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INTERVENTO

FONDO COMPLEMENTARE AL PIANO NAZIONALE DI RIPRESA E RESILIENZA
PROGRAMMA "SICURO, VERDE E SOCIALE: RIQUALIFICAZIONE DELL'EDILIZIA RESIDENZIALE PUBBLICA"

PROGETTO DI MANUTENZIONE STRAORDINARIA PER IL RESTAURO E RISANAMENTO CONSERVATIVO DI DUE CASAMENTI A CORTE SITI IN COMUNE DI BOLOGNA LOCALITA' CIRENAICA. VIA BENTIVOGLI CIV. 31÷59 PER COMPLESSIVI 56 ALLOGGI DI ERP CON RELATIVE PERTINENZE E PARTI COMUNI

LOTTO **3053/PN_1**

PROGETTO ESECUTIVO

TAV.	OGGETTO	DATA
TAB_02	TABULATI DI CALCOLO CIVICO 29/2 STATO DI PROGETTO	Settembre 2022
SCALA		N. DISEGNO

VERSIONE	DESCRIZIONE	DATA	REDATTO	VERIFICATO		APPROVATO
00	PRIMA EMISSIONE	Settembre 2022	F. DALMONTE	N. LEONE		N. LEONE
01						
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TABULATI DI CALCOLO
CIVICO 29/2
STATO DI PROGETTO

Sommario

1 Risultati numerici

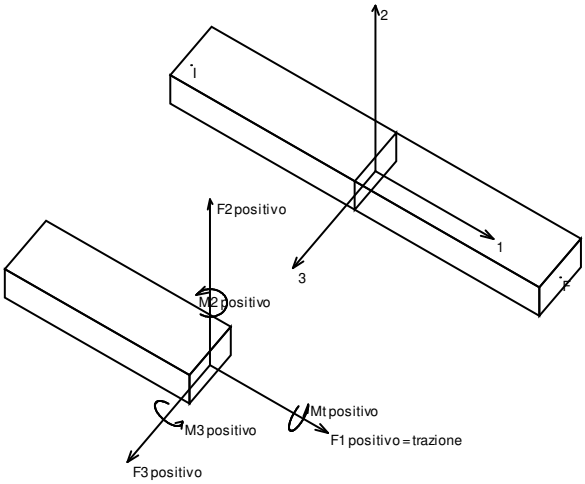
1.1 Sollecitazioni

1.1.1 Sollecitazioni aste

1.1.1.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F1 (N): sforzo normale nell'asta;
- F2: sforzo di taglio agente nella direzione dell'asse locale 2;
- F3: sforzo di taglio agente nella direzione dell'asse locale 3;
- M1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M2: momento attorno all'asse locale 2;
- M3: momento attorno all'asse locale 3.



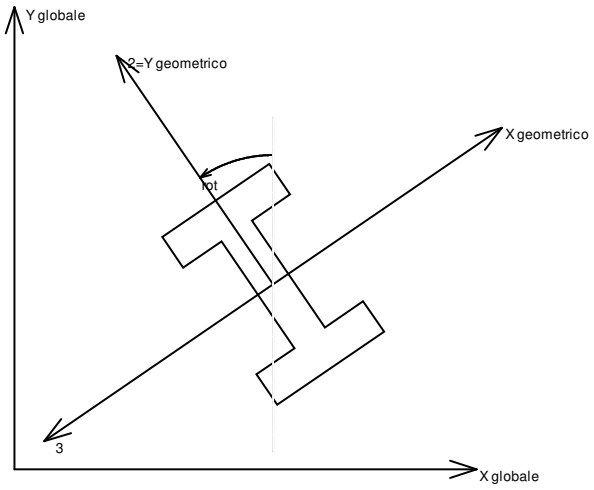
La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:
presa un'asta con nodo iniziale i e nodo finale f, asse 1 che va da i a f, assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

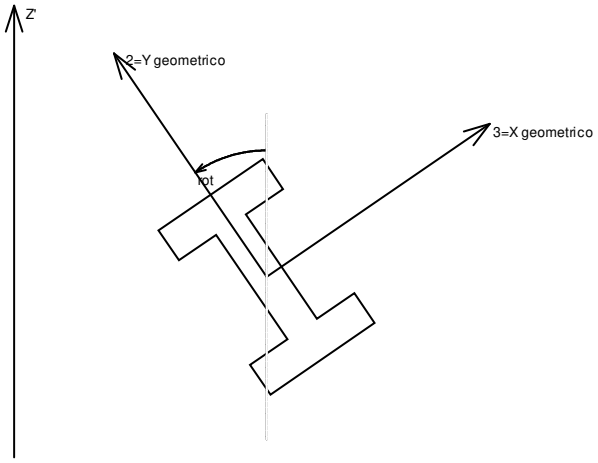
Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

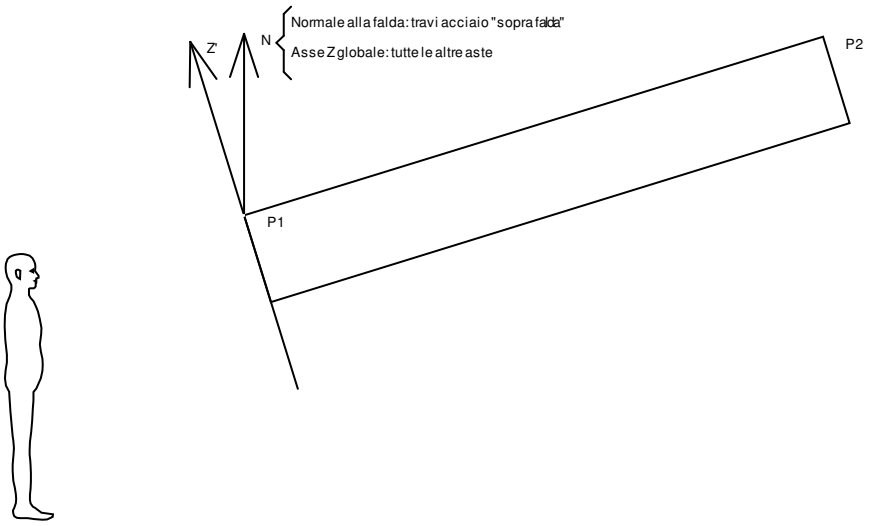
Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

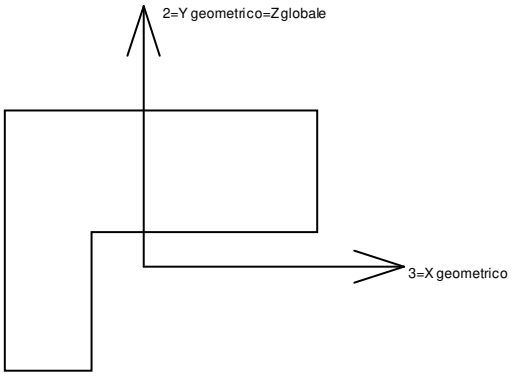
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per P1, P2 contenente N e il piano della sezione iniziale dell'asta.

Sistema locale aste derivanti da travi in c.a.



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. . Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

1.1.1.2 Sollecitazioni estreme aste

Asta: *elemento asta a cui si riferiscono le sollecitazioni.*
Ind.: *indice dell'asta.*
Cont.: *contesto a cui si riferisce la sollecitazione*
N.br.: *nome breve della condizione o combinazione di carico.*
Pos.: *numero della sezione all'interno dell'asta (tra 1 e 31, dove 1 corrisponde alla sezione al nodo iniziale, 16 è la sezione in mezzeria, 31 corrisponde alla sezione al nodo finale).*
Posizione: *posizione a cui si riferisce la sollecitazione dell'asta.*
X: *componente X della posizione a cui si riferisce la sollecitazione dell'asta. [m]*
Y: *componente Y della posizione a cui si riferisce la sollecitazione dell'asta. [m]*
Z: *componente Z della posizione a cui si riferisce la sollecitazione dell'asta. [m]*
Soll.traslazionale: *componente traslazionale della sollecitazione dell'asta.*
F1: *componente F1 della sollecitazione dell'asta. [daN]*
F2: *componente F2 della sollecitazione dell'asta. [daN]*
F3: *componente F3 della sollecitazione dell'asta. [daN]*
Soll.rotazionale: *componente rotazionale della sollecitazione dell'asta.*
M1: *componente M1 della sollecitazione dell'asta. [daN*m]*
M2: *componente M2 della sollecitazione dell'asta. [daN*m]*
M3: *componente M3 della sollecitazione dell'asta. [daN*m]*

Sollecitazioni con sforzo normale (N) minimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
3	SLU 81	1	-29.4	2.62	1.39	-33769	-6	-632	-0.07	675.87	-22.42
171	SLU 81	31	-29.7	-0.38	-1.3	-17763	929	1519	2.79	-832.56	201.15
172	SLU 81	31	-30.02	-0.38	-1.3	-16988	950	1446	3.42	-683.5	-148.15
126	SLU 81	31	-29.38	-0.38	-1.3	-16272	-9221	-3482	6.68	-1711.63	2531.14
173	SLU 81	31	-30.35	-0.38	-1.3	-16137	1011	1372	3.4	-578.98	-513.64

Sollecitazioni con sforzo normale (N) massimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
36	SLV 1	31	-29.63	5.33	-1.3	12426	-5101	-3114	3.83	475.57	-1300.13
119	SLV 6	31	-26.76	-0.38	-1.3	12169	-5996	3217	15.32	46.76	-2588.8
120	SLV 6	31	-27.14	-0.38	-1.3	11191	-6965	3002	-4.08	1493.12	-200.85
155	SLV 4	31	-28.07	-3.6	-1.3	9788	834	-942	-169.26	282.64	-604.14
156	SLV 4	31	-28.49	-3.6	-1.3	9756	338	-887	-177.21	11.16	-584.09

Sollecitazioni con momento M2 minimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
52	SLV 1	1	-29.38	5.38	-1.3	-17	7552	3777	153.13	-5749.34	5250.29
75	SLV 4	31	-33.83	1.31	-1.3	-6255	-7746	-1408	-120.72	-4815.03	3439.23
182	SLV 1	1	-33.83	1.31	-1.3	-6547	5149	2487	-66.56	-4322.53	3479.79
53	SLV 1	1	-29.75	5.38	-1.3	1221	6451	3640	57.11	-4144.63	3132.79
65	SLV X	1	-33.83	5.73	-1.3	2652	-1400	3526	-65.98	-3911.63	243.5

Sollecitazioni con momento M2 massimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
65	SLV 3	1	-33.83	5.73	-1.3	-3325	5883	-4867	323.25	6162.74	-1746.53
64	SLV 3	31	-34.18	5.38	-1.3	-4463	-5602	3549	-325.03	5754.07	-1915.2
63	SLV 3	31	-33.81	5.38	-1.3	-4697	-4142	3344	-59.68	4566.35	-2723.22
66	SLV 3	1	-33.83	5.32	-1.3	-3310	4331	-4149	48.86	4380.65	-2631.73
104	SLV 14	1	-29.38	5.38	-1.3	484	7328	-2727	-143.29	3984.17	4871.23

Sollecitazioni con momento M3 minimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
2	SLU 81	1	-29.4	2.62	5.15	0	-16774	0	-0.13	0	-16537.05
1	SLU 81	31	-29.4	2.62	5.15	0	15498	0	0	0	-14837.45
118	SLU 81	27	-26.37	-0.38	-1.3	6028	-54	2677	-5.26	2229.78	-5433.28
192	SLU 81	9	-33.87	1.56	-1.3	3010	34	278	389.2	-369.89	-5192.88
36	SLU 81	1	-29.63	5.73	-1.3	3098	-3691	-406	-0.91	298.26	-4741.21

Sollecitazioni con momento M3 massimo

Vengono mostrate le sole 5 aste più sollecitate.

Asta	Cont.	Pos.	Posizione			Soll.traslazionale			Soll.rotazionale		
Ind.	N.br.		X	Y	Z	F1	F2	F3	M1	M2	M3
52	SLU 81	1	-29.38	5.38	-1.3	-4275	12395	1196	224.26	-3216.44	8897.86
2	SLU 81	20	-32.43	2.62	5.15	0	135	0	-0.13	0	8675.28
104	SLU 82	1	-29.38	5.38	-1.3	-5199	12146	-250	-211.88	1804.64	8415.69
1	SLU 82	13	-26.52	2.62	5.15	0	21	0	0	0	6748.99
53	SLU 81	1	-29.75	5.38	-1.3	-2140	10432	1149	63.16	-2065.32	5326.25

1.1.2 Sollecitazioni gusci

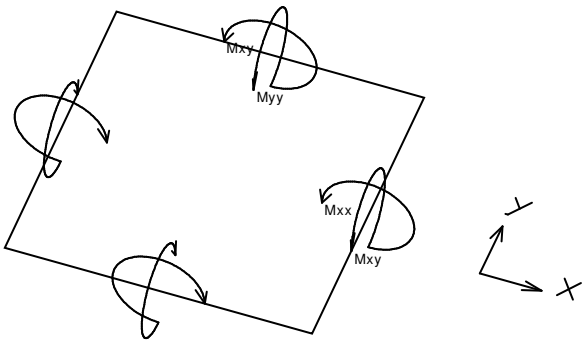
1.1.2.1 Convenzioni di segno gusci

Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

Convenzione di segno per gusci non verticali

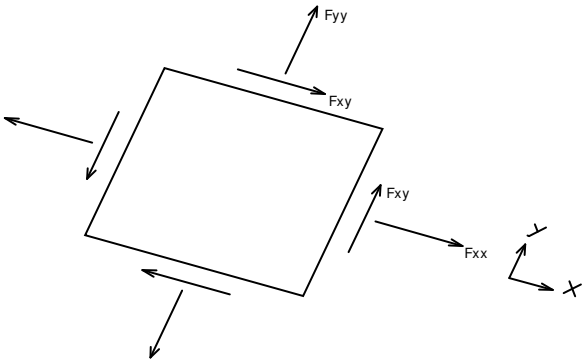
Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse x e y contenuti nel piano dell'elemento e terzo asse (z) ortogonale al piano dell'elemento a formare una terna destrogira. In particolare l'asse x ha proiezione in pianta parallela ed equiversa all'asse globale X. Nel caso di piastre orizzontali (caso più comune) gli assi x, y e z locali all'elemento sono paralleli ed equiversi agli assi X, Y e Z globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Mxx, Myy, Mxy.



Si definiscono:

- Mxx: momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Myy: momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Mxy: momento torcente [Forza*Lunghezza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Fxx, Fyy, Fxy.



Si definiscono:

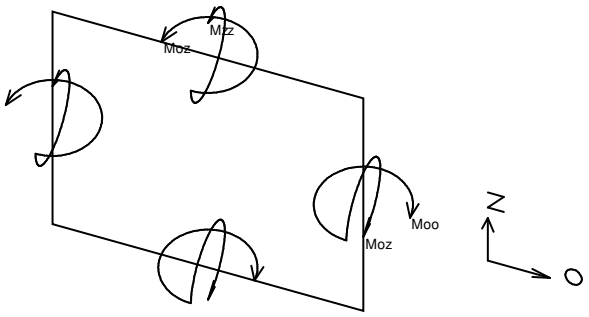
- Fxx: sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Fyy: sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse y (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Fxy: sforzo di taglio [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- Vx: taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse x;
- Vy: taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse y.

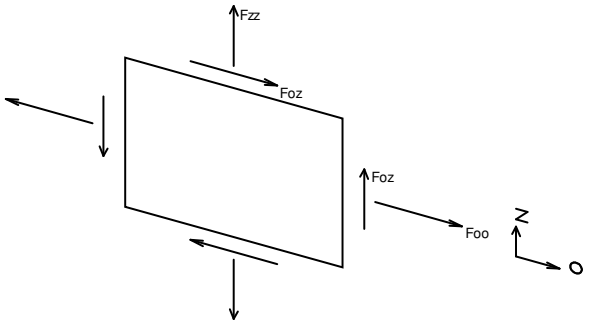
Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse O (ascisse) e z (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrogira. In particolare l'asse O è orizzontale e l'asse z parallelo ed equiverso con l'asse Z globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Moo, Mzz, Moz.



- Moo: momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Mzz: momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Moz: momento 'torcente' distribuito [Forza*Lunghezza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione Foo, Fzz, Foz sono rispettivamente:



- Fzz: sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foo: sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foz: sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- Vo: taglio fuori piano applicato al bordo di normale parallela all'asse O;
- Vz: taglio fuori piano applicato al bordo di normale parallela all'asse z.

1.1.2.2 Sollecitazioni estreme gusci

Shell: elemento guscio a cui si riferiscono le sollecitazioni.
Ind: indice del guscio.
Cont.: contesto a cui si riferiscono le sollecitazioni.
N.br.: nome breve della condizione o combinazione di carico.
Nodo: nodo su cui si basa il guscio a cui si riferisce la sollecitazione.
Ind: indice del nodo.
Sollecitazione: valori della sollecitazione.
*M11: componente M11 della sollecitazione del guscio nel nodo indicato. [daN*m/m]*
*M12: componente M12 della sollecitazione del guscio nel nodo indicato. [daN*m/m]*
*M22: componente M22 della sollecitazione del guscio nel nodo indicato. [daN*m/m]*
F11: componente F11 della sollecitazione del guscio nel nodo indicato. [daN/m]
F12: componente F12 della sollecitazione del guscio nel nodo indicato. [daN/m]
F22: componente F22 della sollecitazione del guscio nel nodo indicato. [daN/m]
V13: componente V13 della sollecitazione del guscio nel nodo indicato. [daN/m]
V23: componente V23 della sollecitazione del guscio nel nodo indicato. [daN/m]

Sollecitazioni con momento M11 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
1005	SLV 7	2517	-827	-45	-202	-7215	-1475	-1683	1593	698
1028	SLV 12	2493	-804	82	-194	-12266	2295	280	-1754	677
1782	SLV 6	2384	-336	-28	-84	-465	551	-1123	-640	200
1781	SLV 6	2384	-336	-99	-73	-1026	1315	-2065	-636	-317
1046	SLV 7	2147	-333	-123	-115	95	-1524	-3273	-649	-470

Sollecitazioni con momento M11 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
1005	SLV 10	2517	834	46	204	7949	1473	158	-1609	-707
1028	SLV 5	2493	814	-85	198	10877	-2117	-1004	1782	-686
1782	SLV 11	2384	335	26	83	393	-342	582	635	-196
1781	SLV 11	2384	334	96	72	914	-969	1518	630	315
1003	SLV 10	2389	334	-14	16	684	690	362	757	-170

Sollecitazioni con momento M22 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
1719	SLV 15	2475	-328	-78	-1311	-2012	-1094	-13238	832	4393
1346	SLV 4	2477	-308	186	-1231	-695	3183	-9077	-1468	3237
1347	SLV 4	2477	-300	-204	-1198	-662	-1150	-8771	1497	2971
1710	SLV 15	2475	-232	316	-927	-939	5165	-9354	-1635	1412
1655	SLV 13	1447	-118	-24	-473	-1100	-58	-7084	-209	-775

Sollecitazioni con momento M22 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
1346	SLV X	2477	246	-147	986	-20	-1027	215	1175	-2630
1347	SLV X	2477	240	163	959	-21	-969	210	-1198	-2418
1719	SLV 2	2475	177	33	710	-2112	686	-12814	-428	-2454
1710	SLV 2	2475	126	-186	504	-1025	6251	-10056	897	-856
1655	SLV 4	1447	117	21	466	-1170	-227	-6875	191	743

Sollecitazioni con sforzo F11 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
692	SLV 2	1164	-15	13	4	-37623	12574	-10711	-130	90
797	SLV 15	1181	-52	-12	-40	-28254	-11286	-14890	-111	-137
645	SLU 81	215	29	38	114	-22484	24876	-8820	107	273
1073	SLV 1	2154	-159	10	-57	-21917	-4069	-6712	-216	-212
1051	SLV 16	2153	-34	-53	64	-21581	5626	-9161	34	258

Sollecitazioni con sforzo F11 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
1941	SLV 7	1158	-21	5	-45	32160	7113	8909	-22	-82
800	SLV 15	1180	-25	20	-39	26245	-8056	10830	123	-152
1940	SLV 7	1158	-37	-26	-6	20853	7016	10064	12	124
645	SLU 81	399	-63	8	-9	20074	-12688	-19493	231	95
1942	SLV 7	1174	2	-1	2	20011	2815	756	-13	-5

Sollecitazioni con sforzo F22 minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
989	SLU 81	1501	1	0	2	-9316	19680	-102047	2	-5
990	SLU 81	1501	0	0	2	-8511	-25519	-98291	-2	-5
1910	SLU 82	101	-8	5	-31	-4633	20650	-69700	49	-90
973	SLU 81	1264	0	0	0	9121	3994	-37689	1	0
974	SLU 81	1264	0	0	0	7220	-8817	-36656	-1	0

Sollecitazioni con sforzo F22 massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
718	SLV 4	163	9	3	36	3404	4901	26462	-2	29
1807	SLV X	1959	25	0	-17	2934	5	18655	106	-31
791	SLV X	147	5	0	19	3673	-1924	17719	-5	30
1878	SLV 9	1623	-20	0	3	-1591	-39	17173	53	-23
1821	SLV 8	1623	-12	0	-35	-55	2	14303	25	319

1.1.2.3 Sollecitazioni estreme gusci non verticali

***Shell**: elemento guscio a cui si riferiscono le sollecitazioni.*

Ind: indice del guscio.
Cont.: contesto a cui si riferiscono le sollecitazioni.
N.br.: nome breve della condizione o combinazione di carico.
Nodo: nodo su cui si basa il guscio a cui si riferisce la sollecitazione.
Ind: indice del nodo.
Sollecitazione: valori della sollecitazione.
*Mxx: componente Mxx della sollecitazione del guscio nel nodo indicato. [daN*m/m]*
*Mxy: componente Mxy della sollecitazione del guscio nel nodo indicato. [daN*m/m]*
*Myy: componente Myy della sollecitazione del guscio nel nodo indicato. [daN*m/m]*
Fxx: componente Fxx della sollecitazione del guscio nel nodo indicato. [daN/m]
Fxy: componente Fxy della sollecitazione del guscio nel nodo indicato. [daN/m]
Fyy: componente Fyy della sollecitazione del guscio nel nodo indicato. [daN/m]
Vx: componente Vo della sollecitazione del guscio nel nodo indicato. [daN/m]
Vy: componente Vz della sollecitazione del guscio nel nodo indicato. [daN/m]

Sollecitazioni con momento Mxx minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1824	SLV 4	1767	-73	0	0	469	-2	-443	128	0
1823	SLV 4	1767	-73	0	0	-335	-2	-362	128	0
1802	SLV 15	2064	-70	0	0	599	-4	157	159	0
1807	SLV 15	2064	-70	0	0	879	-4	-1396	159	0
1825	SLV 4	1668	-66	0	0	122	-7	-500	114	0

Sollecitazioni con momento Mxx massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1802	SLV 2	2064	68	0	0	-651	5	-1319	-156	0
1807	SLV 2	2064	68	0	0	-915	4	683	-156	0
1797	SLV 2	2186	66	0	0	-647	5	-210	-163	0
1822	SLV 1	1960	63	0	0	-2700	6	-197	-127	0
1824	SLV 13	1767	62	0	0	-346	2	-1363	-110	0

Sollecitazioni con momento Myy minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1820	SLV 15	1467	0	0	-212	-5170	20	-25046	0	-713
1821	SLV 8	1465	0	0	-109	95	-1	14302	0	-319
1826	SLV 4	1469	0	0	-76	38	-6	-15127	0	-208
1822	SLV 5	1959	17	0	-49	-1257	0	-7337	-98	137
1823	SLV 4	1766	1	0	-40	-330	-3	-14617	128	-76

Sollecitazioni con momento Myy massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1820	SLV 13	1569	-3	0	106	1840	40	-27230	-62	-617
1821	SLV 9	1465	0	0	96	332	-1	-17353	0	279
1825	SLV 2	1570	0	0	60	460	-11	-14058	44	94
1822	SLV 12	1959	-19	0	55	1418	-1	-5551	96	-180
1826	SLV X	1469	0	0	45	-41	4	7864	0	121

Sollecitazioni con sforzo Fxx minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1821	SLV 16	1466	0	0	-79	-6550	19	2280	0	-197
1820	SLV 16	1467	0	0	-212	-5171	20	-25029	0	-713
1807	SLV 4	1960	37	0	0	-3041	5	-3982	-87	0
1822	SLV 2	1959	28	0	-42	-2705	7	-13613	-127	143
1802	SLV 2	2191	15	0	9	-913	5	-13477	-163	-8

Sollecitazioni con sforzo Fxx massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1821	SLV 1	1466	0	0	31	7218	-21	-4759	0	37
1820	SLV 1	1467	0	0	77	5596	-22	6703	0	227
1807	SLV 13	1959	-23	0	10	3210	-5	16264	85	39
1822	SLV 15	1959	-30	0	48	2866	-8	724	125	-187
1802	SLV 15	2191	-15	0	-9	893	-4	8599	164	5

Sollecitazioni con sforzo Fyy minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1820	SLV 13	1569	-3	0	106	1840	40	-27230	-62	-617
1807	SLV 3	1959	21	0	-10	-3035	5	-23261	-87	-45
1821	SLV 9	1623	-20	0	-31	-40	-2	-17354	-19	279
1826	SLV 4	1570	-1	0	15	-702	-13	-15175	60	-207
1825	SLV 4	1667	0	0	22	124	-9	-14908	114	133

Sollecitazioni con sforzo Fyy massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
1807	SLV X	1959	-25	0	17	2934	-4	18655	106	31
1821	SLV 8	1623	12	0	35	-55	-3	14303	25	-319
1802	SLV X	2191	-17	0	-11	830	-5	11718	141	11
1820	SLV 4	1467	0	0	39	4644	-18	8904	0	131
1826	SLV X	1570	1	0	-15	405	12	7907	-33	121

1.1.2.4 Sollecitazioni estreme gusci verticali

Shell: *elemento guscio a cui si riferiscono le sollecitazioni.*
Ind: *indice del guscio.*
Cont.: *contesto a cui si riferiscono le sollecitazioni.*
N.br.: *nome breve della condizione o combinazione di carico.*
Nodo: *nodo su cui si basa il guscio a cui si riferisce la sollecitazione.*
Ind: *indice del nodo.*
Sollecitazione: *valori della sollecitazione.*
Moo: *componente Moo della sollecitazione del guscio nel nodo indicato. [daN*m/m]*
Moz: *componente Moz della sollecitazione del guscio nel nodo indicato. [daN*m/m]*
Mzz: *componente Mzz della sollecitazione del guscio nel nodo indicato. [daN*m/m]*
Foo: *componente Foo della sollecitazione del guscio nel nodo indicato. [daN/m]*
Foz: *componente Foz della sollecitazione del guscio nel nodo indicato. [daN/m]*
Fzz: *componente Fzz della sollecitazione del guscio nel nodo indicato. [daN/m]*
Vo: *componente Vo della sollecitazione del guscio nel nodo indicato. [daN/m]*
Vz: *componente Vz della sollecitazione del guscio nel nodo indicato. [daN/m]*

Sollecitazioni con momento Moo minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
1005	SLV 7	2517	-827	-45	-202	-7215	-1475	-1683	1593	698
1028	SLV 12	2493	-804	82	-194	-12266	2295	280	-1754	677
1782	SLV 11	2384	-335	26	-83	393	342	582	635	196
1781	SLV 11	2384	-334	96	-72	914	969	1518	630	-315
1046	SLV 7	2147	-333	-123	-115	95	-1524	-3273	-649	-470

Sollecitazioni con momento Moo massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
1005	SLV 10	2517	834	46	204	7949	1473	158	-1609	-707
1028	SLV 5	2493	814	-85	198	10877	-2117	-1004	1782	-686
1782	SLV 6	2384	336	-28	84	-465	-551	-1123	-640	-200
1781	SLV 6	2384	336	-99	73	-1026	-1315	-2065	-636	317
1003	SLV 10	2389	334	-14	16	684	690	362	757	-170

Sollecitazioni con momento Mzz minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
1346	SLV 4	2477	-308	186	-1231	-695	3183	-9077	-1468	3237
1347	SLV 4	2477	-300	-204	-1198	-662	-1150	-8771	1497	2971
1719	SLV 2	2475	-177	33	-710	-2112	-686	-12814	-428	2454
1710	SLV 2	2475	-126	-186	-504	-1025	-6251	-10056	897	856
1655	SLV 4	1447	-117	21	-466	-1170	227	-6875	191	-743

Sollecitazioni con momento Mzz massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
1719	SLV 15	2475	328	-78	1311	-2012	1094	-13238	832	-4393
1346	SLV X	2477	246	-147	986	-20	-1027	215	1175	-2630
1347	SLV X	2477	240	163	959	-21	-969	210	-1198	-2418
1710	SLV 15	2475	232	316	927	-939	-5165	-9354	-1635	-1412
1655	SLV 13	1447	118	-24	473	-1100	58	-7084	-209	775

Sollecitazioni con sforzo Foo minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
692	SLV 2	1164	15	13	-4	-37623	-12574	-10711	-130	-90
797	SLV 15	1181	52	-12	40	-28254	11286	-14890	-111	137
645	SLU 81	215	-29	38	-114	-22484	-24876	-8820	107	-273
1073	SLV 1	2154	-159	10	-57	-21917	-4069	-6712	-216	-212
1051	SLV 16	2153	-34	-53	64	-21581	5626	-9161	34	258

Sollecitazioni con sforzo Foo massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
1941	SLV 7	1158	-21	5	-45	32160	7113	8909	-22	-82
800	SLV 15	1180	25	20	39	26245	8056	10830	123	152
1940	SLV 7	1158	-37	-26	-6	20853	7016	10064	12	124
645	SLU 81	399	63	8	9	20074	12688	-19493	231	-95
1942	SLV 7	1174	2	-1	2	20011	2815	756	-13	-5

Sollecitazioni con sforzo Fzz minimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
989	SLU 81	1501	1	0	2	-9316	19680	-102047	2	-5
990	SLU 81	1501	0	0	2	-8511	-25519	-98291	-2	-5
1910	SLU 82	101	-8	5	-31	-4633	20650	-69700	49	-90
973	SLU 81	1264	0	0	0	9121	3994	-37689	1	0
974	SLU 81	1264	0	0	0	7220	-8817	-36656	-1	0

Sollecitazioni con sforzo Fzz massimo

Vengono mostrati i soli 5 gusci più sollecitati.

Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Moo	Moz	Mzz	Foo	Foz	Fzz	Vo	Vz
718	SLV 4	163	-9	3	-36	3404	-4901	26462	-2	-29
791	SLV X	147	-5	0	-19	3673	1924	17719	-5	-30
1878	SLV 9	1623	-20	0	3	-1591	-39	17173	53	-23
1086	SLV X	1563	-7	-12	33	706	2575	14215	-17	229
1059	SLV X	1561	5	8	-35	1028	2950	14177	17	-162

1.1.3 Sollecitazioni gusci armati

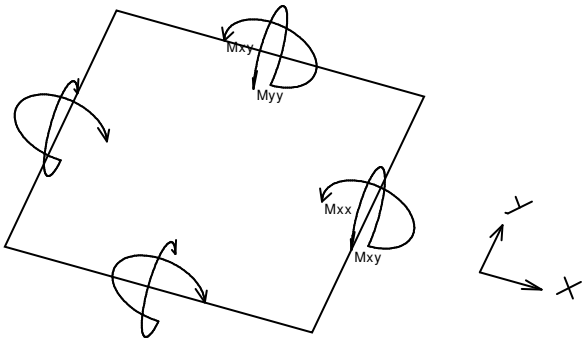
1.1.3.1 Convenzioni di segno gusci

Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

Convenzione di segno per gusci non verticali

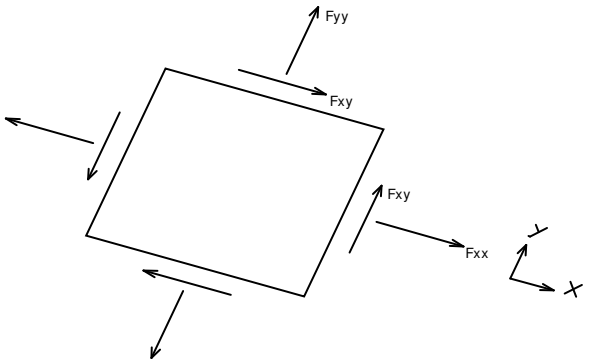
Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse x e y contenuti nel piano dell'elemento e terzo asse (z) ortogonale al piano dell'elemento a formare una terna destrogira. In particolare l'asse x ha proiezione in pianta parallela ed equiversa all'asse globale X. Nel caso di piastre orizzontali (caso più comune) gli assi x, y e z locali all'elemento sono paralleli ed equiversi agli assi X, Y e Z globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Mxx, Myy, Mxy.



Si definiscono:

- Mxx: momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Myy: momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Mxy: momento torcente [Forza*Lunghezza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Fxx, Fyy, Fxy.



Si definiscono:

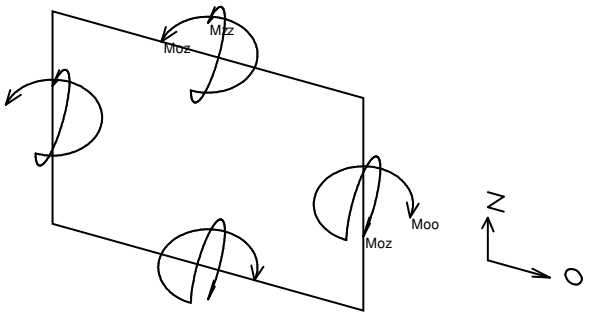
- Fxx: sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Fyy: sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse y (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Fxy: sforzo di taglio [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- Vx: taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse x;
- Vy: taglio fuori piano [Forza/Lunghezza] applicato al bordo di normale parallela all'asse y.

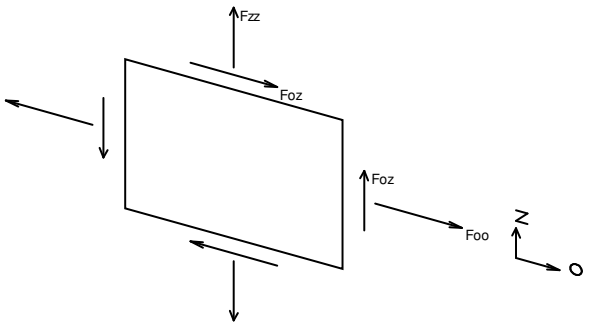
Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse O (ascisse) e z (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrogira. In particolare l'asse O è orizzontale e l'asse z parallelo ed equiverso con l'asse Z globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Moo, Mzz, Moz.



- Moo: momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Mzz: momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Moz: momento 'torcente' distribuito [Forza*Lunghezza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione Foo, Fzz, Foz sono rispettivamente:



- Fzz: sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foo: sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foz: sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Vengono riportati inoltre i tagli fuori dal piano dell'elemento guscio:

- Vo: taglio fuori piano applicato al bordo di normale parallela all'asse O;
- Vz: taglio fuori piano applicato al bordo di normale parallela all'asse z.

1.1.4 Sollecitazioni gusci muratura

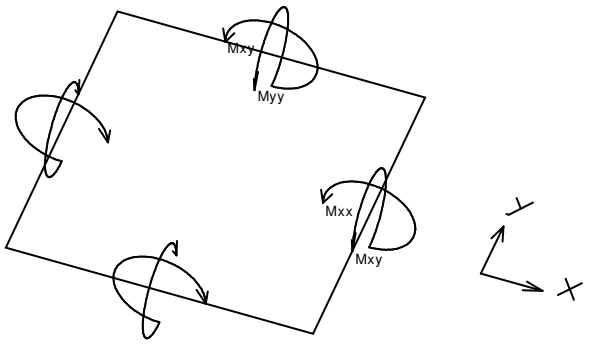
1.1.4.1 Convenzioni di segno gusci muratura

Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio muratura si riferisce:

- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

Convenzione di segno per gusci non verticali

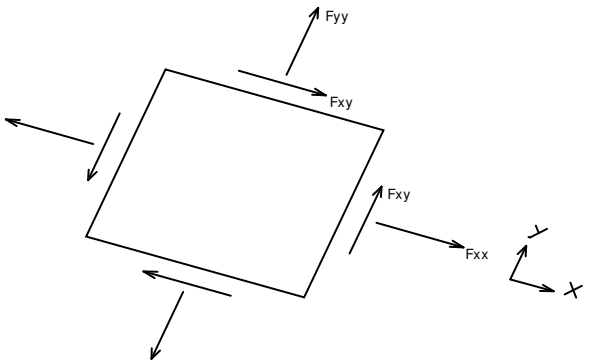
Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse x e y contenuti nel piano dell'elemento e terzo asse (z) ortogonale al piano dell'elemento a formare una terna destrogira. In particolare l'asse x ha proiezione in pianta parallela ed equiversa all'asse globale X. Nel caso di piastre orizzontali (caso più comune) gli assi x, y e z locali all'elemento sono paralleli ed equiversi agli assi X, Y e Z globali. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Mxx, Myy, Mxy.



Si definiscono:

- Mxx: momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Myy: momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Mxy: momento torcente [Forza*Lunghezza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Fxx, Fyy, Fxy.

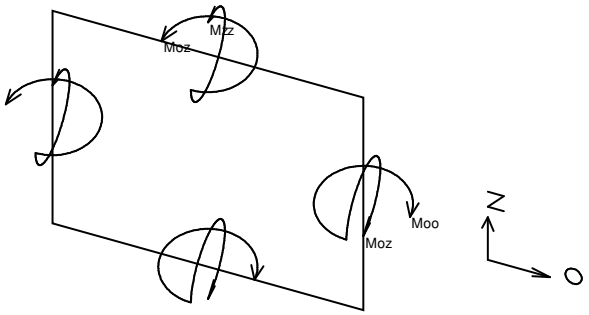


Si definiscono:

- Fxx: sforzo tensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Fyy: sforzo tensionale [Forza/Lunghezza] agente sul bordo di normale all'asse y (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Fxy: sforzo tagliante [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

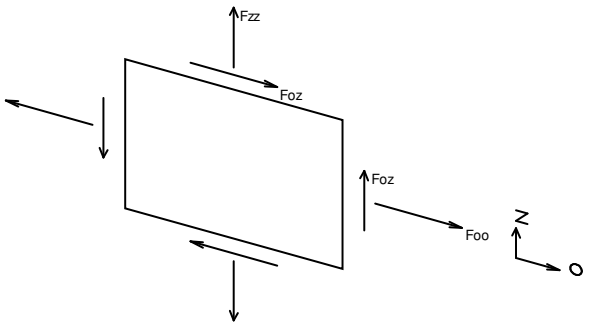
Convenzione di segno per gusci verticali

Il sistema di riferimento nel quale sono espressi i parametri di sollecitazione è così definito: origine appartenente al piano dell'elemento, asse O (ascisse) e z (ordinate) contenuti nel piano dell'elemento e terzo asse ortogonale al piano dell'elemento a formare una terna destrogira. In particolare l'asse O è orizzontale e l'asse z parallelo ed equiverso con l'asse Z globale. Si sottolinea che non ha alcun interesse collocare esattamente nel piano dell'elemento la posizione dell'origine in quanto i parametri di sollecitazione sono invarianti rispetto a tale posizione.In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione Moo, Mzz, Moz.



- Moo: momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Mzz: momento flettente distribuito [Forza*Lunghezza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- Moz: momento 'torcente' distribuito [Forza*Lunghezza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

Per quanto riguarda le sollecitazioni estensionali si faccia riferimento alla figura seguente dove per lo stesso elemento infinitesimo di shell con indicato il sistema di riferimento i parametri di sollecitazione Foo, Fzz, Foz sono rispettivamente:



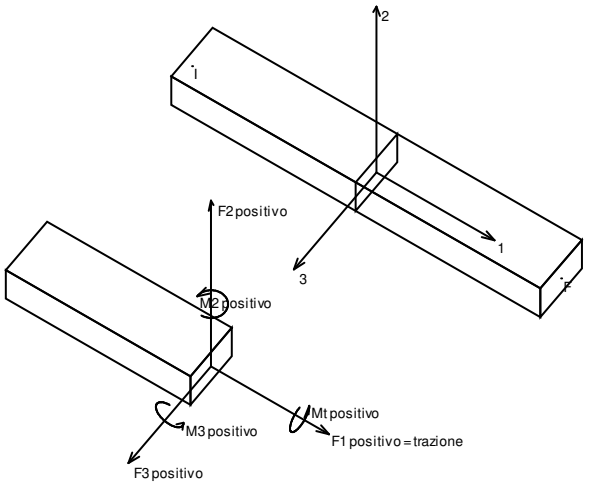
- Fzz: sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foo: sforzo tensionale distribuito [Forza/Lunghezza] applicato al bordo di normale parallela all'asse O (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foz: sforzo tagliante distribuito [Forza/Lunghezza] applicato sui bordi (verso positivo indicato dalla freccia in figura).

1.1.5 Sollecitazioni aste in muratura

1.1.5.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F1 (N): sforzo normale nell'asta;
- F2: sforzo di taglio agente nella direzione dell'asse locale 2;
- F3: sforzo di taglio agente nella direzione dell'asse locale 3;
- M1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M2: momento attorno all'asse locale 2;
- M3: momento attorno all'asse locale 3.



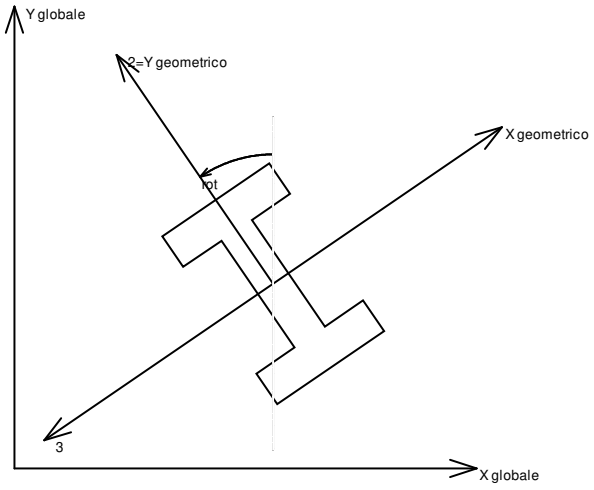
La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:
presa un'asta con nodo iniziale i e nodo finale f, asse 1 che va da i a f, assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

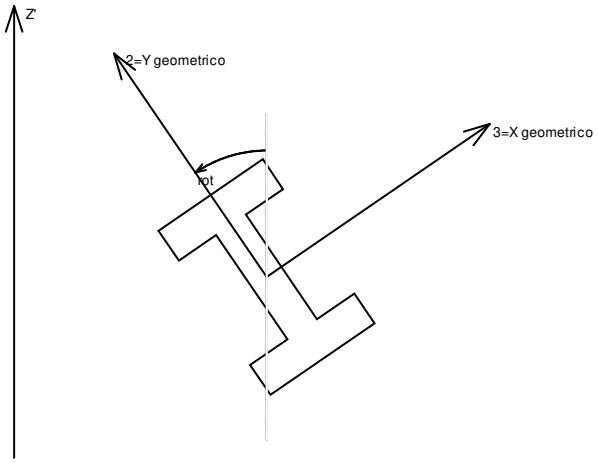
Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

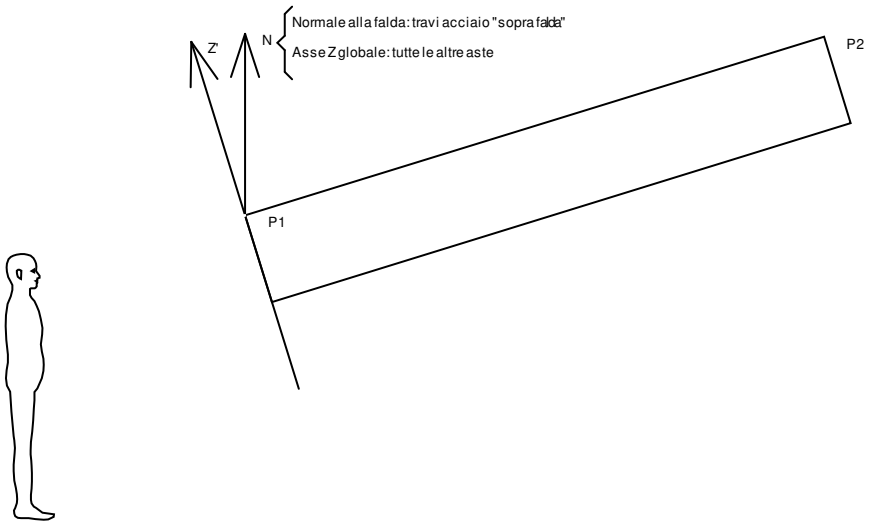
Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

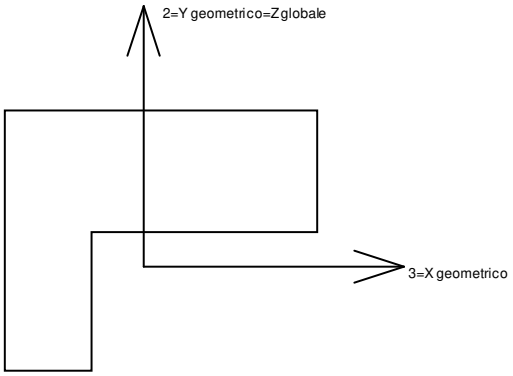
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per P1, P2 contenente N e il piano della sezione iniziale dell'asta.

Sistema locale aste derivanti da travi in c.a.



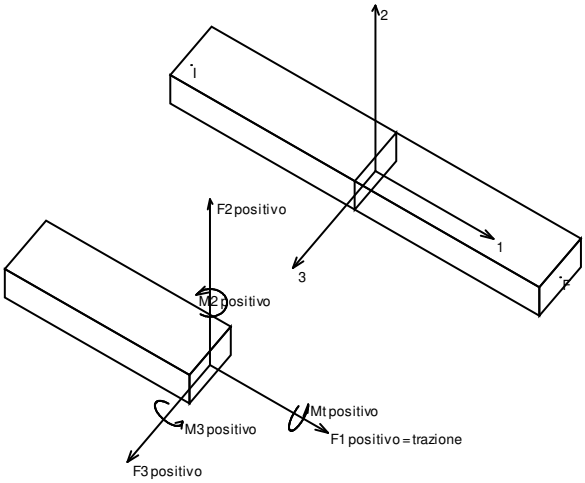
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. . Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

1.1.6 Sollecitazioni aste in muratura FRCM

1.1.6.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F1 (N): sforzo normale nell'asta;
- F2: sforzo di taglio agente nella direzione dell'asse locale 2;
- F3: sforzo di taglio agente nella direzione dell'asse locale 3;
- M1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M2: momento attorno all'asse locale 2;
- M3: momento attorno all'asse locale 3.



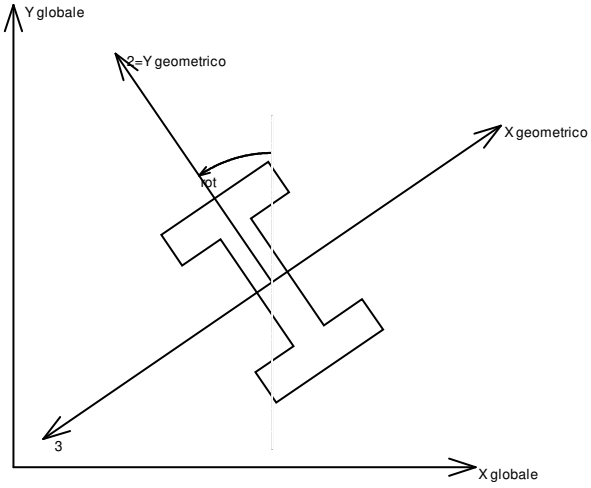
La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:
presa un'asta con nodo iniziale i e nodo finale f, asse 1 che va da i a f, assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

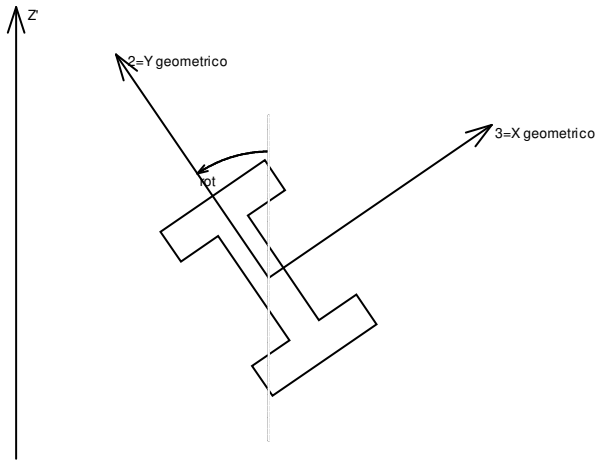
Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

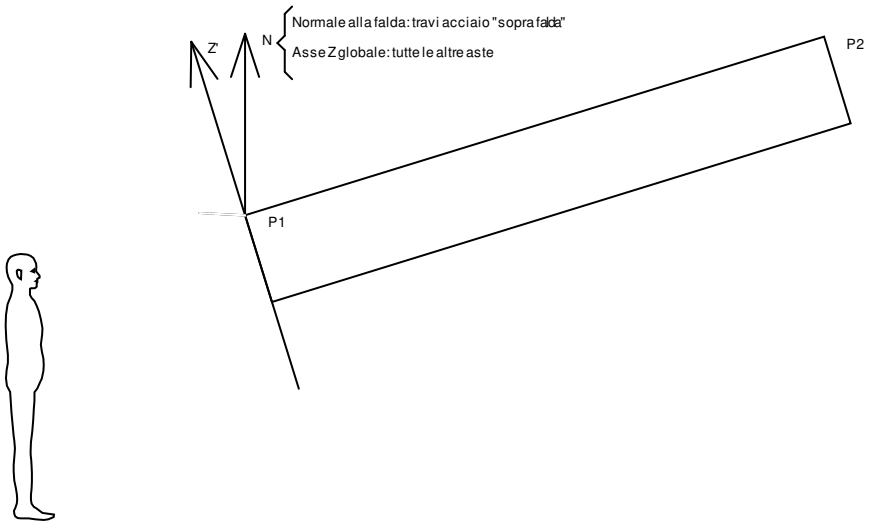
Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

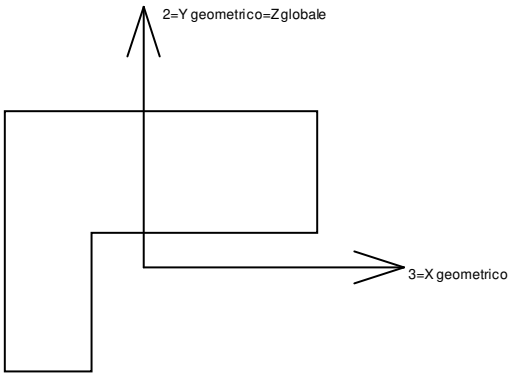
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per P1, P2 contenente N e il piano della sezione iniziale dell'asta.

Sistema locale aste derivanti da travi in c.a.



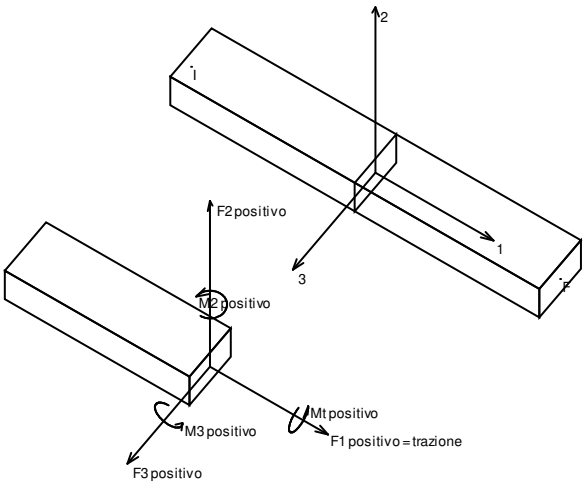
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. . Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

1.1.7 Sollecitazioni aste in muratura armata

1.1.7.1 Convenzioni di segno aste

Le abbreviazioni relative alle sollecitazioni sugli elementi aste sono da intendersi:

- F1 (N): sforzo normale nell'asta;
- F2: sforzo di taglio agente nella direzione dell'asse locale 2;
- F3: sforzo di taglio agente nella direzione dell'asse locale 3;
- M1 (Mt): momento attorno all'asse locale 1; equivale al momento torcente;
- M2: momento attorno all'asse locale 2;
- M3: momento attorno all'asse locale 3.



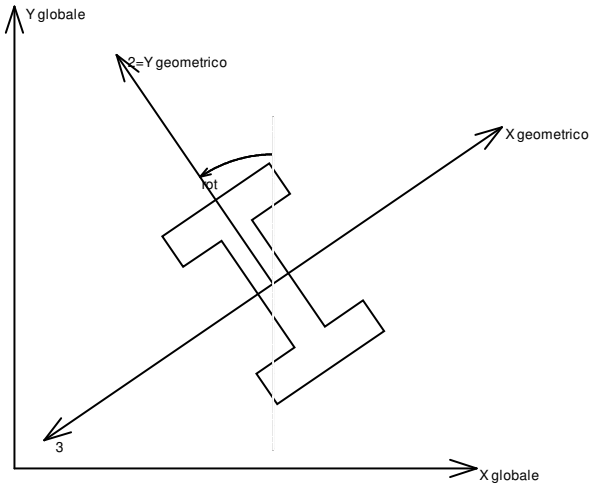
La convenzione sui segni per i parametri di sollecitazione delle aste è la seguente:
presa un'asta con nodo iniziale i e nodo finale f, asse 1 che va da i a f, assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da cui esce il versore asse 1) i parametri di sollecitazione sono positivi se hanno verso e direzione concordi con il sistema di riferimento locale dell'asta 1, 2, 3 (per i momenti si adotta la regola della mano destra).

Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- aste verticali ad esempio pilastri e colonne;
- aste non verticali non di c.a., ad esempio travi di acciaio o legno;
- aste non verticali in c.a.: travi in c.a. di piano, falda o a quota generica.

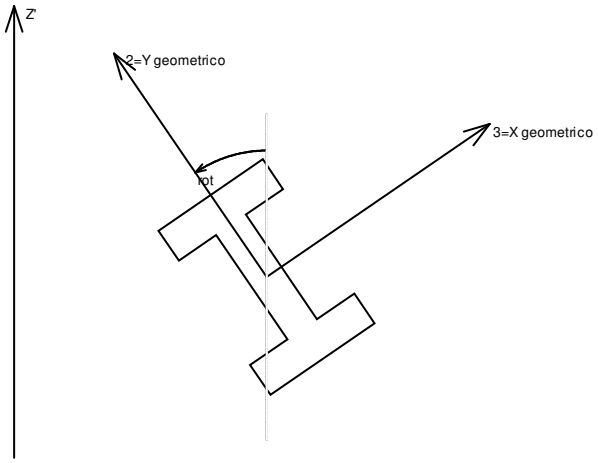
Nel seguito si indica con 1, 2 e 3 il sistema locale dell'asta che non sempre coincide con gli assi principali della sezione. Si ricorda che per assi principali si intendono gli assi rispetto a cui si ha il raggio di inerzia minimo e massimo. Gli assi 1, 2 e 3 rispettano la regola della mano destra.

Sistema locale aste verticali



Nella figura si considera l'asse 1 uscente dal foglio (l'osservatore guarda in direzione opposta a quella dell'asse 1).

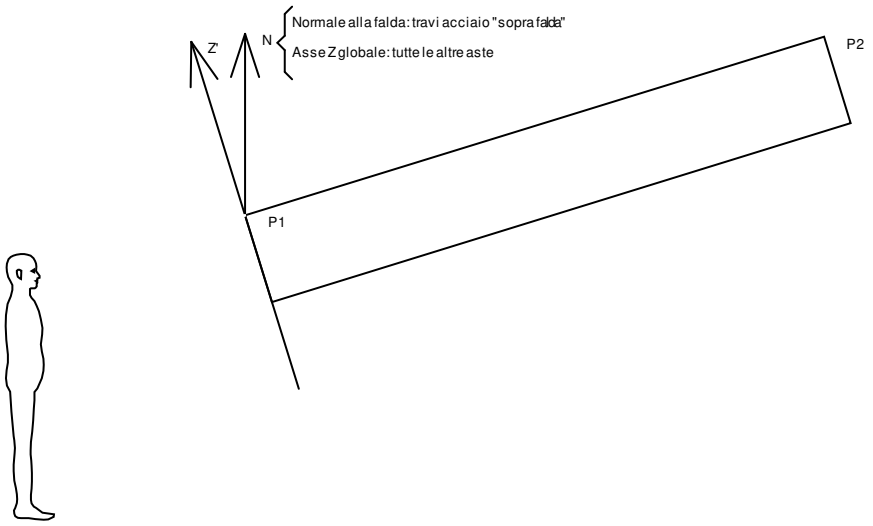
Sistema locale aste non verticali



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1).

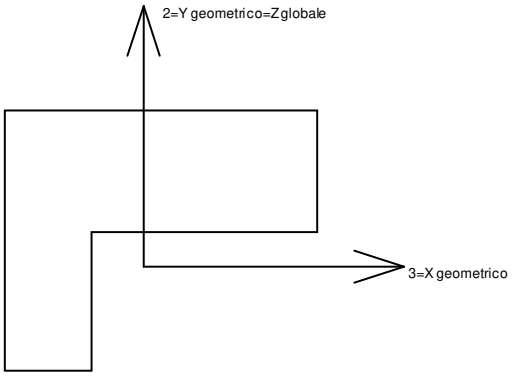
L'asse Z' è illustrato nella figura seguente dove:

- P1 è il punto di inserimento iniziale dell'asta;
- P2 è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



Z' è quindi l'intersezione tra il piano passante per P1, P2 contenente N e il piano della sezione iniziale dell'asta.

Sistema locale aste derivanti da travi in c.a.



Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. . Si sottolinea il fatto che gli assi 2 e 3 non corrispondono agli assi principali della sezione.

1.2 Reazioni nodali

1.2.1 Reazioni nodali estreme

Nodo: *Nodo sollecitato dalla reazione vincolare.*
Ind.: *indice del nodo.*
Cont.: *Contesto a cui si riferisce la reazione vincolare.*
N.br.: *nome breve della condizione o combinazione di carico.*
Reazione a traslazione: *reazione vincolare traslazionale del nodo.*
x: *componente X della reazione vincolare del nodo. [daN]*
y: *componente Y della reazione vincolare del nodo. [daN]*
z: *componente Z della reazione vincolare del nodo. [daN]*
Reazione a rotazione: *reazione vincolare rotazionale del nodo.*
x: *componente X della reazione a rotazione del nodo. [daN*m]*
y: *componente Y della reazione a rotazione del nodo. [daN*m]*
z: *componente Z della reazione a rotazione del nodo. [daN*m]*

Reazioni Fx minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
162	SLV 13	-1501	-14	10230	-323.5	-2334.89	-52.5
164	SLV 13	-1199	-19	10460	-117.37	3418.84	0.04
334	SLV 14	-1116	301	4265	-967.88	-13.43	-260.81
146	SLV 13	-942	537	4483	19.92	-630.89	81.93
147	SLV 13	-869	525	3984	15.2	675.7	-86.81

Reazioni Fx massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
334	SLV 3	1297	20	5319	-1181.24	21.59	303.97
162	SLV 4	1239	-284	4805	-178.04	-1062.63	-36.92
164	SLV 4	998	-147	5063	-17.66	1622.71	64.26
283	SLV 3	942	15	3866	5.08	30.06	-9.85
277	SLV 3	887	15	3729	3.42	31.58	-10.93

Reazioni Fy minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
162	SLV 11	-465	-1855	7724	-180.41	-1778.22	-449.72
164	SLV 11	-366	-1756	7884	8.85	2574.01	578.01
139	SLV 8	116	-1014	5168	50.71	-1145.8	-237.03
166	SLV 11	-183	-960	4744	43.4	503.67	114.32
146	SLV Y	53	-885	-639	49.08	95.83	-124

Reazioni Fy massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
164	SLV 6	166	1591	7638	-143.88	2467.54	-513.71
162	SLV 6	202	1556	7312	-321.12	-1619.3	360.3
146	SLV 9	-440	1087	5423	-23.67	-763.86	160.48
147	SLV 9	-401	1038	4853	-23.04	821.84	-172.66
152	SLV 6	103	990	4744	181.41	-16.26	-0.59

Reazioni Fz minime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
139	SLV X	-566	142	-1695	1.74	338.56	32.66
4	SLV X	-415	74	-1169	-199.28	245.98	83.02
213	SLV X	-409	113	-1112	-87.65	221.42	45.49
141	SLV X	-389	92	-1056	8.39	24.13	-2
23	SLV Y	-104	-445	-1044	-170.7	105.55	-23.62

Reazioni Fz massime

Vengono mostrati i soli 5 nodi più sollecitati.

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
164	SLU 82	-160	-110	11674	-95.68	3806.68	43.36
162	SLU 82	-208	-211	11540	-367.68	-2587.54	-63.89
139	SLU 81	-167	-199	7777	44.7	-1739.14	-40.67
146	SLU 81	-180	184	7565	40.55	-1060.3	42.51
334	SLU 82	124	219	7383	-1667.08	5.72	29.58

1.2.2 Reazioni nodali in combinazioni di carico

Nodo: *Nodo sollecitato dalla reazione vincolare.*
Ind.: *indice del nodo.*
Cont.: *Contesto a cui si riferisce la reazione vincolare.*
N.br.: *nome breve della condizione o combinazione di carico.*
Reazione a traslazione: *reazione vincolare traslazionale del nodo.*
x: *componente X della reazione vincolare del nodo. [daN]*
y: *componente Y della reazione vincolare del nodo. [daN]*
z: *componente Z della reazione vincolare del nodo. [daN]*
Reazione a rotazione: *reazione vincolare rotazionale del nodo.*
x: *componente X della reazione a rotazione del nodo. [daN*m]*
y: *componente Y della reazione a rotazione del nodo. [daN*m]*
z: *componente Z della reazione a rotazione del nodo. [daN*m]*

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
4	SLU 1	72	-70	2750	472.07	-615.85	-29.14
4	SLU 2	60	-69	2718	466.6	-609.19	-26.79
4	SLU 3	72	-70	2750	472.07	-615.85	-29.14
4	SLU 4	65	-69	2731	468.79	-611.85	-27.73

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
4	SLU 5	60	-69	2718	466.6	-609.19	-26.79
4	SLU 6	72	-70	2750	472.07	-615.85	-29.14
4	SLU 7	65	-69	2731	468.79	-611.85	-27.73
4	SLU 8	72	-70	2750	472.07	-615.85	-29.14
4	SLU 9	65	-69	2731	468.79	-611.85	-27.73
4	SLU 10	70	-83	3205	549.09	-717.35	-32.01
4	SLU 11	82	-84	3237	554.56	-724.01	-34.36
4	SLU 12	75	-84	3218	551.28	-720.01	-32.95
4	SLU 13	70	-83	3205	549.09	-717.35	-32.01
4	SLU 14	82	-84	3237	554.56	-724.01	-34.36
4	SLU 15	75	-84	3218	551.28	-720.01	-32.95
4	SLU 16	82	-84	3237	554.56	-724.01	-34.36
4	SLU 17	75	-84	3218	551.28	-720.01	-32.95
4	SLU 18	87	-91	3446	589.92	-770.36	-36.6
4	SLU 19	80	-90	3427	586.63	-766.37	-35.19
4	SLU 20	87	-91	3446	589.92	-770.36	-36.6
4	SLU 21	80	-90	3427	586.63	-766.37	-35.19
4	SLU 22	79	-78	3089	529.73	-691	-32.34
4	SLU 23	68	-77	3057	524.26	-684.34	-29.98
4	SLU 24	79	-78	3089	529.73	-691	-32.34
4	SLU 25	72	-77	3070	526.44	-687.01	-30.93
4	SLU 26	68	-77	3057	524.26	-684.34	-29.98
4	SLU 27	79	-78	3089	529.73	-691	-32.34
4	SLU 28	72	-77	3070	526.44	-687.01	-30.93
4	SLU 29	79	-78	3089	529.73	-691	-32.34
4	SLU 30	72	-77	3070	526.44	-687.01	-30.93
4	SLU 31	78	-91	3544	606.75	-792.5	-35.21
4	SLU 32	90	-92	3576	612.22	-799.16	-37.56
4	SLU 33	83	-92	3557	608.94	-795.17	-36.15
4	SLU 34	78	-91	3544	606.75	-792.5	-35.21
4	SLU 35	90	-92	3576	612.22	-799.16	-37.56
4	SLU 36	83	-92	3557	608.94	-795.17	-36.15
4	SLU 37	90	-92	3576	612.22	-799.16	-37.56
4	SLU 38	83	-92	3557	608.94	-795.17	-36.15
4	SLU 39	94	-99	3785	647.57	-845.52	-39.8
4	SLU 40	87	-98	3765	644.29	-841.52	-38.39
4	SLU 41	94	-99	3785	647.57	-845.52	-39.8
4	SLU 42	87	-98	3765	644.29	-841.52	-38.39
4	SLU 43	91	-88	3459	593.93	-774.83	-36.78
4	SLU 44	79	-87	3427	588.46	-768.17	-34.43
4	SLU 45	91	-88	3459	593.93	-774.83	-36.78
4	SLU 46	84	-87	3439	590.64	-770.84	-35.37
4	SLU 47	79	-87	3427	588.46	-768.17	-34.43
4	SLU 48	91	-88	3459	593.93	-774.83	-36.78
4	SLU 49	84	-87	3439	590.64	-770.84	-35.37
4	SLU 50	91	-88	3459	593.93	-774.83	-36.78
4	SLU 51	84	-87	3439	590.64	-770.84	-35.37
4	SLU 52	90	-101	3914	670.95	-876.33	-39.65
4	SLU 53	101	-103	3946	676.42	-882.99	-42
4	SLU 54	94	-102	3927	673.13	-879	-40.59
4	SLU 55	90	-101	3914	670.95	-876.33	-39.65
4	SLU 56	101	-103	3946	676.42	-882.99	-42
4	SLU 57	94	-102	3927	673.13	-879	-40.59
4	SLU 58	101	-103	3946	676.42	-882.99	-42
4	SLU 59	94	-102	3927	673.13	-879	-40.59
4	SLU 60	106	-109	4154	711.77	-929.35	-44.24
4	SLU 61	99	-108	4135	708.49	-925.35	-42.83
4	SLU 62	106	-109	4154	711.77	-929.35	-44.24
4	SLU 63	99	-108	4135	708.49	-925.35	-42.83
4	SLU 64	98	-96	3797	651.58	-849.99	-39.98
4	SLU 65	87	-95	3766	646.11	-843.33	-37.63
4	SLU 66	98	-96	3797	651.58	-849.99	-39.98
4	SLU 67	91	-96	3778	648.3	-845.99	-38.57
4	SLU 68	87	-95	3766	646.11	-843.33	-37.63
4	SLU 69	98	-96	3797	651.58	-849.99	-39.98
4	SLU 70	91	-96	3778	648.3	-845.99	-38.57
4	SLU 71	98	-96	3797	651.58	-849.99	-39.98
4	SLU 72	91	-96	3778	648.3	-845.99	-38.57
4	SLU 73	97	-110	4253	728.6	-951.49	-42.85
4	SLU 74	109	-111	4285	734.07	-958.15	-45.2
4	SLU 75	102	-110	4265	730.79	-954.15	-43.79
4	SLU 76	97	-110	4253	728.6	-951.49	-42.85
4	SLU 77	109	-111	4285	734.07	-958.15	-45.2
4	SLU 78	102	-110	4265	730.79	-954.15	-43.79
4	SLU 79	109	-111	4285	734.07	-958.15	-45.2
4	SLU 80	102	-110	4265	730.79	-954.15	-43.79
4	SLU 81	113	-117	4493	769.43	-1004.5	-47.44
4	SLU 82	106	-116	4474	766.14	-1000.51	-46.03
4	SLU 83	113	-117	4493	769.43	-1004.5	-47.44
4	SLU 84	106	-116	4474	766.14	-1000.51	-46.03
4	SLE RA 1	74	-72	2847	488.54	-637.32	-30.05
4	SLE RA 2	66	-72	2825	484.9	-632.88	-28.48
4	SLE RA 3	74	-72	2847	488.54	-637.32	-30.05
4	SLE RA 4	69	-72	2834	486.36	-634.66	-29.11
4	SLE RA 5	66	-72	2825	484.9	-632.88	-28.48
4	SLE RA 6	74	-72	2847	488.54	-637.32	-30.05

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
4	SLE RA 7	69	-72	2834	486.36	-634.66	-29.11
4	SLE RA 8	74	-72	2847	488.54	-637.32	-30.05
4	SLE RA 9	69	-72	2834	486.36	-634.66	-29.11
4	SLE RA 10	73	-81	3150	539.89	-704.99	-31.97
4	SLE RA 11	81	-82	3171	543.54	-709.43	-33.53
4	SLE RA 12	76	-81	3159	541.35	-706.76	-32.59
4	SLE RA 13	73	-81	3150	539.89	-704.99	-31.97
4	SLE RA 14	81	-82	3171	543.54	-709.43	-33.53
4	SLE RA 15	76	-81	3159	541.35	-706.76	-32.59
4	SLE RA 16	81	-82	3171	543.54	-709.43	-33.53
4	SLE RA 17	76	-81	3159	541.35	-706.76	-32.59
4	SLE RA 18	84	-86	3311	567.11	-740.33	-35.02
4	SLE RA 19	79	-86	3298	564.92	-737.67	-34.08
4	SLE RA 20	84	-86	3311	567.11	-740.33	-35.02
4	SLE RA 21	79	-86	3298	564.92	-737.67	-34.08
4	SLE FR 1	74	-72	2847	488.54	-637.32	-30.05
4	SLE FR 2	72	-72	2842	487.82	-636.43	-29.74
4	SLE FR 3	74	-72	2847	488.54	-637.32	-30.05
4	SLE FR 4	75	-76	2982	511.38	-667.33	-31.23
4	SLE FR 5	77	-76	2986	512.11	-668.22	-31.54
4	SLE FR 6	79	-79	3079	527.83	-688.82	-32.54
4	SLE QP 1	74	-72	2847	488.54	-637.32	-30.05
4	SLE QP 2	77	-76	2986	512.11	-668.22	-31.54
4	SLD 1	244	-39	3609	617.56	-800.32	-47.98
4	SLD 2	290	-78	3605	616.79	-799.56	-65.64
4	SLD 3	229	-139	3395	582.79	-753.33	-70.34
4	SLD 4	275	-178	3391	582.02	-752.57	-88
4	SLD 5	133	101	3499	596.77	-779.39	3.7
4	SLD 6	180	61	3495	595.99	-778.62	-14.09
4	SLD 7	83	-233	2785	480.84	-622.76	-70.86
4	SLD 8	130	-273	2781	480.07	-621.99	-88.65
4	SLD 9	24	120	3190	544.16	-714.46	25.56
4	SLD 10	70	81	3186	543.38	-713.69	7.77
4	SLD 11	-26	-214	2477	428.24	-557.82	-48.99
4	SLD 12	20	-254	2473	427.46	-557.05	-66.78
4	SLD 13	-121	26	2581	442.21	-583.88	24.92
4	SLD 14	-75	-14	2576	441.44	-583.11	7.26
4	SLD 15	-136	-75	2367	407.43	-536.89	2.55
4	SLD 16	-90	-114	2362	406.66	-536.12	-15.11
4	SLV 1	457	8	4402	751.75	-968.43	-69.13
4	SLV 2	561	-81	4393	750	-966.7	-109.12
4	SLV 3	423	-220	3916	672.78	-861.7	-120.01
4	SLV 4	527	-309	3907	671.04	-859.97	-160
4	SLV 5	206	326	4151	704.38	-920.77	48.48
4	SLV 6	311	237	4142	702.62	-919.02	8.22
4	SLV 7	92	-434	2531	441.17	-565.01	-121.12
4	SLV 8	197	-523	2521	439.42	-563.26	-161.38
4	SLV 9	-43	371	3450	584.81	-773.18	98.29
4	SLV 10	62	281	3441	583.05	-771.44	58.04
4	SLV 11	-157	-389	1830	321.61	-417.42	-71.31
4	SLV 12	-52	-479	1820	319.85	-415.68	-111.56
4	SLV 13	-373	156	2065	353.19	-476.48	96.92
4	SLV 14	-269	67	2055	351.44	-474.74	56.93
4	SLV 15	-408	-72	1578	274.23	-369.75	46.04
4	SLV 16	-303	-161	1569	272.48	-368.02	6.05
4	CRTFP Ux+	0	0	0	-0.01	0.01	0
4	CRTFP Ux-	0	0	0	0.01	-0.01	0
4	CRTFP Uy+	0	0	0	0	0.01	0
4	CRTFP Uy-	0	0	0	0	-0.01	0
6	SLU 1	44	-40	1700	323.35	-44.18	-11.92
6	SLU 2	37	-40	1681	319.75	-43.72	-10.04
6	SLU 3	44	-40	1700	323.35	-44.18	-11.92
6	SLU 4	40	-40	1688	321.19	-43.9	-10.79
6	SLU 5	37	-40	1681	319.75	-43.72	-10.04
6	SLU 6	44	-40	1700	323.35	-44.18	-11.92
6	SLU 7	40	-40	1688	321.19	-43.9	-10.79
6	SLU 8	44	-40	1700	323.35	-44.18	-11.92
6	SLU 9	40	-40	1688	321.19	-43.9	-10.79
6	SLU 10	43	-48	1980	373.42	-51.44	-11.77
6	SLU 11	50	-48	1999	377.01	-51.89	-13.65
6	SLU 12	46	-48	1987	374.86	-51.62	-12.52
6	SLU 13	43	-48	1980	373.42	-51.44	-11.77
6	SLU 14	50	-48	1999	377.01	-51.89	-13.65
6	SLU 15	46	-48	1987	374.86	-51.62	-12.52
6	SLU 16	50	-48	1999	377.01	-51.89	-13.65
6	SLU 17	46	-48	1987	374.86	-51.62	-12.52
6	SLU 18	53	-52	2127	400.01	-55.2	-14.39
6	SLU 19	49	-52	2116	397.85	-54.93	-13.26
6	SLU 20	53	-52	2127	400.01	-55.2	-14.39
6	SLU 21	49	-52	2116	397.85	-54.93	-13.26
6	SLU 22	49	-45	1908	361.02	-49.54	-13.14
6	SLU 23	41	-44	1889	357.42	-49.09	-11.25
6	SLU 24	49	-45	1908	361.02	-49.54	-13.14
6	SLU 25	44	-44	1897	358.86	-49.27	-12.01
6	SLU 26	41	-44	1889	357.42	-49.09	-11.25
6	SLU 27	49	-45	1908	361.02	-49.54	-13.14

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
6	SLU 28	44	-44	1897	358.86	-49.27	-12.01
6	SLU 29	49	-45	1908	361.02	-49.54	-13.14
6	SLU 30	44	-44	1897	358.86	-49.27	-12.01
6	SLU 31	47	-53	2188	411.08	-56.81	-12.98
6	SLU 32	55	-53	2207	414.68	-57.26	-14.87
6	SLU 33	50	-53	2196	412.52	-56.99	-13.74
6	SLU 34	47	-53	2188	411.08	-56.81	-12.98
6	SLU 35	55	-53	2207	414.68	-57.26	-14.87
6	SLU 36	50	-53	2196	412.52	-56.99	-13.74
6	SLU 37	55	-53	2207	414.68	-57.26	-14.87
6	SLU 38	50	-53	2196	412.52	-56.99	-13.74
6	SLU 39	58	-57	2335	437.68	-60.57	-15.61
6	SLU 40	53	-56	2324	435.52	-60.3	-14.48
6	SLU 41	58	-57	2335	437.68	-60.57	-15.61
6	SLU 42	53	-56	2324	435.52	-60.3	-14.48
6	SLU 43	56	-51	2138	407.44	-55.59	-15.09
6	SLU 44	49	-50	2119	403.85	-55.13	-13.2
6	SLU 45	56	-51	2138	407.44	-55.59	-15.09
6	SLU 46	52	-50	2127	405.29	-55.32	-13.95
6	SLU 47	49	-50	2119	403.85	-55.13	-13.2
6	SLU 48	56	-51	2138	407.44	-55.59	-15.09
6	SLU 49	52	-50	2127	405.29	-55.32	-13.95
6	SLU 50	56	-51	2138	407.44	-55.59	-15.09
6	SLU 51	52	-50	2127	405.29	-55.32	-13.95
6	SLU 52	55	-58	2418	457.51	-62.85	-14.93
6	SLU 53	62	-59	2437	461.11	-63.31	-16.81
6	SLU 54	58	-59	2426	458.95	-63.03	-15.68
6	SLU 55	55	-58	2418	457.51	-62.85	-14.93
6	SLU 56	62	-59	2437	461.11	-63.31	-16.81
6	SLU 57	58	-59	2426	458.95	-63.03	-15.68
6	SLU 58	62	-59	2437	461.11	-63.31	-16.81
6	SLU 59	58	-59	2426	458.95	-63.03	-15.68
6	SLU 60	65	-63	2566	484.1	-66.61	-17.55
6	SLU 61	60	-62	2554	481.95	-66.34	-16.42
6	SLU 62	65	-63	2566	484.1	-66.61	-17.55
6	SLU 63	60	-62	2554	481.95	-66.34	-16.42
6	SLU 64	61	-55	2346	445.11	-60.96	-16.3
6	SLU 65	53	-55	2327	441.51	-60.5	-14.42
6	SLU 66	61	-55	2346	445.11	-60.96	-16.3
6	SLU 67	56	-55	2335	442.95	-60.68	-15.17
6	SLU 68	53	-55	2327	441.51	-60.5	-14.42
6	SLU 69	61	-55	2346	445.11	-60.96	-16.3
6	SLU 70	56	-55	2335	442.95	-60.68	-15.17
6	SLU 71	61	-55	2346	445.11	-60.96	-16.3
6	SLU 72	56	-55	2335	442.95	-60.68	-15.17
6	SLU 73	59	-63	2627	495.18	-68.22	-16.14
6	SLU 74	67	-64	2646	498.77	-68.68	-18.03
6	SLU 75	62	-63	2634	496.61	-68.4	-16.9
6	SLU 76	59	-63	2627	495.18	-68.22	-16.14
6	SLU 77	67	-64	2646	498.77	-68.68	-18.03
6	SLU 78	62	-63	2634	496.61	-68.4	-16.9
6	SLU 79	67	-64	2646	498.77	-68.68	-18.03
6	SLU 80	62	-63	2634	496.61	-68.4	-16.9
6	SLU 81	69	-67	2774	521.77	-71.98	-18.77
6	SLU 82	65	-67	2762	519.61	-71.71	-17.64
6	SLU 83	69	-67	2774	521.77	-71.98	-18.77
6	SLU 84	65	-67	2762	519.61	-71.71	-17.64
6	SLE RA 1	46	-41	1759	334.12	-45.71	-12.27
6	SLE RA 2	41	-41	1747	331.72	-45.41	-11.01
6	SLE RA 3	46	-41	1759	334.12	-45.71	-12.27
6	SLE RA 4	43	-41	1752	332.68	-45.53	-11.52
6	SLE RA 5	41	-41	1747	331.72	-45.41	-11.01
6	SLE RA 6	46	-41	1759	334.12	-45.71	-12.27
6	SLE RA 7	43	-41	1752	332.68	-45.53	-11.52
6	SLE RA 8	46	-41	1759	334.12	-45.71	-12.27
6	SLE RA 9	43	-41	1752	332.68	-45.53	-11.52
6	SLE RA 10	45	-47	1946	367.49	-50.55	-12.17
6	SLE RA 11	50	-47	1959	369.89	-50.86	-13.42
6	SLE RA 12	47	-47	1951	368.45	-50.67	-12.67
6	SLE RA 13	45	-47	1946	367.49	-50.55	-12.17
6	SLE RA 14	50	-47	1959	369.89	-50.86	-13.42
6	SLE RA 15	47	-47	1951	368.45	-50.67	-12.67
6	SLE RA 16	50	-47	1959	369.89	-50.86	-13.42
6	SLE RA 17	47	-47	1951	368.45	-50.67	-12.67
6	SLE RA 18	51	-49	2044	385.22	-53.06	-13.92
6	SLE RA 19	48	-49	2037	383.78	-52.88	-13.16
6	SLE RA 20	51	-49	2044	385.22	-53.06	-13.92
6	SLE RA 21	48	-49	2037	383.78	-52.88	-13.16
6	SLE FR 1	46	-41	1759	334.12	-45.71	-12.27
6	SLE FR 2	45	-41	1757	333.64	-45.65	-12.02
6	SLE FR 3	46	-41	1759	334.12	-45.71	-12.27
6	SLE FR 4	46	-44	1842	348.97	-47.85	-12.51
6	SLE FR 5	47	-44	1845	349.45	-47.92	-12.77
6	SLE FR 6	49	-45	1902	359.67	-49.39	-13.09
6	SLE QP 1	46	-41	1759	334.12	-45.71	-12.27
6	SLE QP 2	47	-44	1845	349.45	-47.92	-12.77

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
6	SLD 1	155	-19	2217	419.27	-57	-37.5
6	SLD 2	184	-43	2215	418.68	-56.95	-45.41
6	SLD 3	145	-83	2088	397.85	-53.76	-38.97
6	SLD 4	175	-107	2086	397.26	-53.71	-46.88
6	SLD 5	84	69	2152	403.09	-55.57	-15.15
6	SLD 6	114	45	2150	402.5	-55.52	-23.12
6	SLD 7	51	-144	1723	331.69	-44.77	-20.07
6	SLD 8	81	-168	1721	331.1	-44.72	-28.04
6	SLD 9	14	81	1968	367.8	-51.11	2.51
6	SLD 10	43	57	1966	367.2	-51.06	-5.47
6	SLD 11	-19	-133	1539	296.4	-40.31	-2.41
6	SLD 12	11	-157	1537	295.81	-40.26	-10.38
6	SLD 13	-80	19	1603	301.63	-42.12	21.35
6	SLD 14	-50	-4	1601	301.04	-42.07	13.44
6	SLD 15	-90	-45	1475	280.21	-38.88	19.88
6	SLD 16	-60	-68	1472	279.62	-38.83	11.97
6	SLV 1	292	11	2691	508.15	-68.57	-69.04
6	SLV 2	359	-42	2686	506.82	-68.46	-86.95
6	SLV 3	270	-134	2399	459.45	-61.2	-72.46
6	SLV 4	336	-188	2393	458.12	-61.1	-90.37
6	SLV 5	131	213	2544	471.39	-65.31	-18.13
6	SLV 6	198	158	2539	470.05	-65.2	-36.16
6	SLV 7	57	-273	1569	309.06	-40.78	-29.53
6	SLV 8	124	-327	1564	307.72	-40.67	-47.57
6	SLV 9	-29	239	2125	391.17	-55.16	22.04
6	SLV 10	38	185	2120	389.83	-55.05	4
6	SLV 11	-103	-246	1151	228.85	-30.63	10.63
6	SLV 12	-37	-300	1145	227.51	-30.52	-7.41
6	SLV 13	-242	100	1296	240.77	-34.73	64.84
6	SLV 14	-175	46	1291	239.44	-34.63	46.93
6	SLV 15	-264	-45	1004	192.08	-27.37	61.42
6	SLV 16	-198	-99	998	190.74	-27.26	43.5
6	CRTFP Ux+	0	0	0	0	0	0
6	CRTFP Ux-	0	0	0	0	0	0
6	CRTFP Uy+	0	0	0	0	0	0
6	CRTFP Uy-	0	0	0	0	0	0
7	SLU 1	51	-35	1844	285.68	4.15	-12.28
7	SLU 2	42	-35	1825	282.81	4.04	-10.1
7	SLU 3	51	-35	1844	285.68	4.15	-12.28
7	SLU 4	45	-35	1832	283.96	4.09	-10.97
7	SLU 5	42	-35	1825	282.81	4.04	-10.1
7	SLU 6	51	-35	1844	285.68	4.15	-12.28
7	SLU 7	45	-35	1832	283.96	4.09	-10.97
7	SLU 8	51	-35	1844	285.68	4.15	-12.28
7	SLU 9	45	-35	1832	283.96	4.09	-10.97
7	SLU 10	49	-42	2147	327.21	4.84	-11.74
7	SLU 11	58	-42	2166	330.07	4.94	-13.91
7	SLU 12	52	-42	2155	328.36	4.88	-12.61
7	SLU 13	49	-42	2147	327.21	4.84	-11.74
7	SLU 14	58	-42	2166	330.07	4.94	-13.91
7	SLU 15	52	-42	2155	328.36	4.88	-12.61
7	SLU 16	58	-42	2166	330.07	4.94	-13.91
7	SLU 17	52	-42	2155	328.36	4.88	-12.61
7	SLU 18	61	-45	2304	349.1	5.28	-14.61
7	SLU 19	55	-45	2293	347.38	5.22	-13.31
7	SLU 20	61	-45	2304	349.1	5.28	-14.61
7	SLU 21	55	-45	2293	347.38	5.22	-13.31
7	SLU 22	56	-39	2068	316.9	4.71	-13.48
7	SLU 23	47	-39	2049	314.04	4.6	-11.31
7	SLU 24	56	-39	2068	316.9	4.71	-13.48
7	SLU 25	50	-39	2057	315.18	4.65	-12.18
7	SLU 26	47	-39	2049	314.04	4.6	-11.31
7	SLU 27	56	-39	2068	316.9	4.71	-13.48
7	SLU 28	50	-39	2057	315.18	4.65	-12.18
7	SLU 29	56	-39	2068	316.9	4.71	-13.48
7	SLU 30	50	-39	2057	315.18	4.65	-12.18
7	SLU 31	54	-46	2371	358.43	5.4	-12.94
7	SLU 32	63	-46	2390	361.3	5.5	-15.12
7	SLU 33	57	-46	2379	359.58	5.44	-13.81
7	SLU 34	54	-46	2371	358.43	5.4	-12.94
7	SLU 35	63	-46	2390	361.3	5.5	-15.12
7	SLU 36	57	-46	2379	359.58	5.44	-13.81
7	SLU 37	63	-46	2390	361.3	5.5	-15.12
7	SLU 38	57	-46	2379	359.58	5.44	-13.81
7	SLU 39	66	-49	2528	380.33	5.85	-15.82
7	SLU 40	60	-49	2517	378.61	5.78	-14.51
7	SLU 41	66	-49	2528	380.33	5.85	-15.82
7	SLU 42	60	-49	2517	378.61	5.78	-14.51
7	SLU 43	64	-44	2320	360.67	5.2	-15.55
7	SLU 44	55	-44	2301	357.81	5.1	-13.37
7	SLU 45	64	-44	2320	360.67	5.2	-15.55
7	SLU 46	59	-44	2309	358.96	5.14	-14.24
7	SLU 47	55	-44	2301	357.81	5.1	-13.37
7	SLU 48	64	-44	2320	360.67	5.2	-15.55
7	SLU 49	59	-44	2309	358.96	5.14	-14.24
7	SLU 50	64	-44	2320	360.67	5.2	-15.55

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
7	SLU 51	59	-44	2309	358.96	5.14	-14.24
7	SLU 52	62	-51	2623	402.21	5.89	-15.01
7	SLU 53	71	-52	2642	405.07	6	-17.18
7	SLU 54	66	-51	2631	403.35	5.93	-15.88
7	SLU 55	62	-51	2623	402.21	5.89	-15.01
7	SLU 56	71	-52	2642	405.07	6	-17.18
7	SLU 57	66	-51	2631	403.35	5.93	-15.88
7	SLU 58	71	-52	2642	405.07	6	-17.18
7	SLU 59	66	-51	2631	403.35	5.93	-15.88
7	SLU 60	74	-55	2781	424.1	6.34	-17.88
7	SLU 61	69	-55	2769	422.38	6.27	-16.58
7	SLU 62	74	-55	2781	424.1	6.34	-17.88
7	SLU 63	69	-55	2769	422.38	6.27	-16.58
7	SLU 64	69	-48	2544	391.9	5.76	-16.75
7	SLU 65	60	-48	2525	389.03	5.66	-14.58
7	SLU 66	69	-48	2544	391.9	5.76	-16.75
7	SLU 67	64	-48	2533	390.18	5.7	-15.45
7	SLU 68	60	-48	2525	389.03	5.66	-14.58
7	SLU 69	69	-48	2544	391.9	5.76	-16.75
7	SLU 70	64	-48	2533	390.18	5.7	-15.45
7	SLU 71	69	-48	2544	391.9	5.76	-16.75
7	SLU 72	64	-48	2533	390.18	5.7	-15.45
7	SLU 73	67	-55	2848	433.43	6.45	-16.21
7	SLU 74	76	-55	2867	436.3	6.56	-18.39
7	SLU 75	71	-55	2855	434.58	6.49	-17.08
7	SLU 76	67	-55	2848	433.43	6.45	-16.21
7	SLU 77	76	-55	2867	436.3	6.56	-18.39
7	SLU 78	71	-55	2855	434.58	6.49	-17.08
7	SLU 79	76	-55	2867	436.3	6.56	-18.39
7	SLU 80	71	-55	2855	434.58	6.49	-17.08
7	SLU 81	79	-58	3005	455.32	6.9	-19.09
7	SLU 82	74	-58	2993	453.6	6.84	-17.78
7	SLU 83	79	-58	3005	455.32	6.9	-19.09
7	SLU 84	74	-58	2993	453.6	6.84	-17.78
7	SLE RA 1	52	-36	1908	294.6	4.31	-12.62
7	SLE RA 2	46	-36	1895	292.69	4.24	-11.17
7	SLE RA 3	52	-36	1908	294.6	4.31	-12.62
7	SLE RA 4	49	-36	1900	293.45	4.27	-11.75
7	SLE RA 5	46	-36	1895	292.69	4.24	-11.17
7	SLE RA 6	52	-36	1908	294.6	4.31	-12.62
7	SLE RA 7	49	-36	1900	293.45	4.27	-11.75
7	SLE RA 8	52	-36	1908	294.6	4.31	-12.62
7	SLE RA 9	49	-36	1900	293.45	4.27	-11.75
7	SLE RA 10	51	-41	2110	322.29	4.77	-12.26
7	SLE RA 11	57	-41	2123	324.2	4.84	-13.71
7	SLE RA 12	53	-41	2115	323.05	4.8	-12.84
7	SLE RA 13	51	-41	2110	322.29	4.77	-12.26
7	SLE RA 14	57	-41	2123	324.2	4.84	-13.71
7	SLE RA 15	53	-41	2115	323.05	4.8	-12.84
7	SLE RA 16	57	-41	2123	324.2	4.84	-13.71
7	SLE RA 17	53	-41	2115	323.05	4.8	-12.84
7	SLE RA 18	59	-43	2215	336.88	5.07	-14.18
7	SLE RA 19	55	-43	2207	335.74	5.02	-13.31
7	SLE RA 20	59	-43	2215	336.88	5.07	-14.18
7	SLE RA 21	55	-43	2207	335.74	5.02	-13.31
7	SLE FR 1	52	-36	1908	294.6	4.31	-12.62
7	SLE FR 2	51	-36	1905	294.22	4.29	-12.33
7	SLE FR 3	52	-36	1908	294.6	4.31	-12.62
7	SLE FR 4	53	-38	1997	306.9	4.52	-12.8
7	SLE FR 5	54	-38	2000	307.28	4.54	-13.09
7	SLE FR 6	55	-40	2061	315.74	4.69	-13.4
7	SLE QP 1	52	-36	1908	294.6	4.31	-12.62
7	SLE QP 2	54	-38	2000	307.28	4.54	-13.09
7	SLD 1	179	-10	2378	365.55	6.36	-44.42
7	SLD 2	213	-34	2376	365.03	6.33	-52.81
7	SLD 3	168	-82	2243	348.76	5.86	-41.41
7	SLD 4	202	-105	2241	348.24	5.83	-49.81
7	SLD 5	97	87	2319	350.42	5.85	-24.08
7	SLD 6	132	63	2317	349.89	5.82	-32.53
7	SLD 7	59	-151	1869	294.44	4.19	-14.06
7	SLD 8	93	-175	1867	293.92	4.16	-22.51
7	SLD 9	15	98	2133	320.65	4.91	-3.66
7	SLD 10	50	74	2131	320.13	4.88	-12.12
7	SLD 11	-23	-139	1683	264.67	3.25	6.36
7	SLD 12	11	-163	1681	264.15	3.22	-2.1
7	SLD 13	-94	29	1759	266.33	3.24	23.63
7	SLD 14	-60	5	1757	265.81	3.21	15.23
7	SLD 15	-105	-42	1624	249.53	2.74	26.63
7	SLD 16	-71	-66	1622	249.02	2.71	18.24
7	SLV 1	339	25	2859	439.83	8.67	-84.4
7	SLV 2	417	-29	2855	438.66	8.62	-103.41
7	SLV 3	313	-137	2552	401.42	7.54	-77.55
7	SLV 4	390	-191	2548	400.25	7.48	-96.56
7	SLV 5	153	245	2724	405.71	7.51	-38.15
7	SLV 6	230	191	2720	404.53	7.46	-57.29
7	SLV 7	64	-294	1702	277.69	3.74	-15.32

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
7	SLV 8	142	-349	1698	276.51	3.68	-34.46
7	SLV 9	-34	272	2302	338.05	5.39	8.28
7	SLV 10	44	218	2298	336.88	5.33	-10.85
7	SLV 11	-122	-267	1280	210.03	1.62	31.11
7	SLV 12	-44	-322	1276	208.86	1.56	11.98
7	SLV 13	-282	115	1452	214.31	1.59	70.38
7	SLV 14	-205	61	1447	213.14	1.53	51.38
7	SLV 15	-308	-47	1145	175.91	0.45	77.23
7	SLV 16	-231	-101	1141	174.73	0.4	58.22
7	CRTFP Ux+	0	0	0	0	0	0
7	CRTFP Ux-	0	0	0	0	0	0
7	CRTFP Uy+	0	0	0	0	0	0
7	CRTFP Uy-	0	0	0	0	0	0
8	SLU 1	50	-24	1733	212.92	3.17	-12.06
8	SLU 2	41	-24	1717	211.15	3.08	-9.88
8	SLU 3	50	-24	1733	212.92	3.17	-12.06
8	SLU 4	44	-24	1723	211.85	3.12	-10.75
8	SLU 5	41	-24	1717	211.15	3.08	-9.88
8	SLU 6	50	-24	1733	212.92	3.17	-12.06
8	SLU 7	44	-24	1723	211.85	3.12	-10.75
8	SLU 8	50	-24	1733	212.92	3.17	-12.06
8	SLU 9	44	-24	1723	211.85	3.12	-10.75
8	SLU 10	47	-28	2018	241.17	3.69	-11.42
8	SLU 11	56	-28	2034	242.94	3.78	-13.61
8	SLU 12	51	-28	2024	241.88	3.72	-12.3
8	SLU 13	47	-28	2018	241.17	3.69	-11.42
8	SLU 14	56	-28	2034	242.94	3.78	-13.61
8	SLU 15	51	-28	2024	241.88	3.72	-12.3
8	SLU 16	56	-28	2034	242.94	3.78	-13.61
8	SLU 17	51	-28	2024	241.88	3.72	-12.3
8	SLU 18	59	-30	2163	255.81	4.04	-14.27
8	SLU 19	54	-30	2153	254.75	3.98	-12.96
8	SLU 20	59	-30	2163	255.81	4.04	-14.27
8	SLU 21	54	-30	2153	254.75	3.98	-12.96
8	SLU 22	54	-26	1942	234.07	3.6	-13.22
8	SLU 23	46	-26	1926	232.3	3.51	-11.04
8	SLU 24	54	-26	1942	234.07	3.6	-13.22
8	SLU 25	49	-26	1932	233.01	3.55	-11.91
8	SLU 26	46	-26	1926	232.3	3.51	-11.04
8	SLU 27	54	-26	1942	234.07	3.6	-13.22
8	SLU 28	49	-26	1932	233.01	3.55	-11.91
8	SLU 29	54	-26	1942	234.07	3.6	-13.22
8	SLU 30	49	-26	1932	233.01	3.55	-11.91
8	SLU 31	52	-31	2227	262.32	4.11	-12.58
8	SLU 32	61	-31	2243	264.09	4.2	-14.76
8	SLU 33	56	-31	2233	263.03	4.15	-13.45
8	SLU 34	52	-31	2227	262.32	4.11	-12.58
8	SLU 35	61	-31	2243	264.09	4.2	-14.76
8	SLU 36	56	-31	2233	263.03	4.15	-13.45
8	SLU 37	61	-31	2243	264.09	4.2	-14.76
8	SLU 38	56	-31	2233	263.03	4.15	-13.45
8	SLU 39	64	-33	2372	276.96	4.46	-15.42
8	SLU 40	59	-33	2362	275.9	4.41	-14.11
8	SLU 41	64	-33	2372	276.96	4.46	-15.42
8	SLU 42	59	-33	2362	275.9	4.41	-14.11
8	SLU 43	63	-30	2181	269.54	3.98	-15.29
8	SLU 44	54	-30	2165	267.77	3.89	-13.11
8	SLU 45	63	-30	2181	269.54	3.98	-15.29
8	SLU 46	58	-30	2171	268.48	3.92	-13.98
8	SLU 47	54	-30	2165	267.77	3.89	-13.11
8	SLU 48	63	-30	2181	269.54	3.98	-15.29
8	SLU 49	58	-30	2171	268.48	3.92	-13.98
8	SLU 50	63	-30	2181	269.54	3.98	-15.29
8	SLU 51	58	-30	2171	268.48	3.92	-13.98
8	SLU 52	61	-35	2466	297.79	4.49	-14.65
8	SLU 53	69	-35	2482	299.56	4.58	-16.83
8	SLU 54	64	-35	2472	298.5	4.53	-15.52
8	SLU 55	61	-35	2466	297.79	4.49	-14.65
8	SLU 56	69	-35	2482	299.56	4.58	-16.83
8	SLU 57	64	-35	2472	298.5	4.53	-15.52
8	SLU 58	69	-35	2482	299.56	4.58	-16.83
8	SLU 59	64	-35	2472	298.5	4.53	-15.52
8	SLU 60	72	-37	2611	312.43	4.84	-17.49
8	SLU 61	67	-37	2601	311.37	4.79	-16.18
8	SLU 62	72	-37	2611	312.43	4.84	-17.49
8	SLU 63	67	-37	2601	311.37	4.79	-16.18
8	SLU 64	68	-32	2390	290.69	4.4	-16.44
8	SLU 65	59	-33	2374	288.92	4.31	-14.26
8	SLU 66	68	-32	2390	290.69	4.4	-16.44
8	SLU 67	62	-33	2380	289.63	4.35	-15.13
8	SLU 68	59	-33	2374	288.92	4.31	-14.26
8	SLU 69	68	-32	2390	290.69	4.4	-16.44
8	SLU 70	62	-33	2380	289.63	4.35	-15.13
8	SLU 71	68	-32	2390	290.69	4.4	-16.44
8	SLU 72	62	-33	2380	289.63	4.35	-15.13
8	SLU 73	65	-37	2675	318.95	4.92	-15.8

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
8	SLU 74	74	-37	2691	320.72	5.01	-17.98
8	SLU 75	69	-37	2681	319.65	4.96	-16.68
8	SLU 76	65	-37	2675	318.95	4.92	-15.8
8	SLU 77	74	-37	2691	320.72	5.01	-17.98
8	SLU 78	69	-37	2681	319.65	4.96	-16.68
8	SLU 79	74	-37	2691	320.72	5.01	-17.98
8	SLU 80	69	-37	2681	319.65	4.96	-16.68
8	SLU 81	77	-39	2820	333.58	5.27	-18.65
8	SLU 82	72	-39	2810	332.52	5.22	-17.34
8	SLU 83	77	-39	2820	333.58	5.27	-18.65
8	SLU 84	72	-39	2810	332.52	5.22	-17.34
8	SLE RA 1	51	-24	1792	218.96	3.29	-12.39
8	SLE RA 2	45	-25	1782	217.78	3.23	-10.94
8	SLE RA 3	51	-24	1792	218.96	3.29	-12.39
8	SLE RA 4	48	-25	1786	218.25	3.26	-11.52
8	SLE RA 5	45	-25	1782	217.78	3.23	-10.94
8	SLE RA 6	51	-24	1792	218.96	3.29	-12.39
8	SLE RA 7	48	-25	1786	218.25	3.26	-11.52
8	SLE RA 8	51	-24	1792	218.96	3.29	-12.39
8	SLE RA 9	48	-25	1786	218.25	3.26	-11.52
8	SLE RA 10	50	-28	1982	237.8	3.64	-11.97
8	SLE RA 11	55	-28	1993	238.98	3.7	-13.42
8	SLE RA 12	52	-28	1987	238.27	3.66	-12.55
8	SLE RA 13	50	-28	1982	237.8	3.64	-11.97
8	SLE RA 14	55	-28	1993	238.98	3.7	-13.42
8	SLE RA 15	52	-28	1987	238.27	3.66	-12.55
8	SLE RA 16	55	-28	1993	238.98	3.7	-13.42
8	SLE RA 17	52	-28	1987	238.27	3.66	-12.55
8	SLE RA 18	57	-29	2079	247.56	3.87	-13.86
8	SLE RA 19	54	-29	2073	246.85	3.83	-12.99
8	SLE RA 20	57	-29	2079	247.56	3.87	-13.86
8	SLE RA 21	54	-29	2073	246.85	3.83	-12.99
8	SLE FR 1	51	-24	1792	218.96	3.29	-12.39
8	SLE FR 2	50	-24	1790	218.72	3.28	-12.1
8	SLE FR 3	51	-24	1792	218.96	3.29	-12.39
8	SLE FR 4	52	-26	1876	227.3	3.46	-12.54
8	SLE FR 5	53	-26	1878	227.54	3.47	-12.83
8	SLE FR 6	54	-27	1936	233.26	3.58	-13.13
8	SLE QP 1	51	-24	1792	218.96	3.29	-12.39
8	SLE QP 2	53	-26	1878	227.54	3.47	-12.83
8	SLD 1	178	0	2205	267.52	5.04	-44.28
8	SLD 2	213	-20	2204	267.16	5.02	-52.69
8	SLD 3	167	-66	2083	256.51	4.63	-41.18
8	SLD 4	201	-86	2082	256.16	4.6	-49.59
8	SLD 5	96	90	2162	256.35	4.58	-24
8	SLD 6	131	70	2160	256	4.55	-32.47
8	SLD 7	57	-131	1756	219.66	3.19	-13.66
8	SLD 8	91	-152	1754	219.31	3.17	-22.13
8	SLD 9	14	100	2002	235.77	3.76	-3.54
8	SLD 10	49	80	2001	235.42	3.74	-12.01
8	SLD 11	-25	-121	1596	199.08	2.38	6.8
8	SLD 12	9	-141	1595	198.73	2.36	-1.67
8	SLD 13	-95	34	1675	198.92	2.33	23.92
8	SLD 14	-61	14	1673	198.57	2.31	15.51
8	SLD 15	-107	-32	1553	187.91	1.92	27.02
8	SLD 16	-73	-52	1552	187.56	1.89	18.61
8	SLV 1	339	33	2621	318.77	7.04	-84.41
8	SLV 2	416	-12	2619	317.97	6.99	-103.45
8	SLV 3	312	-118	2344	293.04	6.1	-77.34
8	SLV 4	389	-163	2342	292.24	6.05	-96.39
8	SLV 5	152	236	2522	294.21	5.99	-38.3
8	SLV 6	230	191	2519	293.41	5.94	-57.47
8	SLV 7	62	-266	1599	208.45	2.85	-14.74
8	SLV 8	140	-311	1596	207.64	2.79	-33.91
8	SLV 9	-34	260	2160	247.44	4.14	8.24
8	SLV 10	44	214	2158	246.63	4.09	-10.93
8	SLV 11	-124	-242	1237	161.67	1	31.8
8	SLV 12	-47	-288	1235	160.86	0.95	12.63
8	SLV 13	-283	111	1415	162.84	0.89	70.72
8	SLV 14	-206	66	1412	162.04	0.83	51.67
8	SLV 15	-310	-39	1138	137.11	-0.06	77.78
8	SLV 16	-233	-85	1135	136.31	-0.11	58.74
8	CRTFP Ux+	0	0	0	0	0	0
8	CRTFP Ux-	0	0	0	0	0	0
8	CRTFP Uy+	0	0	0	0	0	0
8	CRTFP Uy-	0	0	0	0	0	0
9	SLU 1	48	-14	1649	159.62	2.34	-11.82
9	SLU 2	40	-14	1636	158.66	2.26	-9.63
9	SLU 3	48	-14	1649	159.62	2.34	-11.82
9	SLU 4	43	-14	1641	159.04	2.29	-10.51
9	SLU 5	40	-14	1636	158.66	2.26	-9.63
9	SLU 6	48	-14	1649	159.62	2.34	-11.82
9	SLU 7	43	-14	1641	159.04	2.29	-10.51
9	SLU 8	48	-14	1649	159.62	2.34	-11.82
9	SLU 9	43	-14	1641	159.04	2.29	-10.51
9	SLU 10	46	-16	1921	178.28	2.71	-11.08

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
9	SLU 11	55	-16	1934	179.24	2.78	-13.26
9	SLU 12	49	-16	1926	178.66	2.74	-11.95
9	SLU 13	46	-16	1921	178.28	2.71	-11.08
9	SLU 14	55	-16	1934	179.24	2.78	-13.26
9	SLU 15	49	-16	1926	178.66	2.74	-11.95
9	SLU 16	55	-16	1934	179.24	2.78	-13.26
9	SLU 17	49	-16	1926	178.66	2.74	-11.95
9	SLU 18	57	-17	2056	187.65	2.97	-13.88
9	SLU 19	52	-17	2048	187.07	2.93	-12.57
9	SLU 20	57	-17	2056	187.65	2.97	-13.88
9	SLU 21	52	-17	2048	187.07	2.93	-12.57
9	SLU 22	53	-15	1847	173.46	2.65	-12.92
9	SLU 23	44	-15	1834	172.5	2.57	-10.73
9	SLU 24	53	-15	1847	173.46	2.65	-12.92
9	SLU 25	48	-15	1839	172.88	2.6	-11.6
9	SLU 26	44	-15	1834	172.5	2.57	-10.73
9	SLU 27	53	-15	1847	173.46	2.65	-12.92
9	SLU 28	48	-15	1839	172.88	2.6	-11.6
9	SLU 29	53	-15	1847	173.46	2.65	-12.92
9	SLU 30	48	-15	1839	172.88	2.6	-11.6
9	SLU 31	50	-17	2119	192.12	3.02	-12.17
9	SLU 32	59	-17	2132	193.08	3.1	-14.36
9	SLU 33	54	-17	2124	192.5	3.05	-13.05
9	SLU 34	50	-17	2119	192.12	3.02	-12.17
9	SLU 35	59	-17	2132	193.08	3.1	-14.36
9	SLU 36	54	-17	2124	192.5	3.05	-13.05
9	SLU 37	59	-17	2132	193.08	3.1	-14.36
9	SLU 38	54	-17	2124	192.5	3.05	-13.05
9	SLU 39	62	-18	2254	201.49	3.29	-14.98
9	SLU 40	56	-18	2246	200.91	3.24	-13.67
9	SLU 41	62	-18	2254	201.49	3.29	-14.98
9	SLU 42	56	-18	2246	200.91	3.24	-13.67
9	SLU 43	61	-18	2076	202.76	2.93	-14.99
9	SLU 44	53	-18	2063	201.8	2.85	-12.8
9	SLU 45	61	-18	2076	202.76	2.93	-14.99
9	SLU 46	56	-18	2068	202.18	2.89	-13.68
9	SLU 47	53	-18	2063	201.8	2.85	-12.8
9	SLU 48	61	-18	2076	202.76	2.93	-14.99
9	SLU 49	56	-18	2068	202.18	2.89	-13.68
9	SLU 50	61	-18	2076	202.76	2.93	-14.99
9	SLU 51	56	-18	2068	202.18	2.89	-13.68
9	SLU 52	59	-20	2348	221.42	3.3	-14.25
9	SLU 53	68	-20	2361	222.38	3.38	-16.43
9	SLU 54	62	-20	2353	221.8	3.33	-15.12
9	SLU 55	59	-20	2348	221.42	3.3	-14.25
9	SLU 56	68	-20	2361	222.38	3.38	-16.43
9	SLU 57	62	-20	2353	221.8	3.33	-15.12
9	SLU 58	68	-20	2361	222.38	3.38	-16.43
9	SLU 59	62	-20	2353	221.8	3.33	-15.12
9	SLU 60	70	-21	2483	230.79	3.57	-17.05
9	SLU 61	65	-21	2475	230.21	3.52	-15.74
9	SLU 62	70	-21	2483	230.79	3.57	-17.05
9	SLU 63	65	-21	2475	230.21	3.52	-15.74
9	SLU 64	66	-19	2274	216.6	3.24	-16.09
9	SLU 65	57	-19	2260	215.64	3.17	-13.9
9	SLU 66	66	-19	2274	216.6	3.24	-16.09
9	SLU 67	61	-19	2266	216.02	3.2	-14.77
9	SLU 68	57	-19	2260	215.64	3.17	-13.9
9	SLU 69	66	-19	2274	216.6	3.24	-16.09
9	SLU 70	61	-19	2266	216.02	3.2	-14.77
9	SLU 71	66	-19	2274	216.6	3.24	-16.09
9	SLU 72	61	-19	2266	216.02	3.2	-14.77
9	SLU 73	63	-21	2546	235.26	3.61	-15.34
9	SLU 74	72	-21	2559	236.22	3.69	-17.53
9	SLU 75	67	-21	2551	235.64	3.64	-16.22
9	SLU 76	63	-21	2546	235.26	3.61	-15.34
9	SLU 77	72	-21	2559	236.22	3.69	-17.53
9	SLU 78	67	-21	2551	235.64	3.64	-16.22
9	SLU 79	72	-21	2559	236.22	3.69	-17.53
9	SLU 80	67	-21	2551	235.64	3.64	-16.22
9	SLU 81	75	-22	2681	244.63	3.88	-18.15
9	SLU 82	69	-22	2673	244.05	3.83	-16.84
9	SLU 83	75	-22	2681	244.63	3.88	-18.15
9	SLU 84	69	-22	2673	244.05	3.83	-16.84
9	SLE RA 1	50	-14	1706	163.57	2.43	-12.13
9	SLE RA 2	44	-15	1697	162.93	2.38	-10.67
9	SLE RA 3	50	-14	1706	163.57	2.43	-12.13
9	SLE RA 4	46	-14	1700	163.19	2.4	-11.26
9	SLE RA 5	44	-15	1697	162.93	2.38	-10.67
9	SLE RA 6	50	-14	1706	163.57	2.43	-12.13
9	SLE RA 7	46	-14	1700	163.19	2.4	-11.26
9	SLE RA 8	50	-14	1706	163.57	2.43	-12.13
9	SLE RA 9	46	-14	1700	163.19	2.4	-11.26
9	SLE RA 10	48	-16	1887	176.01	2.67	-11.64
9	SLE RA 11	54	-16	1896	176.66	2.72	-13.1
9	SLE RA 12	50	-16	1890	176.27	2.69	-12.22

