
> 1332.	342.	3.	8.	161.98	-1.1	33.7	9.05	7.5	.01	11.54	.001	SI
>1332.	0.	3.	1.	-259.4	-2.5	106.9	4.52	7.5	.031	14.92	.005	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 30.	30.	3.	1.	-164.44	-1.6	67.8	4.52	7.5	.02	14.92	.003	SI
> 30.	0.	3.	2.	-1288.44	-8.4	268.3	9.05	7.5	.079	11.54	.009	SI
> 43.	13.	3.	2.	-1048.26	-6.9	218.3	9.05	7.5	.064	11.54	.007	SI
> 56.	26.	3.	2.	-808.09	-5.3	168.3	9.05	7.5	.049	11.54	.006	SI
> 56.	26.	3.	2.	128.14	-.8	26.7	9.05	7.5	.008	11.54	.001	SI
> 165.	135.	3.	1.	1289.92	-12.2	531.6	4.52	7.5	.156	14.92	.023	SI
> 380.	350.	3.	5.	-3266.75	-20.1	549.3	11.31	7.5	.167	10.87	.018	SI
> 380.	0.	3.	5.	-4878.83	-30.	820.3	11.31	7.5	.3	10.87	.033	SI
> 665.	285.	3.	1.	4118.63	-39.1	1697.2	4.52	7.5	.626	14.92	.093	SI
> 990.	610.	3.	5.	-4288.38	-26.3	721.	11.31	7.5	.251	10.87	.027	SI
> 990.	0.	3.	5.	-2496.63	-15.3	419.8	11.31	7.5	.123	10.87	.013	SI
> 1123.	133.	3.	1.	-1300.64	-12.3	536.	4.52	7.5	.157	14.92	.023	SI
> 1276.	286.	3.	8.	225.29	-1.5	46.9	9.05	7.5	.014	11.54	.002	SI
> 1332.	342.	3.	8.	-224.3	-1.5	46.7	9.05	7.5	.014	11.54	.002	SI
> 1332.	342.	3.	8.	155.58	-1.	32.4	9.05	7.5	.009	11.54	.001	SI
>1332.	0.	3.	1.	-245.4	-2.3	101.1	4.52	7.5	.03	14.92	.004	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Barre	Infer.	% Barre
1	9.05	.754	4.52	.377	4d12
2	18.1	1.508	9.05	.754	2d12 +2d12 +4d12
3	13.57	1.131	9.05	.754	2d12 +2d12 +4d12
4	15.83	1.319	11.31	.942	2d12 +4d12 +4d12
5	20.36	1.696	11.31	.942	2d12 +4d12 +4d12
6	13.57	1.131	9.05	.754	4d12 +4d12
7	13.57	1.131	9.05	.754	2d12 +4d12 +2d12
8	18.1	1.508	9.05	.754	2d12 +4d12 +2d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR20  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=149.4;  $\sigma$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma$ f (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Ac1s=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1112	2	2	2	0	245.	205.
2	A1113	2	2	2	0	66.	36.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	2.	1.	-1368.54	-.084	.186	-13941.51	-1.8	10.	2.	.152	10.19	SI
0.	0.	2.	1.	158.83	-.01	.032	9379.17	-1.23	10.	2.	.109	59.05	SI
148.	148.	2.	3.	1562.95	-.1	.312	9379.17	-1.23	10.	2.	.109	6.001	SI
189.	189.	2.	4.	1520.11	-.073	.154	18621.14	-1.71	10.	2.	.146	12.25	SI
245.	245.	2.	4.	-3383.56	-.163	.343	-18621.14	-1.71	10.	2.	.146	5.503	SI
245.	245.	2.	4.	1141.93	-.055	.116	18621.14	-1.71	10.	2.	.146	16.31	SI
> 245.	0.	2.	4.	-1733.25	-.083	.176	-18621.14	-1.71	10.	2.	.146	10.74	SI
258.	13.	2.	4.	122.15	-.006	.012	18621.14	-1.71	10.	2.	.146	152.4	SI
285.	40.	2.	4.	611.61	-.029	.062	18621.14	-1.71	10.	2.	.146	30.45	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve		
> 0.	0.	2.	1.	3789.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
245.	245.	2.	1.	-4282.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
> 245.	0.	2.	1.	4433.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
311.	66.	2.	1.	3115.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	2.	1.	-962.39	-8.	268.5	6.79	7.5	.079	12.67	.01	SI
13.	13.	2.	1.	-676.46	-5.6	188.7	6.79	7.5	.055	12.67	.007	SI
26.	26.	2.	1.	231.6	-2.	94.8	4.52	7.5	.028	14.92	.004	SI
107.	107.	2.	2.	1101.34	-10.4	453.8	4.52	7.5	.133	14.92	.02	SI
245.	245.	2.	4.	-1746.94	-11.4	363.8	9.05	7.5	.106	11.54	.012	SI
> 245.	0.	2.	4.	-1206.4	-7.9	251.2	9.05	7.5	.074	11.54	.008	SI
300.	55.	2.	4.	32.82	-.2	6.8	9.05	7.5	.002	11.54	0.	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma$ f	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	2.	1.	-792.87	-6.6	221.2	6.79	7.5	.065	12.67	.008	SI
13.	13.	2.	1.	-556.1	-4.6	155.1	6.79	7.5	.045	12.67	.006	SI
26.	26.	2.	1.	158.71	-1.4	65.	4.52	7.5	.019	14.92	.003	SI
107.	107.	2.	2.	905.57	-8.6	373.2	4.52	7.5	.109	14.92	.016	SI
245.	245.	2.	4.	-1417.75	-9.3	295.2	9.05	7.5	.086	11.54	.01	SI
> 245.	0.	2.	4.	-942.96	-6.2	196.4	9.05	7.5	.057	11.54	.007	SI
300.	55.	2.	4.	77.4	-.5	16.1	9.05	7.5	.005	11.54	.001	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	2. 1.	-750.48	-6.2	209.4	6.79	7.5	.061	12.67	.008	SI
13.	13.	2. 1.	-526.35	-4.4	146.8	6.79	7.5	.043	12.67	.005	SI
26.	26.	2. 1.	144.07	-1.3	59.	4.52	7.5	.017	14.92	.003	SI
107.	107.	2. 2.	859.84	-8.2	354.3	4.52	7.5	.104	14.92	.015	SI
245.	245.	2. 4.	-1341.49	-8.8	279.3	9.05	7.5	.082	11.54	.009	SI
> 245.	0.	2. 4.	-876.28	-5.7	182.5	9.05	7.5	.053	11.54	.006	SI
300.	55.	2. 4.	89.09	-6	18.6	9.05	7.5	.005	11.54	.001	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	11.31	.942	6.79	.565	4d12 +2d12	4.52	.377	4d12
4	18.1	1.508	9.05	.754	2d12 +4d12 +2d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR21  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Inc.	L.assi	L.netta
1	A1123	2	2	2	0	245.	205.
2	A1121	2	2	2	0	265.	225.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	2. 1.	-988.73	-.061	.135	-13941.51	-1.8	10.	2.	.152	14.1	SI
0.	0.	2. 1.	703.57	-.045	.14	9379.17	-1.23	10.	2.	.109	13.33	SI
99.	99.	2. 2.	1133.54	-.079	.228	9366.57	-1.38	10.	2.	.121	8.263	SI
173.	173.	2. 3.	-493.46	-.026	.041	-22762.36	-2.82	10.	2.	.22	46.13	SI
173.	173.	2. 3.	787.69	-.043	.156	9383.96	-1.05	10.	2.	.095	11.91	SI
209.	209.	2. 4.	313.19	-.014	.032	18653.97	-1.56	10.	2.	.135	59.56	SI
219.	219.	2. 4.	184.9	-.008	.019	18653.97	-1.56	10.	2.	.135	100.9	SI
245.	245.	2. 4.	-1316.04	-.059	.108	-23188.01	-2.01	10.	2.	.167	17.62	SI
> 245.	0.	2. 4.	-1276.15	-.057	.105	-23188.01	-2.01	10.	2.	.167	18.17	SI
255.	10.	2. 4.	.31	0.	0.	18653.97	-1.56	10.	2.	.135	60787	SI
321.	76.	2. 3.	-380.81	-.02	.032	-22762.36	-2.82	10.	2.	.22	59.77	SI
321.	76.	2. 3.	966.42	-.053	.191	9383.96	-1.05	10.	2.	.095	9.71	SI
403.	158.	2. 2.	1394.21	-.098	.28	9366.57	-1.38	10.	2.	.121	6.718	SI
510.	265.	2. 1.	-1157.01	-.071	.157	-13941.51	-1.8	10.	2.	.152	12.05	SI
510.	265.	2. 1.	692.4	-.044	.138	9379.17	-1.23	10.	2.	.109	13.55	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	2736.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
245.	245.	2.	-3133.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
> 245.	0.	2.	3305.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
510.	265.	2.	-3096.!	3414.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI



VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	128.95	-1.1	52.8	4.52	7.5	.015	14.92	.002	SI
26.	26.	2. 1.	324.3	-2.8	132.7	4.52	7.5	.039	14.92	.006	SI
99.	99.	2. 2.	797.89!	-7.6!	328.8!	4.52	7.5	.096	14.92	.014!	SI
245.	245.	2. 4.	-942.22!	-5.8!	158.4!	11.31	7.5	.046	10.87	.005!	SI
> 245.	0.	2. 4.	-895.54!	-5.5!	150.6!	11.31	7.5	.044	10.87	.005!	SI
403.	158.	2. 2.	980.97!	-9.3!	404.2!	4.52	7.5	.118	14.92	.018!	SI
510.	265.	2. 1.	-814.29	-6.8	227.2	6.79	7.5	.066	12.67	.008	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	108.1	-.9	44.2	4.52	7.5	.013	14.92	.002	SI
26.	26.	2. 1.	270.71	-2.4	110.8	4.52	7.5	.032	14.92	.005	SI
99.	99.	2. 2.	664.49!	-6.3!	273.8!	4.52	7.5	.08	14.92	.012!	SI
245.	245.	2. 4.	-786.36!	-4.8!	132.2!	11.31	7.5	.039	10.87	.004!	SI
> 245.	0.	2. 4.	-741.16!	-4.6!	124.6!	11.31	7.5	.036	10.87	.004!	SI
403.	158.	2. 2.	815.89!	-7.7!	336.2!	4.52	7.5	.098	14.92	.015!	SI
510.	265.	2. 1.	-678.29	-5.6	189.2	6.79	7.5	.055	12.67	.007	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	105.18	-.9	43.1	4.52	7.5	.013	14.92	.002	SI
26.	26.	2. 1.	259.36	-2.3	106.2	4.52	7.5	.031	14.92	.005	SI
99.	99.	2. 2.	631.84!	-6.!	260.4!	4.52	7.5	.076	14.92	.011!	SI
245.	245.	2. 4.	-749.35!	-4.6!	126.	11.31	7.5	.037	10.87	.004!	SI
> 245.	0.	2. 4.	-700.83!	-4.3!	117.8!	11.31	7.5	.034	10.87	.004!	SI
403.	158.	2. 2.	773.73!	-7.3!	318.8!	4.52	7.5	.093	14.92	.014!	SI
510.	265.	2. 1.	-644.29	-5.3	179.8	6.79	7.5	.053	12.67	.007	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565 2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377 4d12	4.52	.377	4d12
3	15.83	1.319	11.31	.942 2d12 +4d12 +4d12	4.52	.377	4d12
4	20.36	1.696	11.31	.942 2d12 +4d12 +4d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR22  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=60.; alt.=25.; Ac1s=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1324	2	2	2	0	495.	475.
2	A1067	2	2	2	0	250.	230.
3	A1080	2	2	2	0	385.	365.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	Se	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	2. 1.	-300.33!	-.044	.093	-6069.81	-2.26	10.	2.	.185	20.21	SI
0.	0.	2. 1.	355.89!	-.056	.152	4403.46	-1.85	10.	2.	.156	12.37	SI
300.	300.	2. 2.	17.4	-.003	.007	4408.41	-1.89	10.	2.	.159	253.3	SI
405.	405.	2. 4.	-149.65	-.018	.028	-10104.22	-3.25	10.	2.	.245	67.52	SI
405.	405.	2. 4.	105.08	-.015	.045	4394.88	-1.78	10.	2.	.151	41.83	SI
475.	475.	2. 5.	174.32	-.019	.038	8528.91	-2.35	10.	2.	.19	48.93	SI
495.	495.	2. 5.	-241.05	-.026	.044	-10157.43	-2.71	10.	2.	.213	42.14	SI
495.	495.	2. 5.	184.21	-.02	.04	8528.91	-2.35	10.	2.	.19	46.3	SI
> 495.	0.	2. 5.	-315.77	-.034	.058	-10157.43	-2.71	10.	2.	.213	32.17	SI
495.	0.	2. 5.	179.83	-.02	.039	8528.91	-2.35	10.	2.	.19	47.43	SI
545.	50.	2. 5.	209.81	-.023	.046	8528.91	-2.35	10.	2.	.19	40.65	SI
575.	80.	2. 3.	-45.43	-.006	.01	-8509.44	-2.85	10.	2.	.221	187.3	SI
575.	80.	2. 3.	198.1	-.03	.085	4397.81	-1.8	10.	2.	.152	22.2	SI
745.	250.	2. 5.	-627.04	-.068	.115	-10157.43	-2.71	10.	2.	.213	16.2	SI
745.	250.	2. 5.	25.55	-.003	.006	8528.91	-2.35	10.	2.	.19	333.9	SI
> 745.	0.	2. 5.	-565.66	-.062	.104	-10157.43	-2.71	10.	2.	.213	17.96	SI
755.	10.	2. 5.	54.24	-.006	.012	8528.91	-2.35	10.	2.	.19	157.2	SI
800.	55.	2. 4.	-283.81	-.035	.052	-10104.22	-3.25	10.	2.	.245	35.6	SI
800.	55.	2. 4.	276.04	-.04	.118	4394.88	-1.78	10.	2.	.151	15.92	SI
943.	198.	2. 2.	566.55	-.094	.243	4408.41	-1.89	10.	2.	.159	7.781	SI
1120.	375.	2. 1.	2.67	0.	.001	4403.46	-1.85	10.	2.	.156	1652.	SI
1130.	385.	2. 1.	-590.49	-.087	.183	-6069.81	-2.26	10.	2.	.185	10.28	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	vcd	Vwd	Asw	s	Ve	
> 0.	0.	2. 1.	-122.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI
0.	0.	2. 1.	99.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI
495.	495.	2. 1.	-122.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
495.	495.	2. 1.	99.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
> 495.	0.	2. 1.	601.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
745.	250.	2. 1.	-784.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
> 745.	0.	2. 1.	972.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
1130.	385.	2. 1.	-985.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	2. 1.	21.45!	-.5!	18.8!	5.65	6.37	.006	21.94	.001	SI
10.	10.	2. 1.	-51	0.	.3	7.92	6.	0.	17.44	0.	SI
10.	10.	2. 1.	-51	0.	.3	7.92	6.	0.	17.44	0.	SI
495.	495.	2. 5.	-25.11!	-.4	9.5	13.57	5.61	.003	13.22	0.	SI
> 495.	0.	2. 5.	-149.34!	-2.2	56.2	13.57	5.61	.016	13.22	.002	SI
605.	110.	2. 2.	149.57!	-3.3	131.	5.65	6.31	.038	21.81	.008	SI
745.	250.	2. 5.	-371.7!	-5.5!	139.9!	13.57	5.61	.041	13.22	.005	SI
> 745.	0.	2. 5.	-396.34!	-5.9	149.2	13.57	5.61	.044	13.22	.006	SI
943.	198.	2. 2.	404.72!	-9.	354.5!	5.65	6.31	.104	21.81	.023	SI
1130.	385.	2. 1.	-418.57!	-8.2	265.2	7.92	6.	.078	17.44	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	2. 1.	25.31!	-.5!	22.2!	5.65	6.37	.006	21.94	.001	SI
10.	10.	2. 1.	-63	0.	.4	7.92	6.	0.	17.44	0.	SI
10.	10.	2. 1.	-64	0.	.4	7.92	6.	0.	17.44	0.	SI
495.	495.	2. 5.	-31.15!	-.5	11.7	13.57	5.61	.003	13.22	0.	SI
> 495.	0.	2. 5.	-149.34!	-2.2	56.2	13.57	5.61	.016	13.22	.002	SI
605.	110.	2. 2.	150.37!	-3.3	131.7	5.65	6.31	.039	21.81	.008	SI
745.	250.	2. 5.	-363.83!	-5.4	136.9!	13.57	5.61	.04	13.22	.005	SI
> 745.	0.	2. 5.	-393.	-5.8	147.9	13.57	5.61	.043	13.22	.006	SI
943.	198.	2. 2.	405.26!	-9.	355.	5.65	6.31	.104	21.81	.023	SI
1130.	385.	2. 1.	-420.17!	-8.3	266.2	7.92	6.	.078	17.44	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	2. 1.	28.35!	-.6!	24.8!	5.65	6.37	.007	21.94	.002	SI
10.	10.	2. 1.	-68	0.	.4	7.92	6.	0.	17.44	0.	SI
10.	10.	2. 1.	-69	0.	.4	7.92	6.	0.	17.44	0.	SI
495.	495.	2. 5.	-33.76!	-.5	12.7	13.57	5.61	.004	13.22	0.	SI
> 495.	0.	2. 5.	-149.34!	-2.2	56.2	13.57	5.61	.016	13.22	.002	SI
605.	110.	2. 2.	151.21!	-3.4	132.4	5.65	6.31	.039	21.81	.008	SI
745.	250.	2. 5.	-363.35!	-5.4	136.8!	13.57	5.61	.04	13.22	.005	SI
> 745.	0.	2. 5.	-391.29!	-5.8	147.3	13.57	5.61	.043	13.22	.006	SI
943.	198.	2. 2.	405.32!	-9.	355.	5.65	6.31	.104	21.81	.023	SI
1130.	385.	2. 1.	-421.63!	-8.3	267.1	7.92	6.	.078	17.44	.014	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	13.57	.905	7.92	.528	2d12 +5d12	5.65	.377	5d12
2	11.31	.754	5.65	.377	5d12	5.65	.377	5d12
3	16.96	1.131	11.31	.754	5d12 +5d12	5.65	.377	5d12
4	19.23	1.282	13.57	.905	2d12 +5d12 +5d12	5.65	.377	5d12
5	24.88	1.659	13.57	.905	2d12 +5d12 +5d12	11.31	.754	5d12 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR22  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=149.4;  $\sigma$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=60.; alt.=25.; Acl=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1324	2	2	2	0	495.	475.
2	A1067	2	2	2	0	250.	230.
3	A1080	2	2	2	0	385.	365.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	2. 1.	-300.33!	-.044	.093	-6069.81	-2.26	10.	2.	.185	20.21	SI
0.	0.	2. 1.	355.89!	-.056!	.152!	4403.46	-1.85	10.	2.	.156	12.37!	SI
300.	300.	2. 2.	17.4	-.003	.007	4408.41	-1.89	10.	2.	.159	253.3!	SI
405.	405.	2. 4.	-149.65!	-.018	.028	-10104.22	-3.25	10.	2.	.245!	67.52!	SI
405.	405.	2. 4.	105.08!	-.015	.045	4394.88	-1.78	10.	2.	.151!	41.83!	SI
475.	475.	2. 5.	174.32!	-.019	.038	8528.91!	-2.35	10.	2.	.19	48.93!	SI
495.	495.	2. 5.	-241.05!	-.026	.044	-10157.43!	-2.71	10.	2.	.213	42.14!	SI
495.	495.	2. 5.	184.21!	-.02	.04	8528.91!	-2.35	10.	2.	.19	46.3!	SI
> 495.	0.	2. 5.	-315.77!	-.034	.058	-10157.43!	-2.71	10.	2.	.213	32.17!	SI
495.	0.	2. 5.	179.83!	-.02	.039	8528.91!	-2.35	10.	2.	.19	47.43!	SI
545.	50.	2. 5.	209.81!	-.023	.046	8528.91!	-2.35	10.	2.	.19	40.65!	SI
575.	80.	2. 3.	-45.43!	-.006	.01	-8509.44!	-2.85	10.	2.	.221!	187.3!	SI
575.	80.	2. 3.	198.1!	-.03	.085	4397.81!	-1.8	10.	2.	.152!	22.2!	SI
745.	250.	2. 5.	-627.04!	-.068!	.115!	-10157.43!	-2.71	10.	2.	.213	16.2!	SI
745.	250.	2. 5.	25.55!	-.003	.006	8528.91!	-2.35	10.	2.	.19	333.9!	SI
> 745.	0.	2. 5.	-565.66!	-.062	.104	-10157.43!	-2.71	10.	2.	.213	17.96!	SI
755.	10.	2. 5.	54.24!	-.006	.012	8528.91!	-2.35	10.	2.	.19	157.2!	SI
800.	55.	2. 4.	-283.81!	-.035	.052	-10104.22	-3.25	10.	2.	.245!	35.6!	SI
800.	55.	2. 4.	276.04!	-.04	.118	4394.88	-1.78	10.	2.	.151!	15.92!	SI
943.	198.	2. 2.	566.55!	-.094!	.243!	4408.41	-1.89	10.	2.	.159	7.781!	SI
1120.	375.	2. 1.	2.67!	0.	.001	4403.46	-1.85	10.	2.	.156	1652.!	SI
1130.	385.	2. 1.	-590.49!	-.087	.183	-6069.81	-2.26	10.	2.	.185	10.28!	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	-122.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI
0.	0.	2.	99.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI
495.	495.	2.	-122.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
495.	495.	2.	99.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
> 495.	0.	2.	601.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
745.	250.	2.	-784.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
> 745.	0.	2.	972.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
1130.	385.	2.	-985.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	2.	21.45!	-.5!	18.8!	5.65	6.37	.006	21.94	.001	SI
10.	10.	2.	-.51	0.	.3	7.92	6.	0.	17.44	0.	SI
10.	10.	2.	-.51	0.	.3	7.92	6.	0.	17.44	0.	SI
495.	495.	2.	-25.11!	-.4	9.5	13.57	5.61	.003	13.22	0.	SI
> 495.	0.	2.	-149.34!	-2.2	56.2	13.57	5.61	.016	13.22	.002	SI
605.	110.	2.	149.57!	-3.3	131.	5.65	6.31	.038	21.81	.008	SI
745.	250.	2.	-371.7!	-5.5!	139.9!	13.57	5.61	.041	13.22	.005	SI
> 745.	0.	2.	-396.34!	-5.9!	149.2!	13.57	5.61	.044	13.22	.006	SI
943.	198.	2.	404.72!	-9.	354.5!	5.65	6.31	.104	21.81	.023	SI
1130.	385.	2.	-418.57!	-8.2!	265.2!	7.92	6.	.078	17.44	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	2.	25.31!	-.5!	22.2!	5.65	6.37	.006	21.94	.001	SI
10.	10.	2.	-.63	0.	.4	7.92	6.	0.	17.44	0.	SI
10.	10.	2.	-.64	0.	.4	7.92	6.	0.	17.44	0.	SI
495.	495.	2.	-31.15!	-.5	11.7	13.57	5.61	.003	13.22	0.	SI
> 495.	0.	2.	-149.34!	-2.2	56.2	13.57	5.61	.016	13.22	.002	SI
605.	110.	2.	150.37!	-3.3	131.7!	5.65	6.31	.039	21.81	.008	SI
745.	250.	2.	-363.83!	-5.4!	136.9!	13.57	5.61	.04	13.22	.005	SI
> 745.	0.	2.	-393.	-5.8!	147.9!	13.57	5.61	.043	13.22	.006	SI
943.	198.	2.	405.26!	-9.	355.	5.65	6.31	.104	21.81	.023	SI
1130.	385.	2.	-420.17!	-8.3!	266.2!	7.92	6.	.078	17.44	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
0.	0.	2.	28.35!	-.6!	24.8!	5.65	6.37	.007	21.94	.002	SI
10.	10.	2.	-.68	0.	.4	7.92	6.	0.	17.44	0.	SI
10.	10.	2.	-.69	0.	.4	7.92	6.	0.	17.44	0.	SI
495.	495.	2.	-33.76!	-.5	12.7	13.57	5.61	.004	13.22	0.	SI
> 495.	0.	2.	-149.34!	-2.2	56.2	13.57	5.61	.016	13.22	.002	SI
605.	110.	2.	151.21!	-3.4	132.4!	5.65	6.31	.039	21.81	.008	SI
745.	250.	2.	-363.35!	-5.4!	136.8!	13.57	5.61	.04	13.22	.005	SI
> 745.	0.	2.	-391.29!	-5.8!	147.3!	13.57	5.61	.043	13.22	.006	SI
943.	198.	2.	405.32!	-9.	355.	5.65	6.31	.104	21.81	.023	SI
1130.	385.	2.	-421.63!	-8.3!	267.1!	7.92	6.	.078	17.44	.014	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	13.57	.905	7.92	.528 2d12 +5d12	5.65	.377	5d12
2	11.31	.754	5.65	.377 5d12	5.65	.377	5d12
3	16.96	1.131	11.31	.754 5d12 +5d12	5.65	.377	5d12
4	19.23	1.282	13.57	.905 2d12 +5d12 +5d12	5.65	.377	5d12
5	24.88	1.659	13.57	.905 2d12 +5d12 +5d12	11.31	.754	5d12 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR23  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σ (rara)=149.4; σ (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=25.; Acl=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1086	3	3	3	0	465.	445.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.1.	-708.13	-.104	.219	-6069.81	-2.26	10.	2.	.185	8.572	SI
46.	46.	3.1.	208.3	-.033	.089	4403.46	-1.85	10.	2.	.156	21.14	SI
155.	155.	3.2.	695.67	-.116	.298	4408.41	-1.89	10.	2.	.159	6.337	SI
227.	227.	3.2.	808.96	-.135	.347	4408.41	-1.89	10.	2.	.159	5.449	SI
372.	372.	3.1.	-114.7	-.017	.035	-6069.81	-2.26	10.	2.	.185	52.92	SI
465.	465.	3.1.	-836.76	-.123	.259	-6069.81	-2.26	10.	2.	.185	7.254	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.1.	1201.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI
445.	445.	3.1.	-1177.	6884.	62843.	24390.	9211.	15179.	1.01	5.	SI
465.	465.	3.1.	-1230.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
46.	46.	3.1.	-166.55	-3.3	105.5	7.92	6.	.031	17.44	.005	SI
227.	227.	3.2.	577.58	-12.9	505.9	5.65	6.31	.148	21.81	.032	SI
465.	465.	3.1.	-595.81	-11.7	377.5	7.92	6.	.11	17.44	.019	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
46.	46.	3.1.	-165.76	-3.3	105.	7.92	6.	.031	17.44	.005	SI
227.	227.	3.2.	580.37	-12.9	508.3	5.65	6.31	.149	21.81	.032	SI
465.	465.	3.1.	-588.03	-11.6	372.6	7.92	6.	.109	17.44	.019	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
46.	46.	3.1.	-165.61	-3.3	104.9	7.92	6.	.031	17.44	.005	SI
227.	227.	3.2.	579.65	-12.9	507.7	5.65	6.31	.149	21.81	.032	SI
465.	465.	3.1.	-586.51	-11.5	371.6	7.92	6.	.109	17.44	.019	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	% Infer.	Barre
1	13.57	.905	.528	2d12 +5d12
2	11.31	.754	.377	5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 144 - Travata T120  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σ (rara)=149.4; σc (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

## SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=25.; Acl=1500. .

## DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1109	3	3	3	0	380.	360.
2	A1109	3	3	3	0	495.	475.

## CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

## VERIFICHE ALLO STATO LIMITE ULTIMO

## FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 380.	0.	3.	-1685.45	-186	.31	-10157.43	-2.71	10.	2.	.213	6.027	SI
433.	53.	3.	-790.87	-.097	.146	-10104.22	-3.25	10.	2.	.245	12.78	SI
454.	74.	3.	80.15	-.012	.034	4394.88	-1.78	10.	2.	.151	54.83	SI
537.	157.	3.	560.34	-.093	.24	4408.41	-1.89	10.	2.	.159	7.867	SI
631.	251.	3.	-10.79	-.002	.005	-4408.41	-1.89	10.	2.	.159	408.5	SI
730.	350.	3.	1051.58	-1.68	.451	4403.46	-1.85	10.	2.	.156	4.187	SI
875.	495.	3.	-714.22	-.105	.221	-6069.81	-2.26	10.	2.	.185	8.498	SI

## VERIFICHE A TAGLIO

## TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 380.	0.	3.	1511.!	8019.!	62843.!	24390.!	9211.!	15179.!	1.01	5.	SI
875.	495.	3.	-1396.!	5296.!	62843.!	24390.!	9211.!	15179.!	1.01	5.	SI

## VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

## TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 380.	0.	3.	-1190.55	-17.6	448.1	13.57	5.61	.131	13.22	.017	SI
386.	6.	3.	-1159.94	-17.2	436.6	13.57	5.61	.128	13.22	.017	SI
730.	350.	3.	747.32	-16.	654.9	5.65	6.37	.192	21.94	.042	SI
875.	495.	3.	-506.34	-10.	320.8	7.92	6.	.094	17.44	.016	SI

## TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 380.	0.	3.	-1039.85	-15.4	391.4	13.57	5.61	.115	13.22	.015	SI
386.	6.	3.	-1011.79	-15.	380.8	13.57	5.61	.111	13.22	.015	SI
730.	350.	3.	703.95	-15.1	616.9	5.65	6.37	.181	21.94	.04	SI
875.	495.	3.	-505.8	-10.	320.5	7.92	6.	.094	17.44	.016	SI

## TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 380.	0.	3.	-1002.98	-14.8	377.5	13.57	5.61	.11	13.22	.015	SI
386.	6.	3.	-975.54	-14.4	367.2	13.57	5.61	.107	13.22	.014	SI
711.	331.	3.	677.19	-15.1	593.1	5.65	6.31	.174	21.81	.038	SI
730.	350.	3.	693.47	-14.8	607.7	5.65	6.37	.178	21.94	.039	SI
875.	495.	3.	-505.8	-10.	320.5	7.92	6.	.094	17.44	.016	SI

## ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	24.88	1.659	13.57	.905	2d12 +5d12 +5d12	11.31	.754	5d12 +5d12
2	19.23	1.282	13.57	.905	2d12 +5d12 +5d12	5.65	.377	5d12
3	16.96	1.131	11.31	.754	5d12 +5d12	5.65	.377	5d12
4	11.31	.754	5.65	.377	5d12	5.65	.377	5d12
5	13.57	.905	7.92	.528	2d12 +5d12	5.65	.377	5d12

## VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 144 - Travata T120  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

## MATERIALI

CLS : Rck=300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).

CLS :  $\sigma$  (rara)=149.4;  $\sigma$  (quasi permanente)=112. ; fbd(esercizio)= 25.7

ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15

FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=25.; Acls=1500. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1109	3	3	3	0	380.	360.
2	A1109	3	3	3	0	495.	475.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 380.	0.	3. 1.	-1685.45	-.186	.31	-10157.43	-2.71	10.	2.	.213	6.027	SI
433.	53.	3. 2.	-790.87	-.097	.146	-10104.22	-3.25	10.	2.	.245	12.78	SI
454.	74.	3. 2.	80.15	-.012	.034	4394.88	-1.78	10.	2.	.151	54.83	SI
537.	157.	3. 4.	560.34	-.093	.24	4408.41	-1.89	10.	2.	.159	7.867	SI
631.	251.	3. 4.	-10.79	-.002	.005	-4408.41	-1.89	10.	2.	.159	408.5	SI
730.	350.	3. 5.	1051.58	-.168	.451	4403.46	-1.85	10.	2.	.156	4.187	SI
875.	495.	3. 5.	-714.22	-.105	.221	-6069.81	-2.26	10.	2.	.185	8.498	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve
> 380.	0.	3. 1.	1511.	8019.	62843.	24390.	9211.	15179.	1.01	5.
875.	495.	3. 1.	-1396.	5296.	62843.	24390.	9211.	15179.	1.01	5.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 380.	0.	3. 1.	-1190.55	-17.6	448.1	13.57	5.61	.131	13.22	.017	SI
386.	6.	3. 1.	-1159.94	-17.2	436.6	13.57	5.61	.128	13.22	.017	SI
730.	350.	3. 5.	747.32	-16.	654.9	5.65	6.37	.192	21.94	.042	SI
875.	495.	3. 5.	-506.34	-10.	320.8	7.92	6.	.094	17.44	.016	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 380.	0.	3. 1.	-1039.85	-15.4	391.4	13.57	5.61	.115	13.22	.015	SI
386.	6.	3. 1.	-1011.79	-15.	380.8	13.57	5.61	.111	13.22	.015	SI
730.	350.	3. 5.	703.95	-15.1	616.9	5.65	6.37	.181	21.94	.04	SI
875.	495.	3. 5.	-505.8	-10.	320.5	7.92	6.	.094	17.44	.016	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 380.	0.	3. 1.	-1002.98	-14.8	377.5	13.57	5.61	.11	13.22	.015	SI
386.	6.	3. 1.	-975.54	-14.4	367.2	13.57	5.61	.107	13.22	.014	SI
711.	331.	3. 4.	677.19	-15.1	593.1	5.65	6.31	.174	21.81	.038	SI
730.	350.	3. 5.	693.47	-14.8	607.7	5.65	6.37	.178	21.94	.039	SI
875.	495.	3. 5.	-505.8	-10.	320.5	7.92	6.	.094	17.44	.016	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	24.88	1.659	13.57	.905	2d12 +5d12 +5d12	11.31	.754	5d12 +5d12
2	19.23	1.282	13.57	.905	2d12 +5d12 +5d12	5.65	.377	5d12
3	16.96	1.131	11.31	.754	5d12 +5d12	5.65	.377	5d12
4	11.31	.754	5.65	.377	5d12	5.65	.377	5d12
5	13.57	.905	7.92	.528	2d12 +5d12	5.65	.377	5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR25  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma$  (rara)=149.4;  $\sigma$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma$ f (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

- 3) Rettangolare: base=40.; alt.=25.; Ac1s=1000. .  
 5) Rettangolare: base=60.; alt.=30.; Ac1s=1800. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1079	3	3	3	0	286.	226.
2	A1091	3	3	3	0	334.	274.
3	A1090	3	3	3	0	308.	263.
4	A1097	5	5	5	0	467.	422.
5	A1098	5	5	5	0	498.	438.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	-3514.91	-585	1.281	-5135.3	-2.12	10.	2.	.175	1.461	SI
20.	20.	3.	2.15	0.	0.	8909.16	-3.37	10.	2.	.252	4135.	SI
109.	109.	3.	-264.23	-.05	.142	-3480.87	-1.83	10.	2.	.155	13.17	SI
109.	109.	3.	2049.82	-.348	.433	8814.84	-3.5	8.199	3.	.299	4.3	SI
177.	177.	3.	2482.27	-.425	.525	8814.84	-3.5	8.199	3.	.299	3.551	SI
246.	246.	3.	1313.64	-.166	.208	11819.81	-3.4	10.	2.	.254	8.998	SI
286.	286.	3.	-2167.09	-.272	.479	-8416.47	-2.47	10.	2.	.198	3.884	SI
286.	286.	3.	100.18	-.013	.016	11819.81	-3.4	10.	2.	.254	118.	SI
> 286.	0.	3.	-2459.7	-.31	.543	-8416.47	-2.47	10.	2.	.198	3.422	SI
286.	0.	3.	2079.29	-.265	.329	11819.81	-3.4	10.	2.	.254	5.685	SI
421.	135.	3.	-1614.16	-.339	.871	-3486.46	-1.91	10.	2.	.161	2.16	SI
548.	262.	3.	4921.19	-.924	1.534	6047.1	-2.6	10.	2.	.206	1.229	SI
580.	295.	3.	5188.21	-.685	.823	11819.81	-3.4	10.	2.	.254	2.278	SI
590.	304.	3.	-3472.17	-.441	.768	-8416.47	-2.47	10.	2.	.198	2.424	SI
609.	324.	3.	999.62	-.126	.158	11819.81	-3.4	10.	2.	.254	11.82	SI
619.	334.	3.	-3440.24	-.437	.761	-8416.47	-2.47	10.	2.	.198	2.446	SI
619.	334.	3.	999.62	-.126	.158	11819.81	-3.4	10.	2.	.254	11.82	SI
> 619.	0.	3.	-2824.3	-.357	.624	-8416.47	-2.47	10.	2.	.198	2.98	SI
629.	10.	3.	41.52	-.005	.007	11819.81	-3.4	10.	2.	.254	284.7	SI
764.	144.	3.	2186.18	-.421	.68	6036.46	-2.86	10.	2.	.222	2.761	SI
903.	283.	3.	386.42	-.056	.067	10766.69	-3.5	7.468	3.	.319	27.86	SI
928.	308.	3.	-2568.9	-.397	.934	-5132.22	-2.04	10.	2.	.169	1.998	SI
> 928.	0.	5.	-274.26	-.021	.042	-13497.31	-2.36	10.	2.	.191	49.21	SI
955.	27.	5.	2.58	0.	0.	14361.22	-3.	10.	2.	.231	5556.	SI
1233.	305.	5.	710.14	-.074	.205	6508.72	-1.67	10.	2.	.143	9.165	SI
1312.	385.	5.	960.12	-.1	.277	6508.72	-1.67	10.	2.	.143	6.779	SI
1382.	454.	5.	1179.49	-.085	.173	12736.55	-2.12	10.	2.	.175	10.8	SI
1394.	467.	5.	-.93	0.	0.	-14784.1	-2.42	10.	2.	.195	15813	SI
1394.	467.	5.	1179.49	-.085	.173	12736.55	-2.12	10.	2.	.175	10.8	SI
> 1394.	0.	5.	-557.04	-.04	.071	-14784.1	-2.42	10.	2.	.195	26.54	SI
1394.	0.	5.	1532.23	-.111	.225	12736.55	-2.12	10.	2.	.175	8.312	SI
1478.	84.	5.	857.23	-.089	.247	6508.72	-1.67	10.	2.	.143	7.593	SI
1560.	166.	5.	74.37	-.008	.021	6508.72	-1.67	10.	2.	.143	87.52	SI
1893.	498.	5.	-3037.21	-.303	.666	-8598.26	-2.03	10.	2.	.169	2.831	SI



VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	6041.	4892.	41895.	21320.	6140.	15179.	1.01	5.	SI
143.	143.	3.	-323.	5144.	41895.	10119.	6140.	5060.	1.01	15.	SI
286.	286.	3.	-5071.	4892.	41895.	21320.	6140.	15179.	1.01	5.	SI
> 286.	0.	3.	-420.	4892.	41895.	21320.	6140.	15179.	1.01	5.	SI
286.	0.	3.	3054.	4892.	41895.	21320.	6140.	15179.	1.01	5.	SI
590.	304.	3.	7384.	4892.	41895.	21320.	6140.	15179.	1.01	5.	SI
619.	334.	3.	-8051.	4892.	41895.	21320.	6140.	15179.	1.01	5.	SI
> 619.	0.	3.	6035.	4892.	41895.	21320.	6140.	15179.	1.01	5.	SI
729.	109.	3.	1729.	5144.	41895.	10119.	6140.	5060.	1.01	15.	SI
928.	308.	3.	-5513.	3531.	41895.	21320.	6140.	15179.	1.01	5.	SI
> 928.	0.	5.	498.	6702.	77125.	29933.	11304.	18629.	1.01	5.	SI
994.	67.	5.	498.	7576.	77125.	29933.	11304.	18629.	1.01	5.	SI
1394.	467.	5.	498.	7576.	77125.	29933.	11304.	18629.	1.01	5.	SI
>1394.	0.	5.	-1386.	7576.	77125.	29933.	11304.	18629.	1.01	5.	SI
1394.	0.	5.	68.	7576.	77125.	29933.	11304.	18629.	1.01	5.	SI
1893.	498.	5.	-1386.	8014.	77125.	29933.	11304.	18629.	1.01	5.	SI
1893.	498.	5.	68.	8014.	77125.	29933.	11304.	18629.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-2469.85	-54.3	1836.1	6.79	6.08	.68	15.47	.105	SI
20.	20.	3.	1.	-2189.19	-48.2	1627.5	6.79	6.08	.578	15.47	.089	SI
30.	30.	3.	1.	-1835.19	-40.4	1364.3	6.79	6.08	.45	15.47	.07	SI
74.	74.	3.	1.	-439.94	-9.7	327.1	6.79	6.08	.096	15.47	.015	SI
177.	177.	3.	2.	1740.95	-38.6	751.	12.06	5.14	.246	12.12	.03	SI
286.	286.	3.	4.	-1520.77	-26.	687.3	11.31	5.68	.201	12.26	.025	SI
> 286.	0.	3.	4.	-1726.11	-29.5	780.2	11.31	5.68	.245	12.26	.03	SI
286.	0.	3.	4.	1378.8	-23.6	446.1	16.08	5.09	.131	10.92	.014	SI
548.	262.	3.	3.	3409.35	-80.2	2157.	8.04	5.71	.875	15.2	.133	SI
590.	304.	3.	4.	3653.15	-62.5	1181.9	16.08	5.09	.479	10.92	.052	SI
590.	304.	3.	4.	-2502.	-42.7	1130.8	11.31	5.68	.416	12.26	.051	SI
619.	334.	3.	4.	-2414.82	-41.2	1091.4	11.31	5.68	.397	12.26	.049	SI
> 619.	0.	3.	4.	-1982.4	-33.8	896.	11.31	5.68	.302	12.26	.037	SI
764.	144.	3.	5.	1533.98	-38.4	973.2	8.04	5.61	.3	15.06	.045	SI
928.	308.	3.	6.	-1802.8	-37.5	1339.8	6.79	6.16	.436	15.57	.068	SI
> 928.	0.	5.	7.	-195.28	-2.1	61.8	9.05	6.97	.018	17.59	.003	SI
1312.	385.	5.	10	642.41	-9.	379.3	6.79	7.5	.111	21.69	.024	SI
1394.	467.	5.	11	0.	0.	0.	0.	0.	0.	0.	0.	SI
1394.	467.	5.	11	821.38	-8.1	247.1	13.57	7.03	.072	14.5	.01	SI
>1394.	0.	5.	11	-.01	0.	0.	0.	0.	0.	0.	0.	SI
1394.	0.	5.	11	540.72	-5.3	162.7	13.57	7.03	.048	14.5	.007	SI
1726.	332.	5.	9.	-1321.31	-19.3	780.9	6.79	7.5	.229	21.69	.05	SI
1893.	498.	5.	10	-1923.75	-25.3	861.6	9.05	7.25	.252	17.97	.045	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-2012.11	-44.3	1495.8	6.79	6.08	.514	15.47	.08	SI
20.	20.	3.	1.	-1786.7	-39.3	1328.2	6.79	6.08	.433	15.47	.067	SI
30.	30.	3.	1.	-1502.38	-33.1	1116.9	6.79	6.08	.329	15.47	.051	SI
74.	74.	3.	1.	-379.47	-8.3	282.1	6.79	6.08	.083	15.47	.013	SI
177.	177.	3.	2.	1394.01	-30.9	601.3	12.06	5.14	.176	12.12	.021	SI
286.	286.	3.	4.	-1216.62	-20.8	549.9	11.31	5.68	.161	12.26	.02	SI
> 286.	0.	3.	4.	-1380.89	-23.6	624.1	11.31	5.68	.183	12.26	.022	SI
286.	0.	3.	4.	1217.37	-20.8	393.9	16.08	5.09	.115	10.92	.013	SI
548.	262.	3.	3.	2877.22	-67.7	1820.4	8.04	5.71	.71	15.2	.108	SI
590.	304.	3.	4.	3061.19	-52.4	990.4	16.08	5.09	.386	10.92	.042	SI
590.	304.	3.	4.	-2009.37	-34.3	908.2	11.31	5.68	.308	12.26	.038	SI
619.	334.	3.	4.	-1937.63	-33.1	875.8	11.31	5.68	.292	12.26	.036	SI
> 619.	0.	3.	4.	-1181.64	-20.2	534.1	11.31	5.68	.156	12.26	.019	SI
764.	144.	3.	5.	1224.88	-30.7	777.1	8.04	5.61	.227	15.06	.034	SI
928.	308.	3.	6.	-1441.42	-30.	1071.2	6.79	6.16	.314	15.57	.049	SI
> 928.	0.	5.	7.	-158.18	-1.7	50.1	9.05	6.97	.015	17.59	.003	SI
1312.	385.	5.	10	553.66	-7.8	326.9	6.79	7.5	.096	21.69	.021	SI
1394.	467.	5.	11	0.	0.	0.	0.	0.	0.	0.	0.	SI
1394.	467.	5.	11	705.71	-7.	212.3	13.57	7.03	.062	14.5	.009	SI
>1394.	0.	5.	11	-.01	0.	0.	0.	0.	0.	0.	0.	SI
1394.	0.	5.	11	484.1	-4.8	145.6	13.57	7.03	.043	14.5	.006	SI
1726.	332.	5.	9.	-1169.37	-17.1	691.1	6.79	7.5	.202	21.69	.044	SI
1893.	498.	5.	10	-1702.53	-22.4	762.6	9.05	7.25	.223	17.97	.04	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-1898.04!	-41.8!	1411.	6.79	6.08	.473	15.47	.073	SI
20.	20.	3. 1.	-1686.43	-37.1	1253.7	6.79	6.08	.396	15.47	.061	SI
30.	30.	3. 1.	-1419.52	-31.2	1055.3	6.79	6.08	.309	15.47	.048	SI
74.	74.	3. 1.	-364.62	-8.	271.1	6.79	6.08	.079	15.47	.012	SI
177.	177.	3. 2.	1303.53!	-28.9	562.3	12.06	5.14	.165	12.12	.02	SI
286.	286.	3. 4.	-1140.58	-19.5	515.5	11.31	5.68	.151	12.26	.018	SI
> 286.	0.	3. 4.	-1294.59	-22.1	585.1	11.31	5.68	.171	12.26	.021	SI
286.	0.	3. 4.	1180.59	-20.2	382.	16.08	5.09	.112	10.92	.012	SI
548.	262.	3. 3.	2745.37!	-64.6!	1736.9!	8.04	5.71	.67	15.2	.102	SI
590.	304.	3. 4.	2913.99!	-49.9	942.8	16.08	5.09	.362	10.92	.04	SI
590.	304.	3. 4.	-1885.95!	-32.2	852.4	11.31	5.68	.28	12.26	.034	SI
619.	334.	3. 4.	-1818.97	-31.1	822.1	11.31	5.68	.266	12.26	.033	SI
> 619.	0.	3. 4.	-1108.96	-18.9	501.2	11.31	5.68	.147	12.26	.018	SI
764.	144.	3. 5.	1147.7	-28.7!	728.2	8.04	5.61	.213	15.06	.032	SI
928.	308.	3. 6.	-1351.84!	-28.2	1004.6	6.79	6.16	.294	15.57	.046	SI
> 928.	0.	5. 7.	-125.81!	-1.3	39.8	9.05	6.97	.012	17.59	.002	SI
1312.	385.	5. 10	485.78	-6.8!	286.9!	6.79	7.5	.084	21.69	.018	SI
1394.	467.	5. 11	0.	0.	0.	0.	0.	0.	0.	0.	SI
1394.	467.	5. 11	616.39!	-6.1	185.4	13.57	7.03	.054	14.5	.008	SI
>1394.	0.	5. 11	-.01	0.	0.	0.	0.	0.	0.	0.	SI
1394.	0.	5. 11	464.92!	-4.6	139.9	13.57	7.03	.041	14.5	.006	SI
1726.	332.	5. 9.	-1126.93	-16.4	666.	6.79	7.5	.195	21.69	.042	SI
1893.	498.	5. 10	-1640.75!	-21.6!	734.9!	9.05	7.25	.215	17.97	.039	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	18.85	1.885	6.79	.679	2d12 +4d12	12.06	1.206	2d16 +4d16
2	16.59	1.659	4.52	.452	4d12	12.06	1.206	2d16 +4d16
3	14.83	1.483	6.79	.679	2d12 +4d12	8.04	.804	4d16
4	27.39	2.739	11.31	1.131	2d12 +4d12 +4d12	16.08	1.608	4d16 +4d16
5	12.57	1.257	4.52	.452	4d12	8.04	.804	4d16
6	21.61	2.161	6.79	.679	2d12 +4d12	14.83	1.483	4d16 +6d12
7	30.66	3.066	15.83	.88	2d12 +2d12 +4d12 ...	14.83	.824	4d16 +6d12
8	18.1	1.81	11.31	.628	2d12 +2d12 +6d12	6.79	.377	6d12
9	13.57	.754	6.79	.377	6d12	6.79	.377	6d12
10	15.83	.88	9.05	.503	2d12 +6d12	6.79	.377	6d12
11	29.41	1.634	15.83	.88	2d12 +6d12 +6d12	13.57	.754	6d12 +6d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR26  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(eserczio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; AcIs=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1318	2	2	2	0	50.	20.
2	A1318	2	2	2	0	286.	226.
3	A1319	2	2	2	0	306.	246.
4	A1320	2	2	2	0	330.	290.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	Se	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 63.	13.	2. 1.	-2091.02	-.1	.212	-18621.14	-1.71	10.	2.	.146	8.905	SI
193.	143.	2. 3.	2168.8	-.153	.436	9366.57	-1.38	10.	2.	.121	4.319	SI
237.	187.	2. 4.	-333.32	-.019	.034	-18441.	-2.22	10.	2.	.182	55.33	SI
237.	187.	2. 4.	1978.16	-.117	.393	9383.26	-1.12	10.	2.	.101	4.743	SI
280.	230.	2. 5.	1438.01	-.064	.145	18653.97	-1.56	10.	2.	.135	12.97	SI
336.	286.	2. 5.	-2382.29	-.107	.195	-23188.01	-2.01	10.	2.	.167	9.733	SI
336.	286.	2. 5.	553.75	-.025	.056	18653.97	-1.56	10.	2.	.135	33.69	SI
> 336.	0.	2. 5.	-2181.76	-.098	.179	-23188.01	-2.01	10.	2.	.167	10.63	SI
336.	0.	2. 5.	1087.23	-.048	.11	18653.97	-1.56	10.	2.	.135	17.16	SI
431.	95.	2. 4.	-493.21	-.028	.051	-18441.	-2.22	10.	2.	.182	37.39	SI
431.	95.	2. 4.	2376.55	-.14	.472	9383.26	-1.12	10.	2.	.101	3.948	SI
470.	134.	2. 3.	2488.65	-.176	.501	9366.57	-1.38	10.	2.	.121	3.764	SI
642.	306.	2. 5.	-3845.74	-.174	.315	-23188.01	-2.01	10.	2.	.167	6.03	SI
642.	306.	2. 5.	812.67	-.036	.082	18653.97	-1.56	10.	2.	.135	22.95	SI
> 642.	0.	2. 5.	-6005.65	-.275	.492	-23188.01	-2.01	10.	2.	.167	3.861	SI
642.	0.	2. 5.	673.98	-.03	.068	18653.97	-1.56	10.	2.	.135	27.68	SI
738.	96.	2. 6.	-3155.98	-.168	.264	-22762.36	-2.82	10.	2.	.22	7.212	SI
738.	96.	2. 6.	2161.96	-.118	.428	9383.96	-1.05	10.	2.	.095	4.34	SI
822.	180.	2. 3.	2470.52	-.174	.497	9366.57	-1.38	10.	2.	.121	3.791	SI
972.	330.	2. 2.	-2167.09	-.134	.295	-13941.51	-1.8	10.	2.	.152	6.433	SI
972.	330.	2. 2.	682.54	-.044	.136	9379.17	-1.23	10.	2.	.109	13.74	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 50.	0.	2. 5868.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
336.	286.	2. -5038.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 336.	0.	2. 6058.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
642.	306.	2. -5848.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 642.	0.	2. 6829.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
972.	330.	2. -4768.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 63.	13.	2. 1.	-1215.97	-7.9	253.2	9.05	7.5	.074	11.54	.009	SI
80.	30.	2. 1.	-820.17	-5.4	170.8	9.05	7.5	.05	11.54	.006	SI
93.	43.	2. 1.	139.51	-.9	29.1	9.05	7.5	.009	11.54	.001	SI
193.	143.	2. 3.	1521.39	-14.4	626.9	4.52	7.5	.183	14.92	.027	SI
336.	286.	2. 5.	-1583.14	-9.7	266.2	11.31	7.5	.078	10.87	.008	SI
> 336.	0.	2. 5.	-1964.96	-12.1	330.4	11.31	7.5	.097	10.87	.011	SI
470.	134.	2. 3.	1744.93	-16.5	719.1	4.52	7.5	.21	14.92	.031	SI
642.	306.	2. 5.	-2706.07	-16.6	455.	11.31	7.5	.133	10.87	.014	SI
> 642.	0.	2. 5.	-4229.59	-26.	711.1	11.31	7.5	.246	10.87	.027	SI
822.	180.	2. 3.	1754.61	-16.6	723.	4.52	7.5	.212	14.92	.032	SI
972.	330.	2. 2.	-1520.77	-12.6	424.3	6.79	7.5	.124	12.67	.016	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 63.	13.	2. 1.	-983.37	-6.4	204.8	9.05	7.5	.06	11.54	.007	SI
80.	30.	2. 1.	-656.14	-4.3	136.6	9.05	7.5	.04	11.54	.005	SI
93.	43.	2. 1.	117.47	-.8	24.5	9.05	7.5	.007	11.54	.001	SI
193.	143.	2. 3.	1224.92	-11.6	504.8	4.52	7.5	.148	14.92	.022	SI
336.	286.	2. 5.	-1275.31	-7.8	214.4	11.31	7.5	.063	10.87	.007	SI
> 336.	0.	2. 5.	-1554.53	-9.5	261.4	11.31	7.5	.076	10.87	.008	SI
470.	134.	2. 3.	1400.24	-13.3	577.	4.52	7.5	.169	14.92	.025	SI
642.	306.	2. 5.	-2243.73	-13.8	377.2	11.31	7.5	.11	10.87	.012	SI
> 642.	0.	2. 5.	-3554.08	-21.8	597.6	11.31	7.5	.191	10.87	.021	SI
822.	180.	2. 3.	1394.21	-13.2	574.5	4.52	7.5	.168	14.92	.025	SI
972.	330.	2. 2.	-1216.62	-10.1	339.4	6.79	7.5	.099	12.67	.013	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 63.	13.	2. 1.	-922.09	-6.	192.	9.05	7.5	.056	11.54	.006	SI
80.	30.	2. 1.	-615.13	-4.	128.1	9.05	7.5	.037	11.54	.004	SI
93.	43.	2. 1.	109.62	-.7	22.8	9.05	7.5	.007	11.54	.001	SI
193.	143.	2. 3.	1146.59	-10.9	472.5	4.52	7.5	.138	14.92	.021	SI
336.	286.	2. 5.	-1199.95	-7.4	201.8	11.31	7.5	.059	10.87	.006	SI
> 336.	0.	2. 5.	-1450.69	-8.9	243.9	11.31	7.5	.071	10.87	.008	SI
470.	134.	2. 3.	1307.44	-12.4	538.8	4.52	7.5	.158	14.92	.024	SI
642.	306.	2. 5.	-2130.25	-13.1	358.2	11.31	7.5	.105	10.87	.011	SI
> 642.	0.	2. 5.	-3386.06	-20.8	569.3	11.31	7.5	.177	10.87	.019	SI
822.	180.	2. 3.	1312.46	-12.4	540.8	4.52	7.5	.158	14.92	.024	SI
972.	330.	2. 2.	-1140.58	-9.5	318.2	6.79	7.5	.093	12.67	.012	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	18.1	1.508	9.05	.754	2d12 +2d12 +4d12	9.05	.754	4d12 +4d12
2	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
3	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
4	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
5	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12
6	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR27  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmIn= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1054	2	2	2	0	320.	280.
2	A1055	2	2	2	0	345.	305.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	2.	1.	-2001.02	-.123	.272	-13941.51	-1.8	10.	2.	.152	6.967	SI
0.	0.	2.	1.	733.55	-.047	.146	9379.17	-1.23	10.	2.	.109	12.79	SI
145.	145.	2.	2.	2289.51	-.161	.46	9366.57	-1.38	10.	2.	.121	4.091	SI
225.	225.	2.	3.	-1163.78	-.061	.097	-22762.36	-2.82	10.	2.	.22	19.56	SI
225.	225.	2.	3.	1714.04	-.094	.339	9383.96	-1.05	10.	2.	.095	5.475	SI
264.	264.	2.	4.	1126.13	-.05	.113	18653.97	-1.56	10.	2.	.135	16.57	SI
320.	320.	2.	4.	-3011.73	-.136	.247	-23188.01	-2.01	10.	2.	.167	7.699	SI
320.	320.	2.	4.	27.05	-.001	.003	18653.97	-1.56	10.	2.	.135	689.5	SI
> 320.	0.	2.	4.	-3222.79	-.146	.264	-23188.01	-2.01	10.	2.	.167	7.195	SI
333.	13.	2.	4.	127.69	-.006	.013	18653.97	-1.56	10.	2.	.135	146.1	SI
420.	100.	2.	3.	-1081.92	-.057	.09	-22762.36	-2.82	10.	2.	.22	21.04	SI
420.	100.	2.	3.	1911.36	-.104	.378	9383.96	-1.05	10.	2.	.095	4.91	SI
507.	187.	2.	2.	2687.32	-.19	.541	9366.57	-1.38	10.	2.	.121	3.485	SI
665.	345.	2.	1.	-2342.25	-.145	.319	-13941.51	-1.8	10.	2.	.152	5.952	SI
665.	345.	2.	1.	662.72	-.042	.132	9379.17	-1.23	10.	2.	.109	14.15	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	4380.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
320.	320.	2.	-5197.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 320.	0.	2.	5565.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
665.	345.	2.	-4878.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	78.72	-.7	32.2	4.52	7.5	.009	14.92	.001	SI
26.	26.	2. 1.	383.26	-3.3	156.9	4.52	7.5	.046	14.92	.007	SI
145.	145.	2. 2.	1610.49	-15.3	663.7	4.52	7.5	.194	14.92	.029	SI
320.	320.	2. 4.	-2083.12	-12.8	350.2	11.31	7.5	.103	10.87	.011	SI
> 320.	0.	2. 4.	-2247.79	-13.8	377.9	11.31	7.5	.111	10.87	.012	SI
507.	187.	2. 2.	1890.31	-17.9	779.	4.52	7.5	.228	14.92	.034	SI
665.	345.	2. 1.	-1647.69	-13.7	459.7	6.79	7.5	.135	12.67	.017	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	63.81	-.6	26.1	4.52	7.5	.008	14.92	.001	SI
26.	26.	2. 1.	316.27	-2.8	129.5	4.52	7.5	.038	14.92	.006	SI
145.	145.	2. 2.	1332.47	-12.6	549.1	4.52	7.5	.161	14.92	.024	SI
320.	320.	2. 4.	-1724.85	-10.6	290.	11.31	7.5	.085	10.87	.009	SI
> 320.	0.	2. 4.	-1860.06	-11.4	312.7	11.31	7.5	.092	10.87	.01	SI
507.	187.	2. 2.	1561.05	-14.8	643.3	4.52	7.5	.188	14.92	.028	SI
665.	345.	2. 1.	-1363.78	-11.3	380.5	6.79	7.5	.111	12.67	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	60.83	-.5	24.9	4.52	7.5	.007	14.92	.001	SI
26.	26.	2. 1.	300.17	-2.6	122.9	4.52	7.5	.036	14.92	.005	SI
145.	145.	2. 2.	1262.69	-12.	520.3	4.52	7.5	.152	14.92	.023	SI
320.	320.	2. 4.	-1637.13	-10.1	275.3	11.31	7.5	.081	10.87	.009	SI
> 320.	0.	2. 4.	-1759.48	-10.8	295.8	11.31	7.5	.087	10.87	.009	SI
507.	187.	2. 2.	1479.82	-14.	609.8	4.52	7.5	.178	14.92	.027	SI
665.	345.	2. 1.	-1292.81	-10.7	360.7	6.79	7.5	.106	12.67	.013	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
4	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR28  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Ac1s=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1094	2	2	2	0	310.	270.
2	A1131	2	2	2	0	447.	387.
3	A1104	2	2	2	0	495.	455.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	2. 1.	-1255.18	-.077	.171	-13941.51	-1.8	10.	2.	.152	11.11	SI
0.	0.	2. 1.	544.99	-.035	.109	9379.17	-1.23	10.	2.	.109	17.21	SI
102.	102.	2. 2.	1432.67	-.101	.288	9366.57	-1.38	10.	2.	.121	6.538	SI
217.	217.	2. 3.	-1722.66	-.091	.144	-22762.36	-2.82	10.	2.	.22	13.21	SI
217.	217.	2. 3.	1154.04	-.063	.228	9383.96	-1.05	10.	2.	.095	8.131	SI
256.	256.	2. 4.	808.31	-.034	.07	21721.77	-1.73	10.	2.	.147	26.87	SI
290.	290.	2. 4.	320.89	-.014	.028	21721.77	-1.73	10.	2.	.147	67.69	SI
310.	310.	2. 4.	-3756.94	-.162	.306	-23233.75	-1.87	10.	2.	.158	6.184	SI
> 310.	0.	2. 4.	-7227.41	-.316	.589	-23233.75	-1.87	10.	2.	.158	3.215	SI
534.	224.	2. 7.	7177.16	-.474	1.097	12424.43	-1.66	10.	2.	.142	1.731	SI
659.	349.	2. 9.	-3808.45	-.185	.281	-25867.17	-2.82	10.	2.	.22	6.792	SI
659.	349.	2. 9.	3770.46	-.181	.562	12486.85	-1.17	10.	2.	.104	3.312	SI
701.	391.	2. 10	1736.85	-.066	.117	28057.29	-1.96	10.	2.	.164	16.15	SI
731.	421.	2. 10	154.97	-.006	.01	28057.29	-1.96	10.	2.	.164	181.	SI
757.	447.	2. 10	-10073.5	-.391	.722	-26356.96	-1.81	10.	2.	.153	2.616	SI
> 757.	0.	2. 10	-12806.81	-.5	.918	-26356.96	-1.81	10.	2.	.153	2.058	SI
858.	101.	2. 11	-5379.4	-.249	.394	-26126.23	-2.38	10.	2.	.192	4.857	SI
858.	101.	2. 11	2522.55	-.113	.299	15774.92	-1.33	10.	2.	.118	6.254	SI
904.	147.	2. 12	-1769.71	-.085	.156	-21618.57	-2.05	10.	2.	.17	12.22	SI
1042.	285.	2. 13	10129.95	-.592	1.227	15693.57	-1.78	10.	2.	.151	1.549	SI
1252.	495.	2. 14	-8878.39	-.471	.986	-17065.34	-1.73	10.	2.	.147	1.922	SI
1252.	495.	2. 14	1544.8	-.08	.185	15739.1	-1.58	10.	2.	.137	10.19	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	vcd	vwd	Asw	s	Ve	
> 0.	0.	2. 1.	3024.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
310.	310.	2. 2.	-4188.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 310.	0.	2. 2.	12096.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
353.	43.	2. 2.	9647.	4317.	54273.	27619.	7955.	19664.	1.01	10.	SI
757.	447.	2. 2.	-12102.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 757.	0.	2. 2.	15180.	5333.	54273.	27619.	7955.	19664.	1.01	10.	SI
1252.	495.	2. 2.	-13165.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	122.59	-1.1	50.2	4.52	7.5	.015	14.92	.002	SI
25.	25.	2. 1.	-475.82	-3.9	132.8	6.79	7.5	.039	12.67	.005	SI
25.	25.	2. 1.	328.12	-2.9	134.3	4.52	7.5	.039	14.92	.006	SI
102.	102.	2. 2.	1008.1	-9.6	415.4	4.52	7.5	.122	14.92	.018	SI
310.	310.	2. 4.	-2651.49	-15.6	443.6	11.31	7.5	.13	10.87	.014	SI
> 310.	0.	2. 4.	-5104.86	-30.	854.1	11.31	7.5	.316	10.87	.034	SI
534.	224.	2. 7.	5076.08	-43.7	1585.6	6.03	7.5	.614	14.24	.087	SI
757.	447.	2. 10	-7125.45	-37.3	1048.	12.82	7.5	.419	10.13	.042	SI
> 757.	0.	2. 10	-9057.26	-47.4	1332.2	12.82	7.5	.557	10.13	.056	SI
1042.	285.	2. 13	7162.43	-54.3	1774.1	7.63	7.5	.732	13.15	.096	SI
1252.	495.	2. 14	-6277.94	-44.	1427.8	8.29	7.5	.571	11.91	.068	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	97.97	-.9	40.1	4.52	7.5	.012	14.92	.002	SI
25.	25.	2. 1.	-400.13	-3.3	111.6	6.79	7.5	.033	12.67	.004	SI
25.	25.	2. 1.	271.18	-2.4	111.	4.52	7.5	.032	14.92	.005	SI
102.	102.	2. 2.	846.91	-8.	349.	4.52	7.5	.102	14.92	.015	SI
310.	310.	2. 4.	-2243.49	-13.2	375.4	11.31	7.5	.11	10.87	.012	SI
> 310.	0.	2. 4.	-4480.32	-26.3	749.6	11.31	7.5	.265	10.87	.029	SI
534.	224.	2. 7.	4512.15	-38.9	1409.4	6.03	7.5	.528	14.24	.075	SI
757.	447.	2. 10	-6320.31	-33.	929.6	12.82	7.5	.361	10.13	.037	SI
> 757.	0.	2. 10	-8034.23	-42.	1181.7	12.82	7.5	.484	10.13	.049	SI
1042.	285.	2. 13	6345.1	-48.1	1571.6	7.63	7.5	.634	13.15	.083	SI
1252.	495.	2. 14	-5563.74	-39.	1265.4	8.29	7.5	.492	11.91	.059	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
13.	13.	2. 1.	92.22	-.8	37.7	4.52	7.5	.011	14.92	.002	SI
25.	25.	2. 1.	-381.41	-3.2	106.4	6.79	7.5	.031	12.67	.004	SI
25.	25.	2. 1.	256.91	-2.2	105.2	4.52	7.5	.031	14.92	.005	SI
102.	102.	2. 2.	803.9	-7.6	331.3	4.52	7.5	.097	14.92	.014	SI
310.	310.	2. 4.	-2143.6	-12.6	358.6	11.31	7.5	.105	10.87	.011	SI
> 310.	0.	2. 4.	-4323.51	-25.4	723.4	11.31	7.5	.252	10.87	.027	SI
534.	224.	2. 7.	4370.54	-37.6	1365.2	6.03	7.5	.506	14.24	.072	SI
757.	447.	2. 10	-6130.43	-32.1	901.7	12.82	7.5	.347	10.13	.035	SI
> 757.	0.	2. 10	-7783.42	-40.7	1144.8	12.82	7.5	.466	10.13	.047	SI
1042.	285.	2. 13	6139.24	-46.5	1520.6	7.63	7.5	.609	13.15	.08	SI
1252.	495.	2. 14	-5385.19	-37.7	1224.8	8.29	7.5	.472	11.91	.056	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	15.83	1.319	11.31	.942	2d12 +4d12 +4d12	4.52	.377	4d12
4	21.87	1.822	11.31	.942	2d12 +4d12 +4d12	10.56	.88	4d12 +3d16
5	17.34	1.445	11.31	.942	2d12 +4d12 +4d12	6.03	.503	3d16
6	15.08	1.257	9.05	.754	4d12 +4d12	6.03	.503	3d16
7	10.56	.88	4.52	.377	4d12	6.03	.503	3d16
8	16.59	1.382	10.56	.88	4d12 +3d16	6.03	.503	3d16
9	18.85	1.571	12.82	1.068	2d12 +4d12 +3d16	6.03	.503	3d16
10	26.48	2.207	12.82	1.068	2d12 +4d12 +3d16	13.67	1.139	3d16 +3d18
11	20.45	1.704	12.82	1.068	2d12 +4d12 +3d16	7.63	.636	3d18
12	18.19	1.516	10.56	.88	4d12 +3d16	7.63	.636	3d18
13	13.67	1.139	6.03	.503	3d16	7.63	.636	3d18
14	15.93	1.327	8.29	.691	2d12 +3d16	7.63	.636	3d18