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
9	SLE RA 13	48	-16	1887	176.01	2.67	-11.64
9	SLE RA 14	54	-16	1896	176.66	2.72	-13.1
9	SLE RA 15	50	-16	1890	176.27	2.69	-12.22
9	SLE RA 16	54	-16	1896	176.66	2.72	-13.1
9	SLE RA 17	50	-16	1890	176.27	2.69	-12.22
9	SLE RA 18	56	-16	1977	182.26	2.85	-13.51
9	SLE RA 19	52	-16	1972	181.88	2.82	-12.63
9	SLE RA 20	56	-16	1977	182.26	2.85	-13.51
9	SLE RA 21	52	-16	1972	181.88	2.82	-12.63
9	SLE FR 1	50	-14	1706	163.57	2.43	-12.13
9	SLE FR 2	49	-14	1704	163.45	2.42	-11.84
9	SLE FR 3	50	-14	1706	163.57	2.43	-12.13
9	SLE FR 4	50	-15	1785	169.05	2.54	-12.25
9	SLE FR 5	51	-15	1787	169.18	2.55	-12.55
9	SLE FR 6	53	-15	1841	172.92	2.64	-12.82
9	SLE QP 1	50	-14	1706	163.57	2.43	-12.13
9	SLE QP 2	51	-15	1787	169.18	2.55	-12.55
9	SLD 1	177	9	2070	196.85	3.91	-44.07
9	SLD 2	211	-8	2069	196.63	3.89	-52.5
9	SLD 3	165	-52	1959	187.74	3.58	-40.9
9	SLD 4	199	-68	1958	187.52	3.56	-49.32
9	SLD 5	95	90	2041	191.39	3.47	-23.84
9	SLD 6	130	73	2040	191.16	3.45	-32.33
9	SLD 7	55	-112	1670	161	2.36	-13.25
9	SLD 8	90	-129	1669	160.78	2.34	-21.74
9	SLD 9	13	99	1905	177.58	2.77	-3.35
9	SLD 10	48	82	1904	177.36	2.75	-11.84
9	SLD 11	-27	-103	1534	147.2	1.66	7.24
9	SLD 12	7	-120	1533	146.98	1.64	-1.25
9	SLD 13	-96	39	1616	150.85	1.55	24.23
9	SLD 14	-62	22	1616	150.62	1.53	15.81
9	SLD 15	-108	-22	1505	141.73	1.22	27.41
9	SLD 16	-74	-39	1504	141.51	1.2	18.98
9	SLV 1	338	39	2430	232.75	5.63	-84.31
9	SLV 2	415	1	2429	232.25	5.59	-103.39
9	SLV 3	310	-99	2177	210.74	4.88	-77.08
9	SLV 4	387	-137	2176	210.24	4.83	-96.16
9	SLV 5	152	223	2365	221.81	4.64	-38.31
9	SLV 6	230	186	2363	221.31	4.6	-57.51
9	SLV 7	60	-236	1520	148.44	2.12	-14.19
9	SLV 8	138	-274	1519	147.94	2.07	-33.4
9	SLV 9	-35	244	2055	190.42	3.04	8.31
9	SLV 10	43	206	2054	189.92	2.99	-10.9
9	SLV 11	-127	-216	1211	117.05	0.51	32.42
9	SLV 12	-49	-253	1210	116.55	0.47	13.21
9	SLV 13	-284	107	1399	128.12	0.28	71.07
9	SLV 14	-207	69	1397	127.62	0.23	51.99
9	SLV 15	-312	-31	1145	106.11	-0.48	78.3
9	SLV 16	-235	-69	1144	105.61	-0.52	59.22
9	CRTFP Ux+	0	0	0	0	0	0
9	CRTFP Ux-	0	0	0	0	0	0
9	CRTFP Uy+	0	0	0	0	0	0
9	CRTFP Uy-	0	0	0	0	0	0
10	SLU 1	47	-6	1589	122.24	1.66	-11.55
10	SLU 2	38	-7	1577	121.84	1.6	-9.35
10	SLU 3	47	-6	1589	122.24	1.66	-11.55
10	SLU 4	42	-6	1582	122	1.62	-10.23
10	SLU 5	38	-7	1577	121.84	1.6	-9.35
10	SLU 6	47	-6	1589	122.24	1.66	-11.55
10	SLU 7	42	-6	1582	122	1.62	-10.23
10	SLU 8	47	-6	1589	122.24	1.66	-11.55
10	SLU 9	42	-6	1582	122	1.62	-10.23
10	SLU 10	44	-6	1851	134.28	1.91	-10.69
10	SLU 11	53	-6	1862	134.68	1.98	-12.88
10	SLU 12	47	-6	1855	134.44	1.94	-11.57
10	SLU 13	44	-6	1851	134.28	1.91	-10.69
10	SLU 14	53	-6	1862	134.68	1.98	-12.88
10	SLU 15	47	-6	1855	134.44	1.94	-11.57
10	SLU 16	53	-6	1862	134.68	1.98	-12.88
10	SLU 17	47	-6	1855	134.44	1.94	-11.57
10	SLU 18	55	-6	1979	140.01	2.12	-13.46
10	SLU 19	50	-6	1973	139.77	2.08	-12.14
10	SLU 20	55	-6	1979	140.01	2.12	-13.46
10	SLU 21	50	-6	1973	139.77	2.08	-12.14
10	SLU 22	51	-6	1778	131.02	1.88	-12.58
10	SLU 23	43	-6	1767	130.62	1.82	-10.39
10	SLU 24	51	-6	1778	131.02	1.88	-12.58
10	SLU 25	46	-6	1772	130.78	1.84	-11.27
10	SLU 26	43	-6	1767	130.62	1.82	-10.39
10	SLU 27	51	-6	1778	131.02	1.88	-12.58
10	SLU 28	46	-6	1772	130.78	1.84	-11.27
10	SLU 29	51	-6	1778	131.02	1.88	-12.58
10	SLU 30	46	-6	1772	130.78	1.84	-11.27
10	SLU 31	48	-6	2041	143.06	2.14	-11.73
10	SLU 32	57	-6	2052	143.45	2.2	-13.92
10	SLU 33	52	-6	2045	143.21	2.16	-12.6

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
10	SLU 34	48	-6	2041	143.06	2.14	-11.73
10	SLU 35	57	-6	2052	143.45	2.2	-13.92
10	SLU 36	52	-6	2045	143.21	2.16	-12.6
10	SLU 37	57	-6	2052	143.45	2.2	-13.92
10	SLU 38	52	-6	2045	143.21	2.16	-12.6
10	SLU 39	59	-5	2169	148.78	2.34	-14.49
10	SLU 40	54	-6	2163	148.55	2.3	-13.18
10	SLU 41	59	-5	2169	148.78	2.34	-14.49
10	SLU 42	54	-6	2163	148.55	2.3	-13.18
10	SLU 43	60	-8	2000	155.91	2.09	-14.65
10	SLU 44	51	-9	1989	155.51	2.02	-12.46
10	SLU 45	60	-8	2000	155.91	2.09	-14.65
10	SLU 46	54	-9	1993	155.67	2.05	-13.34
10	SLU 47	51	-9	1989	155.51	2.02	-12.46
10	SLU 48	60	-8	2000	155.91	2.09	-14.65
10	SLU 49	54	-9	1993	155.67	2.05	-13.34
10	SLU 50	60	-8	2000	155.91	2.09	-14.65
10	SLU 51	54	-9	1993	155.67	2.05	-13.34
10	SLU 52	57	-8	2262	167.95	2.34	-13.8
10	SLU 53	65	-8	2274	168.35	2.4	-15.99
10	SLU 54	60	-8	2267	168.11	2.36	-14.68
10	SLU 55	57	-8	2262	167.95	2.34	-13.8
10	SLU 56	65	-8	2274	168.35	2.4	-15.99
10	SLU 57	60	-8	2267	168.11	2.36	-14.68
10	SLU 58	65	-8	2274	168.35	2.4	-15.99
10	SLU 59	60	-8	2267	168.11	2.36	-14.68
10	SLU 60	68	-8	2391	173.68	2.54	-16.56
10	SLU 61	63	-8	2384	173.44	2.5	-15.25
10	SLU 62	68	-8	2391	173.68	2.54	-16.56
10	SLU 63	63	-8	2384	173.44	2.5	-15.25
10	SLU 64	64	-8	2190	164.68	2.31	-15.69
10	SLU 65	55	-8	2179	164.28	2.24	-13.5
10	SLU 66	64	-8	2190	164.68	2.31	-15.69
10	SLU 67	59	-8	2183	164.44	2.27	-14.37
10	SLU 68	55	-8	2179	164.28	2.24	-13.5
10	SLU 69	64	-8	2190	164.68	2.31	-15.69
10	SLU 70	59	-8	2183	164.44	2.27	-14.37
10	SLU 71	64	-8	2190	164.68	2.31	-15.69
10	SLU 72	59	-8	2183	164.44	2.27	-14.37
10	SLU 73	61	-8	2452	176.72	2.56	-14.83
10	SLU 74	70	-8	2464	177.12	2.62	-17.03
10	SLU 75	64	-8	2457	176.88	2.59	-15.71
10	SLU 76	61	-8	2452	176.72	2.56	-14.83
10	SLU 77	70	-8	2464	177.12	2.62	-17.03
10	SLU 78	64	-8	2457	176.88	2.59	-15.71
10	SLU 79	70	-8	2464	177.12	2.62	-17.03
10	SLU 80	64	-8	2457	176.88	2.59	-15.71
10	SLU 81	72	-7	2581	182.45	2.76	-17.6
10	SLU 82	67	-8	2574	182.21	2.72	-16.28
10	SLU 83	72	-7	2581	182.45	2.76	-17.6
10	SLU 84	67	-8	2574	182.21	2.72	-16.28
10	SLE RA 1	48	-6	1643	124.75	1.73	-11.84
10	SLE RA 2	42	-6	1635	124.48	1.68	-10.38
10	SLE RA 3	48	-6	1643	124.75	1.73	-11.84
10	SLE RA 4	45	-6	1638	124.59	1.7	-10.96
10	SLE RA 5	42	-6	1635	124.48	1.68	-10.38
10	SLE RA 6	48	-6	1643	124.75	1.73	-11.84
10	SLE RA 7	45	-6	1638	124.59	1.7	-10.96
10	SLE RA 8	48	-6	1643	124.75	1.73	-11.84
10	SLE RA 9	45	-6	1638	124.59	1.7	-10.96
10	SLE RA 10	46	-6	1818	132.78	1.89	-11.27
10	SLE RA 11	52	-6	1825	133.04	1.94	-12.73
10	SLE RA 12	49	-6	1821	132.88	1.91	-11.86
10	SLE RA 13	46	-6	1818	132.78	1.89	-11.27
10	SLE RA 14	52	-6	1825	133.04	1.94	-12.73
10	SLE RA 15	49	-6	1821	132.88	1.91	-11.86
10	SLE RA 16	52	-6	1825	133.04	1.94	-12.73
10	SLE RA 17	49	-6	1821	132.88	1.91	-11.86
10	SLE RA 18	54	-6	1903	136.6	2.03	-13.11
10	SLE RA 19	50	-6	1899	136.44	2	-12.24
10	SLE RA 20	54	-6	1903	136.6	2.03	-13.11
10	SLE RA 21	50	-6	1899	136.44	2	-12.24
10	SLE FR 1	48	-6	1643	124.75	1.73	-11.84
10	SLE FR 2	47	-6	1641	124.7	1.72	-11.55
10	SLE FR 3	48	-6	1643	124.75	1.73	-11.84
10	SLE FR 4	49	-6	1719	128.25	1.81	-11.93
10	SLE FR 5	50	-6	1721	128.3	1.82	-12.22
10	SLE FR 6	51	-6	1773	130.67	1.88	-12.48
10	SLE QP 1	48	-6	1643	124.75	1.73	-11.84
10	SLE QP 2	50	-6	1721	128.3	1.82	-12.22
10	SLD 1	176	15	1966	148.64	2.99	-43.8
10	SLD 2	210	2	1966	148.51	2.97	-52.25
10	SLD 3	163	-40	1863	138.14	2.73	-40.57
10	SLD 4	198	-53	1863	138.02	2.72	-49.02
10	SLD 5	94	89	1951	150.37	2.56	-23.61
10	SLD 6	129	75	1951	150.24	2.55	-32.11

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
10	SLD 7	53	-95	1607	115.38	1.71	-12.84
10	SLD 8	88	-108	1607	115.25	1.69	-21.35
10	SLD 9	12	96	1835	141.35	1.94	-3.1
10	SLD 10	47	83	1835	141.22	1.93	-11.6
10	SLD 11	-29	-87	1491	106.37	1.08	7.67
10	SLD 12	6	-101	1491	106.24	1.07	-0.84
10	SLD 13	-98	41	1579	118.59	0.92	24.57
10	SLD 14	-64	28	1579	118.46	0.9	16.13
10	SLD 15	-110	-14	1476	108.09	0.66	27.8
10	SLD 16	-76	-27	1476	107.97	0.64	19.36
10	SLV 1	336	42	2278	175.37	4.48	-84.11
10	SLV 2	414	12	2278	175.08	4.45	-103.23
10	SLV 3	308	-83	2043	150	3.89	-76.76
10	SLV 4	386	-113	2043	149.71	3.86	-95.87
10	SLV 5	151	209	2245	181.01	3.52	-38.19
10	SLV 6	229	178	2245	180.72	3.48	-57.43
10	SLV 7	58	-208	1460	96.43	1.56	-13.67
10	SLV 8	135	-239	1460	96.14	1.53	-32.91
10	SLV 9	-36	226	1982	160.47	2.11	8.47
10	SLV 10	42	196	1982	160.18	2.07	-10.77
10	SLV 11	-129	-190	1197	75.88	0.15	32.99
10	SLV 12	-51	-221	1197	75.59	0.12	13.75
10	SLV 13	-286	101	1399	106.9	-0.23	71.42
10	SLV 14	-208	71	1399	106.61	-0.26	52.31
10	SLV 15	-314	-24	1164	81.52	-0.81	78.78
10	SLV 16	-237	-54	1164	81.23	-0.85	59.66
10	CRTFP Ux+	0	0	0	0	0	0
10	CRTFP Ux-	0	0	0	0	0	0
10	CRTFP Uy+	0	0	0	0	0	0
10	CRTFP Uy-	0	0	0	0	0	0
11	SLU 1	46	0	1546	97.58	1.14	-11.24
11	SLU 2	37	-1	1537	97.56	1.08	-9.05
11	SLU 3	46	0	1546	97.58	1.14	-11.24
11	SLU 4	40	0	1541	97.57	1.1	-9.92
11	SLU 5	37	-1	1537	97.56	1.08	-9.05
11	SLU 6	46	0	1546	97.58	1.14	-11.24
11	SLU 7	40	0	1541	97.57	1.1	-9.92
11	SLU 8	46	0	1546	97.58	1.14	-11.24
11	SLU 9	40	0	1541	97.57	1.1	-9.92
11	SLU 10	42	1	1802	105.37	1.3	-10.27
11	SLU 11	51	2	1812	105.39	1.36	-12.47
11	SLU 12	45	2	1806	105.38	1.32	-11.15
11	SLU 13	42	1	1802	105.37	1.3	-10.27
11	SLU 14	51	2	1812	105.39	1.36	-12.47
11	SLU 15	45	2	1806	105.38	1.32	-11.15
11	SLU 16	51	2	1812	105.39	1.36	-12.47
11	SLU 17	45	2	1806	105.38	1.32	-11.15
11	SLU 18	53	3	1926	108.74	1.45	-12.99
11	SLU 19	48	2	1920	108.73	1.42	-11.68
11	SLU 20	53	3	1926	108.74	1.45	-12.99
11	SLU 21	48	2	1920	108.73	1.42	-11.68
11	SLU 22	50	1	1730	103.08	1.29	-12.21
11	SLU 23	41	1	1721	103.05	1.23	-10.02
11	SLU 24	50	1	1730	103.08	1.29	-12.21
11	SLU 25	44	1	1725	103.06	1.25	-10.89
11	SLU 26	41	1	1721	103.05	1.23	-10.02
11	SLU 27	50	1	1730	103.08	1.29	-12.21
11	SLU 28	44	1	1725	103.06	1.25	-10.89
11	SLU 29	50	1	1730	103.08	1.29	-12.21
11	SLU 30	44	1	1725	103.06	1.25	-10.89
11	SLU 31	46	3	1987	110.87	1.45	-11.24
11	SLU 32	55	3	1996	110.89	1.51	-13.44
11	SLU 33	49	3	1990	110.87	1.48	-12.12
11	SLU 34	46	3	1987	110.87	1.45	-11.24
11	SLU 35	55	3	1996	110.89	1.51	-13.44
11	SLU 36	49	3	1990	110.87	1.48	-12.12
11	SLU 37	55	3	1996	110.89	1.51	-13.44
11	SLU 38	49	3	1990	110.87	1.48	-12.12
11	SLU 39	57	4	2110	114.23	1.61	-13.96
11	SLU 40	52	4	2104	114.22	1.57	-12.65
11	SLU 41	57	4	2110	114.23	1.61	-13.96
11	SLU 42	52	4	2104	114.22	1.57	-12.65
11	SLU 43	58	-1	1947	124.97	1.43	-14.28
11	SLU 44	49	-1	1938	124.95	1.37	-12.09
11	SLU 45	58	-1	1947	124.97	1.43	-14.28
11	SLU 46	53	-1	1941	124.96	1.39	-12.96
11	SLU 47	49	-1	1938	124.95	1.37	-12.09
11	SLU 48	58	-1	1947	124.97	1.43	-14.28
11	SLU 49	53	-1	1941	124.96	1.39	-12.96
11	SLU 50	58	-1	1947	124.97	1.43	-14.28
11	SLU 51	53	-1	1941	124.96	1.39	-12.96
11	SLU 52	54	1	2203	132.76	1.59	-13.31
11	SLU 53	63	1	2212	132.78	1.65	-15.51
11	SLU 54	58	1	2207	132.77	1.61	-14.19
11	SLU 55	54	1	2203	132.76	1.59	-13.31
11	SLU 56	63	1	2212	132.78	1.65	-15.51

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
11	SLU 57	58	1	2207	132.77	1.61	-14.19
11	SLU 58	63	1	2212	132.78	1.65	-15.51
11	SLU 59	58	1	2207	132.77	1.61	-14.19
11	SLU 60	65	2	2326	136.13	1.74	-16.03
11	SLU 61	60	2	2321	136.11	1.71	-14.72
11	SLU 62	65	2	2326	136.13	1.74	-16.03
11	SLU 63	60	2	2321	136.11	1.71	-14.72
11	SLU 64	62	1	2131	130.46	1.58	-15.25
11	SLU 65	53	0	2122	130.44	1.52	-13.06
11	SLU 66	62	1	2131	130.46	1.58	-15.25
11	SLU 67	57	0	2126	130.45	1.54	-13.93
11	SLU 68	53	0	2122	130.44	1.52	-13.06
11	SLU 69	62	1	2131	130.46	1.58	-15.25
11	SLU 70	57	0	2126	130.45	1.54	-13.93
11	SLU 71	62	1	2131	130.46	1.58	-15.25
11	SLU 72	57	0	2126	130.45	1.54	-13.93
11	SLU 73	58	2	2387	138.26	1.74	-14.28
11	SLU 74	67	3	2397	138.28	1.8	-16.48
11	SLU 75	62	3	2391	138.26	1.76	-15.16
11	SLU 76	58	2	2387	138.26	1.74	-14.28
11	SLU 77	67	3	2397	138.28	1.8	-16.48
11	SLU 78	62	3	2391	138.26	1.76	-15.16
11	SLU 79	67	3	2397	138.28	1.8	-16.48
11	SLU 80	62	3	2391	138.26	1.76	-15.16
11	SLU 81	69	4	2510	141.62	1.89	-17
11	SLU 82	64	3	2505	141.61	1.86	-15.69
11	SLU 83	69	4	2510	141.62	1.89	-17
11	SLU 84	64	3	2505	141.61	1.86	-15.69
11	SLE RA 1	47	0	1599	99.15	1.18	-11.52
11	SLE RA 2	41	0	1593	99.14	1.14	-10.06
11	SLE RA 3	47	0	1599	99.15	1.18	-11.52
11	SLE RA 4	43	0	1595	99.14	1.16	-10.64
11	SLE RA 5	41	0	1593	99.14	1.14	-10.06
11	SLE RA 6	47	0	1599	99.15	1.18	-11.52
11	SLE RA 7	43	0	1595	99.14	1.16	-10.64
11	SLE RA 8	47	0	1599	99.15	1.18	-11.52
11	SLE RA 9	43	0	1595	99.14	1.16	-10.64
11	SLE RA 10	44	1	1770	104.34	1.29	-10.87
11	SLE RA 11	50	2	1776	104.36	1.33	-12.34
11	SLE RA 12	47	1	1772	104.35	1.3	-11.46
11	SLE RA 13	44	1	1770	104.34	1.29	-10.87
11	SLE RA 14	50	2	1776	104.36	1.33	-12.34
11	SLE RA 15	47	1	1772	104.35	1.3	-11.46
11	SLE RA 16	50	2	1776	104.36	1.33	-12.34
11	SLE RA 17	47	1	1772	104.35	1.3	-11.46
11	SLE RA 18	52	2	1852	106.59	1.39	-12.69
11	SLE RA 19	48	2	1848	106.58	1.37	-11.81
11	SLE RA 20	52	2	1852	106.59	1.39	-12.69
11	SLE RA 21	48	2	1848	106.58	1.37	-11.81
11	SLE FR 1	47	0	1599	99.15	1.18	-11.52
11	SLE FR 2	46	0	1598	99.15	1.17	-11.23
11	SLE FR 3	47	0	1599	99.15	1.18	-11.52
11	SLE FR 4	47	1	1673	101.38	1.24	-11.58
11	SLE FR 5	48	1	1675	101.38	1.24	-11.87
11	SLE FR 6	49	1	1725	102.87	1.29	-12.1
11	SLE QP 1	47	0	1599	99.15	1.18	-11.52
11	SLE QP 2	48	1	1675	101.38	1.24	-11.87
11	SLD 1	174	20	1887	117.53	2.27	-43.48
11	SLD 2	208	10	1887	117.45	2.26	-51.93
11	SLD 3	162	-30	1789	104.79	2.08	-40.21
11	SLD 4	196	-40	1790	104.71	2.07	-48.66
11	SLD 5	93	86	1886	125.58	1.84	-23.32
11	SLD 6	127	75	1887	125.5	1.83	-31.83
11	SLD 7	51	-80	1561	83.1	1.21	-12.42
11	SLD 8	86	-91	1561	83.02	1.2	-20.94
11	SLD 9	11	93	1788	119.74	1.29	-2.8
11	SLD 10	45	82	1789	119.66	1.28	-11.31
11	SLD 11	-31	-74	1463	77.26	0.66	8.1
11	SLD 12	4	-84	1463	77.18	0.64	-0.42
11	SLD 13	-99	42	1560	98.05	0.42	24.93
11	SLD 14	-65	31	1560	97.97	0.41	16.47
11	SLD 15	-112	-8	1462	85.31	0.23	28.19
11	SLD 16	-78	-19	1462	85.23	0.22	19.74
11	SLV 1	335	44	2158	139.07	3.58	-83.82
11	SLV 2	412	20	2159	138.88	3.55	-102.96
11	SLV 3	306	-69	1935	108.54	3.15	-76.38
11	SLV 4	384	-93	1936	108.35	3.12	-95.52
11	SLV 5	150	194	2157	159.06	2.61	-37.97
11	SLV 6	228	170	2158	158.87	2.58	-57.25
11	SLV 7	55	-183	1415	57.29	1.17	-13.17
11	SLV 8	133	-208	1416	57.1	1.14	-32.44
11	SLV 9	-36	209	1934	145.66	1.35	8.71
11	SLV 10	41	185	1935	145.48	1.32	-10.56
11	SLV 11	-132	-168	1192	43.89	-0.1	33.51
11	SLV 12	-54	-193	1193	43.7	-0.12	14.24
11	SLV 13	-287	94	1414	94.41	-0.63	71.79

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
11	SLV 14	-210	70	1414	94.23	-0.66	52.64
11	SLV 15	-316	-19	1191	63.88	-1.07	79.23
11	SLV 16	-238	-43	1192	63.69	-1.09	60.08
11	CRTFP Ux+	0	0	0	0	0	0
11	CRTFP Ux-	0	0	0	0	0	0
11	CRTFP Uy+	0	0	0	0	0	0
11	CRTFP Uy-	0	0	0	0	0	0
12	SLU 1	44	4	1518	82.9	0.74	-10.91
12	SLU 2	35	3	1510	83.12	0.68	-8.71
12	SLU 3	44	4	1518	82.9	0.74	-10.91
12	SLU 4	39	4	1513	83.03	0.7	-9.59
12	SLU 5	35	3	1510	83.12	0.68	-8.71
12	SLU 6	44	4	1518	82.9	0.74	-10.91
12	SLU 7	39	4	1513	83.03	0.7	-9.59
12	SLU 8	44	4	1518	82.9	0.74	-10.91
12	SLU 9	39	4	1513	83.03	0.7	-9.59
12	SLU 10	40	7	1770	88.3	0.83	-9.83
12	SLU 11	49	7	1778	88.09	0.89	-12.02
12	SLU 12	43	7	1773	88.22	0.85	-10.7
12	SLU 13	40	7	1770	88.3	0.83	-9.83
12	SLU 14	49	7	1778	88.09	0.89	-12.02
12	SLU 15	43	7	1773	88.22	0.85	-10.7
12	SLU 16	49	7	1778	88.09	0.89	-12.02
12	SLU 17	43	7	1773	88.22	0.85	-10.7
12	SLU 18	51	9	1889	90.31	0.95	-12.5
12	SLU 19	45	9	1885	90.44	0.92	-11.18
12	SLU 20	51	9	1889	90.31	0.95	-12.5
12	SLU 21	45	9	1885	90.44	0.92	-11.18
12	SLU 22	48	6	1698	86.53	0.83	-11.81
12	SLU 23	39	6	1691	86.75	0.78	-9.62
12	SLU 24	48	6	1698	86.53	0.83	-11.81
12	SLU 25	42	6	1694	86.66	0.8	-10.49
12	SLU 26	39	6	1691	86.75	0.78	-9.62
12	SLU 27	48	6	1698	86.53	0.83	-11.81
12	SLU 28	42	6	1694	86.66	0.8	-10.49
12	SLU 29	48	6	1698	86.53	0.83	-11.81
12	SLU 30	42	6	1694	86.66	0.8	-10.49
12	SLU 31	44	9	1951	91.93	0.93	-10.73
12	SLU 32	52	10	1958	91.72	0.98	-12.92
12	SLU 33	47	9	1954	91.85	0.95	-11.61
12	SLU 34	44	9	1951	91.93	0.93	-10.73
12	SLU 35	52	10	1958	91.72	0.98	-12.92
12	SLU 36	47	9	1954	91.85	0.95	-11.61
12	SLU 37	52	10	1958	91.72	0.98	-12.92
12	SLU 38	47	9	1954	91.85	0.95	-11.61
12	SLU 39	54	11	2070	93.94	1.05	-13.4
12	SLU 40	49	11	2065	94.07	1.02	-12.08
12	SLU 41	54	11	2070	93.94	1.05	-13.4
12	SLU 42	49	11	2065	94.07	1.02	-12.08
12	SLU 43	56	4	1912	106.53	0.92	-13.87
12	SLU 44	47	4	1904	106.74	0.87	-11.68
12	SLU 45	56	4	1912	106.53	0.92	-13.87
12	SLU 46	51	4	1907	106.66	0.89	-12.56
12	SLU 47	47	4	1904	106.74	0.87	-11.68
12	SLU 48	56	4	1912	106.53	0.92	-13.87
12	SLU 49	51	4	1907	106.66	0.89	-12.56
12	SLU 50	56	4	1912	106.53	0.92	-13.87
12	SLU 51	51	4	1907	106.66	0.89	-12.56
12	SLU 52	52	7	2164	111.93	1.02	-12.79
12	SLU 53	61	8	2171	111.71	1.07	-14.99
12	SLU 54	55	7	2167	111.84	1.04	-13.67
12	SLU 55	52	7	2164	111.93	1.02	-12.79
12	SLU 56	61	8	2171	111.71	1.07	-14.99
12	SLU 57	55	7	2167	111.84	1.04	-13.67
12	SLU 58	61	8	2171	111.71	1.07	-14.99
12	SLU 59	55	7	2167	111.84	1.04	-13.67
12	SLU 60	63	9	2283	113.93	1.14	-15.46
12	SLU 61	57	9	2278	114.06	1.11	-14.14
12	SLU 62	63	9	2283	113.93	1.14	-15.46
12	SLU 63	57	9	2278	114.06	1.11	-14.14
12	SLU 64	60	6	2092	110.16	1.02	-14.78
12	SLU 65	51	6	2084	110.37	0.97	-12.58
12	SLU 66	60	6	2092	110.16	1.02	-14.78
12	SLU 67	54	6	2087	110.29	0.99	-13.46
12	SLU 68	51	6	2084	110.37	0.97	-12.58
12	SLU 69	60	6	2092	110.16	1.02	-14.78
12	SLU 70	54	6	2087	110.29	0.99	-13.46
12	SLU 71	60	6	2092	110.16	1.02	-14.78
12	SLU 72	54	6	2087	110.29	0.99	-13.46
12	SLU 73	56	10	2344	115.56	1.12	-13.69
12	SLU 74	64	10	2352	115.34	1.17	-15.89
12	SLU 75	59	10	2347	115.47	1.14	-14.57
12	SLU 76	56	10	2344	115.56	1.12	-13.69
12	SLU 77	64	10	2352	115.34	1.17	-15.89
12	SLU 78	59	10	2347	115.47	1.14	-14.57
12	SLU 79	64	10	2352	115.34	1.17	-15.89

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
12	SLU 80	59	10	2347	115.47	1.14	-14.57
12	SLU 81	66	11	2463	117.56	1.23	-16.36
12	SLU 82	61	11	2459	117.69	1.2	-15.05
12	SLU 83	66	11	2463	117.56	1.23	-16.36
12	SLU 84	61	11	2459	117.69	1.2	-15.05
12	SLE RA 1	45	4	1570	83.94	0.76	-11.17
12	SLE RA 2	39	4	1564	84.08	0.73	-9.7
12	SLE RA 3	45	4	1570	83.94	0.76	-11.17
12	SLE RA 4	42	4	1566	84.02	0.74	-10.29
12	SLE RA 5	39	4	1564	84.08	0.73	-9.7
12	SLE RA 6	45	4	1570	83.94	0.76	-11.17
12	SLE RA 7	42	4	1566	84.02	0.74	-10.29
12	SLE RA 8	45	4	1570	83.94	0.76	-11.17
12	SLE RA 9	42	4	1566	84.02	0.74	-10.29
12	SLE RA 10	42	7	1738	87.54	0.83	-10.44
12	SLE RA 11	48	7	1743	87.39	0.86	-11.91
12	SLE RA 12	45	7	1740	87.48	0.84	-11.03
12	SLE RA 13	42	7	1738	87.54	0.83	-10.44
12	SLE RA 14	48	7	1743	87.39	0.86	-11.91
12	SLE RA 15	45	7	1740	87.48	0.84	-11.03
12	SLE RA 16	48	7	1743	87.39	0.86	-11.91
12	SLE RA 17	45	7	1740	87.48	0.84	-11.03
12	SLE RA 18	49	8	1817	88.88	0.91	-12.23
12	SLE RA 19	46	8	1814	88.96	0.89	-11.35
12	SLE RA 20	49	8	1817	88.88	0.91	-12.23
12	SLE RA 21	46	8	1814	88.96	0.89	-11.35
12	SLE FR 1	45	4	1570	83.94	0.76	-11.17
12	SLE FR 2	44	4	1569	83.97	0.76	-10.88
12	SLE FR 3	45	4	1570	83.94	0.76	-11.17
12	SLE FR 4	45	5	1643	85.45	0.8	-11.19
12	SLE FR 5	46	5	1644	85.42	0.81	-11.49
12	SLE FR 6	47	6	1693	86.41	0.83	-11.7
12	SLE QP 1	45	4	1570	83.94	0.76	-11.17
12	SLE QP 2	46	5	1644	85.42	0.81	-11.49
12	SLD 1	172	23	1827	99.39	1.72	-43.1
12	SLD 2	207	15	1828	99.3	1.72	-51.56
12	SLD 3	160	-22	1733	84.77	1.6	-39.8
12	SLD 4	194	-31	1734	84.68	1.59	-48.27
12	SLD 5	91	83	1841	111.83	1.28	-22.97
12	SLD 6	126	74	1841	111.74	1.27	-31.49
12	SLD 7	49	-69	1528	63.07	0.85	-11.99
12	SLD 8	83	-77	1529	62.98	0.84	-20.52
12	SLD 9	9	88	1759	107.86	0.77	-2.45
12	SLD 10	44	80	1759	107.77	0.76	-10.98
12	SLD 11	-33	-63	1446	59.1	0.34	8.52
12	SLD 12	1	-72	1447	59.01	0.33	0
12	SLD 13	-101	42	1554	86.16	0.02	25.3
12	SLD 14	-67	33	1554	86.07	0.02	16.83
12	SLD 15	-114	-4	1460	71.53	-0.1	28.59
12	SLD 16	-80	-12	1460	71.44	-0.11	20.13
12	SLV 1	333	45	2061	118.3	2.89	-83.44
12	SLV 2	410	27	2063	118.1	2.88	-102.61
12	SLV 3	304	-58	1847	83.47	2.6	-75.95
12	SLV 4	381	-77	1849	83.27	2.58	-95.11
12	SLV 5	149	180	2093	148.18	1.89	-37.67
12	SLV 6	227	162	2095	147.98	1.87	-56.96
12	SLV 7	53	-163	1380	32.08	0.9	-12.68
12	SLV 8	130	-182	1381	31.88	0.89	-31.98
12	SLV 9	-38	193	1906	138.96	0.73	9.01
12	SLV 10	40	174	1908	138.76	0.71	-10.29
12	SLV 11	-134	-151	1193	22.86	-0.25	33.99
12	SLV 12	-56	-170	1195	22.66	-0.27	14.7
12	SLV 13	-289	88	1439	87.56	-0.97	72.14
12	SLV 14	-211	69	1441	87.36	-0.99	52.97
12	SLV 15	-318	-16	1225	52.73	-1.26	79.64
12	SLV 16	-240	-34	1227	52.53	-1.28	60.47
12	CRTFP Ux+	0	0	0	0	0	0
12	CRTFP Ux-	0	0	0	0	0	0
12	CRTFP Uy+	0	0	0	0	0	0
12	CRTFP Uy-	0	0	0	0	0	0
13	SLU 1	42	6	1501	76.11	0.42	-10.56
13	SLU 2	34	6	1494	76.47	0.38	-8.36
13	SLU 3	42	6	1501	76.11	0.42	-10.56
13	SLU 4	37	6	1497	76.32	0.4	-9.24
13	SLU 5	34	6	1494	76.47	0.38	-8.36
13	SLU 6	42	6	1501	76.11	0.42	-10.56
13	SLU 7	37	6	1497	76.32	0.4	-9.24
13	SLU 8	42	6	1501	76.11	0.42	-10.56
13	SLU 9	37	6	1497	76.32	0.4	-9.24
13	SLU 10	38	10	1750	80.6	0.47	-9.35
13	SLU 11	46	10	1757	80.24	0.52	-11.55
13	SLU 12	41	10	1753	80.46	0.49	-10.23
13	SLU 13	38	10	1750	80.6	0.47	-9.35
13	SLU 14	46	10	1757	80.24	0.52	-11.55
13	SLU 15	41	10	1753	80.46	0.49	-10.23
13	SLU 16	46	10	1757	80.24	0.52	-11.55

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
13	SLU 17	41	10	1753	80.46	0.49	-10.23
13	SLU 18	48	12	1866	82.02	0.56	-11.97
13	SLU 19	43	12	1863	82.23	0.53	-10.66
13	SLU 20	48	12	1866	82.02	0.56	-11.97
13	SLU 21	43	12	1863	82.23	0.53	-10.66
13	SLU 22	46	9	1679	78.99	0.48	-11.39
13	SLU 23	37	8	1672	79.35	0.43	-9.19
13	SLU 24	46	9	1679	78.99	0.48	-11.39
13	SLU 25	40	9	1675	79.21	0.45	-10.07
13	SLU 26	37	8	1672	79.35	0.43	-9.19
13	SLU 27	46	9	1679	78.99	0.48	-11.39
13	SLU 28	40	9	1675	79.21	0.45	-10.07
13	SLU 29	46	9	1679	78.99	0.48	-11.39
13	SLU 30	40	9	1675	79.21	0.45	-10.07
13	SLU 31	41	13	1929	83.49	0.53	-10.18
13	SLU 32	50	13	1935	83.13	0.58	-12.38
13	SLU 33	45	13	1931	83.34	0.55	-11.06
13	SLU 34	41	13	1929	83.49	0.53	-10.18
13	SLU 35	50	13	1935	83.13	0.58	-12.38
13	SLU 36	45	13	1931	83.34	0.55	-11.06
13	SLU 37	50	13	1935	83.13	0.58	-12.38
13	SLU 38	45	13	1931	83.34	0.55	-11.06
13	SLU 39	52	15	2045	84.9	0.62	-12.81
13	SLU 40	46	15	2041	85.12	0.59	-11.49
13	SLU 41	52	15	2045	84.9	0.62	-12.81
13	SLU 42	46	15	2041	85.12	0.59	-11.49
13	SLU 43	54	7	1890	97.95	0.53	-13.44
13	SLU 44	45	6	1883	98.31	0.48	-11.24
13	SLU 45	54	7	1890	97.95	0.53	-13.44
13	SLU 46	49	7	1886	98.17	0.5	-12.12
13	SLU 47	45	6	1883	98.31	0.48	-11.24
13	SLU 48	54	7	1890	97.95	0.53	-13.44
13	SLU 49	49	7	1886	98.17	0.5	-12.12
13	SLU 50	54	7	1890	97.95	0.53	-13.44
13	SLU 51	49	7	1886	98.17	0.5	-12.12
13	SLU 52	49	11	2140	102.45	0.58	-12.24
13	SLU 53	58	11	2146	102.09	0.63	-14.43
13	SLU 54	53	11	2142	102.3	0.6	-13.11
13	SLU 55	49	11	2140	102.45	0.58	-12.24
13	SLU 56	58	11	2146	102.09	0.63	-14.43
13	SLU 57	53	11	2142	102.3	0.6	-13.11
13	SLU 58	58	11	2146	102.09	0.63	-14.43
13	SLU 59	53	11	2142	102.3	0.6	-13.11
13	SLU 60	60	13	2256	103.86	0.67	-14.86
13	SLU 61	54	13	2252	104.08	0.64	-13.54
13	SLU 62	60	13	2256	103.86	0.67	-14.86
13	SLU 63	54	13	2252	104.08	0.64	-13.54
13	SLU 64	57	9	2068	100.83	0.59	-14.27
13	SLU 65	49	9	2061	101.19	0.54	-12.07
13	SLU 66	57	9	2068	100.83	0.59	-14.27
13	SLU 67	52	9	2064	101.05	0.56	-12.95
13	SLU 68	49	9	2061	101.19	0.54	-12.07
13	SLU 69	57	9	2068	100.83	0.59	-14.27
13	SLU 70	52	9	2064	101.05	0.56	-12.95
13	SLU 71	57	9	2068	100.83	0.59	-14.27
13	SLU 72	52	9	2064	101.05	0.56	-12.95
13	SLU 73	53	14	2318	105.33	0.64	-13.07
13	SLU 74	61	14	2324	104.97	0.69	-15.26
13	SLU 75	56	14	2320	105.19	0.66	-13.94
13	SLU 76	53	14	2318	105.33	0.64	-13.07
13	SLU 77	61	14	2324	104.97	0.69	-15.26
13	SLU 78	56	14	2320	105.19	0.66	-13.94
13	SLU 79	61	14	2324	104.97	0.69	-15.26
13	SLU 80	56	14	2320	105.19	0.66	-13.94
13	SLU 81	63	16	2434	106.75	0.73	-15.69
13	SLU 82	58	16	2430	106.96	0.7	-14.37
13	SLU 83	63	16	2434	106.75	0.73	-15.69
13	SLU 84	58	16	2430	106.96	0.7	-14.37
13	SLE RA 1	43	7	1551	76.93	0.44	-10.79
13	SLE RA 2	37	7	1547	77.17	0.41	-9.33
13	SLE RA 3	43	7	1551	76.93	0.44	-10.79
13	SLE RA 4	40	7	1549	77.07	0.42	-9.91
13	SLE RA 5	37	7	1547	77.17	0.41	-9.33
13	SLE RA 6	43	7	1551	76.93	0.44	-10.79
13	SLE RA 7	40	7	1549	77.07	0.42	-9.91
13	SLE RA 8	43	7	1551	76.93	0.44	-10.79
13	SLE RA 9	40	7	1549	77.07	0.42	-9.91
13	SLE RA 10	40	9	1718	79.93	0.47	-9.99
13	SLE RA 11	46	10	1722	79.69	0.5	-11.46
13	SLE RA 12	43	9	1720	79.83	0.49	-10.58
13	SLE RA 13	40	9	1718	79.93	0.47	-9.99
13	SLE RA 14	46	10	1722	79.69	0.5	-11.46
13	SLE RA 15	43	9	1720	79.83	0.49	-10.58
13	SLE RA 16	46	10	1722	79.69	0.5	-11.46
13	SLE RA 17	43	9	1720	79.83	0.49	-10.58
13	SLE RA 18	47	11	1795	80.87	0.53	-11.74

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
13	SLE RA 19	44	11	1793	81.02	0.51	-10.86
13	SLE RA 20	47	11	1795	80.87	0.53	-11.74
13	SLE RA 21	44	11	1793	81.02	0.51	-10.86
13	SLE FR 1	43	7	1551	76.93	0.44	-10.79
13	SLE FR 2	42	7	1551	76.98	0.43	-10.5
13	SLE FR 3	43	7	1551	76.93	0.44	-10.79
13	SLE FR 4	43	8	1624	78.16	0.46	-10.78
13	SLE FR 5	44	8	1625	78.11	0.47	-11.08
13	SLE FR 6	45	9	1673	78.9	0.49	-11.27
13	SLE QP 1	43	7	1551	76.93	0.44	-10.79
13	SLE QP 2	44	8	1625	78.11	0.47	-11.08
13	SLD 1	170	24	1782	91.23	1.31	-42.67
13	SLD 2	205	18	1783	91.08	1.31	-51.14
13	SLD 3	158	-18	1690	75.43	1.23	-39.36
13	SLD 4	192	-24	1691	75.29	1.23	-47.83
13	SLD 5	90	79	1810	106.06	0.84	-22.57
13	SLD 6	124	72	1811	105.91	0.83	-31.1
13	SLD 7	47	-61	1505	53.4	0.58	-11.55
13	SLD 8	81	-67	1506	53.25	0.58	-20.09
13	SLD 9	8	83	1743	102.97	0.36	-2.07
13	SLD 10	42	77	1744	102.82	0.35	-10.6
13	SLD 11	-35	-56	1438	50.31	0.1	8.95
13	SLD 12	-1	-63	1439	50.17	0.1	0.42
13	SLD 13	-103	40	1558	80.94	-0.29	25.68
13	SLD 14	-69	34	1559	80.79	-0.3	17.21
13	SLD 15	-116	-2	1467	65.14	-0.37	28.98
13	SLD 16	-81	-8	1467	64.99	-0.37	20.51
13	SLV 1	331	44	1982	109.18	2.38	-82.99
13	SLV 2	408	30	1984	108.85	2.37	-102.16
13	SLV 3	302	-51	1773	71.69	2.21	-75.46
13	SLV 4	379	-65	1775	71.35	2.2	-94.64
13	SLV 5	148	168	2048	144.42	1.31	-37.29
13	SLV 6	225	154	2050	144.09	1.3	-56.59
13	SLV 7	50	-149	1352	19.43	0.73	-12.2
13	SLV 8	128	-163	1354	19.1	0.72	-31.51
13	SLV 9	-39	179	1895	137.13	0.21	9.35
13	SLV 10	39	165	1897	136.8	0.21	-9.95
13	SLV 11	-136	-138	1199	12.14	-0.36	34.44
13	SLV 12	-59	-152	1201	11.8	-0.37	15.13
13	SLV 13	-290	81	1474	84.87	-1.26	72.48
13	SLV 14	-213	67	1476	84.54	-1.27	53.31
13	SLV 15	-319	-15	1265	47.37	-1.44	80.01
13	SLV 16	-242	-29	1267	47.04	-1.44	60.83
13	CRTFP Ux+	0	0	0	0	0	0
13	CRTFP Ux-	0	0	0	0	0	0
13	CRTFP Uy+	0	0	0	0	0	0
13	CRTFP Uy-	0	0	0	0	0	0
14	SLU 1	41	6	1507	76.91	-2.99	-10.27
14	SLU 2	32	6	1502	77.36	-3.02	-8.06
14	SLU 3	41	6	1507	76.91	-2.99	-10.27
14	SLU 4	36	6	1504	77.18	-3.01	-8.94
14	SLU 5	32	6	1502	77.36	-3.02	-8.06
14	SLU 6	41	6	1507	76.91	-2.99	-10.27
14	SLU 7	36	6	1504	77.18	-3.01	-8.94
14	SLU 8	41	6	1507	76.91	-2.99	-10.27
14	SLU 9	36	6	1504	77.18	-3.01	-8.94
14	SLU 10	36	11	1759	81.87	-3.51	-8.93
14	SLU 11	45	11	1764	81.41	-3.47	-11.14
14	SLU 12	39	11	1761	81.69	-3.49	-9.81
14	SLU 13	36	11	1759	81.87	-3.51	-8.93
14	SLU 14	45	11	1764	81.41	-3.47	-11.14
14	SLU 15	39	11	1761	81.69	-3.49	-9.81
14	SLU 16	45	11	1764	81.41	-3.47	-11.14
14	SLU 17	39	11	1761	81.69	-3.49	-9.81
14	SLU 18	46	13	1874	83.35	-3.68	-11.52
14	SLU 19	41	13	1871	83.62	-3.7	-10.19
14	SLU 20	46	13	1874	83.35	-3.68	-11.52
14	SLU 21	41	13	1871	83.62	-3.7	-10.19
14	SLU 22	44	9	1686	80.05	-3.34	-11.03
14	SLU 23	35	9	1681	80.51	-3.37	-8.82
14	SLU 24	44	9	1686	80.05	-3.34	-11.03
14	SLU 25	39	9	1683	80.32	-3.36	-9.7
14	SLU 26	35	9	1681	80.51	-3.37	-8.82
14	SLU 27	44	9	1686	80.05	-3.34	-11.03
14	SLU 28	39	9	1683	80.32	-3.36	-9.7
14	SLU 29	44	9	1686	80.05	-3.34	-11.03
14	SLU 30	39	9	1683	80.32	-3.36	-9.7
14	SLU 31	39	14	1938	85.01	-3.86	-9.69
14	SLU 32	48	14	1942	84.56	-3.82	-11.9
14	SLU 33	42	14	1940	84.83	-3.84	-10.57
14	SLU 34	39	14	1938	85.01	-3.86	-9.69
14	SLU 35	48	14	1942	84.56	-3.82	-11.9
14	SLU 36	42	14	1940	84.83	-3.84	-10.57
14	SLU 37	48	14	1942	84.56	-3.82	-11.9
14	SLU 38	42	14	1940	84.83	-3.84	-10.57
14	SLU 39	49	16	2052	86.49	-4.03	-12.28

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
14	SLU 40	44	16	2050	86.76	-4.05	-10.95
14	SLU 41	49	16	2052	86.49	-4.03	-12.28
14	SLU 42	44	16	2050	86.76	-4.05	-10.95
14	SLU 43	52	7	1898	98.9	-3.76	-13.09
14	SLU 44	43	7	1893	99.36	-3.8	-10.88
14	SLU 45	52	7	1898	98.9	-3.76	-13.09
14	SLU 46	47	7	1895	99.17	-3.78	-11.76
14	SLU 47	43	7	1893	99.36	-3.8	-10.88
14	SLU 48	52	7	1898	98.9	-3.76	-13.09
14	SLU 49	47	7	1895	99.17	-3.78	-11.76
14	SLU 50	52	7	1898	98.9	-3.76	-13.09
14	SLU 51	47	7	1895	99.17	-3.78	-11.76
14	SLU 52	47	12	2150	103.86	-4.28	-11.75
14	SLU 53	56	12	2155	103.41	-4.25	-13.97
14	SLU 54	51	12	2152	103.68	-4.27	-12.64
14	SLU 55	47	12	2150	103.86	-4.28	-11.75
14	SLU 56	56	12	2155	103.41	-4.25	-13.97
14	SLU 57	51	12	2152	103.68	-4.27	-12.64
14	SLU 58	56	12	2155	103.41	-4.25	-13.97
14	SLU 59	51	12	2152	103.68	-4.27	-12.64
14	SLU 60	57	14	2265	105.34	-4.45	-14.34
14	SLU 61	52	14	2262	105.61	-4.48	-13.01
14	SLU 62	57	14	2265	105.34	-4.45	-14.34
14	SLU 63	52	14	2262	105.61	-4.48	-13.01
14	SLU 64	55	10	2077	102.05	-4.11	-13.85
14	SLU 65	47	10	2072	102.5	-4.15	-11.64
14	SLU 66	55	10	2077	102.05	-4.11	-13.85
14	SLU 67	50	10	2074	102.32	-4.13	-12.52
14	SLU 68	47	10	2072	102.5	-4.15	-11.64
14	SLU 69	55	10	2077	102.05	-4.11	-13.85
14	SLU 70	50	10	2074	102.32	-4.13	-12.52
14	SLU 71	55	10	2077	102.05	-4.11	-13.85
14	SLU 72	50	10	2074	102.32	-4.13	-12.52
14	SLU 73	50	15	2329	107.01	-4.63	-12.51
14	SLU 74	59	15	2333	106.55	-4.6	-14.72
14	SLU 75	54	15	2330	106.82	-4.62	-13.4
14	SLU 76	50	15	2329	107.01	-4.63	-12.51
14	SLU 77	59	15	2333	106.55	-4.6	-14.72
14	SLU 78	54	15	2330	106.82	-4.62	-13.4
14	SLU 79	59	15	2333	106.55	-4.6	-14.72
14	SLU 80	54	15	2330	106.82	-4.62	-13.4
14	SLU 81	60	17	2443	108.48	-4.8	-15.1
14	SLU 82	55	17	2440	108.76	-4.83	-13.77
14	SLU 83	60	17	2443	108.48	-4.8	-15.1
14	SLU 84	55	17	2440	108.76	-4.83	-13.77
14	SLE RA 1	42	7	1558	77.81	-3.09	-10.49
14	SLE RA 2	36	7	1555	78.11	-3.11	-9.01
14	SLE RA 3	42	7	1558	77.81	-3.09	-10.49
14	SLE RA 4	38	7	1556	77.99	-3.1	-9.6
14	SLE RA 5	36	7	1555	78.11	-3.11	-9.01
14	SLE RA 6	42	7	1558	77.81	-3.09	-10.49
14	SLE RA 7	38	7	1556	77.99	-3.1	-9.6
14	SLE RA 8	42	7	1558	77.81	-3.09	-10.49
14	SLE RA 9	38	7	1556	77.99	-3.1	-9.6
14	SLE RA 10	38	10	1726	81.11	-3.43	-9.59
14	SLE RA 11	44	10	1729	80.81	-3.41	-11.07
14	SLE RA 12	41	10	1727	80.99	-3.42	-10.18
14	SLE RA 13	38	10	1726	81.11	-3.43	-9.59
14	SLE RA 14	44	10	1729	80.81	-3.41	-11.07
14	SLE RA 15	41	10	1727	80.99	-3.42	-10.18
14	SLE RA 16	44	10	1729	80.81	-3.41	-11.07
14	SLE RA 17	41	10	1727	80.99	-3.42	-10.18
14	SLE RA 18	45	12	1803	82.1	-3.55	-11.32
14	SLE RA 19	42	12	1801	82.28	-3.56	-10.43
14	SLE RA 20	45	12	1803	82.1	-3.55	-11.32
14	SLE RA 21	42	12	1801	82.28	-3.56	-10.43
14	SLE FR 1	42	7	1558	77.81	-3.09	-10.49
14	SLE FR 2	41	7	1558	77.87	-3.09	-10.19
14	SLE FR 3	42	7	1558	77.81	-3.09	-10.49
14	SLE FR 4	42	8	1631	79.15	-3.23	-10.44
14	SLE FR 5	43	8	1632	79.09	-3.22	-10.74
14	SLE FR 6	44	9	1680	79.95	-3.32	-10.9
14	SLE QP 1	42	7	1558	77.81	-3.09	-10.49
14	SLE QP 2	43	8	1632	79.09	-3.22	-10.74
14	SLD 1	170	23	1766	82.56	-2.7	-42.58
14	SLD 2	204	19	1766	82.3	-2.7	-51.15
14	SLD 3	157	-17	1674	66.23	-2.51	-39.31
14	SLD 4	191	-21	1675	65.97	-2.52	-47.87
14	SLD 5	89	75	1810	104.98	-3.34	-22.23
14	SLD 6	124	70	1811	104.72	-3.34	-30.86
14	SLD 7	45	-58	1505	50.57	-2.73	-11.31
14	SLD 8	80	-62	1506	50.31	-2.74	-19.94
14	SLD 9	6	79	1757	107.88	-3.71	-1.54
14	SLD 10	41	75	1758	107.62	-3.71	-10.16
14	SLD 11	-38	-54	1452	53.47	-3.1	9.38
14	SLD 12	-3	-58	1453	53.21	-3.11	0.75

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
14	SLD 13	-105	38	1588	92.22	-3.93	26.39
14	SLD 14	-71	33	1589	91.96	-3.93	17.83
14	SLD 15	-119	-2	1497	75.89	-3.75	29.67
14	SLD 16	-84	-7	1498	75.63	-3.75	21.1
14	SLV 1	332	42	1937	87.26	-2.03	-83.22
14	SLV 2	410	32	1939	86.67	-2.03	-102.62
14	SLV 3	302	-48	1728	48.56	-1.61	-75.76
14	SLV 4	380	-58	1730	47.97	-1.61	-95.16
14	SLV 5	148	159	2039	140.45	-3.5	-36.94
14	SLV 6	226	149	2041	139.86	-3.5	-56.47
14	SLV 7	48	-142	1343	11.44	-2.11	-12.08
14	SLV 8	126	-152	1345	10.85	-2.11	-31.6
14	SLV 9	-40	169	1918	147.34	-4.34	10.13
14	SLV 10	38	159	1920	146.75	-4.34	-9.4
14	SLV 11	-140	-132	1222	18.33	-2.95	34.99
14	SLV 12	-62	-142	1224	17.73	-2.95	15.47
14	SLV 13	-294	75	1533	110.22	-4.83	73.68
14	SLV 14	-216	65	1535	109.63	-4.84	54.29
14	SLV 15	-324	-15	1324	71.52	-4.42	81.14
14	SLV 16	-246	-25	1326	70.93	-4.42	61.75
14	CRTFP Ux+	0	0	0	0	0	0
14	CRTFP Ux-	0	0	0	0	0	0
14	CRTFP Uy+	0	0	0	0	0	0
14	CRTFP Uy-	0	0	0	0	0	0
15	SLU 1	40	4	1521	83.79	-0.08	-9.99
15	SLU 2	31	4	1518	84.32	-0.13	-7.75
15	SLU 3	40	4	1521	83.79	-0.08	-9.99
15	SLU 4	34	4	1519	84.11	-0.11	-8.64
15	SLU 5	31	4	1518	84.32	-0.13	-7.75
15	SLU 6	40	4	1521	83.79	-0.08	-9.99
15	SLU 7	34	4	1519	84.11	-0.11	-8.64
15	SLU 8	40	4	1521	83.79	-0.08	-9.99
15	SLU 9	34	4	1519	84.11	-0.11	-8.64
15	SLU 10	34	9	1776	90.43	-0.12	-8.52
15	SLU 11	43	9	1780	89.9	-0.07	-10.75
15	SLU 12	37	9	1778	90.21	-0.1	-9.41
15	SLU 13	34	9	1776	90.43	-0.12	-8.52
15	SLU 14	43	9	1780	89.9	-0.07	-10.75
15	SLU 15	37	9	1778	90.21	-0.1	-9.41
15	SLU 16	43	9	1780	89.9	-0.07	-10.75
15	SLU 17	37	9	1778	90.21	-0.1	-9.41
15	SLU 18	44	11	1890	92.51	-0.07	-11.08
15	SLU 19	39	11	1888	92.83	-0.09	-9.74
15	SLU 20	44	11	1890	92.51	-0.07	-11.08
15	SLU 21	39	11	1888	92.83	-0.09	-9.74
15	SLU 22	42	7	1702	88.08	-0.09	-10.68
15	SLU 23	33	7	1698	88.61	-0.14	-8.45
15	SLU 24	42	7	1702	88.08	-0.09	-10.68
15	SLU 25	37	7	1700	88.4	-0.12	-9.34
15	SLU 26	33	7	1698	88.61	-0.14	-8.45
15	SLU 27	42	7	1702	88.08	-0.09	-10.68
15	SLU 28	37	7	1700	88.4	-0.12	-9.34
15	SLU 29	42	7	1702	88.08	-0.09	-10.68
15	SLU 30	37	7	1700	88.4	-0.12	-9.34
15	SLU 31	36	12	1957	94.71	-0.13	-9.22
15	SLU 32	45	12	1960	94.18	-0.08	-11.45
15	SLU 33	40	12	1958	94.5	-0.11	-10.11
15	SLU 34	36	12	1957	94.71	-0.13	-9.22
15	SLU 35	45	12	1960	94.18	-0.08	-11.45
15	SLU 36	40	12	1958	94.5	-0.11	-10.11
15	SLU 37	45	12	1960	94.18	-0.08	-11.45
15	SLU 38	40	12	1958	94.5	-0.11	-10.11
15	SLU 39	47	14	2071	96.8	-0.08	-11.78
15	SLU 40	41	14	2069	97.12	-0.1	-10.44
15	SLU 41	47	14	2071	96.8	-0.08	-11.78
15	SLU 42	41	14	2069	97.12	-0.1	-10.44
15	SLU 43	51	5	1916	107.46	-0.1	-12.74
15	SLU 44	42	5	1912	107.99	-0.15	-10.51
15	SLU 45	51	5	1916	107.46	-0.1	-12.74
15	SLU 46	45	5	1914	107.78	-0.13	-11.4
15	SLU 47	42	5	1912	107.99	-0.15	-10.51
15	SLU 48	51	5	1916	107.46	-0.1	-12.74
15	SLU 49	45	5	1914	107.78	-0.13	-11.4
15	SLU 50	51	5	1916	107.46	-0.1	-12.74
15	SLU 51	45	5	1914	107.78	-0.13	-11.4
15	SLU 52	45	10	2171	114.09	-0.14	-11.27
15	SLU 53	54	10	2174	113.57	-0.09	-13.51
15	SLU 54	48	10	2172	113.88	-0.12	-12.17
15	SLU 55	45	10	2171	114.09	-0.14	-11.27
15	SLU 56	54	10	2174	113.57	-0.09	-13.51
15	SLU 57	48	10	2172	113.88	-0.12	-12.17
15	SLU 58	54	10	2174	113.57	-0.09	-13.51
15	SLU 59	48	10	2172	113.88	-0.12	-12.17
15	SLU 60	55	12	2285	116.18	-0.09	-13.84
15	SLU 61	49	12	2283	116.5	-0.12	-12.5
15	SLU 62	55	12	2285	116.18	-0.09	-13.84

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
15	SLU 63	49	12	2283	116.5	-0.12	-12.5
15	SLU 64	53	8	2096	111.75	-0.11	-13.44
15	SLU 65	44	8	2093	112.28	-0.16	-11.2
15	SLU 66	53	8	2096	111.75	-0.11	-13.44
15	SLU 67	48	8	2094	112.06	-0.14	-12.1
15	SLU 68	44	8	2093	112.28	-0.16	-11.2
15	SLU 69	53	8	2096	111.75	-0.11	-13.44
15	SLU 70	48	8	2094	112.06	-0.14	-12.1
15	SLU 71	53	8	2096	111.75	-0.11	-13.44
15	SLU 72	48	8	2094	112.06	-0.14	-12.1
15	SLU 73	47	13	2351	118.38	-0.15	-11.97
15	SLU 74	56	13	2355	117.85	-0.1	-14.21
15	SLU 75	51	13	2352	118.17	-0.13	-12.87
15	SLU 76	47	13	2351	118.38	-0.15	-11.97
15	SLU 77	56	13	2355	117.85	-0.1	-14.21
15	SLU 78	51	13	2352	118.17	-0.13	-12.87
15	SLU 79	56	13	2355	117.85	-0.1	-14.21
15	SLU 80	51	13	2352	118.17	-0.13	-12.87
15	SLU 81	58	15	2465	120.47	-0.1	-14.54
15	SLU 82	52	15	2463	120.79	-0.12	-13.2
15	SLU 83	58	15	2465	120.47	-0.1	-14.54
15	SLU 84	52	15	2463	120.79	-0.12	-13.2
15	SLE RA 1	40	5	1573	85.02	-0.08	-10.19
15	SLE RA 2	34	5	1571	85.37	-0.11	-8.69
15	SLE RA 3	40	5	1573	85.02	-0.08	-10.19
15	SLE RA 4	37	5	1571	85.23	-0.1	-9.29
15	SLE RA 5	34	5	1571	85.37	-0.11	-8.69
15	SLE RA 6	40	5	1573	85.02	-0.08	-10.19
15	SLE RA 7	37	5	1571	85.23	-0.1	-9.29
15	SLE RA 8	40	5	1573	85.02	-0.08	-10.19
15	SLE RA 9	37	5	1571	85.23	-0.1	-9.29
15	SLE RA 10	36	8	1743	89.44	-0.11	-9.21
15	SLE RA 11	42	9	1745	89.09	-0.08	-10.7
15	SLE RA 12	39	9	1744	89.3	-0.09	-9.8
15	SLE RA 13	36	8	1743	89.44	-0.11	-9.21
15	SLE RA 14	42	9	1745	89.09	-0.08	-10.7
15	SLE RA 15	39	9	1744	89.3	-0.09	-9.8
15	SLE RA 16	42	9	1745	89.09	-0.08	-10.7
15	SLE RA 17	39	9	1744	89.3	-0.09	-9.8
15	SLE RA 18	43	10	1819	90.83	-0.07	-10.92
15	SLE RA 19	40	10	1818	91.04	-0.09	-10.02
15	SLE RA 20	43	10	1819	90.83	-0.07	-10.92
15	SLE RA 21	40	10	1818	91.04	-0.09	-10.02
15	SLE FR 1	40	5	1573	85.02	-0.08	-10.19
15	SLE FR 2	39	5	1572	85.09	-0.09	-9.89
15	SLE FR 3	40	5	1573	85.02	-0.08	-10.19
15	SLE FR 4	40	7	1646	86.83	-0.09	-10.11
15	SLE FR 5	41	7	1647	86.76	-0.08	-10.4
15	SLE FR 6	42	8	1696	87.92	-0.08	-10.55
15	SLE QP 1	40	5	1573	85.02	-0.08	-10.19
15	SLE QP 2	41	7	1647	86.76	-0.08	-10.4
15	SLD 1	169	20	1758	89.77	0.72	-42.55
15	SLD 2	204	17	1759	89.34	0.72	-51.19
15	SLD 3	156	-18	1665	73.73	0.77	-39.17
15	SLD 4	191	-21	1666	73.3	0.77	-47.81
15	SLD 5	88	71	1820	112.14	0.09	-22.12
15	SLD 6	123	68	1821	111.71	0.09	-30.82
15	SLD 7	43	-59	1512	58.68	0.25	-10.85
15	SLD 8	78	-61	1512	58.25	0.25	-19.55
15	SLD 9	4	75	1781	115.27	-0.41	-1.26
15	SLD 10	39	72	1782	114.84	-0.41	-9.96
15	SLD 11	-40	-54	1472	61.82	-0.25	10.01
15	SLD 12	-5	-57	1473	61.39	-0.24	1.31
15	SLD 13	-108	35	1627	100.22	-0.93	27
15	SLD 14	-74	32	1628	99.79	-0.93	18.36
15	SLD 15	-122	-4	1534	84.18	-0.88	30.38
15	SLD 16	-87	-7	1535	83.76	-0.88	21.74
15	SLV 1	333	38	1900	93.93	1.73	-83.58
15	SLV 2	412	31	1902	92.97	1.74	-103.14
15	SLV 3	303	-50	1689	55.89	1.85	-75.88
15	SLV 4	381	-57	1691	54.93	1.85	-95.44
15	SLV 5	147	152	2043	146.95	0.29	-37.13
15	SLV 6	227	145	2045	145.98	0.3	-56.82
15	SLV 7	45	-142	1338	20.15	0.66	-11.46
15	SLV 8	125	-148	1340	19.17	0.67	-31.14
15	SLV 9	-42	161	1954	154.35	-0.83	10.33
15	SLV 10	37	155	1956	153.38	-0.82	-9.35
15	SLV 11	-144	-132	1248	27.54	-0.46	36.01
15	SLV 12	-65	-138	1250	26.57	-0.45	16.32
15	SLV 13	-299	70	1603	118.6	-2.01	74.63
15	SLV 14	-220	64	1605	117.63	-2	55.07
15	SLV 15	-329	-18	1391	80.56	-1.9	82.33
15	SLV 16	-251	-24	1393	79.59	-1.89	62.77
15	CRTFP Ux+	0	0	0	0	0	0
15	CRTFP Ux-	0	0	0	0	0	0
15	CRTFP Uy+	0	0	0	0	0	0

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
15	CRTFP Uy-	0	0	0	0	0	0
16	SLU 1	38	1	1528	95.76	-0.35	-9.56
16	SLU 2	29	1	1526	96.37	-0.4	-7.33
16	SLU 3	38	1	1528	95.76	-0.35	-9.56
16	SLU 4	32	1	1526	96.12	-0.38	-8.22
16	SLU 5	29	1	1526	96.37	-0.4	-7.33
16	SLU 6	38	1	1528	95.76	-0.35	-9.56
16	SLU 7	32	1	1526	96.12	-0.38	-8.22
16	SLU 8	38	1	1528	95.76	-0.35	-9.56
16	SLU 9	32	1	1526	96.12	-0.38	-8.22
16	SLU 10	31	5	1784	105.2	-0.44	-7.98
16	SLU 11	40	5	1786	104.59	-0.39	-10.21
16	SLU 12	35	5	1785	104.95	-0.42	-8.87
16	SLU 13	31	5	1784	105.2	-0.44	-7.98
16	SLU 14	40	5	1786	104.59	-0.39	-10.21
16	SLU 15	35	5	1785	104.95	-0.42	-8.87
16	SLU 16	40	5	1786	104.59	-0.39	-10.21
16	SLU 17	35	5	1785	104.95	-0.42	-8.87
16	SLU 18	41	7	1897	108.37	-0.4	-10.49
16	SLU 19	36	7	1896	108.74	-0.43	-9.15
16	SLU 20	41	7	1897	108.37	-0.4	-10.49
16	SLU 21	36	7	1896	108.74	-0.43	-9.15
16	SLU 22	40	3	1709	102	-0.39	-10.19
16	SLU 23	31	4	1707	102.61	-0.44	-7.95
16	SLU 24	40	3	1709	102	-0.39	-10.19
16	SLU 25	35	4	1708	102.36	-0.42	-8.85
16	SLU 26	31	4	1707	102.61	-0.44	-7.95
16	SLU 27	40	3	1709	102	-0.39	-10.19
16	SLU 28	35	4	1708	102.36	-0.42	-8.85
16	SLU 29	40	3	1709	102	-0.39	-10.19
16	SLU 30	35	4	1708	102.36	-0.42	-8.85
16	SLU 31	34	8	1966	111.44	-0.48	-8.6
16	SLU 32	43	8	1968	110.83	-0.43	-10.83
16	SLU 33	37	8	1966	111.19	-0.46	-9.49
16	SLU 34	34	8	1966	111.44	-0.48	-8.6
16	SLU 35	43	8	1968	110.83	-0.43	-10.83
16	SLU 36	37	8	1966	111.19	-0.46	-9.49
16	SLU 37	43	8	1968	110.83	-0.43	-10.83
16	SLU 38	37	8	1966	111.19	-0.46	-9.49
16	SLU 39	44	10	2079	114.61	-0.45	-11.11
16	SLU 40	38	10	2077	114.98	-0.48	-9.77
16	SLU 41	44	10	2079	114.61	-0.45	-11.11
16	SLU 42	38	10	2077	114.98	-0.48	-9.77
16	SLU 43	48	0	1924	122.34	-0.44	-12.22
16	SLU 44	39	0	1922	122.95	-0.49	-9.99
16	SLU 45	48	0	1924	122.34	-0.44	-12.22
16	SLU 46	43	0	1923	122.71	-0.47	-10.88
16	SLU 47	39	0	1922	122.95	-0.49	-9.99
16	SLU 48	48	0	1924	122.34	-0.44	-12.22
16	SLU 49	43	0	1923	122.71	-0.47	-10.88
16	SLU 50	48	0	1924	122.34	-0.44	-12.22
16	SLU 51	43	0	1923	122.71	-0.47	-10.88
16	SLU 52	42	5	2181	131.78	-0.52	-10.63
16	SLU 53	51	5	2183	131.17	-0.47	-12.86
16	SLU 54	45	5	2181	131.54	-0.5	-11.52
16	SLU 55	42	5	2181	131.78	-0.52	-10.63
16	SLU 56	51	5	2183	131.17	-0.47	-12.86
16	SLU 57	45	5	2181	131.54	-0.5	-11.52
16	SLU 58	51	5	2183	131.17	-0.47	-12.86
16	SLU 59	45	5	2181	131.54	-0.5	-11.52
16	SLU 60	52	7	2294	134.96	-0.49	-13.14
16	SLU 61	46	7	2292	135.32	-0.52	-11.8
16	SLU 62	52	7	2294	134.96	-0.49	-13.14
16	SLU 63	46	7	2292	135.32	-0.52	-11.8
16	SLU 64	51	3	2105	128.59	-0.48	-12.84
16	SLU 65	42	3	2103	129.2	-0.53	-10.61
16	SLU 66	51	3	2105	128.59	-0.48	-12.84
16	SLU 67	45	3	2104	128.95	-0.51	-11.5
16	SLU 68	42	3	2103	129.2	-0.53	-10.61
16	SLU 69	51	3	2105	128.59	-0.48	-12.84
16	SLU 70	45	3	2104	128.95	-0.51	-11.5
16	SLU 71	51	3	2105	128.59	-0.48	-12.84
16	SLU 72	45	3	2104	128.95	-0.51	-11.5
16	SLU 73	44	7	2362	138.02	-0.57	-11.26
16	SLU 74	53	7	2364	137.42	-0.52	-13.49
16	SLU 75	48	7	2363	137.78	-0.55	-12.15
16	SLU 76	44	7	2362	138.02	-0.57	-11.26
16	SLU 77	53	7	2364	137.42	-0.52	-13.49
16	SLU 78	48	7	2363	137.78	-0.55	-12.15
16	SLU 79	53	7	2364	137.42	-0.52	-13.49
16	SLU 80	48	7	2363	137.78	-0.55	-12.15
16	SLU 81	54	9	2475	141.2	-0.54	-13.76
16	SLU 82	49	9	2473	141.56	-0.57	-12.43
16	SLU 83	54	9	2475	141.2	-0.54	-13.76
16	SLU 84	49	9	2473	141.56	-0.57	-12.43
16	SLE RA 1	38	2	1579	97.54	-0.36	-9.74

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
16	SLE RA 2	32	2	1578	97.95	-0.39	-8.25
16	SLE RA 3	38	2	1579	97.54	-0.36	-9.74
16	SLE RA 4	35	2	1579	97.78	-0.38	-8.85
16	SLE RA 5	32	2	1578	97.95	-0.39	-8.25
16	SLE RA 6	38	2	1579	97.54	-0.36	-9.74
16	SLE RA 7	35	2	1579	97.78	-0.38	-8.85
16	SLE RA 8	38	2	1579	97.54	-0.36	-9.74
16	SLE RA 9	35	2	1579	97.78	-0.38	-8.85
16	SLE RA 10	34	5	1751	103.83	-0.42	-8.68
16	SLE RA 11	40	5	1752	103.43	-0.39	-10.17
16	SLE RA 12	36	5	1751	103.67	-0.41	-9.28
16	SLE RA 13	34	5	1751	103.83	-0.42	-8.68
16	SLE RA 14	40	5	1752	103.43	-0.39	-10.17
16	SLE RA 15	36	5	1751	103.67	-0.41	-9.28
16	SLE RA 16	40	5	1752	103.43	-0.39	-10.17
16	SLE RA 17	36	5	1751	103.67	-0.41	-9.28
16	SLE RA 18	41	6	1826	105.95	-0.4	-10.36
16	SLE RA 19	37	6	1825	106.19	-0.42	-9.46
16	SLE RA 20	41	6	1826	105.95	-0.4	-10.36
16	SLE RA 21	37	6	1825	106.19	-0.42	-9.46
16	SLE FR 1	38	2	1579	97.54	-0.36	-9.74
16	SLE FR 2	37	2	1579	97.62	-0.37	-9.44
16	SLE FR 3	38	2	1579	97.54	-0.36	-9.74
16	SLE FR 4	38	3	1653	100.14	-0.38	-9.63
16	SLE FR 5	39	3	1653	100.06	-0.37	-9.92
16	SLE FR 6	40	4	1703	101.75	-0.38	-10.05
16	SLE QP 1	38	2	1579	97.54	-0.36	-9.74
16	SLE QP 2	39	3	1653	100.06	-0.37	-9.92
16	SLD 1	167	15	1741	101.53	0.42	-41.99
16	SLD 2	202	14	1742	100.89	0.42	-50.61
16	SLD 3	154	-23	1647	86.72	0.51	-38.61
16	SLD 4	188	-25	1648	86.09	0.52	-47.23
16	SLD 5	86	65	1822	123.19	-0.28	-21.62
16	SLD 6	121	64	1823	122.55	-0.28	-30.3
16	SLD 7	41	-63	1509	73.82	0.04	-10.36
16	SLD 8	75	-64	1509	73.19	0.04	-19.04
16	SLD 9	3	70	1797	126.94	-0.79	-0.81
16	SLD 10	38	69	1798	126.3	-0.78	-9.49
16	SLD 11	-43	-58	1484	77.58	-0.47	10.45
16	SLD 12	-8	-59	1485	76.94	-0.46	1.77
16	SLD 13	-110	30	1659	114.04	-1.26	27.38
16	SLD 14	-75	29	1660	113.41	-1.26	18.76
16	SLD 15	-124	-8	1565	99.23	-1.17	30.76
16	SLD 16	-89	-9	1565	98.6	-1.16	22.14
16	SLV 1	330	31	1854	103.81	1.42	-82.91
16	SLV 2	409	28	1855	102.38	1.43	-102.43
16	SLV 3	300	-57	1639	68.61	1.64	-75.21
16	SLV 4	378	-59	1641	67.18	1.65	-94.74
16	SLV 5	146	145	2039	155.08	-0.17	-36.59
16	SLV 6	225	142	2040	153.64	-0.16	-56.24
16	SLV 7	43	-146	1323	37.75	0.56	-10.94
16	SLV 8	122	-149	1324	36.3	0.57	-30.6
16	SLV 9	-44	155	1982	163.82	-1.32	10.75
16	SLV 10	36	152	1984	162.38	-1.3	-8.91
16	SLV 11	-147	-136	1266	46.49	-0.59	36.39
16	SLV 12	-67	-139	1268	45.04	-0.57	16.74
16	SLV 13	-300	65	1666	132.95	-2.4	74.89
16	SLV 14	-221	62	1668	131.52	-2.38	55.36
16	SLV 15	-331	-22	1451	97.75	-2.18	82.58
16	SLV 16	-252	-25	1453	96.31	-2.16	63.06
16	CRTFP Ux+	0	0	0	0	0	0
16	CRTFP Ux-	0	0	0	0	0	0
16	CRTFP Uy+	0	0	0	0	0	0
16	CRTFP Uy-	0	0	0	0	0	0
17	SLU 1	36	-4	1543	114.43	-0.65	-9.13
17	SLU 2	27	-4	1542	115.15	-0.7	-6.9
17	SLU 3	36	-4	1543	114.43	-0.65	-9.13
17	SLU 4	30	-4	1542	114.86	-0.68	-7.79
17	SLU 5	27	-4	1542	115.15	-0.7	-6.9
17	SLU 6	36	-4	1543	114.43	-0.65	-9.13
17	SLU 7	30	-4	1542	114.86	-0.68	-7.79
17	SLU 8	36	-4	1543	114.43	-0.65	-9.13
17	SLU 9	30	-4	1542	114.86	-0.68	-7.79
17	SLU 10	29	0	1803	128	-0.79	-7.43
17	SLU 11	38	-1	1803	127.28	-0.74	-9.65
17	SLU 12	32	-1	1803	127.71	-0.77	-8.32
17	SLU 13	29	0	1803	128	-0.79	-7.43
17	SLU 14	38	-1	1803	127.28	-0.74	-9.65
17	SLU 15	32	-1	1803	127.71	-0.77	-8.32
17	SLU 16	38	-1	1803	127.28	-0.74	-9.65
17	SLU 17	32	-1	1803	127.71	-0.77	-8.32
17	SLU 18	39	1	1915	132.79	-0.78	-9.88
17	SLU 19	33	1	1915	133.22	-0.81	-8.54
17	SLU 20	39	1	1915	132.79	-0.78	-9.88
17	SLU 21	33	1	1915	133.22	-0.81	-8.54
17	SLU 22	38	-2	1726	123.57	-0.74	-9.67

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
17	SLU 23	29	-2	1725	124.28	-0.79	-7.45
17	SLU 24	38	-2	1726	123.57	-0.74	-9.67
17	SLU 25	33	-2	1725	124	-0.77	-8.34
17	SLU 26	29	-2	1725	124.28	-0.79	-7.45
17	SLU 27	38	-2	1726	123.57	-0.74	-9.67
17	SLU 28	33	-2	1725	124	-0.77	-8.34
17	SLU 29	38	-2	1726	123.57	-0.74	-9.67
17	SLU 30	33	-2	1725	124	-0.77	-8.34
17	SLU 31	31	2	1986	137.14	-0.88	-7.98
17	SLU 32	40	1	1986	136.42	-0.83	-10.2
17	SLU 33	34	1	1986	136.85	-0.86	-8.87
17	SLU 34	31	2	1986	137.14	-0.88	-7.98
17	SLU 35	40	1	1986	136.42	-0.83	-10.2
17	SLU 36	34	1	1986	136.85	-0.86	-8.87
17	SLU 37	40	1	1986	136.42	-0.83	-10.2
17	SLU 38	34	1	1986	136.85	-0.86	-8.87
17	SLU 39	41	3	2098	141.93	-0.87	-10.43
17	SLU 40	35	3	2098	142.36	-0.9	-9.09
17	SLU 41	41	3	2098	141.93	-0.87	-10.43
17	SLU 42	35	3	2098	142.36	-0.9	-9.09
17	SLU 43	46	-6	1942	145.63	-0.82	-11.67
17	SLU 44	37	-6	1942	146.34	-0.87	-9.45
17	SLU 45	46	-6	1942	145.63	-0.82	-11.67
17	SLU 46	40	-6	1942	146.06	-0.85	-10.34
17	SLU 47	37	-6	1942	146.34	-0.87	-9.45
17	SLU 48	46	-6	1942	145.63	-0.82	-11.67
17	SLU 49	40	-6	1942	146.06	-0.85	-10.34
17	SLU 50	46	-6	1942	145.63	-0.82	-11.67
17	SLU 51	40	-6	1942	146.06	-0.85	-10.34
17	SLU 52	39	-2	2203	159.2	-0.96	-9.98
17	SLU 53	48	-3	2203	158.48	-0.91	-12.2
17	SLU 54	42	-3	2203	158.91	-0.94	-10.87
17	SLU 55	39	-2	2203	159.2	-0.96	-9.98
17	SLU 56	48	-3	2203	158.48	-0.91	-12.2
17	SLU 57	42	-3	2203	158.91	-0.94	-10.87
17	SLU 58	48	-3	2203	158.48	-0.91	-12.2
17	SLU 59	42	-3	2203	158.91	-0.94	-10.87
17	SLU 60	49	-1	2315	163.99	-0.95	-12.43
17	SLU 61	43	-1	2315	164.42	-0.98	-11.09
17	SLU 62	49	-1	2315	163.99	-0.95	-12.43
17	SLU 63	43	-1	2315	164.42	-0.98	-11.09
17	SLU 64	48	-4	2126	154.76	-0.91	-12.22
17	SLU 65	39	-4	2125	155.48	-0.96	-10
17	SLU 66	48	-4	2126	154.76	-0.91	-12.22
17	SLU 67	42	-4	2125	155.19	-0.94	-10.89
17	SLU 68	39	-4	2125	155.48	-0.96	-10
17	SLU 69	48	-4	2126	154.76	-0.91	-12.22
17	SLU 70	42	-4	2125	155.19	-0.94	-10.89
17	SLU 71	48	-4	2126	154.76	-0.91	-12.22
17	SLU 72	42	-4	2125	155.19	-0.94	-10.89
17	SLU 73	41	0	2386	168.33	-1.05	-10.53
17	SLU 74	50	-1	2386	167.62	-1	-12.75
17	SLU 75	44	-1	2386	168.05	-1.03	-11.42
17	SLU 76	41	0	2386	168.33	-1.05	-10.53
17	SLU 77	50	-1	2386	167.62	-1	-12.75
17	SLU 78	44	-1	2386	168.05	-1.03	-11.42
17	SLU 79	50	-1	2386	167.62	-1	-12.75
17	SLU 80	44	-1	2386	168.05	-1.03	-11.42
17	SLU 81	51	1	2498	173.13	-1.04	-12.98
17	SLU 82	45	1	2498	173.56	-1.07	-11.64
17	SLU 83	51	1	2498	173.13	-1.04	-12.98
17	SLU 84	45	1	2498	173.56	-1.07	-11.64
17	SLE RA 1	36	-4	1595	117.04	-0.68	-9.28
17	SLE RA 2	30	-3	1594	117.52	-0.71	-7.8
17	SLE RA 3	36	-4	1595	117.04	-0.68	-9.28
17	SLE RA 4	33	-4	1595	117.33	-0.7	-8.39
17	SLE RA 5	30	-3	1594	117.52	-0.71	-7.8
17	SLE RA 6	36	-4	1595	117.04	-0.68	-9.28
17	SLE RA 7	33	-4	1595	117.33	-0.7	-8.39
17	SLE RA 8	36	-4	1595	117.04	-0.68	-9.28
17	SLE RA 9	33	-4	1595	117.33	-0.7	-8.39
17	SLE RA 10	32	-1	1768	126.09	-0.77	-8.15
17	SLE RA 11	38	-1	1769	125.61	-0.74	-9.63
17	SLE RA 12	34	-1	1768	125.9	-0.76	-8.74
17	SLE RA 13	32	-1	1768	126.09	-0.77	-8.15
17	SLE RA 14	38	-1	1769	125.61	-0.74	-9.63
17	SLE RA 15	34	-1	1768	125.9	-0.76	-8.74
17	SLE RA 16	38	-1	1769	125.61	-0.74	-9.63
17	SLE RA 17	34	-1	1768	125.9	-0.76	-8.74
17	SLE RA 18	38	0	1843	129.28	-0.76	-9.78
17	SLE RA 19	35	0	1843	129.57	-0.78	-8.89
17	SLE RA 20	38	0	1843	129.28	-0.76	-9.78
17	SLE RA 21	35	0	1843	129.57	-0.78	-8.89
17	SLE FR 1	36	-4	1595	117.04	-0.68	-9.28
17	SLE FR 2	35	-4	1595	117.14	-0.68	-8.99
17	SLE FR 3	36	-4	1595	117.04	-0.68	-9.28

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
17	SLE FR 4	36	-3	1669	120.81	-0.71	-9.14
17	SLE FR 5	37	-3	1669	120.71	-0.7	-9.43
17	SLE FR 6	37	-2	1719	123.16	-0.72	-9.53
17	SLE QP 1	36	-4	1595	117.04	-0.68	-9.28
17	SLE QP 2	37	-3	1669	120.71	-0.7	-9.43
17	SLD 1	165	9	1735	119.51	0.09	-41.39
17	SLD 2	199	9	1736	118.65	0.1	-49.99
17	SLD 3	151	-31	1638	106.62	0.23	-38.02
17	SLD 4	185	-30	1639	105.76	0.24	-46.62
17	SLD 5	84	60	1836	140.22	-0.69	-21.1
17	SLD 6	119	60	1836	139.35	-0.68	-29.76
17	SLD 7	38	-71	1513	97.23	-0.2	-9.85
17	SLD 8	73	-70	1513	96.36	-0.19	-18.51
17	SLD 9	1	65	1825	145.07	-1.21	-0.35
17	SLD 10	36	65	1826	144.2	-1.21	-9.02
17	SLD 11	-45	-66	1502	102.07	-0.72	10.89
17	SLD 12	-10	-65	1503	101.21	-0.71	2.23
17	SLD 13	-112	25	1700	135.67	-1.65	27.75
17	SLD 14	-77	25	1700	134.81	-1.64	19.15
17	SLD 15	-125	-14	1603	122.77	-1.5	31.12
17	SLD 16	-91	-14	1603	121.91	-1.49	22.52
17	SLV 1	328	23	1820	118.49	1.09	-82.18
17	SLV 2	406	23	1821	116.54	1.11	-101.65
17	SLV 3	296	-67	1599	87.69	1.43	-74.49
17	SLV 4	375	-66	1600	85.74	1.45	-93.97
17	SLV 5	144	140	2049	167.44	-0.68	-36.03
17	SLV 6	223	140	2051	165.48	-0.67	-55.63
17	SLV 7	40	-157	1312	64.79	0.44	-10.42
17	SLV 8	119	-157	1314	62.83	0.46	-30.02
17	SLV 9	-45	151	2025	178.6	-1.87	11.15
17	SLV 10	34	152	2026	176.63	-1.85	-8.45
17	SLV 11	-149	-146	1288	75.95	-0.74	36.77
17	SLV 12	-70	-145	1289	73.98	-0.72	17.16
17	SLV 13	-301	61	1739	155.68	-2.85	75.1
17	SLV 14	-223	61	1740	153.73	-2.84	55.63
17	SLV 15	-332	-28	1517	124.89	-2.52	82.79
17	SLV 16	-254	-28	1519	122.94	-2.5	63.31
17	CRTFP Ux+	0	0	0	0	0	0
17	CRTFP Ux-	0	0	0	0	0	0
17	CRTFP Uy+	0	0	0	0	0	0
17	CRTFP Uy-	0	0	0	0	0	0
18	SLU 1	34	-11	1567	140.79	-1	-8.68
18	SLU 2	25	-10	1568	141.66	-1.06	-6.46
18	SLU 3	34	-11	1567	140.79	-1	-8.68
18	SLU 4	28	-10	1568	141.31	-1.04	-7.35
18	SLU 5	25	-10	1568	141.66	-1.06	-6.46
18	SLU 6	34	-11	1567	140.79	-1	-8.68
18	SLU 7	28	-10	1568	141.31	-1.04	-7.35
18	SLU 8	34	-11	1567	140.79	-1	-8.68
18	SLU 9	28	-10	1568	141.31	-1.04	-7.35
18	SLU 10	26	-8	1832	159.97	-1.21	-6.88
18	SLU 11	35	-8	1831	159.11	-1.15	-9.09
18	SLU 12	30	-8	1832	159.63	-1.19	-7.76
18	SLU 13	26	-8	1832	159.97	-1.21	-6.88
18	SLU 14	35	-8	1831	159.11	-1.15	-9.09
18	SLU 15	30	-8	1832	159.63	-1.19	-7.76
18	SLU 16	35	-8	1831	159.11	-1.15	-9.09
18	SLU 17	30	-8	1832	159.63	-1.19	-7.76
18	SLU 18	36	-7	1945	166.95	-1.22	-9.27
18	SLU 19	31	-7	1945	167.47	-1.25	-7.94
18	SLU 20	36	-7	1945	166.95	-1.22	-9.27
18	SLU 21	31	-7	1945	167.47	-1.25	-7.94
18	SLU 22	36	-9	1754	153.87	-1.14	-9.16
18	SLU 23	27	-9	1755	154.74	-1.19	-6.94
18	SLU 24	36	-9	1754	153.87	-1.14	-9.16
18	SLU 25	30	-9	1754	154.39	-1.17	-7.83
18	SLU 26	27	-9	1755	154.74	-1.19	-6.94
18	SLU 27	36	-9	1754	153.87	-1.14	-9.16
18	SLU 28	30	-9	1754	154.39	-1.17	-7.83
18	SLU 29	36	-9	1754	153.87	-1.14	-9.16
18	SLU 30	30	-9	1754	154.39	-1.17	-7.83
18	SLU 31	28	-7	2019	173.05	-1.34	-7.35
18	SLU 32	37	-7	2018	172.18	-1.29	-9.57
18	SLU 33	32	-7	2018	172.7	-1.32	-8.24
18	SLU 34	28	-7	2019	173.05	-1.34	-7.35
18	SLU 35	37	-7	2018	172.18	-1.29	-9.57
18	SLU 36	32	-7	2018	172.7	-1.32	-8.24
18	SLU 37	37	-7	2018	172.18	-1.29	-9.57
18	SLU 38	32	-7	2018	172.7	-1.32	-8.24
18	SLU 39	38	-6	2131	180.03	-1.35	-9.74
18	SLU 40	32	-6	2132	180.55	-1.38	-8.41
18	SLU 41	38	-6	2131	180.03	-1.35	-9.74
18	SLU 42	32	-6	2132	180.55	-1.38	-8.41
18	SLU 43	43	-14	1973	178.55	-1.26	-11.12
18	SLU 44	34	-14	1974	179.42	-1.31	-8.91
18	SLU 45	43	-14	1973	178.55	-1.26	-11.12

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
18	SLU 46	38	-14	1974	179.07	-1.29	-9.79
18	SLU 47	34	-14	1974	179.42	-1.31	-8.91
18	SLU 48	43	-14	1973	178.55	-1.26	-11.12
18	SLU 49	38	-14	1974	179.07	-1.29	-9.79
18	SLU 50	43	-14	1973	178.55	-1.26	-11.12
18	SLU 51	38	-14	1974	179.07	-1.29	-9.79
18	SLU 52	36	-12	2239	197.73	-1.46	-9.32
18	SLU 53	45	-12	2238	196.86	-1.41	-11.53
18	SLU 54	39	-12	2238	197.38	-1.44	-10.2
18	SLU 55	36	-12	2239	197.73	-1.46	-9.32
18	SLU 56	45	-12	2238	196.86	-1.41	-11.53
18	SLU 57	39	-12	2238	197.38	-1.44	-10.2
18	SLU 58	45	-12	2238	196.86	-1.41	-11.53
18	SLU 59	39	-12	2238	197.38	-1.44	-10.2
18	SLU 60	45	-11	2351	204.71	-1.47	-11.71
18	SLU 61	40	-11	2351	205.23	-1.51	-10.38
18	SLU 62	45	-11	2351	204.71	-1.47	-11.71
18	SLU 63	40	-11	2351	205.23	-1.51	-10.38
18	SLU 64	45	-13	2160	191.62	-1.39	-11.6
18	SLU 65	36	-13	2161	192.49	-1.45	-9.38
18	SLU 66	45	-13	2160	191.62	-1.39	-11.6
18	SLU 67	40	-13	2160	192.14	-1.43	-10.27
18	SLU 68	36	-13	2161	192.49	-1.45	-9.38
18	SLU 69	45	-13	2160	191.62	-1.39	-11.6
18	SLU 70	40	-13	2160	192.14	-1.43	-10.27
18	SLU 71	45	-13	2160	191.62	-1.39	-11.6
18	SLU 72	40	-13	2160	192.14	-1.43	-10.27
18	SLU 73	38	-10	2425	210.8	-1.6	-9.79
18	SLU 74	47	-11	2424	209.93	-1.54	-12.01
18	SLU 75	41	-10	2425	210.46	-1.57	-10.68
18	SLU 76	38	-10	2425	210.8	-1.6	-9.79
18	SLU 77	47	-11	2424	209.93	-1.54	-12.01
18	SLU 78	41	-10	2425	210.46	-1.57	-10.68
18	SLU 79	47	-11	2424	209.93	-1.54	-12.01
18	SLU 80	41	-10	2425	210.46	-1.57	-10.68
18	SLU 81	47	-10	2537	217.78	-1.61	-12.18
18	SLU 82	42	-9	2538	218.3	-1.64	-10.85
18	SLU 83	47	-10	2537	217.78	-1.61	-12.18
18	SLU 84	42	-9	2538	218.3	-1.64	-10.85
18	SLE RA 1	34	-10	1620	144.53	-1.04	-8.82
18	SLE RA 2	28	-10	1621	145.11	-1.08	-7.34
18	SLE RA 3	34	-10	1620	144.53	-1.04	-8.82
18	SLE RA 4	31	-10	1621	144.88	-1.06	-7.93
18	SLE RA 5	28	-10	1621	145.11	-1.08	-7.34
18	SLE RA 6	34	-10	1620	144.53	-1.04	-8.82
18	SLE RA 7	31	-10	1621	144.88	-1.06	-7.93
18	SLE RA 8	34	-10	1620	144.53	-1.04	-8.82
18	SLE RA 9	31	-10	1621	144.88	-1.06	-7.93
18	SLE RA 10	29	-8	1797	157.32	-1.18	-7.61
18	SLE RA 11	35	-9	1797	156.74	-1.14	-9.09
18	SLE RA 12	32	-9	1797	157.08	-1.16	-8.2
18	SLE RA 13	29	-8	1797	157.32	-1.18	-7.61
18	SLE RA 14	35	-9	1797	156.74	-1.14	-9.09
18	SLE RA 15	32	-9	1797	157.08	-1.16	-8.2
18	SLE RA 16	35	-9	1797	156.74	-1.14	-9.09
18	SLE RA 17	32	-9	1797	157.08	-1.16	-8.2
18	SLE RA 18	36	-8	1872	161.97	-1.18	-9.21
18	SLE RA 19	32	-8	1873	162.32	-1.21	-8.32
18	SLE RA 20	36	-8	1872	161.97	-1.18	-9.21
18	SLE RA 21	32	-8	1873	162.32	-1.21	-8.32
18	SLE FR 1	34	-10	1620	144.53	-1.04	-8.82
18	SLE FR 2	33	-10	1621	144.64	-1.05	-8.52
18	SLE FR 3	34	-10	1620	144.53	-1.04	-8.82
18	SLE FR 4	34	-9	1696	149.88	-1.09	-8.64
18	SLE FR 5	35	-10	1696	149.76	-1.09	-8.93
18	SLE FR 6	35	-9	1746	153.25	-1.11	-9.01
18	SLE QP 1	34	-10	1620	144.53	-1.04	-8.82
18	SLE QP 2	35	-10	1696	149.76	-1.09	-8.93
18	SLD 1	162	1	1731	144.83	-0.28	-40.77
18	SLD 2	197	3	1731	143.75	-0.28	-49.34
18	SLD 3	148	-40	1629	134.21	-0.08	-37.39
18	SLD 4	183	-38	1630	133.13	-0.07	-45.97
18	SLD 5	82	56	1860	164.78	-1.15	-20.56
18	SLD 6	116	57	1860	163.69	-1.15	-29.2
18	SLD 7	36	-82	1522	129.36	-0.48	-9.33
18	SLD 8	70	-80	1523	128.27	-0.47	-17.96
18	SLD 9	-1	61	1869	171.25	-1.7	0.1
18	SLD 10	34	63	1870	170.16	-1.69	-8.54
18	SLD 11	-47	-76	1532	135.83	-1.02	11.33
18	SLD 12	-12	-75	1532	134.74	-1.02	2.7
18	SLD 13	-113	19	1762	166.4	-2.1	28.1
18	SLD 14	-79	21	1762	165.31	-2.09	19.53
18	SLD 15	-127	-22	1661	155.77	-1.89	31.47
18	SLD 16	-93	-20	1661	154.69	-1.89	22.9
18	SLV 1	325	14	1775	139.11	0.74	-81.4
18	SLV 2	403	18	1776	136.65	0.75	-100.8

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
18	SLV 3	293	-79	1544	113.56	1.2	-73.72
18	SLV 4	371	-75	1545	111.11	1.21	-93.13
18	SLV 5	142	138	2069	186.18	-1.24	-35.46
18	SLV 6	220	142	2070	183.71	-1.23	-55
18	SLV 7	37	-174	1300	101.02	0.29	-9.87
18	SLV 8	116	-170	1301	98.55	0.31	-29.4
18	SLV 9	-46	151	2091	200.97	-2.48	11.54
18	SLV 10	33	155	2092	198.51	-2.46	-8
18	SLV 11	-151	-161	1322	115.81	-0.94	37.13
18	SLV 12	-72	-157	1323	113.34	-0.93	17.59
18	SLV 13	-302	56	1847	188.42	-3.38	75.26
18	SLV 14	-224	60	1848	185.96	-3.37	55.85
18	SLV 15	-333	-38	1616	162.87	-2.92	82.94
18	SLV 16	-255	-33	1617	160.42	-2.91	63.53
18	CRTFP Ux+	0	0	0	0	0	0
18	CRTFP Ux-	0	0	0	0	0	0
18	CRTFP Uy+	0	0	0	0	0	0
18	CRTFP Uy-	0	0	0	0	0	0
19	SLU 1	32	-18	1603	175.99	-1.39	-8.23
19	SLU 2	23	-17	1606	177.05	-1.45	-6.02
19	SLU 3	32	-18	1603	175.99	-1.39	-8.23
19	SLU 4	27	-17	1604	176.63	-1.43	-6.9
19	SLU 5	23	-17	1606	177.05	-1.45	-6.02
19	SLU 6	32	-18	1603	175.99	-1.39	-8.23
19	SLU 7	27	-17	1604	176.63	-1.43	-6.9
19	SLU 8	32	-18	1603	175.99	-1.39	-8.23
19	SLU 9	27	-17	1604	176.63	-1.43	-6.9
19	SLU 10	24	-17	1875	202.37	-1.66	-6.32
19	SLU 11	33	-17	1873	201.3	-1.6	-8.52
19	SLU 12	28	-17	1874	201.94	-1.64	-7.2
19	SLU 13	24	-17	1875	202.37	-1.66	-6.32
19	SLU 14	33	-17	1873	201.3	-1.6	-8.52
19	SLU 15	28	-17	1874	201.94	-1.64	-7.2
19	SLU 16	33	-17	1873	201.3	-1.6	-8.52
19	SLU 17	28	-17	1874	201.94	-1.64	-7.2
19	SLU 18	33	-17	1988	212.15	-1.69	-8.65
19	SLU 19	28	-16	1990	212.79	-1.73	-7.33
19	SLU 20	33	-17	1988	212.15	-1.69	-8.65
19	SLU 21	28	-16	1990	212.79	-1.73	-7.33
19	SLU 22	33	-17	1794	194.12	-1.57	-8.63
19	SLU 23	25	-17	1797	195.19	-1.63	-6.43
19	SLU 24	33	-17	1794	194.12	-1.57	-8.63
19	SLU 25	28	-17	1796	194.76	-1.61	-7.31
19	SLU 26	25	-17	1797	195.19	-1.63	-6.43
19	SLU 27	33	-17	1794	194.12	-1.57	-8.63
19	SLU 28	28	-17	1796	194.76	-1.61	-7.31
19	SLU 29	33	-17	1794	194.12	-1.57	-8.63
19	SLU 30	28	-17	1796	194.76	-1.61	-7.31
19	SLU 31	26	-16	2066	220.5	-1.84	-6.73
19	SLU 32	34	-17	2064	219.44	-1.78	-8.93
19	SLU 33	29	-16	2065	220.08	-1.82	-7.61
19	SLU 34	26	-16	2066	220.5	-1.84	-6.73
19	SLU 35	34	-17	2064	219.44	-1.78	-8.93
19	SLU 36	29	-16	2065	220.08	-1.82	-7.61
19	SLU 37	34	-17	2064	219.44	-1.78	-8.93
19	SLU 38	29	-16	2065	220.08	-1.82	-7.61
19	SLU 39	35	-16	2179	230.29	-1.87	-9.06
19	SLU 40	30	-16	2181	230.93	-1.91	-7.74
19	SLU 41	35	-16	2179	230.29	-1.87	-9.06
19	SLU 42	30	-16	2181	230.93	-1.91	-7.74
19	SLU 43	41	-23	2018	222.56	-1.75	-10.55
19	SLU 44	32	-23	2021	223.63	-1.81	-8.35
19	SLU 45	41	-23	2018	222.56	-1.75	-10.55
19	SLU 46	36	-23	2020	223.2	-1.78	-9.23
19	SLU 47	32	-23	2021	223.63	-1.81	-8.35
19	SLU 48	41	-23	2018	222.56	-1.75	-10.55
19	SLU 49	36	-23	2020	223.2	-1.78	-9.23
19	SLU 50	41	-23	2018	222.56	-1.75	-10.55
19	SLU 51	36	-23	2020	223.2	-1.78	-9.23
19	SLU 52	33	-22	2291	248.94	-2.02	-8.65
19	SLU 53	42	-22	2288	247.88	-1.96	-10.85
19	SLU 54	37	-22	2289	248.52	-1.99	-9.53
19	SLU 55	33	-22	2291	248.94	-2.02	-8.65
19	SLU 56	42	-22	2288	247.88	-1.96	-10.85
19	SLU 57	37	-22	2289	248.52	-1.99	-9.53
19	SLU 58	42	-22	2288	247.88	-1.96	-10.85
19	SLU 59	37	-22	2289	248.52	-1.99	-9.53
19	SLU 60	42	-22	2403	258.73	-2.05	-10.98
19	SLU 61	37	-22	2405	259.37	-2.08	-9.66
19	SLU 62	42	-22	2403	258.73	-2.05	-10.98
19	SLU 63	37	-22	2405	259.37	-2.08	-9.66
19	SLU 64	42	-23	2209	240.7	-1.93	-10.96
19	SLU 65	34	-22	2212	241.77	-1.99	-8.76
19	SLU 66	42	-23	2209	240.7	-1.93	-10.96
19	SLU 67	37	-23	2211	241.34	-1.96	-9.64
19	SLU 68	34	-22	2212	241.77	-1.99	-8.76

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
19	SLU 69	42	-23	2209	240.7	-1.93	-10.96
19	SLU 70	37	-23	2211	241.34	-1.96	-9.64
19	SLU 71	42	-23	2209	240.7	-1.93	-10.96
19	SLU 72	37	-23	2211	241.34	-1.96	-9.64
19	SLU 73	35	-22	2482	267.08	-2.2	-9.06
19	SLU 74	43	-22	2479	266.02	-2.14	-11.26
19	SLU 75	38	-22	2481	266.66	-2.17	-9.94
19	SLU 76	35	-22	2482	267.08	-2.2	-9.06
19	SLU 77	43	-22	2479	266.02	-2.14	-11.26
19	SLU 78	38	-22	2481	266.66	-2.17	-9.94
19	SLU 79	43	-22	2479	266.02	-2.14	-11.26
19	SLU 80	38	-22	2481	266.66	-2.17	-9.94
19	SLU 81	44	-22	2595	276.87	-2.23	-11.39
19	SLU 82	39	-21	2596	277.51	-2.26	-10.07
19	SLU 83	44	-22	2595	276.87	-2.23	-11.39
19	SLU 84	39	-21	2596	277.51	-2.26	-10.07
19	SLE RA 1	32	-18	1657	181.17	-1.45	-8.34
19	SLE RA 2	26	-17	1659	181.88	-1.48	-6.87
19	SLE RA 3	32	-18	1657	181.17	-1.45	-8.34
19	SLE RA 4	29	-17	1659	181.6	-1.47	-7.46
19	SLE RA 5	26	-17	1659	181.88	-1.48	-6.87
19	SLE RA 6	32	-18	1657	181.17	-1.45	-8.34
19	SLE RA 7	29	-17	1659	181.6	-1.47	-7.46
19	SLE RA 8	32	-18	1657	181.17	-1.45	-8.34
19	SLE RA 9	29	-17	1659	181.6	-1.47	-7.46
19	SLE RA 10	27	-17	1839	198.76	-1.62	-7.07
19	SLE RA 11	33	-17	1837	198.05	-1.59	-8.54
19	SLE RA 12	29	-17	1838	198.47	-1.61	-7.66
19	SLE RA 13	27	-17	1839	198.76	-1.62	-7.07
19	SLE RA 14	33	-17	1837	198.05	-1.59	-8.54
19	SLE RA 15	29	-17	1838	198.47	-1.61	-7.66
19	SLE RA 16	33	-17	1837	198.05	-1.59	-8.54
19	SLE RA 17	29	-17	1838	198.47	-1.61	-7.66
19	SLE RA 18	33	-17	1914	205.28	-1.65	-8.63
19	SLE RA 19	30	-17	1915	205.7	-1.67	-7.75
19	SLE RA 20	33	-17	1914	205.28	-1.65	-8.63
19	SLE RA 21	30	-17	1915	205.7	-1.67	-7.75
19	SLE FR 1	32	-18	1657	181.17	-1.45	-8.34
19	SLE FR 2	31	-18	1658	181.31	-1.45	-8.05
19	SLE FR 3	32	-18	1657	181.17	-1.45	-8.34
19	SLE FR 4	31	-17	1735	188.54	-1.51	-8.13
19	SLE FR 5	33	-17	1735	188.4	-1.51	-8.43
19	SLE FR 6	33	-17	1786	193.22	-1.55	-8.48
19	SLE QP 1	32	-18	1657	181.17	-1.45	-8.34
19	SLE QP 2	33	-17	1735	188.4	-1.51	-8.43
19	SLD 1	159	-7	1747	179.14	-0.69	-40.12
19	SLD 2	194	-3	1747	177.89	-0.69	-48.65
19	SLD 3	146	-51	1640	170.19	-0.43	-36.75
19	SLD 4	180	-48	1640	168.94	-0.43	-45.28
19	SLD 5	80	52	1901	199.64	-1.65	-20.03
19	SLD 6	114	55	1901	198.38	-1.65	-28.63
19	SLD 7	33	-96	1544	169.8	-0.8	-8.79
19	SLD 8	68	-93	1544	168.55	-0.79	-17.39
19	SLD 9	-3	58	1925	208.25	-2.22	0.53
19	SLD 10	32	61	1926	207	-2.21	-8.07
19	SLD 11	-49	-90	1568	178.42	-1.36	11.78
19	SLD 12	-14	-87	1568	177.17	-1.36	3.18
19	SLD 13	-115	13	1829	207.86	-2.58	28.43
19	SLD 14	-80	16	1829	206.62	-2.58	19.89
19	SLD 15	-129	-32	1722	198.91	-2.32	31.8
19	SLD 16	-94	-28	1722	197.67	-2.32	23.27
19	SLV 1	321	6	1764	167.84	0.35	-80.57
19	SLV 2	399	15	1764	165.03	0.35	-99.9
19	SLV 3	290	-94	1519	146.3	0.93	-72.89
19	SLV 4	368	-86	1520	143.48	0.94	-92.21
19	SLV 5	140	140	2113	215.9	-1.84	-34.89
19	SLV 6	218	148	2114	213.07	-1.83	-54.35
19	SLV 7	34	-196	1300	144.09	0.11	-9.29
19	SLV 8	112	-188	1300	141.26	0.11	-28.74
19	SLV 9	-47	153	2169	235.54	-3.12	11.89
19	SLV 10	31	161	2169	232.71	-3.12	-7.57
19	SLV 11	-153	-183	1355	163.74	-1.18	37.49
19	SLV 12	-75	-174	1356	160.9	-1.18	18.04
19	SLV 13	-302	51	1949	233.32	-3.95	75.36
19	SLV 14	-224	59	1950	230.5	-3.94	56.03
19	SLV 15	-334	-49	1705	211.78	-3.37	83.04
19	SLV 16	-256	-41	1706	208.96	-3.36	63.71
19	CRTFP Ux+	0	0	0	0	0	0
19	CRTFP Ux-	0	0	0	0	0	0
19	CRTFP Uy+	0	0	0	0	0	0
19	CRTFP Uy-	0	0	0	0	0	0
20	SLU 1	30	-25	1650	220.97	-1.79	-7.77
20	SLU 2	21	-25	1655	222.27	-1.84	-5.58
20	SLU 3	30	-25	1650	220.97	-1.79	-7.77
20	SLU 4	25	-25	1653	221.75	-1.82	-6.45
20	SLU 5	21	-25	1655	222.27	-1.84	-5.58

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
20	SLU 6	30	-25	1650	220.97	-1.79	-7.77
20	SLU 7	25	-25	1653	221.75	-1.82	-6.45
20	SLU 8	30	-25	1650	220.97	-1.79	-7.77
20	SLU 9	25	-25	1653	221.75	-1.82	-6.45
20	SLU 10	22	-26	1931	256.15	-2.11	-5.77
20	SLU 11	31	-26	1927	254.85	-2.05	-7.96
20	SLU 12	25	-26	1930	255.63	-2.08	-6.65
20	SLU 13	22	-26	1931	256.15	-2.11	-5.77
20	SLU 14	31	-26	1927	254.85	-2.05	-7.96
20	SLU 15	25	-26	1930	255.63	-2.08	-6.65
20	SLU 16	31	-26	1927	254.85	-2.05	-7.96
20	SLU 17	25	-26	1930	255.63	-2.08	-6.65
20	SLU 18	31	-26	2046	269.37	-2.16	-8.05
20	SLU 19	26	-26	2048	270.15	-2.19	-6.73
20	SLU 20	31	-26	2046	269.37	-2.16	-8.05
20	SLU 21	26	-26	2048	270.15	-2.19	-6.73
20	SLU 22	31	-26	1847	245.32	-2.01	-8.11
20	SLU 23	23	-25	1852	246.62	-2.06	-5.92
20	SLU 24	31	-26	1847	245.32	-2.01	-8.11
20	SLU 25	26	-26	1850	246.1	-2.04	-6.79
20	SLU 26	23	-25	1852	246.62	-2.06	-5.92
20	SLU 27	31	-26	1847	245.32	-2.01	-8.11
20	SLU 28	26	-26	1850	246.1	-2.04	-6.79
20	SLU 29	31	-26	1847	245.32	-2.01	-8.11
20	SLU 30	26	-26	1850	246.1	-2.04	-6.79
20	SLU 31	23	-26	2129	280.51	-2.33	-6.11
20	SLU 32	32	-27	2124	279.2	-2.27	-8.3
20	SLU 33	27	-26	2127	279.99	-2.3	-6.99
20	SLU 34	23	-26	2129	280.51	-2.33	-6.11
20	SLU 35	32	-27	2124	279.2	-2.27	-8.3
20	SLU 36	27	-26	2127	279.99	-2.3	-6.99
20	SLU 37	32	-27	2124	279.2	-2.27	-8.3
20	SLU 38	27	-26	2127	279.99	-2.3	-6.99
20	SLU 39	32	-27	2243	293.72	-2.38	-8.38
20	SLU 40	27	-27	2245	294.51	-2.41	-7.07
20	SLU 41	32	-27	2243	293.72	-2.38	-8.38
20	SLU 42	27	-27	2245	294.51	-2.41	-7.07
20	SLU 43	39	-32	2078	278.91	-2.25	-9.98
20	SLU 44	30	-32	2082	280.21	-2.3	-7.79
20	SLU 45	39	-32	2078	278.91	-2.25	-9.98
20	SLU 46	33	-32	2081	279.69	-2.28	-8.67
20	SLU 47	30	-32	2082	280.21	-2.3	-7.79
20	SLU 48	39	-32	2078	278.91	-2.25	-9.98
20	SLU 49	33	-32	2081	279.69	-2.28	-8.67
20	SLU 50	39	-32	2078	278.91	-2.25	-9.98
20	SLU 51	33	-32	2081	279.69	-2.28	-8.67
20	SLU 52	30	-33	2359	314.09	-2.56	-7.99
20	SLU 53	39	-33	2355	312.79	-2.51	-10.18
20	SLU 54	34	-33	2357	313.57	-2.54	-8.86
20	SLU 55	30	-33	2359	314.09	-2.56	-7.99
20	SLU 56	39	-33	2355	312.79	-2.51	-10.18
20	SLU 57	34	-33	2357	313.57	-2.54	-8.86
20	SLU 58	39	-33	2355	312.79	-2.51	-10.18
20	SLU 59	34	-33	2357	313.57	-2.54	-8.86
20	SLU 60	40	-34	2473	327.31	-2.62	-10.26
20	SLU 61	34	-33	2476	328.09	-2.65	-8.95
20	SLU 62	40	-34	2473	327.31	-2.62	-10.26
20	SLU 63	34	-33	2476	328.09	-2.65	-8.95
20	SLU 64	40	-33	2275	303.26	-2.47	-10.32
20	SLU 65	31	-33	2279	304.56	-2.52	-8.13
20	SLU 66	40	-33	2275	303.26	-2.47	-10.32
20	SLU 67	35	-33	2278	304.04	-2.5	-9.01
20	SLU 68	31	-33	2279	304.56	-2.52	-8.13
20	SLU 69	40	-33	2275	303.26	-2.47	-10.32
20	SLU 70	35	-33	2278	304.04	-2.5	-9.01
20	SLU 71	40	-33	2275	303.26	-2.47	-10.32
20	SLU 72	35	-33	2278	304.04	-2.5	-9.01
20	SLU 73	32	-34	2556	338.45	-2.79	-8.32
20	SLU 74	40	-34	2552	337.14	-2.73	-10.52
20	SLU 75	35	-34	2554	337.93	-2.76	-9.2
20	SLU 76	32	-34	2556	338.45	-2.79	-8.32
20	SLU 77	40	-34	2552	337.14	-2.73	-10.52
20	SLU 78	35	-34	2554	337.93	-2.76	-9.2
20	SLU 79	40	-34	2552	337.14	-2.73	-10.52
20	SLU 80	35	-34	2554	337.93	-2.76	-9.2
20	SLU 81	41	-34	2670	351.66	-2.84	-10.6
20	SLU 82	35	-34	2673	352.45	-2.87	-9.28
20	SLU 83	41	-34	2670	351.66	-2.84	-10.6
20	SLU 84	35	-34	2673	352.45	-2.87	-9.28
20	SLE RA 1	30	-25	1707	227.93	-1.85	-7.86
20	SLE RA 2	25	-25	1710	228.79	-1.89	-6.4
20	SLE RA 3	30	-25	1707	227.93	-1.85	-7.86
20	SLE RA 4	27	-25	1708	228.45	-1.87	-6.99
20	SLE RA 5	25	-25	1710	228.79	-1.89	-6.4
20	SLE RA 6	30	-25	1707	227.93	-1.85	-7.86
20	SLE RA 7	27	-25	1708	228.45	-1.87	-6.99