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR30  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; Fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σc (rara)=149.4; σc (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1126	2	2	2	0	245.	205.
2	A1120	2	2	2	0	265.	225.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE	
> 0.	0.	2.	1.	-2196.64	-.136	.299	-13941.51	-1.8	10.	2.	.152	6.347	SI
0.	0.	2.	1.	609.54	-.039	.122	9379.17	-1.23	10.	2.	.109	15.39	SI
67.	67.	2.	1.	-721.31	-.044	.098	-13941.51	-1.8	10.	2.	.152	19.33	SI
107.	107.	2.	2.	2512.06	-.177	.505	9366.57	-1.38	10.	2.	.121	3.729	SI
148.	148.	2.	3.	-1444.98	-.081	.149	-18441.	-2.22	10.	2.	.182	12.76	SI
148.	148.	2.	3.	2523.07	-.149	.501	9383.26	-1.12	10.	2.	.101	3.719	SI
189.	189.	2.	4.	2361.14	-.105	.238	18653.97	-1.56	10.	2.	.135	7.9	SI
245.	245.	2.	4.	-3615.53	-.164	.296	-23188.01	-2.01	10.	2.	.167	6.413	SI
245.	245.	2.	4.	1418.6	-.063	.143	18653.97	-1.56	10.	2.	.135	13.15	SI
> 245.	0.	2.	4.	-3180.61	-.144	.261	-23188.01	-2.01	10.	2.	.167	7.29	SI
245.	0.	2.	4.	707.62	-.031	.071	18653.97	-1.56	10.	2.	.135	26.36	SI
387.	142.	2.	2.	2729.65	-.193	.549	9366.57	-1.38	10.	2.	.121	3.431	SI
431.	186.	2.	1.	-400.95	-.024	.055	-13941.51	-1.8	10.	2.	.152	34.77	SI
431.	186.	2.	1.	2605.3	-.168	.52	9379.17	-1.23	10.	2.	.109	3.6	SI
510.	265.	2.	1.	-2383.93	-.147	.325	-13941.51	-1.8	10.	2.	.152	5.848	SI
510.	265.	2.	1.	971.55	-.062	.194	9379.17	-1.23	10.	2.	.109	9.654	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	2.	6688.!	3414.	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
245.	245.	2.	-6667.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
> 245.	0.	2.	8687.!	4091.!	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI
510.	265.	2.	-6251.!	3414.	54273.!	27619.!	7955.!	19664.!	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
26.	26.	2.	1.	-576.58	-4.8	160.9	6.79	7.5	.047	12.67	.006	SI
26.	26.	2.	1.	368.59	-3.2	150.9	4.52	7.5	.044	14.92	.007	SI
107.	107.	2.	2.	1770.92	-16.8	729.8	4.52	7.5	.214	14.92	.032	SI
245.	245.	2.	4.	-2355.69	-14.5	396.1	11.31	7.5	.116	10.87	.013	SI
> 245.	0.	2.	4.	-1900.9	-11.7	319.6	11.31	7.5	.094	10.87	.01	SI
387.	142.	2.	2.	1919.11	-18.2	790.8	4.52	7.5	.231	14.92	.035	SI
510.	265.	2.	1.	-1675.29	-13.9	467.4	6.79	7.5	.137	12.67	.017	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
26.	26.	2.	1.	-470.51	-3.9	131.3	6.79	7.5	.038	12.67	.005	SI
26.	26.	2.	1.	271.42	-2.4	111.1	4.52	7.5	.033	14.92	.005	SI
107.	107.	2.	2.	1442.36	-13.7	594.4	4.52	7.5	.174	14.92	.026	SI
245.	245.	2.	4.	-1925.68	-11.8	323.8	11.31	7.5	.095	10.87	.01	SI
> 245.	0.	2.	4.	-1527.95	-9.4	256.9	11.31	7.5	.075	10.87	.008	SI
387.	142.	2.	2.	1562.21	-14.8	643.8	4.52	7.5	.188	14.92	.028	SI
510.	265.	2.	1.	-1367.07	-11.3	381.4	6.79	7.5	.112	12.67	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
26.	26.	2.	1.	-444.94	-3.7	124.1	6.79	7.5	.036	12.67	.005	SI
26.	26.	2.	1.	249.99	-2.2	102.3	4.52	7.5	.03	14.92	.004	SI
107.	107.	2.	2.	1363.11	-12.9	561.7	4.52	7.5	.164	14.92	.025	SI
245.	245.	2.	4.	-1826.66	-11.2	307.1	11.31	7.5	.09	10.87	.01	SI
> 245.	0.	2.	4.	-1429.14	-8.8	240.3	11.31	7.5	.07	10.87	.008	SI
387.	142.	2.	2.	1477.6	-14.	608.9	4.52	7.5	.178	14.92	.027	SI
510.	265.	2.	1.	-1290.04	-10.7	359.9	6.79	7.5	.105	12.67	.013	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12
3	13.57	1.131	9.05	.754	4d12 +4d12	4.52	.377	4d12
4	20.36	1.696	11.31	.942	2d12 +4d12 +4d12	9.05	.754	4d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR34  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck=300.; fck=249.; fctk=18.2; fctm=26.1; Ec=311769.;  
 gc=1.6; fcd=155.6; fbd=25.7; fctd=11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300.; fyk=4300.; Ea=2050000.;  
 ga=1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112.; fbd(esercizio)=25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.=15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4; wk(q.p.)=.2;  
 c/cmin=1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; AcIs=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1106	3	3	3	0	30.	0.
2	A1105	3	3	3	0	555.	515.
3	A1108	3	3	3	0	390.	350.
4	A1107	3	3	3	0	30.	0.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						



VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 30.	0.	3. 2.	-2587.27	-.138	.266	-18530.24	-2.01	10.	2.	.167	7.162	SI
30.	0.	3. 2.	466.01	-.025	.07	12477.	-1.32	10.	2.	.117	26.77	SI
225.	195.	3. 3.	1014.72	-.065	.155	12424.43	-1.66	10.	2.	.142	12.24	SI
457.	427.	3. 4.	-6.8	0.	.001	-23020.49	-2.38	10.	2.	.192	3385.	SI
457.	427.	3. 4.	548.06	-.027	.082	12484.44	-1.22	10.	2.	.109	22.78	SI
549.	519.	3. 5.	209.97	-.009	.016	24777.6	-1.9	10.	2.	.16	118.	SI
585.	555.	3. 5.	-824.48	-.034	.067	-23265.98	-1.76	10.	2.	.15	28.22	SI
585.	555.	3. 5.	116.32	-.005	.009	24777.6	-1.9	10.	2.	.16	213.	SI
> 585.	0.	3. 5.	-636.04	-.026	.052	-23265.98	-1.76	10.	2.	.15	36.58	SI
585.	0.	3. 5.	201.97	-.008	.015	24777.6	-1.9	10.	2.	.16	122.7	SI
621.	36.	3. 5.	171.28	-.007	.013	24777.6	-1.9	10.	2.	.16	144.7	SI
663.	78.	3. 4.	-274.43	-.014	.023	-23020.49	-2.38	10.	2.	.192	83.89	SI
663.	78.	3. 4.	275.05	-.014	.041	12484.44	-1.22	10.	2.	.109	45.39	SI
834.	249.	3. 3.	-1598.72	-.105	.32	-9376.33	-1.27	10.	2.	.113	5.865	SI
932.	347.	3. 7.	1142.88	-.05	.088	24701.95	-2.1	10.	2.	.174	21.61	SI
975.	390.	3. 7.	-2828.33	-.123	.285	-18661.42	-1.52	10.	2.	.132	6.598	SI
975.	390.	3. 7.	1132.61	-.05	.087	24701.95	-2.1	10.	2.	.174	21.81	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 30.	0.	3. 1.	1461.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
410.	380.	3. 3.	-521.	4317.	54273.	17787.	7955.	9832.	1.01	20.	SI
585.	555.	3. 3.	-1056.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 585.	0.	3. 3.	-263.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
585.	0.	3. 3.	1059.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
663.	78.	3. 3.	-472.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
975.	390.	3. 3.	-1334.	3753.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 30.	30.	3. 1.	-1528.81	-12.5	0.	***	***	*****	*****	*****	SI
> 30.	0.	3. 2.	-1204.9	-8.7	253.7	9.05	7.5	.074	11.54	.009	SI
43.	13.	3. 2.	-1180.84	-8.5	248.6	9.05	7.5	.073	11.54	.008	SI
56.	26.	3. 2.	-1108.68	-8.	233.4	9.05	7.5	.068	11.54	.008	SI
60.	30.	3. 2.	-1073.27	-7.7	225.9	9.05	7.5	.066	11.54	.008	SI
364.	334.	3. 3.	595.62	-5.1	186.1	6.03	7.5	.054	14.24	.008	SI
585.	555.	3. 5.	-588.91	-3.3	98.1	11.31	7.5	.029	10.87	.003	SI
> 585.	0.	3. 5.	-290.8	-1.6	48.4	11.31	7.5	.014	10.87	.002	SI
749.	164.	3. 3.	294.45	-2.5	92.	6.03	7.5	.027	14.24	.004	SI
975.	390.	3. 7.	-953.31	-5.7	196.9	9.05	7.5	.058	11.54	.007	SI
> 975.	0.	3. 1.	-1089.51	-8.9	0.	***	***	*****	*****	*****	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 30.	30.	3. 1.	-1344.06	-11.	0.	***	***	*****	*****	*****	SI
> 30.	0.	3. 2.	-1095.57	-7.9	230.6	9.05	7.5	.068	11.54	.008	SI
43.	13.	3. 2.	-1072.07	-7.7	225.7	9.05	7.5	.066	11.54	.008	SI
56.	26.	3. 2.	-1001.57	-7.2	210.8	9.05	7.5	.062	11.54	.007	SI
60.	30.	3. 2.	-966.98	-7.	203.6	9.05	7.5	.06	11.54	.007	SI
364.	334.	3. 3.	592.5	-5.1	185.1	6.03	7.5	.054	14.24	.008	SI
585.	555.	3. 5.	-588.91	-3.3	98.1	11.31	7.5	.029	10.87	.003	SI
> 585.	0.	3. 5.	-290.8	-1.6	48.4	11.31	7.5	.014	10.87	.002	SI
749.	164.	3. 3.	292.76	-2.5	91.4	6.03	7.5	.027	14.24	.004	SI
975.	390.	3. 7.	-852.93	-5.1	176.2	9.05	7.5	.052	11.54	.006	SI
> 975.	0.	3. 1.	-967.13	-7.9	0.	***	***	*****	*****	*****	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momemto	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 30.	30.	3. 1.	-1295.1	-10.6	0.	***	***	*****	*****	*****	SI
> 30.	0.	3. 2.	-1059.62	-7.6	223.1	9.05	7.5	.065	11.54	.008	SI
43.	13.	3. 2.	-1036.3	-7.5	218.2	9.05	7.5	.064	11.54	.007	SI
56.	26.	3. 2.	-966.35	-7.	203.4	9.05	7.5	.06	11.54	.007	SI
60.	30.	3. 2.	-932.03	-6.7	196.2	9.05	7.5	.057	11.54	.007	SI
364.	334.	3. 3.	589.45	-5.1	184.1	6.03	7.5	.054	14.24	.008	SI
585.	555.	3. 5.	-588.91	-3.3	98.1	11.31	7.5	.029	10.87	.003	SI
> 585.	0.	3. 5.	-290.8	-1.6	48.4	11.31	7.5	.014	10.87	.002	SI
749.	164.	3. 3.	291.02	-2.5	90.9	6.03	7.5	.027	14.24	.004	SI
975.	390.	3. 7.	-822.98	-4.9	170.	9.05	7.5	.05	11.54	.006	SI
> 975.	0.	3. 1.	-939.32	-7.7	0.	***	***	*****	*****	*****	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	0.	0.	0.	0.		0.	0.	
2	15.08	1.257	9.05	.754	2d12 +2d12 +4d12	6.03	.503	3d16
3	10.56	.88	4.52	.377	4d12	6.03	.503	3d16
4	17.34	1.445	11.31	.942	2d12 +4d12 +4d12	6.03	.503	3d16
5	23.37	1.948	11.31	.942	2d12 +4d12 +4d12	12.06	1.005	3d16 +3d16
6	15.08	1.257	9.05	.754	2d12 +4d12 +2d12	6.03	.503	3d16
7	21.11	1.759	9.05	.754	2d12 +4d12 +2d12	12.06	1.005	3d16 +3d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TRA  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010. ; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1008	2	2	2	0	310.	290.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE		
>	0.	0.	2.	1.	-1058.76	-.065	.144	-13941.51	-1.8	10.	2.	.152	13.17	SI
	0.	0.	2.	1.	1851.99	-.119	.37	9379.17	-1.23	10.	2.	.109	5.064	SI
	71.	71.	2.	1.	-347.98	-.021	.047	-13941.51	-1.8	10.	2.	.152	40.07	SI
	113.	113.	2.	2.	2639.17	-.187	.531	9366.57	-1.38	10.	2.	.121	3.549	SI
	310.	310.	2.	1.	-1058.76	-.065	.144	-13941.51	-1.8	10.	2.	.152	13.17	SI
	310.	310.	2.	1.	438.76	-.028	.088	9379.17	-1.23	10.	2.	.109	21.38	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve		
>	0.	0.	2.	2904.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
	71.	71.	2.	1337.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
	310.	310.	2.	-3525.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve		
	14.	14.	2.	1.	-496.42	-4.1	138.5	6.79	7.5	.041	12.67	.005	SI
	113.	113.	2.	2.	1859.08	-17.6	766.1	4.52	7.5	.224	14.92	.033	SI
	310.	310.	2.	1.	-745.64	-6.2	208.	6.79	7.5	.061	12.67	.008	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve		
	14.	14.	2.	1.	-417.71	-3.5	116.5	6.79	7.5	.034	12.67	.004	SI
	113.	113.	2.	2.	1567.81	-14.9	646.1	4.52	7.5	.189	14.92	.028	SI
	310.	310.	2.	1.	-626.73	-5.2	174.9	6.79	7.5	.051	12.67	.006	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
14.	14.	2.	1.	-398.03	-3.3	111.	6.79	7.5	.033	12.67	.004
113.	113.	2.	2.	1494.81	-14.2	616.	4.52	7.5	.18	14.92	.027
310.	310.	2.	1.	-597.	-5.	166.6	6.79	7.5	.049	12.67	.006

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	11.31	.942	6.79	.565	2d12	4.52	.377	4d12
2	9.05	.754	4.52	.377	4d12	4.52	.377	4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TRB  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=20.; alt.=60.; Acl=1200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1114	3	3	3	0	300.	270.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	Se	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	1296.46	-.091	.261	9366.57	-1.38	10.	2.	.121	7.225
14.	14.	3.	2.	1529.81	-.094	.208	13941.51	-1.8	10.	2.	.152	9.113
150.	150.	3.	2.	2425.76	-.15	.33	13941.51	-1.8	10.	2.	.152	5.747
273.	273.	3.	2.	-687.47	-.044	.137	-9379.17	-1.23	10.	2.	.109	13.64
286.	286.	3.	2.	957.19	-.059	.13	13941.51	-1.8	10.	2.	.152	14.57
300.	300.	3.	1.	-722.11	-.05	.145	-9366.57	-1.38	10.	2.	.121	12.97
300.	300.	3.	1.	724.63	-.051	.146	9366.57	-1.38	10.	2.	.121	12.93

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3.	3115.	3414.	54273.	27619.	7955.	19664.	1.01	10.
109.	109.	3.	-67.	4430.	54273.	27619.	7955.	19664.	1.01	10.
300.	300.	3.	-3365.	3414.	54273.	27619.	7955.	19664.	1.01	10.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
14.	14.	3.	2.	658.73	-5.5	183.8	6.79	7.5	.054	12.67	.007
150.	150.	3.	2.	1710.8	-14.2	477.3	6.79	7.5	.14	12.67	.018
300.	300.	3.	1.	-205.72	-2.	84.8	4.52	7.5	.025	14.92	.004

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
14.	14.	3.	2.	618.76	-5.1	172.6	6.79	7.5	.051	12.67	.006
150.	150.	3.	2.	1466.28	-12.2	409.1	6.79	7.5	.12	12.67	.015
300.	300.	3.	1.	-176.86	-1.7	72.9	4.52	7.5	.021	14.92	.003

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve
14.	14.	3.	2.	609.32	-5.1	170.	6.79	7.5	.05	12.67	.006
150.	150.	3.	2.	1404.85	-11.7	391.9	6.79	7.5	.115	12.67	.015
300.	300.	3.	1.	-170.89	-1.6	70.4	4.52	7.5	.021	14.92	.003

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	9.05	.754	4.52	.377 4d12	4.52	.377	4d12
2	11.31	.942	4.52	.377 4d12	6.79	.565	2d12 +4d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : 50 - Travata T107  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogenein.= 15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

- 3) Rettangolare: base=20.; alt.=60.; Acls=1200. .
- 6) Rettangolare: base=60.; alt.=25.; Acls=1500. .
- 7) Rettangolare: base=20.; alt.=110.; Acls=2200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1042	3	3	3	0	175.	155.
2	A1047	7	7	7	0	365.	340.
3	A1046	7	7	7	0	280.	250.
4	A1032	7	7	7	0	190.	145.
5	A1019	3	3	3	0	280.	220.
6	A1227	3	3	3	0	205.	145.
7	A1003	6	6	6	0	510.	465.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc	Epsac	Mrd	Epsc	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-809.02	-.042	.083	-18560.97	-1.92	10.	2.	.161	22.94
0.	0.	3.	1.	753.58	-.039	.101	14018.63	-1.42	10.	2.	.124	18.6
64.	64.	3.	2.	-174.73	-.011	.035	-9379.17	-1.23	10.	2.	.109	53.68
64.	64.	3.	2.	930.03	-.057	.127	13941.51	-1.8	10.	2.	.152	14.99
101.	101.	3.	2.	-840.01	-.054	.168	-9379.17	-1.23	10.	2.	.109	11.17
139.	139.	3.	3.	-2021.88	-.076	.152	-25027.54	-1.7	10.	2.	.145	12.38
139.	139.	3.	3.	848.2	-.033	.054	29559.56	-2.09	10.	2.	.173	34.85
175.	175.	3.	4.	-2232.88	-.09	.169	-24988.37	-1.85	10.	2.	.156	11.19
175.	175.	3.	4.	656.69	-.026	.05	24988.37	-1.85	10.	2.	.156	38.05
> 175.	0.	7.	5.	-3780.49	-.067	.154	-62539.21	-2.27	10.	2.	.185	16.54
175.	0.	7.	5.	1125.67	-.02	.041	67238.24	-3.18	10.	2.	.241	59.73
332.	157.	7.	8.	3437.97	-.064	.168	38875.01	-1.44	10.	2.	.126	11.31
469.	294.	7.	10	2123.69	-.036	.103	39078.13	-1.21	10.	2.	.108	18.4
514.	339.	7.	11	434.43	-.005	.014	60300.48	-1.31	10.	2.	.116	138.8
540.	365.	7.	11	-4264.34	-.055	.105	-77618.91	-1.82	10.	2.	.154	18.2
> 540.	0.	7.	11	-2900.33	-.038	.071	-77618.91	-1.82	10.	2.	.154	26.76
540.	0.	7.	11	744.93	-.009	.023	60300.48	-1.31	10.	2.	.116	80.95
604.	64.	7.	10	-2451.83	-.041	.098	-47756.29	-1.52	10.	2.	.132	19.48
642.	102.	7.	8.	-855.1	-.016	.053	-30178.54	-1.1	10.	2.	.099	35.29
680.	140.	7.	8.	2128.87	-.04	.104	38875.01	-1.44	10.	2.	.126	18.26
820.	280.	7.	11	-2476.74	-.032	.061	-77618.91	-1.82	10.	2.	.154	31.34

820.	280.	7.	11	813.2	-.01	.025	60300.48	-1.31	10.	2.	.116	74.15	SI
> 820.	0.	7.	11	-2056.78	-.027	.051	-77618.91	-1.82	10.	2.	.154	37.74	SI
882.	62.	7.	8.	-1917.77	-.037	.12	-30178.54	-1.1	10.	2.	.099	15.74	SI
882.	62.	7.	8.	312.21	-.006	.015	38875.01	-1.44	10.	2.	.126	124.5	SI
954.	134.	7.	12	1239.44	-.02	.04	67745.93	-2.54	10.	2.	.203	54.66	SI
967.	147.	7.	13	1307.55	-.022	.049	59692.51	-2.14	10.	2.	.176	45.65	SI
1010.	190.	7.	13	-1807.04	-.031	.079	-52423.34	-1.77	10.	2.	.15	29.01	SI
1010.	190.	7.	13	1307.55	-.022	.049	59692.51	-2.14	10.	2.	.176	45.65	SI
>1010.	0.	3.	14	-3294.7	-.156	.438	-14033.69	-1.27	10.	2.	.113	4.259	SI
1010.	0.	3.	14	2754.07	-.132	.213	24756.08	-2.4	10.	2.	.194	8.989	SI
1024.	14.	3.	14	5205.22	-.252	.402	24756.08	-2.4	10.	2.	.194	4.756	SI
1076.	66.	3.	15	4688.43	-.305	.937	9379.17	-1.23	10.	2.	.109	2.	SI
1247.	237.	3.	17	105.51	-.004	.011	18672.79	-1.44	10.	2.	.126	177.	SI
1290.	280.	3.	17	-3550.27	-.153	.244	-27717.52	-2.3	10.	2.	.187	7.807	SI
>1290.	0.	3.	17	-2555.62	-.11	.176	-27717.52	-2.3	10.	2.	.187	10.85	SI
1290.	0.	3.	17	996.11	-.041	.1	18672.79	-1.44	10.	2.	.126	18.75	SI
1346.	56.	3.	18	-2168.27	-.087	.148	-27820.96	-2.07	10.	2.	.171	12.83	SI
1346.	56.	3.	18	323.88	-.013	.026	23289.1	-1.67	10.	2.	.143	71.91	SI
1377.	87.	3.	2.	-1738.7	-.111	.347	-9379.17	-1.23	10.	2.	.109	5.394	SI
1408.	118.	3.	2.	-2475.6	-.159	.494	-9379.17	-1.23	10.	2.	.109	3.789	SI
1469.	179.	3.	20	1815.45	-.093	.138	29274.3	-3.5	6.604	3.	.346	16.13	SI
1495.	205.	3.	20	-3725.03	-.198	.476	-19474.85	-2.32	10.	2.	.188	5.228	SI
1495.	205.	3.	20	1815.45	-.093	.138	29274.3	-3.5	6.604	3.	.346	16.13	SI
>1495.	0.	6.	21	-1054.47	-.142	.326	-6062.59	-2.09	10.	2.	.173	5.749	SI
1540.	45.	6.	21	198.79	-.025	.048	7708.57	-2.48	10.	2.	.199	38.78	SI
1575.	80.	6.	22	402.47	-.064	.172	4403.46	-1.85	10.	2.	.156	10.94	SI
1750.	255.	6.	24	999.12	-.147	.31	6069.81	-2.26	10.	2.	.185	6.075	SI
2005.	510.	6.	25	-835.7	-.107	.203	-7708.57	-2.48	10.	2.	.199	9.224	SI
2005.	510.	6.	25	122.35	-.016	.038	6062.59	-2.09	10.	2.	.173	49.55	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	3054.	3414.	54273.	0.	0.	***	**	SI	
64.	64.	3.	-935.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
175.	175.	3.	-4586.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
> 175.	0.	7.	20282.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
286.	111.	7.	2337.	7332.	101881.	51845.	14933.	36913.	1.01	10.	SI
540.	365.	7.	-7755.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
> 540.	0.	7.	5551.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
680.	140.	7.	-253.	7332.	101881.	51845.	14933.	36913.	1.01	10.	SI
820.	280.	7.	-5282.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
> 820.	0.	7.	2712.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
1010.	190.	7.	-1487.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
1010.	190.	7.	777.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
>1010.	0.	3.	20917.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
1290.	280.	3.	-3905.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
>1290.	0.	3.	-2283.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
1290.	0.	3.	2634.	4091.	54273.	27619.	7955.	19664.	1.01	10.	SI
1495.	205.	3.	-2727.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
1495.	205.	3.	2007.	3414.	54273.	27619.	7955.	19664.	1.01	10.	SI
>1495.	0.	6.	1434.	6431.	62843.	24390.	9211.	15179.	1.01	5.	SI
1645.	150.	6.	654.	6884.	62843.	24390.	9211.	15179.	1.01	5.	SI
2005.	510.	6.	-1225.	5296.	62843.	24390.	9211.	15179.	1.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve	
> 0.	0.	3.	1.	-571.44	-4.	119.9	9.05	7.5	.035	11.54	.004	SI
26.	26.	3.	1.	365.22	-2.6	100.4	6.79	7.5	.029	12.67	.004	SI
64.	64.	3.	2.	654.64	-5.4	182.6	6.79	7.5	.053	12.67	.007	SI
175.	175.	3.	4.	-1580.31	-8.7	245.5	12.16	7.5	.072	10.2	.007	SI
> 175.	0.	7.	5.	-2673.86	-6.5	223.8	9.9	7.5	.065	11.16	.007	SI
332.	157.	7.	8.	2430.65	-6.2	243.7	9.9	7.5	.071	11.16	.008	SI
540.	365.	7.	11	-3014.46	-5.3	152.5	19.79	7.5	.045	9.15	.004	SI
> 540.	0.	7.	11	-2050.61	-3.6	103.7	19.79	7.5	.03	9.15	.003	SI
680.	140.	7.	8.	1502.99	-3.8	150.7	9.9	7.5	.044	11.16	.005	SI
820.	280.	7.	11	-1748.53	-3.1	88.5	19.79	7.5	.026	9.15	.002	SI
> 820.	0.	7.	11	-1452.26	-2.6	73.5	19.79	7.5	.022	9.15	.002	SI
882.	62.	7.	8.	-743.19	-1.9	95.1	7.63	7.5	.028	13.15	.004	SI
918.	98.	7.	8.	249.68	-.6	25.	9.9	7.5	.007	11.16	.001	SI
1010.	190.	7.	13	-323.25	-.8	28.9	9.9	7.5	.008	11.16	.001	SI
>1010.	0.	3.	14	-2035.34	-13.2	555.4	6.79	7.5	.163	12.67	.021	SI
1050.	40.	3.	14	3683.31	-23.8	583.2	12.16	7.5	.189	10.2	.019	SI
1076.	66.	3.	16	2761.25	-21.1	763.8	6.79	7.5	.227	12.67	.029	SI
1290.	280.	3.	17	-2240.12	-13.1	316.5	13.57	7.5	.093	10.41	.01	SI
>1290.	0.	3.	17	-1113.08	-6.5	157.3	13.57	7.5	.046	10.41	.005	SI
1377.	87.	3.	2.	-996.17	-8.7	407.8	4.52	7.5	.119	14.92	.018	SI
1408.	118.	3.	2.	85.58	-.7	23.9	6.79	7.5	.007	12.67	.001	SI
1495.	205.	3.	20	-1108.78	-.8	290.4	6.79	7.5	.085	12.67	.011	SI
>1495.	0.	6.	21	-613.19	-11.1	388.1	7.92	6.13	.114	17.64	.02	SI
1750.	255.	6.	24	713.07	-14.	451.8	7.92	6.	.132	17.44	.023	SI
2005.	510.	6.	25	-621.63	-10.7	309.1	10.18	5.82	.09	15.16	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-499.49	-3.5	104.8	9.05	7.5	.031	11.54	.004	SI
26.	26.	3. 1.	319.02	-2.3	87.7	6.79	7.5	.026	12.67	.003	SI
64.	64.	3. 2.	570.9	-4.7	159.3	6.79	7.5	.047	12.67	.006	SI
175.	175.	3. 4.	-1389.06	-7.7	215.8	12.16	7.5	.063	10.2	.006	SI
> 175.	0.	7. 5.	-2374.42	-5.8	198.7	9.9	7.5	.058	11.16	.006	SI
332.	157.	7. 8.	2151.73	-5.5	215.7	9.9	7.5	.063	11.16	.007	SI
540.	365.	7. 11	-2657.24	-4.7	134.4	19.79	7.5	.039	9.15	.004	SI
> 540.	0.	7. 11	-1808.08	-3.2	91.5	19.79	7.5	.027	9.15	.002	SI
680.	140.	7. 8.	1305.	-3.3	130.8	9.9	7.5	.038	11.16	.004	SI
820.	280.	7. 11	-1526.34	-2.7	77.2	19.79	7.5	.023	9.15	.002	SI
> 820.	0.	7. 11	-1269.66	-2.3	64.2	19.79	7.5	.019	9.15	.002	SI
882.	62.	7. 8.	-619.45	-1.6	79.3	7.63	7.5	.023	13.15	.003	SI
918.	98.	7. 8.	254.48	-.6	25.5	9.9	7.5	.007	11.16	.001	SI
1010.	190.	7. 13	-321.96	-.8	28.8	9.9	7.5	.008	11.16	.001	SI
>1010.	0.	3. 14	-1818.24	-11.8	496.2	6.79	7.5	.145	12.67	.018	SI
1050.	40.	3. 14	3301.2	-21.3	522.7	12.16	7.5	.159	10.2	.016	SI
1076.	66.	3. 16	2485.51	-19.	687.5	6.79	7.5	.201	12.67	.025	SI
1290.	280.	3. 17	-2022.98	-11.8	285.8	13.57	7.5	.084	10.41	.009	SI
>1290.	0.	3. 17	-947.81	-5.5	133.9	13.57	7.5	.039	10.41	.004	SI
1377.	87.	3. 2.	80.83	-.7	22.6	6.79	7.5	.007	12.67	.001	SI
1408.	118.	3. 2.	-927.71	-8.1	379.7	4.52	7.5	.111	14.92	.017	SI
1495.	205.	3. 20	-1109.11	-8.	290.5	6.79	7.5	.085	12.67	.011	SI
>1495.	0.	6. 21	-644.25	-11.7	407.8	7.92	6.13	.119	17.64	.021	SI
1750.	255.	6. 24	712.47	-14.	451.4	7.92	6.	.132	17.44	.023	SI
2005.	510.	6. 25	-621.63	-10.7	309.1	10.18	5.82	.09	15.16	.014	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3. 1.	-481.49	-3.4	101.1	9.05	7.5	.03	11.54	.003	SI
26.	26.	3. 1.	307.69	-2.2	84.5	6.79	7.5	.025	12.67	.003	SI
64.	64.	3. 2.	549.53	-4.6	153.3	6.79	7.5	.045	12.67	.006	SI
175.	175.	3. 4.	-1345.2	-7.4	209.	12.16	7.5	.061	10.2	.006	SI
> 175.	0.	7. 5.	-2300.94	-5.6	192.6	9.9	7.5	.056	11.16	.006	SI
332.	157.	7. 8.	2081.19	-5.3	208.6	9.9	7.5	.061	11.16	.007	SI
540.	365.	7. 11	-2570.13	-4.6	130.	19.79	7.5	.038	9.15	.003	SI
> 540.	0.	7. 11	-1750.8	-3.1	88.6	19.79	7.5	.026	9.15	.002	SI
680.	140.	7. 8.	1255.75	-3.2	125.9	9.9	7.5	.037	11.16	.004	SI
820.	280.	7. 11	-1466.7	-2.6	74.2	19.79	7.5	.022	9.15	.002	SI
> 820.	0.	7. 11	-1220.89	-2.2	61.8	19.79	7.5	.018	9.15	.002	SI
882.	62.	7. 8.	-586.91	-1.5	75.1	7.63	7.5	.022	13.15	.003	SI
918.	98.	7. 8.	252.2	-.6	25.3	9.9	7.5	.007	11.16	.001	SI
1010.	190.	7. 13	-323.19	-.8	28.9	9.9	7.5	.008	11.16	.001	SI
>1010.	0.	3. 14	-1764.44	-11.4	481.5	6.79	7.5	.141	12.67	.018	SI
1050.	40.	3. 14	3202.39	-20.7	507.	12.16	7.5	.151	10.2	.015	SI
1076.	66.	3. 16	2413.23	-18.5	667.5	6.79	7.5	.195	12.67	.025	SI
1290.	280.	3. 17	-1968.99	-11.5	278.2	13.57	7.5	.081	10.41	.008	SI
>1290.	0.	3. 17	-908.53	-5.3	128.4	13.57	7.5	.038	10.41	.004	SI
1377.	87.	3. 2.	82.49	-.7	23.	6.79	7.5	.007	12.67	.001	SI
1408.	118.	3. 2.	-910.82	-7.9	372.8	4.52	7.5	.109	14.92	.016	SI
1495.	205.	3. 20	-1107.82	-8.	290.1	6.79	7.5	.085	12.67	.011	SI
>1495.	0.	6. 21	-652.29	-11.8	412.9	7.92	6.13	.121	17.64	.021	SI
1750.	255.	6. 24	710.87	-14.	450.4	7.92	6.	.132	17.44	.023	SI
2005.	510.	6. 25	-621.63	-10.7	309.1	10.18	5.82	.09	15.16	.014	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	15.83	1.319	9.05	.754	2d12 +2d12 +4d12	6.79	.565	2d12 +4d12
2	11.31	.942	4.52	.377	4d12	6.79	.565	2d12 +4d12
3	26.58	2.215	12.16	1.013	3d18 +4d12	14.42	1.202	2d12 +4d12 +3d18
4	24.32	2.026	12.16	1.013	3d18 +4d12	12.16	1.013	4d12 +3d18
5	34.21	1.555	22.05	1.002	3d18 +2d12 +4d1 ...	12.16	.553	4d12 +3d18
6	25.16	1.144	17.53	.797	3d18 +2d12 +3d18	7.63	.347	3d18
7	27.43	1.247	17.53	.797	3d18 +2d12 +3d18	9.9	.45	2d12 +3d18
8	17.53	.797	7.63	.347	3d18	9.9	.45	2d12 +3d18
9	19.79	.9	9.9	.45	2d12 +3d18	9.9	.45	2d12 +3d18
10	22.05	1.002	12.16	.553	2d12 +2d12 +3d18	9.9	.45	2d12 +3d18
11	35.06	1.594	19.79	.9	2d12 +2d12 +3d1 ...	15.27	.694	3d18 +3d18
12	31.1	1.414	16.68	.758	2d12 +2d12 +3d1 ...	14.42	.655	2d12 +3d18 +4d12
13	28.84	1.311	16.68	.758	2d12 +2d12 +3d1 ...	12.16	.553	3d18 +4d12
14	18.94	1.579	6.79	.565	2d12 +4d12	12.16	1.013	3d18 +4d12
15	11.31	.942	6.79	.565	2d12 +4d12	4.52	.377	4d12
16	13.57	1.131	6.79	.565	2d12 +4d12	6.79	.565	2d12 +4d12
17	22.62	1.885	13.57	1.131	2d12 +2d12 +4d1 ...	9.05	.754	4d12 +4d12
18	24.88	2.073	13.57	1.131	2d12 +2d12 +4d1 ...	11.31	.942	2d12 +4d12 +4d12
19	27.14	2.262	6.79	.565	2d12 +4d12	20.36	1.696	2d12 +2d12 +4d1 ...
20	24.88	2.073	6.79	.565	2d12 +4d12	18.1	1.508	2d12 +4d12 +5d1 ...
21	18.1	1.206	7.92	.528	2d12 +5d12	10.18	.679	4d12 +5d12
22	13.57	.905	7.92	.528	2d12 +5d12	5.65	.377	5d12
23	15.83	1.056	7.92	.528	2d12 +5d12	7.92	.528	2d12 +5d12
24	13.57	.905	5.65	.377	5d12	7.92	.528	2d12 +5d12
25	18.1	1.206	10.18	.679	2d12 +2d12 +5d12	7.92	.528	2d12 +5d12

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TRPAR3  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omoiein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