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
20	SLE RA 8	30	-25	1707	227.93	-1.85	-7.86
20	SLE RA 9	27	-25	1708	228.45	-1.87	-6.99
20	SLE RA 10	25	-26	1894	251.38	-2.06	-6.53
20	SLE RA 11	31	-26	1891	250.51	-2.02	-7.99
20	SLE RA 12	27	-26	1893	251.03	-2.05	-7.12
20	SLE RA 13	25	-26	1894	251.38	-2.06	-6.53
20	SLE RA 14	31	-26	1891	250.51	-2.02	-7.99
20	SLE RA 15	27	-26	1893	251.03	-2.05	-7.12
20	SLE RA 16	31	-26	1891	250.51	-2.02	-7.99
20	SLE RA 17	27	-26	1893	251.03	-2.05	-7.12
20	SLE RA 18	31	-26	1970	260.19	-2.1	-8.05
20	SLE RA 19	27	-26	1972	260.72	-2.12	-7.17
20	SLE RA 20	31	-26	1970	260.19	-2.1	-8.05
20	SLE RA 21	27	-26	1972	260.72	-2.12	-7.17
20	SLE FR 1	30	-25	1707	227.93	-1.85	-7.86
20	SLE FR 2	29	-25	1707	228.1	-1.86	-7.57
20	SLE FR 3	30	-25	1707	227.93	-1.85	-7.86
20	SLE FR 4	29	-26	1786	237.78	-1.93	-7.63
20	SLE FR 5	31	-26	1786	237.61	-1.92	-7.92
20	SLE FR 6	31	-26	1838	244.06	-1.97	-7.96
20	SLE QP 1	30	-25	1707	227.93	-1.85	-7.86
20	SLE QP 2	31	-26	1786	237.61	-1.92	-7.92
20	SLD 1	157	-14	1774	224.43	-1.1	-39.45
20	SLD 2	191	-9	1774	223.16	-1.1	-47.95
20	SLD 3	143	-63	1659	214.66	-0.79	-36.07
20	SLD 4	177	-57	1660	213.39	-0.8	-44.56
20	SLD 5	78	49	1956	248.92	-2.14	-19.51
20	SLD 6	112	55	1957	247.64	-2.14	-28.06
20	SLD 7	31	-112	1574	216.35	-1.12	-8.23
20	SLD 8	65	-107	1574	215.08	-1.12	-16.79
20	SLD 9	-4	55	1998	260.13	-2.72	0.95
20	SLD 10	30	61	1998	258.86	-2.73	-7.61
20	SLD 11	-51	-106	1615	227.57	-1.7	12.22
20	SLD 12	-17	-100	1615	226.3	-1.71	3.67
20	SLD 13	-116	6	1912	261.82	-3.05	28.72
20	SLD 14	-82	12	1912	260.55	-3.05	20.23
20	SLD 15	-130	-42	1797	252.05	-2.74	32.11
20	SLD 16	-96	-37	1797	250.79	-2.75	23.61
20	SLV 1	318	0	1760	207.95	-0.05	-79.7
20	SLV 2	396	12	1760	205.08	-0.06	-98.93
20	SLV 3	286	-110	1498	185.01	0.65	-72
20	SLV 4	364	-98	1499	182.14	0.63	-91.23
20	SLV 5	138	144	2174	264.51	-2.41	-34.34
20	SLV 6	216	157	2175	261.63	-2.43	-53.7
20	SLV 7	31	-222	1303	188.04	-0.09	-8.67
20	SLV 8	109	-210	1303	185.16	-0.1	-28.02
20	SLV 9	-48	158	2268	290.05	-3.74	12.18
20	SLV 10	30	171	2269	287.17	-3.76	-7.17
20	SLV 11	-155	-208	1397	213.58	-1.42	37.86
20	SLV 12	-77	-196	1397	210.7	-1.43	18.5
20	SLV 13	-303	46	2073	293.07	-4.48	75.39
20	SLV 14	-225	59	2073	290.21	-4.5	56.16
20	SLV 15	-335	-64	1811	270.13	-3.78	83.09
20	SLV 16	-257	-51	1812	267.26	-3.8	63.86
20	CRTFP Ux+	0	0	0	0	0	0
20	CRTFP Ux-	0	0	0	0	0	0
20	CRTFP Uy+	0	0	0	0	0	0
20	CRTFP Uy-	0	0	0	0	0	0
21	SLU 1	28	-32	1709	276.08	-2.1	-7.31
21	SLU 2	20	-32	1715	277.65	-2.16	-5.14
21	SLU 3	28	-32	1709	276.08	-2.1	-7.31
21	SLU 4	23	-32	1712	277.02	-2.13	-6.01
21	SLU 5	20	-32	1715	277.65	-2.16	-5.14
21	SLU 6	28	-32	1709	276.08	-2.1	-7.31
21	SLU 7	23	-32	1712	277.02	-2.13	-6.01
21	SLU 8	28	-32	1709	276.08	-2.1	-7.31
21	SLU 9	23	-32	1712	277.02	-2.13	-6.01
21	SLU 10	20	-34	2000	321.5	-2.44	-5.23
21	SLU 11	29	-34	1993	319.93	-2.38	-7.41
21	SLU 12	23	-34	1997	320.87	-2.42	-6.1
21	SLU 13	20	-34	2000	321.5	-2.44	-5.23
21	SLU 14	29	-34	1993	319.93	-2.38	-7.41
21	SLU 15	23	-34	1997	320.87	-2.42	-6.1
21	SLU 16	29	-34	1993	319.93	-2.38	-7.41
21	SLU 17	23	-34	1997	320.87	-2.42	-6.1
21	SLU 18	29	-35	2116	338.73	-2.5	-7.45
21	SLU 19	23	-35	2119	339.67	-2.54	-6.14
21	SLU 20	29	-35	2116	338.73	-2.5	-7.45
21	SLU 21	23	-35	2119	339.67	-2.54	-6.14
21	SLU 22	29	-33	1913	307.7	-2.34	-7.59
21	SLU 23	21	-33	1919	309.27	-2.4	-5.41
21	SLU 24	29	-33	1913	307.7	-2.34	-7.59
21	SLU 25	24	-33	1916	308.64	-2.37	-6.28
21	SLU 26	21	-33	1919	309.27	-2.4	-5.41
21	SLU 27	29	-33	1913	307.7	-2.34	-7.59
21	SLU 28	24	-33	1916	308.64	-2.37	-6.28

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
21	SLU 29	29	-33	1913	307.7	-2.34	-7.59
21	SLU 30	24	-33	1916	308.64	-2.37	-6.28
21	SLU 31	21	-35	2204	353.12	-2.68	-5.51
21	SLU 32	30	-36	2198	351.55	-2.62	-7.68
21	SLU 33	24	-36	2201	352.49	-2.66	-6.38
21	SLU 34	21	-35	2204	353.12	-2.68	-5.51
21	SLU 35	30	-36	2198	351.55	-2.62	-7.68
21	SLU 36	24	-36	2201	352.49	-2.66	-6.38
21	SLU 37	30	-36	2198	351.55	-2.62	-7.68
21	SLU 38	24	-36	2201	352.49	-2.66	-6.38
21	SLU 39	30	-37	2320	370.34	-2.74	-7.73
21	SLU 40	24	-37	2323	371.28	-2.78	-6.42
21	SLU 41	30	-37	2320	370.34	-2.74	-7.73
21	SLU 42	24	-37	2323	371.28	-2.78	-6.42
21	SLU 43	37	-41	2151	348.07	-2.65	-9.41
21	SLU 44	28	-41	2157	349.63	-2.7	-7.24
21	SLU 45	37	-41	2151	348.07	-2.65	-9.41
21	SLU 46	31	-41	2155	349.01	-2.68	-8.11
21	SLU 47	28	-41	2157	349.63	-2.7	-7.24
21	SLU 48	37	-41	2151	348.07	-2.65	-9.41
21	SLU 49	31	-41	2155	349.01	-2.68	-8.11
21	SLU 50	37	-41	2151	348.07	-2.65	-9.41
21	SLU 51	31	-41	2155	349.01	-2.68	-8.11
21	SLU 52	28	-43	2442	393.48	-2.99	-7.33
21	SLU 53	37	-43	2436	391.92	-2.93	-9.51
21	SLU 54	32	-43	2440	392.86	-2.96	-8.2
21	SLU 55	28	-43	2442	393.48	-2.99	-7.33
21	SLU 56	37	-43	2436	391.92	-2.93	-9.51
21	SLU 57	32	-43	2440	392.86	-2.96	-8.2
21	SLU 58	37	-43	2436	391.92	-2.93	-9.51
21	SLU 59	32	-43	2440	392.86	-2.96	-8.2
21	SLU 60	37	-44	2558	410.71	-3.05	-9.55
21	SLU 61	32	-44	2562	411.65	-3.09	-8.24
21	SLU 62	37	-44	2558	410.71	-3.05	-9.55
21	SLU 63	32	-44	2562	411.65	-3.09	-8.24
21	SLU 64	38	-42	2355	379.69	-2.89	-9.69
21	SLU 65	29	-42	2361	381.25	-2.94	-7.51
21	SLU 66	38	-42	2355	379.69	-2.89	-9.69
21	SLU 67	32	-42	2359	380.63	-2.92	-8.38
21	SLU 68	29	-42	2361	381.25	-2.94	-7.51
21	SLU 69	38	-42	2355	379.69	-2.89	-9.69
21	SLU 70	32	-42	2359	380.63	-2.92	-8.38
21	SLU 71	38	-42	2355	379.69	-2.89	-9.69
21	SLU 72	32	-42	2359	380.63	-2.92	-8.38
21	SLU 73	29	-45	2646	425.1	-3.23	-7.61
21	SLU 74	38	-45	2640	423.54	-3.17	-9.78
21	SLU 75	33	-45	2644	424.48	-3.2	-8.48
21	SLU 76	29	-45	2646	425.1	-3.23	-7.61
21	SLU 77	38	-45	2640	423.54	-3.17	-9.78
21	SLU 78	33	-45	2644	424.48	-3.2	-8.48
21	SLU 79	38	-45	2640	423.54	-3.17	-9.78
21	SLU 80	33	-45	2644	424.48	-3.2	-8.48
21	SLU 81	38	-46	2762	442.33	-3.29	-9.82
21	SLU 82	33	-46	2766	443.27	-3.33	-8.52
21	SLU 83	38	-46	2762	442.33	-3.29	-9.82
21	SLU 84	33	-46	2766	443.27	-3.33	-8.52
21	SLE RA 1	29	-32	1767	285.12	-2.17	-7.39
21	SLE RA 2	23	-32	1771	286.16	-2.21	-5.94
21	SLE RA 3	29	-32	1767	285.12	-2.17	-7.39
21	SLE RA 4	25	-32	1769	285.74	-2.19	-6.52
21	SLE RA 5	23	-32	1771	286.16	-2.21	-5.94
21	SLE RA 6	29	-32	1767	285.12	-2.17	-7.39
21	SLE RA 7	25	-32	1769	285.74	-2.19	-6.52
21	SLE RA 8	29	-32	1767	285.12	-2.17	-7.39
21	SLE RA 9	25	-32	1769	285.74	-2.19	-6.52
21	SLE RA 10	23	-34	1961	315.39	-2.4	-6
21	SLE RA 11	29	-34	1957	314.35	-2.36	-7.46
21	SLE RA 12	25	-34	1959	314.98	-2.38	-6.58
21	SLE RA 13	23	-34	1961	315.39	-2.4	-6
21	SLE RA 14	29	-34	1957	314.35	-2.36	-7.46
21	SLE RA 15	25	-34	1959	314.98	-2.38	-6.58
21	SLE RA 16	29	-34	1957	314.35	-2.36	-7.46
21	SLE RA 17	25	-34	1959	314.98	-2.38	-6.58
21	SLE RA 18	29	-35	2038	326.88	-2.44	-7.48
21	SLE RA 19	25	-34	2041	327.51	-2.46	-6.61
21	SLE RA 20	29	-35	2038	326.88	-2.44	-7.48
21	SLE RA 21	25	-34	2041	327.51	-2.46	-6.61
21	SLE FR 1	29	-32	1767	285.12	-2.17	-7.39
21	SLE FR 2	28	-32	1768	285.33	-2.17	-7.1
21	SLE FR 3	29	-32	1767	285.12	-2.17	-7.39
21	SLE FR 4	28	-33	1849	297.85	-2.26	-7.13
21	SLE FR 5	29	-33	1848	297.65	-2.25	-7.42
21	SLE FR 6	29	-33	1903	306	-2.3	-7.44
21	SLE QP 1	29	-32	1767	285.12	-2.17	-7.39
21	SLE QP 2	29	-33	1848	297.65	-2.25	-7.42
21	SLD 1	155	-21	1812	281.54	-1.43	-38.78

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
21	SLD 2	189	-13	1813	280.5	-1.45	-47.22
21	SLD 3	140	-74	1688	267.72	-1.08	-35.37
21	SLD 4	175	-66	1689	266.68	-1.11	-43.82
21	SLD 5	76	49	2025	314.14	-2.52	-19
21	SLD 6	110	57	2026	313.09	-2.55	-27.51
21	SLD 7	29	-129	1612	268.08	-1.36	-7.66
21	SLD 8	63	-121	1612	267.03	-1.39	-16.16
21	SLD 9	-5	55	2084	328.26	-3.11	1.32
21	SLD 10	29	63	2085	327.21	-3.14	-7.18
21	SLD 11	-53	-123	1670	282.2	-1.95	12.67
21	SLD 12	-19	-115	1671	281.15	-1.97	4.17
21	SLD 13	-117	0	2008	328.61	-3.39	28.98
21	SLD 14	-83	8	2008	327.57	-3.41	20.54
21	SLD 15	-131	-53	1884	314.79	-3.04	32.38
21	SLD 16	-97	-45	1884	313.75	-3.07	23.94
21	SLV 1	315	-5	1766	261.14	-0.39	-78.8
21	SLV 2	392	13	1768	258.79	-0.44	-97.92
21	SLV 3	283	-126	1484	229.43	0.4	-71.05
21	SLV 4	360	-108	1485	227.07	0.35	-90.17
21	SLV 5	137	152	2251	335.63	-2.87	-33.84
21	SLV 6	214	171	2253	333.26	-2.93	-53.08
21	SLV 7	29	-251	1310	229.91	-0.23	-8
21	SLV 8	106	-233	1312	227.54	-0.29	-27.24
21	SLV 9	-49	167	2385	367.75	-4.21	12.4
21	SLV 10	29	185	2386	365.38	-4.26	-6.84
21	SLV 11	-157	-237	1444	262.03	-1.57	38.24
21	SLV 12	-79	-218	1445	259.67	-1.62	19
21	SLV 13	-303	42	2211	368.22	-4.85	75.33
21	SLV 14	-225	60	2213	365.87	-4.9	56.22
21	SLV 15	-335	-79	1929	336.5	-4.05	83.08
21	SLV 16	-258	-61	1930	334.15	-4.11	63.97
21	CRTFP Ux+	0	0	0	0	0	0
21	CRTFP Ux-	0	0	0	0	0	0
21	CRTFP Uy+	0	0	0	0	0	0
21	CRTFP Uy-	0	0	0	0	0	0
22	SLU 1	25	-33	1609	307.75	28.29	-5.63
22	SLU 2	17	-33	1616	309.4	28.38	-3.67
22	SLU 3	25	-33	1609	307.75	28.29	-5.63
22	SLU 4	20	-33	1614	308.74	28.35	-4.45
22	SLU 5	17	-33	1616	309.4	28.38	-3.67
22	SLU 6	25	-33	1609	307.75	28.29	-5.63
22	SLU 7	20	-33	1614	308.74	28.35	-4.45
22	SLU 8	25	-33	1609	307.75	28.29	-5.63
22	SLU 9	20	-33	1614	308.74	28.35	-4.45
22	SLU 10	17	-36	1882	358.96	33.14	-3.61
22	SLU 11	25	-36	1875	357.31	33.06	-5.57
22	SLU 12	20	-36	1880	358.3	33.11	-4.4
22	SLU 13	17	-36	1882	358.96	33.14	-3.61
22	SLU 14	25	-36	1875	357.31	33.06	-5.57
22	SLU 15	20	-36	1880	358.3	33.11	-4.4
22	SLU 16	25	-36	1875	357.31	33.06	-5.57
22	SLU 17	20	-36	1880	358.3	33.11	-4.4
22	SLU 18	25	-38	1989	378.55	35.1	-5.55
22	SLU 19	20	-38	1994	379.54	35.15	-4.37
22	SLU 20	25	-38	1989	378.55	35.1	-5.55
22	SLU 21	20	-38	1994	379.54	35.15	-4.37
22	SLU 22	25	-35	1801	343.6	31.69	-5.78
22	SLU 23	17	-35	1808	345.25	31.78	-3.82
22	SLU 24	25	-35	1801	343.6	31.69	-5.78
22	SLU 25	21	-35	1805	344.59	31.74	-4.61
22	SLU 26	17	-35	1808	345.25	31.78	-3.82
22	SLU 27	25	-35	1801	343.6	31.69	-5.78
22	SLU 28	21	-35	1805	344.59	31.74	-4.61
22	SLU 29	25	-35	1801	343.6	31.69	-5.78
22	SLU 30	21	-35	1805	344.59	31.74	-4.61
22	SLU 31	17	-38	2074	394.8	36.54	-3.77
22	SLU 32	25	-38	2067	393.16	36.45	-5.73
22	SLU 33	21	-38	2071	394.14	36.51	-4.55
22	SLU 34	17	-38	2074	394.8	36.54	-3.77
22	SLU 35	25	-38	2067	393.16	36.45	-5.73
22	SLU 36	21	-38	2071	394.14	36.51	-4.55
22	SLU 37	25	-38	2067	393.16	36.45	-5.73
22	SLU 38	21	-38	2071	394.14	36.51	-4.55
22	SLU 39	25	-40	2181	414.39	38.5	-5.71
22	SLU 40	21	-40	2185	415.38	38.55	-4.53
22	SLU 41	25	-40	2181	414.39	38.5	-5.71
22	SLU 42	21	-40	2185	415.38	38.55	-4.53
22	SLU 43	32	-42	2026	387.79	35.61	-7.26
22	SLU 44	24	-42	2033	389.43	35.7	-5.3
22	SLU 45	32	-42	2026	387.79	35.61	-7.26
22	SLU 46	27	-42	2031	388.78	35.67	-6.08
22	SLU 47	24	-42	2033	389.43	35.7	-5.3
22	SLU 48	32	-42	2026	387.79	35.61	-7.26
22	SLU 49	27	-42	2031	388.78	35.67	-6.08
22	SLU 50	32	-42	2026	387.79	35.61	-7.26
22	SLU 51	27	-42	2031	388.78	35.67	-6.08

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
22	SLU 52	24	-45	2300	438.99	40.47	-5.25
22	SLU 53	32	-46	2292	437.34	40.38	-7.21
22	SLU 54	27	-45	2297	438.33	40.43	-6.03
22	SLU 55	24	-45	2300	438.99	40.47	-5.25
22	SLU 56	32	-46	2292	437.34	40.38	-7.21
22	SLU 57	27	-45	2297	438.33	40.43	-6.03
22	SLU 58	32	-46	2292	437.34	40.38	-7.21
22	SLU 59	27	-45	2297	438.33	40.43	-6.03
22	SLU 60	32	-47	2406	458.58	42.42	-7.18
22	SLU 61	27	-47	2411	459.57	42.47	-6.01
22	SLU 62	32	-47	2406	458.58	42.42	-7.18
22	SLU 63	27	-47	2411	459.57	42.47	-6.01
22	SLU 64	33	-44	2218	423.64	39.01	-7.42
22	SLU 65	25	-44	2225	425.28	39.1	-5.46
22	SLU 66	33	-44	2218	423.64	39.01	-7.42
22	SLU 67	28	-44	2222	424.62	39.07	-6.24
22	SLU 68	25	-44	2225	425.28	39.1	-5.46
22	SLU 69	33	-44	2218	423.64	39.01	-7.42
22	SLU 70	28	-44	2222	424.62	39.07	-6.24
22	SLU 71	33	-44	2218	423.64	39.01	-7.42
22	SLU 72	28	-44	2222	424.62	39.07	-6.24
22	SLU 73	25	-47	2491	474.84	43.87	-5.4
22	SLU 74	32	-48	2484	473.19	43.78	-7.37
22	SLU 75	28	-48	2488	474.18	43.83	-6.19
22	SLU 76	25	-47	2491	474.84	43.87	-5.4
22	SLU 77	32	-48	2484	473.19	43.78	-7.37
22	SLU 78	28	-48	2488	474.18	43.83	-6.19
22	SLU 79	32	-48	2484	473.19	43.78	-7.37
22	SLU 80	28	-48	2488	474.18	43.83	-6.19
22	SLU 81	32	-49	2598	494.43	45.82	-7.34
22	SLU 82	28	-49	2602	495.42	45.87	-6.17
22	SLU 83	32	-49	2598	494.43	45.82	-7.34
22	SLU 84	28	-49	2602	495.42	45.87	-6.17
22	SLE RA 1	25	-34	1664	317.99	29.26	-5.67
22	SLE RA 2	20	-34	1669	319.09	29.32	-4.36
22	SLE RA 3	25	-34	1664	317.99	29.26	-5.67
22	SLE RA 4	22	-34	1667	318.65	29.3	-4.89
22	SLE RA 5	20	-34	1669	319.09	29.32	-4.36
22	SLE RA 6	25	-34	1664	317.99	29.26	-5.67
22	SLE RA 7	22	-34	1667	318.65	29.3	-4.89
22	SLE RA 8	25	-34	1664	317.99	29.26	-5.67
22	SLE RA 9	22	-34	1667	318.65	29.3	-4.89
22	SLE RA 10	20	-36	1846	352.13	32.5	-4.33
22	SLE RA 11	25	-36	1841	351.03	32.44	-5.64
22	SLE RA 12	22	-36	1844	351.69	32.47	-4.85
22	SLE RA 13	20	-36	1846	352.13	32.5	-4.33
22	SLE RA 14	25	-36	1841	351.03	32.44	-5.64
22	SLE RA 15	22	-36	1844	351.69	32.47	-4.85
22	SLE RA 16	25	-36	1841	351.03	32.44	-5.64
22	SLE RA 17	22	-36	1844	351.69	32.47	-4.85
22	SLE RA 18	25	-37	1917	365.19	33.8	-5.62
22	SLE RA 19	22	-37	1920	365.85	33.84	-4.84
22	SLE RA 20	25	-37	1917	365.19	33.8	-5.62
22	SLE RA 21	22	-37	1920	365.85	33.84	-4.84
22	SLE FR 1	25	-34	1664	317.99	29.26	-5.67
22	SLE FR 2	24	-34	1665	318.21	29.27	-5.41
22	SLE FR 3	25	-34	1664	317.99	29.26	-5.67
22	SLE FR 4	24	-35	1741	332.37	30.64	-5.4
22	SLE FR 5	25	-35	1740	332.15	30.62	-5.66
22	SLE FR 6	25	-35	1791	341.59	31.53	-5.65
22	SLE QP 1	25	-34	1664	317.99	29.26	-5.67
22	SLE QP 2	25	-35	1740	332.15	30.62	-5.66
22	SLD 1	139	-3	1686	315.59	30.21	-34.35
22	SLD 2	170	7	1688	315.16	30.21	-42.18
22	SLD 3	126	-56	1565	297.64	28.22	-30.29
22	SLD 4	157	-46	1566	297.2	28.21	-38.11
22	SLD 5	68	52	1908	354.57	33.53	-17.66
22	SLD 6	99	61	1910	354.13	33.52	-25.55
22	SLD 7	24	-125	1502	294.72	26.88	-4.11
22	SLD 8	55	-115	1504	294.28	26.87	-11.99
22	SLD 9	-6	46	1977	370.03	34.38	0.68
22	SLD 10	25	56	1978	369.59	34.37	-7.2
22	SLD 11	-49	-131	1570	310.17	27.72	14.23
22	SLD 12	-18	-121	1572	309.73	27.72	6.35
22	SLD 13	-107	-23	1914	367.1	33.04	26.8
22	SLD 14	-76	-13	1916	366.67	33.03	18.97
22	SLD 15	-120	-76	1792	349.15	31.04	30.86
22	SLD 16	-89	-66	1794	348.71	31.03	23.04
22	SLV 1	284	37	1618	294.53	29.69	-70.97
22	SLV 2	354	59	1622	293.55	29.67	-88.69
22	SLV 3	254	-83	1341	253.63	25.15	-61.73
22	SLV 4	324	-61	1345	252.64	25.13	-79.45
22	SLV 5	123	161	2122	383.25	37.24	-33.01
22	SLV 6	193	184	2126	382.26	37.22	-50.84
22	SLV 7	24	-239	1199	246.91	22.1	-2.21
22	SLV 8	94	-217	1203	245.92	22.08	-20.04

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
22	SLV 9	-45	148	2278	418.39	39.16	8.73
22	SLV 10	26	170	2281	417.4	39.14	-9.11
22	SLV 11	-144	-253	1354	282.05	24.03	39.53
22	SLV 12	-73	-231	1358	281.06	24.01	21.69
22	SLV 13	-275	-8	2135	411.66	36.11	68.14
22	SLV 14	-205	14	2139	410.68	36.09	50.42
22	SLV 15	-304	-128	1858	370.76	31.57	77.38
22	SLV 16	-234	-106	1862	369.78	31.55	59.66
22	CRTFP Ux+	0	0	0	0	0	0
22	CRTFP Ux-	0	0	0	0	0	0
22	CRTFP Uy+	0	0	0	0	0	0
22	CRTFP Uy-	0	0	0	0	0	0
23	SLU 1	48	-66	3400	638.6	-316.43	-15.69
23	SLU 2	33	-67	3418	641.99	-318.36	-12.47
23	SLU 3	48	-66	3400	638.6	-316.43	-15.69
23	SLU 4	39	-67	3411	640.64	-317.59	-13.76
23	SLU 5	33	-67	3418	641.99	-318.36	-12.47
23	SLU 6	48	-66	3400	638.6	-316.43	-15.69
23	SLU 7	39	-67	3411	640.64	-317.59	-13.76
23	SLU 8	48	-66	3400	638.6	-316.43	-15.69
23	SLU 9	39	-67	3411	640.64	-317.59	-13.76
23	SLU 10	32	-74	3969	745.14	-368.2	-13.06
23	SLU 11	48	-74	3952	741.75	-366.27	-16.28
23	SLU 12	38	-74	3962	743.78	-367.42	-14.35
23	SLU 13	32	-74	3969	745.14	-368.2	-13.06
23	SLU 14	48	-74	3952	741.75	-366.27	-16.28
23	SLU 15	38	-74	3962	743.78	-367.42	-14.35
23	SLU 16	48	-74	3952	741.75	-366.27	-16.28
23	SLU 17	38	-74	3962	743.78	-367.42	-14.35
23	SLU 18	48	-77	4188	785.95	-387.63	-16.54
23	SLU 19	38	-77	4199	787.99	-388.78	-14.6
23	SLU 20	48	-77	4188	785.95	-387.63	-16.54
23	SLU 21	38	-77	4199	787.99	-388.78	-14.6
23	SLU 22	50	-71	3800	713.52	-352.88	-16.39
23	SLU 23	34	-72	3818	716.91	-354.81	-13.17
23	SLU 24	50	-71	3800	713.52	-352.88	-16.39
23	SLU 25	40	-71	3811	715.55	-354.04	-14.45
23	SLU 26	34	-72	3818	716.91	-354.81	-13.17
23	SLU 27	50	-71	3800	713.52	-352.88	-16.39
23	SLU 28	40	-71	3811	715.55	-354.04	-14.45
23	SLU 29	50	-71	3800	713.52	-352.88	-16.39
23	SLU 30	40	-71	3811	715.55	-354.04	-14.45
23	SLU 31	33	-79	4369	820.05	-404.65	-13.76
23	SLU 32	49	-79	4351	816.67	-402.72	-16.98
23	SLU 33	40	-79	4362	818.7	-403.88	-15.04
23	SLU 34	33	-79	4369	820.05	-404.65	-13.76
23	SLU 35	49	-79	4351	816.67	-402.72	-16.98
23	SLU 36	40	-79	4362	818.7	-403.88	-15.04
23	SLU 37	49	-79	4351	816.67	-402.72	-16.98
23	SLU 38	40	-79	4362	818.7	-403.88	-15.04
23	SLU 39	49	-82	4588	860.87	-424.08	-17.23
23	SLU 40	40	-82	4598	862.9	-425.24	-15.3
23	SLU 41	49	-82	4588	860.87	-424.08	-17.23
23	SLU 42	40	-82	4598	862.9	-425.24	-15.3
23	SLU 43	62	-85	4283	804.5	-398.86	-20.16
23	SLU 44	47	-85	4301	807.89	-400.79	-16.94
23	SLU 45	62	-85	4283	804.5	-398.86	-20.16
23	SLU 46	53	-85	4294	806.53	-400.02	-18.23
23	SLU 47	47	-85	4301	807.89	-400.79	-16.94
23	SLU 48	62	-85	4283	804.5	-398.86	-20.16
23	SLU 49	53	-85	4294	806.53	-400.02	-18.23
23	SLU 50	62	-85	4283	804.5	-398.86	-20.16
23	SLU 51	53	-85	4294	806.53	-400.02	-18.23
23	SLU 52	46	-93	4852	911.03	-450.63	-17.53
23	SLU 53	62	-92	4835	907.64	-448.7	-20.75
23	SLU 54	53	-92	4845	909.68	-449.85	-18.82
23	SLU 55	46	-93	4852	911.03	-450.63	-17.53
23	SLU 56	62	-92	4835	907.64	-448.7	-20.75
23	SLU 57	53	-92	4845	909.68	-449.85	-18.82
23	SLU 58	62	-92	4835	907.64	-448.7	-20.75
23	SLU 59	53	-92	4845	909.68	-449.85	-18.82
23	SLU 60	62	-96	5071	951.85	-470.06	-21.01
23	SLU 61	52	-96	5082	953.88	-471.21	-19.08
23	SLU 62	62	-96	5071	951.85	-470.06	-21.01
23	SLU 63	52	-96	5082	953.88	-471.21	-19.08
23	SLU 64	64	-90	4683	879.42	-435.31	-20.86
23	SLU 65	48	-90	4701	882.8	-437.24	-17.64
23	SLU 66	64	-90	4683	879.42	-435.31	-20.86
23	SLU 67	54	-90	4694	881.45	-436.47	-18.92
23	SLU 68	48	-90	4701	882.8	-437.24	-17.64
23	SLU 69	64	-90	4683	879.42	-435.31	-20.86
23	SLU 70	54	-90	4694	881.45	-436.47	-18.92
23	SLU 71	64	-90	4683	879.42	-435.31	-20.86
23	SLU 72	54	-90	4694	881.45	-436.47	-18.92
23	SLU 73	47	-97	5252	985.95	-487.08	-18.23
23	SLU 74	63	-97	5235	982.56	-485.15	-21.45

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
23	SLU 75	54	-97	5245	984.59	-486.31	-19.51
23	SLU 76	47	-97	5252	985.95	-487.08	-18.23
23	SLU 77	63	-97	5235	982.56	-485.15	-21.45
23	SLU 78	54	-97	5245	984.59	-486.31	-19.51
23	SLU 79	63	-97	5235	982.56	-485.15	-21.45
23	SLU 80	54	-97	5245	984.59	-486.31	-19.51
23	SLU 81	63	-100	5471	1026.77	-506.51	-21.7
23	SLU 82	54	-100	5481	1028.8	-507.67	-19.77
23	SLU 83	63	-100	5471	1026.77	-506.51	-21.7
23	SLU 84	54	-100	5481	1028.8	-507.67	-19.77
23	SLE RA 1	49	-68	3515	660.01	-326.84	-15.89
23	SLE RA 2	38	-68	3526	662.27	-328.13	-13.74
23	SLE RA 3	49	-68	3515	660.01	-326.84	-15.89
23	SLE RA 4	42	-68	3522	661.36	-327.62	-14.6
23	SLE RA 5	38	-68	3526	662.27	-328.13	-13.74
23	SLE RA 6	49	-68	3515	660.01	-326.84	-15.89
23	SLE RA 7	42	-68	3522	661.36	-327.62	-14.6
23	SLE RA 8	49	-68	3515	660.01	-326.84	-15.89
23	SLE RA 9	42	-68	3522	661.36	-327.62	-14.6
23	SLE RA 10	38	-73	3894	731.03	-361.36	-14.14
23	SLE RA 11	48	-73	3882	728.77	-360.07	-16.28
23	SLE RA 12	42	-73	3889	730.13	-360.84	-15
23	SLE RA 13	38	-73	3894	731.03	-361.36	-14.14
23	SLE RA 14	48	-73	3882	728.77	-360.07	-16.28
23	SLE RA 15	42	-73	3889	730.13	-360.84	-15
23	SLE RA 16	48	-73	3882	728.77	-360.07	-16.28
23	SLE RA 17	42	-73	3889	730.13	-360.84	-15
23	SLE RA 18	48	-75	4040	758.24	-374.31	-16.45
23	SLE RA 19	42	-75	4047	759.6	-375.08	-15.17
23	SLE RA 20	48	-75	4040	758.24	-374.31	-16.45
23	SLE RA 21	42	-75	4047	759.6	-375.08	-15.17
23	SLE FR 1	49	-68	3515	660.01	-326.84	-15.89
23	SLE FR 2	47	-68	3517	660.46	-327.1	-15.46
23	SLE FR 3	49	-68	3515	660.01	-326.84	-15.89
23	SLE FR 4	46	-70	3675	689.93	-341.34	-15.63
23	SLE FR 5	49	-70	3672	689.48	-341.08	-16.06
23	SLE FR 6	48	-71	3777	709.13	-350.58	-16.17
23	SLE QP 1	49	-68	3515	660.01	-326.84	-15.89
23	SLE QP 2	49	-70	3672	689.48	-341.08	-16.06
23	SLD 1	277	-1	3514	656.64	-322.05	-58.04
23	SLD 2	339	26	3523	657.51	-323.44	-68.12
23	SLD 3	249	-119	3239	611.57	-294.17	-64.24
23	SLD 4	312	-92	3247	612.44	-295.57	-74.33
23	SLD 5	137	119	4040	747.67	-377.16	-15.67
23	SLD 6	199	147	4048	748.54	-378.56	-25.83
23	SLD 7	45	-273	3121	597.45	-284.24	-36.36
23	SLD 8	108	-245	3129	598.32	-285.65	-46.52
23	SLD 9	-11	105	4215	780.63	-396.52	14.4
23	SLD 10	52	133	4223	781.51	-397.93	4.24
23	SLD 11	-102	-287	3296	630.42	-303.6	-6.29
23	SLD 12	-39	-259	3304	631.29	-305.01	-16.45
23	SLD 13	-215	-48	4097	766.52	-386.6	42.21
23	SLD 14	-152	-21	4106	767.38	-387.99	32.12
23	SLD 15	-242	-166	3822	721.45	-358.72	36
23	SLD 16	-180	-139	3830	722.32	-360.12	25.92
23	SLV 1	568	86	3313	614.81	-297.8	-111.57
23	SLV 2	709	148	3332	616.77	-300.96	-134.41
23	SLV 3	506	-181	2687	512.39	-234.47	-125.74
23	SLV 4	647	-119	2706	514.35	-237.64	-148.59
23	SLV 5	249	360	4508	821.72	-423.03	-15.15
23	SLV 6	391	422	4527	823.7	-426.21	-38.14
23	SLV 7	41	-530	2420	480.32	-211.94	-62.39
23	SLV 8	183	-468	2439	482.3	-215.12	-85.38
23	SLV 9	-86	328	4906	896.66	-467.05	53.26
23	SLV 10	56	390	4924	898.64	-470.23	30.27
23	SLV 11	-294	-562	2818	555.26	-255.96	6.02
23	SLV 12	-152	-500	2836	557.24	-259.14	-16.97
23	SLV 13	-550	-21	4639	864.61	-444.53	116.47
23	SLV 14	-409	41	4657	866.57	-447.69	93.62
23	SLV 15	-612	-288	4012	762.19	-381.2	102.29
23	SLV 16	-471	-226	4031	764.15	-384.36	79.45
23	CRTFP Ux+	0	0	0	0	0	0
23	CRTFP Ux-	0	0	0	0	0	0
23	CRTFP Uy+	0	0	0	-0.01	0	0
23	CRTFP Uy-	0	0	0	0.01	0	0
25	SLU 1	26	-33	1880	371.32	-10.14	-6.5
25	SLU 2	17	-34	1890	373.63	-10.23	-4.39
25	SLU 3	26	-33	1880	371.32	-10.14	-6.5
25	SLU 4	21	-34	1886	372.71	-10.19	-5.23
25	SLU 5	17	-34	1890	373.63	-10.23	-4.39
25	SLU 6	26	-33	1880	371.32	-10.14	-6.5
25	SLU 7	21	-34	1886	372.71	-10.19	-5.23
25	SLU 8	26	-33	1880	371.32	-10.14	-6.5
25	SLU 9	21	-34	1886	372.71	-10.19	-5.23
25	SLU 10	17	-37	2189	431.83	-11.61	-4.32
25	SLU 11	26	-37	2178	429.52	-11.52	-6.43

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
25	SLU 12	21	-37	2185	430.9	-11.57	-5.16
25	SLU 13	17	-37	2189	431.83	-11.61	-4.32
25	SLU 14	26	-37	2178	429.52	-11.52	-6.43
25	SLU 15	21	-37	2185	430.9	-11.57	-5.16
25	SLU 16	26	-37	2178	429.52	-11.52	-6.43
25	SLU 17	21	-37	2185	430.9	-11.57	-5.16
25	SLU 18	26	-39	2306	454.46	-12.11	-6.4
25	SLU 19	20	-39	2313	455.85	-12.17	-5.13
25	SLU 20	26	-39	2306	454.46	-12.11	-6.4
25	SLU 21	20	-39	2313	455.85	-12.17	-5.13
25	SLU 22	27	-36	2098	413.8	-11.2	-6.66
25	SLU 23	18	-36	2108	416.1	-11.29	-4.55
25	SLU 24	27	-36	2098	413.8	-11.2	-6.66
25	SLU 25	21	-36	2104	415.18	-11.25	-5.39
25	SLU 26	18	-36	2108	416.1	-11.29	-4.55
25	SLU 27	27	-36	2098	413.8	-11.2	-6.66
25	SLU 28	21	-36	2104	415.18	-11.25	-5.39
25	SLU 29	27	-36	2098	413.8	-11.2	-6.66
25	SLU 30	21	-36	2104	415.18	-11.25	-5.39
25	SLU 31	18	-40	2407	474.3	-12.67	-4.48
25	SLU 32	26	-40	2396	472	-12.57	-6.59
25	SLU 33	21	-40	2403	473.38	-12.63	-5.32
25	SLU 34	18	-40	2407	474.3	-12.67	-4.48
25	SLU 35	26	-40	2396	472	-12.57	-6.59
25	SLU 36	21	-40	2403	473.38	-12.63	-5.32
25	SLU 37	26	-40	2396	472	-12.57	-6.59
25	SLU 38	21	-40	2403	473.38	-12.63	-5.32
25	SLU 39	26	-41	2524	496.94	-13.17	-6.56
25	SLU 40	21	-41	2530	498.32	-13.22	-5.29
25	SLU 41	26	-41	2524	496.94	-13.17	-6.56
25	SLU 42	21	-41	2530	498.32	-13.22	-5.29
25	SLU 43	33	-43	2369	468.16	-12.82	-8.39
25	SLU 44	25	-43	2380	470.46	-12.91	-6.28
25	SLU 45	33	-43	2369	468.16	-12.82	-8.39
25	SLU 46	28	-43	2375	469.54	-12.87	-7.13
25	SLU 47	25	-43	2380	470.46	-12.91	-6.28
25	SLU 48	33	-43	2369	468.16	-12.82	-8.39
25	SLU 49	28	-43	2375	469.54	-12.87	-7.13
25	SLU 50	33	-43	2369	468.16	-12.82	-8.39
25	SLU 51	28	-43	2375	469.54	-12.87	-7.13
25	SLU 52	25	-47	2678	528.66	-14.29	-6.21
25	SLU 53	33	-46	2667	526.35	-14.2	-8.32
25	SLU 54	28	-46	2674	527.74	-14.25	-7.06
25	SLU 55	25	-47	2678	528.66	-14.29	-6.21
25	SLU 56	33	-46	2667	526.35	-14.2	-8.32
25	SLU 57	28	-46	2674	527.74	-14.25	-7.06
25	SLU 58	33	-46	2667	526.35	-14.2	-8.32
25	SLU 59	28	-46	2674	527.74	-14.25	-7.06
25	SLU 60	33	-48	2795	551.3	-14.79	-8.29
25	SLU 61	28	-48	2802	552.68	-14.85	-7.03
25	SLU 62	33	-48	2795	551.3	-14.79	-8.29
25	SLU 63	28	-48	2802	552.68	-14.85	-7.03
25	SLU 64	34	-45	2587	510.63	-13.88	-8.56
25	SLU 65	26	-45	2598	512.94	-13.97	-6.44
25	SLU 66	34	-45	2587	510.63	-13.88	-8.56
25	SLU 67	29	-45	2593	512.01	-13.93	-7.29
25	SLU 68	26	-45	2598	512.94	-13.97	-6.44
25	SLU 69	34	-45	2587	510.63	-13.88	-8.56
25	SLU 70	29	-45	2593	512.01	-13.93	-7.29
25	SLU 71	34	-45	2587	510.63	-13.88	-8.56
25	SLU 72	29	-45	2593	512.01	-13.93	-7.29
25	SLU 73	25	-49	2896	571.13	-15.35	-6.37
25	SLU 74	34	-49	2885	568.83	-15.26	-8.49
25	SLU 75	29	-49	2892	570.21	-15.31	-7.22
25	SLU 76	25	-49	2896	571.13	-15.35	-6.37
25	SLU 77	34	-49	2885	568.83	-15.26	-8.49
25	SLU 78	29	-49	2892	570.21	-15.31	-7.22
25	SLU 79	34	-49	2885	568.83	-15.26	-8.49
25	SLU 80	29	-49	2892	570.21	-15.31	-7.22
25	SLU 81	34	-50	3013	593.77	-15.85	-8.45
25	SLU 82	29	-50	3020	595.15	-15.9	-7.19
25	SLU 83	34	-50	3013	593.77	-15.85	-8.45
25	SLU 84	29	-50	3020	595.15	-15.9	-7.19
25	SLE RA 1	26	-34	1942	383.46	-10.44	-6.55
25	SLE RA 2	20	-34	1949	384.99	-10.5	-5.14
25	SLE RA 3	26	-34	1942	383.46	-10.44	-6.55
25	SLE RA 4	23	-34	1946	384.38	-10.48	-5.7
25	SLE RA 5	20	-34	1949	384.99	-10.5	-5.14
25	SLE RA 6	26	-34	1942	383.46	-10.44	-6.55
25	SLE RA 7	23	-34	1946	384.38	-10.48	-5.7
25	SLE RA 8	26	-34	1942	383.46	-10.44	-6.55
25	SLE RA 9	23	-34	1946	384.38	-10.48	-5.7
25	SLE RA 10	20	-37	2148	423.79	-11.42	-5.09
25	SLE RA 11	26	-37	2141	422.26	-11.36	-6.5
25	SLE RA 12	23	-37	2145	423.18	-11.4	-5.65
25	SLE RA 13	20	-37	2148	423.79	-11.42	-5.09

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
25	SLE RA 14	26	-37	2141	422.26	-11.36	-6.5
25	SLE RA 15	23	-37	2145	423.18	-11.4	-5.65
25	SLE RA 16	26	-37	2141	422.26	-11.36	-6.5
25	SLE RA 17	23	-37	2145	423.18	-11.4	-5.65
25	SLE RA 18	26	-38	2226	438.88	-11.76	-6.48
25	SLE RA 19	22	-38	2231	439.81	-11.79	-5.63
25	SLE RA 20	26	-38	2226	438.88	-11.76	-6.48
25	SLE RA 21	22	-38	2231	439.81	-11.79	-5.63
25	SLE FR 1	26	-34	1942	383.46	-10.44	-6.55
25	SLE FR 2	25	-34	1943	383.77	-10.45	-6.26
25	SLE FR 3	26	-34	1942	383.46	-10.44	-6.55
25	SLE FR 4	25	-35	2029	400.39	-10.85	-6.24
25	SLE FR 5	26	-35	2027	400.09	-10.84	-6.53
25	SLE FR 6	26	-36	2084	411.17	-11.1	-6.51
25	SLE QP 1	26	-34	1942	383.46	-10.44	-6.55
25	SLE QP 2	26	-35	2027	400.09	-10.84	-6.53
25	SLD 1	149	5	1922	376.33	-9.72	-36.99
25	SLD 2	182	23	1929	376.93	-9.86	-45.13
25	SLD 3	134	-63	1765	349.2	-8.63	-33.79
25	SLD 4	168	-45	1773	349.8	-8.78	-41.93
25	SLD 5	73	74	2231	433.9	-12.09	-17.65
25	SLD 6	107	92	2238	434.5	-12.24	-25.85
25	SLD 7	25	-154	1708	343.46	-8.48	-6.96
25	SLD 8	58	-136	1716	344.06	-8.63	-15.16
25	SLD 9	-6	65	2339	456.11	-13.04	2.11
25	SLD 10	27	83	2346	456.71	-13.19	-6.09
25	SLD 11	-55	-163	1816	365.67	-9.44	12.8
25	SLD 12	-21	-145	1823	366.27	-9.58	4.6
25	SLD 13	-115	-25	2282	450.38	-12.89	28.88
25	SLD 14	-82	-7	2289	450.97	-13.04	20.73
25	SLD 15	-130	-93	2125	423.25	-11.81	32.08
25	SLD 16	-97	-76	2132	423.84	-11.96	23.94
25	SLV 1	305	57	1789	346.07	-8.29	-75.88
25	SLV 2	381	98	1805	347.41	-8.62	-94.31
25	SLV 3	272	-98	1432	284.42	-5.83	-68.58
25	SLV 4	348	-58	1448	285.77	-6.16	-87.01
25	SLV 5	133	214	2490	476.9	-13.68	-31.89
25	SLV 6	209	255	2506	478.26	-14.02	-50.45
25	SLV 7	23	-304	1303	271.41	-5.49	-7.56
25	SLV 8	99	-263	1319	272.77	-5.82	-26.11
25	SLV 9	-47	193	2735	527.41	-15.85	13.06
25	SLV 10	29	234	2751	528.76	-16.18	-5.49
25	SLV 11	-157	-325	1548	321.91	-7.66	37.39
25	SLV 12	-81	-284	1564	323.27	-7.99	18.84
25	SLV 13	-296	-12	2606	514.41	-15.51	73.96
25	SLV 14	-220	28	2622	515.75	-15.84	55.52
25	SLV 15	-329	-168	2250	452.76	-13.05	81.26
25	SLV 16	-253	-127	2266	454.11	-13.38	62.82
25	CRTFP Ux+	0	0	0	0	0	0
25	CRTFP Ux-	0	0	0	0	0	0
25	CRTFP Uy+	0	0	0	0	0	0
25	CRTFP Uy-	0	0	0	0	0	0
26	SLU 1	37	-42	2776	608.78	188.5	-6.09
26	SLU 2	25	-42	2794	613.07	189.72	-2.97
26	SLU 3	37	-42	2776	608.78	188.5	-6.09
26	SLU 4	30	-42	2787	611.35	189.23	-4.22
26	SLU 5	25	-42	2794	613.07	189.72	-2.97
26	SLU 6	37	-42	2776	608.78	188.5	-6.09
26	SLU 7	30	-42	2787	611.35	189.23	-4.22
26	SLU 8	37	-42	2776	608.78	188.5	-6.09
26	SLU 9	30	-42	2787	611.35	189.23	-4.22
26	SLU 10	24	-46	3224	709.49	219.77	-2.52
26	SLU 11	36	-46	3207	705.2	218.55	-5.64
26	SLU 12	29	-46	3217	707.78	219.28	-3.77
26	SLU 13	24	-46	3224	709.49	219.77	-2.52
26	SLU 14	36	-46	3207	705.2	218.55	-5.64
26	SLU 15	29	-46	3217	707.78	219.28	-3.77
26	SLU 16	36	-46	3207	705.2	218.55	-5.64
26	SLU 17	29	-46	3217	707.78	219.28	-3.77
26	SLU 18	36	-47	3392	746.53	231.42	-5.45
26	SLU 19	29	-48	3402	749.1	232.16	-3.58
26	SLU 20	36	-47	3392	746.53	231.42	-5.45
26	SLU 21	29	-48	3402	749.1	232.16	-3.58
26	SLU 22	38	-44	3093	679.17	210.4	-6.1
26	SLU 23	26	-45	3110	683.46	211.63	-2.97
26	SLU 24	38	-44	3093	679.17	210.4	-6.1
26	SLU 25	31	-45	3103	681.74	211.14	-4.22
26	SLU 26	26	-45	3110	683.46	211.63	-2.97
26	SLU 27	38	-44	3093	679.17	210.4	-6.1
26	SLU 28	31	-45	3103	681.74	211.14	-4.22
26	SLU 29	38	-44	3093	679.17	210.4	-6.1
26	SLU 30	31	-45	3103	681.74	211.14	-4.22
26	SLU 31	25	-49	3541	779.88	241.67	-2.52
26	SLU 32	37	-48	3524	775.59	240.45	-5.65
26	SLU 33	30	-49	3534	778.17	241.18	-3.77
26	SLU 34	25	-49	3541	779.88	241.67	-2.52

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
26	SLU 35	37	-48	3524	775.59	240.45	-5.65
26	SLU 36	30	-49	3534	778.17	241.18	-3.77
26	SLU 37	37	-48	3524	775.59	240.45	-5.65
26	SLU 38	30	-49	3534	778.17	241.18	-3.77
26	SLU 39	37	-50	3708	816.92	253.33	-5.46
26	SLU 40	30	-50	3719	819.49	254.06	-3.58
26	SLU 41	37	-50	3708	816.92	253.33	-5.46
26	SLU 42	30	-50	3719	819.49	254.06	-3.58
26	SLU 43	48	-53	3501	767.28	237.54	-7.92
26	SLU 44	36	-54	3518	771.57	238.76	-4.79
26	SLU 45	48	-53	3501	767.28	237.54	-7.92
26	SLU 46	40	-53	3511	769.85	238.27	-6.04
26	SLU 47	36	-54	3518	771.57	238.76	-4.79
26	SLU 48	48	-53	3501	767.28	237.54	-7.92
26	SLU 49	40	-53	3511	769.85	238.27	-6.04
26	SLU 50	48	-53	3501	767.28	237.54	-7.92
26	SLU 51	40	-53	3511	769.85	238.27	-6.04
26	SLU 52	35	-58	3949	867.99	268.81	-4.34
26	SLU 53	47	-57	3931	863.7	267.59	-7.47
26	SLU 54	40	-57	3942	866.28	268.32	-5.59
26	SLU 55	35	-58	3949	867.99	268.81	-4.34
26	SLU 56	47	-57	3931	863.7	267.59	-7.47
26	SLU 57	40	-57	3942	866.28	268.32	-5.59
26	SLU 58	47	-57	3931	863.7	267.59	-7.47
26	SLU 59	40	-57	3942	866.28	268.32	-5.59
26	SLU 60	47	-59	4116	905.03	280.46	-7.28
26	SLU 61	40	-59	4127	907.6	281.2	-5.4
26	SLU 62	47	-59	4116	905.03	280.46	-7.28
26	SLU 63	40	-59	4127	907.6	281.2	-5.4
26	SLU 64	48	-56	3817	837.67	259.44	-7.92
26	SLU 65	36	-56	3834	841.96	260.67	-4.8
26	SLU 66	48	-56	3817	837.67	259.44	-7.92
26	SLU 67	41	-56	3828	840.24	260.18	-6.05
26	SLU 68	36	-56	3834	841.96	260.67	-4.8
26	SLU 69	48	-56	3817	837.67	259.44	-7.92
26	SLU 70	41	-56	3828	840.24	260.18	-6.05
26	SLU 71	48	-56	3817	837.67	259.44	-7.92
26	SLU 72	41	-56	3828	840.24	260.18	-6.05
26	SLU 73	36	-60	4265	938.38	290.71	-4.35
26	SLU 74	48	-60	4248	934.09	289.49	-7.47
26	SLU 75	41	-60	4258	936.67	290.22	-5.6
26	SLU 76	36	-60	4265	938.38	290.71	-4.35
26	SLU 77	48	-60	4248	934.09	289.49	-7.47
26	SLU 78	41	-60	4258	936.67	290.22	-5.6
26	SLU 79	48	-60	4248	934.09	289.49	-7.47
26	SLU 80	41	-60	4258	936.67	290.22	-5.6
26	SLU 81	48	-61	4433	975.42	302.37	-7.28
26	SLU 82	41	-62	4443	977.99	303.1	-5.41
26	SLU 83	48	-61	4433	975.42	302.37	-7.28
26	SLU 84	41	-62	4443	977.99	303.1	-5.41
26	SLE RA 1	37	-42	2867	628.89	194.76	-6.09
26	SLE RA 2	29	-43	2878	631.75	195.57	-4.01
26	SLE RA 3	37	-42	2867	628.89	194.76	-6.09
26	SLE RA 4	32	-43	2874	630.61	195.25	-4.84
26	SLE RA 5	29	-43	2878	631.75	195.57	-4.01
26	SLE RA 6	37	-42	2867	628.89	194.76	-6.09
26	SLE RA 7	32	-43	2874	630.61	195.25	-4.84
26	SLE RA 8	37	-42	2867	628.89	194.76	-6.09
26	SLE RA 9	32	-43	2874	630.61	195.25	-4.84
26	SLE RA 10	29	-45	3165	696.03	215.6	-3.71
26	SLE RA 11	37	-45	3154	693.17	214.79	-5.79
26	SLE RA 12	32	-45	3161	694.89	215.28	-4.54
26	SLE RA 13	29	-45	3165	696.03	215.6	-3.71
26	SLE RA 14	37	-45	3154	693.17	214.79	-5.79
26	SLE RA 15	32	-45	3161	694.89	215.28	-4.54
26	SLE RA 16	37	-45	3154	693.17	214.79	-5.79
26	SLE RA 17	32	-45	3161	694.89	215.28	-4.54
26	SLE RA 18	37	-46	3277	720.72	223.37	-5.67
26	SLE RA 19	32	-46	3284	722.44	223.86	-4.42
26	SLE RA 20	37	-46	3277	720.72	223.37	-5.67
26	SLE RA 21	32	-46	3284	722.44	223.86	-4.42
26	SLE FR 1	37	-42	2867	628.89	194.76	-6.09
26	SLE FR 2	35	-42	2869	629.46	194.92	-5.68
26	SLE FR 3	37	-42	2867	628.89	194.76	-6.09
26	SLE FR 4	35	-43	2992	657.01	203.51	-5.55
26	SLE FR 5	37	-43	2990	656.44	203.34	-5.97
26	SLE FR 6	37	-44	3072	674.81	209.07	-5.88
26	SLE QP 1	37	-42	2867	628.89	194.76	-6.09
26	SLE QP 2	37	-43	2990	656.44	203.34	-5.97
26	SLD 1	212	19	2811	608.69	190.36	-54.09
26	SLD 2	260	49	2826	609.65	190.74	-68.39
26	SLD 3	191	-86	2570	563.83	175.95	-41.19
26	SLD 4	239	-56	2585	564.79	176.33	-55.48
26	SLD 5	104	124	3297	709.82	221.17	-34.93
26	SLD 6	152	155	3312	710.79	221.55	-49.33
26	SLD 7	35	-226	2492	560.27	173.13	8.1

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
26	SLD 8	83	-196	2507	561.24	173.51	-6.3
26	SLD 9	-9	109	3472	751.64	233.17	-5.63
26	SLD 10	39	140	3487	752.61	233.55	-20.03
26	SLD 11	-78	-241	2667	602.09	185.13	37.39
26	SLD 12	-30	-211	2683	603.06	185.51	22.99
26	SLD 13	-165	-31	3395	748.09	230.36	43.55
26	SLD 14	-117	-1	3410	749.05	230.73	29.25
26	SLD 15	-186	-136	3153	703.23	215.95	56.46
26	SLD 16	-138	-106	3169	704.19	216.32	42.16
26	SLV 1	436	99	2583	547.89	173.84	-115.5
26	SLV 2	543	167	2618	550.07	174.69	-147.87
26	SLV 3	388	-140	2035	445.95	141.09	-86.19
26	SLV 4	496	-72	2069	448.13	141.94	-118.57
26	SLV 5	191	338	3688	777.71	243.86	-71.83
26	SLV 6	299	406	3722	779.9	244.71	-104.42
26	SLV 7	32	-459	1859	437.92	134.7	25.85
26	SLV 8	140	-390	1894	440.11	135.56	-6.74
26	SLV 9	-66	303	4086	872.77	271.13	-5.19
26	SLV 10	42	372	4121	874.96	271.98	-37.78
26	SLV 11	-225	-493	2257	532.98	161.98	92.49
26	SLV 12	-117	-424	2292	535.17	162.83	59.9
26	SLV 13	-422	-15	3910	864.75	264.74	106.63
26	SLV 14	-314	53	3945	866.93	265.59	74.26
26	SLV 15	-469	-254	3362	762.81	232	135.94
26	SLV 16	-362	-186	3396	764.99	232.85	103.57
26	CRTFP Ux+	0	0	0	0	0	0
26	CRTFP Ux-	0	0	0	0	0	0
26	CRTFP Uy+	0	0	0	-0.01	0	0
26	CRTFP Uy-	0	0	0	0.01	0	0
27	SLU 1	19	-20	1552	296.44	126.84	-2.23
27	SLU 2	12	-21	1563	298.61	127.74	-0.63
27	SLU 3	19	-20	1552	296.44	126.84	-2.23
27	SLU 4	15	-20	1558	297.74	127.38	-1.27
27	SLU 5	12	-21	1563	298.61	127.74	-0.63
27	SLU 6	19	-20	1552	296.44	126.84	-2.23
27	SLU 7	15	-20	1558	297.74	127.38	-1.27
27	SLU 8	19	-20	1552	296.44	126.84	-2.23
27	SLU 9	15	-20	1558	297.74	127.38	-1.27
27	SLU 10	12	-22	1801	345.08	147.79	-0.3
27	SLU 11	18	-22	1790	342.92	146.89	-1.91
27	SLU 12	14	-22	1797	344.22	147.43	-0.95
27	SLU 13	12	-22	1801	345.08	147.79	-0.3
27	SLU 14	18	-22	1790	342.92	146.89	-1.91
27	SLU 15	14	-22	1797	344.22	147.43	-0.95
27	SLU 16	18	-22	1790	342.92	146.89	-1.91
27	SLU 17	14	-22	1797	344.22	147.43	-0.95
27	SLU 18	18	-22	1892	362.84	155.49	-1.77
27	SLU 19	14	-22	1899	364.14	156.03	-0.81
27	SLU 20	18	-22	1892	362.84	155.49	-1.77
27	SLU 21	14	-22	1899	364.14	156.03	-0.81
27	SLU 22	19	-21	1727	330.42	141.46	-2.17
27	SLU 23	13	-22	1738	332.59	142.36	-0.57
27	SLU 24	19	-21	1727	330.42	141.46	-2.17
27	SLU 25	15	-21	1734	331.72	142	-1.21
27	SLU 26	13	-22	1738	332.59	142.36	-0.57
27	SLU 27	19	-21	1727	330.42	141.46	-2.17
27	SLU 28	15	-21	1734	331.72	142	-1.21
27	SLU 29	19	-21	1727	330.42	141.46	-2.17
27	SLU 30	15	-21	1734	331.72	142	-1.21
27	SLU 31	12	-23	1976	379.06	162.41	-0.24
27	SLU 32	19	-23	1966	376.9	161.51	-1.85
27	SLU 33	15	-23	1972	378.2	162.05	-0.88
27	SLU 34	12	-23	1976	379.06	162.41	-0.24
27	SLU 35	19	-23	1966	376.9	161.51	-1.85
27	SLU 36	15	-23	1972	378.2	162.05	-0.88
27	SLU 37	19	-23	1966	376.9	161.51	-1.85
27	SLU 38	15	-23	1972	378.2	162.05	-0.88
27	SLU 39	18	-23	2068	396.82	170.11	-1.71
27	SLU 40	14	-23	2074	398.12	170.65	-0.75
27	SLU 41	18	-23	2068	396.82	170.11	-1.71
27	SLU 42	14	-23	2074	398.12	170.65	-0.75
27	SLU 43	25	-26	1957	373.72	159.87	-2.92
27	SLU 44	18	-26	1968	375.89	160.78	-1.32
27	SLU 45	25	-26	1957	373.72	159.87	-2.92
27	SLU 46	21	-26	1964	375.02	160.42	-1.96
27	SLU 47	18	-26	1968	375.89	160.78	-1.32
27	SLU 48	25	-26	1957	373.72	159.87	-2.92
27	SLU 49	21	-26	1964	375.02	160.42	-1.96
27	SLU 50	25	-26	1957	373.72	159.87	-2.92
27	SLU 51	21	-26	1964	375.02	160.42	-1.96
27	SLU 52	17	-28	2206	422.37	180.83	-0.99
27	SLU 53	24	-27	2196	420.2	179.93	-2.6
27	SLU 54	20	-28	2202	421.5	180.47	-1.64
27	SLU 55	17	-28	2206	422.37	180.83	-0.99
27	SLU 56	24	-27	2196	420.2	179.93	-2.6
27	SLU 57	20	-28	2202	421.5	180.47	-1.64

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
27	SLU 58	24	-27	2196	420.2	179.93	-2.6
27	SLU 59	20	-28	2202	421.5	180.47	-1.64
27	SLU 60	24	-28	2298	440.12	188.52	-2.46
27	SLU 61	20	-28	2304	441.42	189.07	-1.5
27	SLU 62	24	-28	2298	440.12	188.52	-2.46
27	SLU 63	20	-28	2304	441.42	189.07	-1.5
27	SLU 64	25	-27	2133	407.7	174.5	-2.86
27	SLU 65	18	-27	2144	409.87	175.4	-1.26
27	SLU 66	25	-27	2133	407.7	174.5	-2.86
27	SLU 67	21	-27	2139	409	175.04	-1.9
27	SLU 68	18	-27	2144	409.87	175.4	-1.26
27	SLU 69	25	-27	2133	407.7	174.5	-2.86
27	SLU 70	21	-27	2139	409	175.04	-1.9
27	SLU 71	25	-27	2133	407.7	174.5	-2.86
27	SLU 72	21	-27	2139	409	175.04	-1.9
27	SLU 73	18	-29	2382	456.35	195.45	-0.93
27	SLU 74	24	-28	2371	454.18	194.55	-2.54
27	SLU 75	20	-29	2378	455.48	195.09	-1.58
27	SLU 76	18	-29	2382	456.35	195.45	-0.93
27	SLU 77	24	-28	2371	454.18	194.55	-2.54
27	SLU 78	20	-29	2378	455.48	195.09	-1.58
27	SLU 79	24	-28	2371	454.18	194.55	-2.54
27	SLU 80	20	-29	2378	455.48	195.09	-1.58
27	SLU 81	24	-29	2473	474.1	203.15	-2.4
27	SLU 82	20	-29	2480	475.4	203.69	-1.44
27	SLU 83	24	-29	2473	474.1	203.15	-2.4
27	SLU 84	20	-29	2480	475.4	203.69	-1.44
27	SLE RA 1	19	-20	1602	306.15	131.01	-2.22
27	SLE RA 2	15	-21	1609	307.59	131.61	-1.15
27	SLE RA 3	19	-20	1602	306.15	131.01	-2.22
27	SLE RA 4	16	-21	1606	307.02	131.37	-1.57
27	SLE RA 5	15	-21	1609	307.59	131.61	-1.15
27	SLE RA 6	19	-20	1602	306.15	131.01	-2.22
27	SLE RA 7	16	-21	1606	307.02	131.37	-1.57
27	SLE RA 8	19	-20	1602	306.15	131.01	-2.22
27	SLE RA 9	16	-21	1606	307.02	131.37	-1.57
27	SLE RA 10	14	-22	1768	338.58	144.99	-0.93
27	SLE RA 11	19	-21	1761	337.13	144.38	-2
27	SLE RA 12	16	-22	1765	338	144.74	-1.36
27	SLE RA 13	14	-22	1768	338.58	144.99	-0.93
27	SLE RA 14	19	-21	1761	337.13	144.38	-2
27	SLE RA 15	16	-22	1765	338	144.74	-1.36
27	SLE RA 16	19	-21	1761	337.13	144.38	-2
27	SLE RA 17	16	-22	1765	338	144.74	-1.36
27	SLE RA 18	19	-22	1829	350.41	150.11	-1.91
27	SLE RA 19	16	-22	1833	351.28	150.47	-1.26
27	SLE RA 20	19	-22	1829	350.41	150.11	-1.91
27	SLE RA 21	16	-22	1833	351.28	150.47	-1.26
27	SLE FR 1	19	-20	1602	306.15	131.01	-2.22
27	SLE FR 2	18	-20	1604	306.44	131.13	-2
27	SLE FR 3	19	-20	1602	306.15	131.01	-2.22
27	SLE FR 4	18	-21	1672	319.72	136.86	-1.91
27	SLE FR 5	19	-21	1670	319.43	136.74	-2.12
27	SLE FR 6	19	-21	1716	328.28	140.56	-2.06
27	SLE QP 1	19	-20	1602	306.15	131.01	-2.22
27	SLE QP 2	19	-21	1670	319.43	136.74	-2.12
27	SLD 1	118	17	1551	294.5	126.5	-27.59
27	SLD 2	144	36	1559	294.95	126.58	-35.43
27	SLD 3	107	-46	1419	273.47	117.81	-19.04
27	SLD 4	133	-27	1427	273.93	117.89	-26.88
27	SLD 5	56	79	1832	343.67	146.82	-19.96
27	SLD 6	82	99	1840	344.13	146.9	-27.85
27	SLD 7	20	-131	1391	273.59	117.86	8.54
27	SLD 8	46	-112	1400	274.05	117.94	0.64
27	SLD 9	-8	70	1941	364.8	155.55	-4.89
27	SLD 10	18	89	1949	365.26	155.63	-12.78
27	SLD 11	-44	-140	1500	294.72	126.59	23.61
27	SLD 12	-18	-121	1509	295.18	126.67	15.71
27	SLD 13	-95	-15	1913	364.93	155.6	22.64
27	SLD 14	-69	5	1922	365.38	155.68	14.8
27	SLD 15	-106	-78	1781	343.9	146.91	31.18
27	SLD 16	-80	-58	1790	344.36	146.99	23.35
27	SLV 1	244	65	1399	262.75	113.45	-60.08
27	SLV 2	303	108	1418	263.78	113.63	-77.83
27	SLV 3	220	-78	1098	214.98	93.71	-40.68
27	SLV 4	279	-35	1118	216.02	93.89	-58.43
27	SLV 5	102	207	2037	374.51	159.63	-42.67
27	SLV 6	162	250	2057	375.55	159.81	-60.54
27	SLV 7	22	-270	1036	215.28	93.83	22.01
27	SLV 8	81	-227	1056	216.32	94.01	4.15
27	SLV 9	-43	185	2285	422.53	179.47	-8.39
27	SLV 10	16	229	2304	423.57	179.65	-26.26
27	SLV 11	-124	-292	1283	263.31	113.68	56.29
27	SLV 12	-64	-248	1303	264.35	113.86	38.43
27	SLV 13	-241	-7	2222	422.84	179.6	54.18
27	SLV 14	-182	36	2242	423.87	179.78	36.43

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
27	SLV 15	-265	-150	1922	375.07	159.86	73.59
27	SLV 16	-206	-107	1942	376.1	160.04	55.84
27	CRTFP Ux+	0	0	0	0	0	0
27	CRTFP Ux-	0	0	0	0	0	0
27	CRTFP Uy+	0	0	0	0	0	0
27	CRTFP Uy-	0	0	0	0	0	0
50	SLU 1	19	-18	1691	308.85	162.48	-1.88
50	SLU 2	11	-18	1704	311.27	163.7	-0.16
50	SLU 3	19	-18	1691	308.85	162.48	-1.88
50	SLU 4	14	-18	1699	310.3	163.21	-0.85
50	SLU 5	11	-18	1704	311.27	163.7	-0.16
50	SLU 6	19	-18	1691	308.85	162.48	-1.88
50	SLU 7	14	-18	1699	310.3	163.21	-0.85
50	SLU 8	19	-18	1691	308.85	162.48	-1.88
50	SLU 9	14	-18	1699	310.3	163.21	-0.85
50	SLU 10	10	-19	1961	358.72	188.75	0.22
50	SLU 11	17	-18	1948	356.3	187.53	-1.49
50	SLU 12	13	-19	1955	357.75	188.26	-0.46
50	SLU 13	10	-19	1961	358.72	188.75	0.22
50	SLU 14	17	-18	1948	356.3	187.53	-1.49
50	SLU 15	13	-19	1955	357.75	188.26	-0.46
50	SLU 16	17	-18	1948	356.3	187.53	-1.49
50	SLU 17	13	-19	1955	357.75	188.26	-0.46
50	SLU 18	17	-19	2058	376.63	198.26	-1.33
50	SLU 19	12	-19	2065	378.08	199	-0.3
50	SLU 20	17	-19	2058	376.63	198.26	-1.33
50	SLU 21	12	-19	2065	378.08	199	-0.3
50	SLU 22	18	-18	1881	343.71	180.86	-1.78
50	SLU 23	11	-19	1894	346.13	182.08	-0.07
50	SLU 24	18	-18	1881	343.71	180.86	-1.78
50	SLU 25	14	-19	1888	345.16	181.59	-0.76
50	SLU 26	11	-19	1894	346.13	182.08	-0.07
50	SLU 27	18	-18	1881	343.71	180.86	-1.78
50	SLU 28	14	-19	1888	345.16	181.59	-0.76
50	SLU 29	18	-18	1881	343.71	180.86	-1.78
50	SLU 30	14	-19	1888	345.16	181.59	-0.76
50	SLU 31	10	-19	2151	393.57	207.13	0.31
50	SLU 32	17	-19	2137	391.15	205.91	-1.4
50	SLU 33	13	-19	2145	392.61	206.64	-0.37
50	SLU 34	10	-19	2151	393.57	207.13	0.31
50	SLU 35	17	-19	2137	391.15	205.91	-1.4
50	SLU 36	13	-19	2145	392.61	206.64	-0.37
50	SLU 37	17	-19	2137	391.15	205.91	-1.4
50	SLU 38	13	-19	2145	392.61	206.64	-0.37
50	SLU 39	17	-19	2247	411.49	216.64	-1.23
50	SLU 40	12	-19	2255	412.94	217.38	-0.21
50	SLU 41	17	-19	2247	411.49	216.64	-1.23
50	SLU 42	12	-19	2255	412.94	217.38	-0.21
50	SLU 43	24	-23	2133	389.55	204.92	-2.47
50	SLU 44	17	-23	2146	391.98	206.14	-0.76
50	SLU 45	24	-23	2133	389.55	204.92	-2.47
50	SLU 46	20	-23	2141	391.01	205.65	-1.44
50	SLU 47	17	-23	2146	391.98	206.14	-0.76
50	SLU 48	24	-23	2133	389.55	204.92	-2.47
50	SLU 49	20	-23	2141	391.01	205.65	-1.44
50	SLU 50	24	-23	2133	389.55	204.92	-2.47
50	SLU 51	20	-23	2141	391.01	205.65	-1.44
50	SLU 52	15	-24	2403	439.42	231.19	-0.37
50	SLU 53	23	-23	2390	437	229.97	-2.09
50	SLU 54	18	-24	2398	438.45	230.7	-1.06
50	SLU 55	15	-24	2403	439.42	231.19	-0.37
50	SLU 56	23	-23	2390	437	229.97	-2.09
50	SLU 57	18	-24	2398	438.45	230.7	-1.06
50	SLU 58	23	-23	2390	437	229.97	-2.09
50	SLU 59	18	-24	2398	438.45	230.7	-1.06
50	SLU 60	22	-24	2500	457.33	240.7	-1.92
50	SLU 61	18	-24	2508	458.79	241.44	-0.89
50	SLU 62	22	-24	2500	457.33	240.7	-1.92
50	SLU 63	18	-24	2508	458.79	241.44	-0.89
50	SLU 64	24	-23	2323	424.41	223.3	-2.38
50	SLU 65	17	-24	2336	426.83	224.52	-0.67
50	SLU 66	24	-23	2323	424.41	223.3	-2.38
50	SLU 67	20	-24	2331	425.86	224.03	-1.35
50	SLU 68	17	-24	2336	426.83	224.52	-0.67
50	SLU 69	24	-23	2323	424.41	223.3	-2.38
50	SLU 70	20	-24	2331	425.86	224.03	-1.35
50	SLU 71	24	-23	2323	424.41	223.3	-2.38
50	SLU 72	20	-24	2331	425.86	224.03	-1.35
50	SLU 73	15	-25	2593	474.28	249.57	-0.28
50	SLU 74	23	-24	2579	471.86	248.35	-1.99
50	SLU 75	18	-24	2587	473.31	249.08	-0.97
50	SLU 76	15	-25	2593	474.28	249.57	-0.28
50	SLU 77	23	-24	2579	471.86	248.35	-1.99
50	SLU 78	18	-24	2587	473.31	249.08	-0.97
50	SLU 79	23	-24	2579	471.86	248.35	-1.99
50	SLU 80	18	-24	2587	473.31	249.08	-0.97

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
50	SLU 81	22	-24	2690	492.19	259.08	-1.83
50	SLU 82	18	-25	2697	493.64	259.82	-0.8
50	SLU 83	22	-24	2690	492.19	259.08	-1.83
50	SLU 84	18	-25	2697	493.64	259.82	-0.8
50	SLE RA 1	18	-18	1745	318.81	167.73	-1.85
50	SLE RA 2	14	-18	1754	320.42	168.54	-0.71
50	SLE RA 3	18	-18	1745	318.81	167.73	-1.85
50	SLE RA 4	16	-18	1750	319.78	168.22	-1.16
50	SLE RA 5	14	-18	1754	320.42	168.54	-0.71
50	SLE RA 6	18	-18	1745	318.81	167.73	-1.85
50	SLE RA 7	16	-18	1750	319.78	168.22	-1.16
50	SLE RA 8	18	-18	1745	318.81	167.73	-1.85
50	SLE RA 9	16	-18	1750	319.78	168.22	-1.16
50	SLE RA 10	13	-19	1925	352.05	185.24	-0.45
50	SLE RA 11	18	-18	1916	350.44	184.43	-1.59
50	SLE RA 12	15	-18	1921	351.41	184.92	-0.91
50	SLE RA 13	13	-19	1925	352.05	185.24	-0.45
50	SLE RA 14	18	-18	1916	350.44	184.43	-1.59
50	SLE RA 15	15	-18	1921	351.41	184.92	-0.91
50	SLE RA 16	18	-18	1916	350.44	184.43	-1.59
50	SLE RA 17	15	-18	1921	351.41	184.92	-0.91
50	SLE RA 18	17	-18	1990	364	191.59	-1.48
50	SLE RA 19	14	-19	1995	364.96	192.08	-0.8
50	SLE RA 20	17	-18	1990	364	191.59	-1.48
50	SLE RA 21	14	-19	1995	364.96	192.08	-0.8
50	SLE FR 1	18	-18	1745	318.81	167.73	-1.85
50	SLE FR 2	17	-18	1747	319.13	167.89	-1.62
50	SLE FR 3	18	-18	1745	318.81	167.73	-1.85
50	SLE FR 4	17	-18	1820	332.69	175.05	-1.51
50	SLE FR 5	18	-18	1818	332.37	174.89	-1.74
50	SLE FR 6	18	-18	1867	341.4	179.66	-1.67
50	SLE QP 1	18	-18	1745	318.81	167.73	-1.85
50	SLE QP 2	18	-18	1818	332.37	174.89	-1.74
50	SLD 1	126	26	1664	303.22	160.42	-29.4
50	SLD 2	154	49	1673	303.98	160.82	-38.11
50	SLD 3	116	-47	1524	281.78	149.01	-19.01
50	SLD 4	144	-24	1533	282.54	149.4	-27.72
50	SLD 5	56	98	1981	355.86	187.72	-22.72
50	SLD 6	84	121	1991	356.63	188.12	-31.5
50	SLD 7	22	-146	1514	284.41	149.67	11.93
50	SLD 8	50	-122	1524	285.18	150.07	3.15
50	SLD 9	-14	86	2113	379.55	199.7	-6.63
50	SLD 10	14	110	2123	380.32	200.11	-15.4
50	SLD 11	-48	-157	1646	308.11	161.65	28.02
50	SLD 12	-20	-134	1655	308.87	162.05	19.24
50	SLD 13	-107	-12	2103	382.19	200.37	24.24
50	SLD 14	-80	11	2113	382.95	200.76	15.53
50	SLD 15	-118	-85	1963	360.75	188.95	34.63
50	SLD 16	-90	-62	1973	361.51	189.35	25.92
50	SLV 1	265	82	1467	266.11	142.01	-64.69
50	SLV 2	327	135	1489	267.83	142.91	-84.41
50	SLV 3	241	-84	1149	217.41	116.07	-41.09
50	SLV 4	304	-31	1170	219.13	116.97	-60.82
50	SLV 5	105	245	2189	385.75	204.05	-49.45
50	SLV 6	168	298	2210	387.48	204.95	-69.3
50	SLV 7	28	-308	1127	223.41	117.58	29.21
50	SLV 8	91	-255	1149	225.14	118.49	9.36
50	SLV 9	-54	219	2488	439.59	231.28	-12.84
50	SLV 10	8	272	2510	441.32	232.19	-32.69
50	SLV 11	-131	-334	1427	277.26	144.82	65.82
50	SLV 12	-69	-281	1448	278.98	145.72	45.97
50	SLV 13	-267	-5	2466	445.6	232.8	57.34
50	SLV 14	-205	48	2488	447.32	233.7	37.61
50	SLV 15	-290	-171	2148	396.9	206.86	80.93
50	SLV 16	-228	-118	2169	398.62	207.76	61.21
50	CRTFP Ux+	0	0	0	0	0	0
50	CRTFP Ux-	0	0	0	0	0	0
50	CRTFP Uy+	0	0	0	0	0	0
50	CRTFP Uy-	0	0	0	0	0	0
51	SLU 1	17	-26	1325	35.15	-305.63	-6.88
51	SLU 2	11	-26	1332	35.34	-307.46	-6.76
51	SLU 3	17	-26	1325	35.15	-305.63	-6.88
51	SLU 4	14	-26	1329	35.27	-306.73	-6.81
51	SLU 5	11	-26	1332	35.34	-307.46	-6.76
51	SLU 6	17	-26	1325	35.15	-305.63	-6.88
51	SLU 7	14	-26	1329	35.27	-306.73	-6.81
51	SLU 8	17	-26	1325	35.15	-305.63	-6.88
51	SLU 9	14	-26	1329	35.27	-306.73	-6.81
51	SLU 10	11	-29	1545	41.01	-354.78	-7.51
51	SLU 11	17	-29	1538	40.81	-352.95	-7.63
51	SLU 12	13	-29	1542	40.93	-354.05	-7.56
51	SLU 13	11	-29	1545	41.01	-354.78	-7.51
51	SLU 14	17	-29	1538	40.81	-352.95	-7.63
51	SLU 15	13	-29	1542	40.93	-354.05	-7.56
51	SLU 16	17	-29	1538	40.81	-352.95	-7.63
51	SLU 17	13	-29	1542	40.93	-354.05	-7.56

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
51	SLU 18	17	-30	1629	43.23	-373.22	-7.95
51	SLU 19	13	-30	1634	43.35	-374.32	-7.88
51	SLU 20	17	-30	1629	43.23	-373.22	-7.95
51	SLU 21	13	-30	1634	43.35	-374.32	-7.88
51	SLU 22	18	-28	1480	39.27	-340.11	-7.37
51	SLU 23	12	-28	1487	39.47	-341.94	-7.26
51	SLU 24	18	-28	1480	39.27	-340.11	-7.37
51	SLU 25	14	-28	1484	39.39	-341.21	-7.3
51	SLU 26	12	-28	1487	39.47	-341.94	-7.26
51	SLU 27	18	-28	1480	39.27	-340.11	-7.37
51	SLU 28	14	-28	1484	39.39	-341.21	-7.3
51	SLU 29	18	-28	1480	39.27	-340.11	-7.37
51	SLU 30	14	-28	1484	39.39	-341.21	-7.3
51	SLU 31	11	-31	1701	45.13	-389.26	-8
51	SLU 32	18	-31	1693	44.93	-387.43	-8.12
51	SLU 33	14	-31	1698	45.05	-388.53	-8.05
51	SLU 34	11	-31	1701	45.13	-389.26	-8
51	SLU 35	18	-31	1693	44.93	-387.43	-8.12
51	SLU 36	14	-31	1698	45.05	-388.53	-8.05
51	SLU 37	18	-31	1693	44.93	-387.43	-8.12
51	SLU 38	14	-31	1698	45.05	-388.53	-8.05
51	SLU 39	17	-32	1785	47.36	-407.71	-8.44
51	SLU 40	14	-32	1789	47.48	-408.81	-8.37
51	SLU 41	17	-32	1785	47.36	-407.71	-8.44
51	SLU 42	14	-32	1789	47.48	-408.81	-8.37
51	SLU 43	22	-33	1669	44.28	-385.5	-8.77
51	SLU 44	16	-33	1676	44.47	-387.33	-8.66
51	SLU 45	22	-33	1669	44.28	-385.5	-8.77
51	SLU 46	19	-33	1673	44.39	-386.59	-8.71
51	SLU 47	16	-33	1676	44.47	-387.33	-8.66
51	SLU 48	22	-33	1669	44.28	-385.5	-8.77
51	SLU 49	19	-33	1673	44.39	-386.59	-8.71
51	SLU 50	22	-33	1669	44.28	-385.5	-8.77
51	SLU 51	19	-33	1673	44.39	-386.59	-8.71
51	SLU 52	16	-36	1890	50.13	-434.64	-9.41
51	SLU 53	22	-36	1882	49.94	-432.81	-9.52
51	SLU 54	19	-36	1887	50.06	-433.91	-9.45
51	SLU 55	16	-36	1890	50.13	-434.64	-9.41
51	SLU 56	22	-36	1882	49.94	-432.81	-9.52
51	SLU 57	19	-36	1887	50.06	-433.91	-9.45
51	SLU 58	22	-36	1882	49.94	-432.81	-9.52
51	SLU 59	19	-36	1887	50.06	-433.91	-9.45
51	SLU 60	22	-37	1974	52.36	-453.09	-9.84
51	SLU 61	18	-37	1978	52.48	-454.19	-9.78
51	SLU 62	22	-37	1974	52.36	-453.09	-9.84
51	SLU 63	18	-37	1978	52.48	-454.19	-9.78
51	SLU 64	23	-35	1824	48.4	-419.98	-9.26
51	SLU 65	17	-35	1831	48.6	-421.81	-9.15
51	SLU 66	23	-35	1824	48.4	-419.98	-9.26
51	SLU 67	19	-35	1829	48.52	-421.08	-9.2
51	SLU 68	17	-35	1831	48.6	-421.81	-9.15
51	SLU 69	23	-35	1824	48.4	-419.98	-9.26
51	SLU 70	19	-35	1829	48.52	-421.08	-9.2
51	SLU 71	23	-35	1824	48.4	-419.98	-9.26
51	SLU 72	19	-35	1829	48.52	-421.08	-9.2
51	SLU 73	17	-38	2045	54.26	-469.13	-9.9
51	SLU 74	23	-38	2037	54.06	-467.3	-10.01
51	SLU 75	19	-38	2042	54.18	-468.39	-9.95
51	SLU 76	17	-38	2045	54.26	-469.13	-9.9
51	SLU 77	23	-38	2037	54.06	-467.3	-10.01
51	SLU 78	19	-38	2042	54.18	-468.39	-9.95
51	SLU 79	23	-38	2037	54.06	-467.3	-10.01
51	SLU 80	19	-38	2042	54.18	-468.39	-9.95
51	SLU 81	23	-39	2129	56.49	-487.57	-10.33
51	SLU 82	19	-39	2133	56.61	-488.67	-10.27
51	SLU 83	23	-39	2129	56.49	-487.57	-10.33
51	SLU 84	19	-39	2133	56.61	-488.67	-10.27
51	SLE RA 1	18	-26	1369	36.33	-315.48	-7.02
51	SLE RA 2	13	-27	1374	36.46	-316.7	-6.94
51	SLE RA 3	18	-26	1369	36.33	-315.48	-7.02
51	SLE RA 4	15	-27	1372	36.4	-316.21	-6.97
51	SLE RA 5	13	-27	1374	36.46	-316.7	-6.94
51	SLE RA 6	18	-26	1369	36.33	-315.48	-7.02
51	SLE RA 7	15	-27	1372	36.4	-316.21	-6.97
51	SLE RA 8	18	-26	1369	36.33	-315.48	-7.02
51	SLE RA 9	15	-27	1372	36.4	-316.21	-6.97
51	SLE RA 10	13	-29	1516	40.23	-348.25	-7.44
51	SLE RA 11	17	-28	1511	40.1	-347.03	-7.52
51	SLE RA 12	15	-29	1514	40.18	-347.76	-7.47
51	SLE RA 13	13	-29	1516	40.23	-348.25	-7.44
51	SLE RA 14	17	-28	1511	40.1	-347.03	-7.52
51	SLE RA 15	15	-29	1514	40.18	-347.76	-7.47
51	SLE RA 16	17	-28	1511	40.1	-347.03	-7.52
51	SLE RA 17	15	-29	1514	40.18	-347.76	-7.47
51	SLE RA 18	17	-29	1572	41.72	-360.55	-7.73
51	SLE RA 19	15	-29	1575	41.8	-361.28	-7.69

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
51	SLE RA 20	17	-29	1572	41.72	-360.55	-7.73
51	SLE RA 21	15	-29	1575	41.8	-361.28	-7.69
51	SLE FR 1	18	-26	1369	36.33	-315.48	-7.02
51	SLE FR 2	17	-26	1370	36.35	-315.73	-7
51	SLE FR 3	18	-26	1369	36.33	-315.48	-7.02
51	SLE FR 4	17	-27	1431	37.97	-329.24	-7.22
51	SLE FR 5	17	-27	1430	37.94	-329	-7.23
51	SLE FR 6	17	-28	1471	39.02	-338.01	-7.38
51	SLE QP 1	18	-26	1369	36.33	-315.48	-7.02
51	SLE QP 2	17	-27	1430	37.94	-329	-7.23
51	SLD 1	106	1	1360	35.93	-310.56	-5.4
51	SLD 2	129	13	1363	35.99	-311.8	-3.04
51	SLD 3	96	-47	1257	33.46	-285.31	-17.24
51	SLD 4	120	-35	1260	33.52	-286.55	-14.88
51	SLD 5	50	50	1564	41.06	-361.34	10.45
51	SLD 6	74	62	1567	41.13	-362.58	12.83
51	SLD 7	18	-111	1221	32.83	-277.15	-29.04
51	SLD 8	42	-99	1224	32.89	-278.4	-26.66
51	SLD 9	-7	44	1636	42.99	-379.6	12.2
51	SLD 10	17	56	1639	43.06	-380.85	14.57
51	SLD 11	-39	-117	1293	34.76	-295.42	-27.3
51	SLD 12	-16	-105	1296	34.82	-296.67	-24.92
51	SLD 13	-85	-19	1600	42.36	-371.45	0.42
51	SLD 14	-61	-7	1603	42.43	-372.69	2.78
51	SLD 15	-95	-68	1497	39.89	-346.2	-11.43
51	SLD 16	-71	-56	1500	39.96	-347.44	-9.07
51	SLV 1	219	37	1271	33.37	-287.08	-3.09
51	SLV 2	272	64	1278	33.51	-289.88	2.25
51	SLV 3	197	-72	1037	27.75	-229.7	-30
51	SLV 4	250	-45	1044	27.9	-232.5	-24.65
51	SLV 5	93	149	1734	45.03	-402.47	32.93
51	SLV 6	146	176	1742	45.18	-405.29	38.31
51	SLV 7	19	-216	955	26.32	-211.19	-56.76
51	SLV 8	72	-189	962	26.46	-214	-51.38
51	SLV 9	-37	135	1898	49.42	-444	36.91
51	SLV 10	16	162	1905	49.57	-446.82	42.29
51	SLV 11	-111	-230	1118	30.71	-252.71	-52.77
51	SLV 12	-58	-203	1126	30.85	-255.53	-47.39
51	SLV 13	-215	-9	1816	47.99	-425.51	10.19
51	SLV 14	-162	18	1823	48.14	-428.31	15.53
51	SLV 15	-237	-119	1582	42.38	-368.12	-16.72
51	SLV 16	-184	-92	1589	42.52	-370.92	-11.37
51	CRTFP Ux+	0	0	0	0	0	0
51	CRTFP Ux-	0	0	0	0	0	0
51	CRTFP Uy+	0	0	0	0	0	0
51	CRTFP Uy-	0	0	0	0	0	0
53	SLU 1	42	-44	1735	46.57	-507.36	-16.2
53	SLU 2	35	-43	1715	46.04	-502.02	-15.79
53	SLU 3	42	-44	1735	46.57	-507.36	-16.2
53	SLU 4	38	-43	1723	46.25	-504.16	-15.96
53	SLU 5	35	-43	1715	46.04	-502.02	-15.79
53	SLU 6	42	-44	1735	46.57	-507.36	-16.2
53	SLU 7	38	-43	1723	46.25	-504.16	-15.96
53	SLU 8	42	-44	1735	46.57	-507.36	-16.2
53	SLU 9	38	-43	1723	46.25	-504.16	-15.96
53	SLU 10	41	-52	2019	54.12	-588.73	-19.11
53	SLU 11	48	-53	2039	54.64	-594.08	-19.52
53	SLU 12	44	-52	2027	54.33	-590.87	-19.28
53	SLU 13	41	-52	2019	54.12	-588.73	-19.11
53	SLU 14	48	-53	2039	54.64	-594.08	-19.52
53	SLU 15	44	-52	2027	54.33	-590.87	-19.28
53	SLU 16	48	-53	2039	54.64	-594.08	-19.52
53	SLU 17	44	-52	2027	54.33	-590.87	-19.28
53	SLU 18	51	-57	2169	58.1	-631.24	-20.94
53	SLU 19	46	-56	2157	57.79	-628.03	-20.7
53	SLU 20	51	-57	2169	58.1	-631.24	-20.94
53	SLU 21	46	-56	2157	57.79	-628.03	-20.7
53	SLU 22	46	-49	1947	52.22	-567.91	-18.06
53	SLU 23	39	-48	1927	51.7	-562.57	-17.65
53	SLU 24	46	-49	1947	52.22	-567.91	-18.06
53	SLU 25	42	-48	1935	51.91	-564.7	-17.82
53	SLU 26	39	-48	1927	51.7	-562.57	-17.65
53	SLU 27	46	-49	1947	52.22	-567.91	-18.06
53	SLU 28	42	-48	1935	51.91	-564.7	-17.82
53	SLU 29	46	-49	1947	52.22	-567.91	-18.06
53	SLU 30	42	-48	1935	51.91	-564.7	-17.82
53	SLU 31	45	-57	2231	59.78	-649.28	-20.97
53	SLU 32	52	-58	2251	60.3	-654.62	-21.38
53	SLU 33	48	-57	2239	59.98	-651.42	-21.14
53	SLU 34	45	-57	2231	59.78	-649.28	-20.97
53	SLU 35	52	-58	2251	60.3	-654.62	-21.38
53	SLU 36	48	-57	2239	59.98	-651.42	-21.14
53	SLU 37	52	-58	2251	60.3	-654.62	-21.38
53	SLU 38	48	-57	2239	59.98	-651.42	-21.14
53	SLU 39	55	-62	2381	63.76	-691.79	-22.81
53	SLU 40	50	-61	2369	63.44	-688.58	-22.56

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
53	SLU 41	55	-62	2381	63.76	-691.79	-22.81
53	SLU 42	50	-61	2369	63.44	-688.58	-22.56
53	SLU 43	53	-55	2182	58.6	-638.81	-20.42
53	SLU 44	46	-54	2163	58.07	-633.47	-20.01
53	SLU 45	53	-55	2182	58.6	-638.81	-20.42
53	SLU 46	49	-54	2171	58.28	-635.6	-20.18
53	SLU 47	46	-54	2163	58.07	-633.47	-20.01
53	SLU 48	53	-55	2182	58.6	-638.81	-20.42
53	SLU 49	49	-54	2171	58.28	-635.6	-20.18
53	SLU 50	53	-55	2182	58.6	-638.81	-20.42
53	SLU 51	49	-54	2171	58.28	-635.6	-20.18
53	SLU 52	52	-63	2467	66.15	-720.18	-23.33
53	SLU 53	59	-64	2486	66.67	-725.52	-23.74
53	SLU 54	55	-64	2475	66.36	-722.32	-23.5
53	SLU 55	52	-63	2467	66.15	-720.18	-23.33
53	SLU 56	59	-64	2486	66.67	-725.52	-23.74
53	SLU 57	55	-64	2475	66.36	-722.32	-23.5
53	SLU 58	59	-64	2486	66.67	-725.52	-23.74
53	SLU 59	55	-64	2475	66.36	-722.32	-23.5
53	SLU 60	62	-68	2617	70.13	-762.69	-25.17
53	SLU 61	57	-67	2605	69.82	-759.48	-24.92
53	SLU 62	62	-68	2617	70.13	-762.69	-25.17
53	SLU 63	57	-67	2605	69.82	-759.48	-24.92
53	SLU 64	58	-60	2394	64.25	-699.36	-22.28
53	SLU 65	50	-59	2375	63.73	-694.02	-21.88
53	SLU 66	58	-60	2394	64.25	-699.36	-22.28
53	SLU 67	53	-60	2383	63.94	-696.15	-22.04
53	SLU 68	50	-59	2375	63.73	-694.02	-21.88
53	SLU 69	58	-60	2394	64.25	-699.36	-22.28
53	SLU 70	53	-60	2383	63.94	-696.15	-22.04
53	SLU 71	58	-60	2394	64.25	-699.36	-22.28
53	SLU 72	53	-60	2383	63.94	-696.15	-22.04
53	SLU 73	56	-68	2679	71.81	-780.73	-25.2
53	SLU 74	64	-69	2699	72.33	-786.07	-25.6
53	SLU 75	59	-69	2687	72.01	-782.87	-25.36
53	SLU 76	56	-68	2679	71.81	-780.73	-25.2
53	SLU 77	64	-69	2699	72.33	-786.07	-25.6
53	SLU 78	59	-69	2687	72.01	-782.87	-25.36
53	SLU 79	64	-69	2699	72.33	-786.07	-25.6
53	SLU 80	59	-69	2687	72.01	-782.87	-25.36
53	SLU 81	66	-73	2829	75.79	-823.24	-27.03
53	SLU 82	62	-73	2817	75.47	-820.03	-26.78
53	SLU 83	66	-73	2829	75.79	-823.24	-27.03
53	SLU 84	62	-73	2817	75.47	-820.03	-26.78
53	SLE RA 1	43	-45	1795	48.18	-524.66	-16.73
53	SLE RA 2	38	-45	1782	47.83	-521.1	-16.46
53	SLE RA 3	43	-45	1795	48.18	-524.66	-16.73
53	SLE RA 4	40	-45	1787	47.97	-522.52	-16.57
53	SLE RA 5	38	-45	1782	47.83	-521.1	-16.46
53	SLE RA 6	43	-45	1795	48.18	-524.66	-16.73
53	SLE RA 7	40	-45	1787	47.97	-522.52	-16.57
53	SLE RA 8	43	-45	1795	48.18	-524.66	-16.73
53	SLE RA 9	40	-45	1787	47.97	-522.52	-16.57
53	SLE RA 10	42	-51	1985	53.22	-578.91	-18.67
53	SLE RA 11	47	-51	1998	53.57	-582.47	-18.95
53	SLE RA 12	44	-51	1990	53.36	-580.33	-18.78
53	SLE RA 13	42	-51	1985	53.22	-578.91	-18.67
53	SLE RA 14	47	-51	1998	53.57	-582.47	-18.95
53	SLE RA 15	44	-51	1990	53.36	-580.33	-18.78
53	SLE RA 16	47	-51	1998	53.57	-582.47	-18.95
53	SLE RA 17	44	-51	1990	53.36	-580.33	-18.78
53	SLE RA 18	49	-54	2085	55.87	-607.25	-19.9
53	SLE RA 19	46	-53	2077	55.66	-605.11	-19.73
53	SLE RA 20	49	-54	2085	55.87	-607.25	-19.9
53	SLE RA 21	46	-53	2077	55.66	-605.11	-19.73
53	SLE FR 1	43	-45	1795	48.18	-524.66	-16.73
53	SLE FR 2	42	-45	1793	48.11	-523.95	-16.68
53	SLE FR 3	43	-45	1795	48.18	-524.66	-16.73
53	SLE FR 4	44	-47	1880	50.42	-548.72	-17.63
53	SLE FR 5	45	-48	1882	50.49	-549.44	-17.68
53	SLE FR 6	46	-49	1940	52.03	-565.95	-18.31
53	SLE QP 1	43	-45	1795	48.18	-524.66	-16.73
53	SLE QP 2	45	-48	1882	50.49	-549.44	-17.68
53	SLD 1	154	-22	2263	60.47	-652.21	-10.04
53	SLD 2	183	-47	2260	60.4	-651.54	-19.62
53	SLD 3	144	-89	2134	57.2	-615.31	-33.26
53	SLD 4	173	-114	2131	57.13	-614.65	-42.83
53	SLD 5	82	70	2193	58.47	-636.46	23.2
53	SLD 6	111	45	2190	58.4	-635.79	13.56
53	SLD 7	50	-152	1763	47.56	-513.48	-54.18
53	SLD 8	79	-178	1760	47.49	-512.8	-63.82
53	SLD 9	11	83	2004	53.49	-586.07	28.46
53	SLD 10	40	57	2001	53.42	-585.4	18.81
53	SLD 11	-21	-140	1574	42.58	-463.08	-48.92
53	SLD 12	8	-166	1571	42.5	-462.41	-58.57
53	SLD 13	-83	19	1633	43.85	-484.23	7.47

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
53	SLD 14	-54	-6	1630	43.78	-483.56	-2.1
53	SLD 15	-92	-48	1504	40.58	-447.33	-15.75
53	SLD 16	-64	-73	1501	40.51	-446.66	-25.32
53	SLV 1	292	10	2747	73.17	-783.01	-0.56
53	SLV 2	358	-47	2741	73.01	-781.5	-22.23
53	SLV 3	271	-142	2454	65.74	-699.2	-53.32
53	SLV 4	336	-199	2449	65.58	-697.69	-74.99
53	SLV 5	129	220	2588	68.63	-747.16	75.13
53	SLV 6	195	163	2582	68.46	-745.64	53.31
53	SLV 7	57	-286	1612	43.85	-467.78	-100.73
53	SLV 8	123	-344	1606	43.69	-466.26	-122.55
53	SLV 9	-33	249	2158	57.29	-632.61	87.19
53	SLV 10	33	191	2152	57.13	-631.09	65.37
53	SLV 11	-105	-258	1182	32.52	-353.23	-88.68
53	SLV 12	-39	-316	1176	32.35	-351.71	-110.5
53	SLV 13	-246	104	1316	35.4	-401.18	39.63
53	SLV 14	-181	47	1310	35.24	-399.68	17.95
53	SLV 15	-268	-48	1023	27.97	-317.37	-13.13
53	SLV 16	-202	-105	1017	27.8	-315.86	-34.81
53	CRTFP Ux+	0	0	0	0	0.01	0
53	CRTFP Ux-	0	0	0	0	-0.01	0
53	CRTFP Uy+	0	0	0	0	0	0
53	CRTFP Uy-	0	0	0	0	0	0
56	SLU 1	16	-13	1734	331.37	164.42	-1.93
56	SLU 2	8	-14	1749	334.18	165.75	-0.17
56	SLU 3	16	-13	1734	331.37	164.42	-1.93
56	SLU 4	11	-13	1743	333.05	165.22	-0.88
56	SLU 5	8	-14	1749	334.18	165.75	-0.17
56	SLU 6	16	-13	1734	331.37	164.42	-1.93
56	SLU 7	11	-13	1743	333.05	165.22	-0.88
56	SLU 8	16	-13	1734	331.37	164.42	-1.93
56	SLU 9	11	-13	1743	333.05	165.22	-0.88
56	SLU 10	7	-13	2010	384.23	190.68	0.22
56	SLU 11	14	-13	1995	381.43	189.34	-1.54
56	SLU 12	10	-13	2004	383.11	190.15	-0.48
56	SLU 13	7	-13	2010	384.23	190.68	0.22
56	SLU 14	14	-13	1995	381.43	189.34	-1.54
56	SLU 15	10	-13	2004	383.11	190.15	-0.48
56	SLU 16	14	-13	1995	381.43	189.34	-1.54
56	SLU 17	10	-13	2004	383.11	190.15	-0.48
56	SLU 18	13	-12	2107	402.88	200.03	-1.37
56	SLU 19	9	-13	2116	404.56	200.83	-0.32
56	SLU 20	13	-12	2107	402.88	200.03	-1.37
56	SLU 21	9	-13	2116	404.56	200.83	-0.32
56	SLU 22	16	-13	1928	368.36	182.81	-1.84
56	SLU 23	8	-13	1943	371.16	184.14	-0.08
56	SLU 24	16	-13	1928	368.36	182.81	-1.84
56	SLU 25	11	-13	1937	370.04	183.61	-0.78
56	SLU 26	8	-13	1943	371.16	184.14	-0.08
56	SLU 27	16	-13	1928	368.36	182.81	-1.84
56	SLU 28	11	-13	1937	370.04	183.61	-0.78
56	SLU 29	16	-13	1928	368.36	182.81	-1.84
56	SLU 30	11	-13	1937	370.04	183.61	-0.78
56	SLU 31	6	-13	2203	421.22	209.07	0.32
56	SLU 32	14	-13	2188	418.41	207.73	-1.44
56	SLU 33	9	-13	2197	420.1	208.54	-0.39
56	SLU 34	6	-13	2203	421.22	209.07	0.32
56	SLU 35	14	-13	2188	418.41	207.73	-1.44
56	SLU 36	9	-13	2197	420.1	208.54	-0.39
56	SLU 37	14	-13	2188	418.41	207.73	-1.44
56	SLU 38	9	-13	2197	420.1	208.54	-0.39
56	SLU 39	13	-12	2300	439.87	218.42	-1.27
56	SLU 40	9	-13	2309	441.55	219.22	-0.22
56	SLU 41	13	-12	2300	439.87	218.42	-1.27
56	SLU 42	9	-13	2309	441.55	219.22	-0.22
56	SLU 43	21	-17	2188	418.1	207.44	-2.55
56	SLU 44	13	-17	2203	420.91	208.78	-0.79
56	SLU 45	21	-17	2188	418.1	207.44	-2.55
56	SLU 46	16	-17	2197	419.78	208.24	-1.49
56	SLU 47	13	-17	2203	420.91	208.78	-0.79
56	SLU 48	21	-17	2188	418.1	207.44	-2.55
56	SLU 49	16	-17	2197	419.78	208.24	-1.49
56	SLU 50	21	-17	2188	418.1	207.44	-2.55
56	SLU 51	16	-17	2197	419.78	208.24	-1.49
56	SLU 52	12	-17	2464	470.96	233.7	-0.39
56	SLU 53	19	-17	2449	468.16	232.36	-2.15
56	SLU 54	15	-17	2458	469.84	233.17	-1.1
56	SLU 55	12	-17	2464	470.96	233.7	-0.39
56	SLU 56	19	-17	2449	468.16	232.36	-2.15
56	SLU 57	15	-17	2458	469.84	233.17	-1.1
56	SLU 58	19	-17	2449	468.16	232.36	-2.15
56	SLU 59	15	-17	2458	469.84	233.17	-1.1
56	SLU 60	18	-16	2560	489.61	243.05	-1.99
56	SLU 61	14	-17	2569	491.29	243.85	-0.93
56	SLU 62	18	-16	2560	489.61	243.05	-1.99
56	SLU 63	14	-17	2569	491.29	243.85	-0.93

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
56	SLU 64	21	-17	2381	455.09	225.83	-2.45
56	SLU 65	13	-17	2396	457.89	227.16	-0.69
56	SLU 66	21	-17	2381	455.09	225.83	-2.45
56	SLU 67	16	-17	2390	456.77	226.63	-1.39
56	SLU 68	13	-17	2396	457.89	227.16	-0.69
56	SLU 69	21	-17	2381	455.09	225.83	-2.45
56	SLU 70	16	-17	2390	456.77	226.63	-1.39
56	SLU 71	21	-17	2381	455.09	225.83	-2.45
56	SLU 72	16	-17	2390	456.77	226.63	-1.39
56	SLU 73	11	-17	2657	507.95	252.09	-0.3
56	SLU 74	19	-16	2642	505.14	250.75	-2.06
56	SLU 75	14	-17	2651	506.83	251.56	-1
56	SLU 76	11	-17	2657	507.95	252.09	-0.3
56	SLU 77	19	-16	2642	505.14	250.75	-2.06
56	SLU 78	14	-17	2651	506.83	251.56	-1
56	SLU 79	19	-16	2642	505.14	250.75	-2.06
56	SLU 80	14	-17	2651	506.83	251.56	-1
56	SLU 81	18	-16	2754	526.6	261.44	-1.89
56	SLU 82	13	-17	2763	528.28	262.24	-0.83
56	SLU 83	18	-16	2754	526.6	261.44	-1.89
56	SLU 84	13	-17	2763	528.28	262.24	-0.83
56	SLE RA 1	16	-13	1789	341.94	169.67	-1.91
56	SLE RA 2	11	-13	1799	343.81	170.56	-0.73
56	SLE RA 3	16	-13	1789	341.94	169.67	-1.91
56	SLE RA 4	13	-13	1795	343.06	170.21	-1.2
56	SLE RA 5	11	-13	1799	343.81	170.56	-0.73
56	SLE RA 6	16	-13	1789	341.94	169.67	-1.91
56	SLE RA 7	13	-13	1795	343.06	170.21	-1.2
56	SLE RA 8	16	-13	1789	341.94	169.67	-1.91
56	SLE RA 9	13	-13	1795	343.06	170.21	-1.2
56	SLE RA 10	10	-13	1973	377.18	187.18	-0.47
56	SLE RA 11	15	-13	1963	375.31	186.29	-1.64
56	SLE RA 12	12	-13	1969	376.43	186.82	-0.94
56	SLE RA 13	10	-13	1973	377.18	187.18	-0.47
56	SLE RA 14	15	-13	1963	375.31	186.29	-1.64
56	SLE RA 15	12	-13	1969	376.43	186.82	-0.94
56	SLE RA 16	15	-13	1963	375.31	186.29	-1.64
56	SLE RA 17	12	-13	1969	376.43	186.82	-0.94
56	SLE RA 18	14	-13	2038	389.61	193.41	-1.53
56	SLE RA 19	11	-13	2044	390.73	193.95	-0.83
56	SLE RA 20	14	-13	2038	389.61	193.41	-1.53
56	SLE RA 21	11	-13	2044	390.73	193.95	-0.83
56	SLE FR 1	16	-13	1789	341.94	169.67	-1.91
56	SLE FR 2	15	-13	1791	342.31	169.85	-1.67
56	SLE FR 3	16	-13	1789	341.94	169.67	-1.91
56	SLE FR 4	14	-13	1866	356.61	176.97	-1.56
56	SLE FR 5	15	-13	1864	356.24	176.79	-1.79
56	SLE FR 6	15	-13	1913	365.78	181.54	-1.72
56	SLE QP 1	16	-13	1789	341.94	169.67	-1.91
56	SLE QP 2	15	-13	1864	356.24	176.79	-1.79
56	SLD 1	125	35	1678	321.05	160.29	-30.18
56	SLD 2	152	61	1688	322.3	160.88	-39.05
56	SLD 3	116	-44	1539	298.16	148.89	-19.77
56	SLD 4	143	-17	1549	299.41	149.49	-28.64
56	SLD 5	52	111	2016	379.95	188.91	-22.96
56	SLD 6	79	138	2026	381.21	189.51	-31.89
56	SLD 7	23	-150	1551	303.66	150.93	11.73
56	SLD 8	50	-123	1561	304.92	151.53	2.8
56	SLD 9	-19	98	2167	407.56	202.05	-6.39
56	SLD 10	8	125	2176	408.82	202.66	-15.32
56	SLD 11	-49	-163	1701	331.27	164.08	28.3
56	SLD 12	-22	-136	1711	332.53	164.68	19.37
56	SLD 13	-112	-9	2179	413.07	204.1	25.05
56	SLD 14	-86	18	2189	414.32	204.7	16.19
56	SLD 15	-121	-87	2039	390.18	192.71	35.46
56	SLD 16	-94	-60	2049	391.43	193.3	26.59
56	SLV 1	265	96	1442	276.26	139.28	-66.4
56	SLV 2	326	156	1465	279.09	140.63	-86.48
56	SLV 3	245	-82	1125	224.25	113.39	-42.77
56	SLV 4	306	-22	1147	227.08	114.74	-62.85
56	SLV 5	100	268	2210	410.12	204.33	-49.92
56	SLV 6	161	329	2233	412.97	205.69	-70.13
56	SLV 7	32	-325	1153	236.77	118.03	28.84
56	SLV 8	93	-264	1176	239.61	119.39	8.63
56	SLV 9	-62	239	2552	472.87	234.2	-12.22
56	SLV 10	-1	299	2574	475.72	235.56	-32.43
56	SLV 11	-130	-355	1495	299.51	147.9	66.54
56	SLV 12	-69	-294	1517	302.36	149.26	46.33
56	SLV 13	-275	-4	2580	485.4	238.85	59.26
56	SLV 14	-214	57	2602	488.23	240.2	39.18
56	SLV 15	-295	-182	2263	433.39	212.96	82.89
56	SLV 16	-235	-121	2285	436.22	214.31	62.81
56	CRTFP Ux+	0	0	0	0	0	0
56	CRTFP Ux-	0	0	0	0	0	0
56	CRTFP Uy+	0	0	0	0	0	0
56	CRTFP Uy-	0	0	0	0	0	0

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
59	SLU 1	25	-15	3013	328.65	544.27	0.55
59	SLU 2	12	-17	3041	331.63	548.83	2.33
59	SLU 3	25	-15	3013	328.65	544.27	0.55
59	SLU 4	17	-16	3030	330.44	547.01	1.62
59	SLU 5	12	-17	3041	331.63	548.83	2.33
59	SLU 6	25	-15	3013	328.65	544.27	0.55
59	SLU 7	17	-16	3030	330.44	547.01	1.62
59	SLU 8	25	-15	3013	328.65	544.27	0.55
59	SLU 9	17	-16	3030	330.44	547.01	1.62
59	SLU 10	9	-15	3491	381	630.86	2.48
59	SLU 11	22	-14	3463	378.02	626.29	0.71
59	SLU 12	14	-15	3479	379.81	629.03	1.77
59	SLU 13	9	-15	3491	381	630.86	2.48
59	SLU 14	22	-14	3463	378.02	626.29	0.71
59	SLU 15	14	-15	3479	379.81	629.03	1.77
59	SLU 16	22	-14	3463	378.02	626.29	0.71
59	SLU 17	14	-15	3479	379.81	629.03	1.77
59	SLU 18	20	-13	3655	399.18	661.45	0.78
59	SLU 19	13	-14	3672	400.96	664.18	1.84
59	SLU 20	20	-13	3655	399.18	661.45	0.78
59	SLU 21	13	-14	3672	400.96	664.18	1.84
59	SLU 22	24	-14	3347	365.3	605.03	0.53
59	SLU 23	11	-16	3376	368.27	609.59	2.31
59	SLU 24	24	-14	3347	365.3	605.03	0.53
59	SLU 25	17	-15	3364	367.08	607.76	1.6
59	SLU 26	11	-16	3376	368.27	609.59	2.31
59	SLU 27	24	-14	3347	365.3	605.03	0.53
59	SLU 28	17	-15	3364	367.08	607.76	1.6
59	SLU 29	24	-14	3347	365.3	605.03	0.53
59	SLU 30	17	-15	3364	367.08	607.76	1.6
59	SLU 31	8	-14	3825	417.64	691.61	2.46
59	SLU 32	21	-13	3797	414.66	687.05	0.69
59	SLU 33	13	-14	3814	416.45	689.79	1.75
59	SLU 34	8	-14	3825	417.64	691.61	2.46
59	SLU 35	21	-13	3797	414.66	687.05	0.69
59	SLU 36	13	-14	3814	416.45	689.79	1.75
59	SLU 37	21	-13	3797	414.66	687.05	0.69
59	SLU 38	13	-14	3814	416.45	689.79	1.75
59	SLU 39	20	-12	3990	435.82	722.2	0.75
59	SLU 40	12	-13	4007	437.61	724.94	1.82
59	SLU 41	20	-12	3990	435.82	722.2	0.75
59	SLU 42	12	-13	4007	437.61	724.94	1.82
59	SLU 43	33	-20	3802	414.69	686.72	0.73
59	SLU 44	20	-21	3830	417.66	691.28	2.5
59	SLU 45	33	-20	3802	414.69	686.72	0.73
59	SLU 46	25	-21	3819	416.47	689.46	1.79
59	SLU 47	20	-21	3830	417.66	691.28	2.5
59	SLU 48	33	-20	3802	414.69	686.72	0.73
59	SLU 49	25	-21	3819	416.47	689.46	1.79
59	SLU 50	33	-20	3802	414.69	686.72	0.73
59	SLU 51	25	-21	3819	416.47	689.46	1.79
59	SLU 52	17	-20	4280	467.03	773.31	2.66
59	SLU 53	30	-19	4252	464.05	768.74	0.88
59	SLU 54	22	-19	4268	465.84	771.48	1.95
59	SLU 55	17	-20	4280	467.03	773.31	2.66
59	SLU 56	30	-19	4252	464.05	768.74	0.88
59	SLU 57	22	-19	4268	465.84	771.48	1.95
59	SLU 58	30	-19	4252	464.05	768.74	0.88
59	SLU 59	22	-19	4268	465.84	771.48	1.95
59	SLU 60	28	-18	4444	485.21	803.9	0.95
59	SLU 61	21	-19	4461	487	806.63	2.01
59	SLU 62	28	-18	4444	485.21	803.9	0.95
59	SLU 63	21	-19	4461	487	806.63	2.01
59	SLU 64	32	-19	4136	451.33	747.48	0.7
59	SLU 65	19	-21	4165	454.31	752.04	2.48
59	SLU 66	32	-19	4136	451.33	747.48	0.7
59	SLU 67	24	-20	4153	453.12	750.21	1.77
59	SLU 68	19	-21	4165	454.31	752.04	2.48
59	SLU 69	32	-19	4136	451.33	747.48	0.7
59	SLU 70	24	-20	4153	453.12	750.21	1.77
59	SLU 71	32	-19	4136	451.33	747.48	0.7
59	SLU 72	24	-20	4153	453.12	750.21	1.77
59	SLU 73	16	-19	4614	503.67	834.06	2.64
59	SLU 74	29	-18	4586	500.7	829.5	0.86
59	SLU 75	21	-19	4603	502.48	832.24	1.93
59	SLU 76	16	-19	4614	503.67	834.06	2.64
59	SLU 77	29	-18	4586	500.7	829.5	0.86
59	SLU 78	21	-19	4603	502.48	832.24	1.93
59	SLU 79	29	-18	4586	500.7	829.5	0.86
59	SLU 80	21	-19	4603	502.48	832.24	1.93
59	SLU 81	27	-17	4779	521.85	864.65	0.93
59	SLU 82	20	-18	4796	523.64	867.39	1.99
59	SLU 83	27	-17	4779	521.85	864.65	0.93
59	SLU 84	20	-18	4796	523.64	867.39	1.99
59	SLE RA 1	25	-15	3108	339.12	561.63	0.55
59	SLE RA 2	16	-16	3127	341.11	564.67	1.73