2) Rettangolare: base=20.; alt.=110.; Acls=2200. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1066	8	8	8	0	225.	165.
2	A1066	2	2	2	0	250.	210.
3	A1065	2	2	2	0	250.	230.
4	A1077	2	2	2	0	385.	365.
5	C5	8	8	8	0	460.	440.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 225.	0.	2. 1.	-393.79	-.007	.017	-52740.78	-1.68	10.	2.	.144	133.9	SI
225.	0.	2. 1.	2150.24	-.036	.073	65246.22	-2.41	10.	2.	.194	30.34	SI
363.	138.	2. 3.	-3020.6	-.062	.189	-30112.1	-1.2	10.	2.	.107	9.969	SI
363.	138.	2. 3.	111.77	-.002	.007	30112.1	-1.2	10.	2.	.107	269.4	SI
415.	190.	2. 4.	-4580.66	-.086	.224	-38875.01	-1.44	10.	2.	.126	8.487	SI
475.	250.	2. 5.	-4807.81	-.062	.118	-77618.91	-1.82	10.	2.	.154	16.14	SI
> 475.	0.	2. 5.	-4614.18	-.06	.114	-77618.91	-1.82	10.	2.	.154	16.82	SI
504.	29.	2. 5.	15.02	0.	0.	60300.48	-1.31	10.	2.	.116	4014.	SI
523.	48.	2. 2.	102.23	-.002	.006	30221.6	-1.01	10.	2.	.092	295.6	SI
567.	92.	2. 3.	-3987.82	-.081	.25	-30112.1	-1.2	10.	2.	.107	7.551	SI
667.	192.	2. 2.	315.96	-.006	.02	30221.6	-1.01	10.	2.	.092	95.65	SI
725.	250.	2. 5.	-2606.97	-.034	.064	-77618.91	-1.82	10.	2.	.154	29.77	SI
725.	250.	2. 5.	311.42	-.004	.01	60300.48	-1.31	10.	2.	.116	193.6	SI
> 725.	0.	2. 5.	-3354.21	-.043	.083	-77618.91	-1.82	10.	2.	.154	23.14	SI
773.	48.	2. 2.	-3354.21	-.059	.135	-47563.2	-1.67	10.	2.	.143	14.18	SI
863.	138.	2. 3.	-1666.81	-.034	.105	-30112.1	-1.2	10.	2.	.107	18.07	SI
863.	138.	2. 3.	115.52	-.002	.007	30112.1	-1.2	10.	2.	.107	260.7	SI
1062.	337.	2. 2.	731.54	-.014	.044	34339.56	-1.31	10.	2.	.116	46.94	SI
1086.	361.	2. 6.	704.69	-.012	.024	65246.22	-2.41	10.	2.	.194	92.59	SI
1110.	385.	2. 6.	-727.51	-.012	.031	-52740.78	-1.68	10.	2.	.144	72.5	SI
1110.	385.	2. 6.	731.53	-.012	.025	65246.22	-2.41	10.	2.	.194	89.19	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 225.	0.	2.	-2772.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
475.	250.	2.	-4280.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
> 475.	0.	2.	1755.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
600.	125.	2.	-120.	7332.	101881.	51845.	14933.	36913.	1.01	10.	SI
725.	250.	2.	-765.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
725.	250.	2.	134.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
> 725.	0.	2.	2489.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI
863.	138.	2.	1486.	7332.	101881.	51845.	14933.	36913.	1.01	10.	SI
1110.	385.	2.	-796.	6222.	101881.	51845.	14933.	36913.	1.01	10.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
> 225.	0.	2.	1.	-140.21!	- .3!	12.4!	9.9	7.5	.004	11.16	0.	SI
225.	0.	2.	1.	1511.98!	-3.4!	105.2!	13.67	7.5	.031	10.31	.003	SI
255.	30.	2.	1.	-427.78!	-1.	38.	9.9	7.5	.011	11.16	.001	SI
285.	60.	2.	1.	-747.82!	-1.7!	66.4	9.9	7.5	.019	11.16	.002	SI
363.	138.	2.	3.	-1731.38!	-4.8!	222.8!	7.63	7.5	.065	13.15	.009	SI
415.	190.	2.	4.	-2495.4!	-6.3!	250.2!	9.9	7.5	.073	11.16	.008	SI
475.	250.	2.	5.	-3423.63!	-6.1!	173.2!	19.79	7.5	.051	9.15	.005	SI
> 475.	0.	2.	5.	-3266.1!	-5.8!	165.2!	19.79	7.5	.048	9.15	.004	SI
523.	48.	2.	2.	-2770.28!	-6.6!	228.	12.16	7.5	.067	10.2	.007	SI
567.	92.	2.	3.	-2368.66!	-6.5!	304.8!	7.63	7.5	.089	13.15	.012	SI
600.	125.	2.	3.	232.28!	- .6!	29.9	7.63	7.5	.009	13.15	.001	SI
725.	250.	2.	5.	-1815.87!	-3.2!	91.9	19.79	7.5	.027	9.15	.002	SI
> 725.	0.	2.	5.	-2380.65!	-4.2!	120.4!	19.79	7.5	.035	9.15	.003	SI
773.	48.	2.	2.	-1756.39!	-4.2!	144.6!	12.16	7.5	.042	10.2	.004	SI
1062.	337.	2.	2.	521.28!	-1.4!	64.	7.63	7.5	.019	13.15	.002	SI
1110.	385.	2.	6.	-519.65!	-1.2!	46.1	9.9	7.5	.014	11.16	.002	SI
1110.	385.	2.	6.	423.04!	-1.	29.4	13.67	7.5	.009	10.31	.001	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
> 225.	0.	2.	1.	-140.21!	- .3!	12.4!	9.9	7.5	.004	11.16	0.	SI
225.	0.	2.	1.	1241.82!	-2.8!	86.4!	13.67	7.5	.025	10.31	.003	SI
255.	30.	2.	1.	-380.86!	- .9!	33.8!	9.9	7.5	.01	11.16	.001	SI
285.	60.	2.	1.	-653.96!	-1.5!	58.1	9.9	7.5	.017	11.16	.002	SI
363.	138.	2.	3.	-1515.77!	-4.2!	195.1!	7.63	7.5	.057	13.15	.008	SI
415.	190.	2.	4.	-2199.42!	-5.6!	220.5!	9.9	7.5	.065	11.16	.007	SI
475.	250.	2.	5.	-3041.59!	-5.4!	153.9!	19.79	7.5	.045	9.15	.004	SI
> 475.	0.	2.	5.	-2951.42!	-5.2!	149.3!	19.79	7.5	.044	9.15	.004	SI
523.	48.	2.	2.	-2472.02!	-5.9!	203.4!	12.16	7.5	.06	10.2	.006	SI
567.	92.	2.	3.	-2086.91!	-5.8!	268.6!	7.63	7.5	.079	13.15	.01	SI
600.	125.	2.	3.	230.78!	- .6!	29.7!	7.63	7.5	.009	13.15	.001	SI
725.	250.	2.	5.	-1592.47!	-2.8!	80.6!	19.79	7.5	.024	9.15	.002	SI
> 725.	0.	2.	5.	-2142.08!	-3.8!	108.4!	19.79	7.5	.032	9.15	.003	SI
773.	48.	2.	2.	-1544.9!	-3.7!	127.1!	12.16	7.5	.037	10.2	.004	SI
1022.	297.	2.	2.	520.2!	-1.4!	63.9!	7.63	7.5	.019	13.15	.002	SI
1110.	385.	2.	6.	-519.65!	-1.2!	46.1	9.9	7.5	.014	11.16	.002	SI
1110.	385.	2.	6.	338.89!	- .8!	23.6!	13.67	7.5	.007	10.31	.001	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
> 225.	0.	2.	1.	-140.21!	- .3!	12.4!	9.9	7.5	.004	11.16	0.	SI
225.	0.	2.	1.	1175.51!	-2.6!	81.8!	13.67	7.5	.024	10.31	.002	SI
255.	30.	2.	1.	-368.45!	- .9!	32.7!	9.9	7.5	.01	11.16	.001	SI
285.	60.	2.	1.	-629.16!	-1.5!	55.9	9.9	7.5	.016	11.16	.002	SI
363.	138.	2.	3.	-1458.78!	-4.	187.7!	7.63	7.5	.055	13.15	.007	SI
415.	190.	2.	4.	-2121.18!	-5.4!	212.6!	9.9	7.5	.062	11.16	.007	SI
475.	250.	2.	5.	-2940.61!	-5.2!	148.8!	19.79	7.5	.044	9.15	.004	SI
> 475.	0.	2.	5.	-2863.54!	-5.1!	144.9!	19.79	7.5	.042	9.15	.004	SI
523.	48.	2.	2.	-2391.37!	-5.7!	196.8!	12.16	7.5	.058	10.2	.006	SI
567.	92.	2.	3.	-2013.54!	-5.6!	259.1!	7.63	7.5	.076	13.15	.01	SI
600.	125.	2.	3.	236.88!	- .7!	30.5!	7.63	7.5	.009	13.15	.001	SI
725.	250.	2.	5.	-1544.83!	-2.7!	78.2!	19.79	7.5	.023	9.15	.002	SI
> 725.	0.	2.	5.	-2086.15!	-3.7!	105.5!	19.79	7.5	.031	9.15	.003	SI
773.	48.	2.	2.	-1495.32!	-3.6!	123.1!	12.16	7.5	.036	10.2	.004	SI
1022.	297.	2.	2.	523.98!	-1.4!	64.4!	7.63	7.5	.019	13.15	.002	SI
1110.	385.	2.	6.	-519.65!	-1.2!	46.1	9.9	7.5	.014	11.16	.002	SI
1110.	385.	2.	6.	315.6!	- .7!	22.	13.67	7.5	.006	10.31	.001	SI

ARMATURE LONGITUDINALI

Nro	Totale	%	Super	%	Barre	Infer.	%	Barre
1	30.44	1.384	16.78	.763	2d12 +2d12 +3d1 ...	13.67	.621	3d16 +3d18
2	19.79	.9	12.16	.553	2d12 +2d12 +3d18	7.63	.347	3d18
3	15.27	.694	7.63	.347	3d18	7.63	.347	3d18
4	17.53	.797	9.9	.45	2d12 +3d18	7.63	.347	3d18
5	35.06	1.594	19.79	.9	2d12 +2d12 +3d1 ...	15.27	.694	3d18 +3d18
6	30.44	1.384	16.78	.763	2d12 +2d12 +3d1 ...	13.67	.621	3d18 +3d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR35  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.



TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).

CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esercizio)= 25.7

ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15

FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4 ; wk(q.p.)=.2 ;

c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=80.; alt.=36.; Acls=2880. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1165	3	3	3	0	410.	380.
2	A1166	3	3	3	0	410.	370.
3	A1167	3	3	3	0	410.	370.
4	A1154	3	3	3	0	415.	385.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3. 1.	-9347.48	-.442	1.066	-16491.26	-1.72	10.	2.	.147	1.764	SI
201.	201.	3. 2.	10751.21	-.537	1.111	18334.05	-2.03	10.	2.	.169	1.705	SI
288.	288.	3. 3.	-83.47	-.003	.007	-23343.64	-2.13	10.	2.	.176	279.7	SI
288.	288.	3. 3.	7247.51	-.309	.74	18359.92	-1.73	10.	2.	.147	2.533	SI
332.	332.	3. 4.	-4447.32	-.173	.301	-27855.6	-2.41	10.	2.	.194	6.263	SI
332.	332.	3. 4.	3739.42	-.15	.381	18358.05	-1.65	10.	2.	.142	4.909	SI
410.	410.	3. 5.	-12450.86	-.411	.833	-27980.63	-1.92	10.	2.	.161	2.247	SI
> 410.	0.	3. 5.	-12157.63	-.401	.814	-27980.63	-1.92	10.	2.	.161	2.301	SI
487.	77.	3. 4.	3277.3	-.131	.334	18358.05	-1.65	10.	2.	.142	5.602	SI
530.	120.	3. 3.	-200.66	-.008	.016	-23343.64	-2.13	10.	2.	.176	116.3	SI
615.	205.	3. 2.	9128.41	-.452	.942	18334.05	-2.03	10.	2.	.169	2.008	SI
785.	375.	3. 5.	934.76	-.03	.049	36162.12	-2.48	10.	2.	.199	38.69	SI
820.	410.	3. 5.	-9248.89	-.303	.619	-27980.63	-1.92	10.	2.	.161	3.025	SI
> 820.	0.	3. 5.	-9152.61	-.3	.612	-27980.63	-1.92	10.	2.	.161	3.057	SI
855.	35.	3. 5.	747.49	-.024	.039	36162.12	-2.48	10.	2.	.199	48.38	SI
897.	77.	3. 4.	3569.81	-.143	.363	18358.05	-1.65	10.	2.	.142	5.143	SI
1025.	205.	3. 2.	8023.05	-.395	.828	18334.05	-2.03	10.	2.	.169	2.285	SI
1110.	290.	3. 3.	-168.07	-.007	.014	-23343.64	-2.13	10.	2.	.176	138.9	SI
1230.	410.	3. 5.	-10175.89	-.334	.681	-27980.63	-1.92	10.	2.	.161	2.75	SI
>1230.	0.	3. 5.	-10720.79	-.352	.717	-27980.63	-1.92	10.	2.	.161	2.61	SI
1262.	32.	3. 5.	786.12	-.025	.041	36162.12	-2.48	10.	2.	.199	46.	SI
1426.	196.	3. 2.	9306.07	-.461	.961	18334.05	-2.03	10.	2.	.169	1.97	SI
1508.	278.	3. 2.	-1852.51	-.096	.292	-11870.47	-1.45	10.	2.	.127	6.408	SI
1599.	369.	3. 1.	115.89	-.005	.012	18353.49	-1.88	10.	2.	.158	158.4	SI
1613.	383.	3. 1.	-11359.42	-.542	1.296	-16491.26	-1.72	10.	2.	.147	1.452	SI
1645.	415.	3. 1.	-8874.44	-.419	1.012	-16491.26	-1.72	10.	2.	.147	1.858	SI

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	VRd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	17282.	9748.	125685.	63959.	18421.	45537.	2.01	5.	SI
410.	410.	3.	-18110.	14202.	125685.	63959.	18421.	45537.	2.01	5.	SI
> 410.	0.	3.	16768.	14202.	125685.	63959.	18421.	45537.	2.01	5.	SI
820.	410.	3.	-15471.	14202.	125685.	63959.	18421.	45537.	2.01	5.	SI
> 820.	0.	3.	13764.	14202.	125685.	63959.	18421.	45537.	2.01	5.	SI
1230.	410.	3.	-14213.	14202.	125685.	63959.	18421.	45537.	2.01	5.	SI
>1230.	0.	3.	15420.	14202.	125685.	63959.	18421.	45537.	2.01	5.	SI
1613.	383.	3.	-16253.	12346.	125685.	63959.	18421.	45537.	2.01	5.	SI
1645.	415.	3.	5205.	9748.	125685.	63959.	18421.	45537.	2.01	5.	SI

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
15.	15.	3.	1.	-5080.13	-31.6	1184.	14.07	7.5	.347	19.08	.066	SI
71.	71.	3.	1.	3133.55	-19.2	657.7	15.71	7.5	.193	33.76	.065	SI
201.	201.	3.	2.	7604.93	-48.9	1602.2	15.71	7.5	.554	33.33	.185	SI
410.	410.	3.	5.	-8808.77	-38.9	1207.1	24.13	7.5	.429	14.24	.061	SI
> 410.	0.	3.	5.	-8601.14	-38.	1178.6	24.13	7.5	.415	14.24	.059	SI
615.	205.	3.	2.	6458.74	-41.5	1360.7	15.71	7.5	.436	33.33	.145	SI
820.	410.	3.	5.	-6538.29	-28.9	895.9	24.13	7.5	.277	14.24	.04	SI
> 820.	0.	3.	5.	-6467.81	-28.6	886.3	24.13	7.5	.273	14.24	.039	SI
> 1025.	205.	3.	2.	5665.82	-36.4	1193.7	15.71	7.5	.355	33.33	.118	SI
1230.	410.	3.	5.	-7189.55	-31.8	985.2	24.13	7.5	.321	14.24	.046	SI
>1230.	0.	3.	5.	-7574.37	-33.5	1037.9	24.13	7.5	.347	14.24	.049	SI
1426.	196.	3.	2.	6574.	-42.3	1385.	15.71	7.5	.448	33.33	.149	SI
1613.	383.	3.	1.	-8023.18	-49.9	1869.9	14.07	7.5	.662	19.08	.126	SI
1645.	415.	3.	1.	-5740.52	-35.7	1337.9	14.07	7.5	.403	19.08	.077	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
15.	15.	3.	1.	-4526.36	-28.2	1054.9	14.07	7.5	.309	19.08	.059	SI
71.	71.	3.	1.	2784.39	-17.	584.4	15.71	7.5	.171	33.76	.058	SI
201.	201.	3.	2.	6770.24	-43.5	1426.3	15.71	7.5	.468	33.33	.156	SI
410.	410.	3.	5.	-7851.36	-34.7	1075.9	24.13	7.5	.365	14.24	.052	SI
> 410.	0.	3.	5.	-7672.68	-33.9	1051.4	24.13	7.5	.353	14.24	.05	SI
615.	205.	3.	2.	5770.2	-37.1	1215.6	15.71	7.5	.366	33.33	.122	SI
820.	410.	3.	5.	-5773.82	-25.5	791.2	24.13	7.5	.232	14.24	.033	SI
> 820.	0.	3.	5.	-5690.3	-25.2	779.7	24.13	7.5	.228	14.24	.033	SI
> 1025.	205.	3.	2.	4941.32	-31.8	1041.	15.71	7.5	.305	33.33	.102	SI
1230.	410.	3.	5.	-6293.75	-27.8	862.4	24.13	7.5	.261	14.24	.037	SI
>1230.	0.	3.	5.	-6627.85	-29.3	908.2	24.13	7.5	.283	14.24	.04	SI
1426.	196.	3.	2.	5752.97	-37.	1212.	15.71	7.5	.364	33.33	.121	SI
1613.	383.	3.	1.	-7015.19	-43.6	1635.	14.07	7.5	.548	19.08	.104	SI
1645.	415.	3.	1.	-5020.63	-31.2	1170.1	14.07	7.5	.342	19.08	.065	SI

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	$\sigma_c$	$\sigma_f$	As	hc,ef	Eps	Sr,max	wk	Ve	
15.	15.	3.	1.	-4388.08	-27.3	1022.7	14.07	7.5	.299	19.08	.057	SI
71.	71.	3.	1.	2699.52	-16.5	566.6	15.71	7.5	.166	33.76	.056	SI
201.	201.	3.	2.	6561.72	-42.2	1382.4	15.71	7.5	.447	33.33	.149	SI
410.	410.	3.	5.	-7616.39	-33.7	1043.7	24.13	7.5	.349	14.24	.05	SI
> 410.	0.	3.	5.	-7440.64	-32.9	1019.6	24.13	7.5	.338	14.24	.048	SI
615.	205.	3.	2.	5597.62	-36.	1179.3	15.71	7.5	.348	33.33	.116	SI
820.	410.	3.	5.	-5583.82	-24.7	765.1	24.13	7.5	.224	14.24	.032	SI
> 820.	0.	3.	5.	-5493.97	-24.3	752.8	24.13	7.5	.22	14.24	.031	SI
> 1025.	205.	3.	2.	4758.83	-30.6	1002.6	15.71	7.5	.293	33.33	.098	SI
1230.	410.	3.	5.	-6075.62	-26.9	832.5	24.13	7.5	.246	14.24	.035	SI
>1230.	0.	3.	5.	-6397.82	-28.3	876.7	24.13	7.5	.268	14.24	.038	SI
1426.	196.	3.	2.	5548.38	-35.7	1168.9	15.71	7.5	.343	33.33	.114	SI
1613.	383.	3.	1.	-6759.3	-42.	1575.3	14.07	7.5	.518	19.08	.099	SI
1645.	415.	3.	1.	-4840.66	-30.1	1128.2	14.07	7.5	.33	19.08	.063	SI

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	29.78	1.034	14.07	.489 2d16 +5d16	15.71	.545	5d20
2	25.76	.894	10.05	.349 5d16	15.71	.545	5d20
3	35.81	1.244	20.11	.698 5d16 +5d16	15.71	.545	5d20
4	39.84	1.383	24.13	.838 2d16 +5d16 +5d16	15.71	.545	5d20
5	55.54	1.929	24.13	.838 2d16 +5d16 +5d16	31.42	1.091	5d20 +5d20

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR36  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk].mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS :  $\sigma_c$  (rara)=149.4;  $\sigma_c$  (quasi permanente)=112. ; fbd(esesrcizio)= 25.7  
 ACCIAIO:  $\sigma_f$  (rara)=3010.; Coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=36.; Acl=2160. .

## DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1141	3	3	3	0	835.	805.

## CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

## VERIFICHE ALLO STATO LIMITE ULTIMO

## FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsc	Mrd	Epsc1	Epsc	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	-8365.29	-561	1.349	-11685.69	-1.72	10.	2.	.147	1.397	SI
80.	80.	3.	85.68	-.005	.014	11793.5	-1.74	10.	2.	.148	137.6	SI
263.	263.	3.	7256.99	-.506	1.163	11791.47	-1.83	10.	2.	.155	1.625	SI
445.	445.	3.	9452.27	-.67	1.518	11791.47	-1.83	10.	2.	.155	1.247	SI
835.	835.	3.	-8239.65	-.552	1.329	-11685.69	-1.72	10.	2.	.147	1.418	SI

## VERIFICHE A TAGLIO

## TAGLIO:

Progressive	Se	Vsd	VRd1	VRd2	Vrd3	Vcd	Vwd	Asw	s	Ve	
> 0.	0.	3.	7788.	9150.	94264.	36585.	13816.	22769.	1.01	5.	SI
172.	172.	3.	4920.	9167.	94264.	36585.	13816.	22769.	1.01	5.	SI
835.	835.	3.	-7834.	7311.	94264.	36585.	13816.	22769.	1.01	5.	SI

## VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

## TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	-5972.82	-52.	1966.5	9.96	7.5	.696	18.14	.126	SI
20.	20.	3.	-5472.38	-47.6	1801.8	9.96	7.5	.616	18.14	.112	SI
445.	445.	3.	6751.74	-61.	2208.4	10.05	7.5	.816	19.66	.16	SI
835.	835.	3.	-5885.47	-51.2	1937.8	9.96	7.5	.682	18.14	.124	SI

## TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	-5973.53	-52.	1966.8	9.96	7.5	.696	18.14	.126	SI
20.	20.	3.	-5472.08	-47.6	1802.	9.96	7.5	.616	18.14	.112	SI
445.	445.	3.	6752.31	-61.	2208.5	10.05	7.5	.816	19.66	.16	SI
835.	835.	3.	-5885.47	-51.2	1937.8	9.96	7.5	.682	18.14	.124	SI

## TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
> 0.	0.	3.	-5972.44	-52.	1966.4	9.96	7.5	.696	18.14	.126	SI
20.	20.	3.	-5472.	-47.6	1801.6	9.96	7.5	.616	18.14	.112	SI
445.	445.	3.	6752.83	-61.	2208.7	10.05	7.5	.817	19.66	.161	SI
835.	835.	3.	-5885.47	-51.2	1937.8	9.96	7.5	.682	18.14	.124	SI

## ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	20.01	.926	9.96	.461	2d12	+5d14	
2	17.75	.822	7.7	.356	5d14		

## VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR37  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; daN/cm<sup>2</sup>; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm<sup>2</sup> - sezioni:cm e derivate.

## MATERIALI

CLS : Rck=300.; fck=249.; fctk=18.2; fctm=26.1; Ec=311769.;  
 gc=1.6; fcd=155.6; fbd=25.7; fctd=11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300.; fyk=4300.; Ea=2050000.;  
 ga=1.15; fyd=3739.1; EpsMax=10.

## TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σ (rara)=149.4; σ (quasi permanente)=112.; fbd(esercizio)=25.7  
 ACCIAIO: σf (rara)=3010.; coeff.Omogein.=15  
 FESSURE: wk(rara)=\*\*\*; wk(fre.)=.4; wk(q.p.)=.2;  
 c/cmin=1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=36.; Acl=2160. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1142	3	3	3	0	835.	805.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-8098.81	-0.542	1.306	-11685.69	-1.72	10.	2.	.147	1.443
80.	80.	3.	1.	155.57	-0.01	.025	11793.5	-1.74	10.	2.	.148	75.81
263.	263.	3.	2.	7297.08	-0.509	1.17	11791.47	-1.83	10.	2.	.155	1.616
400.	400.	3.	2.	9435.82	-0.668	1.515	11791.47	-1.83	10.	2.	.155	1.25
835.	835.	3.	1.	-8239.65	-0.552	1.329	-11685.69	-1.72	10.	2.	.147	1.418

VERIFICHE A TAGLIO

TAGLIO:

Progressive	SE	Ar	Vsd	VRd1	VRd2	VRd3	vcd	Vwd	Asw	s	Ve
> 0.	0.	3.	1.	7739.	9150.	94264.	36585.	13816.	22769.	1.01	5.
172.	172.	3.	1.	4871.	9167.	94264.	36585.	13816.	22769.	1.01	5.
835.	835.	3.	1.	-7858.	7311.	94264.	36585.	13816.	22769.	1.01	5.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	SE	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
20.	20.	3.	1.	-5278.61	-45.9	1738.	9.96	7.5	.585	18.14	.106
400.	400.	3.	2.	6740.11	-60.9	2204.6	10.05	7.5	.815	19.66	.16
835.	835.	3.	1.	-5885.47	-51.2	1937.8	9.96	7.5	.682	18.14	.124

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	SE	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
20.	20.	3.	1.	-5275.99	-45.9	1737.1	9.96	7.5	.584	18.14	.106
400.	400.	3.	2.	6741.54	-60.9	2205.3	10.05	7.5	.815	19.66	.16
835.	835.	3.	1.	-5885.47	-51.2	1937.8	9.96	7.5	.682	18.14	.124

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	SE	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
20.	20.	3.	1.	-5273.58	-45.9	1736.3	9.96	7.5	.584	18.14	.106
400.	400.	3.	2.	6742.54	-60.9	2205.3	10.05	7.5	.815	19.66	.16
835.	835.	3.	1.	-5885.47	-51.2	1937.8	9.96	7.5	.682	18.14	.124

ARMATURE LONGITUDINALI

Nro	Totale	%	Super.	%	Barre	Infer.	%	Barre
1	20.01	.926	9.96	.461	2d12 +5d14	10.05	.465	5d16
2	17.75	.822	7.7	.356	5d14	10.05	.465	5d16

VERIFICA TRAVATA IN CEMENTO ARMATO

Nome travata : TR38  
 Metodo di verifica : stati limite.  
 Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm2; deform.\*1000.  
 Unità particolari : fessure [wk]:mm - ferri:mm e cm2 - sezioni:cm e derivate.

MATERIALI

CLS : Rck =300. ; fck=249. ; fctk= 18.2; fctm= 26.1; Ec= 311769. ;  
 gc =1.6 ; fcd=155.6; fbd= 25.7; fctd= 11.4; EpsMax=3.5  
 ACCIAIO: FeB44k; fk(1%)=4300. ; fyk=4300. ; Ea=2050000. ;  
 ga =1.15; fyd=3739.1; EpsMax=10.

TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
 CLS : σ (rara)=149.4; σ (quasi permanente)=112. ; fbd(esercizio)= 25.7  
 ACCIAIO: σf (rara)=3010.; coeff.Omogein.= 15  
 FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
 c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

SEZIONI UTILIZZATE

3) Rettangolare: base=60.; alt.=36.; AcIs=2160. .

DESCRIZIONE CAMPATE

Cam.	Descriz.	S.ini	Sez.	S.fin	Incl.	L.assi	L.netta
1	A1144	3	3	3	0	835.	805.

CASI DI CARICO DA MODELLO 3D

SLU			RARE			QUASI PERMANENTI		
Nome	Descrizione	Sest	Nome	Descrizione	Sest	Nome	Descrizione	Sest
1.	SLU SENZA SISMA	1.	8.	Rara	1.	10.	Quasi Perm	1.
4.	SLU SISMAX PRINC	16						
5.	SLU SISMAX PRINC	16						

VERIFICHE ALLO STATO LIMITE ULTIMO

FLESSIONE:

Progressive	SE	Ar	Msd	Epsc1	Epsac	Mrd	Epsc1	Epsac	Cam	x/d	Mr/Ms	VE
> 0.	0.	3.	1.	-3359.23	-.219	.54	-11685.69	-1.72	10.	2.	.147	3.479
80.	80.	3.	1.	279.1	-.018	.044	11793.5	-1.74	10.	2.	.148	42.26
263.	263.	3.	2.	3003.78	-.204	.48	11791.47	-1.83	10.	2.	.155	3.926
400.	400.	3.	2.	3843.49	-.262	.615	11791.47	-1.83	10.	2.	.155	3.068
765.	765.	3.	1.	53.38	-.003	.008	11793.5	-1.74	10.	2.	.148	220.9
835.	835.	3.	1.	-3359.23	-.219	.54	-11685.69	-1.72	10.	2.	.147	3.479

VERIFICHE A TAGLIO

TAGLIO:

Progressive	Se	Vsd	Vrd1	Vrd2	Vrd3	Vcd	Vwd	Asw	s	Ve
> 0.	0.	3.	3275.	9150.	94264.	36585.	13816.	22769.	1.01	5.
172.	172.	3.	1951.	9167.	94264.	36585.	13816.	22769.	1.01	5.
835.	835.	3.	-3222.	7311.	94264.	36585.	13816.	22769.	1.01	5.

VERIFICHE ALLO STATO LIMITE DI ESERCIZIO

TENSIONI DI ESERCIZIO E FESSURAZIONE - RARE:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
20.	20.	3.	1.	-1997.14	-17.4	657.6	9.96	7.5	.192	18.14	.035
400.	400.	3.	2.	2745.79	-24.8	898.1	10.05	7.5	.263	19.66	.052
835.	835.	3.	1.	-2399.45	-20.9	790.	9.96	7.5	.231	18.14	.042

TENSIONI DI ESERCIZIO E FESSURAZIONE - FREQUENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
20.	20.	3.	1.	-1997.14	-17.4	657.6	9.96	7.5	.192	18.14	.035
400.	400.	3.	2.	2749.3	-24.8	899.2	10.05	7.5	.263	19.66	.052
835.	835.	3.	1.	-2399.45	-20.9	790.	9.96	7.5	.231	18.14	.042

TENSIONI DI ESERCIZIO E FESSURAZIONE - QUASI PERMANENTI:

Progressive	Se	Ar	Momento	σc	σf	As	hc,ef	Eps	Sr,max	wk	Ve
20.	20.	3.	1.	-1997.14	-17.4	657.6	9.96	7.5	.192	18.14	.035
400.	400.	3.	2.	2750.84	-24.8	899.7	10.05	7.5	.263	19.66	.052
835.	835.	3.	1.	-2399.45	-20.9	790.	9.96	7.5	.231	18.14	.042

ARMATURE LONGITUDINALI

Nro	Totale	% Super.	%	Barre	Infer.	%	Barre
1	20.01	.926	9.96	.461	2d12	+5d14	
2	17.75	.822	7.7	.356	5d14		

## SOLAI:

### VERIFICA TRAVETTO IN CEMENTO ARMATO

Nome travata : solajo ad armatura lenta  
Metodo di verifica : stati limite.  
Unità di misura : cm; kgf; kgf/m; kgfm; daN/cm<sup>2</sup>; deform.\*1000.  
Unità particolari : fessure [Wk]:mm - ferri:mm e cm<sup>2</sup> - sezioni:cm e derivate.

### MATERIALI

CLS : Rck =250. ; fck=208. ; fctk= 16.2; fctm= 23.1; Ec= 284604. ;  
gc =1.6 ; fcd=130. ; fbd= 22.8; fctd= 10.1; EpsMax=3.5  
ACCIAIO: FeB44k; fk(1%)=4384.8; fyk=4384.8; Ea=2050000. ;  
ga =1.15; fyd=3812.9; EpsMax=10.

### TENSIONI E FESSURE MASSIME IN ESERCIZIO

GRUPPO : a (poco aggressivo).  
CLS : Scls(rara)=124.8; Scls(quasi permanente)= 93.6; fbd(esercizio)= 22.8  
ACCIAIO: Sacc(rara)=3069.; Coeff.Omogein.= 15  
FESSURE: wk(rara)=\*\*\* ; wk(fre.)=.4 ; wk(q.p.)=.2 ;  
c/cmin= 1 [Circ. 15/10/96 N.252 B.6.2]; kt=.4 [EN 1992-1 7.3.4].

### SOLAI del 1° ORIZZONTAMENTO : SEZIONI UTILIZZATE

- 1) Sezione a T : L<sub>NETTA</sub> = 195 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 10 - superiore incidenza 4.5 Kg/mq
- 2) Sezione a T : L<sub>NETTA</sub> = 270 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 12 - superiore incidenza 4.5 Kg/mq
- 3) Sezione a T : L<sub>NETTA</sub> = 443 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- 4) Sezione a T : L<sub>NETTA</sub> = 410 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- 5) Sezione a T : L<sub>NETTA</sub> = 357 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- 6) Sezione a T : L<sub>NETTA</sub> = 451 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- 7) Sezione a T : L<sub>NETTA</sub> = 440 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- 8) Sezione a T : L<sub>NETTA</sub> = 381 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- 9) Sezione a T : L<sub>NETTA</sub> = 370 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- 10) Sezione a T : L<sub>NETTA</sub> = 380 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- 11) Sezione a T : L<sub>NETTA</sub> = 235 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 12 - superiore incidenza 4.5 Kg/mq
- 12) sezione a T : L<sub>NETTA</sub> = 215 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 12 - superiore incidenza 4.5 Kg/mq
- 13) Sezione a T : L<sub>NETTA</sub> = 435 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 16 - superiore incidenza 4.5 Kg/mq
- 14) Sezione a T : L<sub>NETTA</sub> = 390 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq
- 15) Sezione a T : L<sub>NETTA</sub> = 350 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; Acls=750. .  
: Armatura presunta inferiore 2 Φ 14 - superiore incidenza 4.5 Kg/mq

- 16) Sezione a T : L<sub>NETTA</sub> = 220 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq
- 17) Sezione a T : L<sub>NETTA</sub> = 175 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 10 – superiore incidenza 4.5 Kg/mq
- 18) Sezione a T : L<sub>NETTA</sub> = 120 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 10 – superiore incidenza 4.5 Kg/mq
- 19) Sezione a T : L<sub>NETTA</sub> = 425 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq
- 20) Sezione a T : L<sub>NETTA</sub> = 391 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq
- 21) Sezione a T : L<sub>NETTA</sub> = 394 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq

SOLAI del 2° ORIZZONTAMENTO ( COPERTURA ) LIVELLO BASSO : SEZIONI UTILIZZATE (H=25)

- 1) Sezione a T : L<sub>NETTA</sub> = 490 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 16 – superiore incidenza 4.5 Kg/mq
- 2) Sezione a T : L<sub>NETTA</sub> = 465 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 1 Φ 14 + 1 Φ 16 – superiore incidenza 4.5 Kg/mq
- 3) Sezione a T : L<sub>NETTA</sub> = 390 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq
- 4) Sezione a T : L<sub>NETTA</sub> = 416 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq
- 5) Sezione a T : L<sub>NETTA</sub> = 430 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq
- 6) Sezione a T : L<sub>NETTA</sub> = 450 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 1 Φ 14 + 1 Φ 16 – superiore incidenza 4.5 Kg/mq
- 7) Sezione a T : L<sub>NETTA</sub> = 545 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 16 – superiore incidenza 4.5 Kg/mq
- 8) Sezione a T : L<sub>NETTA</sub> = 367 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq
- 9) Sezione a T : L<sub>NETTA</sub> = 415 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 14 – superiore incidenza 4.5 Kg/mq
- 10) Sezione a T : L<sub>NETTA</sub> = 445 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 1 Φ 14 + 1 Φ 16 – superiore incidenza 4.5 Kg/mq
- 11) Sezione a T : L<sub>NETTA</sub> = 350 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq
- 12) Sezione a T : L<sub>NETTA</sub> = 220 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 12 – superiore incidenza 4.5 Kg/mq
- 13) Sezione a T : L<sub>NETTA</sub> = 476 cm largh.=50.; alt.=25.; sp.ala=5.; sp.an.=25.; AcIs=750. .  
: Armatura presunta inferiore 2 Φ 16 – superiore incidenza 4.5 Kg/mq

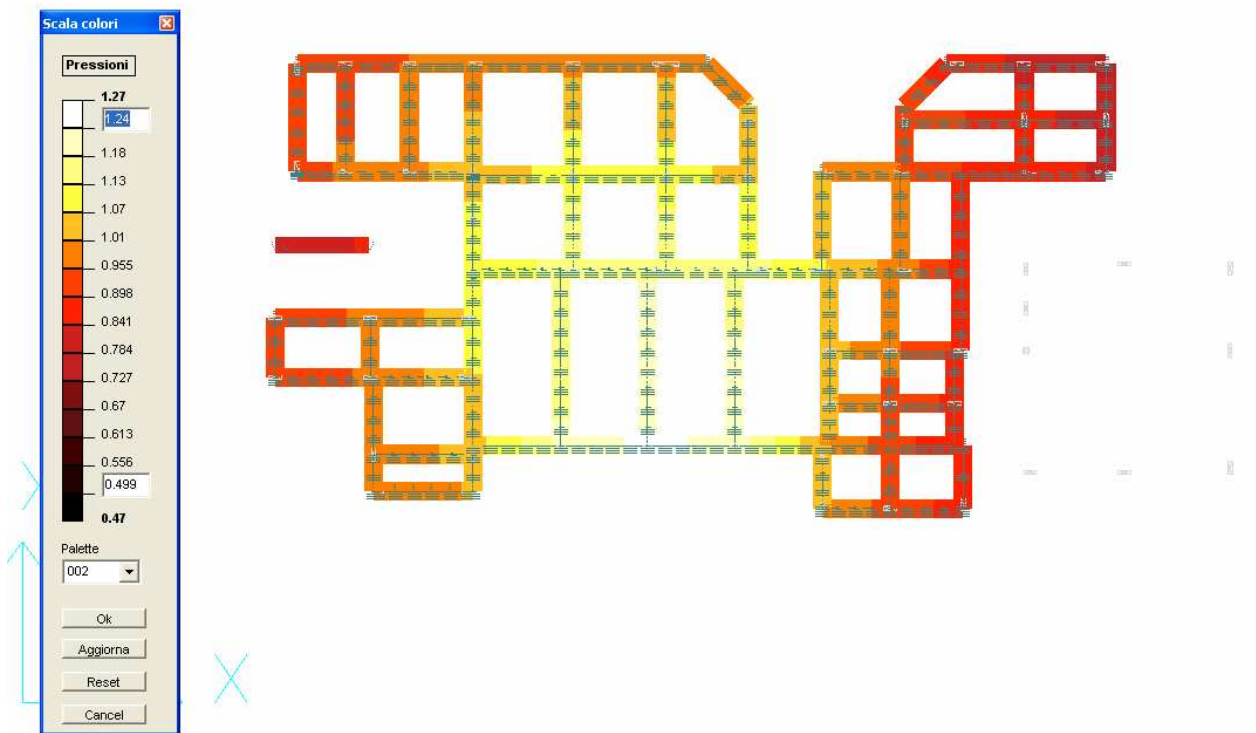
SOLAI del 2° ORIZZONTAMENTO ( COPERTURA ) GIARDINO PENSILE : SEZIONI UTILIZZATE (H=30)

- 14) Sezione a T : L<sub>NETTA</sub> = 368 cm largh.=50.; alt.=30.; sp.ala=5.; sp.an.=25.; AcIs=875. .  
: Armatura presunta inferiore 2 Φ 18 – superiore incidenza 4.5 Kg/mq
- 15) Sezione a T : L<sub>NETTA</sub> = 537 cm largh.=50.; alt.=30.; sp.ala=5.; sp.an.=25.; AcIs=875. .  
: Armatura presunta inferiore 2 Φ 20 – superiore incidenza 4.5 Kg/mq

SOLAI del 2° ORIZZONTAMENTO ( COPERTURA ) LIVELLO ALTO : SEZIONI UTILIZZATE

- 1) Sezione a T : L<sub>NETTA</sub> = 785 cm largh.=50.; alt.=36.; sp.ala=5.; sp.an.=25.; AcIs= AcIs=1025. .  
: Armatura presunta inferiore 2 Φ 20 – superiore incidenza 4.5 Kg/mq

## **PRESSIONI SUL TERRENO** (sul magrone cls H=15 cm ):



Dall'immagine sopra riportata le massime tensioni sul magrone in cls armato ( H=15 cm armatura 1Φ8/20x20 ) vale circa  $\sigma = 1,24 \text{ Kg/cm}^2$  : le conseguenti pressioni massime sul terreno saranno inferiori e pari a circa ( angolo tipo di ripartizione sul cls  $\alpha = 45^\circ$  lunghezza di riferimento fondazione  $B=80 \text{ cm}$  , lunghezza di riferimento striscia di terreno interessata  $b_1=110 \text{ cm}$  su  $H=15 \text{ cm}$  )  
 $\sigma = 1,0 / 1,05 \text{ Kg/cm}^2$



## RELAZIONE ILLUSTRATIVA e DI CALCOLO : 2°LOTTO

TITOLO DEL PROGETTO : SCUOLA VIA THURES – TORINO – PENSILINE METALLICHE FRONTALI

COMMITTENTE : CITTA' DI TORINO

PROGETTISTA : ( collaborazione CDM DOLMEN TORINO )

DATA : MAGGIO 2006

### 1. INDIVIDUAZIONE DEL MODELLO DI CALCOLO

#### 1.1 DESCRIZIONE GENERALE DELL'OPERA

Oggetto della presente relazione e' l'analisi delle sollecitazioni ed il calcolo della struttura in acciaio ordinario da realizzarsi in:

Comune di Torino  
Via Thures  
Proprieta': Comune di Torino  
Concessione edilizia n.

Destinazione e tipologia dell'opera:

Il sito oggetto dell'intervento presenta i seguenti caratteri morfologico-geotecnici generali:

La struttura e' composta dai seguenti elementi, previsti in calcestruzzo gettato in opera:

FONDAZIONI: travi rovesce su sottofondo armato

STRUTTURA METALLICA: Ritti e puntoni in tubolari di vario spessore

#### 1.2 NORMATIVE DI RIFERIMENTO

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

- Legge 5/11/1971 n. 1086: Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso ed a struttura metallica.
- Legge 2/2/1974 n. 64: Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche.
- C.N.R. 10024/86 del 23/7/1986: Analisi di strutture mediante elaboratore: impostazione e redazione delle relazioni di calcolo
- D.M. 14/2/1992: Norme tecniche per l'esecuzione delle opere in cemento armato normale e precompresso e per le strutture metalliche.
- D.M. 9/1/1996: Norme tecniche per il calcolo, l'esecuzione ed il collaudo delle opere in cemento armato normale e precompresso e per le strutture metalliche.
- D.M. 16/1/1996: Norme tecniche relative ai criteri generali per la verifica della sicurezza delle costruzioni e dei carichi e dei sovraccarichi.
- D.M. 16/1/1996: Norme tecniche per le costruzioni in zona sismica.

#### 1.3 CRITERI DI ANALISI DELLA SICUREZZA

Con riferimento alle normative precedentemente citate, le strutture in oggetto sono verificate per quanto riguarda:

- verifica di resistenza;
- verifica a deformazione e fessurazione.

Calcestruzzo per le strutture in c.a.:  $R_{ck} > 30$  MPa  
Tensione ammissibile nel cls:  $> 97.5$  dn/cm<sup>2</sup>

Acciaio in barre : Fe B 44 k controllato  
Tensione ammissibile nell'armatura:  $> 2600$  dn/cm<sup>2</sup>  
Acciaio in profilati : FE 430

#### 1.4 SCHEMATIZZAZIONE DELLA STRUTTURA E DEI VINCOLI

La struttura e' stata schematizzata escludendo il contributo degli elementi aventi rigidezza e resistenza trascurabili a fronte dei principali. E' quindi stata considerata l'orditura a telaio tridimensionale, i solai ed i setti verticali ad elevata rigidezza (vano ascensore, setti in cls).

I plinti di fondazione vengono assimilati a vincoli elastici di cui e' fornita la costante di rigidezza. Le travi di fondazione sono schematizzate come poggianti su vincoli elastici distribuiti.

#### 1.5 MODELLAZIONE DELLA STRUTTURA E DEI VINCOLI

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

#### 1.6 SCHEMATIZZAZIONE DELLE AZIONI

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

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

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

#### 1.7 MODELLAZIONE DELLE AZIONI

Sono stati adottati i seguenti valori di carico: vedi relazione a parte

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

#### 1.8 MODELLAZIONE DEI MATERIALI

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

#### 1.9 TIPO DI ANALISI

Le analisi strutturali condotte sono statiche in regime lineare. Il metodo di calcolo e' ad elementi finiti. Il calcolo sismico e' stato effettuato tramite analisi statica/dinamica. La verifica delle membrature in cemento armato viene eseguita considerando tutte le caratteristiche di sollecitazione.

### 2. INDIVIDUAZIONE DEL CODICE DI CALCOLO

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

DOLMEN WIN (R), versione 4.2 del 2006 prodotto, distribuito ed assistito dalla CDM DOLMEN srl, con sede in Torino, Via Drovetti 9/F.

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

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

#### 2.2 GRADO DI AFFIDABILITA' DEL CODICE

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

### 2.3 MOTIVAZIONE DELLA SCELTA DEL CODICE

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

### 2.4 NOTIZIE SULL'ELABORATORE

Unità centrale di processo: Pentium IV  
sistema operativo: Windows XP ( SP2)  
capacità di memoria: 640 Mb  
cifre significative: 10E12  
unità di memoria di massa: hard-disk da 30Gb

## 3. ESAME DEI RISULTATI E CONTROLLI

### 3.1 VALUTAZIONE DELLA CORRETTEZZA DEL MODELLO

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

## 4. GIUDIZIO MOTIVATO DI ACCETTABILITÀ DEI RISULTATI

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

## 5. ALLEGATI

Alla presente relazione si allegano le seguenti stampe:

- dati di ingresso;
- sollecitazioni nelle aste e nei gusci;
- reazioni vincolari;
- verifiche di resistenza di travi e pilastri;
- diagrammi di sollecitazioni e deformazioni.