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
59	SLE RA 3	25	-15	3108	339.12	561.63	0.55
59	SLE RA 4	20	-16	3120	340.31	563.45	1.26
59	SLE RA 5	16	-16	3127	341.11	564.67	1.73
59	SLE RA 6	25	-15	3108	339.12	561.63	0.55
59	SLE RA 7	20	-16	3120	340.31	563.45	1.26
59	SLE RA 8	25	-15	3108	339.12	561.63	0.55
59	SLE RA 9	20	-16	3120	340.31	563.45	1.26
59	SLE RA 10	14	-15	3427	374.02	619.35	1.83
59	SLE RA 11	23	-14	3408	372.04	616.31	0.65
59	SLE RA 12	18	-15	3419	373.23	618.14	1.36
59	SLE RA 13	14	-15	3427	374.02	619.35	1.83
59	SLE RA 14	23	-14	3408	372.04	616.31	0.65
59	SLE RA 15	18	-15	3419	373.23	618.14	1.36
59	SLE RA 16	23	-14	3408	372.04	616.31	0.65
59	SLE RA 17	18	-15	3419	373.23	618.14	1.36
59	SLE RA 18	22	-14	3537	386.14	639.75	0.69
59	SLE RA 19	17	-14	3548	387.33	641.57	1.41
59	SLE RA 20	22	-14	3537	386.14	639.75	0.69
59	SLE RA 21	17	-14	3548	387.33	641.57	1.41
59	SLE FR 1	25	-15	3108	339.12	561.63	0.55
59	SLE FR 2	23	-15	3112	339.52	562.24	0.78
59	SLE FR 3	25	-15	3108	339.12	561.63	0.55
59	SLE FR 4	22	-15	3241	353.63	585.67	0.83
59	SLE FR 5	24	-15	3237	353.23	585.06	0.59
59	SLE FR 6	23	-14	3323	362.63	600.69	0.62
59	SLE QP 1	25	-15	3108	339.12	561.63	0.55
59	SLE QP 2	24	-15	3237	353.23	585.06	0.59
59	SLD 1	211	70	2881	314.84	529.06	-34.41
59	SLD 2	255	119	2899	316.45	531.93	-49
59	SLD 3	196	-68	2640	291.91	486.96	-6.37
59	SLD 4	241	-19	2658	293.51	489.84	-20.96
59	SLD 5	86	202	3490	375.93	631.09	-47.27
59	SLD 6	131	252	3507	377.55	633.98	-61.97
59	SLD 7	38	-257	2686	299.48	490.78	46.19
59	SLD 8	83	-207	2704	301.09	493.67	31.49
59	SLD 9	-35	178	3770	405.36	676.46	-30.3
59	SLD 10	10	228	3788	406.98	679.35	-45
59	SLD 11	-83	-281	2966	328.91	536.15	63.15
59	SLD 12	-38	-232	2984	330.53	539.04	48.45
59	SLD 13	-193	-10	3816	412.95	680.29	22.15
59	SLD 14	-148	39	3833	414.55	683.16	7.55
59	SLD 15	-207	-148	3575	390.01	638.2	50.18
59	SLD 16	-163	-99	3592	391.61	641.07	35.59
59	SLV 1	449	178	2429	265.99	457.77	-79.09
59	SLV 2	550	289	2469	269.63	464.28	-112.14
59	SLV 3	416	-134	1882	213.87	362.13	-15.43
59	SLV 4	517	-24	1921	217.5	368.63	-48.47
59	SLV 5	166	479	3811	404.83	689.64	-108.2
59	SLV 6	268	590	3851	408.48	696.19	-141.46
59	SLV 7	56	-564	1986	231.09	370.82	104.01
59	SLV 8	158	-453	2026	234.74	377.37	70.75
59	SLV 9	-110	423	4448	471.71	792.76	-69.57
59	SLV 10	-8	535	4488	475.37	799.31	-102.83
59	SLV 11	-220	-619	2623	297.98	473.94	142.64
59	SLV 12	-118	-508	2663	301.63	480.49	109.38
59	SLV 13	-469	-5	4552	488.95	801.5	49.66
59	SLV 14	-368	105	4592	492.59	808	16.61
59	SLV 15	-502	-318	4005	436.83	705.85	113.32
59	SLV 16	-401	-208	4044	440.46	712.35	80.28
59	CRTFP Ux+	0	0	0	0	0.01	0
59	CRTFP Ux-	0	0	0	0	-0.01	0
59	CRTFP Uy+	0	0	0	0	0	0
59	CRTFP Uy-	0	0	0	0	0	0
60	SLU 1	15	-31	1484	-2.62	-318.89	-7.41
60	SLU 2	8	-31	1492	-2.62	-320.89	-7.49
60	SLU 3	15	-31	1484	-2.62	-318.89	-7.41
60	SLU 4	11	-31	1489	-2.62	-320.09	-7.46
60	SLU 5	8	-31	1492	-2.62	-320.89	-7.49
60	SLU 6	15	-31	1484	-2.62	-318.89	-7.41
60	SLU 7	11	-31	1489	-2.62	-320.09	-7.46
60	SLU 8	15	-31	1484	-2.62	-318.89	-7.41
60	SLU 9	11	-31	1489	-2.62	-320.09	-7.46
60	SLU 10	7	-34	1732	-3.01	-370.09	-8.37
60	SLU 11	14	-34	1724	-3	-368.09	-8.29
60	SLU 12	10	-34	1729	-3	-369.29	-8.34
60	SLU 13	7	-34	1732	-3.01	-370.09	-8.37
60	SLU 14	14	-34	1724	-3	-368.09	-8.29
60	SLU 15	10	-34	1729	-3	-369.29	-8.34
60	SLU 16	14	-34	1724	-3	-368.09	-8.29
60	SLU 17	10	-34	1729	-3	-369.29	-8.34
60	SLU 18	14	-36	1826	-3.16	-389.17	-8.67
60	SLU 19	10	-36	1831	-3.17	-390.37	-8.72
60	SLU 20	14	-36	1826	-3.16	-389.17	-8.67
60	SLU 21	10	-36	1831	-3.17	-390.37	-8.72
60	SLU 22	15	-33	1659	-2.89	-354.6	-7.97
60	SLU 23	8	-33	1667	-2.89	-356.6	-8.05

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
60	SLU 24	15	-33	1659	-2.89	-354.6	-7.97
60	SLU 25	11	-33	1664	-2.89	-355.8	-8.02
60	SLU 26	8	-33	1667	-2.89	-356.6	-8.05
60	SLU 27	15	-33	1659	-2.89	-354.6	-7.97
60	SLU 28	11	-33	1664	-2.89	-355.8	-8.02
60	SLU 29	15	-33	1659	-2.89	-354.6	-7.97
60	SLU 30	11	-33	1664	-2.89	-355.8	-8.02
60	SLU 31	7	-37	1907	-3.27	-405.8	-8.93
60	SLU 32	14	-36	1898	-3.27	-403.8	-8.85
60	SLU 33	10	-37	1903	-3.27	-405	-8.9
60	SLU 34	7	-37	1907	-3.27	-405.8	-8.93
60	SLU 35	14	-36	1898	-3.27	-403.8	-8.85
60	SLU 36	10	-37	1903	-3.27	-405	-8.9
60	SLU 37	14	-36	1898	-3.27	-403.8	-8.85
60	SLU 38	10	-37	1903	-3.27	-405	-8.9
60	SLU 39	14	-38	2001	-3.43	-424.88	-9.23
60	SLU 40	10	-38	2006	-3.44	-426.08	-9.28
60	SLU 41	14	-38	2001	-3.43	-424.88	-9.23
60	SLU 42	10	-38	2006	-3.44	-426.08	-9.28
60	SLU 43	19	-39	1869	-3.31	-402.32	-9.45
60	SLU 44	12	-39	1878	-3.32	-404.32	-9.52
60	SLU 45	19	-39	1869	-3.31	-402.32	-9.45
60	SLU 46	15	-39	1874	-3.32	-403.52	-9.49
60	SLU 47	12	-39	1878	-3.32	-404.32	-9.52
60	SLU 48	19	-39	1869	-3.31	-402.32	-9.45
60	SLU 49	15	-39	1874	-3.32	-403.52	-9.49
60	SLU 50	19	-39	1869	-3.31	-402.32	-9.45
60	SLU 51	15	-39	1874	-3.32	-403.52	-9.49
60	SLU 52	12	-43	2117	-3.7	-453.51	-10.4
60	SLU 53	18	-43	2109	-3.69	-451.51	-10.33
60	SLU 54	14	-43	2114	-3.7	-452.71	-10.37
60	SLU 55	12	-43	2117	-3.7	-453.51	-10.4
60	SLU 56	18	-43	2109	-3.69	-451.51	-10.33
60	SLU 57	14	-43	2114	-3.7	-452.71	-10.37
60	SLU 58	18	-43	2109	-3.69	-451.51	-10.33
60	SLU 59	14	-43	2114	-3.7	-452.71	-10.37
60	SLU 60	18	-44	2212	-3.86	-472.6	-10.71
60	SLU 61	14	-44	2217	-3.86	-473.8	-10.75
60	SLU 62	18	-44	2212	-3.86	-472.6	-10.71
60	SLU 63	14	-44	2217	-3.86	-473.8	-10.75
60	SLU 64	19	-41	2044	-3.58	-438.03	-10
60	SLU 65	12	-41	2052	-3.59	-440.03	-10.08
60	SLU 66	19	-41	2044	-3.58	-438.03	-10
60	SLU 67	15	-41	2049	-3.58	-439.23	-10.05
60	SLU 68	12	-41	2052	-3.59	-440.03	-10.08
60	SLU 69	19	-41	2044	-3.58	-438.03	-10
60	SLU 70	15	-41	2049	-3.58	-439.23	-10.05
60	SLU 71	19	-41	2044	-3.58	-438.03	-10
60	SLU 72	15	-41	2049	-3.58	-439.23	-10.05
60	SLU 73	12	-45	2292	-3.97	-489.22	-10.96
60	SLU 74	19	-45	2284	-3.96	-487.22	-10.89
60	SLU 75	15	-45	2289	-3.97	-488.42	-10.93
60	SLU 76	12	-45	2292	-3.97	-489.22	-10.96
60	SLU 77	19	-45	2284	-3.96	-487.22	-10.89
60	SLU 78	15	-45	2289	-3.97	-488.42	-10.93
60	SLU 79	19	-45	2284	-3.96	-487.22	-10.89
60	SLU 80	15	-45	2289	-3.97	-488.42	-10.93
60	SLU 81	18	-46	2386	-4.13	-508.31	-11.26
60	SLU 82	14	-46	2391	-4.13	-509.51	-11.31
60	SLU 83	18	-46	2386	-4.13	-508.31	-11.26
60	SLU 84	14	-46	2391	-4.13	-509.51	-11.31
60	SLE RA 1	15	-31	1534	-2.7	-329.1	-7.57
60	SLE RA 2	10	-31	1539	-2.7	-330.43	-7.62
60	SLE RA 3	15	-31	1534	-2.7	-329.1	-7.57
60	SLE RA 4	12	-31	1537	-2.7	-329.9	-7.6
60	SLE RA 5	10	-31	1539	-2.7	-330.43	-7.62
60	SLE RA 6	15	-31	1534	-2.7	-329.1	-7.57
60	SLE RA 7	12	-31	1537	-2.7	-329.9	-7.6
60	SLE RA 8	15	-31	1534	-2.7	-329.1	-7.57
60	SLE RA 9	12	-31	1537	-2.7	-329.9	-7.6
60	SLE RA 10	10	-34	1699	-2.95	-363.23	-8.21
60	SLE RA 11	14	-34	1694	-2.95	-361.89	-8.16
60	SLE RA 12	12	-34	1697	-2.95	-362.69	-8.19
60	SLE RA 13	10	-34	1699	-2.95	-363.23	-8.21
60	SLE RA 14	14	-34	1694	-2.95	-361.89	-8.16
60	SLE RA 15	12	-34	1697	-2.95	-362.69	-8.19
60	SLE RA 16	14	-34	1694	-2.95	-361.89	-8.16
60	SLE RA 17	12	-34	1697	-2.95	-362.69	-8.19
60	SLE RA 18	14	-35	1762	-3.06	-375.95	-8.41
60	SLE RA 19	11	-35	1765	-3.06	-376.75	-8.44
60	SLE RA 20	14	-35	1762	-3.06	-375.95	-8.41
60	SLE RA 21	11	-35	1765	-3.06	-376.75	-8.44
60	SLE FR 1	15	-31	1534	-2.7	-329.1	-7.57
60	SLE FR 2	14	-31	1535	-2.7	-329.36	-7.58
60	SLE FR 3	15	-31	1534	-2.7	-329.1	-7.57
60	SLE FR 4	14	-32	1603	-2.81	-343.42	-7.83

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
60	SLE FR 5	15	-32	1602	-2.8	-343.15	-7.82
60	SLE FR 6	14	-33	1648	-2.88	-352.52	-7.99
60	SLE QP 1	15	-31	1534	-2.7	-329.1	-7.57
60	SLE QP 2	15	-32	1602	-2.8	-343.15	-7.82
60	SLD 1	114	1	1515	-2.92	-321.86	0.69
60	SLD 2	139	16	1518	-2.97	-322.9	4.32
60	SLD 3	105	-56	1413	-2.32	-297.75	-13.69
60	SLD 4	130	-42	1416	-2.36	-298.79	-10.07
60	SLD 5	50	60	1730	-3.74	-372.96	15.27
60	SLD 6	75	74	1732	-3.78	-374.01	18.92
60	SLD 7	18	-131	1390	-1.73	-292.59	-32.69
60	SLD 8	44	-117	1393	-1.77	-293.64	-29.03
60	SLD 9	-14	52	1812	-3.84	-392.66	13.39
60	SLD 10	11	67	1814	-3.88	-393.71	17.04
60	SLD 11	-46	-138	1472	-1.83	-312.29	-34.57
60	SLD 12	-21	-124	1475	-1.87	-313.34	-30.92
60	SLD 13	-100	-23	1789	-3.25	-387.52	-5.58
60	SLD 14	-75	-9	1791	-3.29	-388.56	-1.96
60	SLD 15	-110	-80	1687	-2.64	-363.41	-19.97
60	SLD 16	-85	-66	1689	-2.69	-364.44	-16.34
60	SLV 1	241	45	1404	-3.07	-294.72	11.58
60	SLV 2	297	77	1410	-3.17	-297.08	19.79
60	SLV 3	219	-86	1173	-1.7	-239.93	-21.08
60	SLV 4	276	-54	1178	-1.8	-242.28	-12.88
60	SLV 5	95	177	1892	-4.92	-410.9	44.65
60	SLV 6	152	209	1898	-5.03	-413.27	52.91
60	SLV 7	24	-257	1120	-0.36	-228.25	-64.25
60	SLV 8	80	-225	1126	-0.46	-230.62	-55.99
60	SLV 9	-51	160	2079	-5.15	-455.69	40.34
60	SLV 10	6	192	2085	-5.25	-458.05	48.6
60	SLV 11	-123	-273	1307	-0.58	-273.04	-68.56
60	SLV 12	-66	-241	1312	-0.69	-275.41	-60.3
60	SLV 13	-247	-11	2027	-3.81	-444.02	-2.77
60	SLV 14	-190	21	2032	-3.91	-446.37	5.44
60	SLV 15	-268	-141	1795	-2.44	-389.23	-35.44
60	SLV 16	-212	-109	1800	-2.54	-391.58	-27.23
60	CRTFP Ux+	0	0	0	0	0	0
60	CRTFP Ux-	0	0	0	0	0	0
60	CRTFP Uy+	0	0	0	0	0	0
60	CRTFP Uy-	0	0	0	0	0	0
62	SLU 1	39	-52	1969	-2.52	-541.08	-17.7
62	SLU 2	31	-51	1947	-2.49	-535.34	-17.47
62	SLU 3	39	-52	1969	-2.52	-541.08	-17.7
62	SLU 4	34	-51	1956	-2.5	-537.64	-17.57
62	SLU 5	31	-51	1947	-2.49	-535.34	-17.47
62	SLU 6	39	-52	1969	-2.52	-541.08	-17.7
62	SLU 7	34	-51	1956	-2.5	-537.64	-17.57
62	SLU 8	39	-52	1969	-2.52	-541.08	-17.7
62	SLU 9	34	-51	1956	-2.5	-537.64	-17.57
62	SLU 10	36	-62	2287	-3.06	-625.28	-21.19
62	SLU 11	45	-62	2310	-3.1	-631.02	-21.42
62	SLU 12	40	-62	2296	-3.08	-627.58	-21.28
62	SLU 13	36	-62	2287	-3.06	-625.28	-21.19
62	SLU 14	45	-62	2310	-3.1	-631.02	-21.42
62	SLU 15	40	-62	2296	-3.08	-627.58	-21.28
62	SLU 16	45	-62	2310	-3.1	-631.02	-21.42
62	SLU 17	40	-62	2296	-3.08	-627.58	-21.28
62	SLU 18	47	-67	2456	-3.34	-669.56	-23.01
62	SLU 19	42	-66	2442	-3.32	-666.12	-22.87
62	SLU 20	47	-67	2456	-3.34	-669.56	-23.01
62	SLU 21	42	-66	2442	-3.32	-666.12	-22.87
62	SLU 22	43	-58	2208	-2.88	-604.45	-19.75
62	SLU 23	35	-57	2186	-2.85	-598.71	-19.52
62	SLU 24	43	-58	2208	-2.88	-604.45	-19.75
62	SLU 25	38	-57	2195	-2.86	-601.01	-19.62
62	SLU 26	35	-57	2186	-2.85	-598.71	-19.52
62	SLU 27	43	-58	2208	-2.88	-604.45	-19.75
62	SLU 28	38	-57	2195	-2.86	-601.01	-19.62
62	SLU 29	43	-58	2208	-2.88	-604.45	-19.75
62	SLU 30	38	-57	2195	-2.86	-601.01	-19.62
62	SLU 31	40	-68	2527	-3.42	-688.65	-23.24
62	SLU 32	49	-68	2549	-3.46	-694.39	-23.47
62	SLU 33	44	-68	2535	-3.43	-690.95	-23.33
62	SLU 34	40	-68	2527	-3.42	-688.65	-23.24
62	SLU 35	49	-68	2549	-3.46	-694.39	-23.47
62	SLU 36	44	-68	2535	-3.43	-690.95	-23.33
62	SLU 37	49	-68	2549	-3.46	-694.39	-23.47
62	SLU 38	44	-68	2535	-3.43	-690.95	-23.33
62	SLU 39	51	-73	2695	-3.7	-732.93	-25.06
62	SLU 40	46	-72	2681	-3.68	-729.49	-24.92
62	SLU 41	51	-73	2695	-3.7	-732.93	-25.06
62	SLU 42	46	-72	2681	-3.68	-729.49	-24.92
62	SLU 43	49	-65	2478	-3.16	-681.68	-22.31
62	SLU 44	41	-64	2456	-3.12	-675.94	-22.08
62	SLU 45	49	-65	2478	-3.16	-681.68	-22.31
62	SLU 46	44	-65	2464	-3.14	-678.24	-22.18

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
62	SLU 47	41	-64	2456	-3.12	-675.94	-22.08
62	SLU 48	49	-65	2478	-3.16	-681.68	-22.31
62	SLU 49	44	-65	2464	-3.14	-678.24	-22.18
62	SLU 50	49	-65	2478	-3.16	-681.68	-22.31
62	SLU 51	44	-65	2464	-3.14	-678.24	-22.18
62	SLU 52	47	-75	2796	-3.69	-765.88	-25.8
62	SLU 53	55	-76	2818	-3.73	-771.62	-26.03
62	SLU 54	50	-75	2805	-3.71	-768.18	-25.89
62	SLU 55	47	-75	2796	-3.69	-765.88	-25.8
62	SLU 56	55	-76	2818	-3.73	-771.62	-26.03
62	SLU 57	50	-75	2805	-3.71	-768.18	-25.89
62	SLU 58	55	-76	2818	-3.73	-771.62	-26.03
62	SLU 59	50	-75	2805	-3.71	-768.18	-25.89
62	SLU 60	57	-80	2964	-3.98	-810.16	-27.62
62	SLU 61	52	-80	2951	-3.96	-806.72	-27.48
62	SLU 62	57	-80	2964	-3.98	-810.16	-27.62
62	SLU 63	52	-80	2951	-3.96	-806.72	-27.48
62	SLU 64	53	-71	2717	-3.52	-745.05	-24.36
62	SLU 65	45	-70	2695	-3.48	-739.31	-24.13
62	SLU 66	53	-71	2717	-3.52	-745.05	-24.36
62	SLU 67	48	-71	2703	-3.49	-741.61	-24.22
62	SLU 68	45	-70	2695	-3.48	-739.31	-24.13
62	SLU 69	53	-71	2717	-3.52	-745.05	-24.36
62	SLU 70	48	-71	2703	-3.49	-741.61	-24.22
62	SLU 71	53	-71	2717	-3.52	-745.05	-24.36
62	SLU 72	48	-71	2703	-3.49	-741.61	-24.22
62	SLU 73	51	-81	3035	-4.05	-829.25	-27.85
62	SLU 74	59	-82	3057	-4.09	-834.99	-28.08
62	SLU 75	54	-81	3044	-4.07	-831.54	-27.94
62	SLU 76	51	-81	3035	-4.05	-829.25	-27.85
62	SLU 77	59	-82	3057	-4.09	-834.99	-28.08
62	SLU 78	54	-81	3044	-4.07	-831.54	-27.94
62	SLU 79	59	-82	3057	-4.09	-834.99	-28.08
62	SLU 80	54	-81	3044	-4.07	-831.54	-27.94
62	SLU 81	61	-86	3203	-4.34	-873.53	-29.67
62	SLU 82	56	-86	3190	-4.31	-870.09	-29.53
62	SLU 83	61	-86	3203	-4.34	-873.53	-29.67
62	SLU 84	56	-86	3190	-4.31	-870.09	-29.53
62	SLE RA 1	40	-53	2037	-2.63	-559.19	-18.29
62	SLE RA 2	35	-53	2022	-2.6	-555.36	-18.14
62	SLE RA 3	40	-53	2037	-2.63	-559.19	-18.29
62	SLE RA 4	37	-53	2028	-2.61	-556.89	-18.2
62	SLE RA 5	35	-53	2022	-2.6	-555.36	-18.14
62	SLE RA 6	40	-53	2037	-2.63	-559.19	-18.29
62	SLE RA 7	37	-53	2028	-2.61	-556.89	-18.2
62	SLE RA 8	40	-53	2037	-2.63	-559.19	-18.29
62	SLE RA 9	37	-53	2028	-2.61	-556.89	-18.2
62	SLE RA 10	38	-60	2250	-2.98	-615.32	-20.61
62	SLE RA 11	44	-60	2264	-3.01	-619.15	-20.77
62	SLE RA 12	41	-60	2255	-2.99	-616.85	-20.67
62	SLE RA 13	38	-60	2250	-2.98	-615.32	-20.61
62	SLE RA 14	44	-60	2264	-3.01	-619.15	-20.77
62	SLE RA 15	41	-60	2255	-2.99	-616.85	-20.67
62	SLE RA 16	44	-60	2264	-3.01	-619.15	-20.77
62	SLE RA 17	41	-60	2255	-2.99	-616.85	-20.67
62	SLE RA 18	46	-64	2362	-3.17	-644.84	-21.83
62	SLE RA 19	42	-63	2353	-3.16	-642.55	-21.74
62	SLE RA 20	46	-64	2362	-3.17	-644.84	-21.83
62	SLE RA 21	42	-63	2353	-3.16	-642.55	-21.74
62	SLE FR 1	40	-53	2037	-2.63	-559.19	-18.29
62	SLE FR 2	39	-53	2034	-2.62	-558.42	-18.26
62	SLE FR 3	40	-53	2037	-2.63	-559.19	-18.29
62	SLE FR 4	41	-56	2132	-2.78	-584.12	-19.32
62	SLE FR 5	42	-56	2134	-2.79	-584.88	-19.35
62	SLE FR 6	43	-58	2199	-2.9	-602.01	-20.06
62	SLE QP 1	40	-53	2037	-2.63	-559.19	-18.29
62	SLE QP 2	42	-56	2134	-2.79	-584.88	-19.35
62	SLD 1	166	-26	2554	-3.73	-689.88	-8.65
62	SLD 2	196	-56	2551	-3.73	-689.02	-19.02
62	SLD 3	156	-105	2418	-3.23	-653.01	-36.49
62	SLD 4	187	-135	2415	-3.23	-652.16	-46.86
62	SLD 5	83	84	2468	-3.83	-672.6	29.76
62	SLD 6	114	54	2465	-3.83	-671.73	19.31
62	SLD 7	50	-181	2013	-2.16	-549.71	-63.05
62	SLD 8	81	-211	2010	-2.17	-548.85	-73.5
62	SLD 9	3	98	2259	-3.41	-620.92	34.8
62	SLD 10	34	68	2255	-3.41	-620.05	24.35
62	SLD 11	-31	-166	1804	-1.75	-498.03	-58.01
62	SLD 12	0	-197	1800	-1.75	-497.17	-68.46
62	SLD 13	-103	23	1854	-2.34	-517.61	8.16
62	SLD 14	-72	-7	1851	-2.35	-516.75	-2.21
62	SLD 15	-113	-57	1718	-1.85	-480.75	-19.68
62	SLD 16	-82	-87	1715	-1.85	-479.89	-30.06
62	SLV 1	324	12	3088	-4.93	-823.52	4.7
62	SLV 2	393	-56	3081	-4.93	-821.58	-18.78
62	SLV 3	301	-169	2778	-3.8	-739.79	-58.57

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
62	SLV 4	371	-236	2771	-3.8	-737.85	-82.06
62	SLV 5	136	262	2893	-5.15	-784.16	92.13
62	SLV 6	206	194	2886	-5.15	-782.21	68.49
62	SLV 7	61	-340	1860	-1.37	-505.04	-118.79
62	SLV 8	131	-408	1853	-1.38	-503.09	-142.43
62	SLV 9	-47	295	2416	-4.2	-666.68	103.73
62	SLV 10	23	227	2409	-4.21	-664.73	80.09
62	SLV 11	-123	-306	1383	-0.42	-387.56	-107.19
62	SLV 12	-53	-375	1376	-0.43	-385.61	-130.83
62	SLV 13	-287	124	1498	-1.78	-431.92	43.36
62	SLV 14	-218	56	1491	-1.78	-429.98	19.87
62	SLV 15	-310	-57	1188	-0.64	-348.18	-19.92
62	SLV 16	-240	-125	1181	-0.65	-346.24	-43.4
62	CRTFP Ux+	0	0	0	0	0.01	0
62	CRTFP Ux-	0	0	0	0	-0.01	0
62	CRTFP Uy+	0	0	0	0	0	0
62	CRTFP Uy-	0	0	0	0	0	0
66	SLU 1	6	-30	1399	-2.33	-289	-7.25
66	SLU 2	0	-30	1407	-2.33	-290.97	-7.33
66	SLU 3	6	-30	1399	-2.33	-289	-7.25
66	SLU 4	2	-30	1404	-2.33	-290.19	-7.3
66	SLU 5	0	-30	1407	-2.33	-290.97	-7.33
66	SLU 6	6	-30	1399	-2.33	-289	-7.25
66	SLU 7	2	-30	1404	-2.33	-290.19	-7.3
66	SLU 8	6	-30	1399	-2.33	-289	-7.25
66	SLU 9	2	-30	1404	-2.33	-290.19	-7.3
66	SLU 10	-2	-34	1635	-2.62	-336.39	-8.19
66	SLU 11	5	-34	1627	-2.62	-334.42	-8.11
66	SLU 12	1	-34	1632	-2.62	-335.6	-8.16
66	SLU 13	-2	-34	1635	-2.62	-336.39	-8.19
66	SLU 14	5	-34	1627	-2.62	-334.42	-8.11
66	SLU 15	1	-34	1632	-2.62	-335.6	-8.16
66	SLU 16	5	-34	1627	-2.62	-334.42	-8.11
66	SLU 17	1	-34	1632	-2.62	-335.6	-8.16
66	SLU 18	4	-35	1725	-2.74	-353.88	-8.48
66	SLU 19	0	-35	1730	-2.74	-355.06	-8.52
66	SLU 20	4	-35	1725	-2.74	-353.88	-8.48
66	SLU 21	0	-35	1730	-2.74	-355.06	-8.52
66	SLU 22	6	-32	1566	-2.53	-321.75	-7.8
66	SLU 23	-1	-33	1574	-2.53	-323.72	-7.87
66	SLU 24	6	-32	1566	-2.53	-321.75	-7.8
66	SLU 25	2	-33	1571	-2.53	-322.93	-7.84
66	SLU 26	-1	-33	1574	-2.53	-323.72	-7.87
66	SLU 27	6	-32	1566	-2.53	-321.75	-7.8
66	SLU 28	2	-33	1571	-2.53	-322.93	-7.84
66	SLU 29	6	-32	1566	-2.53	-321.75	-7.8
66	SLU 30	2	-33	1571	-2.53	-322.93	-7.84
66	SLU 31	-2	-36	1802	-2.82	-369.13	-8.73
66	SLU 32	4	-36	1794	-2.82	-367.16	-8.65
66	SLU 33	1	-36	1799	-2.82	-368.34	-8.7
66	SLU 34	-2	-36	1802	-2.82	-369.13	-8.73
66	SLU 35	4	-36	1794	-2.82	-367.16	-8.65
66	SLU 36	1	-36	1799	-2.82	-368.34	-8.7
66	SLU 37	4	-36	1794	-2.82	-367.16	-8.65
66	SLU 38	1	-36	1799	-2.82	-368.34	-8.7
66	SLU 39	4	-37	1891	-2.95	-386.62	-9.02
66	SLU 40	0	-38	1896	-2.95	-387.8	-9.07
66	SLU 41	4	-37	1891	-2.95	-386.62	-9.02
66	SLU 42	0	-38	1896	-2.95	-387.8	-9.07
66	SLU 43	8	-38	1762	-2.95	-364.48	-9.24
66	SLU 44	1	-39	1770	-2.95	-366.45	-9.32
66	SLU 45	8	-38	1762	-2.95	-364.48	-9.24
66	SLU 46	4	-39	1767	-2.95	-365.66	-9.29
66	SLU 47	1	-39	1770	-2.95	-366.45	-9.32
66	SLU 48	8	-38	1762	-2.95	-364.48	-9.24
66	SLU 49	4	-39	1767	-2.95	-365.66	-9.29
66	SLU 50	8	-38	1762	-2.95	-364.48	-9.24
66	SLU 51	4	-39	1767	-2.95	-365.66	-9.29
66	SLU 52	0	-42	1998	-3.25	-411.86	-10.18
66	SLU 53	6	-42	1990	-3.25	-409.89	-10.1
66	SLU 54	3	-42	1995	-3.25	-411.07	-10.15
66	SLU 55	0	-42	1998	-3.25	-411.86	-10.18
66	SLU 56	6	-42	1990	-3.25	-409.89	-10.1
66	SLU 57	3	-42	1995	-3.25	-411.07	-10.15
66	SLU 58	6	-42	1990	-3.25	-409.89	-10.1
66	SLU 59	3	-42	1995	-3.25	-411.07	-10.15
66	SLU 60	6	-43	2087	-3.37	-429.35	-10.47
66	SLU 61	2	-44	2092	-3.37	-430.54	-10.51
66	SLU 62	6	-43	2087	-3.37	-429.35	-10.47
66	SLU 63	2	-44	2092	-3.37	-430.54	-10.51
66	SLU 64	7	-41	1928	-3.16	-397.22	-9.78
66	SLU 65	1	-41	1936	-3.16	-399.19	-9.86
66	SLU 66	7	-41	1928	-3.16	-397.22	-9.78
66	SLU 67	4	-41	1933	-3.16	-398.4	-9.83
66	SLU 68	1	-41	1936	-3.16	-399.19	-9.86
66	SLU 69	7	-41	1928	-3.16	-397.22	-9.78

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
66	SLU 70	4	-41	1933	-3.16	-398.4	-9.83
66	SLU 71	7	-41	1928	-3.16	-397.22	-9.78
66	SLU 72	4	-41	1933	-3.16	-398.4	-9.83
66	SLU 73	0	-44	2164	-3.45	-444.6	-10.72
66	SLU 74	6	-44	2156	-3.45	-442.63	-10.64
66	SLU 75	2	-44	2161	-3.45	-443.82	-10.69
66	SLU 76	0	-44	2164	-3.45	-444.6	-10.72
66	SLU 77	6	-44	2156	-3.45	-442.63	-10.64
66	SLU 78	2	-44	2161	-3.45	-443.82	-10.69
66	SLU 79	6	-44	2156	-3.45	-442.63	-10.64
66	SLU 80	2	-44	2161	-3.45	-443.82	-10.69
66	SLU 81	6	-46	2254	-3.58	-462.1	-11.01
66	SLU 82	2	-46	2259	-3.58	-463.28	-11.06
66	SLU 83	6	-46	2254	-3.58	-462.1	-11.01
66	SLU 84	2	-46	2259	-3.58	-463.28	-11.06
66	SLE RA 1	6	-31	1447	-2.38	-298.36	-7.41
66	SLE RA 2	2	-31	1452	-2.38	-299.67	-7.46
66	SLE RA 3	6	-31	1447	-2.38	-298.36	-7.41
66	SLE RA 4	3	-31	1450	-2.38	-299.15	-7.44
66	SLE RA 5	2	-31	1452	-2.38	-299.67	-7.46
66	SLE RA 6	6	-31	1447	-2.38	-298.36	-7.41
66	SLE RA 7	3	-31	1450	-2.38	-299.15	-7.44
66	SLE RA 8	6	-31	1447	-2.38	-298.36	-7.41
66	SLE RA 9	3	-31	1450	-2.38	-299.15	-7.44
66	SLE RA 10	1	-33	1604	-2.58	-329.95	-8.03
66	SLE RA 11	5	-33	1599	-2.58	-328.63	-7.98
66	SLE RA 12	2	-33	1602	-2.58	-329.42	-8.01
66	SLE RA 13	1	-33	1604	-2.58	-329.95	-8.03
66	SLE RA 14	5	-33	1599	-2.58	-328.63	-7.98
66	SLE RA 15	2	-33	1602	-2.58	-329.42	-8.01
66	SLE RA 16	5	-33	1599	-2.58	-328.63	-7.98
66	SLE RA 17	2	-33	1602	-2.58	-329.42	-8.01
66	SLE RA 18	5	-34	1664	-2.66	-341.61	-8.22
66	SLE RA 19	2	-34	1667	-2.66	-342.4	-8.26
66	SLE RA 20	5	-34	1664	-2.66	-341.61	-8.22
66	SLE RA 21	2	-34	1667	-2.66	-342.4	-8.26
66	SLE FR 1	6	-31	1447	-2.38	-298.36	-7.41
66	SLE FR 2	5	-31	1448	-2.38	-298.62	-7.42
66	SLE FR 3	6	-31	1447	-2.38	-298.36	-7.41
66	SLE FR 4	5	-32	1513	-2.47	-311.6	-7.66
66	SLE FR 5	5	-32	1512	-2.47	-311.33	-7.65
66	SLE FR 6	5	-32	1555	-2.52	-319.98	-7.82
66	SLE QP 1	6	-31	1447	-2.38	-298.36	-7.41
66	SLE QP 2	5	-32	1512	-2.47	-311.33	-7.65
66	SLD 1	98	2	1419	-2.6	-289.08	0.87
66	SLD 2	120	16	1420	-2.65	-289.68	4.5
66	SLD 3	91	-55	1336	-2.09	-269.24	-13.52
66	SLD 4	112	-41	1337	-2.14	-269.84	-9.89
66	SLD 5	37	60	1609	-3.27	-334.54	15.45
66	SLD 6	59	75	1610	-3.31	-335.14	19.1
66	SLD 7	12	-131	1333	-1.56	-268.4	-32.52
66	SLD 8	34	-117	1334	-1.61	-269	-28.87
66	SLD 9	-23	53	1689	-3.33	-353.66	13.56
66	SLD 10	-1	67	1690	-3.37	-354.27	17.22
66	SLD 11	-48	-138	1414	-1.62	-287.52	-34.41
66	SLD 12	-26	-124	1414	-1.67	-288.13	-30.75
66	SLD 13	-102	-22	1686	-2.8	-352.82	-5.41
66	SLD 14	-80	-8	1687	-2.84	-353.42	-1.79
66	SLD 15	-109	-80	1604	-2.29	-332.98	-19.8
66	SLD 16	-87	-66	1605	-2.33	-333.58	-16.18
66	SLV 1	217	45	1301	-2.78	-260.72	11.77
66	SLV 2	266	77	1303	-2.88	-262.07	19.99
66	SLV 3	200	-85	1113	-1.61	-215.62	-20.91
66	SLV 4	249	-53	1115	-1.71	-216.98	-12.69
66	SLV 5	77	177	1733	-4.29	-364.07	44.84
66	SLV 6	126	210	1735	-4.39	-365.43	53.11
66	SLV 7	21	-257	1106	-0.41	-213.74	-64.1
66	SLV 8	70	-224	1108	-0.51	-215.11	-55.83
66	SLV 9	-59	161	1915	-4.42	-407.56	40.52
66	SLV 10	-10	193	1917	-4.52	-408.92	48.79
66	SLV 11	-116	-273	1289	-0.55	-257.23	-68.41
66	SLV 12	-66	-241	1291	-0.65	-258.6	-60.14
66	SLV 13	-238	-10	1909	-3.22	-405.69	-2.61
66	SLV 14	-189	22	1911	-3.32	-407.05	5.6
66	SLV 15	-255	-141	1721	-2.06	-360.59	-35.29
66	SLV 16	-206	-109	1723	-2.16	-361.95	-27.08
66	CRTFP Ux+	0	0	0	0	0	0
66	CRTFP Ux-	0	0	0	0	0	0
66	CRTFP Uy+	0	0	0	0	0	0
66	CRTFP Uy-	0	0	0	0	0	0
68	SLU 1	27	-51	1895	-1.8	-496.32	-17.63
68	SLU 2	19	-51	1874	-1.77	-491.05	-17.4
68	SLU 3	27	-51	1895	-1.8	-496.32	-17.63
68	SLU 4	23	-51	1882	-1.78	-493.16	-17.49
68	SLU 5	19	-51	1874	-1.77	-491.05	-17.4
68	SLU 6	27	-51	1895	-1.8	-496.32	-17.63

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
68	SLU 7	23	-51	1882	-1.78	-493.16	-17.49
68	SLU 8	27	-51	1895	-1.8	-496.32	-17.63
68	SLU 9	23	-51	1882	-1.78	-493.16	-17.49
68	SLU 10	23	-61	2197	-2.19	-571.28	-21.08
68	SLU 11	31	-62	2218	-2.22	-576.54	-21.31
68	SLU 12	27	-62	2206	-2.2	-573.38	-21.17
68	SLU 13	23	-61	2197	-2.19	-571.28	-21.08
68	SLU 14	31	-62	2218	-2.22	-576.54	-21.31
68	SLU 15	27	-62	2206	-2.2	-573.38	-21.17
68	SLU 16	31	-62	2218	-2.22	-576.54	-21.31
68	SLU 17	27	-62	2206	-2.2	-573.38	-21.17
68	SLU 18	33	-67	2357	-2.4	-610.92	-22.89
68	SLU 19	28	-66	2344	-2.39	-607.76	-22.75
68	SLU 20	33	-67	2357	-2.4	-610.92	-22.89
68	SLU 21	28	-66	2344	-2.39	-607.76	-22.75
68	SLU 22	30	-57	2123	-2.05	-553.5	-19.66
68	SLU 23	22	-57	2102	-2.02	-548.23	-19.43
68	SLU 24	30	-57	2123	-2.05	-553.5	-19.66
68	SLU 25	25	-57	2111	-2.03	-550.34	-19.52
68	SLU 26	22	-57	2102	-2.02	-548.23	-19.43
68	SLU 27	30	-57	2123	-2.05	-553.5	-19.66
68	SLU 28	25	-57	2111	-2.03	-550.34	-19.52
68	SLU 29	30	-57	2123	-2.05	-553.5	-19.66
68	SLU 30	25	-57	2111	-2.03	-550.34	-19.52
68	SLU 31	26	-67	2426	-2.45	-628.46	-23.11
68	SLU 32	34	-68	2447	-2.47	-633.72	-23.34
68	SLU 33	30	-67	2434	-2.46	-630.56	-23.2
68	SLU 34	26	-67	2426	-2.45	-628.46	-23.11
68	SLU 35	34	-68	2447	-2.47	-633.72	-23.34
68	SLU 36	30	-67	2434	-2.46	-630.56	-23.2
68	SLU 37	34	-68	2447	-2.47	-633.72	-23.34
68	SLU 38	30	-67	2434	-2.46	-630.56	-23.2
68	SLU 39	36	-72	2585	-2.66	-668.1	-24.92
68	SLU 40	31	-72	2573	-2.64	-664.94	-24.78
68	SLU 41	36	-72	2585	-2.66	-668.1	-24.92
68	SLU 42	31	-72	2573	-2.64	-664.94	-24.78
68	SLU 43	34	-65	2385	-2.25	-625.61	-22.22
68	SLU 44	27	-64	2364	-2.22	-620.34	-21.99
68	SLU 45	34	-65	2385	-2.25	-625.61	-22.22
68	SLU 46	30	-64	2372	-2.23	-622.45	-22.08
68	SLU 47	27	-64	2364	-2.22	-620.34	-21.99
68	SLU 48	34	-65	2385	-2.25	-625.61	-22.22
68	SLU 49	30	-64	2372	-2.23	-622.45	-22.08
68	SLU 50	34	-65	2385	-2.25	-625.61	-22.22
68	SLU 51	30	-64	2372	-2.23	-622.45	-22.08
68	SLU 52	31	-75	2687	-2.64	-700.57	-25.67
68	SLU 53	39	-75	2708	-2.67	-705.83	-25.9
68	SLU 54	34	-75	2696	-2.66	-702.67	-25.76
68	SLU 55	31	-75	2687	-2.64	-700.57	-25.67
68	SLU 56	39	-75	2708	-2.67	-705.83	-25.9
68	SLU 57	34	-75	2696	-2.66	-702.67	-25.76
68	SLU 58	39	-75	2708	-2.67	-705.83	-25.9
68	SLU 59	34	-75	2696	-2.66	-702.67	-25.76
68	SLU 60	40	-80	2847	-2.86	-740.22	-27.48
68	SLU 61	36	-80	2834	-2.84	-737.06	-27.34
68	SLU 62	40	-80	2847	-2.86	-740.22	-27.48
68	SLU 63	36	-80	2834	-2.84	-737.06	-27.34
68	SLU 64	37	-71	2613	-2.5	-682.79	-24.25
68	SLU 65	29	-70	2592	-2.47	-677.52	-24.02
68	SLU 66	37	-71	2613	-2.5	-682.79	-24.25
68	SLU 67	33	-70	2601	-2.49	-679.63	-24.11
68	SLU 68	29	-70	2592	-2.47	-677.52	-24.02
68	SLU 69	37	-71	2613	-2.5	-682.79	-24.25
68	SLU 70	33	-70	2601	-2.49	-679.63	-24.11
68	SLU 71	37	-71	2613	-2.5	-682.79	-24.25
68	SLU 72	33	-70	2601	-2.49	-679.63	-24.11
68	SLU 73	34	-81	2916	-2.9	-757.75	-27.7
68	SLU 74	41	-81	2937	-2.93	-763.01	-27.93
68	SLU 75	37	-81	2924	-2.91	-759.85	-27.79
68	SLU 76	34	-81	2916	-2.9	-757.75	-27.7
68	SLU 77	41	-81	2937	-2.93	-763.01	-27.93
68	SLU 78	37	-81	2924	-2.91	-759.85	-27.79
68	SLU 79	41	-81	2937	-2.93	-763.01	-27.93
68	SLU 80	37	-81	2924	-2.91	-759.85	-27.79
68	SLU 81	43	-86	3075	-3.11	-797.4	-29.51
68	SLU 82	38	-85	3063	-3.09	-794.24	-29.37
68	SLU 83	43	-86	3075	-3.11	-797.4	-29.51
68	SLU 84	38	-85	3063	-3.09	-794.24	-29.37
68	SLE RA 1	28	-53	1960	-1.87	-512.66	-18.21
68	SLE RA 2	23	-53	1946	-1.85	-509.15	-18.06
68	SLE RA 3	28	-53	1960	-1.87	-512.66	-18.21
68	SLE RA 4	25	-53	1952	-1.86	-510.55	-18.12
68	SLE RA 5	23	-53	1946	-1.85	-509.15	-18.06
68	SLE RA 6	28	-53	1960	-1.87	-512.66	-18.21
68	SLE RA 7	25	-53	1952	-1.86	-510.55	-18.12
68	SLE RA 8	28	-53	1960	-1.87	-512.66	-18.21

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
68	SLE RA 9	25	-53	1952	-1.86	-510.55	-18.12
68	SLE RA 10	26	-60	2162	-2.13	-562.63	-20.51
68	SLE RA 11	31	-60	2176	-2.15	-566.14	-20.66
68	SLE RA 12	28	-60	2167	-2.14	-564.03	-20.57
68	SLE RA 13	26	-60	2162	-2.13	-562.63	-20.51
68	SLE RA 14	31	-60	2176	-2.15	-566.14	-20.66
68	SLE RA 15	28	-60	2167	-2.14	-564.03	-20.57
68	SLE RA 16	31	-60	2176	-2.15	-566.14	-20.66
68	SLE RA 17	28	-60	2167	-2.14	-564.03	-20.57
68	SLE RA 18	32	-63	2268	-2.27	-589.06	-21.71
68	SLE RA 19	29	-63	2260	-2.26	-586.95	-21.62
68	SLE RA 20	32	-63	2268	-2.27	-589.06	-21.71
68	SLE RA 21	29	-63	2260	-2.26	-586.95	-21.62
68	SLE FR 1	28	-53	1960	-1.87	-512.66	-18.21
68	SLE FR 2	27	-53	1957	-1.87	-511.95	-18.18
68	SLE FR 3	28	-53	1960	-1.87	-512.66	-18.21
68	SLE FR 4	28	-56	2050	-1.99	-534.88	-19.23
68	SLE FR 5	29	-56	2052	-1.99	-535.58	-19.26
68	SLE FR 6	30	-58	2114	-2.07	-550.86	-19.96
68	SLE QP 1	28	-53	1960	-1.87	-512.66	-18.21
68	SLE QP 2	29	-56	2052	-1.99	-535.58	-19.26
68	SLD 1	148	-26	2443	-2.76	-626.93	-8.54
68	SLD 2	175	-56	2439	-2.77	-625.99	-18.91
68	SLD 3	139	-105	2322	-2.32	-596.07	-36.42
68	SLD 4	167	-135	2319	-2.32	-595.13	-46.79
68	SLD 5	68	84	2353	-2.89	-610.12	29.91
68	SLD 6	95	54	2350	-2.9	-609.18	19.46
68	SLD 7	40	-181	1952	-1.42	-507.25	-63.02
68	SLD 8	68	-211	1949	-1.42	-506.31	-73.47
68	SLD 9	-9	99	2156	-2.56	-564.85	34.95
68	SLD 10	18	69	2153	-2.57	-563.91	24.5
68	SLD 11	-36	-166	1755	-1.09	-461.98	-57.98
68	SLD 12	-9	-196	1751	-1.09	-461.04	-68.43
68	SLD 13	-108	23	1786	-1.66	-476.03	8.27
68	SLD 14	-81	-7	1782	-1.66	-475.09	-2.11
68	SLD 15	-116	-57	1665	-1.22	-445.16	-19.61
68	SLD 16	-89	-87	1662	-1.22	-444.23	-29.99
68	SLV 1	299	12	2939	-3.74	-743.22	4.84
68	SLV 2	360	-55	2932	-3.75	-741.1	-18.66
68	SLV 3	280	-168	2666	-2.74	-673.13	-58.52
68	SLV 4	341	-236	2659	-2.75	-671.01	-82.02
68	SLV 5	117	262	2736	-4.04	-704.93	92.37
68	SLV 6	178	194	2728	-4.05	-702.79	68.71
68	SLV 7	55	-340	1824	-0.69	-471.29	-118.83
68	SLV 8	116	-408	1817	-0.7	-469.15	-142.49
68	SLV 9	-58	296	2288	-3.29	-602	103.97
68	SLV 10	4	228	2280	-3.29	-599.87	80.31
68	SLV 11	-120	-306	1376	0.06	-368.37	-107.24
68	SLV 12	-58	-375	1369	0.06	-366.23	-130.89
68	SLV 13	-283	124	1446	-1.24	-400.15	43.5
68	SLV 14	-221	56	1439	-1.24	-398.03	20
68	SLV 15	-301	-57	1173	-0.23	-330.06	-19.86
68	SLV 16	-240	-125	1165	-0.24	-327.94	-43.36
68	CRTFP Ux+	0	0	0	0	0	0
68	CRTFP Ux-	0	0	0	0	0	0
68	CRTFP Uy+	0	0	0	0	0	0
68	CRTFP Uy-	0	0	0	0	0	0
71	SLU 1	11	-12	1958	-12.61	403.41	3.32
71	SLU 2	2	-13	1976	-12.73	406.72	3.48
71	SLU 3	11	-12	1958	-12.61	403.41	3.32
71	SLU 4	6	-12	1969	-12.68	405.4	3.42
71	SLU 5	2	-13	1976	-12.73	406.72	3.48
71	SLU 6	11	-12	1958	-12.61	403.41	3.32
71	SLU 7	6	-12	1969	-12.68	405.4	3.42
71	SLU 8	11	-12	1958	-12.61	403.41	3.32
71	SLU 9	6	-12	1969	-12.68	405.4	3.42
71	SLU 10	0	-12	2270	-14.56	467.56	3.23
71	SLU 11	8	-11	2252	-14.44	464.25	3.07
71	SLU 12	3	-11	2263	-14.51	466.24	3.17
71	SLU 13	0	-12	2270	-14.56	467.56	3.23
71	SLU 14	8	-11	2252	-14.44	464.25	3.07
71	SLU 15	3	-11	2263	-14.51	466.24	3.17
71	SLU 16	8	-11	2252	-14.44	464.25	3.07
71	SLU 17	3	-11	2263	-14.51	466.24	3.17
71	SLU 18	7	-10	2378	-15.23	490.33	2.97
71	SLU 19	2	-11	2389	-15.3	492.31	3.06
71	SLU 20	7	-10	2378	-15.23	490.33	2.97
71	SLU 21	2	-11	2389	-15.3	492.31	3.06
71	SLU 22	10	-11	2176	-13.98	448.35	3.2
71	SLU 23	1	-12	2194	-14.1	451.66	3.35
71	SLU 24	10	-11	2176	-13.98	448.35	3.2
71	SLU 25	5	-12	2187	-14.05	450.34	3.29
71	SLU 26	1	-12	2194	-14.1	451.66	3.35
71	SLU 27	10	-11	2176	-13.98	448.35	3.2
71	SLU 28	5	-12	2187	-14.05	450.34	3.29
71	SLU 29	10	-11	2176	-13.98	448.35	3.2

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
71	SLU 30	5	-12	2187	-14.05	450.34	3.29
71	SLU 31	-1	-11	2488	-15.93	512.5	3.1
71	SLU 32	7	-10	2470	-15.81	509.19	2.95
71	SLU 33	2	-11	2481	-15.88	511.18	3.04
71	SLU 34	-1	-11	2488	-15.93	512.5	3.1
71	SLU 35	7	-10	2470	-15.81	509.19	2.95
71	SLU 36	2	-11	2481	-15.88	511.18	3.04
71	SLU 37	7	-10	2470	-15.81	509.19	2.95
71	SLU 38	2	-11	2481	-15.88	511.18	3.04
71	SLU 39	6	-10	2596	-16.59	535.27	2.84
71	SLU 40	1	-10	2607	-16.66	537.25	2.93
71	SLU 41	6	-10	2596	-16.59	535.27	2.84
71	SLU 42	1	-10	2607	-16.66	537.25	2.93
71	SLU 43	14	-15	2470	-15.93	509.03	4.36
71	SLU 44	6	-16	2488	-16.04	512.34	4.52
71	SLU 45	14	-15	2470	-15.93	509.03	4.36
71	SLU 46	9	-16	2481	-16	511.01	4.46
71	SLU 47	6	-16	2488	-16.04	512.34	4.52
71	SLU 48	14	-15	2470	-15.93	509.03	4.36
71	SLU 49	9	-16	2481	-16	511.01	4.46
71	SLU 50	14	-15	2470	-15.93	509.03	4.36
71	SLU 51	9	-16	2481	-16	511.01	4.46
71	SLU 52	3	-15	2782	-17.87	573.18	4.27
71	SLU 53	12	-14	2764	-17.76	569.87	4.11
71	SLU 54	7	-15	2775	-17.83	571.85	4.2
71	SLU 55	3	-15	2782	-17.87	573.18	4.27
71	SLU 56	12	-14	2764	-17.76	569.87	4.11
71	SLU 57	7	-15	2775	-17.83	571.85	4.2
71	SLU 58	12	-14	2764	-17.76	569.87	4.11
71	SLU 59	7	-15	2775	-17.83	571.85	4.2
71	SLU 60	11	-14	2890	-18.54	595.94	4
71	SLU 61	6	-15	2901	-18.61	597.93	4.1
71	SLU 62	11	-14	2890	-18.54	595.94	4
71	SLU 63	6	-15	2901	-18.61	597.93	4.1
71	SLU 64	13	-15	2689	-17.3	553.97	4.24
71	SLU 65	5	-16	2707	-17.41	557.28	4.39
71	SLU 66	13	-15	2689	-17.3	553.97	4.24
71	SLU 67	8	-15	2700	-17.37	555.95	4.33
71	SLU 68	5	-16	2707	-17.41	557.28	4.39
71	SLU 69	13	-15	2689	-17.3	553.97	4.24
71	SLU 70	8	-15	2700	-17.37	555.95	4.33
71	SLU 71	13	-15	2689	-17.3	553.97	4.24
71	SLU 72	8	-15	2700	-17.37	555.95	4.33
71	SLU 73	2	-15	3001	-19.24	618.12	4.14
71	SLU 74	11	-14	2983	-19.12	614.81	3.99
71	SLU 75	6	-14	2994	-19.2	616.79	4.08
71	SLU 76	2	-15	3001	-19.24	618.12	4.14
71	SLU 77	11	-14	2983	-19.12	614.81	3.99
71	SLU 78	6	-14	2994	-19.2	616.79	4.08
71	SLU 79	11	-14	2983	-19.12	614.81	3.99
71	SLU 80	6	-14	2994	-19.2	616.79	4.08
71	SLU 81	10	-14	3109	-19.91	640.88	3.88
71	SLU 82	5	-14	3119	-19.98	642.87	3.97
71	SLU 83	10	-14	3109	-19.91	640.88	3.88
71	SLU 84	5	-14	3119	-19.98	642.87	3.97
71	SLE RA 1	10	-12	2020	-13	416.25	3.29
71	SLE RA 2	5	-12	2032	-13.08	418.46	3.39
71	SLE RA 3	10	-12	2020	-13	416.25	3.29
71	SLE RA 4	7	-12	2028	-13.05	417.58	3.35
71	SLE RA 5	5	-12	2032	-13.08	418.46	3.39
71	SLE RA 6	10	-12	2020	-13	416.25	3.29
71	SLE RA 7	7	-12	2028	-13.05	417.58	3.35
71	SLE RA 8	10	-12	2020	-13	416.25	3.29
71	SLE RA 9	7	-12	2028	-13.05	417.58	3.35
71	SLE RA 10	3	-12	2228	-14.3	459.02	3.22
71	SLE RA 11	9	-11	2216	-14.22	456.81	3.12
71	SLE RA 12	5	-11	2223	-14.27	458.14	3.18
71	SLE RA 13	3	-12	2228	-14.3	459.02	3.22
71	SLE RA 14	9	-11	2216	-14.22	456.81	3.12
71	SLE RA 15	5	-11	2223	-14.27	458.14	3.18
71	SLE RA 16	9	-11	2216	-14.22	456.81	3.12
71	SLE RA 17	5	-11	2223	-14.27	458.14	3.18
71	SLE RA 18	8	-11	2300	-14.75	474.2	3.05
71	SLE RA 19	5	-11	2307	-14.79	475.52	3.11
71	SLE RA 20	8	-11	2300	-14.75	474.2	3.05
71	SLE RA 21	5	-11	2307	-14.79	475.52	3.11
71	SLE FR 1	10	-12	2020	-13	416.25	3.29
71	SLE FR 2	9	-12	2023	-13.02	416.69	3.31
71	SLE FR 3	10	-12	2020	-13	416.25	3.29
71	SLE FR 4	9	-11	2107	-13.54	434.08	3.24
71	SLE FR 5	10	-11	2104	-13.53	433.63	3.22
71	SLE FR 6	9	-11	2160	-13.87	445.22	3.17
71	SLE QP 1	10	-12	2020	-13	416.25	3.29
71	SLE QP 2	10	-11	2104	-13.53	433.63	3.22
71	SLD 1	132	46	1874	-12.24	393.24	-10.72
71	SLD 2	160	78	1885	-12.36	395.09	-18.62

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
71	SLD 3	124	-48	1731	-10.65	363.97	12.53
71	SLD 4	151	-15	1741	-10.76	365.82	4.63
71	SLD 5	49	136	2249	-15.52	465.25	-33.43
71	SLD 6	77	169	2260	-15.64	467.12	-41.39
71	SLD 7	22	-176	1771	-10.2	367.69	44.07
71	SLD 8	49	-143	1781	-10.32	369.55	36.11
71	SLD 9	-30	120	2427	-16.74	497.72	-29.68
71	SLD 10	-2	153	2438	-16.85	499.58	-37.64
71	SLD 11	-58	-191	1949	-11.42	400.15	47.82
71	SLD 12	-30	-159	1959	-11.53	402.02	39.86
71	SLD 13	-132	-8	2468	-16.29	501.45	1.8
71	SLD 14	-105	25	2478	-16.41	503.3	-6.1
71	SLD 15	-140	-101	2324	-14.7	472.18	25.05
71	SLD 16	-113	-68	2334	-14.81	474.03	17.15
71	SLV 1	289	119	1582	-10.61	341.82	-28.58
71	SLV 2	351	193	1605	-10.87	346.02	-46.48
71	SLV 3	270	-93	1255	-6.98	275.31	24.22
71	SLV 4	332	-19	1279	-7.24	279.51	6.33
71	SLV 5	100	323	2434	-18.06	505.48	-80.09
71	SLV 6	163	398	2458	-18.32	509.71	-98.1
71	SLV 7	37	-384	1347	-5.97	283.78	95.93
71	SLV 8	99	-309	1370	-6.23	288.01	77.91
71	SLV 9	-80	287	2838	-20.82	579.26	-71.48
71	SLV 10	-18	361	2862	-21.08	583.49	-89.49
71	SLV 11	-143	-421	1751	-8.73	357.56	104.53
71	SLV 12	-81	-346	1775	-8.99	361.79	86.52
71	SLV 13	-313	-3	2930	-19.81	587.76	0.1
71	SLV 14	-250	71	2953	-20.07	591.96	-17.79
71	SLV 15	-332	-215	2604	-16.18	521.25	52.91
71	SLV 16	-269	-141	2627	-16.44	525.45	35.02
71	CRTFP Ux+	0	0	0	0	0	0
71	CRTFP Ux-	0	0	0	0	0	0
71	CRTFP Uy+	0	0	0	0	0	0
71	CRTFP Uy-	0	0	0	0	0	0
72	SLU 1	-4	-17	329	12.64	-30.58	-0.58
72	SLU 2	-7	-16	328	12.32	-30.47	0.2
72	SLU 3	-4	-17	329	12.64	-30.58	-0.58
72	SLU 4	-6	-16	329	12.45	-30.51	-0.11
72	SLU 5	-7	-16	328	12.32	-30.47	0.2
72	SLU 6	-4	-17	329	12.64	-30.58	-0.58
72	SLU 7	-6	-16	329	12.45	-30.51	-0.11
72	SLU 8	-4	-17	329	12.64	-30.58	-0.58
72	SLU 9	-6	-16	329	12.45	-30.51	-0.11
72	SLU 10	-8	-17	381	9.98	-35.41	0.37
72	SLU 11	-5	-18	383	10.3	-35.52	-0.41
72	SLU 12	-7	-18	382	10.1	-35.46	0.06
72	SLU 13	-8	-17	381	9.98	-35.41	0.37
72	SLU 14	-5	-18	383	10.3	-35.52	-0.41
72	SLU 15	-7	-18	382	10.1	-35.46	0.06
72	SLU 16	-5	-18	383	10.3	-35.52	-0.41
72	SLU 17	-7	-18	382	10.1	-35.46	0.06
72	SLU 18	-6	-19	405	9.29	-37.64	-0.34
72	SLU 19	-7	-18	405	9.1	-37.58	0.13
72	SLU 20	-6	-19	405	9.29	-37.64	-0.34
72	SLU 21	-7	-18	405	9.1	-37.58	0.13
72	SLU 22	-4	-18	399	12.75	-37.05	-0.54
72	SLU 23	-7	-17	398	12.43	-36.93	0.24
72	SLU 24	-4	-18	399	12.75	-37.05	-0.54
72	SLU 25	-6	-17	399	12.56	-36.98	-0.07
72	SLU 26	-7	-17	398	12.43	-36.93	0.24
72	SLU 27	-4	-18	399	12.75	-37.05	-0.54
72	SLU 28	-6	-17	399	12.56	-36.98	-0.07
72	SLU 29	-4	-18	399	12.75	-37.05	-0.54
72	SLU 30	-6	-17	399	12.56	-36.98	-0.07
72	SLU 31	-9	-19	451	10.09	-41.88	0.41
72	SLU 32	-6	-19	453	10.41	-41.99	-0.37
72	SLU 33	-7	-19	452	10.21	-41.92	0.1
72	SLU 34	-9	-19	451	10.09	-41.88	0.41
72	SLU 35	-6	-19	453	10.41	-41.99	-0.37
72	SLU 36	-7	-19	452	10.21	-41.92	0.1
72	SLU 37	-6	-19	453	10.41	-41.99	-0.37
72	SLU 38	-7	-19	452	10.21	-41.92	0.1
72	SLU 39	-6	-20	475	9.4	-44.11	-0.3
72	SLU 40	-8	-19	475	9.21	-44.04	0.17
72	SLU 41	-6	-20	475	9.4	-44.11	-0.3
72	SLU 42	-8	-19	475	9.21	-44.04	0.17
72	SLU 43	-5	-21	404	16.39	-37.54	-0.77
72	SLU 44	-8	-21	403	16.07	-37.42	0.01
72	SLU 45	-5	-21	404	16.39	-37.54	-0.77
72	SLU 46	-7	-21	403	16.2	-37.47	-0.3
72	SLU 47	-8	-21	403	16.07	-37.42	0.01
72	SLU 48	-5	-21	404	16.39	-37.54	-0.77
72	SLU 49	-7	-21	403	16.2	-37.47	-0.3
72	SLU 50	-5	-21	404	16.39	-37.54	-0.77
72	SLU 51	-7	-21	403	16.2	-37.47	-0.3
72	SLU 52	-9	-22	456	13.73	-42.37	0.18

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
72	SLU 53	-6	-23	457	14.05	-42.48	-0.6
72	SLU 54	-8	-22	457	13.86	-42.41	-0.13
72	SLU 55	-9	-22	456	13.73	-42.37	0.18
72	SLU 56	-6	-23	457	14.05	-42.48	-0.6
72	SLU 57	-8	-22	457	13.86	-42.41	-0.13
72	SLU 58	-6	-23	457	14.05	-42.48	-0.6
72	SLU 59	-8	-22	457	13.86	-42.41	-0.13
72	SLU 60	-7	-23	480	13.04	-44.6	-0.53
72	SLU 61	-8	-23	479	12.85	-44.53	-0.06
72	SLU 62	-7	-23	480	13.04	-44.6	-0.53
72	SLU 63	-8	-23	479	12.85	-44.53	-0.06
72	SLU 64	-5	-22	474	16.5	-44.01	-0.73
72	SLU 65	-8	-22	473	16.19	-43.89	0.05
72	SLU 66	-5	-22	474	16.5	-44.01	-0.73
72	SLU 67	-7	-22	473	16.31	-43.94	-0.26
72	SLU 68	-8	-22	473	16.19	-43.89	0.05
72	SLU 69	-5	-22	474	16.5	-44.01	-0.73
72	SLU 70	-7	-22	473	16.31	-43.94	-0.26
72	SLU 71	-5	-22	474	16.5	-44.01	-0.73
72	SLU 72	-7	-22	473	16.31	-43.94	-0.26
72	SLU 73	-9	-23	526	13.84	-48.84	0.22
72	SLU 74	-7	-24	527	14.16	-48.95	-0.56
72	SLU 75	-8	-23	527	13.97	-48.88	-0.09
72	SLU 76	-9	-23	526	13.84	-48.84	0.22
72	SLU 77	-7	-24	527	14.16	-48.95	-0.56
72	SLU 78	-8	-23	527	13.97	-48.88	-0.09
72	SLU 79	-7	-24	527	14.16	-48.95	-0.56
72	SLU 80	-8	-23	527	13.97	-48.88	-0.09
72	SLU 81	-7	-24	550	13.15	-51.07	-0.49
72	SLU 82	-9	-24	549	12.96	-51	-0.02
72	SLU 83	-7	-24	550	13.15	-51.07	-0.49
72	SLU 84	-9	-24	549	12.96	-51	-0.02
72	SLE RA 1	-4	-17	349	12.67	-32.43	-0.57
72	SLE RA 2	-6	-17	349	12.46	-32.35	-0.05
72	SLE RA 3	-4	-17	349	12.67	-32.43	-0.57
72	SLE RA 4	-5	-17	349	12.54	-32.38	-0.26
72	SLE RA 5	-6	-17	349	12.46	-32.35	-0.05
72	SLE RA 6	-4	-17	349	12.67	-32.43	-0.57
72	SLE RA 7	-5	-17	349	12.54	-32.38	-0.26
72	SLE RA 8	-4	-17	349	12.67	-32.43	-0.57
72	SLE RA 9	-5	-17	349	12.54	-32.38	-0.26
72	SLE RA 10	-7	-17	384	10.9	-35.65	0.07
72	SLE RA 11	-5	-18	385	11.11	-35.72	-0.46
72	SLE RA 12	-6	-18	384	10.98	-35.68	-0.14
72	SLE RA 13	-7	-17	384	10.9	-35.65	0.07
72	SLE RA 14	-5	-18	385	11.11	-35.72	-0.46
72	SLE RA 15	-6	-18	384	10.98	-35.68	-0.14
72	SLE RA 16	-5	-18	385	11.11	-35.72	-0.46
72	SLE RA 17	-6	-18	384	10.98	-35.68	-0.14
72	SLE RA 18	-5	-18	400	10.44	-37.14	-0.41
72	SLE RA 19	-6	-18	400	10.31	-37.09	-0.1
72	SLE RA 20	-5	-18	400	10.44	-37.14	-0.41
72	SLE RA 21	-6	-18	400	10.31	-37.09	-0.1
72	SLE FR 1	-4	-17	349	12.67	-32.43	-0.57
72	SLE FR 2	-4	-17	349	12.63	-32.41	-0.47
72	SLE FR 3	-4	-17	349	12.67	-32.43	-0.57
72	SLE FR 4	-5	-17	364	11.96	-33.83	-0.42
72	SLE FR 5	-4	-17	365	12	-33.84	-0.52
72	SLE FR 6	-5	-18	375	11.55	-34.78	-0.49
72	SLE QP 1	-4	-17	349	12.67	-32.43	-0.57
72	SLE QP 2	-4	-17	365	12	-33.84	-0.52
72	SLD 1	40	-24	380	15.43	-35.21	-12.08
72	SLD 2	48	-28	380	15.43	-35.21	-14.67
72	SLD 3	37	-22	390	18.71	-36.1	-11.31
72	SLD 4	46	-26	390	18.72	-36.1	-13.9
72	SLD 5	9	-22	354	8.05	-32.89	-4.24
72	SLD 6	18	-26	354	8.05	-32.9	-6.85
72	SLD 7	1	-13	387	18.99	-35.88	-1.68
72	SLD 8	10	-17	387	18.99	-35.88	-4.28
72	SLD 9	-19	-18	342	5.01	-31.81	3.24
72	SLD 10	-10	-22	342	5.01	-31.81	0.63
72	SLD 11	-27	-8	375	15.95	-34.79	5.8
72	SLD 12	-18	-12	375	15.95	-34.79	3.2
72	SLD 13	-55	-9	339	5.29	-31.58	12.85
72	SLD 14	-46	-13	339	5.29	-31.58	10.27
72	SLD 15	-57	-6	349	8.57	-32.47	13.62
72	SLD 16	-48	-10	349	8.57	-32.47	11.04
72	SLV 1	96	-34	399	19.58	-36.95	-26.85
72	SLV 2	116	-43	399	19.59	-36.96	-32.71
72	SLV 3	90	-27	422	27.51	-38.99	-25.05
72	SLV 4	110	-36	422	27.51	-38.99	-30.91
72	SLV 5	27	-29	341	2.25	-31.69	-9.08
72	SLV 6	47	-39	341	2.25	-31.69	-14.98
72	SLV 7	8	-6	416	28.67	-38.47	-3.08
72	SLV 8	29	-16	416	28.68	-38.47	-8.98
72	SLV 9	-37	-19	313	-4.68	-29.21	7.93

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
72	SLV 10	-17	-28	313	-4.67	-29.21	2.03
72	SLV 11	-56	4	388	21.75	-35.99	13.93
72	SLV 12	-36	-5	388	21.76	-35.99	8.04
72	SLV 13	-119	1	307	-3.51	-28.69	29.86
72	SLV 14	-99	-8	307	-3.5	-28.7	24
72	SLV 15	-124	8	330	4.42	-30.73	31.66
72	SLV 16	-104	-1	330	4.42	-30.73	25.81
72	CRTFP Ux+	0	0	0	0	0	0
72	CRTFP Ux-	0	0	0	0	0	0
72	CRTFP Uy+	0	0	0	0	0	0
72	CRTFP Uy-	0	0	0	0	0	0
73	SLU 1	-8	-36	712	38.68	-2.13	1.8
73	SLU 2	-14	-35	710	38.2	-2.16	3.26
73	SLU 3	-8	-36	712	38.68	-2.13	1.8
73	SLU 4	-11	-35	710	38.39	-2.15	2.68
73	SLU 5	-14	-35	710	38.2	-2.16	3.26
73	SLU 6	-8	-36	712	38.68	-2.13	1.8
73	SLU 7	-11	-35	710	38.39	-2.15	2.68
73	SLU 8	-8	-36	712	38.68	-2.13	1.8
73	SLU 9	-11	-35	710	38.39	-2.15	2.68
73	SLU 10	-16	-38	825	35.78	-2.52	3.85
73	SLU 11	-10	-39	827	36.26	-2.49	2.39
73	SLU 12	-14	-38	826	35.97	-2.51	3.27
73	SLU 13	-16	-38	825	35.78	-2.52	3.85
73	SLU 14	-10	-39	827	36.26	-2.49	2.39
73	SLU 15	-14	-38	826	35.97	-2.51	3.27
73	SLU 16	-10	-39	827	36.26	-2.49	2.39
73	SLU 17	-14	-38	826	35.97	-2.51	3.27
73	SLU 18	-11	-41	877	35.22	-2.65	2.64
73	SLU 19	-15	-40	875	34.94	-2.66	3.52
73	SLU 20	-11	-41	877	35.22	-2.65	2.64
73	SLU 21	-15	-40	875	34.94	-2.66	3.52
73	SLU 22	-9	-39	855	39.71	-2.26	2.09
73	SLU 23	-15	-37	853	39.23	-2.28	3.55
73	SLU 24	-9	-39	855	39.71	-2.26	2.09
73	SLU 25	-12	-38	854	39.42	-2.27	2.97
73	SLU 26	-15	-37	853	39.23	-2.28	3.55
73	SLU 27	-9	-39	855	39.71	-2.26	2.09
73	SLU 28	-12	-38	854	39.42	-2.27	2.97
73	SLU 29	-9	-39	855	39.71	-2.26	2.09
73	SLU 30	-12	-38	854	39.42	-2.27	2.97
73	SLU 31	-17	-40	968	36.81	-2.65	4.14
73	SLU 32	-11	-42	970	37.29	-2.62	2.68
73	SLU 33	-15	-41	969	37	-2.63	3.56
73	SLU 34	-17	-40	968	36.81	-2.65	4.14
73	SLU 35	-11	-42	970	37.29	-2.62	2.68
73	SLU 36	-15	-41	969	37	-2.63	3.56
73	SLU 37	-11	-42	970	37.29	-2.62	2.68
73	SLU 38	-15	-41	969	37	-2.63	3.56
73	SLU 39	-12	-43	1020	36.25	-2.77	2.93
73	SLU 40	-16	-42	1019	35.97	-2.79	3.81
73	SLU 41	-12	-43	1020	36.25	-2.77	2.93
73	SLU 42	-16	-42	1019	35.97	-2.79	3.81
73	SLU 43	-10	-46	876	49.93	-2.73	2.24
73	SLU 44	-15	-45	874	49.45	-2.75	3.71
73	SLU 45	-10	-46	876	49.93	-2.73	2.24
73	SLU 46	-13	-45	875	49.64	-2.74	3.12
73	SLU 47	-15	-45	874	49.45	-2.75	3.71
73	SLU 48	-10	-46	876	49.93	-2.73	2.24
73	SLU 49	-13	-45	875	49.64	-2.74	3.12
73	SLU 50	-10	-46	876	49.93	-2.73	2.24
73	SLU 51	-13	-45	875	49.64	-2.74	3.12
73	SLU 52	-18	-48	989	47.04	-3.12	4.29
73	SLU 53	-12	-49	991	47.51	-3.09	2.83
73	SLU 54	-15	-48	990	47.23	-3.11	3.71
73	SLU 55	-18	-48	989	47.04	-3.12	4.29
73	SLU 56	-12	-49	991	47.51	-3.09	2.83
73	SLU 57	-15	-48	990	47.23	-3.11	3.71
73	SLU 58	-12	-49	991	47.51	-3.09	2.83
73	SLU 59	-15	-48	990	47.23	-3.11	3.71
73	SLU 60	-13	-50	1041	46.47	-3.25	3.09
73	SLU 61	-17	-50	1040	46.19	-3.26	3.96
73	SLU 62	-13	-50	1041	46.47	-3.25	3.09
73	SLU 63	-17	-50	1040	46.19	-3.26	3.96
73	SLU 64	-11	-49	1019	50.96	-2.85	2.53
73	SLU 65	-17	-47	1017	50.48	-2.88	3.99
73	SLU 66	-11	-49	1019	50.96	-2.85	2.53
73	SLU 67	-14	-48	1018	50.67	-2.87	3.41
73	SLU 68	-17	-47	1017	50.48	-2.88	3.99
73	SLU 69	-11	-49	1019	50.96	-2.85	2.53
73	SLU 70	-14	-48	1018	50.67	-2.87	3.41
73	SLU 71	-11	-49	1019	50.96	-2.85	2.53
73	SLU 72	-14	-48	1018	50.67	-2.87	3.41
73	SLU 73	-19	-50	1133	48.06	-3.24	4.58
73	SLU 74	-13	-52	1135	48.54	-3.22	3.12
73	SLU 75	-17	-51	1134	48.26	-3.23	4

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
73	SLU 76	-19	-50	1133	48.06	-3.24	4.58
73	SLU 77	-13	-52	1135	48.54	-3.22	3.12
73	SLU 78	-17	-51	1134	48.26	-3.23	4
73	SLU 79	-13	-52	1135	48.54	-3.22	3.12
73	SLU 80	-17	-51	1134	48.26	-3.23	4
73	SLU 81	-14	-53	1184	47.5	-3.37	3.37
73	SLU 82	-18	-52	1183	47.22	-3.39	4.25
73	SLU 83	-14	-53	1184	47.5	-3.37	3.37
73	SLU 84	-18	-52	1183	47.22	-3.39	4.25
73	SLE RA 1	-8	-37	753	38.97	-2.17	1.88
73	SLE RA 2	-12	-36	751	38.66	-2.18	2.86
73	SLE RA 3	-8	-37	753	38.97	-2.17	1.88
73	SLE RA 4	-10	-36	752	38.78	-2.18	2.47
73	SLE RA 5	-12	-36	751	38.66	-2.18	2.86
73	SLE RA 6	-8	-37	753	38.97	-2.17	1.88
73	SLE RA 7	-10	-36	752	38.78	-2.18	2.47
73	SLE RA 8	-8	-37	753	38.97	-2.17	1.88
73	SLE RA 9	-10	-36	752	38.78	-2.18	2.47
73	SLE RA 10	-14	-38	828	37.04	-2.43	3.25
73	SLE RA 11	-10	-39	830	37.36	-2.41	2.28
73	SLE RA 12	-12	-38	829	37.17	-2.42	2.86
73	SLE RA 13	-14	-38	828	37.04	-2.43	3.25
73	SLE RA 14	-10	-39	830	37.36	-2.41	2.28
73	SLE RA 15	-12	-38	829	37.17	-2.42	2.86
73	SLE RA 16	-10	-39	830	37.36	-2.41	2.28
73	SLE RA 17	-12	-38	829	37.17	-2.42	2.86
73	SLE RA 18	-10	-40	863	36.67	-2.51	2.45
73	SLE RA 19	-13	-39	862	36.48	-2.52	3.03
73	SLE RA 20	-10	-40	863	36.67	-2.51	2.45
73	SLE RA 21	-13	-39	862	36.48	-2.52	3.03
73	SLE FR 1	-8	-37	753	38.97	-2.17	1.88
73	SLE FR 2	-9	-37	752	38.91	-2.17	2.08
73	SLE FR 3	-8	-37	753	38.97	-2.17	1.88
73	SLE FR 4	-9	-38	785	38.22	-2.27	2.25
73	SLE FR 5	-9	-38	786	38.28	-2.27	2.05
73	SLE FR 6	-9	-38	808	37.82	-2.34	2.17
73	SLE QP 1	-8	-37	753	38.97	-2.17	1.88
73	SLE QP 2	-9	-38	786	38.28	-2.27	2.05
73	SLD 1	79	-46	808	43.04	-1.95	-19.86
73	SLD 2	97	-53	808	43.01	-1.94	-24.24
73	SLD 3	74	-52	824	48.71	-1.78	-18.79
73	SLD 4	92	-59	824	48.68	-1.77	-23.17
73	SLD 5	19	-29	769	31.12	-2.44	-4.6
73	SLD 6	37	-36	769	31.09	-2.43	-9.02
73	SLD 7	3	-48	821	50.02	-1.86	-1.02
73	SLD 8	21	-55	821	49.99	-1.86	-5.44
73	SLD 9	-38	-21	750	26.57	-2.68	9.54
73	SLD 10	-20	-27	750	26.54	-2.68	5.13
73	SLD 11	-54	-39	803	45.47	-2.11	13.12
73	SLD 12	-36	-46	802	45.44	-2.11	8.7
73	SLD 13	-109	-17	747	27.89	-2.77	27.28
73	SLD 14	-92	-23	747	27.85	-2.76	22.89
73	SLD 15	-114	-22	763	33.55	-2.6	28.35
73	SLD 16	-97	-29	763	33.52	-2.59	23.97
73	SLV 1	191	-57	837	48.62	-1.54	-47.82
73	SLV 2	231	-73	837	48.55	-1.52	-57.75
73	SLV 3	180	-71	872	62.49	-1.15	-45.34
73	SLV 4	220	-86	872	62.42	-1.13	-55.27
73	SLV 5	54	-17	747	20.37	-2.65	-13.16
73	SLV 6	94	-33	747	20.3	-2.63	-23.15
73	SLV 7	17	-63	866	66.6	-1.35	-4.9
73	SLV 8	57	-78	865	66.53	-1.33	-14.89
73	SLV 9	-75	3	706	10.03	-3.21	19
73	SLV 10	-34	-13	705	9.96	-3.19	9
73	SLV 11	-112	-42	824	56.26	-1.91	27.26
73	SLV 12	-71	-58	824	56.19	-1.9	17.27
73	SLV 13	-238	11	699	14.15	-3.41	59.38
73	SLV 14	-198	-5	699	14.07	-3.39	49.45
73	SLV 15	-249	-3	734	28.02	-3.02	61.85
73	SLV 16	-209	-18	734	27.94	-3	51.92
73	CRTFP Ux+	0	0	0	0	0	0
73	CRTFP Ux-	0	0	0	0	0	0
73	CRTFP Uy+	0	0	0	0	0	0
73	CRTFP Uy-	0	0	0	0	0	0
74	SLU 1	-8	-40	782	56.58	-2.16	1.81
74	SLU 2	-14	-39	781	56.32	-2.18	3.27
74	SLU 3	-8	-40	782	56.58	-2.16	1.81
74	SLU 4	-11	-39	782	56.42	-2.17	2.68
74	SLU 5	-14	-39	781	56.32	-2.18	3.27
74	SLU 6	-8	-40	782	56.58	-2.16	1.81
74	SLU 7	-11	-39	782	56.42	-2.17	2.68
74	SLU 8	-8	-40	782	56.58	-2.16	1.81
74	SLU 9	-11	-39	782	56.42	-2.17	2.68
74	SLU 10	-16	-42	909	56.95	-2.55	3.86
74	SLU 11	-10	-43	910	57.22	-2.52	2.4
74	SLU 12	-14	-43	909	57.06	-2.54	3.27

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
74	SLU 13	-16	-42	909	56.95	-2.55	3.86
74	SLU 14	-10	-43	910	57.22	-2.52	2.4
74	SLU 15	-14	-43	909	57.06	-2.54	3.27
74	SLU 16	-10	-43	910	57.22	-2.52	2.4
74	SLU 17	-14	-43	909	57.06	-2.54	3.27
74	SLU 18	-11	-45	965	57.49	-2.68	2.65
74	SLU 19	-15	-44	964	57.33	-2.7	3.53
74	SLU 20	-11	-45	965	57.49	-2.68	2.65
74	SLU 21	-15	-44	964	57.33	-2.7	3.53
74	SLU 22	-9	-43	930	58.7	-2.28	2.09
74	SLU 23	-15	-41	929	58.44	-2.31	3.55
74	SLU 24	-9	-43	930	58.7	-2.28	2.09
74	SLU 25	-12	-42	929	58.54	-2.3	2.97
74	SLU 26	-15	-41	929	58.44	-2.31	3.55
74	SLU 27	-9	-43	930	58.7	-2.28	2.09
74	SLU 28	-12	-42	929	58.54	-2.3	2.97
74	SLU 29	-9	-43	930	58.7	-2.28	2.09
74	SLU 30	-12	-42	929	58.54	-2.3	2.97
74	SLU 31	-17	-45	1056	59.07	-2.68	4.14
74	SLU 32	-11	-46	1057	59.33	-2.65	2.68
74	SLU 33	-15	-45	1057	59.18	-2.67	3.56
74	SLU 34	-17	-45	1056	59.07	-2.68	4.14
74	SLU 35	-11	-46	1057	59.33	-2.65	2.68
74	SLU 36	-15	-45	1057	59.18	-2.67	3.56
74	SLU 37	-11	-46	1057	59.33	-2.65	2.68
74	SLU 38	-15	-45	1057	59.18	-2.67	3.56
74	SLU 39	-12	-48	1112	59.61	-2.81	2.94
74	SLU 40	-16	-47	1111	59.45	-2.82	3.81
74	SLU 41	-12	-48	1112	59.61	-2.81	2.94
74	SLU 42	-16	-47	1111	59.45	-2.82	3.81
74	SLU 43	-10	-51	967	72.83	-2.76	2.25
74	SLU 44	-15	-50	966	72.56	-2.79	3.71
74	SLU 45	-10	-51	967	72.83	-2.76	2.25
74	SLU 46	-13	-50	966	72.67	-2.77	3.13
74	SLU 47	-15	-50	966	72.56	-2.79	3.71
74	SLU 48	-10	-51	967	72.83	-2.76	2.25
74	SLU 49	-13	-50	966	72.67	-2.77	3.13
74	SLU 50	-10	-51	967	72.83	-2.76	2.25
74	SLU 51	-13	-50	966	72.67	-2.77	3.13
74	SLU 52	-18	-53	1093	73.2	-3.15	4.3
74	SLU 53	-12	-54	1094	73.46	-3.13	2.84
74	SLU 54	-15	-54	1094	73.31	-3.14	3.72
74	SLU 55	-18	-53	1093	73.2	-3.15	4.3
74	SLU 56	-12	-54	1094	73.46	-3.13	2.84
74	SLU 57	-15	-54	1094	73.31	-3.14	3.72
74	SLU 58	-12	-54	1094	73.46	-3.13	2.84
74	SLU 59	-15	-54	1094	73.31	-3.14	3.72
74	SLU 60	-13	-56	1149	73.73	-3.28	3.09
74	SLU 61	-17	-55	1148	73.58	-3.3	3.97
74	SLU 62	-13	-56	1149	73.73	-3.28	3.09
74	SLU 63	-17	-55	1148	73.58	-3.3	3.97
74	SLU 64	-11	-54	1114	74.94	-2.89	2.54
74	SLU 65	-17	-52	1113	74.68	-2.91	4
74	SLU 66	-11	-54	1114	74.94	-2.89	2.54
74	SLU 67	-14	-53	1114	74.79	-2.9	3.41
74	SLU 68	-17	-52	1113	74.68	-2.91	4
74	SLU 69	-11	-54	1114	74.94	-2.89	2.54
74	SLU 70	-14	-53	1114	74.79	-2.9	3.41
74	SLU 71	-11	-54	1114	74.94	-2.89	2.54
74	SLU 72	-14	-53	1114	74.79	-2.9	3.41
74	SLU 73	-19	-56	1241	75.32	-3.28	4.59
74	SLU 74	-13	-57	1242	75.58	-3.25	3.13
74	SLU 75	-17	-56	1241	75.42	-3.27	4
74	SLU 76	-19	-56	1241	75.32	-3.28	4.59
74	SLU 77	-13	-57	1242	75.58	-3.25	3.13
74	SLU 78	-17	-56	1241	75.42	-3.27	4
74	SLU 79	-13	-57	1242	75.58	-3.25	3.13
74	SLU 80	-17	-56	1241	75.42	-3.27	4
74	SLU 81	-14	-59	1296	75.85	-3.41	3.38
74	SLU 82	-18	-58	1296	75.7	-3.43	4.26
74	SLU 83	-14	-59	1296	75.85	-3.41	3.38
74	SLU 84	-18	-58	1296	75.7	-3.43	4.26
74	SLE RA 1	-8	-41	825	57.18	-2.19	1.89
74	SLE RA 2	-12	-40	824	57.01	-2.21	2.86
74	SLE RA 3	-8	-41	825	57.18	-2.19	1.89
74	SLE RA 4	-10	-40	824	57.08	-2.2	2.47
74	SLE RA 5	-12	-40	824	57.01	-2.21	2.86
74	SLE RA 6	-8	-41	825	57.18	-2.19	1.89
74	SLE RA 7	-10	-40	824	57.08	-2.2	2.47
74	SLE RA 8	-8	-41	825	57.18	-2.19	1.89
74	SLE RA 9	-10	-40	824	57.08	-2.2	2.47
74	SLE RA 10	-14	-42	909	57.43	-2.45	3.26
74	SLE RA 11	-10	-43	910	57.61	-2.44	2.28
74	SLE RA 12	-12	-43	909	57.5	-2.45	2.87
74	SLE RA 13	-14	-42	909	57.43	-2.45	3.26
74	SLE RA 14	-10	-43	910	57.61	-2.44	2.28

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
74	SLE RA 15	-12	-43	909	57.5	-2.45	2.87
74	SLE RA 16	-10	-43	910	57.61	-2.44	2.28
74	SLE RA 17	-12	-43	909	57.5	-2.45	2.87
74	SLE RA 18	-10	-44	946	57.79	-2.54	2.45
74	SLE RA 19	-13	-44	946	57.69	-2.55	3.03
74	SLE RA 20	-10	-44	946	57.79	-2.54	2.45
74	SLE RA 21	-13	-44	946	57.69	-2.55	3.03
74	SLE FR 1	-8	-41	825	57.18	-2.19	1.89
74	SLE FR 2	-9	-40	825	57.15	-2.2	2.08
74	SLE FR 3	-8	-41	825	57.18	-2.19	1.89
74	SLE FR 4	-9	-41	861	57.33	-2.3	2.25
74	SLE FR 5	-9	-42	861	57.37	-2.3	2.06
74	SLE FR 6	-9	-42	885	57.49	-2.37	2.17
74	SLE QP 1	-8	-41	825	57.18	-2.19	1.89
74	SLE QP 2	-9	-42	861	57.37	-2.3	2.06
74	SLD 1	79	-48	873	59.44	-1.97	-19.86
74	SLD 2	97	-53	873	59.36	-1.96	-24.25
74	SLD 3	74	-59	883	63.94	-1.79	-18.79
74	SLD 4	92	-64	883	63.86	-1.79	-23.18
74	SLD 5	19	-25	850	51.2	-2.47	-4.6
74	SLD 6	37	-30	849	51.12	-2.46	-9.02
74	SLD 7	3	-62	883	66.18	-1.88	-1.02
74	SLD 8	21	-67	882	66.1	-1.88	-5.44
74	SLD 9	-38	-17	840	48.63	-2.72	9.55
74	SLD 10	-20	-22	839	48.55	-2.71	5.13
74	SLD 11	-54	-53	873	63.61	-2.13	13.13
74	SLD 12	-36	-58	872	63.53	-2.13	8.71
74	SLD 13	-110	-19	840	50.88	-2.81	27.29
74	SLD 14	-92	-24	839	50.79	-2.8	22.9
74	SLD 15	-114	-30	849	55.37	-2.63	28.37
74	SLD 16	-97	-35	849	55.29	-2.62	23.98
74	SLV 1	191	-56	888	61.59	-1.55	-47.84
74	SLV 2	232	-67	888	61.41	-1.54	-57.77
74	SLV 3	180	-81	911	72.8	-1.16	-45.36
74	SLV 4	220	-93	910	72.62	-1.14	-55.29
74	SLV 5	54	-3	835	41.7	-2.68	-13.16
74	SLV 6	94	-15	835	41.51	-2.67	-23.16
74	SLV 7	17	-88	910	79.07	-1.36	-4.9
74	SLV 8	57	-100	910	78.88	-1.34	-14.9
74	SLV 9	-75	16	812	35.85	-3.25	19.01
74	SLV 10	-34	4	812	35.67	-3.24	9.01
74	SLV 11	-112	-68	888	73.22	-1.93	27.28
74	SLV 12	-71	-80	887	73.04	-1.91	17.28
74	SLV 13	-238	10	812	42.11	-3.45	59.4
74	SLV 14	-198	-2	811	41.93	-3.44	49.47
74	SLV 15	-249	-16	835	53.32	-3.05	61.88
74	SLV 16	-209	-27	834	53.14	-3.04	51.95
74	CRTFP Ux+	0	0	0	0	0	0
74	CRTFP Ux-	0	0	0	0	0	0
74	CRTFP Uy+	0	0	0	0	0	0
74	CRTFP Uy-	0	0	0	0	0	0
75	SLU 1	-8	-43	854	75.05	-2.2	1.82
75	SLU 2	-14	-42	854	75.01	-2.22	3.28
75	SLU 3	-8	-43	854	75.05	-2.2	1.82
75	SLU 4	-11	-43	854	75.03	-2.21	2.69
75	SLU 5	-14	-42	854	75.01	-2.22	3.28
75	SLU 6	-8	-43	854	75.05	-2.2	1.82
75	SLU 7	-11	-43	854	75.03	-2.21	2.69
75	SLU 8	-8	-43	854	75.05	-2.2	1.82
75	SLU 9	-11	-43	854	75.03	-2.21	2.69
75	SLU 10	-16	-46	994	78.85	-2.6	3.87
75	SLU 11	-10	-47	994	78.89	-2.57	2.41
75	SLU 12	-14	-47	994	78.87	-2.59	3.28
75	SLU 13	-16	-46	994	78.85	-2.6	3.87
75	SLU 14	-10	-47	994	78.89	-2.57	2.41
75	SLU 15	-14	-47	994	78.87	-2.59	3.28
75	SLU 16	-10	-47	994	78.89	-2.57	2.41
75	SLU 17	-14	-47	994	78.87	-2.59	3.28
75	SLU 18	-11	-49	1054	80.54	-2.73	2.66
75	SLU 19	-15	-48	1054	80.52	-2.75	3.54
75	SLU 20	-11	-49	1054	80.54	-2.73	2.66
75	SLU 21	-15	-48	1054	80.52	-2.75	3.54
75	SLU 22	-9	-46	1006	78.36	-2.32	2.1
75	SLU 23	-15	-45	1006	78.32	-2.35	3.57
75	SLU 24	-9	-46	1006	78.36	-2.32	2.1
75	SLU 25	-12	-46	1006	78.34	-2.34	2.98
75	SLU 26	-15	-45	1006	78.32	-2.35	3.57
75	SLU 27	-9	-46	1006	78.36	-2.32	2.1
75	SLU 28	-12	-46	1006	78.34	-2.34	2.98
75	SLU 29	-9	-46	1006	78.36	-2.32	2.1
75	SLU 30	-12	-46	1006	78.34	-2.34	2.98
75	SLU 31	-17	-49	1146	82.16	-2.73	4.16
75	SLU 32	-11	-50	1146	82.21	-2.7	2.69
75	SLU 33	-15	-50	1146	82.18	-2.71	3.57
75	SLU 34	-17	-49	1146	82.16	-2.73	4.16
75	SLU 35	-11	-50	1146	82.21	-2.7	2.69

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
75	SLU 36	-15	-50	1146	82.18	-2.71	3.57
75	SLU 37	-11	-50	1146	82.21	-2.7	2.69
75	SLU 38	-15	-50	1146	82.18	-2.71	3.57
75	SLU 39	-12	-52	1206	83.85	-2.86	2.95
75	SLU 40	-16	-51	1206	83.83	-2.88	3.83
75	SLU 41	-12	-52	1206	83.85	-2.86	2.95
75	SLU 42	-16	-51	1206	83.83	-2.88	3.83
75	SLU 43	-10	-55	1059	96.44	-2.81	2.26
75	SLU 44	-15	-54	1059	96.39	-2.84	3.72
75	SLU 45	-10	-55	1059	96.44	-2.81	2.26
75	SLU 46	-13	-55	1059	96.41	-2.83	3.14
75	SLU 47	-15	-54	1059	96.39	-2.84	3.72
75	SLU 48	-10	-55	1059	96.44	-2.81	2.26
75	SLU 49	-13	-55	1059	96.41	-2.83	3.14
75	SLU 50	-10	-55	1059	96.44	-2.81	2.26
75	SLU 51	-13	-55	1059	96.41	-2.83	3.14
75	SLU 52	-18	-58	1198	100.24	-3.21	4.31
75	SLU 53	-12	-59	1199	100.28	-3.19	2.85
75	SLU 54	-16	-59	1198	100.25	-3.2	3.73
75	SLU 55	-18	-58	1198	100.24	-3.21	4.31
75	SLU 56	-12	-59	1199	100.28	-3.19	2.85
75	SLU 57	-16	-59	1198	100.25	-3.2	3.73
75	SLU 58	-12	-59	1199	100.28	-3.19	2.85
75	SLU 59	-16	-59	1198	100.25	-3.2	3.73
75	SLU 60	-13	-61	1258	101.92	-3.35	3.11
75	SLU 61	-17	-60	1258	101.9	-3.36	3.98
75	SLU 62	-13	-61	1258	101.92	-3.35	3.11
75	SLU 63	-17	-60	1258	101.9	-3.36	3.98
75	SLU 64	-11	-58	1211	99.75	-2.94	2.55
75	SLU 65	-17	-57	1210	99.71	-2.97	4.01
75	SLU 66	-11	-58	1211	99.75	-2.94	2.55
75	SLU 67	-14	-58	1210	99.72	-2.96	3.43
75	SLU 68	-17	-57	1210	99.71	-2.97	4.01
75	SLU 69	-11	-58	1211	99.75	-2.94	2.55
75	SLU 70	-14	-58	1210	99.72	-2.96	3.43
75	SLU 71	-11	-58	1211	99.75	-2.94	2.55
75	SLU 72	-14	-58	1210	99.72	-2.96	3.43
75	SLU 73	-19	-61	1350	103.55	-3.34	4.6
75	SLU 74	-13	-62	1350	103.59	-3.31	3.14
75	SLU 75	-17	-62	1350	103.56	-3.33	4.02
75	SLU 76	-19	-61	1350	103.55	-3.34	4.6
75	SLU 77	-13	-62	1350	103.59	-3.31	3.14
75	SLU 78	-17	-62	1350	103.56	-3.33	4.02
75	SLU 79	-13	-62	1350	103.59	-3.31	3.14
75	SLU 80	-17	-62	1350	103.56	-3.33	4.02
75	SLU 81	-14	-64	1410	105.23	-3.47	3.39
75	SLU 82	-18	-63	1410	105.21	-3.49	4.27
75	SLU 83	-14	-64	1410	105.23	-3.47	3.39
75	SLU 84	-18	-63	1410	105.21	-3.49	4.27
75	SLE RA 1	-8	-44	898	76	-2.23	1.9
75	SLE RA 2	-12	-44	898	75.97	-2.25	2.87
75	SLE RA 3	-8	-44	898	76	-2.23	1.9
75	SLE RA 4	-10	-44	898	75.98	-2.24	2.48
75	SLE RA 5	-12	-44	898	75.97	-2.25	2.87
75	SLE RA 6	-8	-44	898	76	-2.23	1.9
75	SLE RA 7	-10	-44	898	75.98	-2.24	2.48
75	SLE RA 8	-8	-44	898	76	-2.23	1.9
75	SLE RA 9	-10	-44	898	75.98	-2.24	2.48
75	SLE RA 10	-14	-46	991	78.53	-2.5	3.27
75	SLE RA 11	-10	-47	991	78.56	-2.48	2.29
75	SLE RA 12	-12	-46	991	78.54	-2.49	2.88
75	SLE RA 13	-14	-46	991	78.53	-2.5	3.27
75	SLE RA 14	-10	-47	991	78.56	-2.48	2.29
75	SLE RA 15	-12	-46	991	78.54	-2.49	2.88
75	SLE RA 16	-10	-47	991	78.56	-2.48	2.29
75	SLE RA 17	-12	-46	991	78.54	-2.49	2.88
75	SLE RA 18	-10	-48	1031	79.66	-2.59	2.46
75	SLE RA 19	-13	-48	1031	79.64	-2.6	3.05
75	SLE RA 20	-10	-48	1031	79.66	-2.59	2.46
75	SLE RA 21	-13	-48	1031	79.64	-2.6	3.05
75	SLE FR 1	-8	-44	898	76	-2.23	1.9
75	SLE FR 2	-9	-44	898	75.99	-2.24	2.09
75	SLE FR 3	-8	-44	898	76	-2.23	1.9
75	SLE FR 4	-9	-45	938	77.09	-2.34	2.26
75	SLE FR 5	-9	-45	938	77.1	-2.34	2.07
75	SLE FR 6	-9	-46	964	77.83	-2.41	2.18
75	SLE QP 1	-8	-44	898	76	-2.23	1.9
75	SLE QP 2	-9	-45	938	77.1	-2.34	2.07
75	SLD 1	79	-49	939	76.52	-2	-19.87
75	SLD 2	97	-52	939	76.39	-1.99	-24.26
75	SLD 3	74	-66	943	80.05	-1.82	-18.79
75	SLD 4	92	-70	943	79.92	-1.81	-23.18
75	SLD 5	19	-18	932	71.62	-2.52	-4.59
75	SLD 6	37	-22	932	71.49	-2.51	-9.01
75	SLD 7	3	-77	946	83.38	-1.91	-1.01
75	SLD 8	21	-81	945	83.25	-1.9	-5.43

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
75	SLD 9	-38	-10	930	70.95	-2.78	9.56
75	SLD 10	-20	-14	930	70.82	-2.77	5.14
75	SLD 11	-54	-69	944	82.71	-2.17	13.15
75	SLD 12	-36	-72	943	82.57	-2.16	8.73
75	SLD 13	-110	-21	933	74.28	-2.87	27.32
75	SLD 14	-92	-25	932	74.15	-2.86	22.93
75	SLD 15	-114	-39	937	77.8	-2.69	28.39
75	SLD 16	-97	-42	936	77.67	-2.68	24
75	SLV 1	191	-53	942	75.37	-1.57	-47.86
75	SLV 2	232	-61	941	75.07	-1.55	-57.8
75	SLV 3	180	-93	951	84.34	-1.15	-45.38
75	SLV 4	221	-101	950	84.05	-1.14	-55.32
75	SLV 5	54	16	925	63.08	-2.74	-13.17
75	SLV 6	94	8	924	62.78	-2.73	-23.17
75	SLV 7	17	-118	956	92.99	-1.36	-4.89
75	SLV 8	57	-126	955	92.69	-1.34	-14.89
75	SLV 9	-75	35	921	61.51	-3.34	19.03
75	SLV 10	-34	27	919	61.21	-3.32	9.02
75	SLV 11	-112	-99	951	91.42	-1.95	27.3
75	SLV 12	-71	-107	950	91.12	-1.94	17.3
75	SLV 13	-238	10	926	70.15	-3.54	59.45
75	SLV 14	-198	2	925	69.85	-3.53	49.51
75	SLV 15	-249	-30	935	79.12	-3.13	61.93
75	SLV 16	-209	-38	934	78.82	-3.11	51.99
75	CRTFP Ux+	0	0	0	0	0	0
75	CRTFP Ux-	0	0	0	0	0	0
75	CRTFP Uy+	0	0	0	0	0	0
75	CRTFP Uy-	0	0	0	0	0	0
76	SLU 1	-8	-47	928	94.59	-2.25	1.83
76	SLU 2	-14	-46	929	94.78	-2.28	3.3
76	SLU 3	-8	-47	928	94.59	-2.25	1.83
76	SLU 4	-11	-46	928	94.7	-2.26	2.71
76	SLU 5	-14	-46	929	94.78	-2.28	3.3
76	SLU 6	-8	-47	928	94.59	-2.25	1.83
76	SLU 7	-11	-46	928	94.7	-2.26	2.71
76	SLU 8	-8	-47	928	94.59	-2.25	1.83
76	SLU 9	-11	-46	928	94.7	-2.26	2.71
76	SLU 10	-16	-50	1081	102.03	-2.66	3.89
76	SLU 11	-10	-51	1080	101.84	-2.63	2.43
76	SLU 12	-14	-50	1081	101.96	-2.65	3.3
76	SLU 13	-16	-50	1081	102.03	-2.66	3.89
76	SLU 14	-10	-51	1080	101.84	-2.63	2.43
76	SLU 15	-14	-50	1081	101.96	-2.65	3.3
76	SLU 16	-10	-51	1080	101.84	-2.63	2.43
76	SLU 17	-14	-50	1081	101.96	-2.65	3.3
76	SLU 18	-11	-53	1146	104.95	-2.79	2.68
76	SLU 19	-15	-52	1146	105.06	-2.81	3.56
76	SLU 20	-11	-53	1146	104.95	-2.79	2.68
76	SLU 21	-15	-52	1146	105.06	-2.81	3.56
76	SLU 22	-9	-50	1084	99.27	-2.37	2.12
76	SLU 23	-15	-49	1085	99.46	-2.4	3.59
76	SLU 24	-9	-50	1084	99.27	-2.37	2.12
76	SLU 25	-12	-49	1084	99.38	-2.39	3
76	SLU 26	-15	-49	1085	99.46	-2.4	3.59
76	SLU 27	-9	-50	1084	99.27	-2.37	2.12
76	SLU 28	-12	-49	1084	99.38	-2.39	3
76	SLU 29	-9	-50	1084	99.27	-2.37	2.12
76	SLU 30	-12	-49	1084	99.38	-2.39	3
76	SLU 31	-17	-53	1237	106.71	-2.78	4.18
76	SLU 32	-11	-54	1236	106.52	-2.76	2.72
76	SLU 33	-15	-54	1237	106.63	-2.77	3.59
76	SLU 34	-17	-53	1237	106.71	-2.78	4.18
76	SLU 35	-11	-54	1236	106.52	-2.76	2.72
76	SLU 36	-15	-54	1237	106.63	-2.77	3.59
76	SLU 37	-11	-54	1236	106.52	-2.76	2.72
76	SLU 38	-15	-54	1237	106.63	-2.77	3.59
76	SLU 39	-12	-56	1301	109.63	-2.92	2.97
76	SLU 40	-16	-55	1302	109.74	-2.94	3.85
76	SLU 41	-12	-56	1301	109.63	-2.92	2.97
76	SLU 42	-16	-55	1302	109.74	-2.94	3.85
76	SLU 43	-10	-60	1153	121.36	-2.88	2.28
76	SLU 44	-15	-59	1154	121.55	-2.91	3.75
76	SLU 45	-10	-60	1153	121.36	-2.88	2.28
76	SLU 46	-13	-59	1153	121.47	-2.89	3.16
76	SLU 47	-15	-59	1154	121.55	-2.91	3.75
76	SLU 48	-10	-60	1153	121.36	-2.88	2.28
76	SLU 49	-13	-59	1153	121.47	-2.89	3.16
76	SLU 50	-10	-60	1153	121.36	-2.88	2.28
76	SLU 51	-13	-59	1153	121.47	-2.89	3.16
76	SLU 52	-18	-63	1306	128.8	-3.29	4.34
76	SLU 53	-12	-64	1305	128.61	-3.26	2.88
76	SLU 54	-16	-63	1306	128.73	-3.28	3.75
76	SLU 55	-18	-63	1306	128.8	-3.29	4.34
76	SLU 56	-12	-64	1305	128.61	-3.26	2.88
76	SLU 57	-16	-63	1306	128.73	-3.28	3.75
76	SLU 58	-12	-64	1305	128.61	-3.26	2.88

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
76	SLU 59	-16	-63	1306	128.73	-3.28	3.75
76	SLU 60	-13	-66	1370	131.72	-3.43	3.13
76	SLU 61	-17	-65	1371	131.84	-3.44	4.01
76	SLU 62	-13	-66	1370	131.72	-3.43	3.13
76	SLU 63	-17	-65	1371	131.84	-3.44	4.01
76	SLU 64	-11	-63	1309	126.04	-3	2.57
76	SLU 65	-17	-62	1310	126.23	-3.03	4.04
76	SLU 66	-11	-63	1309	126.04	-3	2.57
76	SLU 67	-14	-62	1309	126.15	-3.02	3.45
76	SLU 68	-17	-62	1310	126.23	-3.03	4.04
76	SLU 69	-11	-63	1309	126.04	-3	2.57
76	SLU 70	-14	-62	1309	126.15	-3.02	3.45
76	SLU 71	-11	-63	1309	126.04	-3	2.57
76	SLU 72	-14	-62	1309	126.15	-3.02	3.45
76	SLU 73	-19	-66	1462	133.48	-3.42	4.63
76	SLU 74	-13	-67	1461	133.29	-3.39	3.17
76	SLU 75	-17	-67	1462	133.41	-3.4	4.04
76	SLU 76	-19	-66	1462	133.48	-3.42	4.63
76	SLU 77	-13	-67	1461	133.29	-3.39	3.17
76	SLU 78	-17	-67	1462	133.41	-3.4	4.04
76	SLU 79	-13	-67	1461	133.29	-3.39	3.17
76	SLU 80	-17	-67	1462	133.41	-3.4	4.04
76	SLU 81	-14	-69	1526	136.4	-3.55	3.42
76	SLU 82	-18	-68	1527	136.51	-3.57	4.3
76	SLU 83	-14	-69	1526	136.4	-3.55	3.42
76	SLU 84	-18	-68	1527	136.51	-3.57	4.3
76	SLE RA 1	-8	-48	973	95.92	-2.28	1.92
76	SLE RA 2	-12	-47	973	96.05	-2.3	2.89
76	SLE RA 3	-8	-48	973	95.92	-2.28	1.92
76	SLE RA 4	-10	-47	973	96	-2.29	2.5
76	SLE RA 5	-12	-47	973	96.05	-2.3	2.89
76	SLE RA 6	-8	-48	973	95.92	-2.28	1.92
76	SLE RA 7	-10	-47	973	96	-2.29	2.5
76	SLE RA 8	-8	-48	973	95.92	-2.28	1.92
76	SLE RA 9	-10	-47	973	96	-2.29	2.5
76	SLE RA 10	-14	-50	1075	100.89	-2.56	3.29
76	SLE RA 11	-10	-51	1074	100.76	-2.54	2.31
76	SLE RA 12	-12	-50	1074	100.84	-2.55	2.9
76	SLE RA 13	-14	-50	1075	100.89	-2.56	3.29
76	SLE RA 14	-10	-51	1074	100.76	-2.54	2.31
76	SLE RA 15	-12	-50	1074	100.84	-2.55	2.9
76	SLE RA 16	-10	-51	1074	100.76	-2.54	2.31
76	SLE RA 17	-12	-50	1074	100.84	-2.55	2.9
76	SLE RA 18	-10	-52	1118	102.83	-2.65	2.48
76	SLE RA 19	-13	-51	1118	102.91	-2.66	3.07
76	SLE RA 20	-10	-52	1118	102.83	-2.65	2.48
76	SLE RA 21	-13	-51	1118	102.91	-2.66	3.07
76	SLE FR 1	-8	-48	973	95.92	-2.28	1.92
76	SLE FR 2	-9	-48	973	95.95	-2.29	2.11
76	SLE FR 3	-8	-48	973	95.92	-2.28	1.92
76	SLE FR 4	-10	-49	1016	98.02	-2.4	2.28
76	SLE FR 5	-9	-49	1016	98	-2.39	2.08
76	SLE FR 6	-9	-50	1045	99.38	-2.46	2.2
76	SLE QP 1	-8	-48	973	95.92	-2.28	1.92
76	SLE QP 2	-9	-49	1016	98	-2.39	2.08
76	SLD 1	79	-49	1005	95.88	-2.03	-19.87
76	SLD 2	97	-51	1004	95.7	-2.03	-24.26
76	SLD 3	75	-74	1003	92.82	-1.83	-18.79
76	SLD 4	92	-75	1002	92.63	-1.83	-23.19
76	SLD 5	19	-11	1017	102.07	-2.59	-4.58
76	SLD 6	37	-13	1016	101.89	-2.58	-9.01
76	SLD 7	3	-93	1009	91.86	-1.93	-0.99
76	SLD 8	21	-95	1008	91.68	-1.92	-5.42
76	SLD 9	-38	-3	1024	104.32	-2.86	9.59
76	SLD 10	-20	-5	1023	104.13	-2.86	5.16
76	SLD 11	-54	-85	1016	94.1	-2.2	13.18
76	SLD 12	-36	-87	1015	93.92	-2.2	8.75
76	SLD 13	-110	-23	1030	103.36	-2.95	27.36
76	SLD 14	-92	-24	1029	103.17	-2.95	22.96
76	SLD 15	-115	-47	1028	100.29	-2.76	28.43
76	SLD 16	-97	-49	1027	100.11	-2.75	24.04
76	SLV 1	192	-49	991	93.55	-1.57	-47.89
76	SLV 2	232	-53	990	93.14	-1.56	-57.83
76	SLV 3	181	-105	986	85.79	-1.13	-45.4
76	SLV 4	221	-109	984	85.37	-1.11	-55.34
76	SLV 5	54	37	1017	108.58	-2.83	-13.17
76	SLV 6	95	33	1016	108.16	-2.82	-23.18
76	SLV 7	17	-149	999	82.71	-1.34	-4.88
76	SLV 8	58	-153	998	82.29	-1.32	-14.89
76	SLV 9	-75	55	1034	113.7	-3.46	19.05
76	SLV 10	-34	51	1033	113.28	-3.45	9.05
76	SLV 11	-112	-131	1016	87.83	-1.97	27.35
76	SLV 12	-71	-135	1015	87.41	-1.95	17.34
76	SLV 13	-238	11	1048	110.62	-3.67	59.51
76	SLV 14	-198	8	1046	110.2	-3.66	49.57
76	SLV 15	-249	-45	1043	102.86	-3.22	62

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
76	SLV 16	-209	-48	1041	102.44	-3.21	52.06
76	CRTFP Ux+	0	0	0	0	0	0
76	CRTFP Ux-	0	0	0	0	0	0
76	CRTFP Uy+	0	0	0	0	0	0
76	CRTFP Uy-	0	0	0	0	0	0
77	SLU 1	-8	-49	1003	115.61	-2.29	1.86
77	SLU 2	-14	-48	1005	116.06	-2.32	3.33
77	SLU 3	-8	-49	1003	115.61	-2.29	1.86
77	SLU 4	-11	-49	1004	115.88	-2.3	2.74
77	SLU 5	-14	-48	1005	116.06	-2.32	3.33
77	SLU 6	-8	-49	1003	115.61	-2.29	1.86
77	SLU 7	-11	-49	1004	115.88	-2.3	2.74
77	SLU 8	-8	-49	1003	115.61	-2.29	1.86
77	SLU 9	-11	-49	1004	115.88	-2.3	2.74
77	SLU 10	-16	-53	1170	127.06	-2.71	3.92
77	SLU 11	-10	-54	1168	126.62	-2.68	2.46
77	SLU 12	-14	-53	1169	126.88	-2.7	3.34
77	SLU 13	-16	-53	1170	127.06	-2.71	3.92
77	SLU 14	-10	-54	1168	126.62	-2.68	2.46
77	SLU 15	-14	-53	1169	126.88	-2.7	3.34
77	SLU 16	-10	-54	1168	126.62	-2.68	2.46
77	SLU 17	-14	-53	1169	126.88	-2.7	3.34
77	SLU 18	-11	-56	1239	131.33	-2.85	2.71
77	SLU 19	-15	-55	1240	131.6	-2.86	3.59
77	SLU 20	-11	-56	1239	131.33	-2.85	2.71
77	SLU 21	-15	-55	1240	131.6	-2.86	3.59
77	SLU 22	-9	-53	1163	121.91	-2.4	2.15
77	SLU 23	-15	-52	1165	122.35	-2.43	3.62
77	SLU 24	-9	-53	1163	121.91	-2.4	2.15
77	SLU 25	-12	-52	1164	122.17	-2.42	3.03
77	SLU 26	-15	-52	1165	122.35	-2.43	3.62
77	SLU 27	-9	-53	1163	121.91	-2.4	2.15
77	SLU 28	-12	-52	1164	122.17	-2.42	3.03
77	SLU 29	-9	-53	1163	121.91	-2.4	2.15
77	SLU 30	-12	-52	1164	122.17	-2.42	3.03
77	SLU 31	-17	-56	1330	133.36	-2.83	4.21
77	SLU 32	-11	-57	1328	132.91	-2.8	2.75
77	SLU 33	-15	-57	1329	133.18	-2.81	3.63
77	SLU 34	-17	-56	1330	133.36	-2.83	4.21
77	SLU 35	-11	-57	1328	132.91	-2.8	2.75
77	SLU 36	-15	-57	1329	133.18	-2.81	3.63
77	SLU 37	-11	-57	1328	132.91	-2.8	2.75
77	SLU 38	-15	-57	1329	133.18	-2.81	3.63
77	SLU 39	-12	-59	1399	137.63	-2.96	3
77	SLU 40	-16	-59	1400	137.89	-2.98	3.88
77	SLU 41	-12	-59	1399	137.63	-2.96	3
77	SLU 42	-16	-59	1400	137.89	-2.98	3.88
77	SLU 43	-10	-63	1249	148.14	-2.93	2.32
77	SLU 44	-15	-62	1251	148.58	-2.96	3.78
77	SLU 45	-10	-63	1249	148.14	-2.93	2.32
77	SLU 46	-13	-62	1250	148.4	-2.95	3.2
77	SLU 47	-15	-62	1251	148.58	-2.96	3.78
77	SLU 48	-10	-63	1249	148.14	-2.93	2.32
77	SLU 49	-13	-62	1250	148.4	-2.95	3.2
77	SLU 50	-10	-63	1249	148.14	-2.93	2.32
77	SLU 51	-13	-62	1250	148.4	-2.95	3.2
77	SLU 52	-18	-67	1416	159.58	-3.35	4.38
77	SLU 53	-12	-68	1414	159.14	-3.32	2.92
77	SLU 54	-16	-67	1415	159.41	-3.34	3.79
77	SLU 55	-18	-67	1416	159.58	-3.35	4.38
77	SLU 56	-12	-68	1414	159.14	-3.32	2.92
77	SLU 57	-16	-67	1415	159.41	-3.34	3.79
77	SLU 58	-12	-68	1414	159.14	-3.32	2.92
77	SLU 59	-16	-67	1415	159.41	-3.34	3.79
77	SLU 60	-13	-70	1485	163.86	-3.49	3.17
77	SLU 61	-17	-69	1486	164.12	-3.51	4.05
77	SLU 62	-13	-70	1485	163.86	-3.49	3.17
77	SLU 63	-17	-69	1486	164.12	-3.51	4.05
77	SLU 64	-11	-66	1409	154.43	-3.05	2.61
77	SLU 65	-17	-65	1411	154.88	-3.08	4.08
77	SLU 66	-11	-66	1409	154.43	-3.05	2.61
77	SLU 67	-14	-66	1410	154.7	-3.07	3.49
77	SLU 68	-17	-65	1411	154.88	-3.08	4.08
77	SLU 69	-11	-66	1409	154.43	-3.05	2.61
77	SLU 70	-14	-66	1410	154.7	-3.07	3.49
77	SLU 71	-11	-66	1409	154.43	-3.05	2.61
77	SLU 72	-14	-66	1410	154.7	-3.07	3.49
77	SLU 73	-19	-70	1576	165.88	-3.47	4.67
77	SLU 74	-13	-71	1574	165.44	-3.44	3.21
77	SLU 75	-17	-70	1575	165.7	-3.46	4.09
77	SLU 76	-19	-70	1576	165.88	-3.47	4.67
77	SLU 77	-13	-71	1574	165.44	-3.44	3.21
77	SLU 78	-17	-70	1575	165.7	-3.46	4.09
77	SLU 79	-13	-71	1574	165.44	-3.44	3.21
77	SLU 80	-17	-70	1575	165.7	-3.46	4.09
77	SLU 81	-14	-73	1645	170.15	-3.61	3.46

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
77	SLU 82	-18	-72	1646	170.42	-3.63	4.34
77	SLU 83	-14	-73	1645	170.15	-3.61	3.46
77	SLU 84	-18	-72	1646	170.42	-3.63	4.34
77	SLE RA 1	-8	-50	1049	117.41	-2.32	1.94
77	SLE RA 2	-12	-50	1050	117.71	-2.34	2.92
77	SLE RA 3	-8	-50	1049	117.41	-2.32	1.94
77	SLE RA 4	-10	-50	1049	117.59	-2.33	2.53
77	SLE RA 5	-12	-50	1050	117.71	-2.34	2.92
77	SLE RA 6	-8	-50	1049	117.41	-2.32	1.94
77	SLE RA 7	-10	-50	1049	117.59	-2.33	2.53
77	SLE RA 8	-8	-50	1049	117.41	-2.32	1.94
77	SLE RA 9	-10	-50	1049	117.59	-2.33	2.53
77	SLE RA 10	-14	-53	1160	125.04	-2.6	3.32
77	SLE RA 11	-10	-53	1159	124.75	-2.58	2.34
77	SLE RA 12	-12	-53	1159	124.92	-2.59	2.93
77	SLE RA 13	-14	-53	1160	125.04	-2.6	3.32
77	SLE RA 14	-10	-53	1159	124.75	-2.58	2.34
77	SLE RA 15	-12	-53	1159	124.92	-2.59	2.93
77	SLE RA 16	-10	-53	1159	124.75	-2.58	2.34
77	SLE RA 17	-12	-53	1159	124.92	-2.59	2.93
77	SLE RA 18	-10	-55	1206	127.89	-2.69	2.51
77	SLE RA 19	-13	-54	1207	128.07	-2.7	3.1
77	SLE RA 20	-10	-55	1206	127.89	-2.69	2.51
77	SLE RA 21	-13	-54	1207	128.07	-2.7	3.1
77	SLE FR 1	-8	-50	1049	117.41	-2.32	1.94
77	SLE FR 2	-9	-50	1049	117.47	-2.32	2.14
77	SLE FR 3	-8	-50	1049	117.41	-2.32	1.94
77	SLE FR 4	-10	-52	1096	120.61	-2.44	2.31
77	SLE FR 5	-9	-52	1096	120.56	-2.43	2.11
77	SLE FR 6	-9	-53	1127	122.65	-2.51	2.23
77	SLE QP 1	-8	-50	1049	117.41	-2.32	1.94
77	SLE QP 2	-9	-52	1096	120.56	-2.43	2.11
77	SLD 1	79	-49	1073	115.33	-2.04	-19.87
77	SLD 2	97	-49	1072	115.09	-2.04	-24.26
77	SLD 3	75	-80	1063	111.9	-1.83	-18.79
77	SLD 4	92	-80	1063	111.66	-1.82	-23.18
77	SLD 5	19	-3	1103	124.27	-2.65	-4.57
77	SLD 6	37	-3	1102	124.03	-2.64	-8.99
77	SLD 7	3	-108	1073	112.84	-1.92	-0.96
77	SLD 8	21	-108	1072	112.6	-1.92	-5.39
77	SLD 9	-38	4	1120	128.51	-2.95	9.62
77	SLD 10	-20	5	1119	128.27	-2.94	5.19
77	SLD 11	-54	-100	1090	117.08	-2.22	13.22
77	SLD 12	-36	-100	1089	116.84	-2.21	8.8
77	SLD 13	-110	-23	1129	129.45	-3.04	27.41
77	SLD 14	-92	-23	1128	129.21	-3.04	23.02
77	SLD 15	-115	-55	1120	126.02	-2.82	28.49
77	SLD 16	-97	-55	1119	125.78	-2.82	24.1
77	SLV 1	192	-45	1043	108.91	-1.55	-47.92
77	SLV 2	232	-45	1041	108.38	-1.54	-57.86
77	SLV 3	181	-117	1022	100.65	-1.06	-45.42
77	SLV 4	221	-116	1020	100.11	-1.04	-55.37
77	SLV 5	54	58	1112	129.78	-2.92	-13.16
77	SLV 6	95	59	1110	129.24	-2.91	-23.18
77	SLV 7	17	-180	1043	102.24	-1.27	-4.85
77	SLV 8	58	-179	1041	101.7	-1.26	-14.86
77	SLV 9	-75	76	1151	139.41	-3.6	19.09
77	SLV 10	-35	76	1149	138.87	-3.59	9.08
77	SLV 11	-112	-162	1081	111.87	-1.95	27.41
77	SLV 12	-72	-162	1079	111.33	-1.94	17.39
77	SLV 13	-239	13	1171	141	-3.82	59.6
77	SLV 14	-198	13	1169	140.46	-3.8	49.65
77	SLV 15	-250	-59	1151	132.74	-3.32	62.09
77	SLV 16	-209	-58	1149	132.2	-3.31	52.15
77	CRTFP Ux+	0	0	0	0	0	0
77	CRTFP Ux-	0	0	0	0	0	0
77	CRTFP Uy+	0	0	0	0	0	0
77	CRTFP Uy-	0	0	0	0	0	0
78	SLU 1	-8	-51	1079	138.53	-2.28	1.9
78	SLU 2	-14	-50	1082	139.25	-2.32	3.37
78	SLU 3	-8	-51	1079	138.53	-2.28	1.9
78	SLU 4	-11	-50	1080	138.96	-2.3	2.78
78	SLU 5	-14	-50	1082	139.25	-2.32	3.37
78	SLU 6	-8	-51	1079	138.53	-2.28	1.9
78	SLU 7	-11	-50	1080	138.96	-2.3	2.78
78	SLU 8	-8	-51	1079	138.53	-2.28	1.9
78	SLU 9	-11	-50	1080	138.96	-2.3	2.78
78	SLU 10	-16	-55	1260	154.53	-2.71	3.97
78	SLU 11	-10	-56	1257	153.82	-2.68	2.5
78	SLU 12	-14	-55	1259	154.25	-2.7	3.38
78	SLU 13	-16	-55	1260	154.53	-2.71	3.97
78	SLU 14	-10	-56	1257	153.82	-2.68	2.5
78	SLU 15	-14	-55	1259	154.25	-2.7	3.38
78	SLU 16	-10	-56	1257	153.82	-2.68	2.5
78	SLU 17	-14	-55	1259	154.25	-2.7	3.38
78	SLU 18	-11	-58	1333	160.37	-2.84	2.76

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
78	SLU 19	-15	-57	1335	160.8	-2.86	3.64
78	SLU 20	-11	-58	1333	160.37	-2.84	2.76
78	SLU 21	-15	-57	1335	160.8	-2.86	3.64
78	SLU 22	-9	-55	1242	146.94	-2.39	2.2
78	SLU 23	-15	-54	1245	147.66	-2.42	3.66
78	SLU 24	-9	-55	1242	146.94	-2.39	2.2
78	SLU 25	-12	-54	1244	147.37	-2.41	3.08
78	SLU 26	-15	-54	1245	147.66	-2.42	3.66
78	SLU 27	-9	-55	1242	146.94	-2.39	2.2
78	SLU 28	-12	-54	1244	147.37	-2.41	3.08
78	SLU 29	-9	-55	1242	146.94	-2.39	2.2
78	SLU 30	-12	-54	1244	147.37	-2.41	3.08
78	SLU 31	-17	-59	1423	162.94	-2.81	4.26
78	SLU 32	-11	-59	1420	162.23	-2.78	2.8
78	SLU 33	-15	-59	1422	162.66	-2.8	3.68
78	SLU 34	-17	-59	1423	162.94	-2.81	4.26
78	SLU 35	-11	-59	1420	162.23	-2.78	2.8
78	SLU 36	-15	-59	1422	162.66	-2.8	3.68
78	SLU 37	-11	-59	1420	162.23	-2.78	2.8
78	SLU 38	-15	-59	1422	162.66	-2.8	3.68
78	SLU 39	-12	-62	1497	168.78	-2.95	3.06
78	SLU 40	-16	-61	1499	169.21	-2.97	3.94
78	SLU 41	-12	-62	1497	168.78	-2.95	3.06
78	SLU 42	-16	-61	1499	169.21	-2.97	3.94
78	SLU 43	-10	-65	1346	177.21	-2.93	2.37
78	SLU 44	-16	-64	1349	177.92	-2.97	3.84
78	SLU 45	-10	-65	1346	177.21	-2.93	2.37
78	SLU 46	-13	-65	1348	177.63	-2.95	3.25
78	SLU 47	-16	-64	1349	177.92	-2.97	3.84
78	SLU 48	-10	-65	1346	177.21	-2.93	2.37
78	SLU 49	-13	-65	1348	177.63	-2.95	3.25
78	SLU 50	-10	-65	1346	177.21	-2.93	2.37
78	SLU 51	-13	-65	1348	177.63	-2.95	3.25
78	SLU 52	-18	-69	1527	193.21	-3.36	4.44
78	SLU 53	-12	-70	1524	192.49	-3.32	2.97
78	SLU 54	-16	-69	1526	192.92	-3.35	3.85
78	SLU 55	-18	-69	1527	193.21	-3.36	4.44
78	SLU 56	-12	-70	1524	192.49	-3.32	2.97
78	SLU 57	-16	-69	1526	192.92	-3.35	3.85
78	SLU 58	-12	-70	1524	192.49	-3.32	2.97
78	SLU 59	-16	-69	1526	192.92	-3.35	3.85
78	SLU 60	-13	-72	1601	199.04	-3.49	3.23
78	SLU 61	-17	-72	1602	199.47	-3.51	4.11
78	SLU 62	-13	-72	1601	199.04	-3.49	3.23
78	SLU 63	-17	-72	1602	199.47	-3.51	4.11
78	SLU 64	-11	-69	1510	185.62	-3.03	2.67
78	SLU 65	-17	-68	1513	186.33	-3.07	4.13
78	SLU 66	-11	-69	1510	185.62	-3.03	2.67
78	SLU 67	-14	-68	1512	186.05	-3.06	3.55
78	SLU 68	-17	-68	1513	186.33	-3.07	4.13
78	SLU 69	-11	-69	1510	185.62	-3.03	2.67
78	SLU 70	-14	-68	1512	186.05	-3.06	3.55
78	SLU 71	-11	-69	1510	185.62	-3.03	2.67
78	SLU 72	-14	-68	1512	186.05	-3.06	3.55
78	SLU 73	-19	-73	1691	201.62	-3.46	4.73
78	SLU 74	-13	-74	1688	200.91	-3.43	3.27
78	SLU 75	-17	-73	1690	201.33	-3.45	4.15
78	SLU 76	-19	-73	1691	201.62	-3.46	4.73
78	SLU 77	-13	-74	1688	200.91	-3.43	3.27
78	SLU 78	-17	-73	1690	201.33	-3.45	4.15
78	SLU 79	-13	-74	1688	200.91	-3.43	3.27
78	SLU 80	-17	-73	1690	201.33	-3.45	4.15
78	SLU 81	-14	-76	1764	207.46	-3.6	3.53
78	SLU 82	-18	-75	1766	207.89	-3.62	4.41
78	SLU 83	-14	-76	1764	207.46	-3.6	3.53
78	SLU 84	-18	-75	1766	207.89	-3.62	4.41
78	SLE RA 1	-8	-52	1125	140.93	-2.31	1.99
78	SLE RA 2	-12	-51	1127	141.41	-2.33	2.96
78	SLE RA 3	-8	-52	1125	140.93	-2.31	1.99
78	SLE RA 4	-10	-52	1127	141.22	-2.33	2.57
78	SLE RA 5	-12	-51	1127	141.41	-2.33	2.96
78	SLE RA 6	-8	-52	1125	140.93	-2.31	1.99
78	SLE RA 7	-10	-52	1127	141.22	-2.33	2.57
78	SLE RA 8	-8	-52	1125	140.93	-2.31	1.99
78	SLE RA 9	-10	-52	1127	141.22	-2.33	2.57
78	SLE RA 10	-14	-55	1246	151.6	-2.6	3.37
78	SLE RA 11	-10	-55	1244	151.13	-2.57	2.39
78	SLE RA 12	-12	-55	1245	151.41	-2.59	2.97
78	SLE RA 13	-14	-55	1246	151.6	-2.6	3.37
78	SLE RA 14	-10	-55	1244	151.13	-2.57	2.39
78	SLE RA 15	-12	-55	1245	151.41	-2.59	2.97
78	SLE RA 16	-10	-55	1244	151.13	-2.57	2.39
78	SLE RA 17	-12	-55	1245	151.41	-2.59	2.97
78	SLE RA 18	-10	-57	1295	155.49	-2.69	2.56
78	SLE RA 19	-13	-56	1296	155.78	-2.7	3.15
78	SLE RA 20	-10	-57	1295	155.49	-2.69	2.56

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
78	SLE RA 21	-13	-56	1296	155.78	-2.7	3.15
78	SLE FR 1	-8	-52	1125	140.93	-2.31	1.99
78	SLE FR 2	-9	-52	1126	141.03	-2.32	2.18
78	SLE FR 3	-8	-52	1125	140.93	-2.31	1.99
78	SLE FR 4	-10	-53	1177	145.4	-2.43	2.35
78	SLE FR 5	-9	-53	1176	145.3	-2.42	2.16
78	SLE FR 6	-9	-54	1210	148.21	-2.5	2.27
78	SLE QP 1	-8	-52	1125	140.93	-2.31	1.99
78	SLE QP 2	-9	-53	1176	145.3	-2.42	2.16
78	SLD 1	80	-48	1140	136.36	-2.01	-19.85
78	SLD 2	97	-45	1139	136.07	-2	-24.25
78	SLD 3	75	-86	1123	131.82	-1.76	-18.77
78	SLD 4	93	-83	1122	131.53	-1.76	-23.16
78	SLD 5	19	5	1191	149.61	-2.67	-4.54
78	SLD 6	37	8	1190	149.32	-2.66	-8.97
78	SLD 7	3	-122	1135	134.47	-1.86	-0.91
78	SLD 8	21	-119	1134	134.18	-1.85	-5.34
78	SLD 9	-38	13	1218	156.43	-2.99	9.66
78	SLD 10	-20	15	1217	156.13	-2.99	5.23
78	SLD 11	-54	-115	1163	141.29	-2.18	13.29
78	SLD 12	-36	-112	1161	140.99	-2.18	8.86
78	SLD 13	-110	-23	1231	159.08	-3.09	27.48
78	SLD 14	-92	-21	1230	158.79	-3.09	23.08
78	SLD 15	-115	-62	1214	154.54	-2.85	28.57
78	SLD 16	-97	-59	1213	154.25	-2.84	24.17
78	SLV 1	192	-40	1093	125.08	-1.47	-47.94
78	SLV 2	233	-35	1091	124.42	-1.46	-57.89
78	SLV 3	181	-127	1055	114.55	-0.92	-45.43
78	SLV 4	222	-122	1053	113.89	-0.91	-55.38
78	SLV 5	54	80	1210	155.44	-2.98	-13.16
78	SLV 6	95	85	1208	154.78	-2.97	-23.18
78	SLV 7	17	-209	1083	120.34	-1.14	-4.79
78	SLV 8	58	-204	1081	119.67	-1.13	-14.81
78	SLV 9	-75	97	1272	170.93	-3.72	19.13
78	SLV 10	-35	102	1270	170.27	-3.71	9.11
78	SLV 11	-112	-192	1145	135.83	-1.88	27.5
78	SLV 12	-72	-187	1143	135.17	-1.87	17.48
78	SLV 13	-239	15	1300	176.72	-3.94	59.7
78	SLV 14	-199	20	1297	176.06	-3.93	49.75
78	SLV 15	-250	-72	1262	166.19	-3.39	62.21
78	SLV 16	-210	-67	1259	165.53	-3.37	52.26
78	CRTFP Ux+	0	0	0	0	0	0
78	CRTFP Ux-	0	0	0	0	0	0
78	CRTFP Uy+	0	0	0	0	0	0
78	CRTFP Uy-	0	0	0	0	0	0
79	SLU 1	-8	-51	1153	165.32	-2.19	1.96
79	SLU 2	-14	-50	1157	166.33	-2.23	3.43
79	SLU 3	-8	-51	1153	165.32	-2.19	1.96
79	SLU 4	-11	-51	1155	165.93	-2.22	2.84
79	SLU 5	-14	-50	1157	166.33	-2.23	3.43
79	SLU 6	-8	-51	1153	165.32	-2.19	1.96
79	SLU 7	-11	-51	1155	165.93	-2.22	2.84
79	SLU 8	-8	-51	1153	165.32	-2.19	1.96
79	SLU 9	-11	-51	1155	165.93	-2.22	2.84
79	SLU 10	-16	-55	1348	186.91	-2.61	4.04
79	SLU 11	-10	-56	1344	185.9	-2.57	2.57
79	SLU 12	-14	-56	1346	186.5	-2.6	3.45
79	SLU 13	-16	-55	1348	186.91	-2.61	4.04
79	SLU 14	-10	-56	1344	185.9	-2.57	2.57
79	SLU 15	-14	-56	1346	186.5	-2.6	3.45
79	SLU 16	-10	-56	1344	185.9	-2.57	2.57
79	SLU 17	-14	-56	1346	186.5	-2.6	3.45
79	SLU 18	-11	-58	1426	194.72	-2.74	2.83
79	SLU 19	-15	-58	1428	195.32	-2.76	3.71
79	SLU 20	-11	-58	1426	194.72	-2.74	2.83
79	SLU 21	-15	-58	1428	195.32	-2.76	3.71
79	SLU 22	-9	-55	1320	176.89	-2.27	2.26
79	SLU 23	-15	-54	1324	177.9	-2.31	3.73
79	SLU 24	-9	-55	1320	176.89	-2.27	2.26
79	SLU 25	-12	-54	1322	177.5	-2.29	3.14
79	SLU 26	-15	-54	1324	177.9	-2.31	3.73
79	SLU 27	-9	-55	1320	176.89	-2.27	2.26
79	SLU 28	-12	-54	1322	177.5	-2.29	3.14
79	SLU 29	-9	-55	1320	176.89	-2.27	2.26
79	SLU 30	-12	-54	1322	177.5	-2.29	3.14
79	SLU 31	-17	-59	1515	198.48	-2.69	4.34
79	SLU 32	-11	-60	1511	197.47	-2.65	2.87
79	SLU 33	-15	-59	1513	198.07	-2.67	3.75
79	SLU 34	-17	-59	1515	198.48	-2.69	4.34
79	SLU 35	-11	-60	1511	197.47	-2.65	2.87
79	SLU 36	-15	-59	1513	198.07	-2.67	3.75
79	SLU 37	-11	-60	1511	197.47	-2.65	2.87
79	SLU 38	-15	-59	1513	198.07	-2.67	3.75
79	SLU 39	-12	-62	1592	206.28	-2.81	3.13
79	SLU 40	-16	-61	1595	206.89	-2.84	4.01
79	SLU 41	-12	-62	1592	206.28	-2.81	3.13

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
79	SLU 42	-16	-61	1595	206.89	-2.84	4.01
79	SLU 43	-10	-65	1442	210.95	-2.82	2.45
79	SLU 44	-16	-65	1446	211.96	-2.86	3.92
79	SLU 45	-10	-65	1442	210.95	-2.82	2.45
79	SLU 46	-13	-65	1444	211.56	-2.85	3.33
79	SLU 47	-16	-65	1446	211.96	-2.86	3.92
79	SLU 48	-10	-65	1442	210.95	-2.82	2.45
79	SLU 49	-13	-65	1444	211.56	-2.85	3.33
79	SLU 50	-10	-65	1442	210.95	-2.82	2.45
79	SLU 51	-13	-65	1444	211.56	-2.85	3.33
79	SLU 52	-18	-70	1637	232.54	-3.24	4.52
79	SLU 53	-12	-70	1633	231.53	-3.21	3.06
79	SLU 54	-16	-70	1635	232.13	-3.23	3.94
79	SLU 55	-18	-70	1637	232.54	-3.24	4.52
79	SLU 56	-12	-70	1633	231.53	-3.21	3.06
79	SLU 57	-16	-70	1635	232.13	-3.23	3.94
79	SLU 58	-12	-70	1633	231.53	-3.21	3.06
79	SLU 59	-16	-70	1635	232.13	-3.23	3.94
79	SLU 60	-13	-72	1715	240.35	-3.37	3.32
79	SLU 61	-17	-72	1717	240.95	-3.39	4.2
79	SLU 62	-13	-72	1715	240.35	-3.37	3.32
79	SLU 63	-17	-72	1717	240.95	-3.39	4.2
79	SLU 64	-11	-69	1608	222.52	-2.9	2.75
79	SLU 65	-17	-68	1612	223.53	-2.94	4.22
79	SLU 66	-11	-69	1608	222.52	-2.9	2.75
79	SLU 67	-14	-68	1611	223.13	-2.92	3.63
79	SLU 68	-17	-68	1612	223.53	-2.94	4.22
79	SLU 69	-11	-69	1608	222.52	-2.9	2.75
79	SLU 70	-14	-68	1611	223.13	-2.92	3.63
79	SLU 71	-11	-69	1608	222.52	-2.9	2.75
79	SLU 72	-14	-68	1611	223.13	-2.92	3.63
79	SLU 73	-19	-73	1803	244.11	-3.32	4.82
79	SLU 74	-13	-74	1799	243.1	-3.28	3.36
79	SLU 75	-17	-73	1802	243.7	-3.3	4.24
79	SLU 76	-19	-73	1803	244.11	-3.32	4.82
79	SLU 77	-13	-74	1799	243.1	-3.28	3.36
79	SLU 78	-17	-73	1802	243.7	-3.3	4.24
79	SLU 79	-13	-74	1799	243.1	-3.28	3.36
79	SLU 80	-17	-73	1802	243.7	-3.3	4.24
79	SLU 81	-14	-76	1881	251.91	-3.45	3.62
79	SLU 82	-18	-76	1884	252.52	-3.47	4.5
79	SLU 83	-14	-76	1881	251.91	-3.45	3.62
79	SLU 84	-18	-76	1884	252.52	-3.47	4.5
79	SLE RA 1	-8	-52	1201	168.63	-2.22	2.05
79	SLE RA 2	-12	-52	1203	169.3	-2.24	3.03
79	SLE RA 3	-8	-52	1201	168.63	-2.22	2.05
79	SLE RA 4	-10	-52	1202	169.03	-2.23	2.64
79	SLE RA 5	-12	-52	1203	169.3	-2.24	3.03
79	SLE RA 6	-8	-52	1201	168.63	-2.22	2.05
79	SLE RA 7	-10	-52	1202	169.03	-2.23	2.64
79	SLE RA 8	-8	-52	1201	168.63	-2.22	2.05
79	SLE RA 9	-10	-52	1202	169.03	-2.23	2.64
79	SLE RA 10	-14	-55	1331	183.02	-2.49	3.43
79	SLE RA 11	-10	-56	1328	182.34	-2.47	2.45
79	SLE RA 12	-12	-55	1330	182.75	-2.48	3.04
79	SLE RA 13	-14	-55	1331	183.02	-2.49	3.43
79	SLE RA 14	-10	-56	1328	182.34	-2.47	2.45
79	SLE RA 15	-12	-55	1330	182.75	-2.48	3.04
79	SLE RA 16	-10	-56	1328	182.34	-2.47	2.45
79	SLE RA 17	-12	-55	1330	182.75	-2.48	3.04
79	SLE RA 18	-10	-57	1382	188.22	-2.58	2.63
79	SLE RA 19	-13	-57	1384	188.63	-2.59	3.21
79	SLE RA 20	-10	-57	1382	188.22	-2.58	2.63
79	SLE RA 21	-13	-57	1384	188.63	-2.59	3.21
79	SLE FR 1	-8	-52	1201	168.63	-2.22	2.05
79	SLE FR 2	-9	-52	1201	168.76	-2.22	2.24
79	SLE FR 3	-8	-52	1201	168.63	-2.22	2.05
79	SLE FR 4	-10	-54	1256	174.64	-2.33	2.42
79	SLE FR 5	-9	-54	1255	174.51	-2.32	2.22
79	SLE FR 6	-9	-55	1292	178.42	-2.4	2.34
79	SLE QP 1	-8	-52	1201	168.63	-2.22	2.05
79	SLE QP 2	-9	-54	1255	174.51	-2.32	2.22
79	SLD 1	80	-45	1204	161.58	-1.87	-19.82
79	SLD 2	98	-40	1203	161.23	-1.87	-24.22
79	SLD 3	75	-89	1179	155.56	-1.6	-18.73
79	SLD 4	93	-85	1178	155.21	-1.6	-23.12
79	SLD 5	19	15	1279	179.89	-2.6	-4.5
79	SLD 6	37	19	1277	179.53	-2.6	-8.93
79	SLD 7	3	-133	1194	159.81	-1.7	-0.84
79	SLD 8	21	-129	1193	159.46	-1.69	-5.27
79	SLD 9	-38	22	1317	189.55	-2.95	9.72
79	SLD 10	-20	26	1316	189.2	-2.95	5.29
79	SLD 11	-54	-127	1233	169.48	-2.05	13.38
79	SLD 12	-36	-122	1232	169.13	-2.05	8.94
79	SLD 13	-110	-22	1332	193.8	-3.05	27.57
79	SLD 14	-92	-18	1331	193.45	-3.05	23.17

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
79	SLD 15	-115	-67	1307	187.78	-2.78	28.67
79	SLD 16	-97	-62	1306	187.43	-2.77	24.27
79	SLV 1	193	-34	1140	145.16	-1.3	-47.95
79	SLV 2	233	-24	1137	144.37	-1.29	-57.91
79	SLV 3	181	-135	1082	131.42	-0.68	-45.42
79	SLV 4	222	-125	1080	130.62	-0.68	-55.38
79	SLV 5	54	102	1309	186.83	-2.96	-13.15
79	SLV 6	95	112	1306	186.03	-2.95	-23.18
79	SLV 7	17	-235	1117	141.01	-0.9	-4.71
79	SLV 8	58	-225	1114	140.21	-0.89	-14.74
79	SLV 9	-75	117	1396	208.8	-3.76	19.18
79	SLV 10	-35	128	1393	208	-3.75	9.15
79	SLV 11	-113	-220	1204	162.98	-1.7	27.62
79	SLV 12	-72	-209	1202	162.18	-1.69	17.6
79	SLV 13	-240	17	1431	218.39	-3.97	59.82
79	SLV 14	-199	28	1428	217.6	-3.96	49.86
79	SLV 15	-251	-84	1373	204.65	-3.35	62.36
79	SLV 16	-210	-73	1371	203.85	-3.35	52.4
79	CRTFP Ux+	0	0	0	0	0	0
79	CRTFP Ux-	0	0	0	0	0	0
79	CRTFP Uy+	0	0	0	0	0	0
79	CRTFP Uy-	0	0	0	0	0	0
80	SLU 1	-8	-49	1222	200.42	-1.96	2.04
80	SLU 2	-14	-49	1227	201.76	-2	3.51
80	SLU 3	-8	-49	1222	200.42	-1.96	2.04
80	SLU 4	-11	-49	1225	201.23	-1.99	2.92
80	SLU 5	-14	-49	1227	201.76	-2	3.51
80	SLU 6	-8	-49	1222	200.42	-1.96	2.04
80	SLU 7	-11	-49	1225	201.23	-1.99	2.92
80	SLU 8	-8	-49	1222	200.42	-1.96	2.04
80	SLU 9	-11	-49	1225	201.23	-1.99	2.92
80	SLU 10	-16	-54	1430	229.71	-2.35	4.13
80	SLU 11	-10	-54	1425	228.37	-2.31	2.66
80	SLU 12	-14	-54	1428	229.17	-2.33	3.54
80	SLU 13	-16	-54	1430	229.71	-2.35	4.13
80	SLU 14	-10	-54	1425	228.37	-2.31	2.66
80	SLU 15	-14	-54	1428	229.17	-2.33	3.54
80	SLU 16	-10	-54	1425	228.37	-2.31	2.66
80	SLU 17	-14	-54	1428	229.17	-2.33	3.54
80	SLU 18	-11	-56	1512	240.35	-2.46	2.92
80	SLU 19	-15	-56	1515	241.15	-2.48	3.8
80	SLU 20	-11	-56	1512	240.35	-2.46	2.92
80	SLU 21	-15	-56	1515	241.15	-2.48	3.8
80	SLU 22	-9	-53	1391	217.37	-2	2.35
80	SLU 23	-15	-52	1396	218.72	-2.04	3.82
80	SLU 24	-9	-53	1391	217.37	-2	2.35
80	SLU 25	-13	-52	1394	218.18	-2.02	3.23
80	SLU 26	-15	-52	1396	218.72	-2.04	3.82
80	SLU 27	-9	-53	1391	217.37	-2	2.35
80	SLU 28	-13	-52	1394	218.18	-2.02	3.23
80	SLU 29	-9	-53	1391	217.37	-2	2.35
80	SLU 30	-13	-52	1394	218.18	-2.02	3.23
80	SLU 31	-17	-57	1599	246.66	-2.38	4.43
80	SLU 32	-11	-58	1594	245.32	-2.34	2.96
80	SLU 33	-15	-57	1597	246.13	-2.37	3.84
80	SLU 34	-17	-57	1599	246.66	-2.38	4.43
80	SLU 35	-11	-58	1594	245.32	-2.34	2.96
80	SLU 36	-15	-57	1597	246.13	-2.37	3.84
80	SLU 37	-11	-58	1594	245.32	-2.34	2.96
80	SLU 38	-15	-57	1597	246.13	-2.37	3.84
80	SLU 39	-12	-60	1681	257.3	-2.49	3.23
80	SLU 40	-16	-59	1684	258.11	-2.52	4.11
80	SLU 41	-12	-60	1681	257.3	-2.49	3.23
80	SLU 42	-16	-59	1684	258.11	-2.52	4.11
80	SLU 43	-10	-63	1531	254.73	-2.54	2.55
80	SLU 44	-16	-62	1536	256.08	-2.58	4.02
80	SLU 45	-10	-63	1531	254.73	-2.54	2.55
80	SLU 46	-13	-63	1534	255.54	-2.57	3.43
80	SLU 47	-16	-62	1536	256.08	-2.58	4.02
80	SLU 48	-10	-63	1531	254.73	-2.54	2.55
80	SLU 49	-13	-63	1534	255.54	-2.57	3.43
80	SLU 50	-10	-63	1531	254.73	-2.54	2.55
80	SLU 51	-13	-63	1534	255.54	-2.57	3.43
80	SLU 52	-18	-67	1739	284.03	-2.93	4.64
80	SLU 53	-12	-68	1734	282.68	-2.89	3.17
80	SLU 54	-16	-67	1737	283.49	-2.91	4.05
80	SLU 55	-18	-67	1739	284.03	-2.93	4.64
80	SLU 56	-12	-68	1734	282.68	-2.89	3.17
80	SLU 57	-16	-67	1737	283.49	-2.91	4.05
80	SLU 58	-12	-68	1734	282.68	-2.89	3.17
80	SLU 59	-16	-67	1737	283.49	-2.91	4.05
80	SLU 60	-13	-70	1821	294.66	-3.03	3.43
80	SLU 61	-17	-70	1824	295.47	-3.06	4.31
80	SLU 62	-13	-70	1821	294.66	-3.03	3.43
80	SLU 63	-17	-70	1824	295.47	-3.06	4.31
80	SLU 64	-11	-66	1700	271.69	-2.58	2.86

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
80	SLU 65	-17	-66	1705	273.03	-2.62	4.33
80	SLU 66	-11	-66	1700	271.69	-2.58	2.86
80	SLU 67	-14	-66	1703	272.49	-2.6	3.74
80	SLU 68	-17	-66	1705	273.03	-2.62	4.33
80	SLU 69	-11	-66	1700	271.69	-2.58	2.86
80	SLU 70	-14	-66	1703	272.49	-2.6	3.74
80	SLU 71	-11	-66	1700	271.69	-2.58	2.86
80	SLU 72	-14	-66	1703	272.49	-2.6	3.74
80	SLU 73	-19	-71	1908	300.98	-2.96	4.94
80	SLU 74	-13	-71	1903	299.64	-2.92	3.47
80	SLU 75	-17	-71	1906	300.44	-2.95	4.35
80	SLU 76	-19	-71	1908	300.98	-2.96	4.94
80	SLU 77	-13	-71	1903	299.64	-2.92	3.47
80	SLU 78	-17	-71	1906	300.44	-2.95	4.35
80	SLU 79	-13	-71	1903	299.64	-2.92	3.47
80	SLU 80	-17	-71	1906	300.44	-2.95	4.35
80	SLU 81	-14	-73	1990	311.61	-3.07	3.74
80	SLU 82	-18	-73	1993	312.42	-3.09	4.62
80	SLU 83	-14	-73	1990	311.61	-3.07	3.74
80	SLU 84	-18	-73	1993	312.42	-3.09	4.62
80	SLE RA 1	-8	-50	1270	205.26	-1.97	2.13
80	SLE RA 2	-12	-50	1274	206.16	-2	3.11
80	SLE RA 3	-8	-50	1270	205.26	-1.97	2.13
80	SLE RA 4	-10	-50	1272	205.8	-1.99	2.72
80	SLE RA 5	-12	-50	1274	206.16	-2	3.11
80	SLE RA 6	-8	-50	1270	205.26	-1.97	2.13
80	SLE RA 7	-10	-50	1272	205.8	-1.99	2.72
80	SLE RA 8	-8	-50	1270	205.26	-1.97	2.13
80	SLE RA 9	-10	-50	1272	205.8	-1.99	2.72
80	SLE RA 10	-14	-53	1409	224.79	-2.23	3.52
80	SLE RA 11	-10	-54	1406	223.9	-2.2	2.54
80	SLE RA 12	-12	-53	1408	224.43	-2.22	3.13
80	SLE RA 13	-14	-53	1409	224.79	-2.23	3.52
80	SLE RA 14	-10	-54	1406	223.9	-2.2	2.54
80	SLE RA 15	-12	-53	1408	224.43	-2.22	3.13
80	SLE RA 16	-10	-54	1406	223.9	-2.2	2.54
80	SLE RA 17	-12	-53	1408	224.43	-2.22	3.13
80	SLE RA 18	-10	-55	1464	231.88	-2.3	2.72
80	SLE RA 19	-13	-55	1466	232.42	-2.32	3.3
80	SLE RA 20	-10	-55	1464	231.88	-2.3	2.72
80	SLE RA 21	-13	-55	1466	232.42	-2.32	3.3
80	SLE FR 1	-8	-50	1270	205.26	-1.97	2.13
80	SLE FR 2	-9	-50	1271	205.44	-1.98	2.33
80	SLE FR 3	-8	-50	1270	205.26	-1.97	2.13
80	SLE FR 4	-10	-52	1329	213.43	-2.08	2.5
80	SLE FR 5	-9	-52	1328	213.25	-2.07	2.31
80	SLE FR 6	-9	-53	1367	218.57	-2.14	2.42
80	SLE QP 1	-8	-50	1270	205.26	-1.97	2.13
80	SLE QP 2	-9	-52	1328	213.25	-2.07	2.31
80	SLD 1	80	-41	1262	195.99	-1.6	-19.78
80	SLD 2	98	-34	1261	195.56	-1.6	-24.18
80	SLD 3	75	-91	1227	188.32	-1.3	-18.66
80	SLD 4	93	-84	1226	187.89	-1.3	-23.07
80	SLD 5	19	25	1362	219.86	-2.39	-4.45
80	SLD 6	37	32	1360	219.42	-2.39	-8.89
80	SLD 7	3	-142	1246	194.29	-1.39	-0.74
80	SLD 8	21	-135	1245	193.86	-1.38	-5.17
80	SLD 9	-38	32	1412	232.64	-2.76	9.79
80	SLD 10	-20	39	1411	232.21	-2.76	5.35
80	SLD 11	-55	-136	1296	207.08	-1.76	13.5
80	SLD 12	-36	-129	1295	206.64	-1.76	9.06
80	SLD 13	-111	-20	1430	238.61	-2.85	27.68
80	SLD 14	-93	-13	1429	238.18	-2.85	23.28
80	SLD 15	-115	-70	1396	230.94	-2.55	28.79
80	SLD 16	-98	-63	1394	230.51	-2.55	24.39
80	SLV 1	193	-27	1178	174.01	-1	-47.96
80	SLV 2	234	-11	1175	173.03	-0.99	-57.92
80	SLV 3	182	-140	1099	156.58	-0.31	-45.39
80	SLV 4	222	-125	1096	155.6	-0.31	-55.35
80	SLV 5	54	123	1404	228.27	-2.79	-13.15
80	SLV 6	95	139	1401	227.28	-2.78	-23.18
80	SLV 7	17	-257	1141	170.15	-0.51	-4.59
80	SLV 8	58	-241	1138	169.17	-0.51	-14.62
80	SLV 9	-76	137	1519	257.33	-3.64	19.23
80	SLV 10	-35	153	1516	256.34	-3.64	9.2
80	SLV 11	-113	-242	1256	199.22	-1.36	27.79
80	SLV 12	-72	-226	1253	198.23	-1.36	17.76
80	SLV 13	-240	21	1560	270.9	-3.84	59.97
80	SLV 14	-200	37	1557	269.92	-3.83	50
80	SLV 15	-251	-93	1481	253.46	-3.15	62.53
80	SLV 16	-211	-77	1478	252.49	-3.15	52.57
80	CRTFP Ux+	0	0	0	0	0	0
80	CRTFP Ux-	0	0	0	0	0	0
80	CRTFP Uy+	0	0	0	0	0	0
80	CRTFP Uy-	0	0	0	0	0	0
81	SLU 1	-7	-40	1149	219.26	20.25	2.64

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
81	SLU 2	-12	-40	1155	220.75	20.33	3.96
81	SLU 3	-7	-40	1149	219.26	20.25	2.64
81	SLU 4	-10	-40	1152	220.15	20.3	3.44
81	SLU 5	-12	-40	1155	220.75	20.33	3.96
81	SLU 6	-7	-40	1149	219.26	20.25	2.64
81	SLU 7	-10	-40	1152	220.15	20.3	3.44
81	SLU 8	-7	-40	1149	219.26	20.25	2.64
81	SLU 9	-10	-40	1152	220.15	20.3	3.44
81	SLU 10	-15	-44	1346	254.95	23.69	4.6
81	SLU 11	-9	-45	1340	253.46	23.61	3.28
81	SLU 12	-12	-44	1344	254.35	23.66	4.07
81	SLU 13	-15	-44	1346	254.95	23.69	4.6
81	SLU 14	-9	-45	1340	253.46	23.61	3.28
81	SLU 15	-12	-44	1344	254.35	23.66	4.07
81	SLU 16	-9	-45	1340	253.46	23.61	3.28
81	SLU 17	-12	-44	1344	254.35	23.66	4.07
81	SLU 18	-10	-46	1422	268.11	25.05	3.55
81	SLU 19	-13	-46	1426	269.01	25.1	4.35
81	SLU 20	-10	-46	1422	268.11	25.05	3.55
81	SLU 21	-13	-46	1426	269.01	25.1	4.35
81	SLU 22	-8	-43	1301	242.56	23.09	2.98
81	SLU 23	-13	-43	1306	244.05	23.17	4.29
81	SLU 24	-8	-43	1301	242.56	23.09	2.98
81	SLU 25	-11	-43	1304	243.45	23.14	3.77
81	SLU 26	-13	-43	1306	244.05	23.17	4.29
81	SLU 27	-8	-43	1301	242.56	23.09	2.98
81	SLU 28	-11	-43	1304	243.45	23.14	3.77
81	SLU 29	-8	-43	1301	242.56	23.09	2.98
81	SLU 30	-11	-43	1304	243.45	23.14	3.77
81	SLU 31	-16	-47	1498	278.25	26.53	4.93
81	SLU 32	-10	-47	1492	276.76	26.45	3.61
81	SLU 33	-14	-47	1496	277.65	26.5	4.4
81	SLU 34	-16	-47	1498	278.25	26.53	4.93
81	SLU 35	-10	-47	1492	276.76	26.45	3.61
81	SLU 36	-14	-47	1496	277.65	26.5	4.4
81	SLU 37	-10	-47	1492	276.76	26.45	3.61
81	SLU 38	-14	-47	1496	277.65	26.5	4.4
81	SLU 39	-11	-49	1574	291.41	27.89	3.89
81	SLU 40	-14	-49	1578	292.31	27.94	4.68
81	SLU 41	-11	-49	1574	291.41	27.89	3.89
81	SLU 42	-14	-49	1578	292.31	27.94	4.68
81	SLU 43	-9	-52	1442	277.04	25.35	3.32
81	SLU 44	-14	-51	1447	278.54	25.43	4.64
81	SLU 45	-9	-52	1442	277.04	25.35	3.32
81	SLU 46	-12	-51	1445	277.94	25.4	4.11
81	SLU 47	-14	-51	1447	278.54	25.43	4.64
81	SLU 48	-9	-52	1442	277.04	25.35	3.32
81	SLU 49	-12	-51	1445	277.94	25.4	4.11
81	SLU 50	-9	-52	1442	277.04	25.35	3.32
81	SLU 51	-12	-51	1445	277.94	25.4	4.11
81	SLU 52	-16	-55	1639	312.74	28.79	5.28
81	SLU 53	-11	-56	1633	311.24	28.71	3.96
81	SLU 54	-14	-55	1636	312.14	28.76	4.75
81	SLU 55	-16	-55	1639	312.74	28.79	5.28
81	SLU 56	-11	-56	1633	311.24	28.71	3.96
81	SLU 57	-14	-55	1636	312.14	28.76	4.75
81	SLU 58	-11	-56	1633	311.24	28.71	3.96
81	SLU 59	-14	-55	1636	312.14	28.76	4.75
81	SLU 60	-12	-57	1715	325.9	30.15	4.23
81	SLU 61	-15	-57	1719	326.8	30.2	5.02
81	SLU 62	-12	-57	1715	325.9	30.15	4.23
81	SLU 63	-15	-57	1719	326.8	30.2	5.02
81	SLU 64	-10	-54	1593	300.34	28.19	3.66
81	SLU 65	-15	-54	1599	301.84	28.27	4.97
81	SLU 66	-10	-54	1593	300.34	28.19	3.66
81	SLU 67	-13	-54	1597	301.24	28.24	4.45
81	SLU 68	-15	-54	1599	301.84	28.27	4.97
81	SLU 69	-10	-54	1593	300.34	28.19	3.66
81	SLU 70	-13	-54	1597	301.24	28.24	4.45
81	SLU 71	-10	-54	1593	300.34	28.19	3.66
81	SLU 72	-13	-54	1597	301.24	28.24	4.45
81	SLU 73	-17	-58	1791	336.04	31.63	5.61
81	SLU 74	-12	-59	1785	334.54	31.55	4.29
81	SLU 75	-15	-58	1788	335.44	31.6	5.08
81	SLU 76	-17	-58	1791	336.04	31.63	5.61
81	SLU 77	-12	-59	1785	334.54	31.55	4.29
81	SLU 78	-15	-58	1788	335.44	31.6	5.08
81	SLU 79	-12	-59	1785	334.54	31.55	4.29
81	SLU 80	-15	-58	1788	335.44	31.6	5.08
81	SLU 81	-13	-60	1867	349.2	32.99	4.57
81	SLU 82	-16	-60	1870	350.1	33.04	5.36
81	SLU 83	-13	-60	1867	349.2	32.99	4.57
81	SLU 84	-16	-60	1870	350.1	33.04	5.36
81	SLE RA 1	-7	-41	1192	225.91	21.06	2.74
81	SLE RA 2	-11	-41	1196	226.91	21.11	3.62
81	SLE RA 3	-7	-41	1192	225.91	21.06	2.74

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
81	SLE RA 4	-9	-41	1195	226.51	21.09	3.27
81	SLE RA 5	-11	-41	1196	226.91	21.11	3.62
81	SLE RA 6	-7	-41	1192	225.91	21.06	2.74
81	SLE RA 7	-9	-41	1195	226.51	21.09	3.27
81	SLE RA 8	-7	-41	1192	225.91	21.06	2.74
81	SLE RA 9	-9	-41	1195	226.51	21.09	3.27
81	SLE RA 10	-12	-44	1324	249.71	23.35	4.04
81	SLE RA 11	-9	-44	1320	248.71	23.3	3.16
81	SLE RA 12	-11	-44	1322	249.31	23.33	3.69
81	SLE RA 13	-12	-44	1324	249.71	23.35	4.04
81	SLE RA 14	-9	-44	1320	248.71	23.3	3.16
81	SLE RA 15	-11	-44	1322	249.31	23.33	3.69
81	SLE RA 16	-9	-44	1320	248.71	23.3	3.16
81	SLE RA 17	-11	-44	1322	249.31	23.33	3.69
81	SLE RA 18	-9	-45	1375	258.48	24.26	3.35
81	SLE RA 19	-12	-45	1377	259.08	24.29	3.87
81	SLE RA 20	-9	-45	1375	258.48	24.26	3.35
81	SLE RA 21	-12	-45	1377	259.08	24.29	3.87
81	SLE FR 1	-7	-41	1192	225.91	21.06	2.74
81	SLE FR 2	-8	-41	1193	226.11	21.07	2.92
81	SLE FR 3	-7	-41	1192	225.91	21.06	2.74
81	SLE FR 4	-9	-42	1248	235.88	22.03	3.1
81	SLE FR 5	-8	-42	1247	235.68	22.02	2.92
81	SLE FR 6	-8	-43	1283	242.2	22.66	3.04
81	SLE QP 1	-7	-41	1192	225.91	21.06	2.74
81	SLE QP 2	-8	-42	1247	235.68	22.02	2.92
81	SLD 1	72	-13	1174	216.34	21.01	-17.2
81	SLD 2	88	-4	1173	215.87	20.99	-21.33
81	SLD 3	68	-62	1134	208.31	20.5	-15.46
81	SLD 4	84	-54	1133	207.84	20.48	-19.6
81	SLD 5	17	38	1286	242.23	22.5	-4.28
81	SLD 6	33	47	1285	241.75	22.48	-8.45
81	SLD 7	2	-126	1153	215.46	20.8	1.5
81	SLD 8	19	-117	1152	214.98	20.78	-2.66
81	SLD 9	-35	32	1342	256.38	23.26	8.51
81	SLD 10	-18	41	1341	255.91	23.24	4.34
81	SLD 11	-49	-131	1209	229.61	21.56	14.29
81	SLD 12	-33	-123	1208	229.14	21.54	10.13
81	SLD 13	-100	-31	1361	263.53	23.56	25.44
81	SLD 14	-84	-23	1360	263.06	23.54	21.31
81	SLD 15	-104	-80	1321	255.5	23.05	27.18
81	SLD 16	-88	-72	1320	255.03	23.03	23.04
81	SLV 1	174	24	1081	191.71	19.73	-42.86
81	SLV 2	211	44	1079	190.64	19.68	-52.22
81	SLV 3	164	-87	990	173.46	18.57	-38.91
81	SLV 4	200	-68	988	172.39	18.52	-48.27
81	SLV 5	49	140	1336	250.54	23.11	-13.5
81	SLV 6	86	160	1333	249.47	23.06	-22.92
81	SLV 7	15	-232	1033	189.72	19.24	-0.32
81	SLV 8	52	-212	1030	188.64	19.19	-9.75
81	SLV 9	-68	128	1464	282.72	24.85	15.59
81	SLV 10	-31	147	1461	281.65	24.8	6.17
81	SLV 11	-102	-244	1160	221.9	20.98	28.77
81	SLV 12	-65	-225	1158	220.83	20.93	19.34
81	SLV 13	-216	-17	1506	298.98	25.52	54.11
81	SLV 14	-180	2	1504	297.91	25.47	44.75
81	SLV 15	-227	-129	1415	280.73	24.36	58.07
81	SLV 16	-190	-109	1413	279.66	24.31	48.7
81	CRTFP Ux+	0	0	0	0	0	0
81	CRTFP Ux-	0	0	0	0	0	0
81	CRTFP Uy+	0	0	0	0	0	0
81	CRTFP Uy-	0	0	0	0	0	0
83	SLU 1	-1	-20	882	-53.2	-184.95	-4.89
83	SLU 2	-5	-20	888	-53.53	-186.33	-5.17
83	SLU 3	-1	-20	882	-53.2	-184.95	-4.89
83	SLU 4	-4	-20	886	-53.4	-185.78	-5.06
83	SLU 5	-5	-20	888	-53.53	-186.33	-5.17
83	SLU 6	-1	-20	882	-53.2	-184.95	-4.89
83	SLU 7	-4	-20	886	-53.4	-185.78	-5.06
83	SLU 8	-1	-20	882	-53.2	-184.95	-4.89
83	SLU 9	-4	-20	886	-53.4	-185.78	-5.06
83	SLU 10	-7	-22	1034	-62.29	-216.42	-5.8
83	SLU 11	-3	-22	1028	-61.96	-215.04	-5.53
83	SLU 12	-5	-22	1031	-62.16	-215.87	-5.69
83	SLU 13	-7	-22	1034	-62.29	-216.42	-5.8
83	SLU 14	-3	-22	1028	-61.96	-215.04	-5.53
83	SLU 15	-5	-22	1031	-62.16	-215.87	-5.69
83	SLU 16	-3	-22	1028	-61.96	-215.04	-5.53
83	SLU 17	-5	-22	1031	-62.16	-215.87	-5.69
83	SLU 18	-3	-23	1091	-65.71	-227.94	-5.8
83	SLU 19	-6	-23	1094	-65.91	-228.77	-5.96
83	SLU 20	-3	-23	1091	-65.71	-227.94	-5.8
83	SLU 21	-6	-23	1094	-65.91	-228.77	-5.96
83	SLU 22	-2	-21	989	-59.6	-206.42	-5.28
83	SLU 23	-6	-21	995	-59.93	-207.8	-5.56
83	SLU 24	-2	-21	989	-59.6	-206.42	-5.28

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
83	SLU 25	-4	-21	992	-59.8	-207.25	-5.45
83	SLU 26	-6	-21	995	-59.93	-207.8	-5.56
83	SLU 27	-2	-21	989	-59.6	-206.42	-5.28
83	SLU 28	-4	-21	992	-59.8	-207.25	-5.45
83	SLU 29	-2	-21	989	-59.6	-206.42	-5.28
83	SLU 30	-4	-21	992	-59.8	-207.25	-5.45
83	SLU 31	-7	-23	1140	-68.69	-237.89	-6.19
83	SLU 32	-3	-23	1135	-68.36	-236.51	-5.91
83	SLU 33	-6	-23	1138	-68.56	-237.34	-6.08
83	SLU 34	-7	-23	1140	-68.69	-237.89	-6.19
83	SLU 35	-3	-23	1135	-68.36	-236.51	-5.91
83	SLU 36	-6	-23	1138	-68.56	-237.34	-6.08
83	SLU 37	-3	-23	1135	-68.36	-236.51	-5.91
83	SLU 38	-6	-23	1138	-68.56	-237.34	-6.08
83	SLU 39	-4	-24	1197	-72.11	-249.4	-6.19
83	SLU 40	-6	-24	1201	-72.31	-250.24	-6.35
83	SLU 41	-4	-24	1197	-72.11	-249.4	-6.19
83	SLU 42	-6	-24	1201	-72.31	-250.24	-6.35
83	SLU 43	-2	-25	1110	-66.97	-233.07	-6.22
83	SLU 44	-6	-25	1116	-67.3	-234.46	-6.5
83	SLU 45	-2	-25	1110	-66.97	-233.07	-6.22
83	SLU 46	-4	-25	1114	-67.17	-233.9	-6.39
83	SLU 47	-6	-25	1116	-67.3	-234.46	-6.5
83	SLU 48	-2	-25	1110	-66.97	-233.07	-6.22
83	SLU 49	-4	-25	1114	-67.17	-233.9	-6.39
83	SLU 50	-2	-25	1110	-66.97	-233.07	-6.22
83	SLU 51	-4	-25	1114	-67.17	-233.9	-6.39
83	SLU 52	-7	-27	1262	-76.05	-264.55	-7.14
83	SLU 53	-3	-27	1256	-75.73	-263.17	-6.86
83	SLU 54	-5	-27	1260	-75.92	-264	-7.03
83	SLU 55	-7	-27	1262	-76.05	-264.55	-7.14
83	SLU 56	-3	-27	1256	-75.73	-263.17	-6.86
83	SLU 57	-5	-27	1260	-75.92	-264	-7.03
83	SLU 58	-3	-27	1256	-75.73	-263.17	-6.86
83	SLU 59	-5	-27	1260	-75.92	-264	-7.03
83	SLU 60	-3	-28	1319	-79.48	-276.06	-7.13
83	SLU 61	-6	-28	1322	-79.67	-276.89	-7.3
83	SLU 62	-3	-28	1319	-79.48	-276.06	-7.13
83	SLU 63	-6	-28	1322	-79.67	-276.89	-7.3
83	SLU 64	-2	-26	1217	-73.37	-254.54	-6.61
83	SLU 65	-6	-27	1223	-73.7	-255.93	-6.89
83	SLU 66	-2	-26	1217	-73.37	-254.54	-6.61
83	SLU 67	-5	-26	1220	-73.57	-255.37	-6.78
83	SLU 68	-6	-27	1223	-73.7	-255.93	-6.89
83	SLU 69	-2	-26	1217	-73.37	-254.54	-6.61
83	SLU 70	-5	-26	1220	-73.57	-255.37	-6.78
83	SLU 71	-2	-26	1217	-73.37	-254.54	-6.61
83	SLU 72	-5	-26	1220	-73.57	-255.37	-6.78
83	SLU 73	-7	-29	1368	-82.45	-286.02	-7.53
83	SLU 74	-3	-29	1363	-82.13	-284.63	-7.25
83	SLU 75	-6	-29	1366	-82.32	-285.46	-7.42
83	SLU 76	-7	-29	1368	-82.45	-286.02	-7.53
83	SLU 77	-3	-29	1363	-82.13	-284.63	-7.25
83	SLU 78	-6	-29	1366	-82.32	-285.46	-7.42
83	SLU 79	-3	-29	1363	-82.13	-284.63	-7.25
83	SLU 80	-6	-29	1366	-82.32	-285.46	-7.42
83	SLU 81	-4	-30	1425	-85.88	-297.53	-7.52
83	SLU 82	-6	-30	1429	-86.08	-298.36	-7.69
83	SLU 83	-4	-30	1425	-85.88	-297.53	-7.52
83	SLU 84	-6	-30	1429	-86.08	-298.36	-7.69
83	SLE RA 1	-2	-20	913	-55.03	-191.08	-5
83	SLE RA 2	-4	-20	917	-55.25	-192.01	-5.19
83	SLE RA 3	-2	-20	913	-55.03	-191.08	-5
83	SLE RA 4	-3	-20	915	-55.16	-191.64	-5.11
83	SLE RA 5	-4	-20	917	-55.25	-192.01	-5.19
83	SLE RA 6	-2	-20	913	-55.03	-191.08	-5
83	SLE RA 7	-3	-20	915	-55.16	-191.64	-5.11
83	SLE RA 8	-2	-20	913	-55.03	-191.08	-5
83	SLE RA 9	-3	-20	915	-55.16	-191.64	-5.11
83	SLE RA 10	-5	-22	1014	-61.09	-212.07	-5.61
83	SLE RA 11	-2	-21	1010	-60.87	-211.14	-5.43
83	SLE RA 12	-4	-22	1012	-61	-211.7	-5.54
83	SLE RA 13	-5	-22	1014	-61.09	-212.07	-5.61
83	SLE RA 14	-2	-21	1010	-60.87	-211.14	-5.43
83	SLE RA 15	-4	-22	1012	-61	-211.7	-5.54
83	SLE RA 16	-2	-21	1010	-60.87	-211.14	-5.43
83	SLE RA 17	-4	-22	1012	-61	-211.7	-5.54
83	SLE RA 18	-3	-22	1052	-63.37	-219.74	-5.61
83	SLE RA 19	-4	-22	1054	-63.5	-220.3	-5.72
83	SLE RA 20	-3	-22	1052	-63.37	-219.74	-5.61
83	SLE RA 21	-4	-22	1054	-63.5	-220.3	-5.72
83	SLE FR 1	-2	-20	913	-55.03	-191.08	-5
83	SLE FR 2	-2	-20	914	-55.08	-191.27	-5.04
83	SLE FR 3	-2	-20	913	-55.03	-191.08	-5
83	SLE FR 4	-2	-21	955	-57.58	-199.86	-5.22
83	SLE FR 5	-2	-21	954	-57.53	-199.68	-5.18

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
83	SLE FR 6	-2	-21	982	-59.2	-205.41	-5.3
83	SLE QP 1	-2	-20	913	-55.03	-191.08	-5
83	SLE QP 2	-2	-21	954	-57.53	-199.68	-5.18
83	SLD 1	56	2	889	-53.71	-183.44	2.96
83	SLD 2	69	11	889	-53.7	-183.6	6.07
83	SLD 3	52	-36	843	-50.86	-171.5	-6.73
83	SLD 4	65	-27	843	-50.86	-171.66	-3.62
83	SLD 5	17	40	1004	-60.7	-212.86	10.85
83	SLD 6	30	50	1004	-60.7	-213.02	13.99
83	SLD 7	4	-86	852	-51.22	-173.07	-21.44
83	SLD 8	17	-77	852	-51.21	-173.23	-18.3
83	SLD 9	-21	36	1057	-63.85	-226.13	7.94
83	SLD 10	-8	45	1057	-63.85	-226.3	11.07
83	SLD 11	-33	-91	905	-54.37	-186.34	-24.35
83	SLD 12	-21	-82	905	-54.36	-186.5	-21.22
83	SLD 13	-69	-14	1066	-64.21	-227.7	-6.75
83	SLD 14	-56	-5	1066	-64.21	-227.86	-3.64
83	SLD 15	-73	-52	1020	-61.36	-215.76	-16.44
83	SLD 16	-60	-43	1020	-61.36	-215.92	-13.33
83	SLV 1	131	30	806	-48.83	-162.73	13.35
83	SLV 2	159	52	805	-48.83	-163.1	20.4
83	SLV 3	122	-56	702	-42.36	-135.6	-8.65
83	SLV 4	150	-35	702	-42.36	-135.96	-1.6
83	SLV 5	41	118	1068	-64.74	-229.62	31.25
83	SLV 6	70	139	1067	-64.73	-229.98	38.34
83	SLV 7	12	-170	721	-43.18	-139.18	-42.08
83	SLV 8	40	-148	721	-43.17	-139.54	-34.98
83	SLV 9	-44	107	1188	-71.9	-259.82	24.61
83	SLV 10	-16	128	1188	-71.89	-260.18	31.71
83	SLV 11	-74	-181	842	-50.34	-169.38	-48.71
83	SLV 12	-45	-159	841	-50.33	-169.74	-41.61
83	SLV 13	-154	-6	1207	-72.71	-263.4	-8.77
83	SLV 14	-126	15	1207	-72.7	-263.76	-1.72
83	SLV 15	-163	-93	1104	-66.24	-236.26	-30.76
83	SLV 16	-134	-72	1103	-66.23	-236.63	-23.71
83	CRTFP Ux+	0	0	0	0	0	0
83	CRTFP Ux-	0	0	0	0	0	0
83	CRTFP Uy+	0	0	0	0	0	0
83	CRTFP Uy-	0	0	0	0	0	0
85	SLU 1	15	-51	1846	-1.05	-472.81	-17.48
85	SLU 2	8	-50	1826	-1.02	-467.86	-17.26
85	SLU 3	15	-51	1846	-1.05	-472.81	-17.48
85	SLU 4	11	-51	1834	-1.03	-469.84	-17.35
85	SLU 5	8	-50	1826	-1.02	-467.86	-17.26
85	SLU 6	15	-51	1846	-1.05	-472.81	-17.48
85	SLU 7	11	-51	1834	-1.03	-469.84	-17.35
85	SLU 8	15	-51	1846	-1.05	-472.81	-17.48
85	SLU 9	11	-51	1834	-1.03	-469.84	-17.35
85	SLU 10	11	-61	2138	-1.29	-542.71	-20.87
85	SLU 11	18	-61	2158	-1.31	-547.66	-21.1
85	SLU 12	14	-61	2146	-1.3	-544.69	-20.97
85	SLU 13	11	-61	2138	-1.29	-542.71	-20.87
85	SLU 14	18	-61	2158	-1.31	-547.66	-21.1
85	SLU 15	14	-61	2146	-1.3	-544.69	-20.97
85	SLU 16	18	-61	2158	-1.31	-547.66	-21.1
85	SLU 17	14	-61	2146	-1.3	-544.69	-20.97
85	SLU 18	19	-66	2291	-1.43	-579.74	-22.65
85	SLU 19	15	-65	2279	-1.41	-576.77	-22.52
85	SLU 20	19	-66	2291	-1.43	-579.74	-22.65
85	SLU 21	15	-65	2279	-1.41	-576.77	-22.52
85	SLU 22	17	-57	2068	-1.19	-526.81	-19.48
85	SLU 23	10	-56	2048	-1.17	-521.86	-19.25
85	SLU 24	17	-57	2068	-1.19	-526.81	-19.48
85	SLU 25	13	-56	2056	-1.18	-523.84	-19.34
85	SLU 26	10	-56	2048	-1.17	-521.86	-19.25
85	SLU 27	17	-57	2068	-1.19	-526.81	-19.48
85	SLU 28	13	-56	2056	-1.18	-523.84	-19.34
85	SLU 29	17	-57	2068	-1.19	-526.81	-19.48
85	SLU 30	13	-56	2056	-1.18	-523.84	-19.34
85	SLU 31	13	-67	2359	-1.43	-596.72	-22.87
85	SLU 32	20	-67	2379	-1.46	-601.66	-23.1
85	SLU 33	16	-67	2367	-1.44	-598.7	-22.96
85	SLU 34	13	-67	2359	-1.43	-596.72	-22.87
85	SLU 35	20	-67	2379	-1.46	-601.66	-23.1
85	SLU 36	16	-67	2367	-1.44	-598.7	-22.96
85	SLU 37	20	-67	2379	-1.46	-601.66	-23.1
85	SLU 38	16	-67	2367	-1.44	-598.7	-22.96
85	SLU 39	21	-72	2513	-1.57	-633.74	-24.65
85	SLU 40	17	-71	2501	-1.55	-630.78	-24.51
85	SLU 41	21	-72	2513	-1.57	-633.74	-24.65
85	SLU 42	17	-71	2501	-1.55	-630.78	-24.51
85	SLU 43	19	-64	2324	-1.31	-596.14	-22.04
85	SLU 44	12	-64	2304	-1.29	-591.19	-21.82
85	SLU 45	19	-64	2324	-1.31	-596.14	-22.04
85	SLU 46	15	-64	2312	-1.3	-593.17	-21.91
85	SLU 47	12	-64	2304	-1.29	-591.19	-21.82

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
85	SLU 48	19	-64	2324	-1.31	-596.14	-22.04
85	SLU 49	15	-64	2312	-1.3	-593.17	-21.91
85	SLU 50	19	-64	2324	-1.31	-596.14	-22.04
85	SLU 51	15	-64	2312	-1.3	-593.17	-21.91
85	SLU 52	15	-74	2615	-1.55	-666.04	-25.44
85	SLU 53	22	-75	2635	-1.58	-670.99	-25.66
85	SLU 54	18	-74	2623	-1.56	-668.02	-25.53
85	SLU 55	15	-74	2615	-1.55	-666.04	-25.44
85	SLU 56	22	-75	2635	-1.58	-670.99	-25.66
85	SLU 57	18	-74	2623	-1.56	-668.02	-25.53
85	SLU 58	22	-75	2635	-1.58	-670.99	-25.66
85	SLU 59	18	-74	2623	-1.56	-668.02	-25.53
85	SLU 60	23	-79	2769	-1.69	-703.07	-27.21
85	SLU 61	19	-79	2757	-1.68	-700.1	-27.08
85	SLU 62	23	-79	2769	-1.69	-703.07	-27.21
85	SLU 63	19	-79	2757	-1.68	-700.1	-27.08
85	SLU 64	21	-70	2545	-1.46	-650.14	-24.04
85	SLU 65	14	-69	2525	-1.43	-645.19	-23.81
85	SLU 66	21	-70	2545	-1.46	-650.14	-24.04
85	SLU 67	17	-70	2533	-1.44	-647.17	-23.9
85	SLU 68	14	-69	2525	-1.43	-645.19	-23.81
85	SLU 69	21	-70	2545	-1.46	-650.14	-24.04
85	SLU 70	17	-70	2533	-1.44	-647.17	-23.9
85	SLU 71	21	-70	2545	-1.46	-650.14	-24.04
85	SLU 72	17	-70	2533	-1.44	-647.17	-23.9
85	SLU 73	17	-80	2837	-1.7	-720.04	-27.43
85	SLU 74	24	-80	2857	-1.72	-724.99	-27.66
85	SLU 75	19	-80	2845	-1.71	-722.02	-27.52
85	SLU 76	17	-80	2837	-1.7	-720.04	-27.43
85	SLU 77	24	-80	2857	-1.72	-724.99	-27.66
85	SLU 78	19	-80	2845	-1.71	-722.02	-27.52
85	SLU 79	24	-80	2857	-1.72	-724.99	-27.66
85	SLU 80	19	-80	2845	-1.71	-722.02	-27.52
85	SLU 81	25	-85	2991	-1.83	-757.07	-29.21
85	SLU 82	21	-85	2979	-1.82	-754.1	-29.07
85	SLU 83	25	-85	2991	-1.83	-757.07	-29.21
85	SLU 84	21	-85	2979	-1.82	-754.1	-29.07
85	SLE RA 1	16	-53	1909	-1.09	-488.24	-18.05
85	SLE RA 2	11	-52	1896	-1.07	-484.94	-17.9
85	SLE RA 3	16	-53	1909	-1.09	-488.24	-18.05
85	SLE RA 4	13	-52	1901	-1.08	-486.26	-17.96
85	SLE RA 5	11	-52	1896	-1.07	-484.94	-17.9
85	SLE RA 6	16	-53	1909	-1.09	-488.24	-18.05
85	SLE RA 7	13	-52	1901	-1.08	-486.26	-17.96
85	SLE RA 8	16	-53	1909	-1.09	-488.24	-18.05
85	SLE RA 9	13	-52	1901	-1.08	-486.26	-17.96
85	SLE RA 10	13	-59	2104	-1.25	-534.84	-20.31
85	SLE RA 11	18	-60	2117	-1.27	-538.14	-20.47
85	SLE RA 12	15	-59	2109	-1.26	-536.16	-20.38
85	SLE RA 13	13	-59	2104	-1.25	-534.84	-20.31
85	SLE RA 14	18	-60	2117	-1.27	-538.14	-20.47
85	SLE RA 15	15	-59	2109	-1.26	-536.16	-20.38
85	SLE RA 16	18	-60	2117	-1.27	-538.14	-20.47
85	SLE RA 17	15	-59	2109	-1.26	-536.16	-20.38
85	SLE RA 18	18	-63	2206	-1.34	-559.53	-21.5
85	SLE RA 19	16	-62	2198	-1.33	-557.55	-21.41
85	SLE RA 20	18	-63	2206	-1.34	-559.53	-21.5
85	SLE RA 21	16	-62	2198	-1.33	-557.55	-21.41
85	SLE FR 1	16	-53	1909	-1.09	-488.24	-18.05
85	SLE FR 2	15	-53	1907	-1.09	-487.58	-18.02
85	SLE FR 3	16	-53	1909	-1.09	-488.24	-18.05
85	SLE FR 4	16	-55	1996	-1.16	-508.97	-19.06
85	SLE FR 5	17	-56	1998	-1.16	-509.62	-19.09
85	SLE FR 6	17	-58	2058	-1.21	-523.88	-19.78
85	SLE QP 1	16	-53	1909	-1.09	-488.24	-18.05
85	SLE QP 2	17	-56	1998	-1.16	-509.62	-19.09
85	SLD 1	130	-25	2365	-1.76	-591.99	-8.35
85	SLD 2	153	-55	2362	-1.76	-590.97	-18.73
85	SLD 3	123	-105	2259	-1.37	-565.74	-36.25
85	SLD 4	147	-135	2256	-1.38	-564.72	-46.63
85	SLD 5	52	85	2271	-1.93	-574.51	30.11
85	SLD 6	75	55	2267	-1.93	-573.47	19.65
85	SLD 7	31	-180	1916	-0.64	-487.01	-62.87
85	SLD 8	55	-210	1913	-0.64	-485.98	-73.33
85	SLD 9	-21	99	2083	-1.69	-533.27	35.15
85	SLD 10	2	69	2080	-1.69	-532.24	24.7
85	SLD 11	-42	-166	1729	-0.4	-445.77	-57.83
85	SLD 12	-18	-196	1726	-0.4	-444.74	-68.29
85	SLD 13	-113	23	1741	-0.95	-454.53	8.45
85	SLD 14	-90	-7	1738	-0.96	-453.51	-1.93
85	SLD 15	-120	-56	1635	-0.56	-428.28	-19.44
85	SLD 16	-96	-86	1631	-0.57	-427.26	-29.82
85	SLV 1	274	13	2832	-2.52	-696.86	5.04
85	SLV 2	327	-55	2825	-2.53	-694.54	-18.47
85	SLV 3	259	-168	2591	-1.64	-637.25	-58.36
85	SLV 4	313	-236	2583	-1.65	-634.93	-81.87

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
85	SLV 5	97	263	2617	-2.9	-657.02	92.61
85	SLV 6	150	195	2609	-2.91	-654.68	68.94
85	SLV 7	49	-339	1813	0.03	-458.33	-118.71
85	SLV 8	103	-408	1805	0.02	-455.99	-142.38
85	SLV 9	-69	297	2191	-2.35	-563.26	104.2
85	SLV 10	-16	228	2184	-2.36	-560.92	80.54
85	SLV 11	-117	-306	1387	0.58	-364.57	-107.12
85	SLV 12	-63	-374	1379	0.57	-362.23	-130.78
85	SLV 13	-279	124	1413	-0.68	-384.32	43.69
85	SLV 14	-226	57	1405	-0.69	-382	20.18
85	SLV 15	-293	-56	1172	0.2	-324.71	-19.71
85	SLV 16	-240	-124	1164	0.19	-322.39	-43.21
85	CRTFP Ux+	0	0	0	0	0	0
85	CRTFP Ux-	0	0	0	0	0	0
85	CRTFP Uy+	0	0	0	0	0	0
85	CRTFP Uy-	0	0	0	0	0	0
88	SLU 1	2	-12	1837	-2.04	342.64	3.26
88	SLU 2	-6	-13	1854	-2.06	345.54	3.45
88	SLU 3	2	-12	1837	-2.04	342.64	3.26
88	SLU 4	-3	-12	1847	-2.05	344.38	3.37
88	SLU 5	-6	-13	1854	-2.06	345.54	3.45
88	SLU 6	2	-12	1837	-2.04	342.64	3.26
88	SLU 7	-3	-12	1847	-2.05	344.38	3.37
88	SLU 8	2	-12	1837	-2.04	342.64	3.26
88	SLU 9	-3	-12	1847	-2.05	344.38	3.37
88	SLU 10	-8	-12	2132	-2.28	397.94	3.19
88	SLU 11	-1	-11	2115	-2.26	395.03	3.01
88	SLU 12	-5	-11	2125	-2.27	396.78	3.12
88	SLU 13	-8	-12	2132	-2.28	397.94	3.19
88	SLU 14	-1	-11	2115	-2.26	395.03	3.01
88	SLU 15	-5	-11	2125	-2.27	396.78	3.12
88	SLU 16	-1	-11	2115	-2.26	395.03	3.01
88	SLU 17	-5	-11	2125	-2.27	396.78	3.12
88	SLU 18	-2	-10	2235	-2.35	417.49	2.9
88	SLU 19	-6	-11	2245	-2.36	419.23	3.01
88	SLU 20	-2	-10	2235	-2.35	417.49	2.9
88	SLU 21	-6	-11	2245	-2.36	419.23	3.01
88	SLU 22	1	-11	2044	-2.21	381.22	3.14
88	SLU 23	-7	-12	2060	-2.23	384.13	3.32
88	SLU 24	1	-11	2044	-2.21	381.22	3.14
88	SLU 25	-4	-12	2054	-2.22	382.96	3.25
88	SLU 26	-7	-12	2060	-2.23	384.13	3.32
88	SLU 27	1	-11	2044	-2.21	381.22	3.14
88	SLU 28	-4	-12	2054	-2.22	382.96	3.25
88	SLU 29	1	-11	2044	-2.21	381.22	3.14
88	SLU 30	-4	-12	2054	-2.22	382.96	3.25
88	SLU 31	-10	-11	2338	-2.44	436.52	3.07
88	SLU 32	-2	-10	2322	-2.42	433.62	2.89
88	SLU 33	-6	-11	2332	-2.44	435.36	3
88	SLU 34	-10	-11	2338	-2.44	436.52	3.07
88	SLU 35	-2	-10	2322	-2.42	433.62	2.89
88	SLU 36	-6	-11	2332	-2.44	435.36	3
88	SLU 37	-2	-10	2322	-2.42	433.62	2.89
88	SLU 38	-6	-11	2332	-2.44	435.36	3
88	SLU 39	-3	-10	2441	-2.51	456.07	2.78
88	SLU 40	-8	-10	2451	-2.53	457.82	2.89
88	SLU 41	-3	-10	2441	-2.51	456.07	2.78
88	SLU 42	-8	-10	2451	-2.53	457.82	2.89
88	SLU 43	3	-16	2318	-2.6	432.2	4.29
88	SLU 44	-5	-16	2335	-2.62	435.11	4.47
88	SLU 45	3	-16	2318	-2.6	432.2	4.29
88	SLU 46	-2	-16	2328	-2.61	433.94	4.4
88	SLU 47	-5	-16	2335	-2.62	435.11	4.47
88	SLU 48	3	-16	2318	-2.6	432.2	4.29
88	SLU 49	-2	-16	2328	-2.61	433.94	4.4
88	SLU 50	3	-16	2318	-2.6	432.2	4.29
88	SLU 51	-2	-16	2328	-2.61	433.94	4.4
88	SLU 52	-7	-15	2613	-2.83	487.5	4.22
88	SLU 53	0	-15	2596	-2.81	484.6	4.03
88	SLU 54	-4	-15	2606	-2.82	486.34	4.14
88	SLU 55	-7	-15	2613	-2.83	487.5	4.22
88	SLU 56	0	-15	2596	-2.81	484.6	4.03
88	SLU 57	-4	-15	2606	-2.82	486.34	4.14
88	SLU 58	0	-15	2596	-2.81	484.6	4.03
88	SLU 59	-4	-15	2606	-2.82	486.34	4.14
88	SLU 60	-1	-14	2715	-2.9	507.05	3.92
88	SLU 61	-6	-15	2725	-2.91	508.8	4.03
88	SLU 62	-1	-14	2715	-2.9	507.05	3.92
88	SLU 63	-6	-15	2725	-2.91	508.8	4.03
88	SLU 64	1	-15	2524	-2.76	470.78	4.16
88	SLU 65	-6	-16	2541	-2.79	473.69	4.35
88	SLU 66	1	-15	2524	-2.76	470.78	4.16
88	SLU 67	-3	-16	2534	-2.78	472.53	4.27
88	SLU 68	-6	-16	2541	-2.79	473.69	4.35
88	SLU 69	1	-15	2524	-2.76	470.78	4.16
88	SLU 70	-3	-16	2534	-2.78	472.53	4.27

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
88	SLU 71	1	-15	2524	-2.76	470.78	4.16
88	SLU 72	-3	-16	2534	-2.78	472.53	4.27
88	SLU 73	-9	-15	2819	-3	526.09	4.09
88	SLU 74	-1	-14	2802	-2.98	523.18	3.91
88	SLU 75	-6	-15	2812	-2.99	524.92	4.02
88	SLU 76	-9	-15	2819	-3	526.09	4.09
88	SLU 77	-1	-14	2802	-2.98	523.18	3.91
88	SLU 78	-6	-15	2812	-2.99	524.92	4.02
88	SLU 79	-1	-14	2802	-2.98	523.18	3.91
88	SLU 80	-6	-15	2812	-2.99	524.92	4.02
88	SLU 81	-2	-14	2921	-3.07	545.63	3.8
88	SLU 82	-7	-14	2931	-3.08	547.38	3.91
88	SLU 83	-2	-14	2921	-3.07	545.63	3.8
88	SLU 84	-7	-14	2931	-3.08	547.38	3.91
88	SLE RA 1	1	-12	1896	-2.09	353.66	3.23
88	SLE RA 2	-4	-12	1907	-2.1	355.6	3.35
88	SLE RA 3	1	-12	1896	-2.09	353.66	3.23
88	SLE RA 4	-2	-12	1903	-2.1	354.82	3.3
88	SLE RA 5	-4	-12	1907	-2.1	355.6	3.35
88	SLE RA 6	1	-12	1896	-2.09	353.66	3.23
88	SLE RA 7	-2	-12	1903	-2.1	354.82	3.3
88	SLE RA 8	1	-12	1896	-2.09	353.66	3.23
88	SLE RA 9	-2	-12	1903	-2.1	354.82	3.3
88	SLE RA 10	-5	-12	2093	-2.25	390.53	3.18
88	SLE RA 11	0	-11	2082	-2.23	388.59	3.06
88	SLE RA 12	-3	-11	2088	-2.24	389.75	3.13
88	SLE RA 13	-5	-12	2093	-2.25	390.53	3.18
88	SLE RA 14	0	-11	2082	-2.23	388.59	3.06
88	SLE RA 15	-3	-11	2088	-2.24	389.75	3.13
88	SLE RA 16	0	-11	2082	-2.23	388.59	3.06
88	SLE RA 17	-3	-11	2088	-2.24	389.75	3.13
88	SLE RA 18	-1	-11	2161	-2.29	403.56	2.99
88	SLE RA 19	-4	-11	2168	-2.3	404.72	3.06
88	SLE RA 20	-1	-11	2161	-2.29	403.56	2.99
88	SLE RA 21	-4	-11	2168	-2.3	404.72	3.06
88	SLE FR 1	1	-12	1896	-2.09	353.66	3.23
88	SLE FR 2	0	-12	1899	-2.09	354.05	3.25
88	SLE FR 3	1	-12	1896	-2.09	353.66	3.23
88	SLE FR 4	0	-12	1978	-2.15	369.02	3.18
88	SLE FR 5	1	-11	1976	-2.15	368.63	3.16
88	SLE FR 6	0	-11	2029	-2.19	378.61	3.11
88	SLE QP 1	1	-12	1896	-2.09	353.66	3.23
88	SLE QP 2	1	-11	1976	-2.15	368.63	3.16
88	SLD 1	114	44	1754	-2.1	332.09	-10.66
88	SLD 2	137	76	1763	-2.16	333.26	-18.52
88	SLD 3	108	-47	1638	-1.33	310.97	12.18
88	SLD 4	130	-15	1646	-1.38	312.14	4.32
88	SLD 5	37	133	2083	-3.29	389.28	-32.85
88	SLD 6	60	165	2092	-3.34	390.47	-40.77
88	SLD 7	15	-172	1695	-0.71	318.88	43.28
88	SLD 8	37	-140	1703	-0.77	320.07	35.36
88	SLD 9	-36	117	2248	-3.54	417.19	-29.05
88	SLD 10	-13	149	2257	-3.59	418.38	-36.97
88	SLD 11	-58	-188	1860	-0.96	346.79	47.08
88	SLD 12	-35	-156	1869	-1.01	347.98	39.16
88	SLD 13	-129	-8	2305	-2.92	425.12	2
88	SLD 14	-106	24	2314	-2.97	426.29	-5.87
88	SLD 15	-136	-99	2189	-2.15	404	24.84
88	SLD 16	-113	-67	2197	-2.2	405.17	16.97
88	SLV 1	259	116	1472	-2.04	285.58	-28.37
88	SLV 2	310	188	1492	-2.16	288.23	-46.18
88	SLV 3	244	-92	1208	-0.28	237.58	23.5
88	SLV 4	295	-20	1227	-0.4	240.24	5.69
88	SLV 5	83	316	2219	-4.74	415.56	-78.68
88	SLV 6	135	389	2239	-4.86	418.24	-96.6
88	SLV 7	32	-377	1337	1.12	255.59	94.22
88	SLV 8	84	-304	1357	1	258.26	76.29
88	SLV 9	-83	281	2595	-5.3	479	-69.98
88	SLV 10	-31	354	2614	-5.42	481.67	-87.91
88	SLV 11	-134	-412	1713	0.56	319.02	102.92
88	SLV 12	-82	-339	1732	0.44	321.69	84.99
88	SLV 13	-294	-3	2724	-3.9	497.02	0.62
88	SLV 14	-243	69	2744	-4.02	499.68	-17.18
88	SLV 15	-309	-211	2460	-2.14	449.03	52.49
88	SLV 16	-258	-139	2479	-2.26	451.68	34.69
88	CRTFP Ux+	0	0	0	0	0	0
88	CRTFP Ux-	0	0	0	0	0	0
88	CRTFP Uy+	0	0	0	0	0	0
88	CRTFP Uy-	0	0	0	0	0	0
99	SLU 1	-31	-79	3241	602.75	-535.33	-2.63
99	SLU 2	-46	-80	3263	607.4	-539.58	0.03
99	SLU 3	-31	-79	3241	602.75	-535.33	-2.63
99	SLU 4	-40	-80	3254	605.54	-537.88	-1.04
99	SLU 5	-46	-80	3263	607.4	-539.58	0.03
99	SLU 6	-31	-79	3241	602.75	-535.33	-2.63
99	SLU 7	-40	-80	3254	605.54	-537.88	-1.04

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
99	SLU 8	-31	-79	3241	602.75	-535.33	-2.63
99	SLU 9	-40	-80	3254	605.54	-537.88	-1.04
99	SLU 10	-53	-89	3814	712.88	-630.01	0.29
99	SLU 11	-38	-88	3793	708.23	-625.76	-2.38
99	SLU 12	-47	-88	3806	711.02	-628.31	-0.78
99	SLU 13	-53	-89	3814	712.88	-630.01	0.29
99	SLU 14	-38	-88	3793	708.23	-625.76	-2.38
99	SLU 15	-47	-88	3806	711.02	-628.31	-0.78
99	SLU 16	-38	-88	3793	708.23	-625.76	-2.38
99	SLU 17	-47	-88	3806	711.02	-628.31	-0.78
99	SLU 18	-41	-92	4029	753.44	-664.52	-2.27
99	SLU 19	-50	-92	4042	756.23	-667.06	-0.67
99	SLU 20	-41	-92	4029	753.44	-664.52	-2.27
99	SLU 21	-50	-92	4042	756.23	-667.06	-0.67
99	SLU 22	-35	-85	3649	679.64	-598.57	-2.56
99	SLU 23	-49	-86	3671	684.28	-602.81	0.1
99	SLU 24	-35	-85	3649	679.64	-598.57	-2.56
99	SLU 25	-44	-85	3663	682.42	-601.11	-0.96
99	SLU 26	-49	-86	3671	684.28	-602.81	0.1
99	SLU 27	-35	-85	3649	679.64	-598.57	-2.56
99	SLU 28	-44	-85	3663	682.42	-601.11	-0.96
99	SLU 29	-35	-85	3649	679.64	-598.57	-2.56
99	SLU 30	-44	-85	3663	682.42	-601.11	-0.96
99	SLU 31	-56	-94	4223	789.77	-693.24	0.36
99	SLU 32	-42	-94	4201	785.12	-689	-2.31
99	SLU 33	-50	-94	4214	787.91	-691.54	-0.71
99	SLU 34	-56	-94	4223	789.77	-693.24	0.36
99	SLU 35	-42	-94	4201	785.12	-689	-2.31
99	SLU 36	-50	-94	4214	787.91	-691.54	-0.71
99	SLU 37	-42	-94	4201	785.12	-689	-2.31
99	SLU 38	-50	-94	4214	787.91	-691.54	-0.71
99	SLU 39	-45	-98	4438	830.32	-727.75	-2.2
99	SLU 40	-53	-98	4451	833.11	-730.3	-0.6
99	SLU 41	-45	-98	4438	830.32	-727.75	-2.2
99	SLU 42	-53	-98	4451	833.11	-730.3	-0.6
99	SLU 43	-39	-101	4073	757.21	-674.25	-3.45
99	SLU 44	-54	-102	4095	761.86	-678.5	-0.78
99	SLU 45	-39	-101	4073	757.21	-674.25	-3.45
99	SLU 46	-48	-102	4086	760	-676.8	-1.85
99	SLU 47	-54	-102	4095	761.86	-678.5	-0.78
99	SLU 48	-39	-101	4073	757.21	-674.25	-3.45
99	SLU 49	-48	-102	4086	760	-676.8	-1.85
99	SLU 50	-39	-101	4073	757.21	-674.25	-3.45
99	SLU 51	-48	-102	4086	760	-676.8	-1.85
99	SLU 52	-61	-111	4647	867.34	-768.93	-0.53
99	SLU 53	-46	-110	4625	862.69	-764.68	-3.19
99	SLU 54	-55	-110	4638	865.48	-767.23	-1.59
99	SLU 55	-61	-111	4647	867.34	-768.93	-0.53
99	SLU 56	-46	-110	4625	862.69	-764.68	-3.19
99	SLU 57	-55	-110	4638	865.48	-767.23	-1.59
99	SLU 58	-46	-110	4625	862.69	-764.68	-3.19
99	SLU 59	-55	-110	4638	865.48	-767.23	-1.59
99	SLU 60	-49	-114	4861	907.9	-803.44	-3.08
99	SLU 61	-58	-114	4874	910.69	-805.98	-1.48
99	SLU 62	-49	-114	4861	907.9	-803.44	-3.08
99	SLU 63	-58	-114	4874	910.69	-805.98	-1.48
99	SLU 64	-43	-107	4482	834.1	-737.49	-3.38
99	SLU 65	-57	-107	4503	838.75	-741.73	-0.71
99	SLU 66	-43	-107	4482	834.1	-737.49	-3.38
99	SLU 67	-52	-107	4495	836.89	-740.03	-1.78
99	SLU 68	-57	-107	4503	838.75	-741.73	-0.71
99	SLU 69	-43	-107	4482	834.1	-737.49	-3.38
99	SLU 70	-52	-107	4495	836.89	-740.03	-1.78
99	SLU 71	-43	-107	4482	834.1	-737.49	-3.38
99	SLU 72	-52	-107	4495	836.89	-740.03	-1.78
99	SLU 73	-64	-116	5055	944.23	-832.16	-0.46
99	SLU 74	-50	-116	5033	939.58	-827.92	-3.12
99	SLU 75	-59	-116	5046	942.37	-830.46	-1.52
99	SLU 76	-64	-116	5055	944.23	-832.16	-0.46
99	SLU 77	-50	-116	5033	939.58	-827.92	-3.12
99	SLU 78	-59	-116	5046	942.37	-830.46	-1.52
99	SLU 79	-50	-116	5033	939.58	-827.92	-3.12
99	SLU 80	-59	-116	5046	942.37	-830.46	-1.52
99	SLU 81	-53	-120	5270	984.79	-866.67	-3.01
99	SLU 82	-62	-120	5283	987.58	-869.22	-1.41
99	SLU 83	-53	-120	5270	984.79	-866.67	-3.01
99	SLU 84	-62	-120	5283	987.58	-869.22	-1.41
99	SLE RA 1	-32	-81	3357	624.72	-553.4	-2.61
99	SLE RA 2	-42	-81	3372	627.82	-556.23	-0.84
99	SLE RA 3	-32	-81	3357	624.72	-553.4	-2.61
99	SLE RA 4	-38	-81	3366	626.58	-555.1	-1.55
99	SLE RA 5	-42	-81	3372	627.82	-556.23	-0.84
99	SLE RA 6	-32	-81	3357	624.72	-553.4	-2.61
99	SLE RA 7	-38	-81	3366	626.58	-555.1	-1.55
99	SLE RA 8	-32	-81	3357	624.72	-553.4	-2.61
99	SLE RA 9	-38	-81	3366	626.58	-555.1	-1.55

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
99	SLE RA 10	-46	-87	3740	698.14	-616.52	-0.67
99	SLE RA 11	-37	-87	3725	695.04	-613.69	-2.44
99	SLE RA 12	-43	-87	3734	696.9	-615.38	-1.38
99	SLE RA 13	-46	-87	3740	698.14	-616.52	-0.67
99	SLE RA 14	-37	-87	3725	695.04	-613.69	-2.44
99	SLE RA 15	-43	-87	3734	696.9	-615.38	-1.38
99	SLE RA 16	-37	-87	3725	695.04	-613.69	-2.44
99	SLE RA 17	-43	-87	3734	696.9	-615.38	-1.38
99	SLE RA 18	-39	-89	3883	725.18	-639.52	-2.37
99	SLE RA 19	-45	-90	3892	727.03	-641.22	-1.3
99	SLE RA 20	-39	-89	3883	725.18	-639.52	-2.37
99	SLE RA 21	-45	-90	3892	727.03	-641.22	-1.3
99	SLE FR 1	-32	-81	3357	624.72	-553.4	-2.61
99	SLE FR 2	-34	-81	3360	625.34	-553.97	-2.26
99	SLE FR 3	-32	-81	3357	624.72	-553.4	-2.61
99	SLE FR 4	-36	-84	3518	655.47	-579.8	-2.19
99	SLE FR 5	-34	-84	3515	654.85	-579.24	-2.54
99	SLE FR 6	-35	-85	3620	674.95	-596.46	-2.49
99	SLE QP 1	-32	-81	3357	624.72	-553.4	-2.61
99	SLE QP 2	-34	-84	3515	654.85	-579.24	-2.54
99	SLD 1	186	4	3239	593.9	-525.25	-33.97
99	SLD 2	228	39	3235	592.52	-524.45	-35.05
99	SLD 3	176	-146	3103	571.2	-499.9	-58.65
99	SLD 4	218	-110	3098	569.82	-499.09	-59.73
99	SLD 5	33	157	3641	671.49	-601.78	25.84
99	SLD 6	75	193	3636	670.09	-600.97	24.75
99	SLD 7	-1	-342	3186	595.82	-517.27	-56.42
99	SLD 8	40	-306	3182	594.42	-516.45	-57.51
99	SLD 9	-109	139	3849	715.29	-642.02	52.43
99	SLD 10	-67	175	3844	713.89	-641.21	51.34
99	SLD 11	-143	-360	3394	639.62	-557.5	-29.83
99	SLD 12	-101	-325	3389	638.22	-556.69	-30.92
99	SLD 13	-286	-57	3932	739.89	-659.38	54.65
99	SLD 14	-244	-21	3927	738.5	-658.58	53.57
99	SLD 15	-296	-207	3795	717.19	-634.03	29.97
99	SLD 16	-255	-171	3791	715.8	-633.22	28.89
99	SLV 1	468	116	2888	516.24	-456.47	-74.03
99	SLV 2	562	196	2878	513.1	-454.64	-76.48
99	SLV 3	444	-224	2578	464.64	-398.83	-130.11
99	SLV 4	538	-144	2568	461.5	-397.01	-132.56
99	SLV 5	119	464	3801	692.64	-630.46	61.93
99	SLV 6	214	545	3791	689.48	-628.63	59.46
99	SLV 7	40	-670	2767	520.64	-438.35	-125
99	SLV 8	134	-589	2757	517.47	-436.51	-127.47
99	SLV 9	-203	422	4273	792.23	-721.96	122.38
99	SLV 10	-108	503	4263	789.07	-720.13	119.91
99	SLV 11	-282	-712	3240	620.23	-529.85	-64.54
99	SLV 12	-188	-631	3229	617.06	-528.01	-67.01
99	SLV 13	-606	-23	4463	848.21	-761.46	127.48
99	SLV 14	-512	57	4453	845.07	-759.64	125.02
99	SLV 15	-630	-364	4153	796.61	-703.83	71.4
99	SLV 16	-536	-283	4142	793.47	-702.01	68.95
99	CRTFP Ux+	0	0	0	0	0	0
99	CRTFP Ux-	0	0	0	0	0	0
99	CRTFP Uy+	0	0	0	0	0	0
99	CRTFP Uy-	0	0	0	0	0	0
102	SLU 1	3	-50	1822	-0.35	-469.71	-17.26
102	SLU 2	-4	-50	1803	-0.33	-464.96	-17.04
102	SLU 3	3	-50	1822	-0.35	-469.71	-17.26
102	SLU 4	-1	-50	1811	-0.34	-466.86	-17.13
102	SLU 5	-4	-50	1803	-0.33	-464.96	-17.04
102	SLU 6	3	-50	1822	-0.35	-469.71	-17.26
102	SLU 7	-1	-50	1811	-0.34	-466.86	-17.13
102	SLU 8	3	-50	1822	-0.35	-469.71	-17.26
102	SLU 9	-1	-50	1811	-0.34	-466.86	-17.13
102	SLU 10	-2	-60	2108	-0.44	-538.63	-20.56
102	SLU 11	5	-61	2127	-0.46	-543.38	-20.79
102	SLU 12	0	-60	2116	-0.45	-540.53	-20.65
102	SLU 13	-2	-60	2108	-0.44	-538.63	-20.56
102	SLU 14	5	-61	2127	-0.46	-543.38	-20.79
102	SLU 15	0	-60	2116	-0.45	-540.53	-20.65
102	SLU 16	5	-61	2127	-0.46	-543.38	-20.79
102	SLU 17	0	-60	2116	-0.45	-540.53	-20.65
102	SLU 18	5	-65	2258	-0.51	-574.96	-22.3
102	SLU 19	1	-64	2247	-0.5	-572.11	-22.16
102	SLU 20	5	-65	2258	-0.51	-574.96	-22.3
102	SLU 21	1	-64	2247	-0.5	-572.11	-22.16
102	SLU 22	4	-56	2041	-0.39	-523.42	-19.21
102	SLU 23	-3	-55	2022	-0.37	-518.67	-18.98
102	SLU 24	4	-56	2041	-0.39	-523.42	-19.21
102	SLU 25	0	-56	2029	-0.37	-520.57	-19.07
102	SLU 26	-3	-55	2022	-0.37	-518.67	-18.98
102	SLU 27	4	-56	2041	-0.39	-523.42	-19.21
102	SLU 28	0	-56	2029	-0.37	-520.57	-19.07
102	SLU 29	4	-56	2041	-0.39	-523.42	-19.21
102	SLU 30	0	-56	2029	-0.37	-520.57	-19.07

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
102	SLU 31	-1	-65	2327	-0.48	-592.35	-22.51
102	SLU 32	6	-66	2346	-0.5	-597.1	-22.73
102	SLU 33	1	-66	2335	-0.49	-594.25	-22.6
102	SLU 34	-1	-65	2327	-0.48	-592.35	-22.51
102	SLU 35	6	-66	2346	-0.5	-597.1	-22.73
102	SLU 36	1	-66	2335	-0.49	-594.25	-22.6
102	SLU 37	6	-66	2346	-0.5	-597.1	-22.73
102	SLU 38	1	-66	2335	-0.49	-594.25	-22.6
102	SLU 39	6	-71	2477	-0.55	-628.67	-24.24
102	SLU 40	2	-70	2465	-0.54	-625.82	-24.11
102	SLU 41	6	-71	2477	-0.55	-628.67	-24.24
102	SLU 42	2	-70	2465	-0.54	-625.82	-24.11
102	SLU 43	4	-63	2294	-0.44	-592.2	-21.77
102	SLU 44	-3	-63	2275	-0.42	-587.45	-21.55
102	SLU 45	4	-63	2294	-0.44	-592.2	-21.77
102	SLU 46	0	-63	2282	-0.43	-589.35	-21.64
102	SLU 47	-3	-63	2275	-0.42	-587.45	-21.55
102	SLU 48	4	-63	2294	-0.44	-592.2	-21.77
102	SLU 49	0	-63	2282	-0.43	-589.35	-21.64
102	SLU 50	4	-63	2294	-0.44	-592.2	-21.77
102	SLU 51	0	-63	2282	-0.43	-589.35	-21.64
102	SLU 52	-2	-73	2580	-0.53	-661.13	-25.07
102	SLU 53	5	-74	2599	-0.55	-665.87	-25.3
102	SLU 54	1	-73	2588	-0.54	-663.02	-25.16
102	SLU 55	-2	-73	2580	-0.53	-661.13	-25.07
102	SLU 56	5	-74	2599	-0.55	-665.87	-25.3
102	SLU 57	1	-73	2588	-0.54	-663.02	-25.16
102	SLU 58	5	-74	2599	-0.55	-665.87	-25.3
102	SLU 59	1	-73	2588	-0.54	-663.02	-25.16
102	SLU 60	6	-78	2730	-0.6	-697.45	-26.81
102	SLU 61	2	-78	2719	-0.59	-694.6	-26.67
102	SLU 62	6	-78	2730	-0.6	-697.45	-26.81
102	SLU 63	2	-78	2719	-0.59	-694.6	-26.67
102	SLU 64	5	-69	2512	-0.48	-645.92	-23.72
102	SLU 65	-2	-68	2493	-0.46	-641.17	-23.49
102	SLU 66	5	-69	2512	-0.48	-645.92	-23.72
102	SLU 67	1	-69	2501	-0.47	-643.07	-23.58
102	SLU 68	-2	-68	2493	-0.46	-641.17	-23.49
102	SLU 69	5	-69	2512	-0.48	-645.92	-23.72
102	SLU 70	1	-69	2501	-0.47	-643.07	-23.58
102	SLU 71	5	-69	2512	-0.48	-645.92	-23.72
102	SLU 72	1	-69	2501	-0.47	-643.07	-23.58
102	SLU 73	-1	-79	2799	-0.57	-714.84	-27.02
102	SLU 74	6	-79	2818	-0.59	-719.59	-27.24
102	SLU 75	2	-79	2806	-0.58	-716.74	-27.11
102	SLU 76	-1	-79	2799	-0.57	-714.84	-27.02
102	SLU 77	6	-79	2818	-0.59	-719.59	-27.24
102	SLU 78	2	-79	2806	-0.58	-716.74	-27.11
102	SLU 79	6	-79	2818	-0.59	-719.59	-27.24
102	SLU 80	2	-79	2806	-0.58	-716.74	-27.11
102	SLU 81	7	-84	2949	-0.64	-751.17	-28.75
102	SLU 82	3	-83	2937	-0.63	-748.32	-28.62
102	SLU 83	7	-84	2949	-0.64	-751.17	-28.75
102	SLU 84	3	-83	2937	-0.63	-748.32	-28.62
102	SLE RA 1	4	-52	1885	-0.36	-485.05	-17.82
102	SLE RA 2	-1	-51	1872	-0.35	-481.89	-17.67
102	SLE RA 3	4	-52	1885	-0.36	-485.05	-17.82
102	SLE RA 4	1	-52	1877	-0.35	-483.15	-17.73
102	SLE RA 5	-1	-51	1872	-0.35	-481.89	-17.67
102	SLE RA 6	4	-52	1885	-0.36	-485.05	-17.82
102	SLE RA 7	1	-52	1877	-0.35	-483.15	-17.73
102	SLE RA 8	4	-52	1885	-0.36	-485.05	-17.82
102	SLE RA 9	1	-52	1877	-0.35	-483.15	-17.73
102	SLE RA 10	0	-58	2075	-0.42	-531	-20.02
102	SLE RA 11	5	-59	2088	-0.43	-534.17	-20.17
102	SLE RA 12	2	-58	2080	-0.43	-532.27	-20.08
102	SLE RA 13	0	-58	2075	-0.42	-531	-20.02
102	SLE RA 14	5	-59	2088	-0.43	-534.17	-20.17
102	SLE RA 15	2	-58	2080	-0.43	-532.27	-20.08
102	SLE RA 16	5	-59	2088	-0.43	-534.17	-20.17
102	SLE RA 17	2	-58	2080	-0.43	-532.27	-20.08
102	SLE RA 18	5	-62	2175	-0.47	-555.22	-21.17
102	SLE RA 19	2	-61	2168	-0.46	-553.32	-21.08
102	SLE RA 20	5	-62	2175	-0.47	-555.22	-21.17
102	SLE RA 21	2	-61	2168	-0.46	-553.32	-21.08
102	SLE FR 1	4	-52	1885	-0.36	-485.05	-17.82
102	SLE FR 2	3	-52	1882	-0.36	-484.42	-17.79
102	SLE FR 3	4	-52	1885	-0.36	-485.05	-17.82
102	SLE FR 4	3	-55	1969	-0.39	-505.47	-18.79
102	SLE FR 5	4	-55	1972	-0.39	-506.1	-18.82
102	SLE FR 6	4	-57	2030	-0.41	-520.14	-19.5
102	SLE QP 1	4	-52	1885	-0.36	-485.05	-17.82
102	SLE QP 2	4	-55	1972	-0.39	-506.1	-18.82
102	SLD 1	112	-24	2321	-0.83	-583.84	-8.08
102	SLD 2	132	-54	2318	-0.83	-582.72	-18.47
102	SLD 3	108	-104	2227	-0.49	-560.96	-35.97

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
102	SLD 4	128	-134	2224	-0.49	-559.84	-46.35
102	SLD 5	36	86	2220	-1.03	-564.52	30.37
102	SLD 6	57	55	2217	-1.03	-563.4	19.91
102	SLD 7	21	-180	1907	0.09	-488.25	-62.59
102	SLD 8	41	-210	1904	0.09	-487.12	-73.05
102	SLD 9	-33	100	2040	-0.87	-525.08	35.4
102	SLD 10	-13	70	2037	-0.87	-523.96	24.95
102	SLD 11	-49	-165	1727	0.25	-448.81	-57.56
102	SLD 12	-28	-195	1723	0.25	-447.68	-68.02
102	SLD 13	-119	24	1720	-0.29	-452.37	8.71
102	SLD 14	-99	-6	1716	-0.29	-451.25	-1.68
102	SLD 15	-124	-55	1626	0.05	-429.49	-19.18
102	SLD 16	-104	-85	1622	0.04	-428.37	-29.56
102	SLV 1	250	14	2766	-1.38	-682.8	5.31
102	SLV 2	296	-54	2758	-1.39	-680.27	-18.2
102	SLV 3	239	-167	2553	-0.61	-630.85	-58.07
102	SLV 4	285	-235	2545	-0.62	-628.32	-81.58
102	SLV 5	78	264	2537	-1.84	-638.81	92.85
102	SLV 6	124	196	2529	-1.85	-636.26	69.18
102	SLV 7	42	-339	1825	0.71	-465.62	-118.42
102	SLV 8	88	-407	1817	0.7	-463.07	-142.08
102	SLV 9	-80	297	2126	-1.48	-549.13	104.44
102	SLV 10	-34	229	2118	-1.49	-546.58	80.77
102	SLV 11	-116	-305	1415	1.07	-375.95	-106.83
102	SLV 12	-70	-373	1407	1.06	-373.4	-130.5
102	SLV 13	-277	125	1399	-0.16	-383.89	43.93
102	SLV 14	-231	57	1391	-0.17	-381.36	20.42
102	SLV 15	-287	-56	1185	0.61	-331.93	-19.45
102	SLV 16	-242	-123	1178	0.6	-329.4	-42.96
102	CRTFP Ux+	0	0	0	0	0	0
102	CRTFP Ux-	0	0	0	0	0	0
102	CRTFP Uy+	0	0	0	0	0	0
102	CRTFP Uy-	0	0	0	0	0	0
105	SLU 1	-6	-12	1796	-0.8	318.67	3.33
105	SLU 2	-13	-13	1813	-0.81	321.51	3.51
105	SLU 3	-6	-12	1796	-0.8	318.67	3.33
105	SLU 4	-10	-13	1806	-0.81	320.38	3.44
105	SLU 5	-13	-13	1813	-0.81	321.51	3.51
105	SLU 6	-6	-12	1796	-0.8	318.67	3.33
105	SLU 7	-10	-13	1806	-0.81	320.38	3.44
105	SLU 8	-6	-12	1796	-0.8	318.67	3.33
105	SLU 9	-10	-13	1806	-0.81	320.38	3.44
105	SLU 10	-15	-12	2088	-0.8	371.57	3.25
105	SLU 11	-8	-11	2071	-0.79	368.73	3.07
105	SLU 12	-13	-12	2081	-0.8	370.43	3.18
105	SLU 13	-15	-12	2088	-0.8	371.57	3.25
105	SLU 14	-8	-11	2071	-0.79	368.73	3.07
105	SLU 15	-13	-12	2081	-0.8	370.43	3.18
105	SLU 16	-8	-11	2071	-0.79	368.73	3.07
105	SLU 17	-13	-12	2081	-0.8	370.43	3.18
105	SLU 18	-9	-11	2189	-0.79	390.19	2.96
105	SLU 19	-14	-11	2199	-0.8	391.89	3.06
105	SLU 20	-9	-11	2189	-0.79	390.19	2.96
105	SLU 21	-14	-11	2199	-0.8	391.89	3.06
105	SLU 22	-7	-12	2000	-0.81	355.42	3.2
105	SLU 23	-14	-13	2017	-0.82	358.26	3.38
105	SLU 24	-7	-12	2000	-0.81	355.42	3.2
105	SLU 25	-12	-12	2010	-0.81	357.13	3.31
105	SLU 26	-14	-13	2017	-0.82	358.26	3.38
105	SLU 27	-7	-12	2000	-0.81	355.42	3.2
105	SLU 28	-12	-12	2010	-0.81	357.13	3.31
105	SLU 29	-7	-12	2000	-0.81	355.42	3.2
105	SLU 30	-12	-12	2010	-0.81	357.13	3.31
105	SLU 31	-17	-12	2292	-0.81	408.32	3.12
105	SLU 32	-10	-11	2275	-0.8	405.48	2.94
105	SLU 33	-14	-11	2285	-0.8	407.18	3.05
105	SLU 34	-17	-12	2292	-0.81	408.32	3.12
105	SLU 35	-10	-11	2275	-0.8	405.48	2.94
105	SLU 36	-14	-11	2285	-0.8	407.18	3.05
105	SLU 37	-10	-11	2275	-0.8	405.48	2.94
105	SLU 38	-14	-11	2285	-0.8	407.18	3.05
105	SLU 39	-11	-10	2393	-0.8	426.93	2.83
105	SLU 40	-15	-11	2403	-0.8	428.64	2.94
105	SLU 41	-11	-10	2393	-0.8	426.93	2.83
105	SLU 42	-15	-11	2403	-0.8	428.64	2.94
105	SLU 43	-8	-16	2265	-1.04	401.68	4.37
105	SLU 44	-15	-17	2282	-1.05	404.51	4.55
105	SLU 45	-8	-16	2265	-1.04	401.68	4.37
105	SLU 46	-12	-17	2275	-1.05	403.38	4.48
105	SLU 47	-15	-17	2282	-1.05	404.51	4.55
105	SLU 48	-8	-16	2265	-1.04	401.68	4.37
105	SLU 49	-12	-17	2275	-1.05	403.38	4.48
105	SLU 50	-8	-16	2265	-1.04	401.68	4.37
105	SLU 51	-12	-17	2275	-1.05	403.38	4.48
105	SLU 52	-17	-16	2557	-1.04	454.57	4.29
105	SLU 53	-10	-15	2540	-1.03	451.74	4.11