## **DATI STRUTTURA:**

Lavoro: THI800

Unità di misura adottate:

lunghezze:	[cm]
forze:	[kgf]
coppie e momenti:	[kgfm]
carichi lineari:	[kgf/m]
carichi di superficie:	[kgf/m <sup>2</sup> ]
pesi specifici:	[kgf/m <sup>3</sup> ]
coeff. di winkler:	[daN/cm <sup>3</sup> ]
tensioni:	[daN/cm <sup>2</sup> ]
superfici:	[cm <sup>2</sup> ]
volumi:	[cm <sup>3</sup> ]
coppie distribuite:	[daNcm/cm]
aree ferri:	[cm <sup>2</sup> ]
dati sezioni:	[cm]

Carichi :

- neve : 200 Kg/mq

## DATI STRUTTURA:

\*\*\* DATI STRUTTURA

Unita` di misura :  
 LUNGHEZZE : cm  
 SUPERFICI : cm2  
 DATI SEZIONALI : cm  
 ANGOLI : gradi  
 FORZE : daN  
 MOMENTI : daNcm  
 CARICHI LINEARI : daN/cm  
 CARICHI SUPERFIC.: daN/cm2  
 TENSIONI : daN/cm2  
 PESI DI VOLUME : daN/cm3  
 COEFF. DI WINKLER: daN/cm3  
 RIGIDENZE VINCOL.: daN/cm - daNcm/rad

NODI--	Coord. X	Coord. Y	Coord. Z	num.=
1	87.760	138.963	0.000	29
2	187.760	138.963	0.000	
3	707.760	138.963	0.000	
4	1227.760	138.963	0.000	
5	1327.760	138.963	0.000	
6	187.760	138.963	500.000	
7	187.760	138.963	600.000	
8	707.760	138.963	500.000	
9	707.760	138.963	600.000	
10	1227.760	138.963	500.000	
11	1227.760	138.963	600.000	
12	37.760	138.963	600.000	
13	37.760	258.962	600.000	
14	37.760	18.962	600.000	
15	337.760	258.962	600.000	
16	337.760	138.963	600.000	
17	337.760	18.962	600.000	
18	557.760	138.963	600.000	
19	1077.760	138.963	600.000	
20	557.760	258.962	600.000	
21	1077.760	258.962	600.000	
22	557.760	18.962	600.000	
23	1077.760	18.962	600.000	
24	857.760	258.962	600.000	
25	1377.760	258.962	600.000	
26	857.760	138.963	600.000	
27	1377.760	138.963	600.000	
28	857.760	18.962	600.000	
29	1377.760	18.962	600.000	

ASTE--	Proprieta`	Nodo iniz.	Nodo fin.	Rilasci in.	Rilasci fin.	orient.	num.=
1	1	1	2			0.0	70
2	1	2	3			0.0	
3	1	3	4			0.0	
4	1	4	5			0.0	
5	2	2	6			0.0	
6	2	6	7			0.0	
7	2	3	8			0.0	
8	2	8	9			0.0	
9	2	4	10			0.0	
10	2	10	11			0.0	
11	5	12	6			0.0	
12	5	13	6			0.0	
13	5	14	6			0.0	
14	5	6	15			0.0	
15	5	6	16			0.0	
16	5	6	17			0.0	
17	5	18	8			0.0	
18	5	19	10			0.0	
19	5	20	8			0.0	
20	5	21	10			0.0	
21	5	22	8			0.0	
22	5	23	10			0.0	
23	5	8	24			0.0	
24	5	10	25			0.0	
25	5	8	26			0.0	
26	5	10	27			0.0	
27	5	8	28			0.0	
28	5	10	29			0.0	
29	4	12	13			0.0	
30	4	14	12			0.0	
31	4	14	17			0.0	
32	4	17	16			0.0	
33	4	16	15			0.0	
34	4	13	15			0.0	

35	4	12	7	0.0
36	4	7	16	0.0
37	4	13	7	0.0
38	4	7	17	0.0
39	4	14	7	0.0
40	4	7	15	0.0
41	4	18	20	0.0
42	4	19	21	0.0
43	4	22	18	0.0
44	4	23	19	0.0
45	4	22	28	0.0
46	4	23	29	0.0
47	4	28	26	0.0
48	4	29	27	0.0
49	4	26	24	0.0
50	4	27	25	0.0
51	4	20	24	0.0
52	4	21	25	0.0
53	4	18	9	0.0
54	4	19	11	0.0
55	4	9	26	0.0
56	4	11	27	0.0
57	4	20	9	0.0
58	4	21	11	0.0
59	4	9	28	0.0
60	4	11	29	0.0
61	4	22	9	0.0
62	4	23	11	0.0
63	4	9	24	0.0
64	4	11	25	0.0
65	4	15	20	0.0
66	4	24	21	0.0
67	4	16	18	0.0
68	4	26	19	0.0
69	4	17	22	0.0
70	4	28	23	0.0

PROPRIETA` ASTE----							num.=
Nome	Materiale	Base	Altezza	Area	Area tag. Y	Area tag. Z	
		Kw vertic.	Kw orizz.	J tors.	J fless. Y	J fless. Z	
1	1	140.00	100.00	1.40000E+04	1.16667E+04	1.16667E+04	
		10.000000	10.000000	2.61219E+07	2.28667E+07	1.16667E+07	
2	2	27.30	26.18	5.28000E+01	4.75200E+01	4.75200E+01	
		0.000000	0.000000	9.39200E+03	4.69600E+03	4.69600E+03	
4	2	8.89	7.47	1.82000E+01	1.63800E+01	1.63800E+01	
		0.000000	0.000000	3.08000E+02	1.54000E+02	1.54000E+02	
5	2	13.97	12.55	2.96000E+01	2.66400E+01	2.66400E+01	
		0.000000	0.000000	1.30400E+03	6.52000E+02	6.52000E+02	

MATERIALI-----						num.=
Nome	Mod. elast.	Coeff. nu	Mod. tang.	Peso spec.	Dil. te.	
1	3.00000E+05	1.50000E-01	1.30000E+05	2.50000E-03	1.00000E-05	
2	2.10000E+06	3.00000E-01	8.50000E+05	7.85000E-03	1.00000E-05	

VINCOLI-----							num.=
Nodo	Rigid. X	Rigid. Y	Rigid. Z	Rigid. RX	Rigid. RY	Rigid. RZ	
1	bloccato	bloccato	libero	libero	libero	libero	
2	bloccato	bloccato	libero	libero	libero	libero	
3	bloccato	bloccato	libero	libero	libero	libero	
4	bloccato	bloccato	libero	libero	libero	libero	
5	bloccato	bloccato	libero	libero	libero	libero	

CARICHI NODI-----					num.=
Nome	Nodo	Direzione	Intensita`		
1 D001	14	Y	3.8		
2 D001	12	Y	2.3		
3 D001	6	Y	5.1		
4 D001	13	Y	3.8		
5 D001	7	Y	4.5		
6 D001	17	Y	5.8		
7 D001	16	Y	4.2		
8 D001	22	Y	5.8		
9 D001	15	Y	5.8		
10 D001	18	Y	4.3		
11 D001	8	Y	5.1		
12 D001	20	Y	5.8		
13 D001	9	Y	4.5		
14 D001	28	Y	5.8		
15 D001	26	Y	4.3		
16 D001	23	Y	5.8		
17 D001	24	Y	5.8		
18 D001	19	Y	4.2		
19 D001	10	Y	5.1		
20 D001	21	Y	5.8		

21	D001	11	Y	4.5
22	D001	29	Y	3.8
23	D001	27	Y	2.3
24	D001	25	Y	3.8
25	D003	14	X	5.1
26	D003	12	X	3.0
27	D003	6	X	7.7
28	D003	13	X	5.1
29	D003	7	X	6.0
30	D003	17	X	7.7
31	D003	16	X	5.6
32	D003	22	X	7.7
33	D003	15	X	7.7
34	D003	18	X	5.6
35	D003	8	X	8.5
36	D003	20	X	7.7
37	D003	9	X	6.0
38	D003	28	X	7.7
39	D003	26	X	5.6
40	D003	23	X	7.7
41	D003	24	X	7.7
42	D003	19	X	5.6
43	D003	10	X	7.7
44	D003	21	X	7.7
45	D003	11	X	6.0
46	D003	29	X	5.1
47	D003	27	X	3.0
48	D003	25	X	5.1
49	SX	6	X	7.6
50	SX	8	X	7.6
51	SX	10	X	7.6
52	SX	7	X	6.0
53	SX	9	X	6.0
54	SX	11	X	6.0
55	SX	12	X	3.1
56	SX	13	X	5.2
57	SX	14	X	5.2
58	SX	15	X	7.8
59	SX	16	X	5.7
60	SX	17	X	7.8
61	SX	18	X	5.7
62	SX	19	X	5.7
63	SX	20	X	7.8
64	SX	21	X	7.8
65	SX	22	X	7.8
66	SX	23	X	7.8
67	SX	24	X	7.8
68	SX	25	X	5.2
69	SX	26	X	5.7
70	SX	27	X	3.1
71	SX	28	X	7.8
72	SX	29	X	5.2
73	SY	6	Y	7.6
74	SY	8	Y	7.6
75	SY	10	Y	7.6
76	SY	7	Y	6.0
77	SY	9	Y	6.0
78	SY	11	Y	6.0
79	SY	12	Y	3.1
80	SY	13	Y	5.2
81	SY	14	Y	5.2
82	SY	15	Y	7.8
83	SY	16	Y	5.7
84	SY	17	Y	7.8
85	SY	18	Y	5.7
86	SY	19	Y	5.7
87	SY	20	Y	7.8
88	SY	21	Y	7.8
89	SY	22	Y	7.8
90	SY	23	Y	7.8
91	SY	24	Y	7.8
92	SY	25	Y	5.2
93	SY	26	Y	5.7
94	SY	27	Y	3.1
95	SY	28	Y	7.8
96	SY	29	Y	5.2
97	MadX	7	X	0.0
98	MadX	9	X	0.0
99	MadX	11	X	0.0
100	MadX	12	X	0.0
101	MadX	13	X	0.8
102	MadX	14	X	-0.8
103	MadX	15	X	1.2
104	MadX	16	X	0.0
105	MadX	17	X	-1.2
106	MadX	18	X	0.0
107	MadX	19	X	0.0
108	MadX	20	X	1.2

109	MadX	21	X	1.2
110	MadX	22	X	-1.2
111	MadX	23	X	-1.2
112	MadX	24	X	1.2
113	MadX	25	X	0.8
114	MadX	26	X	0.0
115	MadX	27	X	0.0
116	MadX	28	X	-1.2
117	MadX	29	X	-0.8
118	MadY	6	Y	-1.1
119	MadY	8	Y	0.0
120	MadY	10	Y	1.1
121	MadY	7	Y	-1.2
122	MadY	9	Y	0.0
123	MadY	11	Y	1.2
124	MadY	12	Y	-0.8
125	MadY	13	Y	-1.4
126	MadY	14	Y	-1.4
127	MadY	15	Y	-1.1
128	MadY	16	Y	-0.8
129	MadY	17	Y	-1.1
130	MadY	18	Y	-0.3
131	MadY	19	Y	0.8
132	MadY	20	Y	-0.5
133	MadY	21	Y	1.1
134	MadY	22	Y	-0.5
135	MadY	23	Y	1.1
136	MadY	24	Y	0.5
137	MadY	25	Y	1.4
138	MadY	26	Y	0.3
139	MadY	27	Y	0.8
140	MadY	28	Y	0.5
141	MadY	29	Y	1.4

CARICHI ASTE-----|-----|-----|-----|-----|num.= 88

Nome	Asta	Dir	Tip	RIF	Parametro 1	Parametro 2	Parametro 3	Parametro 4
142 neve	34	Z	FD	glo	-2.942			
143 neve	65	Z	FD	glo	-2.942			
144 neve	51	Z	FD	glo	-2.942			
145 neve	66	Z	FD	glo	-2.942			
146 neve	52	Z	FD	glo	-2.942			
147 neve	31	Z	FD	glo	-2.942			
148 neve	69	Z	FD	glo	-2.942			
149 neve	45	Z	FD	glo	-2.942			
150 neve	70	Z	FD	glo	-2.942			
151 neve	46	Z	FD	glo	-2.942			
152 neve	35	Z	FD	glo	-2.942			
153 neve	36	Z	FD	glo	-2.942			
154 neve	67	Z	FD	glo	-2.942			
155 neve	53	Z	FD	glo	-2.942			
156 neve	55	Z	FD	glo	-2.942			
157 neve	68	Z	FD	glo	-2.942			
158 neve	54	Z	FD	glo	-2.942			
159 neve	56	Z	FD	glo	-2.942			

PESI PROPRI ASTE--|-----|-----|-----|-----|-----|

Cond.	Nome Carichi	Aste
1	160-225	5-70
2	226-229	1-4

CONDIZIONI DI CARICO-----|-----|-----|-----|num.= 9

Nome	N. carichi
1 Peso_proprio_____	66
Lista carichi: 160-225	
2 Peso_Proprio_fondaz	4
Lista carichi: 226-229	
3 Carichi_copertura__	18
Lista carichi: 142-159	
4 Sisma_X	24
Lista carichi: 49-72	
5 Sisma_Y	24
Lista carichi: 73-96	
6 Torcente_add._X	21
Lista carichi: 97-117	
7 Torcente_add._Y	24
Lista carichi: 118-141	
8 Autovett_001_(Y)	24
Lista carichi: 1-24	
9 Autovett_003_(X)	24
Lista carichi: 25-48	

## DATI ANALISI SISMICA:

ANALISI DINAMICA

Lavoro : \thu800

PARAMETRI DI CALCOLO:

Calcolo secondo Ordinanza P.C.M. 3274

Modello generale

Assi di vibrazione: X Y

Somma quadratica semplice (SRSS)

Accelerazione di picco al suolo = 0.05g

Zona sismica = 4

Categoria del suolo di fondazione = C

Fattore di struttura q = 4.950

$q = q_0 * K_D * K_R$  dove :

$q_0 = 4.5$  ( Strutture a telaio ) \* 1.1 ( Edifici a telaio di un piano )

$K_D = 1.0$  ( Classe di duttilità "A" )

$K_R = 1.0$  ( Edifici regolari in altezza )

CONDIZIONI DI RIFERIMENTO	COEFFICIENTE	PESO RISULTANTE
1.	1.000	[daN] 2782.9
3.	0.200	2365.4

\*\*\* TABELLA AUTOVETTORI \*\*\*

n	PERIODO [sec]	MASSA ATTIVATA			COEFFICIENTI DI CORRELAZIONE							
		%X	%Y	%Z	n+1	n+2	n+3	n+4	n+5	n+6	n+7	
1	0.680065	0.000	99.101	0.000	0.000	0.000						
2	0.460592	0.000	0.000	0.000	0.000							
3	0.352679	99.789	0.000	0.000								
----- MASSA TOTALE		99.789	99.101	0.000	-----							



## DESCRIZIONE CASI DI CARICO:

NOME	DESCRIZIONE	TIPO	CONDIZ. INSERITE			CASI INSERITI	
			Num.	Coeff.	Segno	Num.	Coeff.
1	SLU SENZA SISMA	somma	1	1.400	+		
			2	1.400	+		
			3	1.500	+		
2	SISMAX SLU	somma	6	1.000	±		
			9	1.000	quadr.		
3	SISMAY SLU	somma	7	1.000	±		
			8	1.000	quadr.		
4	SLU SISMAX PRINC	somma	1	1.000	+	2	1.000
			2	1.000	+	3	0.300
			3	0.200	+		
5	SLU SISMAY PRINC	somma	1	1.000	+	3	1.000
			2	1.000	+	2	0.300
			3	0.200	+		
6	SLD SISMAX PRINC	somma	1	1.000	+	2	1.650
			2	1.000	+	3	0.495
			3	0.200	+		
7	SLD SISMAY PRINC	somma	1	1.000	+	3	1.650
			2	1.000	+	2	0.495
			3	0.200	+		
8	Rara	somma	1	1.000	+		
			2	1.000	+		
			3	1.000	+		
9	Frequente	somma	1	1.000	+		
			2	1.000	+		
			3	0.200	+		
10	Quasi Perm	somma	1	1.000	+		
			2	1.000	+		

## VERIFICA ASTE IN ACCIAIO :

VERIFICA ASTE IN ACCIAIO  
RIASSUNTO DELLE ASTE VERIFICATE CON L'ULTIMO CALCOLO EFFETTUATO

asta	5 - sez.	2 - P_TUBO273x6.3_S002	- 23%	della Si	limite.
asta	6 - sez.	2 - P_TUBO273x6.3_S002	- 14%	della Si	limite.
asta	7 - sez.	2 - P_TUBO273x6.3_S002	- 8%	della Ss	limite.
asta	8 - sez.	2 - P_TUBO273x6.3_S002	- 2%	della Si	limite.
asta	9 - sez.	2 - P_TUBO273x6.3_S002	- 23%	della Si	limite.
asta	10 - sez.	2 - P_TUBO273x6.3_S002	- 14%	della Si	limite.
asta	29 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	30 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	31 - sez.	4 - P_TUBO88.9x7.1_S004	- 37%	della Si	limite.
asta	32 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	33 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	34 - sez.	4 - P_TUBO88.9x7.1_S004	- 37%	della Si	limite.
asta	35 - sez.	4 - P_TUBO88.9x7.1_S004	- 14%	della Si	limite.
asta	36 - sez.	4 - P_TUBO88.9x7.1_S004	- 11%	della Si	limite.
asta	37 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	38 - sez.	4 - P_TUBO88.9x7.1_S004	- 7%	della Si	limite.
asta	39 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	40 - sez.	4 - P_TUBO88.9x7.1_S004	- 7%	della Si	limite.
asta	41 - sez.	4 - P_TUBO88.9x7.1_S004	- 4%	della Si	limite.
asta	42 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	43 - sez.	4 - P_TUBO88.9x7.1_S004	- 4%	della Si	limite.
asta	44 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	45 - sez.	4 - P_TUBO88.9x7.1_S004	- 40%	della Si	limite.
asta	46 - sez.	4 - P_TUBO88.9x7.1_S004	- 37%	della Si	limite.
asta	47 - sez.	4 - P_TUBO88.9x7.1_S004	- 4%	della Si	limite.
asta	48 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	49 - sez.	4 - P_TUBO88.9x7.1_S004	- 4%	della Si	limite.
asta	50 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	51 - sez.	4 - P_TUBO88.9x7.1_S004	- 40%	della Si	limite.
asta	52 - sez.	4 - P_TUBO88.9x7.1_S004	- 37%	della Si	limite.
asta	53 - sez.	4 - P_TUBO88.9x7.1_S004	- 17%	della Si	limite.
asta	54 - sez.	4 - P_TUBO88.9x7.1_S004	- 11%	della Si	limite.
asta	55 - sez.	4 - P_TUBO88.9x7.1_S004	- 17%	della Si	limite.
asta	56 - sez.	4 - P_TUBO88.9x7.1_S004	- 14%	della Si	limite.
asta	57 - sez.	4 - P_TUBO88.9x7.1_S004	- 5%	della Si	limite.
asta	58 - sez.	4 - P_TUBO88.9x7.1_S004	- 7%	della Si	limite.
asta	59 - sez.	4 - P_TUBO88.9x7.1_S004	- 5%	della Si	limite.
asta	60 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	61 - sez.	4 - P_TUBO88.9x7.1_S004	- 5%	della Si	limite.
asta	62 - sez.	4 - P_TUBO88.9x7.1_S004	- 7%	della Si	limite.
asta	63 - sez.	4 - P_TUBO88.9x7.1_S004	- 5%	della Si	limite.
asta	64 - sez.	4 - P_TUBO88.9x7.1_S004	- 8%	della Si	limite.
asta	65 - sez.	4 - P_TUBO88.9x7.1_S004	- 33%	della Si	limite.
asta	66 - sez.	4 - P_TUBO88.9x7.1_S004	- 33%	della Si	limite.
asta	67 - sez.	4 - P_TUBO88.9x7.1_S004	- 32%	della Si	limite.
asta	68 - sez.	4 - P_TUBO88.9x7.1_S004	- 32%	della Si	limite.
asta	69 - sez.	4 - P_TUBO88.9x7.1_S004	- 33%	della Si	limite.
asta	70 - sez.	4 - P_TUBO88.9x7.1_S004	- 33%	della Si	limite.
asta	11 - sez.	5 - P_TUBO139.7x7.1_S005	- 4%	della Si	limite.
asta	12 - sez.	5 - P_TUBO139.7x7.1_S005	- 11%	della Si	limite.
asta	13 - sez.	5 - P_TUBO139.7x7.1_S005	- 11%	della Si	limite.
asta	14 - sez.	5 - P_TUBO139.7x7.1_S005	- 12%	della Si	limite.
asta	15 - sez.	5 - P_TUBO139.7x7.1_S005	- 8%	della Si	limite.
asta	16 - sez.	5 - P_TUBO139.7x7.1_S005	- 12%	della Si	limite.
asta	17 - sez.	5 - P_TUBO139.7x7.1_S005	- 9%	della Si	limite.
asta	18 - sez.	5 - P_TUBO139.7x7.1_S005	- 8%	della Si	limite.
asta	19 - sez.	5 - P_TUBO139.7x7.1_S005	- 6%	della Si	limite.
asta	20 - sez.	5 - P_TUBO139.7x7.1_S005	- 12%	della Si	limite.
asta	21 - sez.	5 - P_TUBO139.7x7.1_S005	- 6%	della Si	limite.
asta	22 - sez.	5 - P_TUBO139.7x7.1_S005	- 12%	della Si	limite.
asta	23 - sez.	5 - P_TUBO139.7x7.1_S005	- 6%	della Si	limite.
asta	24 - sez.	5 - P_TUBO139.7x7.1_S005	- 11%	della Si	limite.
asta	25 - sez.	5 - P_TUBO139.7x7.1_S005	- 9%	della Si	limite.
asta	26 - sez.	5 - P_TUBO139.7x7.1_S005	- 4%	della Si	limite.
asta	27 - sez.	5 - P_TUBO139.7x7.1_S005	- 6%	della Si	limite.
asta	28 - sez.	5 - P_TUBO139.7x7.1_S005	- 11%	della Si	limite.