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
105	SLU 54	-14	-16	2550	-1.04	453.44	4.22
105	SLU 55	-17	-16	2557	-1.04	454.57	4.29
105	SLU 56	-10	-15	2540	-1.03	451.74	4.11
105	SLU 57	-14	-16	2550	-1.04	453.44	4.22
105	SLU 58	-10	-15	2540	-1.03	451.74	4.11
105	SLU 59	-14	-16	2550	-1.04	453.44	4.22
105	SLU 60	-11	-15	2658	-1.03	473.19	4
105	SLU 61	-15	-15	2668	-1.04	474.89	4.11
105	SLU 62	-11	-15	2658	-1.03	473.19	4
105	SLU 63	-15	-15	2668	-1.04	474.89	4.11
105	SLU 64	-9	-16	2469	-1.05	438.43	4.25
105	SLU 65	-16	-16	2486	-1.06	441.26	4.43
105	SLU 66	-9	-16	2469	-1.05	438.43	4.25
105	SLU 67	-13	-16	2479	-1.05	440.13	4.35
105	SLU 68	-16	-16	2486	-1.06	441.26	4.43
105	SLU 69	-9	-16	2469	-1.05	438.43	4.25
105	SLU 70	-13	-16	2479	-1.05	440.13	4.35
105	SLU 71	-9	-16	2469	-1.05	438.43	4.25
105	SLU 72	-13	-16	2479	-1.05	440.13	4.35
105	SLU 73	-18	-15	2761	-1.05	491.32	4.16
105	SLU 74	-11	-15	2744	-1.04	488.48	3.98
105	SLU 75	-15	-15	2754	-1.04	490.19	4.09
105	SLU 76	-18	-15	2761	-1.05	491.32	4.16
105	SLU 77	-11	-15	2744	-1.04	488.48	3.98
105	SLU 78	-15	-15	2754	-1.04	490.19	4.09
105	SLU 79	-11	-15	2744	-1.04	488.48	3.98
105	SLU 80	-15	-15	2754	-1.04	490.19	4.09
105	SLU 81	-12	-14	2862	-1.04	509.94	3.87
105	SLU 82	-16	-15	2872	-1.04	511.64	3.98
105	SLU 83	-12	-14	2862	-1.04	509.94	3.87
105	SLU 84	-16	-15	2872	-1.04	511.64	3.98
105	SLE RA 1	-7	-12	1855	-0.8	329.17	3.29
105	SLE RA 2	-11	-13	1866	-0.81	331.06	3.41
105	SLE RA 3	-7	-12	1855	-0.8	329.17	3.29
105	SLE RA 4	-9	-13	1861	-0.81	330.31	3.37
105	SLE RA 5	-11	-13	1866	-0.81	331.06	3.41
105	SLE RA 6	-7	-12	1855	-0.8	329.17	3.29
105	SLE RA 7	-9	-13	1861	-0.81	330.31	3.37
105	SLE RA 8	-7	-12	1855	-0.8	329.17	3.29
105	SLE RA 9	-9	-13	1861	-0.81	330.31	3.37
105	SLE RA 10	-13	-12	2049	-0.8	364.44	3.24
105	SLE RA 11	-8	-12	2038	-0.8	362.55	3.12
105	SLE RA 12	-11	-12	2045	-0.8	363.68	3.19
105	SLE RA 13	-13	-12	2049	-0.8	364.44	3.24
105	SLE RA 14	-8	-12	2038	-0.8	362.55	3.12
105	SLE RA 15	-11	-12	2045	-0.8	363.68	3.19
105	SLE RA 16	-8	-12	2038	-0.8	362.55	3.12
105	SLE RA 17	-11	-12	2045	-0.8	363.68	3.19
105	SLE RA 18	-9	-11	2117	-0.8	376.85	3.04
105	SLE RA 19	-11	-12	2123	-0.8	377.98	3.12
105	SLE RA 20	-9	-11	2117	-0.8	376.85	3.04
105	SLE RA 21	-11	-12	2123	-0.8	377.98	3.12
105	SLE FR 1	-7	-12	1855	-0.8	329.17	3.29
105	SLE FR 2	-7	-12	1857	-0.81	329.55	3.32
105	SLE FR 3	-7	-12	1855	-0.8	329.17	3.29
105	SLE FR 4	-8	-12	1935	-0.8	343.85	3.24
105	SLE FR 5	-7	-12	1933	-0.8	343.48	3.22
105	SLE FR 6	-8	-12	1986	-0.8	353.01	3.17
105	SLE QP 1	-7	-12	1855	-0.8	329.17	3.29
105	SLE QP 2	-7	-12	1933	-0.8	343.48	3.22
105	SLD 1	100	44	1711	-0.91	306.38	-10.59
105	SLD 2	119	76	1718	-0.96	307.09	-18.46
105	SLD 3	95	-48	1615	-0.23	290.66	12.26
105	SLD 4	114	-16	1622	-0.28	291.37	4.4
105	SLD 5	27	132	2009	-1.85	355.94	-32.81
105	SLD 6	46	165	2016	-1.9	356.66	-40.73
105	SLD 7	8	-173	1690	0.42	303.53	43.38
105	SLD 8	27	-141	1697	0.37	304.25	35.46
105	SLD 9	-42	117	2169	-1.97	382.7	-29.02
105	SLD 10	-23	149	2176	-2.02	383.42	-36.94
105	SLD 11	-60	-188	1850	0.29	330.3	47.17
105	SLD 12	-41	-156	1858	0.25	331.01	39.25
105	SLD 13	-128	-8	2244	-1.32	395.59	2.04
105	SLD 14	-109	24	2251	-1.37	396.29	-5.83
105	SLD 15	-133	-100	2149	-0.64	379.86	24.9
105	SLD 16	-115	-68	2156	-0.69	380.57	17.03
105	SLV 1	237	115	1427	-1.05	259.17	-28.3
105	SLV 2	280	188	1443	-1.16	260.78	-46.11
105	SLV 3	225	-93	1210	0.49	223.44	23.61
105	SLV 4	267	-20	1226	0.39	225.04	5.8
105	SLV 5	70	316	2105	-3.19	371.81	-78.68
105	SLV 6	113	389	2121	-3.29	373.43	-96.61
105	SLV 7	28	-377	1381	1.97	252.7	94.36
105	SLV 8	71	-304	1397	1.86	254.32	76.43
105	SLV 9	-85	281	2469	-3.47	432.63	-70
105	SLV 10	-42	353	2485	-3.57	434.25	-87.92

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
105	SLV 11	-127	-413	1745	1.69	313.52	103.05
105	SLV 12	-85	-340	1761	1.58	315.14	85.12
105	SLV 13	-281	-3	2640	-1.99	461.91	0.64
105	SLV 14	-239	69	2657	-2.1	463.52	-17.17
105	SLV 15	-294	-211	2423	-0.44	426.18	52.55
105	SLV 16	-252	-139	2439	-0.55	427.78	34.74
105	CRTFP Ux+	0	0	0	0	0	0
105	CRTFP Ux-	0	0	0	0	0	0
105	CRTFP Uy+	0	0	0	0	0	0
105	CRTFP Uy-	0	0	0	0	0	0
106	SLU 1	-9	-49	1821	0.23	-484.81	-16.95
106	SLU 2	-15	-49	1802	0.24	-480.17	-16.73
106	SLU 3	-9	-49	1821	0.23	-484.81	-16.95
106	SLU 4	-12	-49	1809	0.24	-482.02	-16.82
106	SLU 5	-15	-49	1802	0.24	-480.17	-16.73
106	SLU 6	-9	-49	1821	0.23	-484.81	-16.95
106	SLU 7	-12	-49	1809	0.24	-482.02	-16.82
106	SLU 8	-9	-49	1821	0.23	-484.81	-16.95
106	SLU 9	-12	-49	1809	0.24	-482.02	-16.82
106	SLU 10	-15	-59	2106	0.26	-556.45	-20.14
106	SLU 11	-9	-59	2124	0.25	-561.1	-20.36
106	SLU 12	-13	-59	2113	0.25	-558.31	-20.22
106	SLU 13	-15	-59	2106	0.26	-556.45	-20.14
106	SLU 14	-9	-59	2124	0.25	-561.1	-20.36
106	SLU 15	-13	-59	2113	0.25	-558.31	-20.22
106	SLU 16	-9	-59	2124	0.25	-561.1	-20.36
106	SLU 17	-13	-59	2113	0.25	-558.31	-20.22
106	SLU 18	-9	-64	2254	0.25	-593.79	-21.82
106	SLU 19	-13	-63	2243	0.26	-591	-21.68
106	SLU 20	-9	-64	2254	0.25	-593.79	-21.82
106	SLU 21	-13	-63	2243	0.26	-591	-21.68
106	SLU 22	-9	-55	2039	0.28	-540.83	-18.83
106	SLU 23	-15	-54	2021	0.29	-536.19	-18.61
106	SLU 24	-9	-55	2039	0.28	-540.83	-18.83
106	SLU 25	-13	-55	2028	0.29	-538.04	-18.7
106	SLU 26	-15	-54	2021	0.29	-536.19	-18.61
106	SLU 27	-9	-55	2039	0.28	-540.83	-18.83
106	SLU 28	-13	-55	2028	0.29	-538.04	-18.7
106	SLU 29	-9	-55	2039	0.28	-540.83	-18.83
106	SLU 30	-13	-55	2028	0.29	-538.04	-18.7
106	SLU 31	-16	-64	2324	0.31	-612.47	-22.02
106	SLU 32	-9	-65	2343	0.29	-617.12	-22.24
106	SLU 33	-13	-64	2332	0.3	-614.33	-22.11
106	SLU 34	-16	-64	2324	0.31	-612.47	-22.02
106	SLU 35	-9	-65	2343	0.29	-617.12	-22.24
106	SLU 36	-13	-64	2332	0.3	-614.33	-22.11
106	SLU 37	-9	-65	2343	0.29	-617.12	-22.24
106	SLU 38	-13	-64	2332	0.3	-614.33	-22.11
106	SLU 39	-9	-69	2473	0.3	-649.81	-23.7
106	SLU 40	-13	-69	2462	0.31	-647.03	-23.57
106	SLU 41	-9	-69	2473	0.3	-649.81	-23.7
106	SLU 42	-13	-69	2462	0.31	-647.03	-23.57
106	SLU 43	-11	-62	2292	0.28	-611.05	-21.39
106	SLU 44	-18	-62	2273	0.3	-606.4	-21.17
106	SLU 45	-11	-62	2292	0.28	-611.05	-21.39
106	SLU 46	-15	-62	2280	0.29	-608.26	-21.26
106	SLU 47	-18	-62	2273	0.3	-606.4	-21.17
106	SLU 48	-11	-62	2292	0.28	-611.05	-21.39
106	SLU 49	-15	-62	2280	0.29	-608.26	-21.26
106	SLU 50	-11	-62	2292	0.28	-611.05	-21.39
106	SLU 51	-15	-62	2280	0.29	-608.26	-21.26
106	SLU 52	-18	-72	2577	0.31	-682.69	-24.58
106	SLU 53	-11	-72	2595	0.3	-687.33	-24.8
106	SLU 54	-15	-72	2584	0.31	-684.55	-24.66
106	SLU 55	-18	-72	2577	0.31	-682.69	-24.58
106	SLU 56	-11	-72	2595	0.3	-687.33	-24.8
106	SLU 57	-15	-72	2584	0.31	-684.55	-24.66
106	SLU 58	-11	-72	2595	0.3	-687.33	-24.8
106	SLU 59	-15	-72	2584	0.31	-684.55	-24.66
106	SLU 60	-11	-76	2726	0.3	-720.03	-26.26
106	SLU 61	-15	-76	2714	0.31	-717.24	-26.12
106	SLU 62	-11	-76	2726	0.3	-720.03	-26.26
106	SLU 63	-15	-76	2714	0.31	-717.24	-26.12
106	SLU 64	-11	-68	2510	0.33	-667.07	-23.27
106	SLU 65	-18	-67	2492	0.35	-662.42	-23.05
106	SLU 66	-11	-68	2510	0.33	-667.07	-23.27
106	SLU 67	-15	-67	2499	0.34	-664.28	-23.14
106	SLU 68	-18	-67	2492	0.35	-662.42	-23.05
106	SLU 69	-11	-68	2510	0.33	-667.07	-23.27
106	SLU 70	-15	-67	2499	0.34	-664.28	-23.14
106	SLU 71	-11	-68	2510	0.33	-667.07	-23.27
106	SLU 72	-15	-67	2499	0.34	-664.28	-23.14
106	SLU 73	-18	-77	2796	0.36	-738.71	-26.46
106	SLU 74	-11	-78	2814	0.35	-743.35	-26.68
106	SLU 75	-15	-77	2803	0.36	-740.57	-26.55
106	SLU 76	-18	-77	2796	0.36	-738.71	-26.46

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
106	SLU 77	-11	-78	2814	0.35	-743.35	-26.68
106	SLU 78	-15	-77	2803	0.36	-740.57	-26.55
106	SLU 79	-11	-78	2814	0.35	-743.35	-26.68
106	SLU 80	-15	-77	2803	0.36	-740.57	-26.55
106	SLU 81	-12	-82	2944	0.35	-776.05	-28.14
106	SLU 82	-16	-82	2933	0.36	-773.26	-28.01
106	SLU 83	-12	-82	2944	0.35	-776.05	-28.14
106	SLU 84	-16	-82	2933	0.36	-773.26	-28.01
106	SLE RA 1	-9	-51	1883	0.24	-500.82	-17.49
106	SLE RA 2	-13	-51	1871	0.25	-497.72	-17.34
106	SLE RA 3	-9	-51	1883	0.24	-500.82	-17.49
106	SLE RA 4	-11	-51	1876	0.25	-498.96	-17.4
106	SLE RA 5	-13	-51	1871	0.25	-497.72	-17.34
106	SLE RA 6	-9	-51	1883	0.24	-500.82	-17.49
106	SLE RA 7	-11	-51	1876	0.25	-498.96	-17.4
106	SLE RA 8	-9	-51	1883	0.24	-500.82	-17.49
106	SLE RA 9	-11	-51	1876	0.25	-498.96	-17.4
106	SLE RA 10	-13	-57	2073	0.26	-548.58	-19.61
106	SLE RA 11	-9	-58	2086	0.25	-551.67	-19.76
106	SLE RA 12	-11	-57	2078	0.26	-549.82	-19.67
106	SLE RA 13	-13	-57	2073	0.26	-548.58	-19.61
106	SLE RA 14	-9	-58	2086	0.25	-551.67	-19.76
106	SLE RA 15	-11	-57	2078	0.26	-549.82	-19.67
106	SLE RA 16	-9	-58	2086	0.25	-551.67	-19.76
106	SLE RA 17	-11	-57	2078	0.26	-549.82	-19.67
106	SLE RA 18	-9	-60	2172	0.26	-573.47	-20.73
106	SLE RA 19	-11	-60	2165	0.26	-571.61	-20.64
106	SLE RA 20	-9	-60	2172	0.26	-573.47	-20.73
106	SLE RA 21	-11	-60	2165	0.26	-571.61	-20.64
106	SLE FR 1	-9	-51	1883	0.24	-500.82	-17.49
106	SLE FR 2	-9	-51	1881	0.25	-500.2	-17.46
106	SLE FR 3	-9	-51	1883	0.24	-500.82	-17.49
106	SLE FR 4	-10	-54	1967	0.25	-521.99	-18.43
106	SLE FR 5	-9	-54	1970	0.25	-522.61	-18.46
106	SLE FR 6	-9	-56	2028	0.25	-537.14	-19.11
106	SLE QP 1	-9	-51	1883	0.24	-500.82	-17.49
106	SLE QP 2	-9	-54	1970	0.25	-522.61	-18.46
106	SLD 1	92	-23	2307	-0.06	-599.44	-7.73
106	SLD 2	109	-53	2303	-0.06	-598.23	-18.11
106	SLD 3	96	-103	2224	0.24	-578.89	-35.58
106	SLD 4	112	-133	2220	0.24	-577.68	-45.97
106	SLD 5	10	86	2198	-0.3	-577.26	30.68
106	SLD 6	27	56	2195	-0.3	-576.05	20.22
106	SLD 7	22	-178	1921	0.7	-508.75	-62.18
106	SLD 8	39	-209	1917	0.7	-507.54	-72.64
106	SLD 9	-57	101	2022	-0.2	-537.69	35.71
106	SLD 10	-40	71	2019	-0.2	-536.48	25.25
106	SLD 11	-44	-164	1745	0.79	-469.18	-57.15
106	SLD 12	-27	-194	1741	0.79	-467.97	-67.6
106	SLD 13	-130	25	1720	0.26	-467.55	9.04
106	SLD 14	-113	-5	1716	0.26	-466.34	-1.34
106	SLD 15	-126	-54	1636	0.56	-446.99	-18.82
106	SLD 16	-109	-84	1633	0.56	-445.79	-29.2
106	SLV 1	220	15	2736	-0.45	-697.24	5.66
106	SLV 2	258	-53	2727	-0.46	-694.51	-17.85
106	SLV 3	229	-166	2547	0.22	-650.58	-57.65
106	SLV 4	267	-234	2539	0.22	-647.85	-81.16
106	SLV 5	33	265	2489	-0.99	-646.73	93.1
106	SLV 6	71	196	2481	-0.99	-643.99	69.44
106	SLV 7	62	-337	1859	1.27	-491.2	-117.94
106	SLV 8	101	-406	1851	1.27	-488.45	-141.6
106	SLV 9	-118	298	2089	-0.77	-556.77	104.67
106	SLV 10	-80	230	2080	-0.78	-554.03	81.01
106	SLV 11	-89	-304	1459	1.49	-401.24	-106.36
106	SLV 12	-50	-372	1451	1.49	-398.5	-130.02
106	SLV 13	-284	126	1401	0.28	-397.38	44.23
106	SLV 14	-246	58	1393	0.27	-394.65	20.73
106	SLV 15	-275	-55	1212	0.95	-350.72	-19.08
106	SLV 16	-237	-122	1204	0.95	-347.99	-42.58
106	CRTFP Ux+	0	0	0	0	0	0
106	CRTFP Ux-	0	0	0	0	0	0
106	CRTFP Uy+	0	0	0	0	0	0
106	CRTFP Uy-	0	0	0	0	0	0
109	SLU 1	-13	-13	1789	0.26	319.7	3.38
109	SLU 2	-19	-14	1805	0.26	322.68	3.56
109	SLU 3	-13	-13	1789	0.26	319.7	3.38
109	SLU 4	-16	-13	1799	0.26	321.49	3.49
109	SLU 5	-19	-14	1805	0.26	322.68	3.56
109	SLU 6	-13	-13	1789	0.26	319.7	3.38
109	SLU 7	-16	-13	1799	0.26	321.49	3.49
109	SLU 8	-13	-13	1789	0.26	319.7	3.38
109	SLU 9	-16	-13	1799	0.26	321.49	3.49
109	SLU 10	-21	-13	2083	0.46	374.6	3.3
109	SLU 11	-15	-12	2067	0.46	371.62	3.12
109	SLU 12	-18	-12	2077	0.46	373.41	3.23
109	SLU 13	-21	-13	2083	0.46	374.6	3.3

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
109	SLU 14	-15	-12	2067	0.46	371.62	3.12
109	SLU 15	-18	-12	2077	0.46	373.41	3.23
109	SLU 16	-15	-12	2067	0.46	371.62	3.12
109	SLU 17	-18	-12	2077	0.46	373.41	3.23
109	SLU 18	-15	-11	2186	0.54	393.87	3.01
109	SLU 19	-19	-12	2196	0.54	395.66	3.11
109	SLU 20	-15	-11	2186	0.54	393.87	3.01
109	SLU 21	-19	-12	2196	0.54	395.66	3.11
109	SLU 22	-14	-12	1995	0.39	357.74	3.26
109	SLU 23	-20	-13	2011	0.4	360.73	3.43
109	SLU 24	-14	-12	1995	0.39	357.74	3.26
109	SLU 25	-18	-13	2005	0.4	359.53	3.36
109	SLU 26	-20	-13	2011	0.4	360.73	3.43
109	SLU 27	-14	-12	1995	0.39	357.74	3.26
109	SLU 28	-18	-13	2005	0.4	359.53	3.36
109	SLU 29	-14	-12	1995	0.39	357.74	3.26
109	SLU 30	-18	-13	2005	0.4	359.53	3.36
109	SLU 31	-22	-12	2289	0.59	412.64	3.17
109	SLU 32	-16	-11	2273	0.59	409.66	2.99
109	SLU 33	-20	-12	2283	0.59	411.45	3.1
109	SLU 34	-22	-12	2289	0.59	412.64	3.17
109	SLU 35	-16	-11	2273	0.59	409.66	2.99
109	SLU 36	-20	-12	2283	0.59	411.45	3.1
109	SLU 37	-16	-11	2273	0.59	409.66	2.99
109	SLU 38	-20	-12	2283	0.59	411.45	3.1
109	SLU 39	-17	-11	2392	0.67	431.91	2.88
109	SLU 40	-21	-11	2402	0.67	433.7	2.99
109	SLU 41	-17	-11	2392	0.67	431.91	2.88
109	SLU 42	-21	-11	2402	0.67	433.7	2.99
109	SLU 43	-16	-17	2255	0.29	402.57	4.44
109	SLU 44	-22	-18	2271	0.29	405.55	4.62
109	SLU 45	-16	-17	2255	0.29	402.57	4.44
109	SLU 46	-20	-17	2265	0.29	404.36	4.54
109	SLU 47	-22	-18	2271	0.29	405.55	4.62
109	SLU 48	-16	-17	2255	0.29	402.57	4.44
109	SLU 49	-20	-17	2265	0.29	404.36	4.54
109	SLU 50	-16	-17	2255	0.29	402.57	4.44
109	SLU 51	-20	-17	2265	0.29	404.36	4.54
109	SLU 52	-24	-17	2550	0.49	457.47	4.35
109	SLU 53	-18	-16	2533	0.49	454.49	4.18
109	SLU 54	-22	-16	2543	0.49	456.28	4.28
109	SLU 55	-24	-17	2550	0.49	457.47	4.35
109	SLU 56	-18	-16	2533	0.49	454.49	4.18
109	SLU 57	-22	-16	2543	0.49	456.28	4.28
109	SLU 58	-18	-16	2533	0.49	454.49	4.18
109	SLU 59	-22	-16	2543	0.49	456.28	4.28
109	SLU 60	-19	-15	2653	0.57	476.74	4.06
109	SLU 61	-23	-16	2662	0.57	478.53	4.17
109	SLU 62	-19	-15	2653	0.57	476.74	4.06
109	SLU 63	-23	-16	2662	0.57	478.53	4.17
109	SLU 64	-17	-16	2461	0.43	440.61	4.31
109	SLU 65	-24	-17	2477	0.43	443.59	4.49
109	SLU 66	-17	-16	2461	0.43	440.61	4.31
109	SLU 67	-21	-17	2471	0.43	442.4	4.42
109	SLU 68	-24	-17	2477	0.43	443.59	4.49
109	SLU 69	-17	-16	2461	0.43	440.61	4.31
109	SLU 70	-21	-17	2471	0.43	442.4	4.42
109	SLU 71	-17	-16	2461	0.43	440.61	4.31
109	SLU 72	-21	-17	2471	0.43	442.4	4.42
109	SLU 73	-26	-16	2755	0.62	495.51	4.23
109	SLU 74	-19	-15	2739	0.62	492.53	4.05
109	SLU 75	-23	-16	2749	0.62	494.32	4.16
109	SLU 76	-26	-16	2755	0.62	495.51	4.23
109	SLU 77	-19	-15	2739	0.62	492.53	4.05
109	SLU 78	-23	-16	2749	0.62	494.32	4.16
109	SLU 79	-19	-15	2739	0.62	492.53	4.05
109	SLU 80	-23	-16	2749	0.62	494.32	4.16
109	SLU 81	-20	-15	2858	0.71	514.78	3.94
109	SLU 82	-24	-15	2868	0.71	516.57	4.05
109	SLU 83	-20	-15	2858	0.71	514.78	3.94
109	SLU 84	-24	-15	2868	0.71	516.57	4.05
109	SLE RA 1	-13	-13	1848	0.3	330.57	3.35
109	SLE RA 2	-17	-13	1859	0.3	332.56	3.46
109	SLE RA 3	-13	-13	1848	0.3	330.57	3.35
109	SLE RA 4	-16	-13	1854	0.3	331.76	3.42
109	SLE RA 5	-17	-13	1859	0.3	332.56	3.46
109	SLE RA 6	-13	-13	1848	0.3	330.57	3.35
109	SLE RA 7	-16	-13	1854	0.3	331.76	3.42
109	SLE RA 8	-13	-13	1848	0.3	330.57	3.35
109	SLE RA 9	-16	-13	1854	0.3	331.76	3.42
109	SLE RA 10	-19	-12	2044	0.43	367.17	3.29
109	SLE RA 11	-14	-12	2033	0.43	365.18	3.17
109	SLE RA 12	-17	-12	2040	0.43	366.37	3.24
109	SLE RA 13	-19	-12	2044	0.43	367.17	3.29
109	SLE RA 14	-14	-12	2033	0.43	365.18	3.17
109	SLE RA 15	-17	-12	2040	0.43	366.37	3.24

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
109	SLE RA 16	-14	-12	2033	0.43	365.18	3.17
109	SLE RA 17	-17	-12	2040	0.43	366.37	3.24
109	SLE RA 18	-15	-12	2113	0.48	380.02	3.1
109	SLE RA 19	-17	-12	2119	0.48	381.21	3.17
109	SLE RA 20	-15	-12	2113	0.48	380.02	3.1
109	SLE RA 21	-17	-12	2119	0.48	381.21	3.17
109	SLE FR 1	-13	-13	1848	0.3	330.57	3.35
109	SLE FR 2	-14	-13	1850	0.3	330.97	3.37
109	SLE FR 3	-13	-13	1848	0.3	330.57	3.35
109	SLE FR 4	-14	-12	1929	0.35	345.8	3.29
109	SLE FR 5	-14	-12	1927	0.35	345.4	3.27
109	SLE FR 6	-14	-12	1980	0.39	355.29	3.22
109	SLE QP 1	-13	-13	1848	0.3	330.57	3.35
109	SLE QP 2	-14	-12	1927	0.35	345.4	3.27
109	SLD 1	89	43	1699	0.16	304.56	-10.52
109	SLD 2	104	75	1705	0.12	304.95	-18.39
109	SLD 3	84	-48	1622	0.76	292.57	12.32
109	SLD 4	99	-16	1627	0.72	292.96	4.45
109	SLD 5	19	132	1974	-0.61	351.21	-32.72
109	SLD 6	34	164	1980	-0.65	351.6	-40.65
109	SLD 7	4	-173	1716	1.41	311.22	43.4
109	SLD 8	19	-141	1722	1.37	311.61	35.48
109	SLD 9	-46	116	2132	-0.66	379.19	-28.94
109	SLD 10	-31	149	2138	-0.7	379.59	-36.86
109	SLD 11	-61	-189	1875	1.36	339.21	47.19
109	SLD 12	-46	-157	1881	1.32	339.6	39.26
109	SLD 13	-126	-8	2227	-0.01	397.85	2.09
109	SLD 14	-111	24	2233	-0.05	398.24	-5.77
109	SLD 15	-131	-100	2150	0.59	385.85	24.93
109	SLD 16	-116	-68	2156	0.55	386.25	17.06
109	SLV 1	219	115	1408	-0.09	252.59	-28.21
109	SLV 2	253	187	1421	-0.18	253.47	-46.02
109	SLV 3	209	-93	1233	1.28	225.32	23.66
109	SLV 4	243	-21	1246	1.19	226.2	5.85
109	SLV 5	60	316	2033	-1.83	358.61	-78.55
109	SLV 6	94	389	2046	-1.92	359.5	-96.48
109	SLV 7	26	-378	1448	2.75	267.7	94.35
109	SLV 8	60	-305	1461	2.66	268.59	76.42
109	SLV 9	-87	280	2393	-1.95	422.21	-69.88
109	SLV 10	-53	353	2407	-2.04	423.11	-87.81
109	SLV 11	-121	-413	1808	2.63	331.31	103.02
109	SLV 12	-87	-340	1822	2.54	332.2	85.09
109	SLV 13	-270	-4	2609	-0.48	464.61	0.69
109	SLV 14	-236	69	2622	-0.57	465.49	-17.12
109	SLV 15	-280	-212	2433	0.89	437.33	52.56
109	SLV 16	-246	-139	2447	0.8	438.22	34.75
109	CRTFP Ux+	0	0	0	0	0	0
109	CRTFP Ux-	0	0	0	0	0	0
109	CRTFP Uy+	0	0	0	0	0	0
109	CRTFP Uy-	0	0	0	0	0	0
110	SLU 1	-20	-48	1835	0.6	-514.51	-16.55
110	SLU 2	-27	-48	1817	0.61	-509.9	-16.33
110	SLU 3	-20	-48	1835	0.6	-514.51	-16.55
110	SLU 4	-24	-48	1824	0.61	-511.74	-16.42
110	SLU 5	-27	-48	1817	0.61	-509.9	-16.33
110	SLU 6	-20	-48	1835	0.6	-514.51	-16.55
110	SLU 7	-24	-48	1824	0.61	-511.74	-16.42
110	SLU 8	-20	-48	1835	0.6	-514.51	-16.55
110	SLU 9	-24	-48	1824	0.61	-511.74	-16.42
110	SLU 10	-29	-57	2123	0.72	-591.93	-19.59
110	SLU 11	-22	-58	2141	0.71	-596.55	-19.81
110	SLU 12	-26	-57	2130	0.71	-593.78	-19.68
110	SLU 13	-29	-57	2123	0.72	-591.93	-19.59
110	SLU 14	-22	-58	2141	0.71	-596.55	-19.81
110	SLU 15	-26	-57	2130	0.71	-593.78	-19.68
110	SLU 16	-22	-58	2141	0.71	-596.55	-19.81
110	SLU 17	-26	-57	2130	0.71	-593.78	-19.68
110	SLU 18	-23	-62	2272	0.75	-631.71	-21.2
110	SLU 19	-27	-61	2262	0.76	-628.94	-21.07
110	SLU 20	-23	-62	2272	0.75	-631.71	-21.2
110	SLU 21	-27	-61	2262	0.76	-628.94	-21.07
110	SLU 22	-22	-54	2057	0.71	-574.93	-18.35
110	SLU 23	-28	-53	2039	0.72	-570.32	-18.13
110	SLU 24	-22	-54	2057	0.71	-574.93	-18.35
110	SLU 25	-25	-53	2046	0.71	-572.16	-18.22
110	SLU 26	-28	-53	2039	0.72	-570.32	-18.13
110	SLU 27	-22	-54	2057	0.71	-574.93	-18.35
110	SLU 28	-25	-53	2046	0.71	-572.16	-18.22
110	SLU 29	-22	-54	2057	0.71	-574.93	-18.35
110	SLU 30	-25	-53	2046	0.71	-572.16	-18.22
110	SLU 31	-30	-62	2345	0.83	-652.36	-21.39
110	SLU 32	-24	-63	2363	0.81	-656.97	-21.61
110	SLU 33	-27	-63	2352	0.82	-654.2	-21.48
110	SLU 34	-30	-62	2345	0.83	-652.36	-21.39
110	SLU 35	-24	-63	2363	0.81	-656.97	-21.61
110	SLU 36	-27	-63	2352	0.82	-654.2	-21.48

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
110	SLU 37	-24	-63	2363	0.81	-656.97	-21.61
110	SLU 38	-27	-63	2352	0.82	-654.2	-21.48
110	SLU 39	-25	-67	2494	0.86	-692.13	-23
110	SLU 40	-28	-67	2483	0.87	-689.36	-22.87
110	SLU 41	-25	-67	2494	0.86	-692.13	-23
110	SLU 42	-28	-67	2483	0.87	-689.36	-22.87
110	SLU 43	-26	-61	2310	0.74	-648.15	-20.9
110	SLU 44	-32	-60	2292	0.76	-643.53	-20.68
110	SLU 45	-26	-61	2310	0.74	-648.15	-20.9
110	SLU 46	-30	-61	2299	0.75	-645.38	-20.77
110	SLU 47	-32	-60	2292	0.76	-643.53	-20.68
110	SLU 48	-26	-61	2310	0.74	-648.15	-20.9
110	SLU 49	-30	-61	2299	0.75	-645.38	-20.77
110	SLU 50	-26	-61	2310	0.74	-648.15	-20.9
110	SLU 51	-30	-61	2299	0.75	-645.38	-20.77
110	SLU 52	-34	-70	2598	0.86	-725.57	-23.94
110	SLU 53	-28	-70	2616	0.85	-730.19	-24.15
110	SLU 54	-32	-70	2605	0.86	-727.42	-24.02
110	SLU 55	-34	-70	2598	0.86	-725.57	-23.94
110	SLU 56	-28	-70	2616	0.85	-730.19	-24.15
110	SLU 57	-32	-70	2605	0.86	-727.42	-24.02
110	SLU 58	-28	-70	2616	0.85	-730.19	-24.15
110	SLU 59	-32	-70	2605	0.86	-727.42	-24.02
110	SLU 60	-29	-74	2747	0.9	-765.35	-25.55
110	SLU 61	-33	-74	2736	0.9	-762.58	-25.42
110	SLU 62	-29	-74	2747	0.9	-765.35	-25.55
110	SLU 63	-33	-74	2736	0.9	-762.58	-25.42
110	SLU 64	-27	-66	2532	0.85	-708.57	-22.7
110	SLU 65	-34	-66	2513	0.86	-703.95	-22.48
110	SLU 66	-27	-66	2532	0.85	-708.57	-22.7
110	SLU 67	-31	-66	2521	0.86	-705.8	-22.57
110	SLU 68	-34	-66	2513	0.86	-703.95	-22.48
110	SLU 69	-27	-66	2532	0.85	-708.57	-22.7
110	SLU 70	-31	-66	2521	0.86	-705.8	-22.57
110	SLU 71	-27	-66	2532	0.85	-708.57	-22.7
110	SLU 72	-31	-66	2521	0.86	-705.8	-22.57
110	SLU 73	-36	-75	2819	0.97	-785.99	-25.74
110	SLU 74	-29	-76	2838	0.96	-790.61	-25.96
110	SLU 75	-33	-75	2827	0.96	-787.84	-25.83
110	SLU 76	-36	-75	2819	0.97	-785.99	-25.74
110	SLU 77	-29	-76	2838	0.96	-790.61	-25.96
110	SLU 78	-33	-75	2827	0.96	-787.84	-25.83
110	SLU 79	-29	-76	2838	0.96	-790.61	-25.96
110	SLU 80	-33	-75	2827	0.96	-787.84	-25.83
110	SLU 81	-30	-80	2969	1	-825.77	-27.35
110	SLU 82	-34	-79	2958	1.01	-823	-27.22
110	SLU 83	-30	-80	2969	1	-825.77	-27.35
110	SLU 84	-34	-79	2958	1.01	-823	-27.22
110	SLE RA 1	-21	-50	1899	0.63	-531.78	-17.07
110	SLE RA 2	-25	-49	1887	0.64	-528.7	-16.92
110	SLE RA 3	-21	-50	1899	0.63	-531.78	-17.07
110	SLE RA 4	-23	-50	1891	0.63	-529.93	-16.98
110	SLE RA 5	-25	-49	1887	0.64	-528.7	-16.92
110	SLE RA 6	-21	-50	1899	0.63	-531.78	-17.07
110	SLE RA 7	-23	-50	1891	0.63	-529.93	-16.98
110	SLE RA 8	-21	-50	1899	0.63	-531.78	-17.07
110	SLE RA 9	-23	-50	1891	0.63	-529.93	-16.98
110	SLE RA 10	-26	-56	2091	0.71	-583.39	-19.09
110	SLE RA 11	-22	-56	2103	0.7	-586.47	-19.24
110	SLE RA 12	-25	-56	2095	0.71	-584.62	-19.15
110	SLE RA 13	-26	-56	2091	0.71	-583.39	-19.09
110	SLE RA 14	-22	-56	2103	0.7	-586.47	-19.24
110	SLE RA 15	-25	-56	2095	0.71	-584.62	-19.15
110	SLE RA 16	-22	-56	2103	0.7	-586.47	-19.24
110	SLE RA 17	-25	-56	2095	0.71	-584.62	-19.15
110	SLE RA 18	-23	-59	2190	0.73	-609.91	-20.17
110	SLE RA 19	-25	-59	2183	0.74	-608.06	-20.08
110	SLE RA 20	-23	-59	2190	0.73	-609.91	-20.17
110	SLE RA 21	-25	-59	2183	0.74	-608.06	-20.08
110	SLE FR 1	-21	-50	1899	0.63	-531.78	-17.07
110	SLE FR 2	-22	-50	1896	0.63	-531.16	-17.04
110	SLE FR 3	-21	-50	1899	0.63	-531.78	-17.07
110	SLE FR 4	-22	-52	1984	0.66	-554.6	-17.97
110	SLE FR 5	-21	-52	1986	0.66	-555.22	-18
110	SLE FR 6	-22	-54	2044	0.68	-570.84	-18.62
110	SLE QP 1	-21	-50	1899	0.63	-531.78	-17.07
110	SLE QP 2	-21	-52	1986	0.66	-555.22	-18
110	SLD 1	76	-22	2314	0.43	-633.93	-7.27
110	SLD 2	90	-52	2310	0.43	-632.65	-17.65
110	SLD 3	80	-101	2240	0.7	-614.94	-35.08
110	SLD 4	94	-131	2237	0.7	-613.67	-45.45
110	SLD 5	-3	88	2197	0.17	-608.08	31.06
110	SLD 6	11	58	2194	0.17	-606.79	20.61
110	SLD 7	10	-177	1952	1.09	-544.79	-61.62
110	SLD 8	24	-207	1948	1.09	-543.5	-72.07
110	SLD 9	-66	102	2024	0.23	-566.93	36.08

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
110	SLD 10	-53	72	2020	0.23	-565.64	25.63
110	SLD 11	-54	-162	1779	1.15	-503.64	-56.6
110	SLD 12	-40	-193	1775	1.15	-502.35	-67.05
110	SLD 13	-137	26	1735	0.62	-496.77	9.46
110	SLD 14	-123	-4	1732	0.62	-495.49	-0.91
110	SLD 15	-133	-53	1662	0.9	-477.78	-18.34
110	SLD 16	-119	-83	1658	0.9	-476.5	-28.72
110	SLV 1	200	16	2731	0.12	-734.11	6.1
110	SLV 2	232	-52	2723	0.13	-731.22	-17.39
110	SLV 3	209	-164	2564	0.75	-691.01	-57.09
110	SLV 4	241	-232	2556	0.75	-688.12	-80.58
110	SLV 5	21	266	2466	-0.45	-675.27	93.37
110	SLV 6	53	197	2457	-0.45	-672.35	69.72
110	SLV 7	50	-336	1909	1.64	-531.62	-117.26
110	SLV 8	81	-404	1901	1.64	-528.7	-140.91
110	SLV 9	-124	299	2071	-0.32	-581.73	104.91
110	SLV 10	-93	231	2063	-0.32	-578.81	81.27
110	SLV 11	-95	-302	1515	1.77	-438.08	-105.71
110	SLV 12	-64	-370	1506	1.77	-435.16	-129.36
110	SLV 13	-283	127	1416	0.57	-422.31	44.59
110	SLV 14	-252	59	1408	0.57	-419.42	21.1
110	SLV 15	-274	-53	1249	1.2	-379.22	-18.6
110	SLV 16	-243	-121	1241	1.2	-376.32	-42.09
110	CRTFP Ux+	0	0	0	0	0	0
110	CRTFP Ux-	0	0	0	0	0	0
110	CRTFP Uy+	0	0	0	0	0	0
110	CRTFP Uy-	0	0	0	0	0	0
112	SLU 1	-49	-52	2298	-471.97	-582.85	-22.34
112	SLU 2	-60	-53	2318	-475.9	-587.81	-24.67
112	SLU 3	-49	-52	2298	-471.97	-582.85	-22.34
112	SLU 4	-55	-53	2310	-474.33	-585.82	-23.74
112	SLU 5	-60	-53	2318	-475.9	-587.81	-24.67
112	SLU 6	-49	-52	2298	-471.97	-582.85	-22.34
112	SLU 7	-55	-53	2310	-474.33	-585.82	-23.74
112	SLU 8	-49	-52	2298	-471.97	-582.85	-22.34
112	SLU 9	-55	-53	2310	-474.33	-585.82	-23.74
112	SLU 10	-66	-58	2750	-561.49	-685.58	-27.36
112	SLU 11	-55	-58	2729	-557.56	-680.62	-25.03
112	SLU 12	-62	-58	2741	-559.92	-683.6	-26.42
112	SLU 13	-66	-58	2750	-561.49	-685.58	-27.36
112	SLU 14	-55	-58	2729	-557.56	-680.62	-25.03
112	SLU 15	-62	-58	2741	-559.92	-683.6	-26.42
112	SLU 16	-55	-58	2729	-557.56	-680.62	-25.03
112	SLU 17	-62	-58	2741	-559.92	-683.6	-26.42
112	SLU 18	-58	-60	2914	-594.24	-722.52	-26.18
112	SLU 19	-64	-60	2926	-596.6	-725.5	-27.57
112	SLU 20	-58	-60	2914	-594.24	-722.52	-26.18
112	SLU 21	-64	-60	2926	-596.6	-725.5	-27.57
112	SLU 22	-53	-56	2615	-534.88	-654.57	-24.07
112	SLU 23	-64	-56	2635	-538.81	-659.53	-26.4
112	SLU 24	-53	-56	2615	-534.88	-654.57	-24.07
112	SLU 25	-59	-56	2627	-537.23	-657.54	-25.47
112	SLU 26	-64	-56	2635	-538.81	-659.53	-26.4
112	SLU 27	-53	-56	2615	-534.88	-654.57	-24.07
112	SLU 28	-59	-56	2627	-537.23	-657.54	-25.47
112	SLU 29	-53	-56	2615	-534.88	-654.57	-24.07
112	SLU 30	-59	-56	2627	-537.23	-657.54	-25.47
112	SLU 31	-70	-62	3067	-624.39	-757.3	-29.08
112	SLU 32	-59	-61	3046	-620.47	-752.34	-26.75
112	SLU 33	-66	-61	3059	-622.82	-755.31	-28.15
112	SLU 34	-70	-62	3067	-624.39	-757.3	-29.08
112	SLU 35	-59	-61	3046	-620.47	-752.34	-26.75
112	SLU 36	-66	-61	3059	-622.82	-755.31	-28.15
112	SLU 37	-59	-61	3046	-620.47	-752.34	-26.75
112	SLU 38	-66	-61	3059	-622.82	-755.31	-28.15
112	SLU 39	-62	-63	3231	-657.15	-794.24	-27.9
112	SLU 40	-68	-64	3244	-659.5	-797.22	-29.3
112	SLU 41	-62	-63	3231	-657.15	-794.24	-27.9
112	SLU 42	-68	-64	3244	-659.5	-797.22	-29.3
112	SLU 43	-62	-67	2878	-592	-733.11	-28.45
112	SLU 44	-73	-67	2899	-595.93	-738.07	-30.79
112	SLU 45	-62	-67	2878	-592	-733.11	-28.45
112	SLU 46	-68	-67	2890	-594.36	-736.09	-29.85
112	SLU 47	-73	-67	2899	-595.93	-738.07	-30.79
112	SLU 48	-62	-67	2878	-592	-733.11	-28.45
112	SLU 49	-68	-67	2890	-594.36	-736.09	-29.85
112	SLU 50	-62	-67	2878	-592	-733.11	-28.45
112	SLU 51	-68	-67	2890	-594.36	-736.09	-29.85
112	SLU 52	-79	-73	3330	-681.52	-835.84	-33.47
112	SLU 53	-68	-72	3310	-677.59	-830.88	-31.14
112	SLU 54	-75	-72	3322	-679.94	-833.86	-32.54
112	SLU 55	-79	-73	3330	-681.52	-835.84	-33.47
112	SLU 56	-68	-72	3310	-677.59	-830.88	-31.14
112	SLU 57	-75	-72	3322	-679.94	-833.86	-32.54
112	SLU 58	-68	-72	3310	-677.59	-830.88	-31.14
112	SLU 59	-75	-72	3322	-679.94	-833.86	-32.54

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
112	SLU 60	-71	-74	3495	-714.27	-872.78	-32.29
112	SLU 61	-77	-75	3507	-716.63	-875.76	-33.69
112	SLU 62	-71	-74	3495	-714.27	-872.78	-32.29
112	SLU 63	-77	-75	3507	-716.63	-875.76	-33.69
112	SLU 64	-66	-70	3195	-654.9	-804.83	-30.18
112	SLU 65	-77	-71	3216	-658.83	-809.79	-32.51
112	SLU 66	-66	-70	3195	-654.9	-804.83	-30.18
112	SLU 67	-73	-71	3208	-657.26	-807.81	-31.58
112	SLU 68	-77	-71	3216	-658.83	-809.79	-32.51
112	SLU 69	-66	-70	3195	-654.9	-804.83	-30.18
112	SLU 70	-73	-71	3208	-657.26	-807.81	-31.58
112	SLU 71	-66	-70	3195	-654.9	-804.83	-30.18
112	SLU 72	-73	-71	3208	-657.26	-807.81	-31.58
112	SLU 73	-83	-76	3647	-744.42	-907.56	-35.19
112	SLU 74	-72	-76	3627	-740.49	-902.6	-32.86
112	SLU 75	-79	-76	3639	-742.85	-905.58	-34.26
112	SLU 76	-83	-76	3647	-744.42	-907.56	-35.19
112	SLU 77	-72	-76	3627	-740.49	-902.6	-32.86
112	SLU 78	-79	-76	3639	-742.85	-905.58	-34.26
112	SLU 79	-72	-76	3627	-740.49	-902.6	-32.86
112	SLU 80	-79	-76	3639	-742.85	-905.58	-34.26
112	SLU 81	-75	-78	3812	-777.17	-944.5	-34.01
112	SLU 82	-82	-78	3824	-779.53	-947.48	-35.41
112	SLU 83	-75	-78	3812	-777.17	-944.5	-34.01
112	SLU 84	-82	-78	3824	-779.53	-947.48	-35.41
112	SLE RA 1	-50	-53	2388	-489.95	-603.34	-22.84
112	SLE RA 2	-57	-54	2402	-492.56	-606.65	-24.39
112	SLE RA 3	-50	-53	2388	-489.95	-603.34	-22.84
112	SLE RA 4	-54	-53	2396	-491.52	-605.32	-23.77
112	SLE RA 5	-57	-54	2402	-492.56	-606.65	-24.39
112	SLE RA 6	-50	-53	2388	-489.95	-603.34	-22.84
112	SLE RA 7	-54	-53	2396	-491.52	-605.32	-23.77
112	SLE RA 8	-50	-53	2388	-489.95	-603.34	-22.84
112	SLE RA 9	-54	-53	2396	-491.52	-605.32	-23.77
112	SLE RA 10	-61	-57	2690	-549.62	-671.83	-26.18
112	SLE RA 11	-54	-57	2676	-547.01	-668.52	-24.62
112	SLE RA 12	-58	-57	2684	-548.58	-670.5	-25.56
112	SLE RA 13	-61	-57	2690	-549.62	-671.83	-26.18
112	SLE RA 14	-54	-57	2676	-547.01	-668.52	-24.62
112	SLE RA 15	-58	-57	2684	-548.58	-670.5	-25.56
112	SLE RA 16	-54	-57	2676	-547.01	-668.52	-24.62
112	SLE RA 17	-58	-57	2684	-548.58	-670.5	-25.56
112	SLE RA 18	-56	-58	2799	-571.46	-696.45	-25.39
112	SLE RA 19	-60	-59	2807	-573.03	-698.44	-26.32
112	SLE RA 20	-56	-58	2799	-571.46	-696.45	-25.39
112	SLE RA 21	-60	-59	2807	-573.03	-698.44	-26.32
112	SLE FR 1	-50	-53	2388	-489.95	-603.34	-22.84
112	SLE FR 2	-51	-53	2391	-490.47	-604	-23.15
112	SLE FR 3	-50	-53	2388	-489.95	-603.34	-22.84
112	SLE FR 4	-53	-55	2514	-514.92	-631.93	-23.91
112	SLE FR 5	-52	-55	2511	-514.4	-631.27	-23.6
112	SLE FR 6	-53	-56	2594	-530.7	-649.89	-24.11
112	SLE QP 1	-50	-53	2388	-489.95	-603.34	-22.84
112	SLE QP 2	-52	-55	2511	-514.4	-631.27	-23.6
112	SLD 1	119	19	2231	-461.92	-560.63	24.94
112	SLD 2	142	50	2224	-460.63	-558.73	37.75
112	SLD 3	126	-107	2157	-445.29	-548.58	-6.43
112	SLD 4	148	-76	2150	-444	-546.68	6.38
112	SLD 5	-19	147	2542	-524.33	-629.03	34.01
112	SLD 6	4	179	2535	-523.04	-627.11	46.91
112	SLD 7	4	-272	2296	-468.9	-588.86	-70.56
112	SLD 8	27	-241	2289	-467.61	-586.95	-57.66
112	SLD 9	-130	131	2734	-561.19	-675.6	10.45
112	SLD 10	-107	163	2727	-559.9	-673.68	23.35
112	SLD 11	-107	-288	2488	-505.76	-635.43	-94.12
112	SLD 12	-85	-257	2481	-504.47	-633.52	-81.21
112	SLD 13	-252	-34	2873	-584.8	-715.86	-53.58
112	SLD 14	-229	-3	2866	-583.51	-713.96	-40.78
112	SLD 15	-245	-160	2799	-568.17	-703.82	-84.95
112	SLD 16	-222	-129	2792	-566.88	-701.91	-72.15
112	SLV 1	336	114	1874	-395.04	-470.67	86.8
112	SLV 2	387	184	1858	-392.13	-466.37	115.8
112	SLV 3	352	-172	1706	-357.23	-443.25	15.58
112	SLV 4	403	-102	1690	-354.33	-438.94	44.58
112	SLV 5	23	404	2581	-536.95	-626.21	107.29
112	SLV 6	74	475	2564	-534.03	-621.87	136.48
112	SLV 7	75	-548	2021	-410.94	-534.79	-130.11
112	SLV 8	127	-478	2005	-408.01	-530.46	-100.92
112	SLV 9	-230	368	3018	-620.78	-732.08	53.72
112	SLV 10	-178	439	3002	-617.86	-727.75	82.91
112	SLV 11	-178	-584	2459	-494.77	-640.67	-183.69
112	SLV 12	-126	-514	2442	-491.85	-636.34	-154.49
112	SLV 13	-506	-8	3333	-674.47	-823.6	-91.78
112	SLV 14	-455	62	3317	-671.57	-819.3	-62.78
112	SLV 15	-491	-293	3165	-636.67	-796.18	-163
112	SLV 16	-440	-223	3149	-633.76	-791.87	-134

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
112	CRTFP Ux+	0	0	0	0	0	0
112	CRTFP Ux-	0	0	0	0	0	0
112	CRTFP Uy+	0	0	0	0	0	0
112	CRTFP Uy-	0	0	0	0	0	0
115	SLU 1	-16	-12	1647	-29.92	312.2	2.79
115	SLU 2	-21	-13	1662	-30.19	315.21	2.85
115	SLU 3	-16	-12	1647	-29.92	312.2	2.79
115	SLU 4	-19	-12	1656	-30.08	314.01	2.83
115	SLU 5	-21	-13	1662	-30.19	315.21	2.85
115	SLU 6	-16	-12	1647	-29.92	312.2	2.79
115	SLU 7	-19	-12	1656	-30.08	314.01	2.83
115	SLU 8	-16	-12	1647	-29.92	312.2	2.79
115	SLU 9	-19	-12	1656	-30.08	314.01	2.83
115	SLU 10	-23	-12	1922	-34.8	367.31	2.59
115	SLU 11	-17	-11	1907	-34.52	364.3	2.53
115	SLU 12	-21	-11	1916	-34.69	366.11	2.56
115	SLU 13	-23	-12	1922	-34.8	367.31	2.59
115	SLU 14	-17	-11	1907	-34.52	364.3	2.53
115	SLU 15	-21	-11	1916	-34.69	366.11	2.56
115	SLU 16	-17	-11	1907	-34.52	364.3	2.53
115	SLU 17	-21	-11	1916	-34.69	366.11	2.56
115	SLU 18	-18	-11	2019	-36.5	386.63	2.42
115	SLU 19	-21	-11	2027	-36.66	388.44	2.45
115	SLU 20	-18	-11	2019	-36.5	386.63	2.42
115	SLU 21	-21	-11	2027	-36.66	388.44	2.45
115	SLU 22	-17	-11	1839	-33.33	350.38	2.66
115	SLU 23	-22	-12	1854	-33.6	353.39	2.72
115	SLU 24	-17	-11	1839	-33.33	350.38	2.66
115	SLU 25	-20	-12	1848	-33.49	352.19	2.7
115	SLU 26	-22	-12	1854	-33.6	353.39	2.72
115	SLU 27	-17	-11	1839	-33.33	350.38	2.66
115	SLU 28	-20	-12	1848	-33.49	352.19	2.7
115	SLU 29	-17	-11	1839	-33.33	350.38	2.66
115	SLU 30	-20	-12	1848	-33.49	352.19	2.7
115	SLU 31	-24	-11	2114	-38.21	405.49	2.46
115	SLU 32	-19	-11	2099	-37.93	402.49	2.4
115	SLU 33	-22	-11	2108	-38.1	404.29	2.43
115	SLU 34	-24	-11	2114	-38.21	405.49	2.46
115	SLU 35	-19	-11	2099	-37.93	402.49	2.4
115	SLU 36	-22	-11	2108	-38.1	404.29	2.43
115	SLU 37	-19	-11	2099	-37.93	402.49	2.4
115	SLU 38	-22	-11	2108	-38.1	404.29	2.43
115	SLU 39	-19	-10	2211	-39.91	424.81	2.28
115	SLU 40	-23	-11	2220	-40.07	426.62	2.32
115	SLU 41	-19	-10	2211	-39.91	424.81	2.28
115	SLU 42	-23	-11	2220	-40.07	426.62	2.32
115	SLU 43	-20	-16	2075	-37.72	392.77	3.68
115	SLU 44	-25	-16	2090	-38	395.78	3.74
115	SLU 45	-20	-16	2075	-37.72	392.77	3.68
115	SLU 46	-23	-16	2084	-37.89	394.58	3.71
115	SLU 47	-25	-16	2090	-38	395.78	3.74
115	SLU 48	-20	-16	2075	-37.72	392.77	3.68
115	SLU 49	-23	-16	2084	-37.89	394.58	3.71
115	SLU 50	-20	-16	2075	-37.72	392.77	3.68
115	SLU 51	-23	-16	2084	-37.89	394.58	3.71
115	SLU 52	-27	-15	2350	-42.6	447.88	3.47
115	SLU 53	-22	-15	2335	-42.33	444.87	3.41
115	SLU 54	-25	-15	2344	-42.49	446.68	3.45
115	SLU 55	-27	-15	2350	-42.6	447.88	3.47
115	SLU 56	-22	-15	2335	-42.33	444.87	3.41
115	SLU 57	-25	-15	2344	-42.49	446.68	3.45
115	SLU 58	-22	-15	2335	-42.33	444.87	3.41
115	SLU 59	-25	-15	2344	-42.49	446.68	3.45
115	SLU 60	-22	-14	2447	-44.3	467.2	3.3
115	SLU 61	-26	-15	2456	-44.47	469.01	3.33
115	SLU 62	-22	-14	2447	-44.3	467.2	3.3
115	SLU 63	-26	-15	2456	-44.47	469.01	3.33
115	SLU 64	-21	-15	2267	-41.13	430.95	3.54
115	SLU 65	-27	-16	2282	-41.41	433.96	3.6
115	SLU 66	-21	-15	2267	-41.13	430.95	3.54
115	SLU 67	-24	-16	2276	-41.3	432.76	3.58
115	SLU 68	-27	-16	2282	-41.41	433.96	3.6
115	SLU 69	-21	-15	2267	-41.13	430.95	3.54
115	SLU 70	-24	-16	2276	-41.3	432.76	3.58
115	SLU 71	-21	-15	2267	-41.13	430.95	3.54
115	SLU 72	-24	-16	2276	-41.3	432.76	3.58
115	SLU 73	-28	-15	2542	-46.01	486.06	3.34
115	SLU 74	-23	-14	2527	-45.74	483.05	3.28
115	SLU 75	-26	-15	2536	-45.9	484.86	3.32
115	SLU 76	-28	-15	2542	-46.01	486.06	3.34
115	SLU 77	-23	-14	2527	-45.74	483.05	3.28
115	SLU 78	-26	-15	2536	-45.9	484.86	3.32
115	SLU 79	-23	-14	2527	-45.74	483.05	3.28
115	SLU 80	-26	-15	2536	-45.9	484.86	3.32
115	SLU 81	-24	-14	2639	-47.71	505.38	3.17
115	SLU 82	-27	-14	2648	-47.88	507.19	3.2

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
115	SLU 83	-24	-14	2639	-47.71	505.38	3.17
115	SLU 84	-27	-14	2648	-47.88	507.19	3.2
115	SLE RA 1	-16	-12	1702	-30.89	323.11	2.76
115	SLE RA 2	-20	-12	1712	-31.07	325.12	2.8
115	SLE RA 3	-16	-12	1702	-30.89	323.11	2.76
115	SLE RA 4	-18	-12	1708	-31	324.31	2.78
115	SLE RA 5	-20	-12	1712	-31.07	325.12	2.8
115	SLE RA 6	-16	-12	1702	-30.89	323.11	2.76
115	SLE RA 7	-18	-12	1708	-31	324.31	2.78
115	SLE RA 8	-16	-12	1702	-30.89	323.11	2.76
115	SLE RA 9	-18	-12	1708	-31	324.31	2.78
115	SLE RA 10	-21	-12	1885	-34.14	359.85	2.62
115	SLE RA 11	-17	-11	1875	-33.96	357.85	2.58
115	SLE RA 12	-19	-11	1881	-34.07	359.05	2.6
115	SLE RA 13	-21	-12	1885	-34.14	359.85	2.62
115	SLE RA 14	-17	-11	1875	-33.96	357.85	2.58
115	SLE RA 15	-19	-11	1881	-34.07	359.05	2.6
115	SLE RA 16	-17	-11	1875	-33.96	357.85	2.58
115	SLE RA 17	-19	-11	1881	-34.07	359.05	2.6
115	SLE RA 18	-18	-11	1950	-35.28	372.73	2.5
115	SLE RA 19	-20	-11	1956	-35.39	373.93	2.53
115	SLE RA 20	-18	-11	1950	-35.28	372.73	2.5
115	SLE RA 21	-20	-11	1956	-35.39	373.93	2.53
115	SLE FR 1	-16	-12	1702	-30.89	323.11	2.76
115	SLE FR 2	-17	-12	1704	-30.93	323.51	2.76
115	SLE FR 3	-16	-12	1702	-30.89	323.11	2.76
115	SLE FR 4	-17	-12	1778	-32.24	338.4	2.69
115	SLE FR 5	-17	-12	1776	-32.21	338	2.68
115	SLE FR 6	-17	-11	1826	-33.08	347.92	2.63
115	SLE QP 1	-16	-12	1702	-30.89	323.11	2.76
115	SLE QP 2	-17	-12	1776	-32.21	338	2.68
115	SLD 1	70	39	1560	-28.45	295.11	-9.67
115	SLD 2	81	68	1564	-28.56	295.31	-16.67
115	SLD 3	74	-44	1504	-26.99	286.21	11.11
115	SLD 4	84	-15	1508	-27.1	286.41	4.11
115	SLD 5	1	120	1795	-33.25	338.56	-30.07
115	SLD 6	11	149	1799	-33.36	338.76	-37.12
115	SLD 7	12	-158	1608	-28.4	308.89	39.2
115	SLD 8	22	-129	1612	-28.5	309.09	32.16
115	SLD 9	-55	106	1940	-35.91	366.91	-26.8
115	SLD 10	-45	135	1944	-36.02	367.11	-33.84
115	SLD 11	-45	-172	1753	-31.06	337.23	42.48
115	SLD 12	-34	-143	1758	-31.16	337.43	35.43
115	SLD 13	-117	-8	2044	-37.31	389.59	1.24
115	SLD 14	-107	21	2049	-37.42	389.79	-5.75
115	SLD 15	-114	-91	1988	-35.86	380.69	22.03
115	SLD 16	-103	-62	1993	-35.97	380.89	15.03
115	SLV 1	181	104	1285	-23.67	240.53	-25.52
115	SLV 2	205	170	1294	-23.91	240.98	-41.35
115	SLV 3	189	-86	1157	-20.36	220.29	21.68
115	SLV 4	212	-20	1167	-20.6	220.74	5.85
115	SLV 5	23	287	1818	-34.58	339.3	-71.77
115	SLV 6	47	354	1828	-34.83	339.76	-87.71
115	SLV 7	48	-345	1394	-23.55	271.82	85.56
115	SLV 8	72	-278	1404	-23.79	272.28	69.62
115	SLV 9	-105	255	2149	-40.62	403.72	-64.26
115	SLV 10	-81	321	2159	-40.87	404.17	-80.2
115	SLV 11	-80	-377	1724	-29.59	336.24	93.07
115	SLV 12	-56	-310	1734	-29.84	336.69	77.13
115	SLV 13	-245	-3	2385	-43.81	455.26	-0.49
115	SLV 14	-222	63	2395	-44.06	455.71	-16.33
115	SLV 15	-238	-193	2258	-40.5	435.01	46.71
115	SLV 16	-214	-127	2268	-40.75	435.46	30.87
115	CRTFP Ux+	0	0	0	0	0	0
115	CRTFP Ux-	0	0	0	0	0	0
115	CRTFP Uy+	0	0	0	0	0	0
115	CRTFP Uy-	0	0	0	0	0	0
116	SLU 1	-28	-42	1662	-30.45	-495.11	-14.98
116	SLU 2	-33	-41	1647	-30.15	-490.94	-14.88
116	SLU 3	-28	-42	1662	-30.45	-495.11	-14.98
116	SLU 4	-31	-42	1653	-30.27	-492.61	-14.92
116	SLU 5	-33	-41	1647	-30.15	-490.94	-14.88
116	SLU 6	-28	-42	1662	-30.45	-495.11	-14.98
116	SLU 7	-31	-42	1653	-30.27	-492.61	-14.92
116	SLU 8	-28	-42	1662	-30.45	-495.11	-14.98
116	SLU 9	-31	-42	1653	-30.27	-492.61	-14.92
116	SLU 10	-37	-49	1924	-35.21	-571.42	-17.72
116	SLU 11	-31	-50	1940	-35.52	-575.58	-17.81
116	SLU 12	-35	-50	1931	-35.33	-573.08	-17.76
116	SLU 13	-37	-49	1924	-35.21	-571.42	-17.72
116	SLU 14	-31	-50	1940	-35.52	-575.58	-17.81
116	SLU 15	-35	-50	1931	-35.33	-573.08	-17.76
116	SLU 16	-31	-50	1940	-35.52	-575.58	-17.81
116	SLU 17	-35	-50	1931	-35.33	-573.08	-17.76
116	SLU 18	-33	-53	2059	-37.69	-610.07	-19.03
116	SLU 19	-36	-53	2050	-37.51	-607.57	-18.97

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
116	SLU 20	-33	-53	2059	-37.69	-610.07	-19.03
116	SLU 21	-36	-53	2050	-37.51	-607.57	-18.97
116	SLU 22	-30	-46	1864	-34.12	-554.31	-16.55
116	SLU 23	-36	-46	1848	-33.81	-550.14	-16.46
116	SLU 24	-30	-46	1864	-34.12	-554.31	-16.55
116	SLU 25	-34	-46	1855	-33.94	-551.81	-16.5
116	SLU 26	-36	-46	1848	-33.81	-550.14	-16.46
116	SLU 27	-30	-46	1864	-34.12	-554.31	-16.55
116	SLU 28	-34	-46	1855	-33.94	-551.81	-16.5
116	SLU 29	-30	-46	1864	-34.12	-554.31	-16.55
116	SLU 30	-34	-46	1855	-33.94	-551.81	-16.5
116	SLU 31	-39	-54	2126	-38.88	-630.62	-19.3
116	SLU 32	-34	-54	2142	-39.19	-634.78	-19.39
116	SLU 33	-37	-54	2132	-39	-632.28	-19.33
116	SLU 34	-39	-54	2126	-38.88	-630.62	-19.3
116	SLU 35	-34	-54	2142	-39.19	-634.78	-19.39
116	SLU 36	-37	-54	2132	-39	-632.28	-19.33
116	SLU 37	-34	-54	2142	-39.19	-634.78	-19.39
116	SLU 38	-37	-54	2132	-39	-632.28	-19.33
116	SLU 39	-35	-58	2261	-41.36	-669.27	-20.61
116	SLU 40	-38	-58	2251	-41.17	-666.77	-20.55
116	SLU 41	-35	-58	2261	-41.36	-669.27	-20.61
116	SLU 42	-38	-58	2251	-41.17	-666.77	-20.55
116	SLU 43	-36	-53	2092	-38.33	-623.34	-18.93
116	SLU 44	-41	-52	2076	-38.02	-619.18	-18.83
116	SLU 45	-36	-53	2092	-38.33	-623.34	-18.93
116	SLU 46	-39	-53	2082	-38.15	-620.84	-18.87
116	SLU 47	-41	-52	2076	-38.02	-619.18	-18.83
116	SLU 48	-36	-53	2092	-38.33	-623.34	-18.93
116	SLU 49	-39	-53	2082	-38.15	-620.84	-18.87
116	SLU 50	-36	-53	2092	-38.33	-623.34	-18.93
116	SLU 51	-39	-53	2082	-38.15	-620.84	-18.87
116	SLU 52	-44	-61	2354	-43.09	-699.65	-21.67
116	SLU 53	-39	-61	2370	-43.4	-703.81	-21.76
116	SLU 54	-42	-61	2360	-43.21	-701.32	-21.71
116	SLU 55	-44	-61	2354	-43.09	-699.65	-21.67
116	SLU 56	-39	-61	2370	-43.4	-703.81	-21.76
116	SLU 57	-42	-61	2360	-43.21	-701.32	-21.71
116	SLU 58	-39	-61	2370	-43.4	-703.81	-21.76
116	SLU 59	-42	-61	2360	-43.21	-701.32	-21.71
116	SLU 60	-41	-65	2489	-45.57	-738.3	-22.98
116	SLU 61	-44	-64	2479	-45.38	-735.81	-22.92
116	SLU 62	-41	-65	2489	-45.57	-738.3	-22.98
116	SLU 63	-44	-64	2479	-45.38	-735.81	-22.92
116	SLU 64	-38	-58	2294	-42	-682.54	-20.51
116	SLU 65	-43	-57	2278	-41.69	-678.38	-20.41
116	SLU 66	-38	-58	2294	-42	-682.54	-20.51
116	SLU 67	-41	-57	2284	-41.81	-680.04	-20.45
116	SLU 68	-43	-57	2278	-41.69	-678.38	-20.41
116	SLU 69	-38	-58	2294	-42	-682.54	-20.51
116	SLU 70	-41	-57	2284	-41.81	-680.04	-20.45
116	SLU 71	-38	-58	2294	-42	-682.54	-20.51
116	SLU 72	-41	-57	2284	-41.81	-680.04	-20.45
116	SLU 73	-47	-65	2556	-46.76	-758.85	-23.25
116	SLU 74	-41	-66	2571	-47.06	-763.02	-23.34
116	SLU 75	-45	-65	2562	-46.88	-760.52	-23.29
116	SLU 76	-47	-65	2556	-46.76	-758.85	-23.25
116	SLU 77	-41	-66	2571	-47.06	-763.02	-23.34
116	SLU 78	-45	-65	2562	-46.88	-760.52	-23.29
116	SLU 79	-41	-66	2571	-47.06	-763.02	-23.34
116	SLU 80	-45	-65	2562	-46.88	-760.52	-23.29
116	SLU 81	-43	-69	2690	-49.23	-797.51	-24.56
116	SLU 82	-46	-69	2681	-49.05	-795.01	-24.5
116	SLU 83	-43	-69	2690	-49.23	-797.51	-24.56
116	SLU 84	-46	-69	2681	-49.05	-795.01	-24.5
116	SLE RA 1	-29	-43	1720	-31.5	-512.02	-15.43
116	SLE RA 2	-32	-43	1709	-31.3	-509.24	-15.36
116	SLE RA 3	-29	-43	1720	-31.5	-512.02	-15.43
116	SLE RA 4	-31	-43	1714	-31.38	-510.35	-15.39
116	SLE RA 5	-32	-43	1709	-31.3	-509.24	-15.36
116	SLE RA 6	-29	-43	1720	-31.5	-512.02	-15.43
116	SLE RA 7	-31	-43	1714	-31.38	-510.35	-15.39
116	SLE RA 8	-29	-43	1720	-31.5	-512.02	-15.43
116	SLE RA 9	-31	-43	1714	-31.38	-510.35	-15.39
116	SLE RA 10	-34	-48	1895	-34.67	-562.9	-17.26
116	SLE RA 11	-31	-49	1905	-34.88	-565.67	-17.32
116	SLE RA 12	-33	-48	1899	-34.75	-564.01	-17.28
116	SLE RA 13	-34	-48	1895	-34.67	-562.9	-17.26
116	SLE RA 14	-31	-49	1905	-34.88	-565.67	-17.32
116	SLE RA 15	-33	-48	1899	-34.75	-564.01	-17.28
116	SLE RA 16	-31	-49	1905	-34.88	-565.67	-17.32
116	SLE RA 17	-33	-48	1899	-34.75	-564.01	-17.28
116	SLE RA 18	-32	-51	1985	-36.32	-588.66	-18.13
116	SLE RA 19	-34	-51	1978	-36.2	-587	-18.09
116	SLE RA 20	-32	-51	1985	-36.32	-588.66	-18.13
116	SLE RA 21	-34	-51	1978	-36.2	-587	-18.09

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
116	SLE FR 1	-29	-43	1720	-31.5	-512.02	-15.43
116	SLE FR 2	-29	-43	1718	-31.46	-511.47	-15.41
116	SLE FR 3	-29	-43	1720	-31.5	-512.02	-15.43
116	SLE FR 4	-30	-45	1797	-32.91	-534.46	-16.22
116	SLE FR 5	-30	-46	1799	-32.95	-535.01	-16.24
116	SLE FR 6	-30	-47	1852	-33.91	-550.34	-16.78
116	SLE QP 1	-29	-43	1720	-31.5	-512.02	-15.43
116	SLE QP 2	-30	-46	1799	-32.95	-535.01	-16.24
116	SLD 1	56	-18	2087	-38.45	-608.68	-6.6
116	SLD 2	66	-45	2083	-38.39	-607.49	-15.71
116	SLD 3	59	-89	2029	-37.18	-592.58	-31.4
116	SLD 4	69	-116	2025	-37.12	-591.39	-40.51
116	SLD 5	-13	80	1975	-36.55	-581.95	27.49
116	SLD 6	-3	53	1971	-36.49	-580.75	18.31
116	SLD 7	-1	-157	1781	-32.31	-528.29	-55.18
116	SLD 8	9	-184	1778	-32.24	-527.09	-64.36
116	SLD 9	-68	93	1821	-33.65	-542.94	31.88
116	SLD 10	-58	66	1817	-33.59	-541.74	22.71
116	SLD 11	-56	-144	1627	-29.4	-489.27	-50.79
116	SLD 12	-46	-171	1624	-29.34	-488.07	-59.96
116	SLD 13	-128	25	1573	-28.78	-478.64	8.04
116	SLD 14	-119	-2	1570	-28.71	-477.45	-1.07
116	SLD 15	-125	-46	1515	-27.5	-462.54	-16.76
116	SLD 16	-115	-73	1512	-27.44	-461.35	-25.87
116	SLV 1	164	16	2452	-45.46	-702.42	5.42
116	SLV 2	187	-45	2445	-45.32	-699.72	-15.21
116	SLV 3	172	-145	2320	-42.57	-665.88	-50.94
116	SLV 4	195	-206	2313	-42.43	-663.18	-71.57
116	SLV 5	8	239	2197	-41.14	-641.61	83.03
116	SLV 6	31	178	2190	-41	-638.9	62.27
116	SLV 7	35	-299	1759	-31.5	-519.8	-104.84
116	SLV 8	58	-359	1752	-31.36	-517.09	-125.61
116	SLV 9	-117	268	1847	-34.54	-552.94	93.13
116	SLV 10	-95	207	1840	-34.4	-550.22	72.37
116	SLV 11	-90	-269	1409	-24.9	-431.13	-94.74
116	SLV 12	-68	-330	1402	-24.76	-428.41	-115.5
116	SLV 13	-254	115	1286	-23.47	-406.84	39.1
116	SLV 14	-232	54	1278	-23.33	-404.15	18.47
116	SLV 15	-246	-46	1154	-20.57	-370.3	-17.27
116	SLV 16	-224	-107	1147	-20.43	-367.6	-37.89
116	CRTFP Ux+	0	0	0	0	0	0
116	CRTFP Ux-	0	0	0	0	0	0
116	CRTFP Uy+	0	0	0	0	0	0
116	CRTFP Uy-	0	0	0	0	0	0
139	SLU 1	-108	-122	4800	26.39	-1074.14	-24.89
139	SLU 2	-122	-120	4755	26.57	-1065.06	-24.53
139	SLU 3	-108	-122	4800	26.39	-1074.14	-24.89
139	SLU 4	-116	-121	4773	26.5	-1068.7	-24.68
139	SLU 5	-122	-120	4755	26.57	-1065.06	-24.53
139	SLU 6	-108	-122	4800	26.39	-1074.14	-24.89
139	SLU 7	-116	-121	4773	26.5	-1068.7	-24.68
139	SLU 8	-108	-122	4800	26.39	-1074.14	-24.89
139	SLU 9	-116	-121	4773	26.5	-1068.7	-24.68
139	SLU 10	-136	-143	5561	31.97	-1244.64	-29.18
139	SLU 11	-122	-145	5607	31.8	-1253.72	-29.54
139	SLU 12	-131	-143	5579	31.9	-1248.27	-29.32
139	SLU 13	-136	-143	5561	31.97	-1244.64	-29.18
139	SLU 14	-122	-145	5607	31.8	-1253.72	-29.54
139	SLU 15	-131	-143	5579	31.9	-1248.27	-29.32
139	SLU 16	-122	-145	5607	31.8	-1253.72	-29.54
139	SLU 17	-131	-143	5579	31.9	-1248.27	-29.32
139	SLU 18	-129	-154	5952	34.11	-1330.68	-31.53
139	SLU 19	-137	-153	5925	34.22	-1325.24	-31.31
139	SLU 20	-129	-154	5952	34.11	-1330.68	-31.53
139	SLU 21	-137	-153	5925	34.22	-1325.24	-31.31
139	SLU 22	-117	-134	5386	30.45	-1205.34	-27.44
139	SLU 23	-131	-133	5341	30.63	-1196.26	-27.08
139	SLU 24	-117	-134	5386	30.45	-1205.34	-27.44
139	SLU 25	-126	-133	5359	30.56	-1199.89	-27.22
139	SLU 26	-131	-133	5341	30.63	-1196.26	-27.08
139	SLU 27	-117	-134	5386	30.45	-1205.34	-27.44
139	SLU 28	-126	-133	5359	30.56	-1199.89	-27.22
139	SLU 29	-117	-134	5386	30.45	-1205.34	-27.44
139	SLU 30	-126	-133	5359	30.56	-1199.89	-27.22
139	SLU 31	-146	-156	6147	36.03	-1375.84	-31.73
139	SLU 32	-132	-157	6193	35.86	-1384.92	-32.09
139	SLU 33	-141	-156	6165	35.96	-1379.47	-31.87
139	SLU 34	-146	-156	6147	36.03	-1375.84	-31.73
139	SLU 35	-132	-157	6193	35.86	-1384.92	-32.09
139	SLU 36	-141	-156	6165	35.96	-1379.47	-31.87
139	SLU 37	-132	-157	6193	35.86	-1384.92	-32.09
139	SLU 38	-141	-156	6165	35.96	-1379.47	-31.87
139	SLU 39	-139	-167	6538	38.17	-1461.88	-34.08
139	SLU 40	-147	-166	6511	38.28	-1456.43	-33.86
139	SLU 41	-139	-167	6538	38.17	-1461.88	-34.08
139	SLU 42	-147	-166	6511	38.28	-1456.43	-33.86

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
139	SLU 43	-136	-154	6039	32.92	-1351.41	-31.49
139	SLU 44	-150	-152	5994	33.09	-1342.33	-31.13
139	SLU 45	-136	-154	6039	32.92	-1351.41	-31.49
139	SLU 46	-145	-153	6012	33.03	-1345.96	-31.27
139	SLU 47	-150	-152	5994	33.09	-1342.33	-31.13
139	SLU 48	-136	-154	6039	32.92	-1351.41	-31.49
139	SLU 49	-145	-153	6012	33.03	-1345.96	-31.27
139	SLU 50	-136	-154	6039	32.92	-1351.41	-31.49
139	SLU 51	-145	-153	6012	33.03	-1345.96	-31.27
139	SLU 52	-165	-175	6800	38.5	-1521.9	-35.77
139	SLU 53	-151	-177	6846	38.32	-1530.98	-36.13
139	SLU 54	-160	-176	6818	38.43	-1525.54	-35.92
139	SLU 55	-165	-175	6800	38.5	-1521.9	-35.77
139	SLU 56	-151	-177	6846	38.32	-1530.98	-36.13
139	SLU 57	-160	-176	6818	38.43	-1525.54	-35.92
139	SLU 58	-151	-177	6846	38.32	-1530.98	-36.13
139	SLU 59	-160	-176	6818	38.43	-1525.54	-35.92
139	SLU 60	-158	-186	7191	40.64	-1607.95	-38.13
139	SLU 61	-166	-185	7164	40.74	-1602.5	-37.91
139	SLU 62	-158	-186	7191	40.64	-1607.95	-38.13
139	SLU 63	-166	-185	7164	40.74	-1602.5	-37.91
139	SLU 64	-146	-166	6625	36.98	-1482.6	-34.04
139	SLU 65	-160	-165	6580	37.15	-1473.52	-33.67
139	SLU 66	-146	-166	6625	36.98	-1482.6	-34.04
139	SLU 67	-155	-165	6598	37.08	-1477.15	-33.82
139	SLU 68	-160	-165	6580	37.15	-1473.52	-33.67
139	SLU 69	-146	-166	6625	36.98	-1482.6	-34.04
139	SLU 70	-155	-165	6598	37.08	-1477.15	-33.82
139	SLU 71	-146	-166	6625	36.98	-1482.6	-34.04
139	SLU 72	-155	-165	6598	37.08	-1477.15	-33.82
139	SLU 73	-175	-188	7386	42.56	-1653.1	-38.32
139	SLU 74	-161	-189	7432	42.38	-1662.18	-38.68
139	SLU 75	-169	-188	7405	42.49	-1656.73	-38.46
139	SLU 76	-175	-188	7386	42.56	-1653.1	-38.32
139	SLU 77	-161	-189	7432	42.38	-1662.18	-38.68
139	SLU 78	-169	-188	7405	42.49	-1656.73	-38.46
139	SLU 79	-161	-189	7432	42.38	-1662.18	-38.68
139	SLU 80	-169	-188	7405	42.49	-1656.73	-38.46
139	SLU 81	-167	-199	7777	44.7	-1739.14	-40.67
139	SLU 82	-176	-198	7750	44.8	-1733.69	-40.46
139	SLU 83	-167	-199	7777	44.7	-1739.14	-40.67
139	SLU 84	-176	-198	7750	44.8	-1733.69	-40.46
139	SLE RA 1	-110	-125	4968	27.55	-1111.63	-25.62
139	SLE RA 2	-120	-124	4937	27.67	-1105.57	-25.38
139	SLE RA 3	-110	-125	4968	27.55	-1111.63	-25.62
139	SLE RA 4	-116	-125	4950	27.62	-1108	-25.48
139	SLE RA 5	-120	-124	4937	27.67	-1105.57	-25.38
139	SLE RA 6	-110	-125	4968	27.55	-1111.63	-25.62
139	SLE RA 7	-116	-125	4950	27.62	-1108	-25.48
139	SLE RA 8	-110	-125	4968	27.55	-1111.63	-25.62
139	SLE RA 9	-116	-125	4950	27.62	-1108	-25.48
139	SLE RA 10	-130	-139	5475	31.27	-1225.29	-28.48
139	SLE RA 11	-120	-141	5505	31.16	-1231.35	-28.72
139	SLE RA 12	-126	-140	5487	31.23	-1227.71	-28.57
139	SLE RA 13	-130	-139	5475	31.27	-1225.29	-28.48
139	SLE RA 14	-120	-141	5505	31.16	-1231.35	-28.72
139	SLE RA 15	-126	-140	5487	31.23	-1227.71	-28.57
139	SLE RA 16	-120	-141	5505	31.16	-1231.35	-28.72
139	SLE RA 17	-126	-140	5487	31.23	-1227.71	-28.57
139	SLE RA 18	-124	-147	5736	32.7	-1282.66	-30.05
139	SLE RA 19	-130	-146	5717	32.77	-1279.02	-29.9
139	SLE RA 20	-124	-147	5736	32.7	-1282.66	-30.05
139	SLE RA 21	-130	-146	5717	32.77	-1279.02	-29.9
139	SLE FR 1	-110	-125	4968	27.55	-1111.63	-25.62
139	SLE FR 2	-112	-125	4962	27.58	-1110.42	-25.57
139	SLE FR 3	-110	-125	4968	27.55	-1111.63	-25.62
139	SLE FR 4	-116	-132	5192	29.12	-1161.73	-26.9
139	SLE FR 5	-115	-132	5198	29.1	-1162.94	-26.95
139	SLE FR 6	-117	-136	5352	30.13	-1197.14	-27.83
139	SLE QP 1	-110	-125	4968	27.55	-1111.63	-25.62
139	SLE QP 2	-115	-132	5198	29.1	-1162.94	-26.95
139	SLD 1	120	-56	6018	25.36	-1328.35	-8.58
139	SLD 2	140	-133	6010	25.53	-1326.18	-26.11
139	SLD 3	129	-254	5878	31.16	-1297.62	-56.18
139	SLD 4	150	-331	5870	31.32	-1295.45	-73.71
139	SLD 5	-66	219	5659	19.13	-1259.94	56.96
139	SLD 6	-46	142	5651	19.29	-1257.75	39.29
139	SLD 7	-34	-443	5192	38.45	-1157.5	-101.71
139	SLD 8	-13	-520	5184	38.61	-1155.32	-119.37
139	SLD 9	-216	256	5212	19.58	-1170.56	65.48
139	SLD 10	-195	179	5204	19.74	-1168.37	47.81
139	SLD 11	-183	-406	4745	38.9	-1068.12	-93.19
139	SLD 12	-163	-483	4737	39.07	-1065.94	-110.86
139	SLD 13	-379	68	4526	26.87	-1030.42	19.82
139	SLD 14	-358	-9	4518	27.03	-1028.25	2.28
139	SLD 15	-369	-131	4386	32.67	-999.69	-27.78

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
139	SLD 16	-349	-208	4378	32.83	-997.52	-45.32
139	SLV 1	417	39	7061	20.59	-1538.82	14.34
139	SLV 2	464	-135	7043	20.95	-1533.91	-25.37
139	SLV 3	440	-413	6743	33.76	-1469.09	-93.84
139	SLV 4	486	-586	6725	34.12	-1464.17	-133.55
139	SLV 5	-5	665	6245	6.44	-1383.21	163.54
139	SLV 6	42	490	6227	6.81	-1378.26	123.57
139	SLV 7	69	-839	5186	50.34	-1150.75	-197.06
139	SLV 8	116	-1014	5168	50.71	-1145.8	-237.03
139	SLV 9	-345	750	5228	7.49	-1180.07	183.13
139	SLV 10	-298	576	5210	7.85	-1175.12	143.16
139	SLV 11	-271	-754	4169	51.39	-947.61	-177.47
139	SLV 12	-224	-929	4151	51.75	-942.66	-217.44
139	SLV 13	-715	323	3671	24.07	-861.7	79.65
139	SLV 14	-669	149	3653	24.44	-856.79	39.95
139	SLV 15	-693	-129	3353	37.24	-791.97	-28.53
139	SLV 16	-647	-302	3335	37.61	-787.05	-68.23
139	CRTFP Ux+	0	0	0	0	0.01	0
139	CRTFP Ux-	0	0	0	0	-0.01	0
139	CRTFP Uy+	0	0	0	0	0	0
139	CRTFP Uy-	0	0	0	0	0	0
141	SLU 1	-73	-72	3175	11.64	-83.02	2.07
141	SLU 2	-82	-71	3147	12.04	-82.37	2.01
141	SLU 3	-73	-72	3175	11.64	-83.02	2.07
141	SLU 4	-79	-71	3158	11.88	-82.63	2.03
141	SLU 5	-82	-71	3147	12.04	-82.37	2.01
141	SLU 6	-73	-72	3175	11.64	-83.02	2.07
141	SLU 7	-79	-71	3158	11.88	-82.63	2.03
141	SLU 8	-73	-72	3175	11.64	-83.02	2.07
141	SLU 9	-79	-71	3158	11.88	-82.63	2.03
141	SLU 10	-92	-84	3680	15.34	-96.31	2.43
141	SLU 11	-83	-85	3708	14.95	-96.95	2.49
141	SLU 12	-88	-85	3691	15.19	-96.56	2.46
141	SLU 13	-92	-84	3680	15.34	-96.31	2.43
141	SLU 14	-83	-85	3708	14.95	-96.95	2.49
141	SLU 15	-88	-85	3691	15.19	-96.56	2.46
141	SLU 16	-83	-85	3708	14.95	-96.95	2.49
141	SLU 17	-88	-85	3691	15.19	-96.56	2.46
141	SLU 18	-87	-91	3937	16.37	-102.92	2.67
141	SLU 19	-93	-90	3920	16.6	-102.53	2.64
141	SLU 20	-87	-91	3937	16.37	-102.92	2.67
141	SLU 21	-93	-90	3920	16.6	-102.53	2.64
141	SLU 22	-79	-79	3564	14.17	-93.23	2.35
141	SLU 23	-89	-78	3535	14.56	-92.58	2.29
141	SLU 24	-79	-79	3564	14.17	-93.23	2.35
141	SLU 25	-85	-79	3547	14.41	-92.84	2.31
141	SLU 26	-89	-78	3535	14.56	-92.58	2.29
141	SLU 27	-79	-79	3564	14.17	-93.23	2.35
141	SLU 28	-85	-79	3547	14.41	-92.84	2.31
141	SLU 29	-79	-79	3564	14.17	-93.23	2.35
141	SLU 30	-85	-79	3547	14.41	-92.84	2.31
141	SLU 31	-99	-92	4069	17.87	-106.52	2.71
141	SLU 32	-89	-93	4097	17.48	-107.16	2.77
141	SLU 33	-95	-92	4080	17.71	-106.78	2.74
141	SLU 34	-99	-92	4069	17.87	-106.52	2.71
141	SLU 35	-89	-93	4097	17.48	-107.16	2.77
141	SLU 36	-95	-92	4080	17.71	-106.78	2.74
141	SLU 37	-89	-93	4097	17.48	-107.16	2.77
141	SLU 38	-95	-92	4080	17.71	-106.78	2.74
141	SLU 39	-93	-98	4325	18.9	-113.13	2.96
141	SLU 40	-99	-98	4308	19.13	-112.75	2.92
141	SLU 41	-93	-98	4325	18.9	-113.13	2.96
141	SLU 42	-99	-98	4308	19.13	-112.75	2.92
141	SLU 43	-92	-91	3994	14.27	-104.42	2.59
141	SLU 44	-102	-90	3966	14.66	-103.77	2.53
141	SLU 45	-92	-91	3994	14.27	-104.42	2.59
141	SLU 46	-98	-90	3977	14.5	-104.03	2.56
141	SLU 47	-102	-90	3966	14.66	-103.77	2.53
141	SLU 48	-92	-91	3994	14.27	-104.42	2.59
141	SLU 49	-98	-90	3977	14.5	-104.03	2.56
141	SLU 50	-92	-91	3994	14.27	-104.42	2.59
141	SLU 51	-98	-90	3977	14.5	-104.03	2.56
141	SLU 52	-112	-103	4499	17.97	-117.71	2.96
141	SLU 53	-102	-104	4528	17.58	-118.35	3.02
141	SLU 54	-108	-104	4511	17.81	-117.97	2.98
141	SLU 55	-112	-103	4499	17.97	-117.71	2.96
141	SLU 56	-102	-104	4528	17.58	-118.35	3.02
141	SLU 57	-108	-104	4511	17.81	-117.97	2.98
141	SLU 58	-102	-104	4528	17.58	-118.35	3.02
141	SLU 59	-108	-104	4511	17.81	-117.97	2.98
141	SLU 60	-107	-110	4756	18.99	-124.33	3.2
141	SLU 61	-112	-109	4739	19.23	-123.94	3.16
141	SLU 62	-107	-110	4756	18.99	-124.33	3.2
141	SLU 63	-112	-109	4739	19.23	-123.94	3.16
141	SLU 64	-99	-98	4383	16.8	-114.63	2.88
141	SLU 65	-109	-97	4355	17.19	-113.99	2.82

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
141	SLU 66	-99	-98	4383	16.8	-114.63	2.88
141	SLU 67	-105	-97	4366	17.03	-114.24	2.84
141	SLU 68	-109	-97	4355	17.19	-113.99	2.82
141	SLU 69	-99	-98	4383	16.8	-114.63	2.88
141	SLU 70	-105	-97	4366	17.03	-114.24	2.84
141	SLU 71	-99	-98	4383	16.8	-114.63	2.88
141	SLU 72	-105	-97	4366	17.03	-114.24	2.84
141	SLU 73	-118	-111	4888	20.5	-127.92	3.24
141	SLU 74	-109	-111	4916	20.1	-128.57	3.3
141	SLU 75	-115	-111	4899	20.34	-128.18	3.26
141	SLU 76	-118	-111	4888	20.5	-127.92	3.24
141	SLU 77	-109	-111	4916	20.1	-128.57	3.3
141	SLU 78	-115	-111	4899	20.34	-128.18	3.26
141	SLU 79	-109	-111	4916	20.1	-128.57	3.3
141	SLU 80	-115	-111	4899	20.34	-128.18	3.26
141	SLU 81	-113	-117	5145	21.52	-134.54	3.48
141	SLU 82	-119	-117	5128	21.76	-134.15	3.44
141	SLU 83	-113	-117	5145	21.52	-134.54	3.48
141	SLU 84	-119	-117	5128	21.76	-134.15	3.44
141	SLE RA 1	-75	-74	3286	12.36	-85.93	2.15
141	SLE RA 2	-81	-73	3267	12.63	-85.5	2.11
141	SLE RA 3	-75	-74	3286	12.36	-85.93	2.15
141	SLE RA 4	-79	-73	3275	12.52	-85.68	2.13
141	SLE RA 5	-81	-73	3267	12.63	-85.5	2.11
141	SLE RA 6	-75	-74	3286	12.36	-85.93	2.15
141	SLE RA 7	-79	-73	3275	12.52	-85.68	2.13
141	SLE RA 8	-75	-74	3286	12.36	-85.93	2.15
141	SLE RA 9	-79	-73	3275	12.52	-85.68	2.13
141	SLE RA 10	-88	-82	3623	14.83	-94.79	2.39
141	SLE RA 11	-81	-83	3642	14.57	-95.22	2.43
141	SLE RA 12	-85	-82	3630	14.73	-94.97	2.41
141	SLE RA 13	-88	-82	3623	14.83	-94.79	2.39
141	SLE RA 14	-81	-83	3642	14.57	-95.22	2.43
141	SLE RA 15	-85	-82	3630	14.73	-94.97	2.41
141	SLE RA 16	-81	-83	3642	14.57	-95.22	2.43
141	SLE RA 17	-85	-82	3630	14.73	-94.97	2.41
141	SLE RA 18	-84	-87	3794	15.51	-99.2	2.55
141	SLE RA 19	-88	-86	3783	15.67	-98.95	2.53
141	SLE RA 20	-84	-87	3794	15.51	-99.2	2.55
141	SLE RA 21	-88	-86	3783	15.67	-98.95	2.53
141	SLE FR 1	-75	-74	3286	12.36	-85.93	2.15
141	SLE FR 2	-76	-74	3282	12.42	-85.85	2.14
141	SLE FR 3	-75	-74	3286	12.36	-85.93	2.15
141	SLE FR 4	-79	-77	3435	13.36	-89.83	2.26
141	SLE FR 5	-78	-78	3439	13.31	-89.91	2.27
141	SLE FR 6	-79	-80	3540	13.94	-92.57	2.35
141	SLE QP 1	-75	-74	3286	12.36	-85.93	2.15
141	SLE QP 2	-78	-78	3439	13.31	-89.91	2.27
141	SLD 1	83	-25	3953	5.71	-101.84	5.04
141	SLD 2	97	-75	3947	5.94	-101.64	4.61
141	SLD 3	90	-160	3860	13.32	-99.42	1.68
141	SLD 4	104	-210	3854	13.54	-99.23	1.26
141	SLD 5	-44	160	3735	-0.59	-97.22	8.34
141	SLD 6	-30	110	3729	-0.36	-97.02	7.92
141	SLD 7	-22	-289	3427	24.77	-89.18	-2.85
141	SLD 8	-8	-339	3421	25	-88.98	-3.27
141	SLD 9	-147	184	3456	1.62	-90.85	7.81
141	SLD 10	-133	134	3450	1.85	-90.65	7.39
141	SLD 11	-125	-265	3148	26.98	-82.81	-3.37
141	SLD 12	-111	-315	3142	27.21	-82.61	-3.8
141	SLD 13	-259	55	3023	13.07	-80.6	3.28
141	SLD 14	-245	5	3017	13.3	-80.41	2.86
141	SLD 15	-252	-80	2930	20.68	-78.19	-0.07
141	SLD 16	-238	-130	2924	20.91	-77.99	-0.49
141	SLV 1	288	40	4607	-3.97	-117	8.56
141	SLV 2	319	-73	4593	-3.46	-116.57	7.61
141	SLV 3	303	-266	4396	13.31	-111.53	0.94
141	SLV 4	335	-379	4383	13.82	-111.09	-0.02
141	SLV 5	-3	462	4112	-18.26	-106.5	16.06
141	SLV 6	29	348	4099	-17.74	-106.06	15.1
141	SLV 7	49	-559	3412	39.33	-88.25	-9.36
141	SLV 8	81	-672	3398	39.85	-87.81	-10.32
141	SLV 9	-236	517	3479	-13.23	-92.02	14.86
141	SLV 10	-204	403	3465	-12.71	-91.58	13.9
141	SLV 11	-184	-503	2778	44.36	-73.77	-10.56
141	SLV 12	-152	-617	2765	44.88	-73.33	-11.52
141	SLV 13	-490	224	2494	12.8	-68.74	4.56
141	SLV 14	-458	111	2481	13.31	-68.3	3.61
141	SLV 15	-474	-82	2284	30.08	-63.26	-3.07
141	SLV 16	-443	-195	2270	30.59	-62.83	-4.02
141	CRTFP Ux+	0	0	0	0	0	0
141	CRTFP Ux-	0	0	0	0	0	0
141	CRTFP Uy+	0	0	0	0	0	0
141	CRTFP Uy-	0	0	0	0	0	0
142	SLU 1	-83	-56	3449	12.98	7.38	5.29
142	SLU 2	-94	-56	3422	13.41	7.18	5.21

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
142	SLU 3	-83	-56	3449	12.98	7.38	5.29
142	SLU 4	-89	-56	3433	13.24	7.26	5.24
142	SLU 5	-94	-56	3422	13.41	7.18	5.21
142	SLU 6	-83	-56	3449	12.98	7.38	5.29
142	SLU 7	-89	-56	3433	13.24	7.26	5.24
142	SLU 8	-83	-56	3449	12.98	7.38	5.29
142	SLU 9	-89	-56	3433	13.24	7.26	5.24
142	SLU 10	-105	-66	4003	17.53	8.34	6.19
142	SLU 11	-94	-67	4030	17.09	8.54	6.27
142	SLU 12	-100	-66	4013	17.36	8.42	6.22
142	SLU 13	-105	-66	4003	17.53	8.34	6.19
142	SLU 14	-94	-67	4030	17.09	8.54	6.27
142	SLU 15	-100	-66	4013	17.36	8.42	6.22
142	SLU 16	-94	-67	4030	17.09	8.54	6.27
142	SLU 17	-100	-66	4013	17.36	8.42	6.22
142	SLU 18	-98	-71	4278	18.86	9.04	6.69
142	SLU 19	-105	-71	4262	19.12	8.92	6.64
142	SLU 20	-98	-71	4278	18.86	9.04	6.69
142	SLU 21	-105	-71	4262	19.12	8.92	6.64
142	SLU 22	-90	-62	3874	16.03	8.15	5.88
142	SLU 23	-101	-61	3848	16.47	7.95	5.8
142	SLU 24	-90	-62	3874	16.03	8.15	5.88
142	SLU 25	-97	-61	3858	16.3	8.03	5.83
142	SLU 26	-101	-61	3848	16.47	7.95	5.8
142	SLU 27	-90	-62	3874	16.03	8.15	5.88
142	SLU 28	-97	-61	3858	16.3	8.03	5.83
142	SLU 29	-90	-62	3874	16.03	8.15	5.88
142	SLU 30	-97	-61	3858	16.3	8.03	5.83
142	SLU 31	-112	-72	4428	20.59	9.11	6.78
142	SLU 32	-101	-72	4455	20.15	9.31	6.86
142	SLU 33	-108	-72	4439	20.41	9.19	6.81
142	SLU 34	-112	-72	4428	20.59	9.11	6.78
142	SLU 35	-101	-72	4455	20.15	9.31	6.86
142	SLU 36	-108	-72	4439	20.41	9.19	6.81
142	SLU 37	-101	-72	4455	20.15	9.31	6.86
142	SLU 38	-108	-72	4439	20.41	9.19	6.81
142	SLU 39	-105	-77	4703	21.91	9.81	7.28
142	SLU 40	-112	-76	4687	22.18	9.68	7.23
142	SLU 41	-105	-77	4703	21.91	9.81	7.28
142	SLU 42	-112	-76	4687	22.18	9.68	7.23
142	SLU 43	-105	-71	4338	15.82	9.33	6.68
142	SLU 44	-116	-71	4312	16.26	9.13	6.59
142	SLU 45	-105	-71	4338	15.82	9.33	6.68
142	SLU 46	-112	-71	4322	16.08	9.21	6.63
142	SLU 47	-116	-71	4312	16.26	9.13	6.59
142	SLU 48	-105	-71	4338	15.82	9.33	6.68
142	SLU 49	-112	-71	4322	16.08	9.21	6.63
142	SLU 50	-105	-71	4338	15.82	9.33	6.68
142	SLU 51	-112	-71	4322	16.08	9.21	6.63
142	SLU 52	-127	-81	4892	20.38	10.29	7.57
142	SLU 53	-116	-82	4919	19.94	10.49	7.66
142	SLU 54	-123	-81	4902	20.2	10.37	7.61
142	SLU 55	-127	-81	4892	20.38	10.29	7.57
142	SLU 56	-116	-82	4919	19.94	10.49	7.66
142	SLU 57	-123	-81	4902	20.2	10.37	7.61
142	SLU 58	-116	-82	4919	19.94	10.49	7.66
142	SLU 59	-123	-81	4902	20.2	10.37	7.61
142	SLU 60	-121	-86	5167	21.7	10.99	8.08
142	SLU 61	-127	-86	5151	21.96	10.87	8.03
142	SLU 62	-121	-86	5167	21.7	10.99	8.08
142	SLU 63	-127	-86	5151	21.96	10.87	8.03
142	SLU 64	-112	-77	4764	18.88	10.1	7.27
142	SLU 65	-123	-76	4737	19.32	9.9	7.19
142	SLU 66	-112	-77	4764	18.88	10.1	7.27
142	SLU 67	-119	-76	4747	19.14	9.98	7.22
142	SLU 68	-123	-76	4737	19.32	9.9	7.19
142	SLU 69	-112	-77	4764	18.88	10.1	7.27
142	SLU 70	-119	-76	4747	19.14	9.98	7.22
142	SLU 71	-112	-77	4764	18.88	10.1	7.27
142	SLU 72	-119	-76	4747	19.14	9.98	7.22
142	SLU 73	-134	-87	5317	23.43	11.06	8.17
142	SLU 74	-123	-87	5344	22.99	11.26	8.25
142	SLU 75	-130	-87	5328	23.26	11.14	8.2
142	SLU 76	-134	-87	5317	23.43	11.06	8.17
142	SLU 77	-123	-87	5344	22.99	11.26	8.25
142	SLU 78	-130	-87	5328	23.26	11.14	8.2
142	SLU 79	-123	-87	5344	22.99	11.26	8.25
142	SLU 80	-130	-87	5328	23.26	11.14	8.2
142	SLU 81	-128	-92	5592	24.76	11.76	8.67
142	SLU 82	-135	-91	5576	25.02	11.64	8.62
142	SLU 83	-128	-92	5592	24.76	11.76	8.67
142	SLU 84	-135	-91	5576	25.02	11.64	8.62
142	SLE RA 1	-85	-58	3571	13.85	7.6	5.46
142	SLE RA 2	-92	-57	3553	14.14	7.47	5.41
142	SLE RA 3	-85	-58	3571	13.85	7.6	5.46
142	SLE RA 4	-89	-58	3560	14.02	7.52	5.43

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
142	SLE RA 5	-92	-57	3553	14.14	7.47	5.41
142	SLE RA 6	-85	-58	3571	13.85	7.6	5.46
142	SLE RA 7	-89	-58	3560	14.02	7.52	5.43
142	SLE RA 8	-85	-58	3571	13.85	7.6	5.46
142	SLE RA 9	-89	-58	3560	14.02	7.52	5.43
142	SLE RA 10	-99	-64	3940	16.89	8.24	6.06
142	SLE RA 11	-92	-65	3958	16.59	8.37	6.11
142	SLE RA 12	-96	-65	3947	16.77	8.29	6.08
142	SLE RA 13	-99	-64	3940	16.89	8.24	6.06
142	SLE RA 14	-92	-65	3958	16.59	8.37	6.11
142	SLE RA 15	-96	-65	3947	16.77	8.29	6.08
142	SLE RA 16	-92	-65	3958	16.59	8.37	6.11
142	SLE RA 17	-96	-65	3947	16.77	8.29	6.08
142	SLE RA 18	-95	-68	4123	17.77	8.71	6.39
142	SLE RA 19	-100	-68	4113	17.95	8.62	6.36
142	SLE RA 20	-95	-68	4123	17.77	8.71	6.39
142	SLE RA 21	-100	-68	4113	17.95	8.62	6.36
142	SLE FR 1	-85	-58	3571	13.85	7.6	5.46
142	SLE FR 2	-86	-58	3567	13.91	7.58	5.45
142	SLE FR 3	-85	-58	3571	13.85	7.6	5.46
142	SLE FR 4	-89	-61	3733	15.08	7.91	5.73
142	SLE FR 5	-88	-61	3737	15.03	7.93	5.74
142	SLE FR 6	-90	-63	3847	15.81	8.15	5.93
142	SLE QP 1	-85	-58	3571	13.85	7.6	5.46
142	SLE QP 2	-88	-61	3737	15.03	7.93	5.74
142	SLD 1	98	-1	4234	6.45	11.27	5.99
142	SLD 2	114	-52	4226	6.7	11.3	7.17
142	SLD 3	106	-153	4133	15.08	11.06	6.66
142	SLD 4	122	-205	4125	15.33	11.09	7.84
142	SLD 5	-50	207	4041	-0.72	9.24	4.39
142	SLD 6	-33	155	4033	-0.47	9.28	5.57
142	SLD 7	-24	-302	3706	28.04	8.54	6.61
142	SLD 8	-7	-353	3697	28.29	8.58	7.8
142	SLD 9	-168	232	3776	1.76	7.29	3.68
142	SLD 10	-152	180	3768	2.01	7.33	4.87
142	SLD 11	-142	-277	3440	30.52	6.59	5.91
142	SLD 12	-126	-328	3432	30.77	6.63	7.1
142	SLD 13	-298	83	3348	14.72	4.77	3.64
142	SLD 14	-282	31	3340	14.97	4.81	4.82
142	SLD 15	-290	-70	3247	23.35	4.56	4.31
142	SLD 16	-274	-121	3239	23.6	4.6	5.49
142	SLV 1	335	75	4867	-4.48	15.51	6.34
142	SLV 2	372	-42	4848	-3.91	15.6	9.01
142	SLV 3	353	-272	4638	15.13	15.04	7.86
142	SLV 4	390	-388	4620	15.69	15.12	10.53
142	SLV 5	-1	546	4429	-20.76	10.9	2.67
142	SLV 6	36	429	4411	-20.18	10.99	5.36
142	SLV 7	59	-609	3666	44.59	9.31	7.74
142	SLV 8	96	-726	3648	45.16	9.4	10.43
142	SLV 9	-271	604	3825	-15.1	6.47	1.05
142	SLV 10	-234	487	3807	-14.53	6.56	3.74
142	SLV 11	-212	-551	3063	50.24	4.88	6.13
142	SLV 12	-175	-668	3044	50.81	4.97	8.81
142	SLV 13	-565	267	2853	14.36	0.75	0.95
142	SLV 14	-529	150	2835	14.93	0.83	3.62
142	SLV 15	-547	-80	2625	33.96	0.27	2.47
142	SLV 16	-511	-196	2607	34.53	0.35	5.14
142	CRTFP Ux+	0	0	0	0	0	0
142	CRTFP Ux-	0	0	0	0	0	0
142	CRTFP Uy+	0	0	0	0	0	0
142	CRTFP Uy-	0	0	0	0	0	0
143	SLU 1	-81	-27	3247	12.57	6.49	5.46
143	SLU 2	-92	-26	3226	12.99	6.31	5.39
143	SLU 3	-81	-27	3247	12.57	6.49	5.46
143	SLU 4	-87	-26	3234	12.82	6.38	5.42
143	SLU 5	-92	-26	3226	12.99	6.31	5.39
143	SLU 6	-81	-27	3247	12.57	6.49	5.46
143	SLU 7	-87	-26	3234	12.82	6.38	5.42
143	SLU 8	-81	-27	3247	12.57	6.49	5.46
143	SLU 9	-87	-26	3234	12.82	6.38	5.42
143	SLU 10	-102	-31	3776	17.46	7.2	6.36
143	SLU 11	-91	-32	3797	17.04	7.38	6.42
143	SLU 12	-98	-32	3785	17.3	7.27	6.38
143	SLU 13	-102	-31	3776	17.46	7.2	6.36
143	SLU 14	-91	-32	3797	17.04	7.38	6.42
143	SLU 15	-98	-32	3785	17.3	7.27	6.38
143	SLU 16	-91	-32	3797	17.04	7.38	6.42
143	SLU 17	-98	-32	3785	17.3	7.27	6.38
143	SLU 18	-95	-34	4033	18.96	7.76	6.83
143	SLU 19	-102	-34	4020	19.21	7.65	6.8
143	SLU 20	-95	-34	4033	18.96	7.76	6.83
143	SLU 21	-102	-34	4020	19.21	7.65	6.8
143	SLU 22	-87	-29	3652	15.8	7.08	6.03
143	SLU 23	-99	-29	3631	16.22	6.91	5.97
143	SLU 24	-87	-29	3652	15.8	7.08	6.03
143	SLU 25	-94	-29	3639	16.05	6.98	5.99

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
143	SLU 26	-99	-29	3631	16.22	6.91	5.97
143	SLU 27	-87	-29	3652	15.8	7.08	6.03
143	SLU 28	-94	-29	3639	16.05	6.98	5.99
143	SLU 29	-87	-29	3652	15.8	7.08	6.03
143	SLU 30	-94	-29	3639	16.05	6.98	5.99
143	SLU 31	-109	-34	4181	20.69	7.8	6.93
143	SLU 32	-98	-34	4203	20.27	7.97	7
143	SLU 33	-105	-34	4190	20.52	7.87	6.96
143	SLU 34	-109	-34	4181	20.69	7.8	6.93
143	SLU 35	-98	-34	4203	20.27	7.97	7
143	SLU 36	-105	-34	4190	20.52	7.87	6.96
143	SLU 37	-98	-34	4203	20.27	7.97	7
143	SLU 38	-105	-34	4190	20.52	7.87	6.96
143	SLU 39	-102	-36	4438	22.19	8.35	7.41
143	SLU 40	-109	-36	4426	22.44	8.25	7.37
143	SLU 41	-102	-36	4438	22.19	8.35	7.41
143	SLU 42	-109	-36	4426	22.44	8.25	7.37
143	SLU 43	-102	-34	4082	15.23	8.23	6.89
143	SLU 44	-114	-33	4061	15.66	8.05	6.83
143	SLU 45	-102	-34	4082	15.23	8.23	6.89
143	SLU 46	-109	-34	4069	15.49	8.12	6.86
143	SLU 47	-114	-33	4061	15.66	8.05	6.83
143	SLU 48	-102	-34	4082	15.23	8.23	6.89
143	SLU 49	-109	-34	4069	15.49	8.12	6.86
143	SLU 50	-102	-34	4082	15.23	8.23	6.89
143	SLU 51	-109	-34	4069	15.49	8.12	6.86
143	SLU 52	-124	-39	4611	20.13	8.94	7.8
143	SLU 53	-113	-39	4633	19.71	9.12	7.86
143	SLU 54	-119	-39	4620	19.96	9.01	7.82
143	SLU 55	-124	-39	4611	20.13	8.94	7.8
143	SLU 56	-113	-39	4633	19.71	9.12	7.86
143	SLU 57	-119	-39	4620	19.96	9.01	7.82
143	SLU 58	-113	-39	4633	19.71	9.12	7.86
143	SLU 59	-119	-39	4620	19.96	9.01	7.82
143	SLU 60	-117	-41	4868	21.62	9.5	8.27
143	SLU 61	-124	-41	4856	21.88	9.39	8.24
143	SLU 62	-117	-41	4868	21.62	9.5	8.27
143	SLU 63	-124	-41	4856	21.88	9.39	8.24
143	SLU 64	-109	-36	4487	18.46	8.82	7.47
143	SLU 65	-121	-36	4466	18.89	8.65	7.41
143	SLU 66	-109	-36	4487	18.46	8.82	7.47
143	SLU 67	-116	-36	4475	18.72	8.72	7.43
143	SLU 68	-121	-36	4466	18.89	8.65	7.41
143	SLU 69	-109	-36	4487	18.46	8.82	7.47
143	SLU 70	-116	-36	4475	18.72	8.72	7.43
143	SLU 71	-109	-36	4487	18.46	8.82	7.47
143	SLU 72	-116	-36	4475	18.72	8.72	7.43
143	SLU 73	-131	-41	5016	23.36	9.54	8.37
143	SLU 74	-120	-41	5038	22.94	9.71	8.44
143	SLU 75	-126	-41	5025	23.19	9.61	8.4
143	SLU 76	-131	-41	5016	23.36	9.54	8.37
143	SLU 77	-120	-41	5038	22.94	9.71	8.44
143	SLU 78	-126	-41	5025	23.19	9.61	8.4
143	SLU 79	-120	-41	5038	22.94	9.71	8.44
143	SLU 80	-126	-41	5025	23.19	9.61	8.4
143	SLU 81	-124	-43	5274	24.85	10.09	8.85
143	SLU 82	-131	-43	5261	25.11	9.99	8.81
143	SLU 83	-124	-43	5274	24.85	10.09	8.85
143	SLU 84	-131	-43	5261	25.11	9.99	8.81
143	SLE RA 1	-83	-27	3363	13.49	6.66	5.62
143	SLE RA 2	-90	-27	3349	13.77	6.54	5.58
143	SLE RA 3	-83	-27	3363	13.49	6.66	5.62
143	SLE RA 4	-87	-27	3354	13.66	6.59	5.6
143	SLE RA 5	-90	-27	3349	13.77	6.54	5.58
143	SLE RA 6	-83	-27	3363	13.49	6.66	5.62
143	SLE RA 7	-87	-27	3354	13.66	6.59	5.6
143	SLE RA 8	-83	-27	3363	13.49	6.66	5.62
143	SLE RA 9	-87	-27	3354	13.66	6.59	5.6
143	SLE RA 10	-97	-30	3715	16.76	7.13	6.22
143	SLE RA 11	-89	-31	3730	16.47	7.25	6.26
143	SLE RA 12	-94	-31	3721	16.64	7.18	6.24
143	SLE RA 13	-97	-30	3715	16.76	7.13	6.22
143	SLE RA 14	-89	-31	3730	16.47	7.25	6.26
143	SLE RA 15	-94	-31	3721	16.64	7.18	6.24
143	SLE RA 16	-89	-31	3730	16.47	7.25	6.26
143	SLE RA 17	-94	-31	3721	16.64	7.18	6.24
143	SLE RA 18	-92	-32	3887	17.75	7.5	6.54
143	SLE RA 19	-97	-32	3878	17.92	7.43	6.51
143	SLE RA 20	-92	-32	3887	17.75	7.5	6.54
143	SLE RA 21	-97	-32	3878	17.92	7.43	6.51
143	SLE FR 1	-83	-27	3363	13.49	6.66	5.62
143	SLE FR 2	-84	-27	3360	13.55	6.63	5.61
143	SLE FR 3	-83	-27	3363	13.49	6.66	5.62
143	SLE FR 4	-87	-29	3517	14.83	6.89	5.89
143	SLE FR 5	-85	-29	3520	14.77	6.91	5.9
143	SLE FR 6	-87	-30	3625	15.62	7.08	6.08

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
143	SLE QP 1	-83	-27	3363	13.49	6.66	5.62
143	SLE QP 2	-85	-29	3520	14.77	6.91	5.9
143	SLD 1	101	31	3927	6.35	9.77	5.99
143	SLD 2	117	-14	3918	6.59	9.79	7.16
143	SLD 3	109	-118	3831	14.87	9.62	6.71
143	SLD 4	125	-163	3822	15.11	9.65	7.87
143	SLD 5	-47	231	3791	-0.77	7.98	4.43
143	SLD 6	-31	185	3782	-0.53	8.01	5.6
143	SLD 7	-21	-265	3470	27.65	7.49	6.81
143	SLD 8	-5	-310	3461	27.89	7.52	7.98
143	SLD 9	-166	253	3579	1.65	6.31	3.81
143	SLD 10	-150	208	3570	1.89	6.33	4.98
143	SLD 11	-140	-243	3258	30.08	5.81	6.19
143	SLD 12	-124	-288	3249	30.32	5.84	7.36
143	SLD 13	-296	106	3218	14.43	4.18	3.92
143	SLD 14	-280	61	3209	14.67	4.2	5.08
143	SLD 15	-288	-43	3122	22.96	4.03	4.63
143	SLD 16	-272	-88	3113	23.2	4.05	5.8
143	SLV 1	339	105	4445	-4.39	13.41	6.14
143	SLV 2	375	3	4424	-3.85	13.46	8.78
143	SLV 3	357	-233	4226	14.99	13.07	7.77
143	SLV 4	393	-335	4206	15.53	13.13	10.4
143	SLV 5	1	560	4136	-20.56	9.35	2.57
143	SLV 6	38	458	4116	-20.01	9.4	5.22
143	SLV 7	62	-566	3408	44.03	8.23	7.99
143	SLV 8	99	-669	3387	44.58	8.28	10.65
143	SLV 9	-270	612	3653	-15.03	5.54	1.14
143	SLV 10	-233	509	3633	-14.49	5.59	3.8
143	SLV 11	-209	-515	2924	49.55	4.42	6.57
143	SLV 12	-172	-617	2904	50.1	4.47	9.22
143	SLV 13	-564	277	2834	14.02	0.69	1.39
143	SLV 14	-528	175	2814	14.56	0.75	4.02
143	SLV 15	-546	-61	2616	33.39	0.36	3.02
143	SLV 16	-510	-163	2596	33.93	0.41	5.65
143	CRTFP Ux+	0	0	0	0	0	0
143	CRTFP Ux-	0	0	0	0	0	0
143	CRTFP Uy+	0	0	0	0	0	0
143	CRTFP Uy-	0	0	0	0	0	0
144	SLU 1	-78	4	3065	12.19	5.95	5.39
144	SLU 2	-89	3	3049	12.59	5.81	5.35
144	SLU 3	-78	4	3065	12.19	5.95	5.39
144	SLU 4	-85	4	3055	12.43	5.87	5.37
144	SLU 5	-89	3	3049	12.59	5.81	5.35
144	SLU 6	-78	4	3065	12.19	5.95	5.39
144	SLU 7	-85	4	3055	12.43	5.87	5.37
144	SLU 8	-78	4	3065	12.19	5.95	5.39
144	SLU 9	-85	4	3055	12.43	5.87	5.37
144	SLU 10	-99	4	3577	17.43	6.45	6.27
144	SLU 11	-88	4	3593	17.02	6.59	6.32
144	SLU 12	-94	4	3583	17.27	6.51	6.29
144	SLU 13	-99	4	3577	17.43	6.45	6.27
144	SLU 14	-88	4	3593	17.02	6.59	6.32
144	SLU 15	-94	4	3583	17.27	6.51	6.29
144	SLU 16	-88	4	3593	17.02	6.59	6.32
144	SLU 17	-94	4	3583	17.27	6.51	6.29
144	SLU 18	-92	4	3820	19.1	6.86	6.71
144	SLU 19	-99	4	3810	19.34	6.78	6.68
144	SLU 20	-92	4	3820	19.1	6.86	6.71
144	SLU 21	-99	4	3810	19.34	6.78	6.68
144	SLU 22	-85	4	3456	15.6	6.39	5.94
144	SLU 23	-96	4	3439	16	6.26	5.89
144	SLU 24	-85	4	3456	15.6	6.39	5.94
144	SLU 25	-91	4	3445	15.84	6.31	5.91
144	SLU 26	-96	4	3439	16	6.26	5.89
144	SLU 27	-85	4	3456	15.6	6.39	5.94
144	SLU 28	-91	4	3445	15.84	6.31	5.91
144	SLU 29	-85	4	3456	15.6	6.39	5.94
144	SLU 30	-91	4	3445	15.84	6.31	5.91
144	SLU 31	-106	4	3967	20.84	6.9	6.82
144	SLU 32	-94	4	3983	20.43	7.03	6.86
144	SLU 33	-101	4	3973	20.68	6.95	6.83
144	SLU 34	-106	4	3967	20.84	6.9	6.82
144	SLU 35	-94	4	3983	20.43	7.03	6.86
144	SLU 36	-101	4	3973	20.68	6.95	6.83
144	SLU 37	-94	4	3983	20.43	7.03	6.86
144	SLU 38	-101	4	3973	20.68	6.95	6.83
144	SLU 39	-98	4	4210	22.5	7.31	7.25
144	SLU 40	-105	4	4200	22.75	7.23	7.23
144	SLU 41	-98	4	4210	22.5	7.31	7.25
144	SLU 42	-105	4	4200	22.75	7.23	7.23
144	SLU 43	-99	4	3851	14.67	7.58	6.83
144	SLU 44	-110	4	3835	15.08	7.44	6.78
144	SLU 45	-99	4	3851	14.67	7.58	6.83
144	SLU 46	-106	4	3841	14.92	7.5	6.8
144	SLU 47	-110	4	3835	15.08	7.44	6.78
144	SLU 48	-99	4	3851	14.67	7.58	6.83

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
144	SLU 49	-106	4	3841	14.92	7.5	6.8
144	SLU 50	-99	4	3851	14.67	7.58	6.83
144	SLU 51	-106	4	3841	14.92	7.5	6.8
144	SLU 52	-120	4	4362	19.92	8.09	7.7
144	SLU 53	-109	4	4379	19.51	8.22	7.75
144	SLU 54	-116	4	4369	19.76	8.14	7.72
144	SLU 55	-120	4	4362	19.92	8.09	7.7
144	SLU 56	-109	4	4379	19.51	8.22	7.75
144	SLU 57	-116	4	4369	19.76	8.14	7.72
144	SLU 58	-109	4	4379	19.51	8.22	7.75
144	SLU 59	-116	4	4369	19.76	8.14	7.72
144	SLU 60	-113	4	4606	21.58	8.5	8.14
144	SLU 61	-120	4	4595	21.83	8.42	8.12
144	SLU 62	-113	4	4606	21.58	8.5	8.14
144	SLU 63	-120	4	4595	21.83	8.42	8.12
144	SLU 64	-106	5	4241	18.08	8.03	7.37
144	SLU 65	-117	5	4225	18.49	7.89	7.33
144	SLU 66	-106	5	4241	18.08	8.03	7.37
144	SLU 67	-112	5	4231	18.33	7.94	7.34
144	SLU 68	-117	5	4225	18.49	7.89	7.33
144	SLU 69	-106	5	4241	18.08	8.03	7.37
144	SLU 70	-112	5	4231	18.33	7.94	7.34
144	SLU 71	-106	5	4241	18.08	8.03	7.37
144	SLU 72	-112	5	4231	18.33	7.94	7.34
144	SLU 73	-127	5	4753	23.33	8.53	8.25
144	SLU 74	-115	5	4769	22.92	8.67	8.29
144	SLU 75	-122	5	4759	23.16	8.58	8.26
144	SLU 76	-127	5	4753	23.33	8.53	8.25
144	SLU 77	-115	5	4769	22.92	8.67	8.29
144	SLU 78	-122	5	4759	23.16	8.58	8.26
144	SLU 79	-115	5	4769	22.92	8.67	8.29
144	SLU 80	-122	5	4759	23.16	8.58	8.26
144	SLU 81	-120	5	4996	24.99	8.94	8.69
144	SLU 82	-126	5	4985	25.24	8.86	8.66
144	SLU 83	-120	5	4996	24.99	8.94	8.69
144	SLU 84	-126	5	4985	25.24	8.86	8.66
144	SLE RA 1	-80	4	3177	13.16	6.08	5.55
144	SLE RA 2	-87	4	3166	13.43	5.98	5.52
144	SLE RA 3	-80	4	3177	13.16	6.08	5.55
144	SLE RA 4	-84	4	3170	13.32	6.02	5.53
144	SLE RA 5	-87	4	3166	13.43	5.98	5.52
144	SLE RA 6	-80	4	3177	13.16	6.08	5.55
144	SLE RA 7	-84	4	3170	13.32	6.02	5.53
144	SLE RA 8	-80	4	3177	13.16	6.08	5.55
144	SLE RA 9	-84	4	3170	13.32	6.02	5.53
144	SLE RA 10	-94	4	3518	16.66	6.41	6.13
144	SLE RA 11	-86	4	3529	16.39	6.5	6.16
144	SLE RA 12	-91	4	3522	16.55	6.45	6.15
144	SLE RA 13	-94	4	3518	16.66	6.41	6.13
144	SLE RA 14	-86	4	3529	16.39	6.5	6.16
144	SLE RA 15	-91	4	3522	16.55	6.45	6.15
144	SLE RA 16	-86	4	3529	16.39	6.5	6.16
144	SLE RA 17	-91	4	3522	16.55	6.45	6.15
144	SLE RA 18	-89	4	3680	17.77	6.69	6.43
144	SLE RA 19	-94	4	3673	17.93	6.63	6.41
144	SLE RA 20	-89	4	3680	17.77	6.69	6.43
144	SLE RA 21	-94	4	3673	17.93	6.63	6.41
144	SLE FR 1	-80	4	3177	13.16	6.08	5.55
144	SLE FR 2	-81	4	3175	13.22	6.06	5.54
144	SLE FR 3	-80	4	3177	13.16	6.08	5.55
144	SLE FR 4	-84	4	3326	14.6	6.24	5.81
144	SLE FR 5	-83	4	3328	14.54	6.26	5.81
144	SLE FR 6	-84	4	3428	15.46	6.38	5.99
144	SLE QP 1	-80	4	3177	13.16	6.08	5.55
144	SLE QP 2	-83	4	3328	14.54	6.26	5.81
144	SLD 1	104	62	3660	6.25	8.55	5.83
144	SLD 2	121	23	3650	6.48	8.55	6.96
144	SLD 3	112	-83	3566	14.7	8.46	6.52
144	SLD 4	129	-121	3556	14.92	8.46	7.65
144	SLD 5	-44	255	3573	-0.83	7.09	4.38
144	SLD 6	-28	216	3564	-0.6	7.09	5.52
144	SLD 7	-18	-228	3260	27.32	6.78	6.66
144	SLD 8	-1	-267	3251	27.54	6.78	7.8
144	SLD 9	-164	275	3405	1.54	5.74	3.82
144	SLD 10	-147	236	3396	1.77	5.74	4.96
144	SLD 11	-137	-208	3092	29.69	5.43	6.11
144	SLD 12	-121	-247	3082	29.92	5.43	7.25
144	SLD 13	-294	129	3099	14.16	4.06	3.98
144	SLD 14	-278	90	3090	14.39	4.06	5.11
144	SLD 15	-286	-16	3005	22.61	3.97	4.66
144	SLD 16	-270	-55	2996	22.83	3.97	5.79
144	SLV 1	343	135	4082	-4.31	11.46	5.88
144	SLV 2	379	48	4061	-3.8	11.47	8.44
144	SLV 3	361	-194	3869	14.87	11.26	7.44
144	SLV 4	398	-282	3848	15.39	11.26	10
144	SLV 5	4	574	3885	-20.4	8.14	2.56

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
144	SLV 6	41	486	3864	-19.88	8.14	5.14
144	SLV 7	65	-524	3174	43.56	7.44	7.77
144	SLV 8	102	-612	3153	44.08	7.44	10.34
144	SLV 9	-267	620	3503	-14.99	5.08	1.28
144	SLV 10	-230	532	3482	-14.47	5.08	3.86
144	SLV 11	-206	-478	2792	48.96	4.38	6.49
144	SLV 12	-170	-566	2771	49.48	4.38	9.07
144	SLV 13	-563	289	2808	13.7	1.26	1.62
144	SLV 14	-526	202	2787	14.21	1.26	4.18
144	SLV 15	-544	-40	2595	32.88	1.05	3.19
144	SLV 16	-508	-128	2574	33.4	1.05	5.75
144	CRTFP Ux+	0	0	0	0	0	0
144	CRTFP Ux-	0	0	0	0	0	0
144	CRTFP Uy+	0	0	0	0	0	0
144	CRTFP Uy-	0	0	0	0	0	0
145	SLU 1	-75	33	2897	11.83	5.59	5.11
145	SLU 2	-86	32	2883	12.22	5.5	5.08
145	SLU 3	-75	33	2897	11.83	5.59	5.11
145	SLU 4	-82	33	2888	12.06	5.54	5.09
145	SLU 5	-86	32	2883	12.22	5.5	5.08
145	SLU 6	-75	33	2897	11.83	5.59	5.11
145	SLU 7	-82	33	2888	12.06	5.54	5.09
145	SLU 8	-75	33	2897	11.83	5.59	5.11
145	SLU 9	-82	33	2888	12.06	5.54	5.09
145	SLU 10	-95	37	3396	17.43	5.88	5.93
145	SLU 11	-84	38	3410	17.04	5.97	5.96
145	SLU 12	-91	37	3401	17.27	5.91	5.94
145	SLU 13	-95	37	3396	17.43	5.88	5.93
145	SLU 14	-84	38	3410	17.04	5.97	5.96
145	SLU 15	-91	37	3401	17.27	5.91	5.94
145	SLU 16	-84	38	3410	17.04	5.97	5.96
145	SLU 17	-91	37	3401	17.27	5.91	5.94
145	SLU 18	-88	40	3629	19.27	6.13	6.32
145	SLU 19	-95	40	3621	19.5	6.07	6.3
145	SLU 20	-88	40	3629	19.27	6.13	6.32
145	SLU 21	-95	40	3621	19.5	6.07	6.3
145	SLU 22	-81	36	3276	15.42	5.88	5.61
145	SLU 23	-92	36	3262	15.81	5.79	5.58
145	SLU 24	-81	36	3276	15.42	5.88	5.61
145	SLU 25	-88	36	3268	15.66	5.82	5.59
145	SLU 26	-92	36	3262	15.81	5.79	5.58
145	SLU 27	-81	36	3276	15.42	5.88	5.61
145	SLU 28	-88	36	3268	15.66	5.82	5.59
145	SLU 29	-81	36	3276	15.42	5.88	5.61
145	SLU 30	-88	36	3268	15.66	5.82	5.59
145	SLU 31	-101	41	3775	21.02	6.16	6.43
145	SLU 32	-90	41	3789	20.63	6.25	6.45
145	SLU 33	-97	41	3781	20.86	6.2	6.44
145	SLU 34	-101	41	3775	21.02	6.16	6.43
145	SLU 35	-90	41	3789	20.63	6.25	6.45
145	SLU 36	-97	41	3781	20.86	6.2	6.44
145	SLU 37	-90	41	3789	20.63	6.25	6.45
145	SLU 38	-97	41	3781	20.86	6.2	6.44
145	SLU 39	-94	43	4009	22.86	6.41	6.82
145	SLU 40	-101	43	4001	23.1	6.36	6.8
145	SLU 41	-94	43	4009	22.86	6.41	6.82
145	SLU 42	-101	43	4001	23.1	6.36	6.8
145	SLU 43	-95	41	3635	14.14	7.17	6.47
145	SLU 44	-107	41	3622	14.54	7.08	6.44
145	SLU 45	-95	41	3635	14.14	7.17	6.47
145	SLU 46	-102	41	3627	14.38	7.12	6.45
145	SLU 47	-107	41	3622	14.54	7.08	6.44
145	SLU 48	-95	41	3635	14.14	7.17	6.47
145	SLU 49	-102	41	3627	14.38	7.12	6.45
145	SLU 50	-95	41	3635	14.14	7.17	6.47
145	SLU 51	-102	41	3627	14.38	7.12	6.45
145	SLU 52	-116	46	4135	19.74	7.46	7.29
145	SLU 53	-104	46	4148	19.35	7.55	7.32
145	SLU 54	-111	46	4140	19.59	7.49	7.3
145	SLU 55	-116	46	4135	19.74	7.46	7.29
145	SLU 56	-104	46	4148	19.35	7.55	7.32
145	SLU 57	-111	46	4140	19.59	7.49	7.3
145	SLU 58	-104	46	4148	19.35	7.55	7.32
145	SLU 59	-111	46	4140	19.59	7.49	7.3
145	SLU 60	-108	48	4368	21.58	7.71	7.68
145	SLU 61	-115	48	4360	21.82	7.65	7.67
145	SLU 62	-108	48	4368	21.58	7.71	7.68
145	SLU 63	-115	48	4360	21.82	7.65	7.67
145	SLU 64	-101	45	4015	17.74	7.46	6.97
145	SLU 65	-113	45	4001	18.13	7.37	6.94
145	SLU 66	-101	45	4015	17.74	7.46	6.97
145	SLU 67	-108	45	4007	17.97	7.4	6.95
145	SLU 68	-113	45	4001	18.13	7.37	6.94
145	SLU 69	-101	45	4015	17.74	7.46	6.97
145	SLU 70	-108	45	4007	17.97	7.4	6.95
145	SLU 71	-101	45	4015	17.74	7.46	6.97

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
145	SLU 72	-108	45	4007	17.97	7.4	6.95
145	SLU 73	-122	50	4514	23.34	7.74	7.79
145	SLU 74	-111	50	4528	22.94	7.83	7.82
145	SLU 75	-117	50	4520	23.18	7.78	7.8
145	SLU 76	-122	50	4514	23.34	7.74	7.79
145	SLU 77	-111	50	4528	22.94	7.83	7.82
145	SLU 78	-117	50	4520	23.18	7.78	7.8
145	SLU 79	-111	50	4528	22.94	7.83	7.82
145	SLU 80	-117	50	4520	23.18	7.78	7.8
145	SLU 81	-114	52	4748	25.18	7.99	8.18
145	SLU 82	-121	52	4740	25.41	7.94	8.16
145	SLU 83	-114	52	4748	25.18	7.99	8.18
145	SLU 84	-121	52	4740	25.41	7.94	8.16
145	SLE RA 1	-77	34	3005	12.85	5.68	5.25
145	SLE RA 2	-84	34	2996	13.12	5.61	5.23
145	SLE RA 3	-77	34	3005	12.85	5.68	5.25
145	SLE RA 4	-81	34	3000	13.01	5.64	5.24
145	SLE RA 5	-84	34	2996	13.12	5.61	5.23
145	SLE RA 6	-77	34	3005	12.85	5.68	5.25
145	SLE RA 7	-81	34	3000	13.01	5.64	5.24
145	SLE RA 8	-77	34	3005	12.85	5.68	5.25
145	SLE RA 9	-81	34	3000	13.01	5.64	5.24
145	SLE RA 10	-90	37	3338	16.59	5.86	5.8
145	SLE RA 11	-83	37	3347	16.33	5.92	5.82
145	SLE RA 12	-87	37	3342	16.48	5.89	5.81
145	SLE RA 13	-90	37	3338	16.59	5.86	5.8
145	SLE RA 14	-83	37	3347	16.33	5.92	5.82
145	SLE RA 15	-87	37	3342	16.48	5.89	5.81
145	SLE RA 16	-83	37	3347	16.33	5.92	5.82
145	SLE RA 17	-87	37	3342	16.48	5.89	5.81
145	SLE RA 18	-85	38	3493	17.81	6.03	6.06
145	SLE RA 19	-90	38	3488	17.97	5.99	6.05
145	SLE RA 20	-85	38	3493	17.81	6.03	6.06
145	SLE RA 21	-90	38	3488	17.97	5.99	6.05
145	SLE FR 1	-77	34	3005	12.85	5.68	5.25
145	SLE FR 2	-78	34	3003	12.91	5.66	5.25
145	SLE FR 3	-77	34	3005	12.85	5.68	5.25
145	SLE FR 4	-81	35	3150	14.39	5.77	5.49
145	SLE FR 5	-79	35	3151	14.34	5.78	5.49
145	SLE FR 6	-81	36	3249	15.33	5.85	5.66
145	SLE QP 1	-77	34	3005	12.85	5.68	5.25
145	SLE QP 2	-79	35	3151	14.34	5.78	5.49
145	SLD 1	108	92	3427	6.17	7.31	5.49
145	SLD 2	124	60	3419	6.39	7.28	6.58
145	SLD 3	116	-49	3333	14.55	7.4	6.09
145	SLD 4	132	-82	3324	14.76	7.37	7.18
145	SLD 5	-41	278	3380	-0.89	6.1	4.19
145	SLD 6	-25	246	3372	-0.68	6.07	5.29
145	SLD 7	-14	-193	3066	27.03	6.43	6.21
145	SLD 8	2	-226	3057	27.25	6.39	7.3
145	SLD 9	-161	296	3246	1.43	5.17	3.69
145	SLD 10	-144	263	3237	1.65	5.14	4.78
145	SLD 11	-134	-175	2931	29.36	5.49	5.7
145	SLD 12	-118	-208	2923	29.58	5.46	6.8
145	SLD 13	-291	152	2979	13.92	4.19	3.8
145	SLD 14	-275	119	2970	14.14	4.16	4.89
145	SLD 15	-283	10	2884	22.3	4.29	4.41
145	SLD 16	-267	-22	2876	22.51	4.26	5.5
145	SLV 1	347	164	3778	-4.25	9.25	5.51
145	SLV 2	383	90	3759	-3.75	9.18	7.97
145	SLV 3	365	-157	3564	14.79	9.47	6.89
145	SLV 4	402	-231	3544	15.28	9.4	9.35
145	SLV 5	8	588	3671	-20.28	6.51	2.54
145	SLV 6	44	513	3651	-19.79	6.44	5.01
145	SLV 7	69	-484	2958	43.17	7.25	7.13
145	SLV 8	106	-559	2938	43.67	7.18	9.61
145	SLV 9	-265	629	3365	-14.99	4.39	1.37
145	SLV 10	-228	554	3345	-14.49	4.32	3.85
145	SLV 11	-203	-443	2652	48.47	5.12	5.97
145	SLV 12	-166	-517	2632	48.96	5.05	8.45
145	SLV 13	-560	301	2759	13.4	2.16	1.64
145	SLV 14	-524	228	2739	13.89	2.09	4.1
145	SLV 15	-542	-20	2544	32.44	2.38	3.01
145	SLV 16	-505	-94	2524	32.93	2.31	5.48
145	CRTFP Ux+	0	0	0	0	0	0
145	CRTFP Ux-	0	0	0	0	0	0
145	CRTFP Uy+	0	0	0	0	0	0
145	CRTFP Uy-	0	0	0	0	0	0
146	SLU 1	-119	116	4556	17.14	-633.34	26.7
146	SLU 2	-138	115	4537	17.71	-630.79	26.59
146	SLU 3	-119	116	4556	17.14	-633.34	26.7
146	SLU 4	-131	115	4545	17.48	-631.81	26.64
146	SLU 5	-138	115	4537	17.71	-630.79	26.59
146	SLU 6	-119	116	4556	17.14	-633.34	26.7
146	SLU 7	-131	115	4545	17.48	-631.81	26.64
146	SLU 8	-119	116	4556	17.14	-633.34	26.7

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
146	SLU 9	-131	115	4545	17.48	-631.81	26.64
146	SLU 10	-152	133	5396	27.52	-754.76	30.83
146	SLU 11	-133	134	5415	26.96	-757.31	30.94
146	SLU 12	-144	133	5403	27.29	-755.78	30.87
146	SLU 13	-152	133	5396	27.52	-754.76	30.83
146	SLU 14	-133	134	5415	26.96	-757.31	30.94
146	SLU 15	-144	133	5403	27.29	-755.78	30.87
146	SLU 16	-133	134	5415	26.96	-757.31	30.94
146	SLU 17	-144	133	5403	27.29	-755.78	30.87
146	SLU 18	-139	142	5782	31.16	-810.44	32.76
146	SLU 19	-150	141	5771	31.5	-808.91	32.69
146	SLU 20	-139	142	5782	31.16	-810.44	32.76
146	SLU 21	-150	141	5771	31.5	-808.91	32.69
146	SLU 22	-128	127	5189	23.6	-724.42	29.35
146	SLU 23	-148	127	5170	24.17	-721.87	29.24
146	SLU 24	-128	127	5189	23.6	-724.42	29.35
146	SLU 25	-140	127	5177	23.94	-722.89	29.28
146	SLU 26	-148	127	5170	24.17	-721.87	29.24
146	SLU 27	-128	127	5189	23.6	-724.42	29.35
146	SLU 28	-140	127	5177	23.94	-722.89	29.28
146	SLU 29	-128	127	5189	23.6	-724.42	29.35
146	SLU 30	-140	127	5177	23.94	-722.89	29.28
146	SLU 31	-161	145	6028	33.98	-845.84	33.48
146	SLU 32	-142	146	6047	33.42	-848.39	33.59
146	SLU 33	-154	145	6036	33.75	-846.86	33.52
146	SLU 34	-161	145	6028	33.98	-845.84	33.48
146	SLU 35	-142	146	6047	33.42	-848.39	33.59
146	SLU 36	-154	145	6036	33.75	-846.86	33.52
146	SLU 37	-142	146	6047	33.42	-848.39	33.59
146	SLU 38	-154	145	6036	33.75	-846.86	33.52
146	SLU 39	-148	153	6415	37.62	-901.52	35.41
146	SLU 40	-160	153	6404	37.96	-899.99	35.34
146	SLU 41	-148	153	6415	37.62	-901.52	35.41
146	SLU 42	-160	153	6404	37.96	-899.99	35.34
146	SLU 43	-151	146	5706	20.07	-792.11	33.81
146	SLU 44	-171	146	5687	20.64	-789.56	33.69
146	SLU 45	-151	146	5706	20.07	-792.11	33.81
146	SLU 46	-163	146	5695	20.41	-790.58	33.74
146	SLU 47	-171	146	5687	20.64	-789.56	33.69
146	SLU 48	-151	146	5706	20.07	-792.11	33.81
146	SLU 49	-163	146	5695	20.41	-790.58	33.74
146	SLU 50	-151	146	5706	20.07	-792.11	33.81
146	SLU 51	-163	146	5695	20.41	-790.58	33.74
146	SLU 52	-184	164	6546	30.45	-913.53	37.93
146	SLU 53	-165	164	6564	29.88	-916.08	38.05
146	SLU 54	-177	164	6553	30.22	-914.55	37.98
146	SLU 55	-184	164	6546	30.45	-913.53	37.93
146	SLU 56	-165	164	6564	29.88	-916.08	38.05
146	SLU 57	-177	164	6553	30.22	-914.55	37.98
146	SLU 58	-165	164	6564	29.88	-916.08	38.05
146	SLU 59	-177	164	6553	30.22	-914.55	37.98
146	SLU 60	-171	172	6932	34.09	-969.21	39.86
146	SLU 61	-183	172	6921	34.43	-967.68	39.79
146	SLU 62	-171	172	6932	34.09	-969.21	39.86
146	SLU 63	-183	172	6921	34.43	-967.68	39.79
146	SLU 64	-161	158	6338	26.53	-883.19	36.46
146	SLU 65	-180	157	6320	27.1	-880.64	36.34
146	SLU 66	-161	158	6338	26.53	-883.19	36.46
146	SLU 67	-172	158	6327	26.87	-881.66	36.39
146	SLU 68	-180	157	6320	27.1	-880.64	36.34
146	SLU 69	-161	158	6338	26.53	-883.19	36.46
146	SLU 70	-172	158	6327	26.87	-881.66	36.39
146	SLU 71	-161	158	6338	26.53	-883.19	36.46
146	SLU 72	-172	158	6327	26.87	-881.66	36.39
146	SLU 73	-194	176	7178	36.91	-1004.61	40.58
146	SLU 74	-175	176	7197	36.34	-1007.16	40.69
146	SLU 75	-186	176	7186	36.68	-1005.63	40.62
146	SLU 76	-194	176	7178	36.91	-1004.61	40.58
146	SLU 77	-175	176	7197	36.34	-1007.16	40.69
146	SLU 78	-186	176	7186	36.68	-1005.63	40.62
146	SLU 79	-175	176	7197	36.34	-1007.16	40.69
146	SLU 80	-186	176	7186	36.68	-1005.63	40.62
146	SLU 81	-180	184	7565	40.55	-1060.3	42.51
146	SLU 82	-192	184	7554	40.89	-1058.77	42.44
146	SLU 83	-180	184	7565	40.55	-1060.3	42.51
146	SLU 84	-192	184	7554	40.89	-1058.77	42.44
146	SLE RA 1	-122	119	4737	18.99	-659.36	27.46
146	SLE RA 2	-134	119	4724	19.37	-657.66	27.38
146	SLE RA 3	-122	119	4737	18.99	-659.36	27.46
146	SLE RA 4	-129	119	4729	19.22	-658.34	27.42
146	SLE RA 5	-134	119	4724	19.37	-657.66	27.38
146	SLE RA 6	-122	119	4737	18.99	-659.36	27.46
146	SLE RA 7	-129	119	4729	19.22	-658.34	27.42
146	SLE RA 8	-122	119	4737	18.99	-659.36	27.46
146	SLE RA 9	-129	119	4729	19.22	-658.34	27.42
146	SLE RA 10	-144	131	5297	25.91	-740.31	30.21

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
146	SLE RA 11	-131	131	5309	25.53	-742.01	30.29
146	SLE RA 12	-139	131	5302	25.76	-740.99	30.24
146	SLE RA 13	-144	131	5297	25.91	-740.31	30.21
146	SLE RA 14	-131	131	5309	25.53	-742.01	30.29
146	SLE RA 15	-139	131	5302	25.76	-740.99	30.24
146	SLE RA 16	-131	131	5309	25.53	-742.01	30.29
146	SLE RA 17	-139	131	5302	25.76	-740.99	30.24
146	SLE RA 18	-135	136	5554	28.33	-777.43	31.5
146	SLE RA 19	-142	136	5547	28.56	-776.41	31.45
146	SLE RA 20	-135	136	5554	28.33	-777.43	31.5
146	SLE RA 21	-142	136	5547	28.56	-776.41	31.45
146	SLE FR 1	-122	119	4737	18.99	-659.36	27.46
146	SLE FR 2	-124	119	4734	19.07	-659.02	27.45
146	SLE FR 3	-122	119	4737	18.99	-659.36	27.46
146	SLE FR 4	-128	124	4979	21.87	-694.44	28.66
146	SLE FR 5	-126	124	4982	21.79	-694.78	28.67
146	SLE FR 6	-128	128	5146	23.66	-718.39	29.48
146	SLE QP 1	-122	119	4737	18.99	-659.36	27.46
146	SLE QP 2	-126	124	4982	21.79	-694.78	28.67
146	SLD 1	192	219	5382	9.37	-749.52	41.76
146	SLD 2	220	177	5371	9.67	-748.22	38.02
146	SLD 3	206	-15	5213	22.33	-724.2	9.01
146	SLD 4	233	-57	5202	22.63	-722.89	5.27
146	SLD 5	-61	522	5362	-1.7	-750.07	83.59
146	SLD 6	-33	479	5351	-1.4	-748.76	79.82
146	SLD 7	-15	-257	4799	41.51	-665.66	-25.57
146	SLD 8	13	-299	4788	41.81	-664.35	-29.34
146	SLD 9	-264	548	5176	1.78	-725.21	86.68
146	SLD 10	-236	505	5165	2.08	-723.9	82.91
146	SLD 11	-218	-231	4613	44.99	-640.8	-22.47
146	SLD 12	-190	-273	4602	45.28	-639.49	-26.25
146	SLD 13	-485	305	4762	20.96	-666.67	52.08
146	SLD 14	-457	263	4751	21.25	-665.37	48.33
146	SLD 15	-471	72	4593	33.92	-641.35	19.33
146	SLD 16	-444	30	4582	34.22	-640.04	15.58
146	SLV 1	597	338	5891	-6.46	-819.12	58.29
146	SLV 2	659	242	5865	-5.79	-816.17	49.81
146	SLV 3	629	-193	5507	23	-761.62	-16.11
146	SLV 4	691	-288	5481	23.67	-758.68	-24.59
146	SLV 5	21	1027	5845	-31.59	-820.33	153.39
146	SLV 6	84	931	5820	-30.91	-817.36	144.85
146	SLV 7	127	-742	4567	66.58	-628.67	-94.6
146	SLV 8	189	-838	4541	67.26	-625.7	-103.14
146	SLV 9	-440	1087	5423	-23.67	-763.86	160.48
146	SLV 10	-378	991	5397	-23	-760.89	151.94
146	SLV 11	-335	-683	4144	74.5	-572.2	-87.51
146	SLV 12	-272	-779	4119	75.17	-569.23	-96.05
146	SLV 13	-942	537	4483	19.92	-630.89	81.93
146	SLV 14	-880	441	4457	20.59	-627.94	73.45
146	SLV 15	-910	6	4099	49.37	-573.39	7.53
146	SLV 16	-848	-90	4073	50.04	-570.44	-0.95
146	CRTFP Ux+	0	0	0	0	0	0
146	CRTFP Ux-	0	0	0	0	0	0
146	CRTFP Uy+	0	0	0	0	0	0
146	CRTFP Uy-	0	0	0	0	0	0
147	SLU 1	-101	165	3949	11.48	675.27	-21.89
147	SLU 2	-119	164	3933	11.84	672.51	-21.79
147	SLU 3	-101	165	3949	11.48	675.27	-21.89
147	SLU 4	-112	165	3939	11.7	673.62	-21.83
147	SLU 5	-119	164	3933	11.84	672.51	-21.79
147	SLU 6	-101	165	3949	11.48	675.27	-21.89
147	SLU 7	-112	165	3939	11.7	673.62	-21.83
147	SLU 8	-101	165	3949	11.48	675.27	-21.89
147	SLU 9	-112	165	3939	11.7	673.62	-21.83
147	SLU 10	-130	190	4755	26.71	808.76	-25.22
147	SLU 11	-112	191	4771	26.36	811.52	-25.32
147	SLU 12	-123	191	4761	26.57	809.86	-25.26
147	SLU 13	-130	190	4755	26.71	808.76	-25.22
147	SLU 14	-112	191	4771	26.36	811.52	-25.32
147	SLU 15	-123	191	4761	26.57	809.86	-25.26
147	SLU 16	-112	191	4771	26.36	811.52	-25.32
147	SLU 17	-123	191	4761	26.57	809.86	-25.26
147	SLU 18	-117	202	5123	32.74	869.91	-26.79
147	SLU 19	-128	202	5113	32.95	868.26	-26.73
147	SLU 20	-117	202	5123	32.74	869.91	-26.79
147	SLU 21	-128	202	5113	32.95	868.26	-26.73
147	SLU 22	-109	181	4549	20.41	775.09	-24.1
147	SLU 23	-127	181	4533	20.77	772.33	-24
147	SLU 24	-109	181	4549	20.41	775.09	-24.1
147	SLU 25	-120	181	4540	20.63	773.44	-24.04
147	SLU 26	-127	181	4533	20.77	772.33	-24
147	SLU 27	-109	181	4549	20.41	775.09	-24.1
147	SLU 28	-120	181	4540	20.63	773.44	-24.04
147	SLU 29	-109	181	4549	20.41	775.09	-24.1
147	SLU 30	-120	181	4540	20.63	773.44	-24.04
147	SLU 31	-138	207	5355	35.64	908.58	-27.43

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
147	SLU 32	-120	207	5371	35.29	911.34	-27.53
147	SLU 33	-131	207	5361	35.5	909.68	-27.47
147	SLU 34	-138	207	5355	35.64	908.58	-27.43
147	SLU 35	-120	207	5371	35.29	911.34	-27.53
147	SLU 36	-131	207	5361	35.5	909.68	-27.47
147	SLU 37	-120	207	5371	35.29	911.34	-27.53
147	SLU 38	-131	207	5361	35.5	909.68	-27.47
147	SLU 39	-125	218	5723	41.66	969.73	-29
147	SLU 40	-135	218	5713	41.88	968.07	-28.94
147	SLU 41	-125	218	5723	41.66	969.73	-29
147	SLU 42	-135	218	5713	41.88	968.07	-28.94
147	SLU 43	-129	209	4928	11.87	843.63	-27.7
147	SLU 44	-147	208	4912	12.22	840.87	-27.6
147	SLU 45	-129	209	4928	11.87	843.63	-27.7
147	SLU 46	-140	209	4918	12.08	841.98	-27.64
147	SLU 47	-147	208	4912	12.22	840.87	-27.6
147	SLU 48	-129	209	4928	11.87	843.63	-27.7
147	SLU 49	-140	209	4918	12.08	841.98	-27.64
147	SLU 50	-129	209	4928	11.87	843.63	-27.7
147	SLU 51	-140	209	4918	12.08	841.98	-27.64
147	SLU 52	-158	234	5734	27.1	977.12	-31.03
147	SLU 53	-140	235	5750	26.74	979.88	-31.13
147	SLU 54	-151	235	5740	26.96	978.22	-31.07
147	SLU 55	-158	234	5734	27.1	977.12	-31.03
147	SLU 56	-140	235	5750	26.74	979.88	-31.13
147	SLU 57	-151	235	5740	26.96	978.22	-31.07
147	SLU 58	-140	235	5750	26.74	979.88	-31.13
147	SLU 59	-151	235	5740	26.96	978.22	-31.07
147	SLU 60	-145	246	6102	33.12	1038.27	-32.61
147	SLU 61	-155	246	6092	33.33	1036.61	-32.55
147	SLU 62	-145	246	6102	33.12	1038.27	-32.61
147	SLU 63	-155	246	6092	33.33	1036.61	-32.55
147	SLU 64	-136	225	5528	20.8	943.45	-29.91
147	SLU 65	-155	225	5512	21.15	940.69	-29.81
147	SLU 66	-136	225	5528	20.8	943.45	-29.91
147	SLU 67	-147	225	5519	21.01	941.79	-29.85
147	SLU 68	-155	225	5512	21.15	940.69	-29.81
147	SLU 69	-136	225	5528	20.8	943.45	-29.91
147	SLU 70	-147	225	5519	21.01	941.79	-29.85
147	SLU 71	-136	225	5528	20.8	943.45	-29.91
147	SLU 72	-147	225	5519	21.01	941.79	-29.85
147	SLU 73	-166	251	6334	36.03	1076.94	-33.24
147	SLU 74	-148	251	6350	35.67	1079.7	-33.34
147	SLU 75	-158	251	6340	35.89	1078.04	-33.28
147	SLU 76	-166	251	6334	36.03	1076.94	-33.24
147	SLU 77	-148	251	6350	35.67	1079.7	-33.34
147	SLU 78	-158	251	6340	35.89	1078.04	-33.28
147	SLU 79	-148	251	6350	35.67	1079.7	-33.34
147	SLU 80	-158	251	6340	35.89	1078.04	-33.28
147	SLU 81	-152	262	6702	42.05	1138.09	-34.81
147	SLU 82	-163	262	6692	42.26	1136.43	-34.75
147	SLU 83	-152	262	6702	42.05	1138.09	-34.81
147	SLU 84	-163	262	6692	42.26	1136.43	-34.75
147	SLE RA 1	-103	170	4121	14.03	703.79	-22.52
147	SLE RA 2	-115	169	4110	14.27	701.95	-22.46
147	SLE RA 3	-103	170	4121	14.03	703.79	-22.52
147	SLE RA 4	-111	169	4114	14.18	702.69	-22.48
147	SLE RA 5	-115	169	4110	14.27	701.95	-22.46
147	SLE RA 6	-103	170	4121	14.03	703.79	-22.52
147	SLE RA 7	-111	169	4114	14.18	702.69	-22.48
147	SLE RA 8	-103	170	4121	14.03	703.79	-22.52
147	SLE RA 9	-111	169	4114	14.18	702.69	-22.48
147	SLE RA 10	-123	187	4658	24.19	792.78	-24.74
147	SLE RA 11	-111	187	4668	23.95	794.62	-24.81
147	SLE RA 12	-118	187	4662	24.09	793.52	-24.77
147	SLE RA 13	-123	187	4658	24.19	792.78	-24.74
147	SLE RA 14	-111	187	4668	23.95	794.62	-24.81
147	SLE RA 15	-118	187	4662	24.09	793.52	-24.77
147	SLE RA 16	-111	187	4668	23.95	794.62	-24.81
147	SLE RA 17	-118	187	4662	24.09	793.52	-24.77
147	SLE RA 18	-114	194	4903	28.2	833.55	-25.79
147	SLE RA 19	-121	194	4897	28.34	832.45	-25.75
147	SLE RA 20	-114	194	4903	28.2	833.55	-25.79
147	SLE RA 21	-121	194	4897	28.34	832.45	-25.75
147	SLE FR 1	-103	170	4121	14.03	703.79	-22.52
147	SLE FR 2	-106	170	4118	14.08	703.42	-22.51
147	SLE FR 3	-103	170	4121	14.03	703.79	-22.52
147	SLE FR 4	-109	177	4353	18.33	742.35	-23.49
147	SLE FR 5	-106	177	4355	18.28	742.72	-23.5
147	SLE FR 6	-109	182	4512	21.12	768.67	-24.16
147	SLE QP 1	-103	170	4121	14.03	703.79	-22.52
147	SLE QP 2	-106	177	4355	18.28	742.72	-23.5
147	SLD 1	191	263	4699	7.82	801.88	-38.22
147	SLD 2	216	238	4694	7.95	800.76	-32.04
147	SLD 3	204	50	4524	19.51	773.32	-1.88
147	SLD 4	229	24	4519	19.65	772.21	4.3

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
147	SLD 5	-46	536	4727	-2.64	804.17	-85.22
147	SLD 6	-21	510	4722	-2.51	803.05	-78.99
147	SLD 7	-2	-176	4141	36.35	708.99	35.91
147	SLD 8	23	-202	4136	36.48	707.87	42.14
147	SLD 9	-236	556	4575	0.09	777.57	-89.14
147	SLD 10	-210	530	4570	0.22	776.45	-82.92
147	SLD 11	-192	-156	3989	39.08	682.39	31.98
147	SLD 12	-167	-182	3984	39.21	681.27	38.21
147	SLD 13	-442	330	4192	16.92	713.23	-51.31
147	SLD 14	-417	305	4187	17.05	712.12	-45.13
147	SLD 15	-429	116	4016	28.62	684.68	-14.97
147	SLD 16	-403	91	4011	28.75	683.56	-8.79
147	SLV 1	569	372	5137	-5.5	877.09	-56.76
147	SLV 2	626	314	5126	-5.2	874.58	-42.76
147	SLV 3	599	-113	4738	21.07	812.26	25.8
147	SLV 4	656	-171	4726	21.37	809.74	39.8
147	SLV 5	30	992	5199	-29.25	882.26	-163.64
147	SLV 6	88	934	5188	-28.95	879.73	-149.55
147	SLV 7	131	-626	3869	59.31	666.13	111.56
147	SLV 8	188	-684	3857	59.61	663.6	125.65
147	SLV 9	-401	1038	4853	-23.04	821.84	-172.66
147	SLV 10	-344	980	4842	-22.74	819.31	-158.57
147	SLV 11	-301	-580	3523	65.52	605.71	102.55
147	SLV 12	-243	-638	3511	65.82	603.18	116.64
147	SLV 13	-869	525	3984	15.2	675.7	-86.81
147	SLV 14	-812	468	3973	15.5	673.18	-72.81
147	SLV 15	-839	40	3585	41.77	610.86	-4.25
147	SLV 16	-782	-18	3574	42.06	608.35	9.75
147	CRTFP Ux+	0	0	0	0	0	0
147	CRTFP Ux-	0	0	0	0	0	0
147	CRTFP Uy+	0	0	0	0	0	0
147	CRTFP Uy-	0	0	0	0	0	0
148	SLU 1	-46	92	1862	5.6	0.85	0.99
148	SLU 2	-55	92	1855	5.77	0.83	1
148	SLU 3	-46	92	1862	5.6	0.85	0.99
148	SLU 4	-51	92	1858	5.7	0.84	0.99
148	SLU 5	-55	92	1855	5.77	0.83	1
148	SLU 6	-46	92	1862	5.6	0.85	0.99
148	SLU 7	-51	92	1858	5.7	0.84	0.99
148	SLU 8	-46	92	1862	5.6	0.85	0.99
148	SLU 9	-51	92	1858	5.7	0.84	0.99
148	SLU 10	-60	106	2269	14.47	0.6	1.16
148	SLU 11	-51	107	2276	14.31	0.63	1.15
148	SLU 12	-56	107	2272	14.41	0.61	1.15
148	SLU 13	-60	106	2269	14.47	0.6	1.16
148	SLU 14	-51	107	2276	14.31	0.63	1.15
148	SLU 15	-56	107	2272	14.41	0.61	1.15
148	SLU 16	-51	107	2276	14.31	0.63	1.15
148	SLU 17	-56	107	2272	14.41	0.61	1.15
148	SLU 18	-53	113	2453	18.04	0.53	1.22
148	SLU 19	-58	113	2449	18.14	0.52	1.22
148	SLU 20	-53	113	2453	18.04	0.53	1.22
148	SLU 21	-58	113	2449	18.14	0.52	1.22
148	SLU 22	-49	101	2163	10.76	0.72	1.07
148	SLU 23	-58	101	2156	10.93	0.69	1.08
148	SLU 24	-49	101	2163	10.76	0.72	1.07
148	SLU 25	-55	101	2158	10.86	0.7	1.08
148	SLU 26	-58	101	2156	10.93	0.69	1.08
148	SLU 27	-49	101	2163	10.76	0.72	1.07
148	SLU 28	-55	101	2158	10.86	0.7	1.08
148	SLU 29	-49	101	2163	10.76	0.72	1.07
148	SLU 30	-55	101	2158	10.86	0.7	1.08
148	SLU 31	-63	115	2570	19.63	0.47	1.24
148	SLU 32	-54	116	2576	19.47	0.49	1.24
148	SLU 33	-60	115	2572	19.57	0.48	1.24
148	SLU 34	-63	115	2570	19.63	0.47	1.24
148	SLU 35	-54	116	2576	19.47	0.49	1.24
148	SLU 36	-60	115	2572	19.57	0.48	1.24
148	SLU 37	-54	116	2576	19.47	0.49	1.24
148	SLU 38	-60	115	2572	19.57	0.48	1.24
148	SLU 39	-56	122	2754	23.2	0.4	1.3
148	SLU 40	-62	122	2750	23.3	0.38	1.31
148	SLU 41	-56	122	2754	23.2	0.4	1.3
148	SLU 42	-62	122	2750	23.3	0.38	1.31
148	SLU 43	-59	117	2317	5.51	1.15	1.26
148	SLU 44	-68	117	2311	5.68	1.13	1.27
148	SLU 45	-59	117	2317	5.51	1.15	1.26
148	SLU 46	-64	117	2313	5.61	1.14	1.26
148	SLU 47	-68	117	2311	5.68	1.13	1.27
148	SLU 48	-59	117	2317	5.51	1.15	1.26
148	SLU 49	-64	117	2313	5.61	1.14	1.26
148	SLU 50	-59	117	2317	5.51	1.15	1.26
148	SLU 51	-64	117	2313	5.61	1.14	1.26
148	SLU 52	-72	131	2725	14.39	0.9	1.43
148	SLU 53	-64	131	2731	14.22	0.93	1.42
148	SLU 54	-69	131	2727	14.32	0.92	1.42

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
148	SLU 55	-72	131	2725	14.39	0.9	1.43
148	SLU 56	-64	131	2731	14.22	0.93	1.42
148	SLU 57	-69	131	2727	14.32	0.92	1.42
148	SLU 58	-64	131	2731	14.22	0.93	1.42
148	SLU 59	-69	131	2727	14.32	0.92	1.42
148	SLU 60	-66	137	2909	17.95	0.84	1.49
148	SLU 61	-71	137	2905	18.05	0.82	1.49
148	SLU 62	-66	137	2909	17.95	0.84	1.49
148	SLU 63	-71	137	2905	18.05	0.82	1.49
148	SLU 64	-62	126	2618	10.67	1.02	1.34
148	SLU 65	-71	125	2611	10.84	0.99	1.35
148	SLU 66	-62	126	2618	10.67	1.02	1.34
148	SLU 67	-67	126	2614	10.77	1	1.35
148	SLU 68	-71	125	2611	10.84	0.99	1.35
148	SLU 69	-62	126	2618	10.67	1.02	1.34
148	SLU 70	-67	126	2614	10.77	1	1.35
148	SLU 71	-62	126	2618	10.67	1.02	1.34
148	SLU 72	-67	126	2614	10.77	1	1.35
148	SLU 73	-76	140	3025	19.55	0.77	1.51
148	SLU 74	-67	140	3032	19.38	0.8	1.5
148	SLU 75	-72	140	3028	19.48	0.78	1.51
148	SLU 76	-76	140	3025	19.55	0.77	1.51
148	SLU 77	-67	140	3032	19.38	0.8	1.5
148	SLU 78	-72	140	3028	19.48	0.78	1.51
148	SLU 79	-67	140	3032	19.38	0.8	1.5
148	SLU 80	-72	140	3028	19.48	0.78	1.51
148	SLU 81	-69	146	3209	23.11	0.7	1.57
148	SLU 82	-74	146	3205	23.21	0.69	1.58
148	SLU 83	-69	146	3209	23.11	0.7	1.57
148	SLU 84	-74	146	3205	23.21	0.69	1.58
148	SLE RA 1	-47	95	1948	7.07	0.81	1.02
148	SLE RA 2	-53	95	1943	7.18	0.8	1.02
148	SLE RA 3	-47	95	1948	7.07	0.81	1.02
148	SLE RA 4	-51	95	1945	7.14	0.8	1.02
148	SLE RA 5	-53	95	1943	7.18	0.8	1.02
148	SLE RA 6	-47	95	1948	7.07	0.81	1.02
148	SLE RA 7	-51	95	1945	7.14	0.8	1.02
148	SLE RA 8	-47	95	1948	7.07	0.81	1.02
148	SLE RA 9	-51	95	1945	7.14	0.8	1.02
148	SLE RA 10	-56	104	2219	12.99	0.65	1.13
148	SLE RA 11	-50	104	2224	12.88	0.66	1.12
148	SLE RA 12	-54	104	2221	12.95	0.65	1.12
148	SLE RA 13	-56	104	2219	12.99	0.65	1.13
148	SLE RA 14	-50	104	2224	12.88	0.66	1.12
148	SLE RA 15	-54	104	2221	12.95	0.65	1.12
148	SLE RA 16	-50	104	2224	12.88	0.66	1.12
148	SLE RA 17	-54	104	2221	12.95	0.65	1.12
148	SLE RA 18	-52	109	2342	15.37	0.6	1.17
148	SLE RA 19	-55	108	2339	15.43	0.59	1.17
148	SLE RA 20	-52	109	2342	15.37	0.6	1.17
148	SLE RA 21	-55	108	2339	15.43	0.59	1.17
148	SLE FR 1	-47	95	1948	7.07	0.81	1.02
148	SLE FR 2	-48	95	1947	7.09	0.81	1.02
148	SLE FR 3	-47	95	1948	7.07	0.81	1.02
148	SLE FR 4	-50	99	2065	9.58	0.75	1.06
148	SLE FR 5	-48	99	2066	9.56	0.75	1.06
148	SLE FR 6	-49	102	2145	11.22	0.71	1.09
148	SLE QP 1	-47	95	1948	7.07	0.81	1.02
148	SLE QP 2	-48	99	2066	9.56	0.75	1.06
148	SLD 1	97	169	2219	4.08	1.16	1.12
148	SLD 2	109	161	2218	4.13	1.14	1.77
148	SLD 3	103	66	2128	10.31	1.23	1.27
148	SLD 4	115	58	2127	10.36	1.22	1.91
148	SLD 5	-19	280	2251	-1.55	0.76	0.63
148	SLD 6	-7	272	2250	-1.5	0.75	1.27
148	SLD 7	3	-65	1946	19.22	1.01	1.12
148	SLD 8	15	-73	1945	19.27	1	1.77
148	SLD 9	-112	271	2187	-0.15	0.5	0.35
148	SLD 10	-99	263	2186	-0.09	0.49	1
148	SLD 11	-90	-74	1882	20.62	0.75	0.85
148	SLD 12	-78	-82	1881	20.67	0.74	1.5
148	SLD 13	-212	140	2005	8.76	0.28	0.21
148	SLD 14	-200	132	2004	8.81	0.27	0.85
148	SLD 15	-206	37	1914	14.99	0.36	0.36
148	SLD 16	-193	29	1913	15.04	0.34	1
148	SLV 1	281	259	2414	-2.89	1.67	1.21
148	SLV 2	309	241	2412	-2.77	1.64	2.67
148	SLV 3	296	23	2207	11.26	1.84	1.56
148	SLV 4	324	6	2204	11.38	1.81	3.01
148	SLV 5	18	510	2487	-15.68	0.78	0.07
148	SLV 6	46	492	2484	-15.56	0.74	1.53
148	SLV 7	68	-274	1794	31.49	1.35	1.22
148	SLV 8	96	-292	1791	31.61	1.32	2.69
148	SLV 9	-193	490	2341	-12.49	0.18	-0.56
148	SLV 10	-165	472	2338	-12.37	0.15	0.9
148	SLV 11	-143	-294	1648	34.68	0.75	0.59

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
148	SLV 12	-115	-312	1645	34.8	0.72	2.06
148	SLV 13	-421	192	1928	7.74	-0.31	-0.89
148	SLV 14	-393	174	1926	7.86	-0.34	0.56
148	SLV 15	-406	-43	1720	21.89	-0.14	-0.54
148	SLV 16	-378	-61	1718	22.01	-0.17	0.91
148	CRTFP Ux+	0	0	0	0	0	0
148	CRTFP Ux-	0	0	0	0	0	0
148	CRTFP Uy+	0	0	0	0	0	0
148	CRTFP Uy-	0	0	0	0	0	0
149	SLU 1	-44	95	1833	5.5	0.67	0.15
149	SLU 2	-53	95	1828	5.66	0.63	0.15
149	SLU 3	-44	95	1833	5.5	0.67	0.15
149	SLU 4	-49	95	1830	5.6	0.64	0.15
149	SLU 5	-53	95	1828	5.66	0.63	0.15
149	SLU 6	-44	95	1833	5.5	0.67	0.15
149	SLU 7	-49	95	1830	5.6	0.64	0.15
149	SLU 8	-44	95	1833	5.5	0.67	0.15
149	SLU 9	-49	95	1830	5.6	0.64	0.15
149	SLU 10	-57	110	2249	14.53	0.46	0.19
149	SLU 11	-49	110	2255	14.36	0.5	0.18
149	SLU 12	-54	110	2251	14.46	0.48	0.18
149	SLU 13	-57	110	2249	14.53	0.46	0.19
149	SLU 14	-49	110	2255	14.36	0.5	0.18
149	SLU 15	-54	110	2251	14.46	0.48	0.18
149	SLU 16	-49	110	2255	14.36	0.5	0.18
149	SLU 17	-54	110	2251	14.46	0.48	0.18
149	SLU 18	-51	116	2435	18.16	0.43	0.2
149	SLU 19	-56	116	2432	18.26	0.41	0.2
149	SLU 20	-51	116	2435	18.16	0.43	0.2
149	SLU 21	-56	116	2432	18.26	0.41	0.2
149	SLU 22	-47	104	2138	10.74	0.57	0.15
149	SLU 23	-56	104	2133	10.91	0.53	0.16
149	SLU 24	-47	104	2138	10.74	0.57	0.15
149	SLU 25	-53	104	2135	10.84	0.54	0.16
149	SLU 26	-56	104	2133	10.91	0.53	0.16
149	SLU 27	-47	104	2138	10.74	0.57	0.15
149	SLU 28	-53	104	2135	10.84	0.54	0.16
149	SLU 29	-47	104	2138	10.74	0.57	0.15
149	SLU 30	-53	104	2135	10.84	0.54	0.16
149	SLU 31	-61	119	2554	19.77	0.36	0.19
149	SLU 32	-52	119	2560	19.61	0.4	0.19
149	SLU 33	-57	119	2556	19.7	0.38	0.19
149	SLU 34	-61	119	2554	19.77	0.36	0.19
149	SLU 35	-52	119	2560	19.61	0.4	0.19
149	SLU 36	-57	119	2556	19.7	0.38	0.19
149	SLU 37	-52	119	2560	19.61	0.4	0.19
149	SLU 38	-57	119	2556	19.7	0.38	0.19
149	SLU 39	-54	125	2740	23.41	0.33	0.2
149	SLU 40	-59	125	2737	23.5	0.31	0.2
149	SLU 41	-54	125	2740	23.41	0.33	0.2
149	SLU 42	-59	125	2737	23.5	0.31	0.2
149	SLU 43	-56	120	2279	5.35	0.9	0.19
149	SLU 44	-65	120	2273	5.52	0.86	0.2
149	SLU 45	-56	120	2279	5.35	0.9	0.19
149	SLU 46	-62	120	2275	5.45	0.88	0.19
149	SLU 47	-65	120	2273	5.52	0.86	0.2
149	SLU 48	-56	120	2279	5.35	0.9	0.19
149	SLU 49	-62	120	2275	5.45	0.88	0.19
149	SLU 50	-56	120	2279	5.35	0.9	0.19
149	SLU 51	-62	120	2275	5.45	0.88	0.19
149	SLU 52	-70	135	2694	14.38	0.7	0.23
149	SLU 53	-61	135	2700	14.22	0.74	0.22
149	SLU 54	-66	135	2697	14.32	0.71	0.23
149	SLU 55	-70	135	2694	14.38	0.7	0.23
149	SLU 56	-61	135	2700	14.22	0.74	0.22
149	SLU 57	-66	135	2697	14.32	0.71	0.23
149	SLU 58	-61	135	2700	14.22	0.74	0.22
149	SLU 59	-66	135	2697	14.32	0.71	0.23
149	SLU 60	-63	142	2881	18.02	0.67	0.24
149	SLU 61	-68	142	2877	18.12	0.64	0.24
149	SLU 62	-63	142	2881	18.02	0.67	0.24
149	SLU 63	-68	142	2877	18.12	0.64	0.24
149	SLU 64	-59	129	2584	10.59	0.8	0.2
149	SLU 65	-68	129	2578	10.76	0.76	0.2
149	SLU 66	-59	129	2584	10.59	0.8	0.2
149	SLU 67	-65	129	2580	10.69	0.78	0.2
149	SLU 68	-68	129	2578	10.76	0.76	0.2
149	SLU 69	-59	129	2584	10.59	0.8	0.2
149	SLU 70	-65	129	2580	10.69	0.78	0.2
149	SLU 71	-59	129	2584	10.59	0.8	0.2
149	SLU 72	-65	129	2580	10.69	0.78	0.2
149	SLU 73	-73	144	3000	19.62	0.6	0.23
149	SLU 74	-64	144	3005	19.46	0.64	0.23
149	SLU 75	-69	144	3002	19.56	0.61	0.23
149	SLU 76	-73	144	3000	19.62	0.6	0.23
149	SLU 77	-64	144	3005	19.46	0.64	0.23

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
149	SLU 78	-69	144	3002	19.56	0.61	0.23
149	SLU 79	-64	144	3005	19.46	0.64	0.23
149	SLU 80	-69	144	3002	19.56	0.61	0.23
149	SLU 81	-66	151	3186	23.26	0.57	0.24
149	SLU 82	-71	151	3182	23.36	0.54	0.25
149	SLU 83	-66	151	3186	23.26	0.57	0.24
149	SLU 84	-71	151	3182	23.36	0.54	0.25
149	SLE RA 1	-45	98	1920	7	0.64	0.15
149	SLE RA 2	-51	97	1917	7.11	0.61	0.15
149	SLE RA 3	-45	98	1920	7	0.64	0.15
149	SLE RA 4	-49	98	1918	7.06	0.62	0.15
149	SLE RA 5	-51	97	1917	7.11	0.61	0.15
149	SLE RA 6	-45	98	1920	7	0.64	0.15
149	SLE RA 7	-49	98	1918	7.06	0.62	0.15
149	SLE RA 8	-45	98	1920	7	0.64	0.15
149	SLE RA 9	-49	98	1918	7.06	0.62	0.15
149	SLE RA 10	-54	107	2198	13.02	0.5	0.18
149	SLE RA 11	-48	108	2201	12.91	0.53	0.17
149	SLE RA 12	-52	107	2199	12.97	0.51	0.17
149	SLE RA 13	-54	107	2198	13.02	0.5	0.18
149	SLE RA 14	-48	108	2201	12.91	0.53	0.17
149	SLE RA 15	-52	107	2199	12.97	0.51	0.17
149	SLE RA 16	-48	108	2201	12.91	0.53	0.17
149	SLE RA 17	-52	107	2199	12.97	0.51	0.17
149	SLE RA 18	-49	112	2322	15.44	0.48	0.18
149	SLE RA 19	-53	112	2320	15.51	0.47	0.18
149	SLE RA 20	-49	112	2322	15.44	0.48	0.18
149	SLE RA 21	-53	112	2320	15.51	0.47	0.18
149	SLE FR 1	-45	98	1920	7	0.64	0.15
149	SLE FR 2	-46	98	1920	7.02	0.63	0.15
149	SLE FR 3	-45	98	1920	7	0.64	0.15
149	SLE FR 4	-47	102	2040	9.55	0.59	0.16
149	SLE FR 5	-46	102	2041	9.53	0.59	0.16
149	SLE FR 6	-47	105	2121	11.22	0.56	0.17
149	SLE QP 1	-45	98	1920	7	0.64	0.15
149	SLE QP 2	-46	102	2041	9.53	0.59	0.16
149	SLD 1	99	170	2175	4.07	1.21	0.22
149	SLD 2	111	165	2174	4.11	1.2	0.85
149	SLD 3	105	66	2081	10.3	1.24	0.35
149	SLD 4	118	61	2081	10.35	1.24	0.98
149	SLD 5	-17	281	2223	-1.58	0.72	-0.25
149	SLD 6	-5	275	2222	-1.53	0.72	0.38
149	SLD 7	5	-64	1912	19.19	0.84	0.2
149	SLD 8	17	-69	1911	19.24	0.84	0.83
149	SLD 9	-110	272	2171	-0.18	0.35	-0.51
149	SLD 10	-97	267	2170	-0.14	0.35	0.12
149	SLD 11	-88	-72	1860	20.59	0.46	-0.06
149	SLD 12	-76	-77	1859	20.64	0.46	0.57
149	SLD 13	-210	142	2001	8.71	-0.06	-0.66
149	SLD 14	-198	137	2000	8.76	-0.06	-0.03
149	SLD 15	-204	39	1908	14.95	-0.02	-0.53
149	SLD 16	-191	34	1907	14.99	-0.02	0.1
149	SLV 1	284	256	2345	-2.88	1.99	0.31
149	SLV 2	311	245	2343	-2.77	1.99	1.72
149	SLV 3	299	22	2133	11.27	2.07	0.62
149	SLV 4	326	10	2131	11.38	2.06	2.04
149	SLV 5	20	508	2454	-15.7	0.89	-0.77
149	SLV 6	48	496	2452	-15.59	0.89	0.65
149	SLV 7	70	-274	1747	31.48	1.15	0.27
149	SLV 8	98	-285	1746	31.59	1.15	1.7
149	SLV 9	-191	489	2336	-12.53	0.03	-1.38
149	SLV 10	-163	478	2334	-12.42	0.03	0.05
149	SLV 11	-140	-293	1629	34.65	0.29	-0.33
149	SLV 12	-112	-304	1627	34.76	0.29	1.09
149	SLV 13	-419	194	1951	7.68	-0.88	-1.72
149	SLV 14	-391	182	1949	7.79	-0.88	-0.3
149	SLV 15	-404	-41	1739	21.83	-0.8	-1.4
149	SLV 16	-376	-52	1737	21.94	-0.81	0.01
149	CRTFP Ux+	0	0	0	0	0	0
149	CRTFP Ux-	0	0	0	0	0	0
149	CRTFP Uy+	0	0	0	0	0	0
149	CRTFP Uy-	0	0	0	0	0	0
150	SLU 1	-38	84	1628	4.88	26.68	-2.03
150	SLU 2	-46	84	1625	5.03	26.59	-2.03
150	SLU 3	-38	84	1628	4.88	26.68	-2.03
150	SLU 4	-43	84	1626	4.97	26.62	-2.03
150	SLU 5	-46	84	1625	5.03	26.59	-2.03
150	SLU 6	-38	84	1628	4.88	26.68	-2.03
150	SLU 7	-43	84	1626	4.97	26.62	-2.03
150	SLU 8	-38	84	1628	4.88	26.68	-2.03
150	SLU 9	-43	84	1626	4.97	26.62	-2.03
150	SLU 10	-50	98	2008	13.16	32.7	-2.33
150	SLU 11	-42	98	2012	13.01	32.8	-2.34
150	SLU 12	-47	98	2009	13.1	32.74	-2.34
150	SLU 13	-50	98	2008	13.16	32.7	-2.33
150	SLU 14	-42	98	2012	13.01	32.8	-2.34

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
150	SLU 15	-47	98	2009	13.1	32.74	-2.34
150	SLU 16	-42	98	2012	13.01	32.8	-2.34
150	SLU 17	-47	98	2009	13.1	32.74	-2.34
150	SLU 18	-44	103	2176	16.5	35.42	-2.47
150	SLU 19	-48	103	2174	16.58	35.36	-2.47
150	SLU 20	-44	103	2176	16.5	35.42	-2.47
150	SLU 21	-48	103	2174	16.58	35.36	-2.47
150	SLU 22	-41	93	1905	9.68	31.11	-2.23
150	SLU 23	-49	92	1902	9.82	31.02	-2.23
150	SLU 24	-41	93	1905	9.68	31.11	-2.23
150	SLU 25	-46	92	1903	9.76	31.05	-2.23
150	SLU 26	-49	92	1902	9.82	31.02	-2.23
150	SLU 27	-41	93	1905	9.68	31.11	-2.23
150	SLU 28	-46	92	1903	9.76	31.05	-2.23
150	SLU 29	-41	93	1905	9.68	31.11	-2.23
150	SLU 30	-46	92	1903	9.76	31.05	-2.23
150	SLU 31	-53	106	2285	17.95	37.13	-2.53
150	SLU 32	-45	106	2288	17.81	37.23	-2.54
150	SLU 33	-49	106	2286	17.9	37.17	-2.54
150	SLU 34	-53	106	2285	17.95	37.13	-2.53
150	SLU 35	-45	106	2288	17.81	37.23	-2.54
150	SLU 36	-49	106	2286	17.9	37.17	-2.54
150	SLU 37	-45	106	2288	17.81	37.23	-2.54
150	SLU 38	-49	106	2286	17.9	37.17	-2.54
150	SLU 39	-46	112	2452	21.29	39.85	-2.67
150	SLU 40	-51	111	2450	21.38	39.79	-2.67
150	SLU 41	-46	112	2452	21.29	39.85	-2.67
150	SLU 42	-51	111	2450	21.38	39.79	-2.67
150	SLU 43	-48	107	2022	4.7	33.16	-2.58
150	SLU 44	-57	107	2019	4.84	33.07	-2.57
150	SLU 45	-48	107	2022	4.7	33.16	-2.58
150	SLU 46	-53	107	2020	4.79	33.11	-2.57
150	SLU 47	-57	107	2019	4.84	33.07	-2.57
150	SLU 48	-48	107	2022	4.7	33.16	-2.58
150	SLU 49	-53	107	2020	4.79	33.11	-2.57
150	SLU 50	-48	107	2022	4.7	33.16	-2.58
150	SLU 51	-53	107	2020	4.79	33.11	-2.57
150	SLU 52	-60	120	2402	12.98	39.19	-2.88
150	SLU 53	-52	120	2405	12.83	39.28	-2.88
150	SLU 54	-57	120	2403	12.92	39.23	-2.88
150	SLU 55	-60	120	2402	12.98	39.19	-2.88
150	SLU 56	-52	120	2405	12.83	39.28	-2.88
150	SLU 57	-57	120	2403	12.92	39.23	-2.88
150	SLU 58	-52	120	2405	12.83	39.28	-2.88
150	SLU 59	-57	120	2403	12.92	39.23	-2.88
150	SLU 60	-54	126	2569	16.32	41.91	-3.02
150	SLU 61	-59	126	2567	16.4	41.85	-3.01
150	SLU 62	-54	126	2569	16.32	41.91	-3.02
150	SLU 63	-59	126	2567	16.4	41.85	-3.01
150	SLU 64	-51	115	2299	9.5	37.59	-2.77
150	SLU 65	-59	115	2295	9.64	37.5	-2.77
150	SLU 66	-51	115	2299	9.5	37.59	-2.77
150	SLU 67	-56	115	2297	9.58	37.54	-2.77
150	SLU 68	-59	115	2295	9.64	37.5	-2.77
150	SLU 69	-51	115	2299	9.5	37.59	-2.77
150	SLU 70	-56	115	2297	9.58	37.54	-2.77
150	SLU 71	-51	115	2299	9.5	37.59	-2.77
150	SLU 72	-56	115	2297	9.58	37.54	-2.77
150	SLU 73	-63	128	2678	17.77	43.62	-3.08
150	SLU 74	-55	128	2682	17.63	43.71	-3.08
150	SLU 75	-60	128	2680	17.72	43.66	-3.08
150	SLU 76	-63	128	2678	17.77	43.62	-3.08
150	SLU 77	-55	128	2682	17.63	43.71	-3.08
150	SLU 78	-60	128	2680	17.72	43.66	-3.08
150	SLU 79	-55	128	2682	17.63	43.71	-3.08
150	SLU 80	-60	128	2680	17.72	43.66	-3.08
150	SLU 81	-57	134	2846	21.11	46.34	-3.21
150	SLU 82	-62	134	2844	21.2	46.28	-3.21
150	SLU 83	-57	134	2846	21.11	46.34	-3.21
150	SLU 84	-62	134	2844	21.2	46.28	-3.21
150	SLE RA 1	-39	87	1708	6.25	27.95	-2.09
150	SLE RA 2	-44	87	1705	6.35	27.88	-2.09
150	SLE RA 3	-39	87	1708	6.25	27.95	-2.09
150	SLE RA 4	-42	87	1706	6.31	27.91	-2.09
150	SLE RA 5	-44	87	1705	6.35	27.88	-2.09
150	SLE RA 6	-39	87	1708	6.25	27.95	-2.09
150	SLE RA 7	-42	87	1706	6.31	27.91	-2.09
150	SLE RA 8	-39	87	1708	6.25	27.95	-2.09
150	SLE RA 9	-42	87	1706	6.31	27.91	-2.09
150	SLE RA 10	-47	96	1961	11.77	31.96	-2.29
150	SLE RA 11	-41	96	1963	11.67	32.02	-2.3
150	SLE RA 12	-45	96	1961	11.73	31.99	-2.29
150	SLE RA 13	-47	96	1961	11.77	31.96	-2.29
150	SLE RA 14	-41	96	1963	11.67	32.02	-2.3
150	SLE RA 15	-45	96	1961	11.73	31.99	-2.29
150	SLE RA 16	-41	96	1963	11.67	32.02	-2.3

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
150	SLE RA 17	-45	96	1961	11.73	31.99	-2.29
150	SLE RA 18	-42	99	2072	13.99	33.77	-2.38
150	SLE RA 19	-46	99	2071	14.05	33.74	-2.38
150	SLE RA 20	-42	99	2072	13.99	33.77	-2.38
150	SLE RA 21	-46	99	2071	14.05	33.74	-2.38
150	SLE FR 1	-39	87	1708	6.25	27.95	-2.09
150	SLE FR 2	-40	87	1707	6.27	27.93	-2.09
150	SLE FR 3	-39	87	1708	6.25	27.95	-2.09
150	SLE FR 4	-41	91	1817	8.59	29.68	-2.18
150	SLE FR 5	-40	91	1817	8.57	29.69	-2.18
150	SLE FR 6	-41	93	1890	10.12	30.86	-2.24
150	SLE QP 1	-39	87	1708	6.25	27.95	-2.09
150	SLE QP 2	-40	91	1817	8.57	29.69	-2.18
150	SLD 1	91	150	1915	3.66	31.84	-2.79
150	SLD 2	102	148	1914	3.7	31.83	-2.22
150	SLD 3	97	57	1831	9.28	30.46	-1.22
150	SLD 4	108	55	1830	9.32	30.45	-0.65
150	SLD 5	-14	249	1974	-1.45	32.42	-4.94
150	SLD 6	-3	247	1973	-1.41	32.42	-4.37
150	SLD 7	6	-59	1694	17.3	27.84	0.28
150	SLD 8	17	-61	1693	17.34	27.84	0.86
150	SLD 9	-97	242	1941	-0.2	31.55	-5.22
150	SLD 10	-86	240	1940	-0.16	31.54	-4.64
150	SLD 11	-77	-66	1661	18.55	26.97	0.01
150	SLD 12	-66	-68	1660	18.59	26.96	0.59
150	SLD 13	-187	126	1804	7.83	28.93	-3.71
150	SLD 14	-176	124	1803	7.87	28.93	-3.13
150	SLD 15	-181	34	1720	13.45	27.56	-2.14
150	SLD 16	-170	31	1719	13.49	27.55	-1.57
150	SLV 1	257	225	2039	-2.6	34.56	-3.56
150	SLV 2	282	220	2037	-2.5	34.54	-2.26
150	SLV 3	270	15	1848	10.18	31.44	0.01
150	SLV 4	295	10	1846	10.27	31.42	1.31
150	SLV 5	19	451	2173	-14.19	35.89	-8.46
150	SLV 6	44	447	2171	-14.1	35.88	-7.15
150	SLV 7	65	-249	1538	28.4	25.49	3.42
150	SLV 8	90	-254	1536	28.49	25.47	4.73
150	SLV 9	-170	435	2098	-11.35	33.91	-9.09
150	SLV 10	-145	431	2096	-11.25	33.9	-7.78
150	SLV 11	-124	-266	1463	31.24	23.51	2.79
150	SLV 12	-99	-270	1461	31.34	23.5	4.1
150	SLV 13	-375	171	1788	6.87	27.97	-5.67
150	SLV 14	-350	166	1786	6.97	27.95	-4.37
150	SLV 15	-361	-39	1597	19.65	24.84	-2.1
150	SLV 16	-336	-44	1595	19.74	24.83	-0.8
150	CRTFP Ux+	0	0	0	0	0	0
150	CRTFP Ux-	0	0	0	0	0	0
150	CRTFP Uy+	0	0	0	0	0	0
150	CRTFP Uy-	0	0	0	0	0	0
152	SLU 1	-80	177	3603	161.37	-20.49	1.2
152	SLU 2	-98	176	3600	161.43	-21.35	1.98
152	SLU 3	-80	177	3603	161.37	-20.49	1.2
152	SLU 4	-91	176	3601	161.41	-21.01	1.67
152	SLU 5	-98	176	3600	161.43	-21.35	1.98
152	SLU 6	-80	177	3603	161.37	-20.49	1.2
152	SLU 7	-91	176	3601	161.41	-21.01	1.67
152	SLU 8	-80	177	3603	161.37	-20.49	1.2
152	SLU 9	-91	176	3601	161.41	-21.01	1.67
152	SLU 10	-106	204	4464	210.73	-28.01	2.02
152	SLU 11	-88	205	4468	210.67	-27.15	1.25
152	SLU 12	-99	205	4466	210.71	-27.67	1.71
152	SLU 13	-106	204	4464	210.73	-28.01	2.02
152	SLU 14	-88	205	4468	210.67	-27.15	1.25
152	SLU 15	-99	205	4466	210.71	-27.67	1.71
152	SLU 16	-88	205	4468	210.67	-27.15	1.25
152	SLU 17	-99	205	4466	210.71	-27.67	1.71
152	SLU 18	-91	217	4838	231.8	-30.01	1.27
152	SLU 19	-102	217	4836	231.83	-30.52	1.73
152	SLU 20	-91	217	4838	231.8	-30.01	1.27
152	SLU 21	-102	217	4836	231.83	-30.52	1.73
152	SLU 22	-86	194	4227	195.3	-25.27	1.25
152	SLU 23	-104	193	4223	195.36	-26.13	2.02
152	SLU 24	-86	194	4227	195.3	-25.27	1.25
152	SLU 25	-97	193	4225	195.34	-25.79	1.71
152	SLU 26	-104	193	4223	195.36	-26.13	2.02
152	SLU 27	-86	194	4227	195.3	-25.27	1.25
152	SLU 28	-97	193	4225	195.34	-25.79	1.71
152	SLU 29	-86	194	4227	195.3	-25.27	1.25
152	SLU 30	-97	193	4225	195.34	-25.79	1.71
152	SLU 31	-112	221	5088	244.67	-32.79	2.07
152	SLU 32	-94	222	5091	244.61	-31.93	1.29
152	SLU 33	-105	221	5089	244.64	-32.45	1.76
152	SLU 34	-112	221	5088	244.67	-32.79	2.07
152	SLU 35	-94	222	5091	244.61	-31.93	1.29
152	SLU 36	-105	221	5089	244.64	-32.45	1.76
152	SLU 37	-94	222	5091	244.61	-31.93	1.29

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
152	SLU 38	-105	221	5089	244.64	-32.45	1.76
152	SLU 39	-97	234	5462	265.73	-34.78	1.31
152	SLU 40	-108	234	5460	265.77	-35.3	1.78
152	SLU 41	-97	234	5462	265.73	-34.78	1.31
152	SLU 42	-108	234	5460	265.77	-35.3	1.78
152	SLU 43	-102	224	4470	198.14	-25	1.55
152	SLU 44	-120	223	4467	198.21	-25.86	2.32
152	SLU 45	-102	224	4470	198.14	-25	1.55
152	SLU 46	-113	224	4468	198.18	-25.52	2.01
152	SLU 47	-120	223	4467	198.21	-25.86	2.32
152	SLU 48	-102	224	4470	198.14	-25	1.55
152	SLU 49	-113	224	4468	198.18	-25.52	2.01
152	SLU 50	-102	224	4470	198.14	-25	1.55
152	SLU 51	-113	224	4468	198.18	-25.52	2.01
152	SLU 52	-128	252	5331	247.51	-32.52	2.37
152	SLU 53	-110	252	5335	247.45	-31.66	1.6
152	SLU 54	-121	252	5333	247.48	-32.18	2.06
152	SLU 55	-128	252	5331	247.51	-32.52	2.37
152	SLU 56	-110	252	5335	247.45	-31.66	1.6
152	SLU 57	-121	252	5333	247.48	-32.18	2.06
152	SLU 58	-110	252	5335	247.45	-31.66	1.6
152	SLU 59	-121	252	5333	247.48	-32.18	2.06
152	SLU 60	-114	264	5705	268.57	-34.52	1.62
152	SLU 61	-124	264	5703	268.61	-35.03	2.08
152	SLU 62	-114	264	5705	268.57	-34.52	1.62
152	SLU 63	-124	264	5703	268.61	-35.03	2.08
152	SLU 64	-108	241	5094	232.08	-29.78	1.59
152	SLU 65	-126	240	5091	232.14	-30.64	2.37
152	SLU 66	-108	241	5094	232.08	-29.78	1.59
152	SLU 67	-119	241	5092	232.12	-30.3	2.06
152	SLU 68	-126	240	5091	232.14	-30.64	2.37
152	SLU 69	-108	241	5094	232.08	-29.78	1.59
152	SLU 70	-119	241	5092	232.12	-30.3	2.06
152	SLU 71	-108	241	5094	232.08	-29.78	1.59
152	SLU 72	-119	241	5092	232.12	-30.3	2.06
152	SLU 73	-134	269	5955	281.44	-37.3	2.41
152	SLU 74	-116	269	5959	281.38	-36.44	1.64
152	SLU 75	-127	269	5956	281.42	-36.96	2.1
152	SLU 76	-134	269	5955	281.44	-37.3	2.41
152	SLU 77	-116	269	5959	281.38	-36.44	1.64
152	SLU 78	-127	269	5956	281.42	-36.96	2.1
152	SLU 79	-116	269	5959	281.38	-36.44	1.64
152	SLU 80	-127	269	5956	281.42	-36.96	2.1
152	SLU 81	-119	281	6329	302.51	-39.29	1.66
152	SLU 82	-130	281	6327	302.55	-39.81	2.12
152	SLU 83	-119	281	6329	302.51	-39.29	1.66
152	SLU 84	-130	281	6327	302.55	-39.81	2.12
152	SLE RA 1	-82	182	3781	171.07	-21.86	1.22
152	SLE RA 2	-94	181	3779	171.11	-22.43	1.73
152	SLE RA 3	-82	182	3781	171.07	-21.86	1.22
152	SLE RA 4	-89	181	3780	171.09	-22.2	1.53
152	SLE RA 5	-94	181	3779	171.11	-22.43	1.73
152	SLE RA 6	-82	182	3781	171.07	-21.86	1.22
152	SLE RA 7	-89	181	3780	171.09	-22.2	1.53
152	SLE RA 8	-82	182	3781	171.07	-21.86	1.22
152	SLE RA 9	-89	181	3780	171.09	-22.2	1.53
152	SLE RA 10	-99	200	4355	203.97	-26.87	1.76
152	SLE RA 11	-87	200	4358	203.93	-26.3	1.25
152	SLE RA 12	-94	200	4356	203.96	-26.64	1.56
152	SLE RA 13	-99	200	4355	203.97	-26.87	1.76
152	SLE RA 14	-87	200	4358	203.93	-26.3	1.25
152	SLE RA 15	-94	200	4356	203.96	-26.64	1.56
152	SLE RA 16	-87	200	4358	203.93	-26.3	1.25
152	SLE RA 17	-94	200	4356	203.96	-26.64	1.56
152	SLE RA 18	-89	208	4605	218.02	-28.2	1.26
152	SLE RA 19	-96	208	4603	218.04	-28.54	1.57
152	SLE RA 20	-89	208	4605	218.02	-28.2	1.26
152	SLE RA 21	-96	208	4603	218.04	-28.54	1.57
152	SLE FR 1	-82	182	3781	171.07	-21.86	1.22
152	SLE FR 2	-84	181	3781	171.07	-21.97	1.32
152	SLE FR 3	-82	182	3781	171.07	-21.86	1.22
152	SLE FR 4	-86	189	4028	185.16	-23.88	1.33
152	SLE FR 5	-84	190	4028	185.15	-23.76	1.23
152	SLE FR 6	-86	195	4193	194.54	-25.03	1.24
152	SLE QP 1	-82	182	3781	171.07	-21.86	1.22
152	SLE QP 2	-84	190	4028	185.15	-23.76	1.23
152	SLD 1	208	318	4176	183.89	-10.85	-11.27
152	SLD 2	232	319	4173	183.82	-10.55	-10.96
152	SLD 3	222	111	3996	184.69	-10.35	-13.08
152	SLD 4	246	113	3993	184.62	-10.04	-12.77
152	SLD 5	-25	540	4346	183.59	-20.76	0.12
152	SLD 6	-1	542	4343	183.52	-20.45	0.43
152	SLD 7	20	-147	3747	186.25	-19.08	-5.92
152	SLD 8	44	-146	3744	186.18	-18.77	-5.61
152	SLD 9	-212	525	4313	184.13	-28.75	8.07
152	SLD 10	-188	526	4310	184.06	-28.44	8.38

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
152	SLD 11	-167	-163	3713	186.78	-27.07	2.03
152	SLD 12	-143	-161	3710	186.71	-26.76	2.34
152	SLD 13	-414	266	4064	185.68	-37.48	15.23
152	SLD 14	-390	268	4061	185.61	-37.18	15.54
152	SLD 15	-400	60	3884	186.48	-36.97	13.42
152	SLD 16	-376	61	3881	186.41	-36.67	13.73
152	SLV 1	580	481	4364	182.24	5.61	-27.18
152	SLV 2	634	484	4357	182.08	6.29	-26.48
152	SLV 3	611	12	3955	184.06	6.76	-31.3
152	SLV 4	666	15	3948	183.9	7.45	-30.6
152	SLV 5	49	987	4751	181.57	-16.95	-1.29
152	SLV 6	103	990	4744	181.41	-16.26	-0.59
152	SLV 7	153	-575	3390	187.64	-13.09	-15.03
152	SLV 8	207	-572	3383	187.48	-12.4	-14.33
152	SLV 9	-375	951	4674	182.82	-35.12	16.79
152	SLV 10	-321	954	4667	182.66	-34.43	17.49
152	SLV 11	-271	-611	3313	188.89	-31.26	3.05
152	SLV 12	-217	-608	3306	188.73	-30.57	3.75
152	SLV 13	-833	364	4108	186.4	-54.97	33.06
152	SLV 14	-779	367	4102	186.24	-54.28	33.76
152	SLV 15	-802	-105	3700	188.22	-53.81	28.94
152	SLV 16	-748	-102	3693	188.06	-53.13	29.64
152	CRTFP Ux+	0	0	0	0	0	0
152	CRTFP Ux-	0	0	0	0	0	0
152	CRTFP Uy+	0	0	0	0	0	0
152	CRTFP Uy-	0	0	0	0	0	0
154	SLU 1	-41	80	1865	4.24	-29.34	-1.56
154	SLU 2	-51	80	1866	4.42	-29.43	-1.56
154	SLU 3	-41	80	1865	4.24	-29.34	-1.56
154	SLU 4	-47	80	1865	4.35	-29.39	-1.56
154	SLU 5	-51	80	1866	4.42	-29.43	-1.56
154	SLU 6	-41	80	1865	4.24	-29.34	-1.56
154	SLU 7	-47	80	1865	4.35	-29.39	-1.56
154	SLU 8	-41	80	1865	4.24	-29.34	-1.56
154	SLU 9	-47	80	1865	4.35	-29.39	-1.56
154	SLU 10	-55	93	2314	13.71	-36.51	-1.76
154	SLU 11	-46	93	2313	13.53	-36.42	-1.76
154	SLU 12	-51	93	2314	13.64	-36.48	-1.76
154	SLU 13	-55	93	2314	13.71	-36.51	-1.76
154	SLU 14	-46	93	2313	13.53	-36.42	-1.76
154	SLU 15	-51	93	2314	13.64	-36.48	-1.76
154	SLU 16	-46	93	2313	13.53	-36.42	-1.76
154	SLU 17	-51	93	2314	13.64	-36.48	-1.76
154	SLU 18	-47	99	2505	17.51	-39.45	-1.84
154	SLU 19	-53	99	2506	17.62	-39.51	-1.84
154	SLU 20	-47	99	2505	17.51	-39.45	-1.84
154	SLU 21	-53	99	2506	17.62	-39.51	-1.84
154	SLU 22	-45	88	2188	9.73	-34.46	-1.69
154	SLU 23	-54	88	2189	9.9	-34.55	-1.69
154	SLU 24	-45	88	2188	9.73	-34.46	-1.69
154	SLU 25	-50	88	2189	9.83	-34.52	-1.69
154	SLU 26	-54	88	2189	9.9	-34.55	-1.69
154	SLU 27	-45	88	2188	9.73	-34.46	-1.69
154	SLU 28	-50	88	2189	9.83	-34.52	-1.69
154	SLU 29	-45	88	2188	9.73	-34.46	-1.69
154	SLU 30	-50	88	2189	9.83	-34.52	-1.69
154	SLU 31	-58	101	2638	19.19	-41.64	-1.89
154	SLU 32	-49	101	2637	19.02	-41.54	-1.89
154	SLU 33	-54	101	2637	19.12	-41.6	-1.89
154	SLU 34	-58	101	2638	19.19	-41.64	-1.89
154	SLU 35	-49	101	2637	19.02	-41.54	-1.89
154	SLU 36	-54	101	2637	19.12	-41.6	-1.89
154	SLU 37	-49	101	2637	19.02	-41.54	-1.89
154	SLU 38	-54	101	2637	19.12	-41.6	-1.89
154	SLU 39	-51	107	2829	23	-44.58	-1.97
154	SLU 40	-56	106	2830	23.1	-44.63	-1.97
154	SLU 41	-51	107	2829	23	-44.58	-1.97
154	SLU 42	-56	106	2830	23.1	-44.63	-1.97
154	SLU 43	-53	102	2313	3.64	-36.38	-1.98
154	SLU 44	-62	101	2314	3.81	-36.48	-1.98
154	SLU 45	-53	102	2313	3.64	-36.38	-1.98
154	SLU 46	-59	102	2313	3.74	-36.44	-1.98
154	SLU 47	-62	101	2314	3.81	-36.48	-1.98
154	SLU 48	-53	102	2313	3.64	-36.38	-1.98
154	SLU 49	-59	102	2313	3.74	-36.44	-1.98
154	SLU 50	-53	102	2313	3.64	-36.38	-1.98
154	SLU 51	-59	102	2313	3.74	-36.44	-1.98
154	SLU 52	-67	114	2762	13.1	-43.56	-2.18
154	SLU 53	-57	115	2761	12.93	-43.46	-2.18
154	SLU 54	-63	115	2762	13.03	-43.52	-2.18
154	SLU 55	-67	114	2762	13.1	-43.56	-2.18
154	SLU 56	-57	115	2761	12.93	-43.46	-2.18
154	SLU 57	-63	115	2762	13.03	-43.52	-2.18
154	SLU 58	-57	115	2761	12.93	-43.46	-2.18
154	SLU 59	-63	115	2762	13.03	-43.52	-2.18
154	SLU 60	-59	120	2953	16.91	-46.5	-2.26

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
154	SLU 61	-65	120	2954	17.01	-46.56	-2.26
154	SLU 62	-59	120	2953	16.91	-46.5	-2.26
154	SLU 63	-65	120	2954	17.01	-46.56	-2.26
154	SLU 64	-56	109	2637	9.12	-41.51	-2.11
154	SLU 65	-65	109	2638	9.29	-41.6	-2.11
154	SLU 66	-56	109	2637	9.12	-41.51	-2.11
154	SLU 67	-62	109	2637	9.22	-41.56	-2.11
154	SLU 68	-65	109	2638	9.29	-41.6	-2.11
154	SLU 69	-56	109	2637	9.12	-41.51	-2.11
154	SLU 70	-62	109	2637	9.22	-41.56	-2.11
154	SLU 71	-56	109	2637	9.12	-41.51	-2.11
154	SLU 72	-62	109	2637	9.22	-41.56	-2.11
154	SLU 73	-70	122	3086	18.58	-48.68	-2.31
154	SLU 74	-60	122	3085	18.41	-48.59	-2.31
154	SLU 75	-66	122	3086	18.51	-48.64	-2.31
154	SLU 76	-70	122	3086	18.58	-48.68	-2.31
154	SLU 77	-60	122	3085	18.41	-48.59	-2.31
154	SLU 78	-66	122	3086	18.51	-48.64	-2.31
154	SLU 79	-60	122	3085	18.41	-48.59	-2.31
154	SLU 80	-66	122	3086	18.51	-48.64	-2.31
154	SLU 81	-62	128	3277	22.39	-51.62	-2.39
154	SLU 82	-68	128	3278	22.49	-51.68	-2.4
154	SLU 83	-62	128	3277	22.39	-51.62	-2.39
154	SLU 84	-68	128	3278	22.49	-51.68	-2.4
154	SLE RA 1	-42	82	1957	5.81	-30.8	-1.6
154	SLE RA 2	-49	82	1958	5.93	-30.86	-1.6
154	SLE RA 3	-42	82	1957	5.81	-30.8	-1.6
154	SLE RA 4	-46	82	1958	5.88	-30.84	-1.6
154	SLE RA 5	-49	82	1958	5.93	-30.86	-1.6
154	SLE RA 6	-42	82	1957	5.81	-30.8	-1.6
154	SLE RA 7	-46	82	1958	5.88	-30.84	-1.6
154	SLE RA 8	-42	82	1957	5.81	-30.8	-1.6
154	SLE RA 9	-46	82	1958	5.88	-30.84	-1.6
154	SLE RA 10	-51	91	2257	12.12	-35.59	-1.73
154	SLE RA 11	-45	91	2256	12	-35.52	-1.73
154	SLE RA 12	-49	91	2256	12.07	-35.56	-1.73
154	SLE RA 13	-51	91	2257	12.12	-35.59	-1.73
154	SLE RA 14	-45	91	2256	12	-35.52	-1.73
154	SLE RA 15	-49	91	2256	12.07	-35.56	-1.73
154	SLE RA 16	-45	91	2256	12	-35.52	-1.73
154	SLE RA 17	-49	91	2256	12.07	-35.56	-1.73
154	SLE RA 18	-46	95	2384	14.66	-37.55	-1.78
154	SLE RA 19	-50	95	2385	14.73	-37.58	-1.78
154	SLE RA 20	-46	95	2384	14.66	-37.55	-1.78
154	SLE RA 21	-50	95	2385	14.73	-37.58	-1.78
154	SLE FR 1	-42	82	1957	5.81	-30.8	-1.6
154	SLE FR 2	-44	82	1957	5.83	-30.81	-1.6
154	SLE FR 3	-42	82	1957	5.81	-30.8	-1.6
154	SLE FR 4	-45	86	2085	8.49	-32.84	-1.65
154	SLE FR 5	-44	86	2085	8.46	-32.83	-1.65
154	SLE FR 6	-44	89	2171	10.23	-34.17	-1.69
154	SLE QP 1	-42	82	1957	5.81	-30.8	-1.6
154	SLE QP 2	-44	86	2085	8.46	-32.83	-1.65
154	SLD 1	110	151	2114	2.68	-32.08	-0.71
154	SLD 2	123	155	2111	2.72	-32.01	0
154	SLD 3	117	44	2023	9.19	-30.77	-2.27
154	SLD 4	130	48	2020	9.23	-30.7	-1.56
154	SLD 5	-13	267	2233	-3.15	-34.61	0.74
154	SLD 6	0	271	2230	-3.12	-34.54	1.46
154	SLD 7	11	-91	1929	18.54	-30.25	-4.45
154	SLD 8	24	-87	1926	18.58	-30.18	-3.74
154	SLD 9	-111	259	2244	-1.65	-35.47	0.44
154	SLD 10	-98	263	2241	-1.61	-35.4	1.15
154	SLD 11	-87	-99	1940	20.05	-31.11	-4.76
154	SLD 12	-74	-95	1937	20.08	-31.04	-4.05
154	SLD 13	-217	124	2150	7.7	-34.95	-1.74
154	SLD 14	-204	129	2148	7.74	-34.88	-1.03
154	SLD 15	-210	17	2059	14.21	-33.64	-3.3
154	SLD 16	-197	21	2057	14.25	-33.57	-2.59
154	SLV 1	305	234	2150	-4.67	-31.13	0.5
154	SLV 2	335	244	2144	-4.59	-30.97	2.1
154	SLV 3	322	-10	1943	10.11	-28.15	-3.04
154	SLV 4	351	-1	1937	10.2	-27.99	-1.44
154	SLV 5	25	498	2421	-17.93	-36.88	3.8
154	SLV 6	55	507	2415	-17.84	-36.72	5.41
154	SLV 7	81	-316	1730	31.35	-26.97	-8
154	SLV 8	111	-307	1724	31.44	-26.81	-6.39
154	SLV 9	-198	479	2446	-14.51	-38.84	3.09
154	SLV 10	-168	489	2440	-14.42	-38.68	4.7
154	SLV 11	-142	-335	1755	34.77	-28.93	-8.71
154	SLV 12	-113	-325	1750	34.86	-28.77	-7.1
154	SLV 13	-438	173	2234	6.73	-37.66	-1.86
154	SLV 14	-409	182	2228	6.82	-37.5	-0.26
154	SLV 15	-422	-71	2027	21.52	-34.69	-5.4
154	SLV 16	-392	-62	2021	21.6	-34.53	-3.8
154	CRTFP Ux+	0	0	0	0	0	0

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
154	CRTFP Ux-	0	0	0	0	0	0
154	CRTFP Uy+	0	0	0	0	0	0
154	CRTFP Uy-	0	0	0	0	0	0
155	SLU 1	-44	69	2012	2.34	0.97	-4.14
155	SLU 2	-54	69	2016	2.54	0.86	-4.14
155	SLU 3	-44	69	2012	2.34	0.97	-4.14
155	SLU 4	-50	69	2014	2.46	0.9	-4.14
155	SLU 5	-54	69	2016	2.54	0.86	-4.14
155	SLU 6	-44	69	2012	2.34	0.97	-4.14
155	SLU 7	-50	69	2014	2.46	0.9	-4.14
155	SLU 8	-44	69	2012	2.34	0.97	-4.14
155	SLU 9	-50	69	2014	2.46	0.9	-4.14
155	SLU 10	-58	81	2499	12.15	1.17	-4.73
155	SLU 11	-48	81	2495	11.95	1.28	-4.73
155	SLU 12	-54	81	2497	12.07	1.21	-4.73
155	SLU 13	-58	81	2499	12.15	1.17	-4.73
155	SLU 14	-48	81	2495	11.95	1.28	-4.73
155	SLU 15	-54	81	2497	12.07	1.21	-4.73
155	SLU 16	-48	81	2495	11.95	1.28	-4.73
155	SLU 17	-54	81	2497	12.07	1.21	-4.73
155	SLU 18	-50	86	2701	16.07	1.41	-4.98
155	SLU 19	-56	86	2704	16.19	1.34	-4.98
155	SLU 20	-50	86	2701	16.07	1.41	-4.98
155	SLU 21	-56	86	2704	16.19	1.34	-4.98
155	SLU 22	-47	76	2361	8.02	1.17	-4.51
155	SLU 23	-57	76	2365	8.22	1.06	-4.51
155	SLU 24	-47	76	2361	8.02	1.17	-4.51
155	SLU 25	-53	76	2364	8.14	1.11	-4.51
155	SLU 26	-57	76	2365	8.22	1.06	-4.51
155	SLU 27	-47	76	2361	8.02	1.17	-4.51
155	SLU 28	-53	76	2364	8.14	1.11	-4.51
155	SLU 29	-47	76	2361	8.02	1.17	-4.51
155	SLU 30	-53	76	2364	8.14	1.11	-4.51
155	SLU 31	-62	87	2848	17.83	1.37	-5.09
155	SLU 32	-51	88	2844	17.63	1.48	-5.09
155	SLU 33	-57	88	2846	17.75	1.42	-5.09
155	SLU 34	-62	87	2848	17.83	1.37	-5.09
155	SLU 35	-51	88	2844	17.63	1.48	-5.09
155	SLU 36	-57	88	2846	17.75	1.42	-5.09
155	SLU 37	-51	88	2844	17.63	1.48	-5.09
155	SLU 38	-57	88	2846	17.75	1.42	-5.09
155	SLU 39	-53	93	3051	21.75	1.62	-5.34
155	SLU 40	-59	92	3053	21.87	1.55	-5.34
155	SLU 41	-53	93	3051	21.75	1.62	-5.34
155	SLU 42	-59	92	3053	21.87	1.55	-5.34
155	SLU 43	-56	88	2495	1.09	1.19	-5.25
155	SLU 44	-66	87	2500	1.29	1.08	-5.25
155	SLU 45	-56	88	2495	1.09	1.19	-5.25
155	SLU 46	-62	88	2498	1.21	1.12	-5.25
155	SLU 47	-66	87	2500	1.29	1.08	-5.25
155	SLU 48	-56	88	2495	1.09	1.19	-5.25
155	SLU 49	-62	88	2498	1.21	1.12	-5.25
155	SLU 50	-56	88	2495	1.09	1.19	-5.25
155	SLU 51	-62	88	2498	1.21	1.12	-5.25
155	SLU 52	-70	99	2983	10.9	1.39	-5.84
155	SLU 53	-60	99	2978	10.7	1.5	-5.84
155	SLU 54	-66	99	2981	10.82	1.43	-5.84
155	SLU 55	-70	99	2983	10.9	1.39	-5.84
155	SLU 56	-60	99	2978	10.7	1.5	-5.84
155	SLU 57	-66	99	2981	10.82	1.43	-5.84
155	SLU 58	-60	99	2978	10.7	1.5	-5.84
155	SLU 59	-66	99	2981	10.82	1.43	-5.84
155	SLU 60	-62	104	3185	14.82	1.63	-6.09
155	SLU 61	-68	104	3188	14.94	1.56	-6.09
155	SLU 62	-62	104	3185	14.82	1.63	-6.09
155	SLU 63	-68	104	3188	14.94	1.56	-6.09
155	SLU 64	-59	95	2845	6.78	1.39	-5.62
155	SLU 65	-69	94	2849	6.97	1.28	-5.62
155	SLU 66	-59	95	2845	6.78	1.39	-5.62
155	SLU 67	-65	94	2847	6.89	1.33	-5.62
155	SLU 68	-69	94	2849	6.97	1.28	-5.62
155	SLU 69	-59	95	2845	6.78	1.39	-5.62
155	SLU 70	-65	94	2847	6.89	1.33	-5.62
155	SLU 71	-59	95	2845	6.78	1.39	-5.62
155	SLU 72	-65	94	2847	6.89	1.33	-5.62
155	SLU 73	-74	106	3332	16.58	1.59	-6.21
155	SLU 74	-63	106	3328	16.39	1.7	-6.21
155	SLU 75	-69	106	3330	16.51	1.64	-6.21
155	SLU 76	-74	106	3332	16.58	1.59	-6.21
155	SLU 77	-63	106	3328	16.39	1.7	-6.21
155	SLU 78	-69	106	3330	16.51	1.64	-6.21
155	SLU 79	-63	106	3328	16.39	1.7	-6.21
155	SLU 80	-69	106	3330	16.51	1.64	-6.21
155	SLU 81	-65	111	3535	20.51	1.83	-6.46
155	SLU 82	-71	111	3537	20.62	1.77	-6.46
155	SLU 83	-65	111	3535	20.51	1.83	-6.46

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
155	SLU 84	-71	111	3537	20.62	1.77	-6.46
155	SLE RA 1	-44	71	2111	3.96	1.03	-4.24
155	SLE RA 2	-51	71	2114	4.09	0.95	-4.24
155	SLE RA 3	-44	71	2111	3.96	1.03	-4.24
155	SLE RA 4	-49	71	2113	4.04	0.98	-4.24
155	SLE RA 5	-51	71	2114	4.09	0.95	-4.24
155	SLE RA 6	-44	71	2111	3.96	1.03	-4.24
155	SLE RA 7	-49	71	2113	4.04	0.98	-4.24
155	SLE RA 8	-44	71	2111	3.96	1.03	-4.24
155	SLE RA 9	-49	71	2113	4.04	0.98	-4.24
155	SLE RA 10	-54	79	2436	10.5	1.16	-4.63
155	SLE RA 11	-47	79	2433	10.37	1.23	-4.63
155	SLE RA 12	-52	79	2435	10.45	1.19	-4.63
155	SLE RA 13	-54	79	2436	10.5	1.16	-4.63
155	SLE RA 14	-47	79	2433	10.37	1.23	-4.63
155	SLE RA 15	-52	79	2435	10.45	1.19	-4.63
155	SLE RA 16	-47	79	2433	10.37	1.23	-4.63
155	SLE RA 17	-52	79	2435	10.45	1.19	-4.63
155	SLE RA 18	-49	82	2571	13.12	1.32	-4.8
155	SLE RA 19	-53	82	2573	13.2	1.28	-4.8
155	SLE RA 20	-49	82	2571	13.12	1.32	-4.8
155	SLE RA 21	-53	82	2573	13.2	1.28	-4.8
155	SLE FR 1	-44	71	2111	3.96	1.03	-4.24
155	SLE FR 2	-46	71	2112	3.99	1.01	-4.24
155	SLE FR 3	-44	71	2111	3.96	1.03	-4.24
155	SLE FR 4	-47	74	2250	6.74	1.1	-4.41
155	SLE FR 5	-46	75	2249	6.71	1.11	-4.41
155	SLE FR 6	-47	77	2341	8.54	1.17	-4.52
155	SLE QP 1	-44	71	2111	3.96	1.03	-4.24
155	SLE QP 2	-46	75	2249	6.71	1.11	-4.41
155	SLD 1	122	144	2229	0.33	2.91	-4.37
155	SLD 2	136	152	2225	0.36	2.96	-3.65
155	SLD 3	130	27	2137	7.32	2.62	-4.14
155	SLD 4	145	35	2133	7.34	2.66	-3.42
155	SLD 5	-13	269	2384	-5.8	2.08	-5
155	SLD 6	2	278	2380	-5.77	2.13	-4.27
155	SLD 7	14	-119	2078	17.47	1.11	-4.24
155	SLD 8	29	-111	2074	17.5	1.15	-3.51
155	SLD 9	-120	260	2425	-4.08	1.08	-5.31
155	SLD 10	-106	268	2421	-4.05	1.12	-4.58
155	SLD 11	-93	-128	2119	19.19	0.1	-4.55
155	SLD 12	-79	-120	2115	19.22	0.15	-3.82
155	SLD 13	-236	114	2366	6.07	-0.44	-5.4
155	SLD 14	-222	122	2362	6.1	-0.39	-4.68
155	SLD 15	-228	-3	2274	13.05	-0.73	-5.17
155	SLD 16	-214	5	2270	13.08	-0.68	-4.45
155	SLV 1	336	232	2202	-7.77	5.2	-4.29
155	SLV 2	368	250	2193	-7.71	5.3	-2.67
155	SLV 3	355	-33	1993	8.08	4.54	-3.77
155	SLV 4	387	-14	1984	8.15	4.64	-2.14
155	SLV 5	29	517	2555	-21.71	3.31	-5.74
155	SLV 6	61	536	2546	-21.64	3.41	-4.11
155	SLV 7	91	-366	1859	31.15	1.1	-4
155	SLV 8	124	-348	1850	31.21	1.2	-2.36
155	SLV 9	-215	497	2649	-17.8	1.03	-6.46
155	SLV 10	-183	515	2640	-17.73	1.13	-4.82
155	SLV 11	-153	-387	1953	35.06	-1.18	-4.72
155	SLV 12	-121	-368	1943	35.13	-1.08	-3.08
155	SLV 13	-478	164	2515	5.27	-2.41	-6.68
155	SLV 14	-446	182	2505	5.33	-2.31	-5.05
155	SLV 15	-460	-101	2306	21.12	-3.07	-6.15
155	SLV 16	-428	-83	2297	21.19	-2.97	-4.53
155	CRTFP Ux+	0	0	0	0	0	0
155	CRTFP Ux-	0	0	0	0	0	0
155	CRTFP Uy+	0	0	0	0	0	0
155	CRTFP Uy-	0	0	0	0	0	0
156	SLU 1	-42	46	1982	-0.11	0.81	-4.66
156	SLU 2	-52	46	1990	0.1	0.7	-4.67
156	SLU 3	-42	46	1982	-0.11	0.81	-4.66
156	SLU 4	-48	46	1987	0.02	0.75	-4.67
156	SLU 5	-52	46	1990	0.1	0.7	-4.67
156	SLU 6	-42	46	1982	-0.11	0.81	-4.66
156	SLU 7	-48	46	1987	0.02	0.75	-4.67
156	SLU 8	-42	46	1982	-0.11	0.81	-4.66
156	SLU 9	-48	46	1987	0.02	0.75	-4.67
156	SLU 10	-56	54	2462	9.16	1.07	-5.33
156	SLU 11	-46	54	2454	8.95	1.18	-5.32
156	SLU 12	-52	54	2459	9.08	1.11	-5.33
156	SLU 13	-56	54	2462	9.16	1.07	-5.33
156	SLU 14	-46	54	2454	8.95	1.18	-5.32
156	SLU 15	-52	54	2459	9.08	1.11	-5.33
156	SLU 16	-46	54	2454	8.95	1.18	-5.32
156	SLU 17	-52	54	2459	9.08	1.11	-5.33
156	SLU 18	-48	58	2656	12.83	1.33	-5.61
156	SLU 19	-54	58	2661	12.96	1.27	-5.61
156	SLU 20	-48	58	2656	12.83	1.33	-5.61

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
156	SLU 21	-54	58	2661	12.96	1.27	-5.61
156	SLU 22	-45	51	2324	5.27	1.06	-5.07
156	SLU 23	-55	51	2332	5.47	0.95	-5.08
156	SLU 24	-45	51	2324	5.27	1.06	-5.07
156	SLU 25	-51	51	2329	5.39	0.99	-5.07
156	SLU 26	-55	51	2332	5.47	0.95	-5.08
156	SLU 27	-45	51	2324	5.27	1.06	-5.07
156	SLU 28	-51	51	2329	5.39	0.99	-5.07
156	SLU 29	-45	51	2324	5.27	1.06	-5.07
156	SLU 30	-51	51	2329	5.39	0.99	-5.07
156	SLU 31	-60	59	2804	14.53	1.31	-5.74
156	SLU 32	-49	59	2796	14.32	1.42	-5.73
156	SLU 33	-55	59	2800	14.45	1.35	-5.73
156	SLU 34	-60	59	2804	14.53	1.31	-5.74
156	SLU 35	-49	59	2796	14.32	1.42	-5.73
156	SLU 36	-55	59	2800	14.45	1.35	-5.73
156	SLU 37	-49	59	2796	14.32	1.42	-5.73
156	SLU 38	-55	59	2800	14.45	1.35	-5.73
156	SLU 39	-51	63	2998	18.21	1.58	-6.01
156	SLU 40	-57	63	3003	18.33	1.51	-6.02
156	SLU 41	-51	63	2998	18.21	1.58	-6.01
156	SLU 42	-57	63	3003	18.33	1.51	-6.02
156	SLU 43	-53	58	2459	-1.98	0.98	-5.92
156	SLU 44	-64	58	2467	-1.78	0.86	-5.93
156	SLU 45	-53	58	2459	-1.98	0.98	-5.92
156	SLU 46	-59	58	2464	-1.86	0.91	-5.93
156	SLU 47	-64	58	2467	-1.78	0.86	-5.93
156	SLU 48	-53	58	2459	-1.98	0.98	-5.92
156	SLU 49	-59	58	2464	-1.86	0.91	-5.93
156	SLU 50	-53	58	2459	-1.98	0.98	-5.92
156	SLU 51	-59	58	2464	-1.86	0.91	-5.93
156	SLU 52	-68	66	2939	7.28	1.23	-6.59
156	SLU 53	-57	67	2931	7.08	1.34	-6.58
156	SLU 54	-64	66	2936	7.2	1.27	-6.58
156	SLU 55	-68	66	2939	7.28	1.23	-6.59
156	SLU 56	-57	67	2931	7.08	1.34	-6.58
156	SLU 57	-64	66	2936	7.2	1.27	-6.58
156	SLU 58	-57	67	2931	7.08	1.34	-6.58
156	SLU 59	-64	66	2936	7.2	1.27	-6.58
156	SLU 60	-59	70	3133	10.96	1.5	-6.87
156	SLU 61	-66	70	3138	11.08	1.43	-6.87
156	SLU 62	-59	70	3133	10.96	1.5	-6.87
156	SLU 63	-66	70	3138	11.08	1.43	-6.87
156	SLU 64	-56	63	2801	3.39	1.22	-6.33
156	SLU 65	-67	63	2809	3.6	1.11	-6.34
156	SLU 66	-56	63	2801	3.39	1.22	-6.33
156	SLU 67	-63	63	2806	3.51	1.15	-6.33
156	SLU 68	-67	63	2809	3.6	1.11	-6.34
156	SLU 69	-56	63	2801	3.39	1.22	-6.33
156	SLU 70	-63	63	2806	3.51	1.15	-6.33
156	SLU 71	-56	63	2801	3.39	1.22	-6.33
156	SLU 72	-63	63	2806	3.51	1.15	-6.33
156	SLU 73	-71	71	3281	12.66	1.47	-6.99
156	SLU 74	-61	71	3273	12.45	1.58	-6.99
156	SLU 75	-67	71	3278	12.57	1.52	-6.99
156	SLU 76	-71	71	3281	12.66	1.47	-6.99
156	SLU 77	-61	71	3273	12.45	1.58	-6.99
156	SLU 78	-67	71	3278	12.57	1.52	-6.99
156	SLU 79	-61	71	3273	12.45	1.58	-6.99
156	SLU 80	-67	71	3278	12.57	1.52	-6.99
156	SLU 81	-62	75	3475	16.33	1.74	-7.27
156	SLU 82	-69	75	3480	16.46	1.67	-7.28
156	SLU 83	-62	75	3475	16.33	1.74	-7.27
156	SLU 84	-69	75	3480	16.46	1.67	-7.28
156	SLE RA 1	-43	48	2080	1.43	0.88	-4.78
156	SLE RA 2	-50	47	2085	1.57	0.81	-4.78
156	SLE RA 3	-43	48	2080	1.43	0.88	-4.78
156	SLE RA 4	-47	47	2083	1.51	0.84	-4.78
156	SLE RA 5	-50	47	2085	1.57	0.81	-4.78
156	SLE RA 6	-43	48	2080	1.43	0.88	-4.78
156	SLE RA 7	-47	47	2083	1.51	0.84	-4.78
156	SLE RA 8	-43	48	2080	1.43	0.88	-4.78
156	SLE RA 9	-47	47	2083	1.51	0.84	-4.78
156	SLE RA 10	-52	53	2399	7.6	1.05	-5.22
156	SLE RA 11	-46	53	2394	7.47	1.13	-5.22
156	SLE RA 12	-50	53	2397	7.55	1.08	-5.22
156	SLE RA 13	-52	53	2399	7.6	1.05	-5.22
156	SLE RA 14	-46	53	2394	7.47	1.13	-5.22
156	SLE RA 15	-50	53	2397	7.55	1.08	-5.22
156	SLE RA 16	-46	53	2394	7.47	1.13	-5.22
156	SLE RA 17	-50	53	2397	7.55	1.08	-5.22
156	SLE RA 18	-47	55	2529	10.05	1.23	-5.41
156	SLE RA 19	-51	55	2532	10.14	1.19	-5.41
156	SLE RA 20	-47	55	2529	10.05	1.23	-5.41
156	SLE RA 21	-51	55	2532	10.14	1.19	-5.41
156	SLE FR 1	-43	48	2080	1.43	0.88	-4.78

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
156	SLE FR 2	-44	47	2081	1.45	0.87	-4.78
156	SLE FR 3	-43	48	2080	1.43	0.88	-4.78
156	SLE FR 4	-45	50	2215	4.04	0.97	-4.97
156	SLE FR 5	-44	50	2214	4.02	0.99	-4.97
156	SLE FR 6	-45	51	2304	5.74	1.06	-5.09
156	SLE QP 1	-43	48	2080	1.43	0.88	-4.78
156	SLE QP 2	-44	50	2214	4.02	0.99	-4.97
156	SLD 1	124	118	2134	-2.43	2.84	-4.89
156	SLD 2	138	130	2129	-2.42	2.88	-4.15
156	SLD 3	132	2	2052	4.42	2.51	-4.72
156	SLD 4	146	14	2047	4.44	2.55	-3.98
156	SLD 5	-11	242	2317	-8.32	2.03	-5.46
156	SLD 6	3	253	2311	-8.31	2.07	-4.72
156	SLD 7	17	-144	2044	14.53	0.93	-4.9
156	SLD 8	31	-132	2038	14.54	0.97	-4.16
156	SLD 9	-118	232	2391	-6.51	1	-5.78
156	SLD 10	-104	244	2385	-6.5	1.05	-5.04
156	SLD 11	-91	-154	2118	16.34	-0.1	-5.22
156	SLD 12	-77	-142	2112	16.35	-0.05	-4.48
156	SLD 13	-234	86	2382	3.59	-0.58	-5.96
156	SLD 14	-220	98	2376	3.61	-0.53	-5.22
156	SLD 15	-226	-30	2300	10.45	-0.91	-5.79
156	SLD 16	-212	-18	2295	10.46	-0.86	-5.05
156	SLV 1	338	205	2032	-10.63	5.19	-4.76
156	SLV 2	370	231	2019	-10.6	5.3	-3.1
156	SLV 3	357	-58	1846	4.94	4.45	-4.37
156	SLV 4	389	-32	1833	4.97	4.55	-2.71
156	SLV 5	31	486	2446	-24.01	3.35	-6.08
156	SLV 6	63	512	2433	-23.97	3.45	-4.42
156	SLV 7	94	-391	1826	27.89	0.85	-4.78
156	SLV 8	126	-364	1813	27.93	0.96	-3.12
156	SLV 9	-214	464	2615	-19.9	1.02	-6.82
156	SLV 10	-182	490	2603	-19.86	1.12	-5.15
156	SLV 11	-150	-413	1995	32	-1.48	-5.52
156	SLV 12	-118	-386	1983	32.04	-1.37	-3.85
156	SLV 13	-476	132	2596	3.06	-2.57	-7.23
156	SLV 14	-445	158	2583	3.1	-2.47	-5.57
156	SLV 15	-458	-131	2410	18.63	-3.32	-6.83
156	SLV 16	-426	-105	2397	18.67	-3.22	-5.18
156	CRTFP Ux+	0	0	0	0	0	0
156	CRTFP Ux-	0	0	0	0	0	0
156	CRTFP Uy+	0	0	0	0	0	0
156	CRTFP Uy-	0	0	0	0	0	0
157	SLU 1	-40	22	1960	-2.55	0.47	-4.74
157	SLU 2	-51	21	1972	-2.34	0.36	-4.74
157	SLU 3	-40	22	1960	-2.55	0.47	-4.74
157	SLU 4	-46	21	1967	-2.42	0.4	-4.74
157	SLU 5	-51	21	1972	-2.34	0.36	-4.74
157	SLU 6	-40	22	1960	-2.55	0.47	-4.74
157	SLU 7	-46	21	1967	-2.42	0.4	-4.74
157	SLU 8	-40	22	1960	-2.55	0.47	-4.74
157	SLU 9	-46	21	1967	-2.42	0.4	-4.74
157	SLU 10	-55	26	2432	6.18	0.74	-5.41
157	SLU 11	-44	26	2420	5.96	0.84	-5.4
157	SLU 12	-51	26	2427	6.09	0.78	-5.41
157	SLU 13	-55	26	2432	6.18	0.74	-5.41
157	SLU 14	-44	26	2420	5.96	0.84	-5.4
157	SLU 15	-51	26	2427	6.09	0.78	-5.41
157	SLU 16	-44	26	2420	5.96	0.84	-5.4
157	SLU 17	-51	26	2427	6.09	0.78	-5.41
157	SLU 18	-46	28	2617	9.61	1	-5.69
157	SLU 19	-52	28	2624	9.74	0.94	-5.69
157	SLU 20	-46	28	2617	9.61	1	-5.69
157	SLU 21	-52	28	2624	9.74	0.94	-5.69
157	SLU 22	-43	24	2294	2.51	0.72	-5.15
157	SLU 23	-54	24	2306	2.73	0.61	-5.15
157	SLU 24	-43	24	2294	2.51	0.72	-5.15
157	SLU 25	-49	24	2301	2.64	0.66	-5.15
157	SLU 26	-54	24	2306	2.73	0.61	-5.15
157	SLU 27	-43	24	2294	2.51	0.72	-5.15
157	SLU 28	-49	24	2301	2.64	0.66	-5.15
157	SLU 29	-43	24	2294	2.51	0.72	-5.15
157	SLU 30	-49	24	2301	2.64	0.66	-5.15
157	SLU 31	-58	29	2765	11.25	0.99	-5.82
157	SLU 32	-47	29	2754	11.03	1.1	-5.81
157	SLU 33	-54	29	2761	11.16	1.03	-5.82
157	SLU 34	-58	29	2765	11.25	0.99	-5.82
157	SLU 35	-47	29	2754	11.03	1.1	-5.81
157	SLU 36	-54	29	2761	11.16	1.03	-5.82
157	SLU 37	-47	29	2754	11.03	1.1	-5.81
157	SLU 38	-54	29	2761	11.16	1.03	-5.82
157	SLU 39	-49	31	2951	14.68	1.26	-6.1
157	SLU 40	-55	31	2958	14.81	1.19	-6.1
157	SLU 41	-49	31	2951	14.68	1.26	-6.1
157	SLU 42	-55	31	2958	14.81	1.19	-6.1
157	SLU 43	-51	27	2434	-5.06	0.52	-6.02

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
157	SLU 44	-62	27	2446	-4.84	0.42	-6.03
157	SLU 45	-51	27	2434	-5.06	0.52	-6.02
157	SLU 46	-57	27	2441	-4.93	0.46	-6.02
157	SLU 47	-62	27	2446	-4.84	0.42	-6.03
157	SLU 48	-51	27	2434	-5.06	0.52	-6.02
157	SLU 49	-57	27	2441	-4.93	0.46	-6.02
157	SLU 50	-51	27	2434	-5.06	0.52	-6.02
157	SLU 51	-57	27	2441	-4.93	0.46	-6.02
157	SLU 52	-66	32	2905	3.67	0.79	-6.69
157	SLU 53	-55	32	2894	3.46	0.9	-6.68
157	SLU 54	-62	32	2901	3.59	0.83	-6.69
157	SLU 55	-66	32	2905	3.67	0.79	-6.69
157	SLU 56	-55	32	2894	3.46	0.9	-6.68
157	SLU 57	-62	32	2901	3.59	0.83	-6.69
157	SLU 58	-55	32	2894	3.46	0.9	-6.68
157	SLU 59	-62	32	2901	3.59	0.83	-6.69
157	SLU 60	-57	34	3091	7.11	1.06	-6.97
157	SLU 61	-63	34	3098	7.24	0.99	-6.97
157	SLU 62	-57	34	3091	7.11	1.06	-6.97
157	SLU 63	-63	34	3098	7.24	0.99	-6.97
157	SLU 64	-54	30	2768	0.01	0.78	-6.43
157	SLU 65	-65	29	2779	0.23	0.67	-6.43
157	SLU 66	-54	30	2768	0.01	0.78	-6.43
157	SLU 67	-60	30	2775	0.14	0.71	-6.43
157	SLU 68	-65	29	2779	0.23	0.67	-6.43
157	SLU 69	-54	30	2768	0.01	0.78	-6.43
157	SLU 70	-60	30	2775	0.14	0.71	-6.43
157	SLU 71	-54	30	2768	0.01	0.78	-6.43
157	SLU 72	-60	30	2775	0.14	0.71	-6.43
157	SLU 73	-69	34	3239	8.74	1.04	-7.1
157	SLU 74	-58	35	3227	8.53	1.15	-7.09
157	SLU 75	-65	34	3234	8.66	1.09	-7.1
157	SLU 76	-69	34	3239	8.74	1.04	-7.1
157	SLU 77	-58	35	3227	8.53	1.15	-7.09
157	SLU 78	-65	34	3234	8.66	1.09	-7.1
157	SLU 79	-58	35	3227	8.53	1.15	-7.09
157	SLU 80	-65	34	3234	8.66	1.09	-7.1
157	SLU 81	-60	37	3424	12.18	1.31	-7.38
157	SLU 82	-66	36	3431	12.31	1.25	-7.38
157	SLU 83	-60	37	3424	12.18	1.31	-7.38
157	SLU 84	-66	36	3431	12.31	1.25	-7.38
157	SLE RA 1	-41	22	2056	-1.11	0.54	-4.85
157	SLE RA 2	-48	22	2063	-0.96	0.47	-4.86
157	SLE RA 3	-41	22	2056	-1.11	0.54	-4.85
157	SLE RA 4	-45	22	2060	-1.02	0.5	-4.86
157	SLE RA 5	-48	22	2063	-0.96	0.47	-4.86
157	SLE RA 6	-41	22	2056	-1.11	0.54	-4.85
157	SLE RA 7	-45	22	2060	-1.02	0.5	-4.86
157	SLE RA 8	-41	22	2056	-1.11	0.54	-4.85
157	SLE RA 9	-45	22	2060	-1.02	0.5	-4.86
157	SLE RA 10	-51	25	2370	4.72	0.72	-5.3
157	SLE RA 11	-44	25	2362	4.57	0.79	-5.3
157	SLE RA 12	-48	25	2367	4.66	0.75	-5.3
157	SLE RA 13	-51	25	2370	4.72	0.72	-5.3
157	SLE RA 14	-44	25	2362	4.57	0.79	-5.3
157	SLE RA 15	-48	25	2367	4.66	0.75	-5.3
157	SLE RA 16	-44	25	2362	4.57	0.79	-5.3
157	SLE RA 17	-48	25	2367	4.66	0.75	-5.3
157	SLE RA 18	-45	27	2493	7	0.9	-5.49
157	SLE RA 19	-49	27	2498	7.09	0.85	-5.49
157	SLE RA 20	-45	27	2493	7	0.9	-5.49
157	SLE RA 21	-49	27	2498	7.09	0.85	-5.49
157	SLE FR 1	-41	22	2056	-1.11	0.54	-4.85
157	SLE FR 2	-42	22	2057	-1.08	0.53	-4.85
157	SLE FR 3	-41	22	2056	-1.11	0.54	-4.85
157	SLE FR 4	-44	24	2189	1.36	0.63	-5.04
157	SLE FR 5	-42	24	2187	1.33	0.65	-5.04
157	SLE FR 6	-43	25	2275	2.95	0.72	-5.17
157	SLE QP 1	-41	22	2056	-1.11	0.54	-4.85
157	SLE QP 2	-42	24	2187	1.33	0.65	-5.04
157	SLD 1	126	91	2047	-5.2	2.44	-4.94
157	SLD 2	140	106	2040	-5.2	2.48	-4.18
157	SLD 3	134	-24	1976	1.53	2.11	-4.8
157	SLD 4	148	-9	1969	1.53	2.15	-4.04
157	SLD 5	-10	214	2256	-10.85	1.68	-5.49
157	SLD 6	5	229	2248	-10.84	1.72	-4.73
157	SLD 7	18	-171	2018	11.6	0.57	-5.03
157	SLD 8	32	-156	2011	11.6	0.61	-4.26
157	SLD 9	-117	203	2363	-8.95	0.69	-5.83
157	SLD 10	-103	219	2356	-8.95	0.73	-5.06
157	SLD 11	-89	-182	2126	13.5	-0.42	-5.36
157	SLD 12	-75	-166	2119	13.5	-0.38	-4.59
157	SLD 13	-232	56	2405	1.12	-0.86	-6.05
157	SLD 14	-218	72	2398	1.12	-0.82	-5.29
157	SLD 15	-224	-59	2334	7.85	-1.19	-5.91
157	SLD 16	-210	-44	2327	7.86	-1.15	-5.15

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
157	SLV 1	339	177	1868	-13.51	4.73	-4.78
157	SLV 2	371	212	1853	-13.5	4.82	-3.06
157	SLV 3	358	-85	1707	1.79	3.98	-4.46
157	SLV 4	390	-51	1691	1.79	4.07	-2.74
157	SLV 5	32	455	2342	-26.32	2.99	-6.06
157	SLV 6	64	490	2326	-26.32	3.08	-4.33
157	SLV 7	96	-419	1803	24.66	0.47	-4.99
157	SLV 8	128	-384	1787	24.67	0.56	-3.25
157	SLV 9	-212	431	2587	-22.01	0.73	-6.83
157	SLV 10	-180	466	2571	-22.01	0.82	-5.1
157	SLV 11	-148	-443	2048	28.97	-1.78	-5.76
157	SLV 12	-116	-408	2032	28.98	-1.69	-4.02
157	SLV 13	-475	98	2683	0.86	-2.77	-7.35
157	SLV 14	-443	133	2668	0.87	-2.68	-5.63
157	SLV 15	-455	-164	2522	16.15	-3.53	-7.03
157	SLV 16	-424	-130	2506	16.16	-3.44	-5.31
157	CRTFP Ux+	0	0	0	0	0	0
157	CRTFP Ux-	0	0	0	0	0	0
157	CRTFP Uy+	0	0	0	0	0	0
157	CRTFP Uy-	0	0	0	0	0	0
158	SLU 1	-39	-2	1954	-5	-0.14	-4.36
158	SLU 2	-49	-3	1969	-4.78	-0.24	-4.37
158	SLU 3	-39	-2	1954	-5	-0.14	-4.36
158	SLU 4	-45	-3	1963	-4.87	-0.2	-4.37
158	SLU 5	-49	-3	1969	-4.78	-0.24	-4.37
158	SLU 6	-39	-2	1954	-5	-0.14	-4.36
158	SLU 7	-45	-3	1963	-4.87	-0.2	-4.37
158	SLU 8	-39	-2	1954	-5	-0.14	-4.36
158	SLU 9	-45	-3	1963	-4.87	-0.2	-4.37
158	SLU 10	-53	-1	2417	3.21	0.11	-4.98
158	SLU 11	-43	-1	2402	2.98	0.21	-4.96
158	SLU 12	-49	-1	2411	3.12	0.15	-4.97
158	SLU 13	-53	-1	2417	3.21	0.11	-4.98
158	SLU 14	-43	-1	2402	2.98	0.21	-4.96
158	SLU 15	-49	-1	2411	3.12	0.15	-4.97
158	SLU 16	-43	-1	2402	2.98	0.21	-4.96
158	SLU 17	-49	-1	2411	3.12	0.15	-4.97
158	SLU 18	-45	0	2594	6.4	0.36	-5.22
158	SLU 19	-51	0	2603	6.54	0.3	-5.23
158	SLU 20	-45	0	2594	6.4	0.36	-5.22
158	SLU 21	-51	0	2603	6.54	0.3	-5.23
158	SLU 22	-42	-2	2280	-0.24	0.1	-4.73
158	SLU 23	-52	-2	2295	-0.01	0	-4.74
158	SLU 24	-42	-2	2280	-0.24	0.1	-4.73
158	SLU 25	-48	-2	2289	-0.1	0.04	-4.74
158	SLU 26	-52	-2	2295	-0.01	0	-4.74
158	SLU 27	-42	-2	2280	-0.24	0.1	-4.73
158	SLU 28	-48	-2	2289	-0.1	0.04	-4.74
158	SLU 29	-42	-2	2280	-0.24	0.1	-4.73
158	SLU 30	-48	-2	2289	-0.1	0.04	-4.74
158	SLU 31	-56	-1	2743	7.97	0.35	-5.35
158	SLU 32	-46	0	2728	7.75	0.45	-5.33
158	SLU 33	-52	0	2737	7.88	0.39	-5.34
158	SLU 34	-56	-1	2743	7.97	0.35	-5.35
158	SLU 35	-46	0	2728	7.75	0.45	-5.33
158	SLU 36	-52	0	2737	7.88	0.39	-5.34
158	SLU 37	-46	0	2728	7.75	0.45	-5.33
158	SLU 38	-52	0	2737	7.88	0.39	-5.34
158	SLU 39	-48	0	2919	11.17	0.6	-5.59
158	SLU 40	-54	0	2928	11.31	0.54	-5.6
158	SLU 41	-48	0	2919	11.17	0.6	-5.59
158	SLU 42	-54	0	2928	11.31	0.54	-5.6
158	SLU 43	-49	-3	2429	-8.14	-0.26	-5.54
158	SLU 44	-60	-4	2444	-7.91	-0.36	-5.55
158	SLU 45	-49	-3	2429	-8.14	-0.26	-5.54
158	SLU 46	-56	-3	2438	-8	-0.32	-5.55
158	SLU 47	-60	-4	2444	-7.91	-0.36	-5.55
158	SLU 48	-49	-3	2429	-8.14	-0.26	-5.54
158	SLU 49	-56	-3	2438	-8	-0.32	-5.55
158	SLU 50	-49	-3	2429	-8.14	-0.26	-5.54
158	SLU 51	-56	-3	2438	-8	-0.32	-5.55
158	SLU 52	-64	-2	2892	0.07	-0.01	-6.16
158	SLU 53	-53	-2	2877	-0.16	0.09	-6.15
158	SLU 54	-60	-2	2886	-0.02	0.03	-6.15
158	SLU 55	-64	-2	2892	0.07	-0.01	-6.16
158	SLU 56	-53	-2	2877	-0.16	0.09	-6.15
158	SLU 57	-60	-2	2886	-0.02	0.03	-6.15
158	SLU 58	-53	-2	2877	-0.16	0.09	-6.15
158	SLU 59	-60	-2	2886	-0.02	0.03	-6.15
158	SLU 60	-55	-1	3068	3.27	0.24	-6.4
158	SLU 61	-61	-1	3077	3.4	0.18	-6.41
158	SLU 62	-55	-1	3068	3.27	0.24	-6.4
158	SLU 63	-61	-1	3077	3.4	0.18	-6.41
158	SLU 64	-52	-3	2755	-3.37	-0.03	-5.91
158	SLU 65	-63	-3	2770	-3.15	-0.12	-5.92
158	SLU 66	-52	-3	2755	-3.37	-0.03	-5.91

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
158	SLU 67	-59	-3	2764	-3.24	-0.09	-5.92
158	SLU 68	-63	-3	2770	-3.15	-0.12	-5.92
158	SLU 69	-52	-3	2755	-3.37	-0.03	-5.91
158	SLU 70	-59	-3	2764	-3.24	-0.09	-5.92
158	SLU 71	-52	-3	2755	-3.37	-0.03	-5.91
158	SLU 72	-59	-3	2764	-3.24	-0.09	-5.92
158	SLU 73	-67	-1	3217	4.84	0.23	-6.53
158	SLU 74	-57	-1	3202	4.61	0.32	-6.52
158	SLU 75	-63	-1	3211	4.75	0.27	-6.52
158	SLU 76	-67	-1	3217	4.84	0.23	-6.53
158	SLU 77	-57	-1	3202	4.61	0.32	-6.52
158	SLU 78	-63	-1	3211	4.75	0.27	-6.52
158	SLU 79	-57	-1	3202	4.61	0.32	-6.52
158	SLU 80	-63	-1	3211	4.75	0.27	-6.52
158	SLU 81	-58	-1	3394	8.03	0.47	-6.77
158	SLU 82	-64	-1	3403	8.17	0.42	-6.78
158	SLU 83	-58	-1	3394	8.03	0.47	-6.77
158	SLU 84	-64	-1	3403	8.17	0.42	-6.78
158	SLE RA 1	-40	-2	2047	-3.64	-0.07	-4.46
158	SLE RA 2	-47	-2	2057	-3.49	-0.14	-4.47
158	SLE RA 3	-40	-2	2047	-3.64	-0.07	-4.46
158	SLE RA 4	-44	-2	2053	-3.55	-0.11	-4.47
158	SLE RA 5	-47	-2	2057	-3.49	-0.14	-4.47
158	SLE RA 6	-40	-2	2047	-3.64	-0.07	-4.46
158	SLE RA 7	-44	-2	2053	-3.55	-0.11	-4.47
158	SLE RA 8	-40	-2	2047	-3.64	-0.07	-4.46
158	SLE RA 9	-44	-2	2053	-3.55	-0.11	-4.47
158	SLE RA 10	-49	-1	2356	1.83	0.1	-4.88
158	SLE RA 11	-42	-1	2346	1.68	0.16	-4.87
158	SLE RA 12	-47	-1	2352	1.77	0.12	-4.87
158	SLE RA 13	-49	-1	2356	1.83	0.1	-4.88
158	SLE RA 14	-42	-1	2346	1.68	0.16	-4.87
158	SLE RA 15	-47	-1	2352	1.77	0.12	-4.87
158	SLE RA 16	-42	-1	2346	1.68	0.16	-4.87
158	SLE RA 17	-47	-1	2352	1.77	0.12	-4.87
158	SLE RA 18	-44	-1	2474	3.96	0.26	-5.04
158	SLE RA 19	-48	-1	2480	4.05	0.22	-5.05
158	SLE RA 20	-44	-1	2474	3.96	0.26	-5.04
158	SLE RA 21	-48	-1	2480	4.05	0.22	-5.05
158	SLE FR 1	-40	-2	2047	-3.64	-0.07	-4.46
158	SLE FR 2	-41	-2	2049	-3.61	-0.09	-4.47
158	SLE FR 3	-40	-2	2047	-3.64	-0.07	-4.46
158	SLE FR 4	-42	-2	2177	-1.33	0.01	-4.64
158	SLE FR 5	-41	-2	2175	-1.36	0.03	-4.64
158	SLE FR 6	-42	-1	2260	0.16	0.09	-4.75
158	SLE QP 1	-40	-2	2047	-3.64	-0.07	-4.46
158	SLE QP 2	-41	-2	2175	-1.36	0.03	-4.64
158	SLD 1	127	66	1979	-7.98	1.67	-4.31
158	SLD 2	141	85	1971	-7.99	1.7	-3.51
158	SLD 3	135	-50	1918	-1.36	1.37	-4.59
158	SLD 4	149	-31	1910	-1.37	1.4	-3.78
158	SLD 5	-8	188	2212	-13.38	0.97	-4.41
158	SLD 6	6	207	2204	-13.39	0.99	-3.61
158	SLD 7	20	-199	2008	8.68	-0.04	-5.32
158	SLD 8	34	-180	2000	8.67	-0.01	-4.51
158	SLD 9	-116	176	2350	-11.39	0.06	-4.77
158	SLD 10	-102	196	2342	-11.4	0.09	-3.96
158	SLD 11	-87	-211	2147	10.67	-0.94	-5.67
158	SLD 12	-73	-191	2139	10.65	-0.91	-4.86
158	SLD 13	-231	27	2441	-1.35	-1.34	-5.49
158	SLD 14	-217	47	2433	-1.36	-1.32	-4.69
158	SLD 15	-222	-89	2380	5.26	-1.64	-5.76
158	SLD 16	-208	-69	2372	5.25	-1.62	-4.96
158	SLV 1	340	152	1728	-16.39	3.76	-3.88
158	SLV 2	371	196	1710	-16.42	3.82	-2.07
158	SLV 3	359	-112	1589	-1.36	3.08	-4.5
158	SLV 4	391	-68	1571	-1.39	3.14	-2.69
158	SLV 5	33	429	2258	-28.66	2.16	-4.12
158	SLV 6	65	473	2240	-28.68	2.22	-2.29
158	SLV 7	98	-450	1795	21.44	-0.11	-6.17
158	SLV 8	129	-406	1777	21.42	-0.05	-4.35
158	SLV 9	-211	402	2574	-24.14	0.11	-4.93
158	SLV 10	-179	446	2555	-24.16	0.17	-3.1
158	SLV 11	-146	-476	2111	25.96	-2.17	-6.99
158	SLV 12	-114	-432	2092	25.93	-2.11	-5.16
158	SLV 13	-473	64	2779	-1.33	-3.08	-6.59
158	SLV 14	-441	108	2761	-1.36	-3.03	-4.78
158	SLV 15	-453	-199	2640	13.69	-3.77	-7.21
158	SLV 16	-422	-156	2622	13.67	-3.71	-5.39
158	CRTFP Ux+	0	0	0	0	0	0
158	CRTFP Ux-	0	0	0	0	0	0
158	CRTFP Uy+	0	0	0	0	0	0
158	CRTFP Uy-	0	0	0	0	0	0
159	SLU 1	-33	-20	1771	43.16	28.9	-1.88
159	SLU 2	-42	-20	1787	43.8	29.09	-1.62
159	SLU 3	-33	-20	1771	43.16	28.9	-1.88

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
159	SLU 4	-38	-20	1781	43.55	29.02	-1.72
159	SLU 5	-42	-20	1787	43.8	29.09	-1.62
159	SLU 6	-33	-20	1771	43.16	28.9	-1.88
159	SLU 7	-38	-20	1781	43.55	29.02	-1.72
159	SLU 8	-33	-20	1771	43.16	28.9	-1.88
159	SLU 9	-38	-20	1781	43.55	29.02	-1.72
159	SLU 10	-46	-22	2182	61.11	35.7	-1.93
159	SLU 11	-36	-21	2165	60.47	35.5	-2.19
159	SLU 12	-42	-21	2175	60.85	35.62	-2.04
159	SLU 13	-46	-22	2182	61.11	35.7	-1.93
159	SLU 14	-36	-21	2165	60.47	35.5	-2.19
159	SLU 15	-42	-21	2175	60.85	35.62	-2.04
159	SLU 16	-36	-21	2165	60.47	35.5	-2.19
159	SLU 17	-42	-21	2175	60.85	35.62	-2.04
159	SLU 18	-38	-22	2334	67.89	38.33	-2.32
159	SLU 19	-43	-22	2344	68.27	38.45	-2.17
159	SLU 20	-38	-22	2334	67.89	38.33	-2.32
159	SLU 21	-43	-22	2344	68.27	38.45	-2.17
159	SLU 22	-35	-21	2058	54.9	33.72	-2.05
159	SLU 23	-45	-21	2075	55.54	33.92	-1.79
159	SLU 24	-35	-21	2058	54.9	33.72	-2.05
159	SLU 25	-41	-21	2068	55.28	33.84	-1.89
159	SLU 26	-45	-21	2075	55.54	33.92	-1.79
159	SLU 27	-35	-21	2058	54.9	33.72	-2.05
159	SLU 28	-41	-21	2068	55.28	33.84	-1.89
159	SLU 29	-35	-21	2058	54.9	33.72	-2.05
159	SLU 30	-41	-21	2068	55.28	33.84	-1.89
159	SLU 31	-48	-22	2469	72.84	40.52	-2.1
159	SLU 32	-39	-22	2453	72.21	40.32	-2.36
159	SLU 33	-44	-22	2462	72.59	40.44	-2.21
159	SLU 34	-48	-22	2469	72.84	40.52	-2.1
159	SLU 35	-39	-22	2453	72.21	40.32	-2.36
159	SLU 36	-44	-22	2462	72.59	40.44	-2.21
159	SLU 37	-39	-22	2453	72.21	40.32	-2.36
159	SLU 38	-44	-22	2462	72.59	40.44	-2.21
159	SLU 39	-40	-23	2622	79.62	43.15	-2.49
159	SLU 40	-46	-23	2631	80.01	43.27	-2.34
159	SLU 41	-40	-23	2622	79.62	43.15	-2.49
159	SLU 42	-46	-23	2631	80.01	43.27	-2.34
159	SLU 43	-42	-26	2204	52.09	35.91	-2.38
159	SLU 44	-51	-26	2220	52.72	36.11	-2.13
159	SLU 45	-42	-26	2204	52.09	35.91	-2.38
159	SLU 46	-47	-26	2214	52.47	36.03	-2.23
159	SLU 47	-51	-26	2220	52.72	36.11	-2.13
159	SLU 48	-42	-26	2204	52.09	35.91	-2.38
159	SLU 49	-47	-26	2214	52.47	36.03	-2.23
159	SLU 50	-42	-26	2204	52.09	35.91	-2.38
159	SLU 51	-47	-26	2214	52.47	36.03	-2.23
159	SLU 52	-55	-27	2614	70.03	42.71	-2.44
159	SLU 53	-45	-27	2598	69.39	42.52	-2.69
159	SLU 54	-51	-27	2608	69.78	42.64	-2.54
159	SLU 55	-55	-27	2614	70.03	42.71	-2.44
159	SLU 56	-45	-27	2598	69.39	42.52	-2.69
159	SLU 57	-51	-27	2608	69.78	42.64	-2.54
159	SLU 58	-45	-27	2598	69.39	42.52	-2.69
159	SLU 59	-51	-27	2608	69.78	42.64	-2.54
159	SLU 60	-47	-27	2767	76.81	45.35	-2.83
159	SLU 61	-52	-28	2777	77.19	45.47	-2.67
159	SLU 62	-47	-27	2767	76.81	45.35	-2.83
159	SLU 63	-52	-28	2777	77.19	45.47	-2.67
159	SLU 64	-44	-27	2491	63.83	40.73	-2.55
159	SLU 65	-54	-27	2507	64.46	40.93	-2.3
159	SLU 66	-44	-27	2491	63.83	40.73	-2.55
159	SLU 67	-50	-27	2501	64.21	40.85	-2.4
159	SLU 68	-54	-27	2507	64.46	40.93	-2.3
159	SLU 69	-44	-27	2491	63.83	40.73	-2.55
159	SLU 70	-50	-27	2501	64.21	40.85	-2.4
159	SLU 71	-44	-27	2491	63.83	40.73	-2.55
159	SLU 72	-50	-27	2501	64.21	40.85	-2.4
159	SLU 73	-57	-28	2902	81.77	47.54	-2.61
159	SLU 74	-48	-28	2886	81.13	47.34	-2.86
159	SLU 75	-53	-28	2895	81.51	47.46	-2.71
159	SLU 76	-57	-28	2902	81.77	47.54	-2.61
159	SLU 77	-48	-28	2886	81.13	47.34	-2.86
159	SLU 78	-53	-28	2895	81.51	47.46	-2.71
159	SLU 79	-48	-28	2886	81.13	47.34	-2.86
159	SLU 80	-53	-28	2895	81.51	47.46	-2.71
159	SLU 81	-49	-28	3055	88.55	50.17	-2.99
159	SLU 82	-55	-29	3064	88.93	50.29	-2.84
159	SLU 83	-49	-28	3055	88.55	50.17	-2.99
159	SLU 84	-55	-29	3064	88.93	50.29	-2.84
159	SLE RA 1	-34	-20	1853	46.52	30.27	-1.92
159	SLE RA 2	-40	-21	1864	46.94	30.41	-1.76
159	SLE RA 3	-34	-20	1853	46.52	30.27	-1.92
159	SLE RA 4	-37	-20	1860	46.77	30.35	-1.82
159	SLE RA 5	-40	-21	1864	46.94	30.41	-1.76

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
159	SLE RA 6	-34	-20	1853	46.52	30.27	-1.92
159	SLE RA 7	-37	-20	1860	46.77	30.35	-1.82
159	SLE RA 8	-34	-20	1853	46.52	30.27	-1.92
159	SLE RA 9	-37	-20	1860	46.77	30.35	-1.82
159	SLE RA 10	-42	-21	2127	58.48	34.81	-1.96
159	SLE RA 11	-36	-21	2116	58.05	34.68	-2.13
159	SLE RA 12	-40	-21	2123	58.31	34.76	-2.03
159	SLE RA 13	-42	-21	2127	58.48	34.81	-1.96
159	SLE RA 14	-36	-21	2116	58.05	34.68	-2.13
159	SLE RA 15	-40	-21	2123	58.31	34.76	-2.03
159	SLE RA 16	-36	-21	2116	58.05	34.68	-2.13
159	SLE RA 17	-40	-21	2123	58.31	34.76	-2.03
159	SLE RA 18	-37	-21	2229	63	36.56	-2.22
159	SLE RA 19	-41	-22	2235	63.25	36.64	-2.12
159	SLE RA 20	-37	-21	2229	63	36.56	-2.22
159	SLE RA 21	-41	-22	2235	63.25	36.64	-2.12
159	SLE FR 1	-34	-20	1853	46.52	30.27	-1.92
159	SLE FR 2	-35	-20	1855	46.6	30.3	-1.89
159	SLE FR 3	-34	-20	1853	46.52	30.27	-1.92
159	SLE FR 4	-36	-21	1968	51.55	32.19	-1.98
159	SLE FR 5	-35	-21	1966	51.46	32.16	-2.01
159	SLE FR 6	-35	-21	2041	54.76	33.42	-2.07
159	SLE QP 1	-34	-20	1853	46.52	30.27	-1.92
159	SLE QP 2	-35	-21	1966	51.46	32.16	-2.01
159	SLD 1	116	41	1745	39.62	29.76	-7.2
159	SLD 2	128	62	1738	39.41	29.63	-7.15
159	SLD 3	124	-65	1699	44.3	28.64	-5.96
159	SLD 4	136	-44	1691	44.09	28.51	-5.91
159	SLD 5	-6	151	1973	40.88	33.18	-5.47
159	SLD 6	7	172	1966	40.67	33.05	-5.42
159	SLD 7	20	-202	1818	56.49	29.45	-1.33
159	SLD 8	33	-181	1810	56.28	29.33	-1.28
159	SLD 9	-102	139	2122	46.64	35	-2.75
159	SLD 10	-90	160	2114	46.43	34.87	-2.7
159	SLD 11	-76	-213	1966	62.26	31.27	1.39
159	SLD 12	-64	-192	1958	62.05	31.14	1.44
159	SLD 13	-205	3	2241	58.83	35.81	1.88
159	SLD 14	-193	23	2233	58.62	35.68	1.93
159	SLD 15	-197	-103	2194	63.51	34.69	3.12
159	SLD 16	-185	-82	2186	63.31	34.57	3.17
159	SLV 1	307	120	1464	24.53	26.69	-13.79
159	SLV 2	335	167	1447	24.06	26.4	-13.68
159	SLV 3	325	-120	1358	35.17	24.14	-10.98
159	SLV 4	353	-73	1340	34.7	23.86	-10.86
159	SLV 5	31	369	1983	27.41	34.47	-9.86
159	SLV 6	59	417	1965	26.94	34.19	-9.75
159	SLV 7	91	-432	1629	62.87	26	-0.47
159	SLV 8	119	-384	1611	62.4	25.72	-0.36
159	SLV 9	-188	343	2321	40.52	38.61	-3.67
159	SLV 10	-160	390	2303	40.05	38.32	-3.56
159	SLV 11	-128	-458	1967	75.98	30.13	5.72
159	SLV 12	-100	-410	1949	75.51	29.85	5.83
159	SLV 13	-422	32	2591	68.22	40.46	6.84
159	SLV 14	-394	79	2574	67.76	40.18	6.95
159	SLV 15	-404	-208	2485	78.86	37.92	9.65
159	SLV 16	-376	-161	2468	78.39	37.64	9.77
159	CRTFP Ux+	0	0	0	0	0	0
159	CRTFP Ux-	0	0	0	0	0	0
159	CRTFP Uy+	0	0	0	0	0	0
159	CRTFP Uy-	0	0	0	0	0	0
161	SLU 1	-9	-11	631	154.45	42.82	2.94
161	SLU 2	-12	-11	637	155.88	43.25	3.76
161	SLU 3	-9	-11	631	154.45	42.82	2.94
161	SLU 4	-11	-11	634	155.31	43.08	3.43
161	SLU 5	-12	-11	637	155.88	43.25	3.76
161	SLU 6	-9	-11	631	154.45	42.82	2.94
161	SLU 7	-11	-11	634	155.31	43.08	3.43
161	SLU 8	-9	-11	631	154.45	42.82	2.94
161	SLU 9	-11	-11	634	155.31	43.08	3.43
161	SLU 10	-13	-12	776	190.56	52.79	4.04
161	SLU 11	-10	-12	770	189.13	52.36	3.22
161	SLU 12	-12	-12	774	189.99	52.62	3.71
161	SLU 13	-13	-12	776	190.56	52.79	4.04
161	SLU 14	-10	-12	770	189.13	52.36	3.22
161	SLU 15	-12	-12	774	189.99	52.62	3.71
161	SLU 16	-10	-12	770	189.13	52.36	3.22
161	SLU 17	-12	-12	774	189.99	52.62	3.71
161	SLU 18	-10	-13	830	204	56.44	3.34
161	SLU 19	-12	-13	833	204.85	56.7	3.83
161	SLU 20	-10	-13	830	204	56.44	3.34
161	SLU 21	-12	-13	833	204.85	56.7	3.83
161	SLU 22	-10	-12	732	179.44	49.75	3.16
161	SLU 23	-13	-12	738	180.87	50.18	3.98
161	SLU 24	-10	-12	732	179.44	49.75	3.16
161	SLU 25	-12	-12	736	180.3	50.01	3.65
161	SLU 26	-13	-12	738	180.87	50.18	3.98

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
161	SLU 27	-10	-12	732	179.44	49.75	3.16
161	SLU 28	-12	-12	736	180.3	50.01	3.65
161	SLU 29	-10	-12	732	179.44	49.75	3.16
161	SLU 30	-12	-12	736	180.3	50.01	3.65
161	SLU 31	-14	-13	878	215.55	59.72	4.26
161	SLU 32	-10	-13	871	214.13	59.28	3.44
161	SLU 33	-12	-13	875	214.98	59.54	3.93
161	SLU 34	-14	-13	878	215.55	59.72	4.26
161	SLU 35	-10	-13	871	214.13	59.28	3.44
161	SLU 36	-12	-13	875	214.98	59.54	3.93
161	SLU 37	-10	-13	871	214.13	59.28	3.44
161	SLU 38	-12	-13	875	214.98	59.54	3.93
161	SLU 39	-11	-13	931	228.99	63.37	3.56
161	SLU 40	-13	-14	935	229.84	63.63	4.05
161	SLU 41	-11	-13	931	228.99	63.37	3.56
161	SLU 42	-13	-14	935	229.84	63.63	4.05
161	SLU 43	-11	-15	785	192.22	53.29	3.75
161	SLU 44	-15	-15	792	193.64	53.72	4.57
161	SLU 45	-11	-15	785	192.22	53.29	3.75
161	SLU 46	-13	-15	789	193.07	53.55	4.24
161	SLU 47	-15	-15	792	193.64	53.72	4.57
161	SLU 48	-11	-15	785	192.22	53.29	3.75
161	SLU 49	-13	-15	789	193.07	53.55	4.24
161	SLU 50	-11	-15	785	192.22	53.29	3.75
161	SLU 51	-13	-15	789	193.07	53.55	4.24
161	SLU 52	-15	-16	931	228.33	63.26	4.85
161	SLU 53	-12	-16	924	226.9	62.83	4.03
161	SLU 54	-14	-16	928	227.76	63.09	4.52
161	SLU 55	-15	-16	931	228.33	63.26	4.85
161	SLU 56	-12	-16	924	226.9	62.83	4.03
161	SLU 57	-14	-16	928	227.76	63.09	4.52
161	SLU 58	-12	-16	924	226.9	62.83	4.03
161	SLU 59	-14	-16	928	227.76	63.09	4.52
161	SLU 60	-13	-16	984	241.77	66.91	4.15
161	SLU 61	-14	-16	988	242.62	67.17	4.64
161	SLU 62	-13	-16	984	241.77	66.91	4.15
161	SLU 63	-14	-16	988	242.62	67.17	4.64
161	SLU 64	-12	-15	886	217.21	60.22	3.97
161	SLU 65	-15	-15	893	218.63	60.65	4.79
161	SLU 66	-12	-15	886	217.21	60.22	3.97
161	SLU 67	-14	-15	890	218.06	60.48	4.46
161	SLU 68	-15	-15	893	218.63	60.65	4.79
161	SLU 69	-12	-15	886	217.21	60.22	3.97
161	SLU 70	-14	-15	890	218.06	60.48	4.46
161	SLU 71	-12	-15	886	217.21	60.22	3.97
161	SLU 72	-14	-15	890	218.06	60.48	4.46
161	SLU 73	-16	-16	1032	253.32	70.19	5.07
161	SLU 74	-13	-16	1026	251.89	69.76	4.25
161	SLU 75	-15	-16	1029	252.75	70.01	4.74
161	SLU 76	-16	-16	1032	253.32	70.19	5.07
161	SLU 77	-13	-16	1026	251.89	69.76	4.25
161	SLU 78	-15	-16	1029	252.75	70.01	4.74
161	SLU 79	-13	-16	1026	251.89	69.76	4.25
161	SLU 80	-15	-16	1029	252.75	70.01	4.74
161	SLU 81	-13	-17	1085	266.76	73.84	4.37
161	SLU 82	-15	-17	1089	267.61	74.1	4.86
161	SLU 83	-13	-17	1085	266.76	73.84	4.37
161	SLU 84	-15	-17	1089	267.61	74.1	4.86
161	SLE RA 1	-9	-12	660	161.59	44.8	3
161	SLE RA 2	-11	-12	664	162.54	45.09	3.55
161	SLE RA 3	-9	-12	660	161.59	44.8	3
161	SLE RA 4	-10	-12	662	162.16	44.97	3.33
161	SLE RA 5	-11	-12	664	162.54	45.09	3.55
161	SLE RA 6	-9	-12	660	161.59	44.8	3
161	SLE RA 7	-10	-12	662	162.16	44.97	3.33
161	SLE RA 8	-9	-12	660	161.59	44.8	3
161	SLE RA 9	-10	-12	662	162.16	44.97	3.33
161	SLE RA 10	-12	-12	757	185.66	51.45	3.74
161	SLE RA 11	-10	-12	752	184.71	51.16	3.19
161	SLE RA 12	-11	-12	755	185.28	51.33	3.52
161	SLE RA 13	-12	-12	757	185.66	51.45	3.74
161	SLE RA 14	-10	-12	752	184.71	51.16	3.19
161	SLE RA 15	-11	-12	755	185.28	51.33	3.52
161	SLE RA 16	-10	-12	752	184.71	51.16	3.19
161	SLE RA 17	-11	-12	755	185.28	51.33	3.52
161	SLE RA 18	-10	-12	792	194.62	53.88	3.27
161	SLE RA 19	-11	-13	795	195.19	54.05	3.6
161	SLE RA 20	-10	-12	792	194.62	53.88	3.27
161	SLE RA 21	-11	-13	795	195.19	54.05	3.6
161	SLE FR 1	-9	-12	660	161.59	44.8	3
161	SLE FR 2	-10	-12	660	161.78	44.86	3.11
161	SLE FR 3	-9	-12	660	161.59	44.8	3
161	SLE FR 4	-10	-12	700	171.69	47.58	3.19
161	SLE FR 5	-9	-12	699	171.5	47.52	3.08
161	SLE FR 6	-9	-12	726	178.11	49.34	3.14
161	SLE QP 1	-9	-12	660	161.59	44.8	3

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
161	SLE QP 2	-9	-12	699	171.5	47.52	3.08
161	SLD 1	44	10	607	150.65	41.39	-11.39
161	SLD 2	47	19	604	150.11	41.2	-12.81
161	SLD 3	47	-28	595	148.96	40.55	-9.38
161	SLD 4	50	-19	592	148.42	40.36	-10.8
161	SLD 5	0	49	691	167.99	47.02	-3.81
161	SLD 6	4	58	688	167.45	46.83	-5.25
161	SLD 7	11	-77	651	162.37	44.22	2.91
161	SLD 8	15	-69	648	161.83	44.04	1.47
161	SLD 9	-33	45	751	181.17	51.01	4.69
161	SLD 10	-30	54	748	180.63	50.83	3.26
161	SLD 11	-22	-82	711	175.55	48.22	11.41
161	SLD 12	-19	-73	708	175.01	48.03	9.98
161	SLD 13	-69	-5	806	194.58	54.69	16.97
161	SLD 14	-65	4	804	194.04	54.5	15.54
161	SLD 15	-66	-43	794	192.89	53.85	18.98
161	SLD 16	-62	-34	792	192.36	53.66	17.56
161	SLV 1	111	39	489	124.08	33.56	-29.82
161	SLV 2	119	58	483	122.86	33.13	-33.04
161	SLV 3	118	-47	462	120.23	31.65	-25.24
161	SLV 4	126	-28	456	119.01	31.22	-28.47
161	SLV 5	13	127	680	163.53	46.38	-12.58
161	SLV 6	20	147	674	162.31	45.96	-15.83
161	SLV 7	38	-160	589	150.72	40.01	2.66
161	SLV 8	45	-141	583	149.5	39.59	-0.59
161	SLV 9	-64	117	816	193.51	55.46	6.75
161	SLV 10	-56	136	810	192.28	55.04	3.51
161	SLV 11	-39	-170	725	180.7	49.09	21.99
161	SLV 12	-31	-151	719	179.47	48.67	18.75
161	SLV 13	-145	4	943	223.99	63.83	34.63
161	SLV 14	-137	24	937	222.77	63.4	31.41
161	SLV 15	-137	-82	915	220.15	61.92	39.21
161	SLV 16	-129	-62	909	218.93	61.49	35.98
161	CRTFP Ux+	0	0	0	0	0	0
161	CRTFP Ux-	0	0	0	0	0	0
161	CRTFP Uy+	0	0	0	0	0	0
161	CRTFP Uy-	0	0	0	0	0	0
162	SLU 1	-124	-143	6844	-234.48	-1554.55	-42.9
162	SLU 2	-157	-145	6915	-235.76	-1571.43	-44.58
162	SLU 3	-124	-143	6844	-234.48	-1554.55	-42.9
162	SLU 4	-144	-144	6887	-235.25	-1564.68	-43.9
162	SLU 5	-157	-145	6915	-235.76	-1571.43	-44.58
162	SLU 6	-124	-143	6844	-234.48	-1554.55	-42.9
162	SLU 7	-144	-144	6887	-235.25	-1564.68	-43.9
162	SLU 8	-124	-143	6844	-234.48	-1554.55	-42.9
162	SLU 9	-144	-144	6887	-235.25	-1564.68	-43.9
162	SLU 10	-171	-158	8277	-267.68	-1862.85	-48.39
162	SLU 11	-138	-156	8206	-266.4	-1845.97	-46.71
162	SLU 12	-158	-157	8248	-267.17	-1856.1	-47.72
162	SLU 13	-171	-158	8277	-267.68	-1862.85	-48.39
162	SLU 14	-138	-156	8206	-266.4	-1845.97	-46.71
162	SLU 15	-158	-157	8248	-267.17	-1856.1	-47.72
162	SLU 16	-138	-156	8206	-266.4	-1845.97	-46.71
162	SLU 17	-158	-157	8248	-267.17	-1856.1	-47.72
162	SLU 18	-144	-161	8789	-280.07	-1970.86	-48.35
162	SLU 19	-164	-162	8832	-280.84	-1980.99	-49.36
162	SLU 20	-144	-161	8789	-280.07	-1970.86	-48.35
162	SLU 21	-164	-162	8832	-280.84	-1980.99	-49.36
162	SLU 22	-134	-152	7841	-259.57	-1767.86	-45.44
162	SLU 23	-167	-154	7912	-260.85	-1784.75	-47.11
162	SLU 24	-134	-152	7841	-259.57	-1767.86	-45.44
162	SLU 25	-154	-153	7883	-260.34	-1777.99	-46.44
162	SLU 26	-167	-154	7912	-260.85	-1784.75	-47.11
162	SLU 27	-134	-152	7841	-259.57	-1767.86	-45.44
162	SLU 28	-154	-153	7883	-260.34	-1777.99	-46.44
162	SLU 29	-134	-152	7841	-259.57	-1767.86	-45.44
162	SLU 30	-154	-153	7883	-260.34	-1777.99	-46.44
162	SLU 31	-181	-166	9273	-292.77	-2076.17	-50.93
162	SLU 32	-148	-164	9202	-291.49	-2059.28	-49.25
162	SLU 33	-168	-165	9245	-292.26	-2069.41	-50.26
162	SLU 34	-181	-166	9273	-292.77	-2076.17	-50.93
162	SLU 35	-148	-164	9202	-291.49	-2059.28	-49.25
162	SLU 36	-168	-165	9245	-292.26	-2069.41	-50.26
162	SLU 37	-148	-164	9202	-291.49	-2059.28	-49.25
162	SLU 38	-168	-165	9245	-292.26	-2069.41	-50.26
162	SLU 39	-154	-170	9786	-305.16	-2184.18	-50.89
162	SLU 40	-174	-171	9829	-305.93	-2194.31	-51.89
162	SLU 41	-154	-170	9786	-305.16	-2184.18	-50.89
162	SLU 42	-174	-171	9829	-305.93	-2194.31	-51.89
162	SLU 43	-158	-183	8555	-296.22	-1947.78	-54.9
162	SLU 44	-191	-185	8626	-297.51	-1964.66	-56.57
162	SLU 45	-158	-183	8555	-296.22	-1947.78	-54.9
162	SLU 46	-178	-184	8598	-296.99	-1957.91	-55.9
162	SLU 47	-191	-185	8626	-297.51	-1964.66	-56.57
162	SLU 48	-158	-183	8555	-296.22	-1947.78	-54.9
162	SLU 49	-178	-184	8598	-296.99	-1957.91	-55.9

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
162	SLU 50	-158	-183	8555	-296.22	-1947.78	-54.9
162	SLU 51	-178	-184	8598	-296.99	-1957.91	-55.9
162	SLU 52	-205	-198	9988	-329.42	-2256.08	-60.39
162	SLU 53	-172	-196	9917	-328.14	-2239.2	-58.71
162	SLU 54	-192	-197	9960	-328.91	-2249.33	-59.72
162	SLU 55	-205	-198	9988	-329.42	-2256.08	-60.39
162	SLU 56	-172	-196	9917	-328.14	-2239.2	-58.71
162	SLU 57	-192	-197	9960	-328.91	-2249.33	-59.72
162	SLU 58	-172	-196	9917	-328.14	-2239.2	-58.71
162	SLU 59	-192	-197	9960	-328.91	-2249.33	-59.72
162	SLU 60	-178	-201	10501	-341.82	-2364.09	-60.35
162	SLU 61	-198	-202	10543	-342.59	-2374.22	-61.35
162	SLU 62	-178	-201	10501	-341.82	-2364.09	-60.35
162	SLU 63	-198	-202	10543	-342.59	-2374.22	-61.35
162	SLU 64	-168	-192	9552	-321.31	-2161.09	-57.43
162	SLU 65	-201	-194	9623	-322.59	-2177.98	-59.11
162	SLU 66	-168	-192	9552	-321.31	-2161.09	-57.43
162	SLU 67	-188	-193	9595	-322.08	-2171.22	-58.44
162	SLU 68	-201	-194	9623	-322.59	-2177.98	-59.11
162	SLU 69	-168	-192	9552	-321.31	-2161.09	-57.43
162	SLU 70	-188	-193	9595	-322.08	-2171.22	-58.44
162	SLU 71	-168	-192	9552	-321.31	-2161.09	-57.43
162	SLU 72	-188	-193	9595	-322.08	-2171.22	-58.44
162	SLU 73	-215	-206	10985	-354.51	-2469.4	-62.93
162	SLU 74	-182	-204	10914	-353.23	-2452.51	-61.25
162	SLU 75	-202	-206	10956	-354	-2462.64	-62.26
162	SLU 76	-215	-206	10985	-354.51	-2469.4	-62.93
162	SLU 77	-182	-204	10914	-353.23	-2452.51	-61.25
162	SLU 78	-202	-206	10956	-354	-2462.64	-62.26
162	SLU 79	-182	-204	10914	-353.23	-2452.51	-61.25
162	SLU 80	-202	-206	10956	-354	-2462.64	-62.26
162	SLU 81	-188	-210	11497	-366.91	-2577.41	-62.89
162	SLU 82	-208	-211	11540	-367.68	-2587.54	-63.89
162	SLU 83	-188	-210	11497	-366.91	-2577.41	-62.89
162	SLU 84	-208	-211	11540	-367.68	-2587.54	-63.89
162	SLE RA 1	-127	-146	7129	-241.65	-1615.5	-43.62
162	SLE RA 2	-149	-147	7176	-242.5	-1626.75	-44.74
162	SLE RA 3	-127	-146	7129	-241.65	-1615.5	-43.62
162	SLE RA 4	-140	-146	7157	-242.16	-1622.25	-44.29
162	SLE RA 5	-149	-147	7176	-242.5	-1626.75	-44.74
162	SLE RA 6	-127	-146	7129	-241.65	-1615.5	-43.62
162	SLE RA 7	-140	-146	7157	-242.16	-1622.25	-44.29
162	SLE RA 8	-127	-146	7129	-241.65	-1615.5	-43.62
162	SLE RA 9	-140	-146	7157	-242.16	-1622.25	-44.29
162	SLE RA 10	-158	-155	8084	-263.78	-1821.03	-47.29
162	SLE RA 11	-136	-154	8037	-262.93	-1809.78	-46.17
162	SLE RA 12	-150	-155	8065	-263.44	-1816.53	-46.84
162	SLE RA 13	-158	-155	8084	-263.78	-1821.03	-47.29
162	SLE RA 14	-136	-154	8037	-262.93	-1809.78	-46.17
162	SLE RA 15	-150	-155	8065	-263.44	-1816.53	-46.84
162	SLE RA 16	-136	-154	8037	-262.93	-1809.78	-46.17
162	SLE RA 17	-150	-155	8065	-263.44	-1816.53	-46.84
162	SLE RA 18	-140	-158	8426	-272.05	-1893.04	-47.26
162	SLE RA 19	-153	-158	8454	-272.56	-1899.79	-47.93
162	SLE RA 20	-140	-158	8426	-272.05	-1893.04	-47.26
162	SLE RA 21	-153	-158	8454	-272.56	-1899.79	-47.93
162	SLE FR 1	-127	-146	7129	-241.65	-1615.5	-43.62
162	SLE FR 2	-132	-146	7138	-241.82	-1617.75	-43.85
162	SLE FR 3	-127	-146	7129	-241.65	-1615.5	-43.62
162	SLE FR 4	-136	-150	7527	-250.94	-1701.01	-44.94
162	SLE FR 5	-131	-149	7518	-250.77	-1698.76	-44.71
162	SLE FR 6	-134	-152	7777	-256.85	-1754.27	-45.44
162	SLE QP 1	-127	-146	7129	-241.65	-1615.5	-43.62
162	SLE QP 2	-131	-149	7518	-250.77	-1698.76	-44.71
162	SLD 1	399	88	6498	-241.77	-1449.89	19.86
162	SLD 2	444	193	6476	-241.23	-1446.54	50.3
162	SLD 3	426	-315	6347	-219.33	-1422.31	-71.85
162	SLD 4	472	-209	6325	-218.79	-1418.96	-41.41
162	SLD 5	-30	496	7449	-282.29	-1667.1	102.97
162	SLD 6	16	602	7427	-281.75	-1663.73	133.64
162	SLD 7	61	-847	6945	-207.5	-1575.18	-202.7
162	SLD 8	107	-741	6923	-206.96	-1571.81	-172.04
162	SLD 9	-370	442	8113	-294.58	-1825.71	82.61
162	SLD 10	-324	548	8091	-294.04	-1822.33	113.28
162	SLD 11	-278	-900	7608	-219.79	-1733.79	-223.06
162	SLD 12	-233	-794	7586	-219.25	-1730.41	-192.4
162	SLD 13	-734	-89	8711	-282.75	-1978.56	-48.02
162	SLD 14	-689	16	8689	-282.21	-1975.21	-17.58
162	SLD 15	-707	-492	8559	-260.31	-1950.98	-139.72
162	SLD 16	-661	-387	8537	-259.77	-1947.63	-109.28
162	SLV 1	1074	392	5200	-230.24	-1132.99	102.4
162	SLV 2	1176	630	5150	-229.02	-1125.41	171.33
162	SLV 3	1136	-523	4855	-179.26	-1070.21	-105.85
162	SLV 4	1239	-284	4805	-178.04	-1062.63	-36.92
162	SLV 5	99	1316	7362	-322.35	-1626.93	290.91
162	SLV 6	202	1556	7312	-321.12	-1619.3	360.3

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
162	SLV 7	308	-1733	6214	-152.44	-1417.65	-403.25
162	SLV 8	411	-1493	6164	-151.21	-1410.02	-333.87
162	SLV 9	-674	1194	8871	-350.33	-1987.5	244.44
162	SLV 10	-570	1434	8821	-349.1	-1979.87	313.82
162	SLV 11	-465	-1855	7724	-180.41	-1778.22	-449.72
162	SLV 12	-361	-1615	7673	-179.19	-1770.59	-380.34
162	SLV 13	-1501	-14	10230	-323.5	-2334.89	-52.5
162	SLV 14	-1399	224	10180	-322.28	-2327.31	16.42
162	SLV 15	-1439	-929	9886	-272.52	-2272.1	-260.75
162	SLV 16	-1336	-691	9836	-271.3	-2264.52	-191.83
162	CRTFP Ux+	0	0	0	0	-0.02	0
162	CRTFP Ux-	0	0	0	0	0.02	0
162	CRTFP Uy+	0	0	0	0	0	-0.01
162	CRTFP Uy-	0	0	0	0	0	0.01
162	CRTFP Rz+	0	0	0	0	0	0
162	CRTFP Rz-	0	0	0	0	0	0
164	SLU 1	-95	-82	7157	-64.51	2319.04	31.59
164	SLU 2	-122	-85	7227	-65.19	2342.29	31.87
164	SLU 3	-95	-82	7157	-64.51	2319.04	31.59
164	SLU 4	-111	-84	7199	-64.92	2332.99	31.76
164	SLU 5	-122	-85	7227	-65.19	2342.29	31.87
164	SLU 6	-95	-82	7157	-64.51	2319.04	31.59
164	SLU 7	-111	-84	7199	-64.92	2332.99	31.76
164	SLU 8	-95	-82	7157	-64.51	2319.04	31.59
164	SLU 9	-111	-84	7199	-64.92	2332.99	31.76
164	SLU 10	-132	-85	8444	-71.02	2749.31	32.95
164	SLU 11	-106	-83	8375	-70.33	2726.06	32.67
164	SLU 12	-121	-84	8416	-70.75	2740.01	32.84
164	SLU 13	-132	-85	8444	-71.02	2749.31	32.95
164	SLU 14	-106	-83	8375	-70.33	2726.06	32.67
164	SLU 15	-121	-84	8416	-70.75	2740.01	32.84
164	SLU 16	-106	-83	8375	-70.33	2726.06	32.67
164	SLU 17	-121	-84	8416	-70.75	2740.01	32.84
164	SLU 18	-110	-83	8897	-72.83	2900.5	33.14
164	SLU 19	-126	-84	8938	-73.24	2914.45	33.3
164	SLU 20	-110	-83	8897	-72.83	2900.5	33.14
164	SLU 21	-126	-84	8938	-73.24	2914.45	33.3
164	SLU 22	-103	-83	8053	-69.21	2618.09	32.47
164	SLU 23	-129	-86	8122	-69.89	2641.34	32.75
164	SLU 24	-103	-83	8053	-69.21	2618.09	32.47
164	SLU 25	-119	-85	8095	-69.62	2632.04	32.64
164	SLU 26	-129	-86	8122	-69.89	2641.34	32.75
164	SLU 27	-103	-83	8053	-69.21	2618.09	32.47
164	SLU 28	-119	-85	8095	-69.62	2632.04	32.64
164	SLU 29	-103	-83	8053	-69.21	2618.09	32.47
164	SLU 30	-119	-85	8095	-69.62	2632.04	32.64
164	SLU 31	-140	-86	9340	-75.72	3048.36	33.83
164	SLU 32	-113	-84	9271	-75.04	3025.11	33.55
164	SLU 33	-129	-85	9312	-75.45	3039.06	33.72
164	SLU 34	-140	-86	9340	-75.72	3048.36	33.83
164	SLU 35	-113	-84	9271	-75.04	3025.11	33.55
164	SLU 36	-129	-85	9312	-75.45	3039.06	33.72
164	SLU 37	-113	-84	9271	-75.04	3025.11	33.55
164	SLU 38	-129	-85	9312	-75.45	3039.06	33.72
164	SLU 39	-118	-84	9792	-77.53	3199.55	34.01
164	SLU 40	-134	-85	9834	-77.95	3213.5	34.18
164	SLU 41	-118	-84	9792	-77.53	3199.55	34.01
164	SLU 42	-134	-85	9834	-77.95	3213.5	34.18
164	SLU 43	-121	-107	8997	-82.25	2912.23	40.77
164	SLU 44	-147	-109	9067	-82.93	2935.47	41.05
164	SLU 45	-121	-107	8997	-82.25	2912.23	40.77
164	SLU 46	-137	-108	9039	-82.66	2926.17	40.93
164	SLU 47	-147	-109	9067	-82.93	2935.47	41.05
164	SLU 48	-121	-107	8997	-82.25	2912.23	40.77
164	SLU 49	-137	-108	9039	-82.66	2926.17	40.93
164	SLU 50	-121	-107	8997	-82.25	2912.23	40.77
164	SLU 51	-137	-108	9039	-82.66	2926.17	40.93
164	SLU 52	-158	-110	10284	-88.76	3342.49	42.13
164	SLU 53	-132	-107	10215	-88.07	3319.25	41.85
164	SLU 54	-147	-109	10257	-88.49	3333.19	42.02
164	SLU 55	-158	-110	10284	-88.76	3342.49	42.13
164	SLU 56	-132	-107	10215	-88.07	3319.25	41.85
164	SLU 57	-147	-109	10257	-88.49	3333.19	42.02
164	SLU 58	-132	-107	10215	-88.07	3319.25	41.85
164	SLU 59	-147	-109	10257	-88.49	3333.19	42.02
164	SLU 60	-136	-107	10737	-90.57	3493.68	42.31
164	SLU 61	-152	-109	10778	-90.98	3507.63	42.48
164	SLU 62	-136	-107	10737	-90.57	3493.68	42.31
164	SLU 63	-152	-109	10778	-90.98	3507.63	42.48
164	SLU 64	-129	-108	9893	-86.95	3211.27	41.64
164	SLU 65	-155	-110	9963	-87.63	3234.52	41.93
164	SLU 66	-129	-108	9893	-86.95	3211.27	41.64
164	SLU 67	-145	-109	9935	-87.36	3225.22	41.81
164	SLU 68	-155	-110	9963	-87.63	3234.52	41.93
164	SLU 69	-129	-108	9893	-86.95	3211.27	41.64
164	SLU 70	-145	-109	9935	-87.36	3225.22	41.81

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
164	SLU 71	-129	-108	9893	-86.95	3211.27	41.64
164	SLU 72	-145	-109	9935	-87.36	3225.22	41.81
164	SLU 73	-166	-111	11180	-93.46	3641.54	43.01
164	SLU 74	-139	-108	11111	-92.78	3618.29	42.73
164	SLU 75	-155	-109	11152	-93.19	3632.24	42.9
164	SLU 76	-166	-111	11180	-93.46	3641.54	43.01
164	SLU 77	-139	-108	11111	-92.78	3618.29	42.73
164	SLU 78	-155	-109	11152	-93.19	3632.24	42.9
164	SLU 79	-139	-108	11111	-92.78	3618.29	42.73
164	SLU 80	-155	-109	11152	-93.19	3632.24	42.9
164	SLU 81	-144	-108	11633	-95.27	3792.73	43.19
164	SLU 82	-160	-110	11674	-95.68	3806.68	43.36
164	SLU 83	-144	-108	11633	-95.27	3792.73	43.19
164	SLU 84	-160	-110	11674	-95.68	3806.68	43.36
164	SLE RA 1	-97	-83	7413	-65.85	2404.48	31.84
164	SLE RA 2	-115	-84	7460	-66.31	2419.98	32.03
164	SLE RA 3	-97	-83	7413	-65.85	2404.48	31.84
164	SLE RA 4	-108	-84	7441	-66.12	2413.78	31.95
164	SLE RA 5	-115	-84	7460	-66.31	2419.98	32.03
164	SLE RA 6	-97	-83	7413	-65.85	2404.48	31.84
164	SLE RA 7	-108	-84	7441	-66.12	2413.78	31.95
164	SLE RA 8	-97	-83	7413	-65.85	2404.48	31.84
164	SLE RA 9	-108	-84	7441	-66.12	2413.78	31.95
164	SLE RA 10	-122	-85	8271	-70.19	2691.33	32.75
164	SLE RA 11	-104	-83	8225	-69.74	2675.83	32.56
164	SLE RA 12	-115	-84	8253	-70.01	2685.13	32.68
164	SLE RA 13	-122	-85	8271	-70.19	2691.33	32.75
164	SLE RA 14	-104	-83	8225	-69.74	2675.83	32.56
164	SLE RA 15	-115	-84	8253	-70.01	2685.13	32.68
164	SLE RA 16	-104	-83	8225	-69.74	2675.83	32.56
164	SLE RA 17	-115	-84	8253	-70.01	2685.13	32.68
164	SLE RA 18	-107	-83	8573	-71.4	2792.12	32.87
164	SLE RA 19	-118	-84	8601	-71.67	2801.42	32.98
164	SLE RA 20	-107	-83	8573	-71.4	2792.12	32.87
164	SLE RA 21	-118	-84	8601	-71.67	2801.42	32.98
164	SLE FR 1	-97	-83	7413	-65.85	2404.48	31.84
164	SLE FR 2	-101	-83	7423	-65.94	2407.58	31.88
164	SLE FR 3	-97	-83	7413	-65.85	2404.48	31.84
164	SLE FR 4	-104	-83	7770	-67.61	2523.88	32.19
164	SLE FR 5	-100	-83	7761	-67.51	2520.78	32.15
164	SLE FR 6	-102	-83	7993	-68.63	2598.3	32.36
164	SLE QP 1	-97	-83	7413	-65.85	2404.48	31.84
164	SLE QP 2	-100	-83	7761	-67.51	2520.78	32.15
164	SLD 1	325	149	6736	-66.53	2179.05	-42.88
164	SLD 2	361	274	6739	-67.52	2178.17	-80.78
164	SLD 3	347	-237	6571	-44.6	2126.57	84.41
164	SLD 4	383	-112	6574	-45.59	2125.7	46.5
164	SLD 5	-19	528	7703	-100.14	2498.15	-170
164	SLD 6	17	654	7707	-101.13	2497.27	-208.19
164	SLD 7	55	-759	7152	-27.02	2323.24	254.29
164	SLD 8	91	-632	7155	-28.02	2322.36	216.1
164	SLD 9	-292	467	8367	-107.01	2719.19	-151.8
164	SLD 10	-256	594	8371	-108.01	2718.31	-189.99
164	SLD 11	-218	-820	7815	-33.9	2544.28	272.49
164	SLD 12	-182	-693	7819	-34.89	2543.4	234.3
164	SLD 13	-584	-54	8948	-89.44	2915.85	17.79
164	SLD 14	-548	72	8952	-90.43	2914.98	-20.11
164	SLD 15	-562	-440	8783	-67.51	2863.38	145.08
164	SLD 16	-526	-314	8786	-68.5	2862.51	107.18
164	SLV 1	866	445	5432	-65.25	1744.07	-139
164	SLV 2	948	730	5439	-67.5	1742.09	-224.83
164	SLV 3	917	-431	5055	-15.42	1624.69	150.09
164	SLV 4	998	-147	5063	-17.66	1622.71	64.26
164	SLV 5	84	1305	7631	-141.62	2469.53	-427.31
164	SLV 6	166	1591	7638	-143.88	2467.54	-513.71
164	SLV 7	253	-1617	6376	24.48	2071.58	536.3
164	SLV 8	335	-1331	6383	22.23	2069.59	449.9
164	SLV 9	-536	1165	9139	-157.26	2971.96	-385.6
164	SLV 10	-454	1452	9147	-159.51	2969.97	-472
164	SLV 11	-366	-1756	7884	8.85	2574.01	578.01
164	SLV 12	-284	-1470	7892	6.59	2572.02	491.61
164	SLV 13	-1199	-19	10460	-117.37	3418.84	0.04
164	SLV 14	-1118	266	10467	-119.61	3416.86	-85.79
164	SLV 15	-1148	-895	10083	-67.53	3299.46	289.13
164	SLV 16	-1067	-611	10091	-69.78	3297.48	203.3
164	CRTFP Ux+	0	0	0	0	0.02	0
164	CRTFP Ux-	0	0	0	0	-0.02	0
164	CRTFP Uy+	0	0	0	0	-0.01	0.01
164	CRTFP Uy-	0	0	0	0	0.01	-0.01
164	CRTFP Rz+	0	0	0	0	0	0
164	CRTFP Rz-	0	0	0	0	0	0
166	SLU 1	-48	-28	4403	13.86	460.15	4.2
166	SLU 2	-61	-30	4442	13.88	464.54	4.33
166	SLU 3	-48	-28	4403	13.86	460.15	4.2
166	SLU 4	-56	-29	4426	13.87	462.78	4.28
166	SLU 5	-61	-30	4442	13.88	464.54	4.33

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
166	SLU 6	-48	-28	4403	13.86	460.15	4.2
166	SLU 7	-56	-29	4426	13.87	462.78	4.28
166	SLU 8	-48	-28	4403	13.86	460.15	4.2
166	SLU 9	-56	-29	4426	13.87	462.78	4.28
166	SLU 10	-66	-27	5137	17.32	541.45	4.13
166	SLU 11	-53	-25	5098	17.3	537.06	4
166	SLU 12	-61	-26	5121	17.31	539.7	4.08
166	SLU 13	-66	-27	5137	17.32	541.45	4.13
166	SLU 14	-53	-25	5098	17.3	537.06	4
166	SLU 15	-61	-26	5121	17.31	539.7	4.08
166	SLU 16	-53	-25	5098	17.3	537.06	4
166	SLU 17	-61	-26	5121	17.31	539.7	4.08
166	SLU 18	-55	-24	5396	18.77	570.02	3.92
166	SLU 19	-63	-25	5419	18.79	572.66	3.99
166	SLU 20	-55	-24	5396	18.77	570.02	3.92
166	SLU 21	-63	-25	5419	18.79	572.66	3.99
166	SLU 22	-51	-27	4916	16.33	516.73	4.12
166	SLU 23	-65	-28	4955	16.35	521.13	4.25
166	SLU 24	-51	-27	4916	16.33	516.73	4.12
166	SLU 25	-59	-28	4940	16.34	519.37	4.2
166	SLU 26	-65	-28	4955	16.35	521.13	4.25
166	SLU 27	-51	-27	4916	16.33	516.73	4.12
166	SLU 28	-59	-28	4940	16.34	519.37	4.2
166	SLU 29	-51	-27	4916	16.33	516.73	4.12
166	SLU 30	-59	-28	4940	16.34	519.37	4.2
166	SLU 31	-70	-26	5651	19.79	598.04	4.05
166	SLU 32	-57	-24	5612	19.77	593.65	3.92
166	SLU 33	-65	-25	5635	19.78	596.28	4
166	SLU 34	-70	-26	5651	19.79	598.04	4.05
166	SLU 35	-57	-24	5612	19.77	593.65	3.92
166	SLU 36	-65	-25	5635	19.78	596.28	4
166	SLU 37	-57	-24	5612	19.77	593.65	3.92
166	SLU 38	-65	-25	5635	19.78	596.28	4
166	SLU 39	-59	-23	5910	21.24	626.61	3.84
166	SLU 40	-67	-24	5933	21.26	629.25	3.92
166	SLU 41	-59	-23	5910	21.24	626.61	3.84
166	SLU 42	-67	-24	5933	21.26	629.25	3.92
166	SLU 43	-61	-37	5547	17.17	578.79	5.49
166	SLU 44	-74	-39	5586	17.19	583.19	5.62
166	SLU 45	-61	-37	5547	17.17	578.79	5.49
166	SLU 46	-69	-38	5571	17.18	581.43	5.57
166	SLU 47	-74	-39	5586	17.19	583.19	5.62
166	SLU 48	-61	-37	5547	17.17	578.79	5.49
166	SLU 49	-69	-38	5571	17.18	581.43	5.57
166	SLU 50	-61	-37	5547	17.17	578.79	5.49
166	SLU 51	-69	-38	5571	17.18	581.43	5.57
166	SLU 52	-79	-36	6282	20.63	660.1	5.42
166	SLU 53	-66	-34	6243	20.61	655.7	5.29
166	SLU 54	-74	-35	6266	20.62	658.34	5.37
166	SLU 55	-79	-36	6282	20.63	660.1	5.42
166	SLU 56	-66	-34	6243	20.61	655.7	5.29
166	SLU 57	-74	-35	6266	20.62	658.34	5.37
166	SLU 58	-66	-34	6243	20.61	655.7	5.29
166	SLU 59	-74	-35	6266	20.62	658.34	5.37
166	SLU 60	-68	-33	6541	22.08	688.67	5.2
166	SLU 61	-76	-34	6564	22.1	691.3	5.28
166	SLU 62	-68	-33	6541	22.08	688.67	5.2
166	SLU 63	-76	-34	6564	22.1	691.3	5.28
166	SLU 64	-64	-36	6061	19.64	635.38	5.41
166	SLU 65	-78	-37	6100	19.66	639.77	5.54
166	SLU 66	-64	-36	6061	19.64	635.38	5.41
166	SLU 67	-72	-37	6084	19.66	638.01	5.49
166	SLU 68	-78	-37	6100	19.66	639.77	5.54
166	SLU 69	-64	-36	6061	19.64	635.38	5.41
166	SLU 70	-72	-37	6084	19.66	638.01	5.49
166	SLU 71	-64	-36	6061	19.64	635.38	5.41
166	SLU 72	-72	-37	6084	19.66	638.01	5.49
166	SLU 73	-83	-34	6795	23.1	716.68	5.34
166	SLU 74	-70	-33	6756	23.08	712.29	5.21
166	SLU 75	-78	-34	6780	23.09	714.93	5.29
166	SLU 76	-83	-34	6795	23.1	716.68	5.34
166	SLU 77	-70	-33	6756	23.08	712.29	5.21
166	SLU 78	-78	-34	6780	23.09	714.93	5.29
166	SLU 79	-70	-33	6756	23.08	712.29	5.21
166	SLU 80	-78	-34	6780	23.09	714.93	5.29
166	SLU 81	-72	-31	7054	24.56	745.25	5.12
166	SLU 82	-80	-33	7078	24.57	747.89	5.2
166	SLU 83	-72	-31	7054	24.56	745.25	5.12
166	SLU 84	-80	-33	7078	24.57	747.89	5.2
166	SLE RA 1	-49	-28	4549	14.57	476.32	4.18
166	SLE RA 2	-58	-29	4575	14.58	479.24	4.26
166	SLE RA 3	-49	-28	4549	14.57	476.32	4.18
166	SLE RA 4	-54	-28	4565	14.58	478.07	4.23
166	SLE RA 5	-58	-29	4575	14.58	479.24	4.26
166	SLE RA 6	-49	-28	4549	14.57	476.32	4.18
166	SLE RA 7	-54	-28	4565	14.58	478.07	4.23

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
166	SLE RA 8	-49	-28	4549	14.57	476.32	4.18
166	SLE RA 9	-54	-28	4565	14.58	478.07	4.23
166	SLE RA 10	-61	-27	5039	16.87	530.52	4.13
166	SLE RA 11	-52	-26	5013	16.86	527.59	4.04
166	SLE RA 12	-58	-26	5029	16.87	529.35	4.1
166	SLE RA 13	-61	-27	5039	16.87	530.52	4.13
166	SLE RA 14	-52	-26	5013	16.86	527.59	4.04
166	SLE RA 15	-58	-26	5029	16.87	529.35	4.1
166	SLE RA 16	-52	-26	5013	16.86	527.59	4.04
166	SLE RA 17	-58	-26	5029	16.87	529.35	4.1
166	SLE RA 18	-54	-25	5212	17.84	549.57	3.99
166	SLE RA 19	-59	-26	5227	17.85	551.32	4.04
166	SLE RA 20	-54	-25	5212	17.84	549.57	3.99
166	SLE RA 21	-59	-26	5227	17.85	551.32	4.04
166	SLE FR 1	-49	-28	4549	14.57	476.32	4.18
166	SLE FR 2	-50	-28	4555	14.57	476.9	4.19
166	SLE FR 3	-49	-28	4549	14.57	476.32	4.18
166	SLE FR 4	-52	-27	4753	15.55	498.88	4.14
166	SLE FR 5	-50	-27	4748	15.55	498.29	4.12
166	SLE FR 6	-51	-26	4881	16.2	512.94	4.08
166	SLE QP 1	-49	-28	4549	14.57	476.32	4.18
166	SLE QP 2	-50	-27	4748	15.55	498.29	4.12
166	SLD 1	165	102	4165	13.1	433.71	-10.99
166	SLD 2	182	178	4176	12.75	434.12	-19.39
166	SLD 3	176	-111	4053	20.55	422.68	14.39
166	SLD 4	194	-35	4064	20.2	423.09	5.98
166	SLD 5	-10	308	4739	3.64	495.5	-35.93
166	SLD 6	9	384	4750	3.29	495.91	-44.4
166	SLD 7	29	-401	4366	28.47	458.74	48.67
166	SLD 8	47	-325	4377	28.12	459.15	40.2
166	SLD 9	-147	272	5119	2.98	537.43	-31.96
166	SLD 10	-129	348	5130	2.63	537.85	-40.43
166	SLD 11	-109	-438	4746	27.81	500.67	52.64
166	SLD 12	-91	-361	4757	27.46	501.08	44.17
166	SLD 13	-294	-19	5432	10.9	573.49	2.25
166	SLD 14	-276	57	5443	10.55	573.9	-6.15
166	SLD 15	-283	-231	5320	18.35	562.47	27.63
166	SLD 16	-265	-156	5331	18	562.87	19.23
166	SLV 1	438	268	3424	9.99	351.51	-30.35
166	SLV 2	478	439	3448	9.2	352.44	-49.39
166	SLV 3	464	-216	3169	26.91	326.43	27.29
166	SLV 4	505	-44	3193	26.12	327.35	8.25
166	SLV 5	42	734	4728	-11.51	491.98	-86.92
166	SLV 6	83	906	4753	-12.3	492.91	-106.08
166	SLV 7	130	-877	3880	44.91	408.36	105.22
166	SLV 8	171	-704	3904	44.11	409.29	86.05
166	SLV 9	-271	651	5592	-13.01	587.29	-77.81
166	SLV 10	-230	823	5616	-13.81	588.22	-96.98
166	SLV 11	-183	-960	4744	43.4	503.67	114.32
166	SLV 12	-142	-787	4768	42.6	504.6	95.16
166	SLV 13	-605	-9	6303	4.98	669.23	-0.01
166	SLV 14	-565	162	6327	4.19	670.15	-19.05
166	SLV 15	-579	-492	6048	21.9	644.14	57.63
166	SLV 16	-538	-321	6073	21.11	645.07	38.59
166	CRTFP Ux+	0	0	0	0	0	0
166	CRTFP Ux-	0	0	0	0	0	0
166	CRTFP Uy+	0	0	0	0	0	0
166	CRTFP Uy-	0	0	0	0	0	0
189	SLU 1	-52	-43	1843	34.43	-573.16	-13.89
189	SLU 2	-57	-42	1826	34.15	-568.98	-13.61
189	SLU 3	-52	-43	1843	34.43	-573.16	-13.89
189	SLU 4	-55	-43	1833	34.26	-570.65	-13.72
189	SLU 5	-57	-42	1826	34.15	-568.98	-13.61
189	SLU 6	-52	-43	1843	34.43	-573.16	-13.89
189	SLU 7	-55	-43	1833	34.26	-570.65	-13.72
189	SLU 8	-52	-43	1843	34.43	-573.16	-13.89
189	SLU 9	-55	-43	1833	34.26	-570.65	-13.72
189	SLU 10	-65	-50	2137	39.95	-664.52	-16.14
189	SLU 11	-60	-51	2153	40.23	-668.69	-16.42
189	SLU 12	-63	-50	2143	40.06	-666.19	-16.25
189	SLU 13	-65	-50	2137	39.95	-664.52	-16.14
189	SLU 14	-60	-51	2153	40.23	-668.69	-16.42
189	SLU 15	-63	-50	2143	40.06	-666.19	-16.25
189	SLU 16	-60	-51	2153	40.23	-668.69	-16.42
189	SLU 17	-63	-50	2143	40.06	-666.19	-16.25
189	SLU 18	-63	-54	2286	42.72	-709.64	-17.51
189	SLU 19	-66	-54	2276	42.55	-707.13	-17.34
189	SLU 20	-63	-54	2286	42.72	-709.64	-17.51
189	SLU 21	-66	-54	2276	42.55	-707.13	-17.34
189	SLU 22	-57	-47	2069	38.66	-643.13	-15.28
189	SLU 23	-62	-47	2052	38.38	-638.95	-15
189	SLU 24	-57	-47	2069	38.66	-643.13	-15.28
189	SLU 25	-60	-47	2059	38.49	-640.62	-15.11
189	SLU 26	-62	-47	2052	38.38	-638.95	-15
189	SLU 27	-57	-47	2069	38.66	-643.13	-15.28
189	SLU 28	-60	-47	2059	38.49	-640.62	-15.11

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
189	SLU 29	-57	-47	2069	38.66	-643.13	-15.28
189	SLU 30	-60	-47	2059	38.49	-640.62	-15.11
189	SLU 31	-70	-55	2363	44.18	-734.49	-17.53
189	SLU 32	-65	-55	2379	44.46	-738.66	-17.81
189	SLU 33	-68	-55	2369	44.29	-736.16	-17.64
189	SLU 34	-70	-55	2363	44.18	-734.49	-17.53
189	SLU 35	-65	-55	2379	44.46	-738.66	-17.81
189	SLU 36	-68	-55	2369	44.29	-736.16	-17.64
189	SLU 37	-65	-55	2379	44.46	-738.66	-17.81
189	SLU 38	-68	-55	2369	44.29	-736.16	-17.64
189	SLU 39	-69	-59	2512	46.95	-779.61	-18.9
189	SLU 40	-72	-58	2502	46.78	-777.1	-18.73
189	SLU 41	-69	-59	2512	46.95	-779.61	-18.9
189	SLU 42	-72	-58	2502	46.78	-777.1	-18.73
189	SLU 43	-65	-54	2318	43.31	-721.12	-17.59
189	SLU 44	-70	-54	2302	43.03	-716.94	-17.3
189	SLU 45	-65	-54	2318	43.31	-721.12	-17.59
189	SLU 46	-68	-54	2308	43.14	-718.61	-17.42
189	SLU 47	-70	-54	2302	43.03	-716.94	-17.3
189	SLU 48	-65	-54	2318	43.31	-721.12	-17.59
189	SLU 49	-68	-54	2308	43.14	-718.61	-17.42
189	SLU 50	-65	-54	2318	43.31	-721.12	-17.59
189	SLU 51	-68	-54	2308	43.14	-718.61	-17.42
189	SLU 52	-79	-62	2612	48.83	-812.48	-19.83
189	SLU 53	-74	-62	2628	49.11	-816.65	-20.12
189	SLU 54	-77	-62	2618	48.94	-814.15	-19.95
189	SLU 55	-79	-62	2612	48.83	-812.48	-19.83
189	SLU 56	-74	-62	2628	49.11	-816.65	-20.12
189	SLU 57	-77	-62	2618	48.94	-814.15	-19.95
189	SLU 58	-74	-62	2628	49.11	-816.65	-20.12
189	SLU 59	-77	-62	2618	48.94	-814.15	-19.95
189	SLU 60	-77	-66	2761	51.6	-857.6	-21.2
189	SLU 61	-80	-65	2751	51.43	-855.09	-21.03
189	SLU 62	-77	-66	2761	51.6	-857.6	-21.2
189	SLU 63	-80	-65	2751	51.43	-855.09	-21.03
189	SLU 64	-71	-59	2544	47.54	-791.09	-18.97
189	SLU 65	-76	-58	2528	47.26	-786.91	-18.69
189	SLU 66	-71	-59	2544	47.54	-791.09	-18.97
189	SLU 67	-74	-58	2534	47.37	-788.58	-18.81
189	SLU 68	-76	-58	2528	47.26	-786.91	-18.69
189	SLU 69	-71	-59	2544	47.54	-791.09	-18.97
189	SLU 70	-74	-58	2534	47.37	-788.58	-18.81
189	SLU 71	-71	-59	2544	47.54	-791.09	-18.97
189	SLU 72	-74	-58	2534	47.37	-788.58	-18.81
189	SLU 73	-84	-66	2838	53.06	-882.45	-21.22
189	SLU 74	-79	-67	2854	53.34	-886.62	-21.5
189	SLU 75	-82	-66	2844	53.17	-884.12	-21.34
189	SLU 76	-84	-66	2838	53.06	-882.45	-21.22
189	SLU 77	-79	-67	2854	53.34	-886.62	-21.5
189	SLU 78	-82	-66	2844	53.17	-884.12	-21.34
189	SLU 79	-79	-67	2854	53.34	-886.62	-21.5
189	SLU 80	-82	-66	2844	53.17	-884.12	-21.34
189	SLU 81	-82	-70	2987	55.83	-927.57	-22.59
189	SLU 82	-86	-70	2977	55.66	-925.06	-22.42
189	SLU 83	-82	-70	2987	55.83	-927.57	-22.59
189	SLU 84	-86	-70	2977	55.66	-925.06	-22.42
189	SLE RA 1	-53	-44	1907	35.64	-593.15	-14.29
189	SLE RA 2	-57	-44	1896	35.45	-590.37	-14.1
189	SLE RA 3	-53	-44	1907	35.64	-593.15	-14.29
189	SLE RA 4	-55	-44	1901	35.53	-591.48	-14.18
189	SLE RA 5	-57	-44	1896	35.45	-590.37	-14.1
189	SLE RA 6	-53	-44	1907	35.64	-593.15	-14.29
189	SLE RA 7	-55	-44	1901	35.53	-591.48	-14.18
189	SLE RA 8	-53	-44	1907	35.64	-593.15	-14.29
189	SLE RA 9	-55	-44	1901	35.53	-591.48	-14.18
189	SLE RA 10	-62	-49	2103	39.32	-654.06	-15.79
189	SLE RA 11	-59	-49	2114	39.51	-656.84	-15.98
189	SLE RA 12	-61	-49	2108	39.39	-655.17	-15.86
189	SLE RA 13	-62	-49	2103	39.32	-654.06	-15.79
189	SLE RA 14	-59	-49	2114	39.51	-656.84	-15.98
189	SLE RA 15	-61	-49	2108	39.39	-655.17	-15.86
189	SLE RA 16	-59	-49	2114	39.51	-656.84	-15.98
189	SLE RA 17	-61	-49	2108	39.39	-655.17	-15.86
189	SLE RA 18	-61	-52	2203	41.16	-684.14	-16.7
189	SLE RA 19	-63	-51	2196	41.05	-682.47	-16.59
189	SLE RA 20	-61	-52	2203	41.16	-684.14	-16.7
189	SLE RA 21	-63	-51	2196	41.05	-682.47	-16.59
189	SLE FR 1	-53	-44	1907	35.64	-593.15	-14.29
189	SLE FR 2	-54	-44	1905	35.6	-592.59	-14.25
189	SLE FR 3	-53	-44	1907	35.64	-593.15	-14.29
189	SLE FR 4	-56	-46	1994	37.26	-619.89	-14.98
189	SLE FR 5	-56	-46	1996	37.3	-620.45	-15.01
189	SLE FR 6	-57	-48	2055	38.4	-638.64	-15.5
189	SLE QP 1	-53	-44	1907	35.64	-593.15	-14.29
189	SLE QP 2	-56	-46	1996	37.3	-620.45	-15.01
189	SLD 1	34	-17	2287	42.34	-698.71	-4.94

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
189	SLD 2	39	-46	2284	42.3	-697.64	-15.14
189	SLD 3	37	-94	2245	41.86	-686.16	-31.94
189	SLD 4	42	-123	2242	41.83	-685.09	-42.14
189	SLD 5	-36	90	2147	39.54	-663.33	32.56
189	SLD 6	-31	60	2144	39.51	-662.26	22.29
189	SLD 7	-24	-167	2008	37.96	-621.51	-57.43
189	SLD 8	-19	-197	2006	37.92	-620.43	-67.71
189	SLD 9	-92	104	1986	36.67	-620.46	37.68
189	SLD 10	-87	74	1983	36.64	-619.38	27.4
189	SLD 11	-80	-153	1847	35.09	-578.64	-52.31
189	SLD 12	-75	-183	1844	35.05	-577.56	-62.59
189	SLD 13	-154	30	1749	32.77	-555.8	12.11
189	SLD 14	-148	1	1747	32.73	-554.73	1.91
189	SLD 15	-150	-47	1708	32.29	-543.25	-14.89
189	SLD 16	-145	-76	1705	32.26	-542.18	-25.09
189	SLV 1	147	20	2657	48.75	-798.28	7.62
189	SLV 2	159	-45	2650	48.67	-795.86	-15.48
189	SLV 3	156	-155	2562	47.67	-769.81	-53.74
189	SLV 4	167	-221	2556	47.59	-767.39	-76.84
189	SLV 5	-12	263	2340	42.4	-717.84	93
189	SLV 6	0	197	2333	42.32	-715.4	69.74
189	SLV 7	17	-322	2025	38.8	-622.93	-111.53
189	SLV 8	28	-388	2018	38.72	-620.49	-134.78
189	SLV 9	-140	295	1973	35.87	-620.4	104.76
189	SLV 10	-128	229	1967	35.79	-617.97	81.5
189	SLV 11	-111	-290	1658	32.28	-525.49	-99.77
189	SLV 12	-99	-356	1652	32.19	-523.06	-123.03
189	SLV 13	-278	128	1436	27	-473.51	46.82
189	SLV 14	-267	62	1429	26.92	-471.09	23.71
189	SLV 15	-270	-48	1341	25.92	-445.03	-14.54
189	SLV 16	-258	-113	1335	25.84	-442.61	-37.65
189	CRTFP Ux+	0	0	0	0	0	0
189	CRTFP Ux-	0	0	0	0	0	0
189	CRTFP Uy+	0	0	0	0	0	0
189	CRTFP Uy-	0	0	0	0	0	0
192	SLU 1	-35	100	2022	38.62	11.02	-1.21
192	SLU 2	-45	100	2020	38.6	9.89	-1.02
192	SLU 3	-35	100	2022	38.62	11.02	-1.21
192	SLU 4	-41	100	2021	38.61	10.34	-1.1
192	SLU 5	-45	100	2020	38.6	9.89	-1.02
192	SLU 6	-35	100	2022	38.62	11.02	-1.21
192	SLU 7	-41	100	2021	38.61	10.34	-1.1
192	SLU 8	-35	100	2022	38.62	11.02	-1.21
192	SLU 9	-41	100	2021	38.61	10.34	-1.1
192	SLU 10	-48	115	2527	48.91	10.29	-1.24
192	SLU 11	-38	116	2528	48.93	11.42	-1.43
192	SLU 12	-44	115	2527	48.92	10.74	-1.32
192	SLU 13	-48	115	2527	48.91	10.29	-1.24
192	SLU 14	-38	116	2528	48.93	11.42	-1.43
192	SLU 15	-44	115	2527	48.92	10.74	-1.32
192	SLU 16	-38	116	2528	48.93	11.42	-1.43
192	SLU 17	-44	115	2527	48.92	10.74	-1.32
192	SLU 18	-39	122	2746	53.36	11.59	-1.52
192	SLU 19	-45	122	2745	53.34	10.91	-1.41
192	SLU 20	-39	122	2746	53.36	11.59	-1.52
192	SLU 21	-45	122	2745	53.34	10.91	-1.41
192	SLU 22	-37	109	2383	45.86	11.35	-1.35
192	SLU 23	-47	109	2382	45.84	10.21	-1.16
192	SLU 24	-37	109	2383	45.86	11.35	-1.35
192	SLU 25	-43	109	2382	45.85	10.67	-1.23
192	SLU 26	-47	109	2382	45.84	10.21	-1.16
192	SLU 27	-37	109	2383	45.86	11.35	-1.35
192	SLU 28	-43	109	2382	45.85	10.67	-1.23
192	SLU 29	-37	109	2383	45.86	11.35	-1.35
192	SLU 30	-43	109	2382	45.85	10.67	-1.23
192	SLU 31	-50	125	2888	56.15	10.61	-1.37
192	SLU 32	-40	125	2890	56.18	11.75	-1.57
192	SLU 33	-46	125	2889	56.16	11.07	-1.45
192	SLU 34	-50	125	2888	56.15	10.61	-1.37
192	SLU 35	-40	125	2890	56.18	11.75	-1.57
192	SLU 36	-46	125	2889	56.16	11.07	-1.45
192	SLU 37	-40	125	2890	56.18	11.75	-1.57
192	SLU 38	-46	125	2889	56.16	11.07	-1.45
192	SLU 39	-41	132	3107	60.6	11.92	-1.66
192	SLU 40	-47	132	3106	60.58	11.24	-1.54
192	SLU 41	-41	132	3107	60.6	11.92	-1.66
192	SLU 42	-47	132	3106	60.58	11.24	-1.54
192	SLU 43	-44	126	2504	47.72	14.22	-1.53
192	SLU 44	-54	126	2503	47.7	13.08	-1.34
192	SLU 45	-44	126	2504	47.72	14.22	-1.53
192	SLU 46	-50	126	2503	47.71	13.54	-1.42
192	SLU 47	-54	126	2503	47.7	13.08	-1.34
192	SLU 48	-44	126	2504	47.72	14.22	-1.53
192	SLU 49	-50	126	2503	47.71	13.54	-1.42
192	SLU 50	-44	126	2504	47.72	14.22	-1.53
192	SLU 51	-50	126	2503	47.71	13.54	-1.42

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
192	SLU 52	-57	142	3009	58.01	13.48	-1.56
192	SLU 53	-47	142	3011	58.04	14.62	-1.75
192	SLU 54	-53	142	3010	58.02	13.94	-1.63
192	SLU 55	-57	142	3009	58.01	13.48	-1.56
192	SLU 56	-47	142	3011	58.04	14.62	-1.75
192	SLU 57	-53	142	3010	58.02	13.94	-1.63
192	SLU 58	-47	142	3011	58.04	14.62	-1.75
192	SLU 59	-53	142	3010	58.02	13.94	-1.63
192	SLU 60	-49	149	3228	62.46	14.79	-1.84
192	SLU 61	-55	149	3227	62.44	14.11	-1.73
192	SLU 62	-49	149	3228	62.46	14.79	-1.84
192	SLU 63	-55	149	3227	62.44	14.11	-1.73
192	SLU 64	-47	136	2866	54.97	14.55	-1.67
192	SLU 65	-57	136	2864	54.94	13.41	-1.47
192	SLU 66	-47	136	2866	54.97	14.55	-1.67
192	SLU 67	-53	136	2865	54.95	13.86	-1.55
192	SLU 68	-57	136	2864	54.94	13.41	-1.47
192	SLU 69	-47	136	2866	54.97	14.55	-1.67
192	SLU 70	-53	136	2865	54.95	13.86	-1.55
192	SLU 71	-47	136	2866	54.97	14.55	-1.67
192	SLU 72	-53	136	2865	54.95	13.86	-1.55
192	SLU 73	-60	152	3371	65.26	13.81	-1.69
192	SLU 74	-50	152	3373	65.28	14.94	-1.88
192	SLU 75	-56	152	3372	65.27	14.26	-1.77
192	SLU 76	-60	152	3371	65.26	13.81	-1.69
192	SLU 77	-50	152	3373	65.28	14.94	-1.88
192	SLU 78	-56	152	3372	65.27	14.26	-1.77
192	SLU 79	-50	152	3373	65.28	14.94	-1.88
192	SLU 80	-56	152	3372	65.27	14.26	-1.77
192	SLU 81	-51	158	3590	69.7	15.11	-1.98
192	SLU 82	-57	158	3589	69.69	14.43	-1.86
192	SLU 83	-51	158	3590	69.7	15.11	-1.98
192	SLU 84	-57	158	3589	69.69	14.43	-1.86
192	SLE RA 1	-35	103	2125	40.69	11.12	-1.25
192	SLE RA 2	-42	102	2124	40.67	10.36	-1.12
192	SLE RA 3	-35	103	2125	40.69	11.12	-1.25
192	SLE RA 4	-39	102	2124	40.68	10.66	-1.18
192	SLE RA 5	-42	102	2124	40.67	10.36	-1.12
192	SLE RA 6	-35	103	2125	40.69	11.12	-1.25
192	SLE RA 7	-39	102	2124	40.68	10.66	-1.18
192	SLE RA 8	-35	103	2125	40.69	11.12	-1.25
192	SLE RA 9	-39	102	2124	40.68	10.66	-1.18
192	SLE RA 10	-44	113	2462	47.55	10.63	-1.27
192	SLE RA 11	-37	113	2463	47.57	11.38	-1.4
192	SLE RA 12	-41	113	2462	47.56	10.93	-1.32
192	SLE RA 13	-44	113	2462	47.55	10.63	-1.27
192	SLE RA 14	-37	113	2463	47.57	11.38	-1.4
192	SLE RA 15	-41	113	2462	47.56	10.93	-1.32
192	SLE RA 16	-37	113	2463	47.57	11.38	-1.4
192	SLE RA 17	-41	113	2462	47.56	10.93	-1.32
192	SLE RA 18	-38	118	2608	50.51	11.5	-1.46
192	SLE RA 19	-42	117	2607	50.5	11.04	-1.38
192	SLE RA 20	-38	118	2608	50.51	11.5	-1.46
192	SLE RA 21	-42	117	2607	50.5	11.04	-1.38
192	SLE FR 1	-35	103	2125	40.69	11.12	-1.25
192	SLE FR 2	-37	102	2125	40.69	10.97	-1.23
192	SLE FR 3	-35	103	2125	40.69	11.12	-1.25
192	SLE FR 4	-38	107	2270	43.63	11.08	-1.29
192	SLE FR 5	-36	107	2270	43.64	11.23	-1.31
192	SLE FR 6	-37	110	2366	45.6	11.31	-1.36
192	SLE QP 1	-35	103	2125	40.69	11.12	-1.25
192	SLE QP 2	-36	107	2270	43.64	11.23	-1.31
192	SLD 1	128	178	2339	44.55	29.49	-4.95
192	SLD 2	137	179	2338	44.52	29.85	-4.41
192	SLD 3	135	64	2256	43.51	27.81	-4.76
192	SLD 4	144	64	2255	43.48	28.17	-4.23
192	SLD 5	-1	302	2417	45.5	19.13	-2.88
192	SLD 6	8	303	2415	45.47	19.49	-2.34
192	SLD 7	23	-80	2141	42.03	13.53	-2.26
192	SLD 8	32	-80	2139	42	13.89	-1.72
192	SLD 9	-105	294	2401	45.27	8.57	-0.91
192	SLD 10	-95	294	2399	45.25	8.93	-0.37
192	SLD 11	-81	-89	2125	41.8	2.97	-0.29
192	SLD 12	-71	-88	2123	41.78	3.33	0.25
192	SLD 13	-217	150	2285	43.79	-5.7	1.6
192	SLD 14	-207	150	2284	43.77	-5.35	2.14
192	SLD 15	-210	35	2202	42.75	-7.38	1.79
192	SLD 16	-200	36	2201	42.73	-7.03	2.32
192	SLV 1	336	269	2427	45.71	52.75	-9.58
192	SLV 2	358	271	2423	45.65	53.56	-8.37
192	SLV 3	353	9	2239	43.34	48.94	-9.15
192	SLV 4	374	10	2235	43.29	49.75	-7.94
192	SLV 5	43	550	2603	47.86	29.18	-4.87
192	SLV 6	65	552	2600	47.81	30	-3.65
192	SLV 7	98	-318	1977	39.98	16.48	-3.45
192	SLV 8	120	-317	1973	39.93	17.29	-2.22

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
192	SLV 9	-192	531	2567	47.35	5.17	-0.41
192	SLV 10	-170	532	2563	47.29	5.99	0.82
192	SLV 11	-137	-338	1940	39.46	-7.54	1.02
192	SLV 12	-115	-336	1936	39.41	-6.72	2.24
192	SLV 13	-447	204	2304	43.99	-27.29	5.31
192	SLV 14	-425	205	2301	43.93	-26.48	6.52
192	SLV 15	-430	-57	2116	41.62	-31.1	5.74
192	SLV 16	-409	-55	2113	41.57	-30.29	6.95
192	CRTFP Ux+	0	0	0	0	0	0
192	CRTFP Ux-	0	0	0	0	0	0
192	CRTFP Uy+	0	0	0	0	0	0
192	CRTFP Uy-	0	0	0	0	0	0
194	SLU 1	-20	-9	1726	32.9	-27.7	0.39
194	SLU 2	-24	-10	1741	33.18	-27.89	0.47
194	SLU 3	-20	-9	1726	32.9	-27.7	0.39
194	SLU 4	-22	-9	1735	33.07	-27.81	0.44
194	SLU 5	-24	-10	1741	33.18	-27.89	0.47
194	SLU 6	-20	-9	1726	32.9	-27.7	0.39
194	SLU 7	-22	-9	1735	33.07	-27.81	0.44
194	SLU 8	-20	-9	1726	32.9	-27.7	0.39
194	SLU 9	-22	-9	1735	33.07	-27.81	0.44
194	SLU 10	-27	-8	2012	38.4	-30.68	0.52
194	SLU 11	-22	-8	1997	38.12	-30.49	0.44
194	SLU 12	-25	-8	2006	38.29	-30.6	0.49
194	SLU 13	-27	-8	2012	38.4	-30.68	0.52
194	SLU 14	-22	-8	1997	38.12	-30.49	0.44
194	SLU 15	-25	-8	2006	38.29	-30.6	0.49
194	SLU 16	-22	-8	1997	38.12	-30.49	0.44
194	SLU 17	-25	-8	2006	38.29	-30.6	0.49
194	SLU 18	-23	-7	2114	40.36	-31.68	0.46
194	SLU 19	-26	-7	2122	40.53	-31.8	0.51
194	SLU 20	-23	-7	2114	40.36	-31.68	0.46
194	SLU 21	-26	-7	2122	40.53	-31.8	0.51
194	SLU 22	-21	-8	1926	36.76	-29.88	0.43
194	SLU 23	-26	-9	1941	37.04	-30.07	0.51
194	SLU 24	-21	-8	1926	36.76	-29.88	0.43
194	SLU 25	-24	-9	1935	36.93	-30	0.48
194	SLU 26	-26	-9	1941	37.04	-30.07	0.51
194	SLU 27	-21	-8	1926	36.76	-29.88	0.43
194	SLU 28	-24	-9	1935	36.93	-30	0.48
194	SLU 29	-21	-8	1926	36.76	-29.88	0.43
194	SLU 30	-24	-9	1935	36.93	-30	0.48
194	SLU 31	-28	-8	2213	42.26	-32.87	0.56
194	SLU 32	-24	-7	2198	41.98	-32.67	0.48
194	SLU 33	-26	-7	2207	42.15	-32.79	0.53
194	SLU 34	-28	-8	2213	42.26	-32.87	0.56
194	SLU 35	-24	-7	2198	41.98	-32.67	0.48
194	SLU 36	-26	-7	2207	42.15	-32.79	0.53
194	SLU 37	-24	-7	2198	41.98	-32.67	0.48
194	SLU 38	-26	-7	2207	42.15	-32.79	0.53
194	SLU 39	-25	-6	2314	44.22	-33.87	0.5
194	SLU 40	-27	-7	2323	44.39	-33.99	0.55
194	SLU 41	-25	-6	2314	44.22	-33.87	0.5
194	SLU 42	-27	-7	2323	44.39	-33.99	0.55
194	SLU 43	-25	-12	2175	41.45	-35.26	0.5
194	SLU 44	-30	-13	2189	41.73	-35.45	0.58
194	SLU 45	-25	-12	2175	41.45	-35.26	0.5
194	SLU 46	-28	-12	2183	41.61	-35.37	0.55
194	SLU 47	-30	-13	2189	41.73	-35.45	0.58
194	SLU 48	-25	-12	2175	41.45	-35.26	0.5
194	SLU 49	-28	-12	2183	41.61	-35.37	0.55
194	SLU 50	-25	-12	2175	41.45	-35.26	0.5
194	SLU 51	-28	-12	2183	41.61	-35.37	0.55
194	SLU 52	-32	-11	2461	46.95	-38.24	0.63
194	SLU 53	-27	-11	2446	46.67	-38.05	0.55
194	SLU 54	-30	-11	2455	46.84	-38.16	0.6
194	SLU 55	-32	-11	2461	46.95	-38.24	0.63
194	SLU 56	-27	-11	2446	46.67	-38.05	0.55
194	SLU 57	-30	-11	2455	46.84	-38.16	0.6
194	SLU 58	-27	-11	2446	46.67	-38.05	0.55
194	SLU 59	-30	-11	2455	46.84	-38.16	0.6
194	SLU 60	-28	-10	2562	48.91	-39.24	0.57
194	SLU 61	-31	-10	2571	49.08	-39.36	0.62
194	SLU 62	-28	-10	2562	48.91	-39.24	0.57
194	SLU 63	-31	-10	2571	49.08	-39.36	0.62
194	SLU 64	-26	-11	2375	45.31	-37.44	0.53
194	SLU 65	-31	-12	2390	45.58	-37.63	0.61
194	SLU 66	-26	-11	2375	45.31	-37.44	0.53
194	SLU 67	-29	-12	2384	45.47	-37.56	0.58
194	SLU 68	-31	-12	2390	45.58	-37.63	0.61
194	SLU 69	-26	-11	2375	45.31	-37.44	0.53
194	SLU 70	-29	-12	2384	45.47	-37.56	0.58
194	SLU 71	-26	-11	2375	45.31	-37.44	0.53
194	SLU 72	-29	-12	2384	45.47	-37.56	0.58
194	SLU 73	-34	-11	2662	50.81	-40.42	0.66
194	SLU 74	-29	-10	2647	50.53	-40.23	0.58

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
194	SLU 75	-32	-10	2656	50.7	-40.35	0.63
194	SLU 76	-34	-11	2662	50.81	-40.42	0.66
194	SLU 77	-29	-10	2647	50.53	-40.23	0.58
194	SLU 78	-32	-10	2656	50.7	-40.35	0.63
194	SLU 79	-29	-10	2647	50.53	-40.23	0.58
194	SLU 80	-32	-10	2656	50.7	-40.35	0.63
194	SLU 81	-30	-9	2763	52.77	-41.43	0.6
194	SLU 82	-33	-10	2772	52.94	-41.54	0.65
194	SLU 83	-30	-9	2763	52.77	-41.43	0.6
194	SLU 84	-33	-10	2772	52.94	-41.54	0.65
194	SLE RA 1	-20	-9	1783	34	-28.32	0.4
194	SLE RA 2	-23	-9	1793	34.19	-28.45	0.46
194	SLE RA 3	-20	-9	1783	34	-28.32	0.4
194	SLE RA 4	-22	-9	1789	34.11	-28.4	0.43
194	SLE RA 5	-23	-9	1793	34.19	-28.45	0.46
194	SLE RA 6	-20	-9	1783	34	-28.32	0.4
194	SLE RA 7	-22	-9	1789	34.11	-28.4	0.43
194	SLE RA 8	-20	-9	1783	34	-28.32	0.4
194	SLE RA 9	-22	-9	1789	34.11	-28.4	0.43
194	SLE RA 10	-25	-8	1974	37.67	-30.31	0.49
194	SLE RA 11	-22	-8	1964	37.49	-30.18	0.43
194	SLE RA 12	-23	-8	1970	37.6	-30.26	0.47
194	SLE RA 13	-25	-8	1974	37.67	-30.31	0.49
194	SLE RA 14	-22	-8	1964	37.49	-30.18	0.43
194	SLE RA 15	-23	-8	1970	37.6	-30.26	0.47
194	SLE RA 16	-22	-8	1964	37.49	-30.18	0.43
194	SLE RA 17	-23	-8	1970	37.6	-30.26	0.47
194	SLE RA 18	-22	-8	2042	38.98	-30.98	0.45
194	SLE RA 19	-24	-8	2048	39.09	-31.06	0.48
194	SLE RA 20	-22	-8	2042	38.98	-30.98	0.45
194	SLE RA 21	-24	-8	2048	39.09	-31.06	0.48
194	SLE FR 1	-20	-9	1783	34	-28.32	0.4
194	SLE FR 2	-21	-9	1785	34.04	-28.35	0.41
194	SLE FR 3	-20	-9	1783	34	-28.32	0.4
194	SLE FR 4	-21	-9	1863	35.53	-29.14	0.43
194	SLE FR 5	-21	-8	1861	35.5	-29.12	0.42
194	SLE FR 6	-21	-8	1912	36.49	-29.65	0.42
194	SLE QP 1	-20	-9	1783	34	-28.32	0.4
194	SLE QP 2	-21	-8	1861	35.5	-29.12	0.42
194	SLD 1	57	40	1632	31.11	-22.25	-0.96
194	SLD 2	61	69	1636	31.17	-22.53	-0.97
194	SLD 3	64	-40	1601	30.81	-21.22	-1.14
194	SLD 4	67	-11	1605	30.87	-21.5	-1.15
194	SLD 5	-9	117	1839	34.61	-28.52	0.28
194	SLD 6	-5	146	1843	34.67	-28.8	0.28
194	SLD 7	14	-149	1733	33.62	-25.09	-0.33
194	SLD 8	18	-120	1737	33.68	-25.38	-0.34
194	SLD 9	-59	103	1984	37.31	-32.86	1.17
194	SLD 10	-55	133	1988	37.37	-33.15	1.16
194	SLD 11	-36	-163	1879	36.32	-29.44	0.55
194	SLD 12	-32	-134	1883	36.38	-29.72	0.55
194	SLD 13	-109	-6	2116	40.12	-36.73	1.98
194	SLD 14	-105	23	2120	40.18	-37.02	1.98
194	SLD 15	-102	-86	2085	39.82	-35.71	1.8
194	SLD 16	-98	-57	2089	39.88	-35.99	1.79
194	SLV 1	155	102	1342	25.53	-13.4	-2.71
194	SLV 2	164	168	1351	25.66	-14.04	-2.73
194	SLV 3	171	-79	1270	24.86	-11.05	-3.13
194	SLV 4	179	-14	1280	24.98	-11.69	-3.15
194	SLV 5	5	277	1811	33.49	-27.73	0.12
194	SLV 6	14	343	1820	33.62	-28.37	0.1
194	SLV 7	57	-328	1571	31.23	-19.92	-1.28
194	SLV 8	66	-263	1581	31.36	-20.56	-1.3
194	SLV 9	-107	246	2141	39.63	-37.67	2.13
194	SLV 10	-99	312	2150	39.76	-38.32	2.11
194	SLV 11	-55	-360	1901	37.37	-29.86	0.73
194	SLV 12	-47	-294	1910	37.5	-30.51	0.71
194	SLV 13	-221	-3	2442	46.01	-46.54	3.98
194	SLV 14	-212	63	2451	46.14	-47.19	3.96
194	SLV 15	-205	-185	2370	45.33	-44.2	3.56
194	SLV 16	-196	-119	2379	45.46	-44.84	3.54
194	CRTFP Ux+	0	0	0	0	0	0
194	CRTFP Ux-	0	0	0	0	0	0
194	CRTFP Uy+	0	0	0	0	0	0
194	CRTFP Uy-	0	0	0	0	0	0
195	SLU 1	-63	-46	2042	-0.07	-624.14	-16.11
195	SLU 2	-68	-46	2025	-0.04	-619.92	-15.92
195	SLU 3	-63	-46	2042	-0.07	-624.14	-16.11
195	SLU 4	-66	-46	2032	-0.06	-621.61	-16
195	SLU 5	-68	-46	2025	-0.04	-619.92	-15.92
195	SLU 6	-63	-46	2042	-0.07	-624.14	-16.11
195	SLU 7	-66	-46	2032	-0.06	-621.61	-16
195	SLU 8	-63	-46	2042	-0.07	-624.14	-16.11
195	SLU 9	-66	-46	2032	-0.06	-621.61	-16
195	SLU 10	-80	-54	2368	-0.09	-723.45	-18.71
195	SLU 11	-75	-55	2385	-0.11	-727.67	-18.91

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
195	SLU 12	-78	-54	2375	-0.1	-725.14	-18.79
195	SLU 13	-80	-54	2368	-0.09	-723.45	-18.71
195	SLU 14	-75	-55	2385	-0.11	-727.67	-18.91
195	SLU 15	-78	-54	2375	-0.1	-725.14	-18.79
195	SLU 16	-75	-55	2385	-0.11	-727.67	-18.91
195	SLU 17	-78	-54	2375	-0.1	-725.14	-18.79
195	SLU 18	-80	-58	2532	-0.13	-772.04	-20.1
195	SLU 19	-83	-58	2522	-0.12	-769.51	-19.98
195	SLU 20	-80	-58	2532	-0.13	-772.04	-20.1
195	SLU 21	-83	-58	2522	-0.12	-769.51	-19.98
195	SLU 22	-71	-51	2292	-0.1	-699.97	-17.67
195	SLU 23	-76	-50	2275	-0.07	-695.75	-17.47
195	SLU 24	-71	-51	2292	-0.1	-699.97	-17.67
195	SLU 25	-74	-51	2282	-0.08	-697.44	-17.55
195	SLU 26	-76	-50	2275	-0.07	-695.75	-17.47
195	SLU 27	-71	-51	2292	-0.1	-699.97	-17.67
195	SLU 28	-74	-51	2282	-0.08	-697.44	-17.55
195	SLU 29	-71	-51	2292	-0.1	-699.97	-17.67
195	SLU 30	-74	-51	2282	-0.08	-697.44	-17.55
195	SLU 31	-87	-59	2618	-0.11	-799.28	-20.26
195	SLU 32	-82	-59	2635	-0.14	-803.5	-20.46
195	SLU 33	-85	-59	2625	-0.12	-800.97	-20.34
195	SLU 34	-87	-59	2618	-0.11	-799.28	-20.26
195	SLU 35	-82	-59	2635	-0.14	-803.5	-20.46
195	SLU 36	-85	-59	2625	-0.12	-800.97	-20.34
195	SLU 37	-82	-59	2635	-0.14	-803.5	-20.46
195	SLU 38	-85	-59	2625	-0.12	-800.97	-20.34
195	SLU 39	-87	-63	2783	-0.16	-847.87	-21.65
195	SLU 40	-90	-62	2772	-0.14	-845.34	-21.54
195	SLU 41	-87	-63	2783	-0.16	-847.87	-21.65
195	SLU 42	-90	-62	2772	-0.14	-845.34	-21.54
195	SLU 43	-80	-59	2569	-0.08	-785.38	-20.42
195	SLU 44	-85	-58	2552	-0.06	-781.16	-20.22
195	SLU 45	-80	-59	2569	-0.08	-785.38	-20.42
195	SLU 46	-83	-58	2558	-0.07	-782.85	-20.3
195	SLU 47	-85	-58	2552	-0.06	-781.16	-20.22
195	SLU 48	-80	-59	2569	-0.08	-785.38	-20.42
195	SLU 49	-83	-58	2558	-0.07	-782.85	-20.3
195	SLU 50	-80	-59	2569	-0.08	-785.38	-20.42
195	SLU 51	-83	-58	2558	-0.07	-782.85	-20.3
195	SLU 52	-96	-66	2895	-0.1	-884.69	-23.01
195	SLU 53	-91	-67	2912	-0.13	-888.91	-23.21
195	SLU 54	-94	-67	2902	-0.11	-886.38	-23.09
195	SLU 55	-96	-66	2895	-0.1	-884.69	-23.01
195	SLU 56	-91	-67	2912	-0.13	-888.91	-23.21
195	SLU 57	-94	-67	2902	-0.11	-886.38	-23.09
195	SLU 58	-91	-67	2912	-0.13	-888.91	-23.21
195	SLU 59	-94	-67	2902	-0.11	-886.38	-23.09
195	SLU 60	-96	-71	3059	-0.14	-933.28	-24.4
195	SLU 61	-99	-70	3049	-0.13	-930.75	-24.29
195	SLU 62	-96	-71	3059	-0.14	-933.28	-24.4
195	SLU 63	-99	-70	3049	-0.13	-930.75	-24.29
195	SLU 64	-87	-63	2819	-0.11	-861.21	-21.97
195	SLU 65	-92	-63	2802	-0.08	-857	-21.78
195	SLU 66	-87	-63	2819	-0.11	-861.21	-21.97
195	SLU 67	-90	-63	2809	-0.09	-858.68	-21.85
195	SLU 68	-92	-63	2802	-0.08	-857	-21.78
195	SLU 69	-87	-63	2819	-0.11	-861.21	-21.97
195	SLU 70	-90	-63	2809	-0.09	-858.68	-21.85
195	SLU 71	-87	-63	2819	-0.11	-861.21	-21.97
195	SLU 72	-90	-63	2809	-0.09	-858.68	-21.85
195	SLU 73	-104	-71	3145	-0.12	-960.52	-24.57
195	SLU 74	-99	-72	3162	-0.15	-964.74	-24.76
195	SLU 75	-102	-71	3152	-0.14	-962.21	-24.64
195	SLU 76	-104	-71	3145	-0.12	-960.52	-24.57
195	SLU 77	-99	-72	3162	-0.15	-964.74	-24.76
195	SLU 78	-102	-71	3152	-0.14	-962.21	-24.64
195	SLU 79	-99	-72	3162	-0.15	-964.74	-24.76
195	SLU 80	-102	-71	3152	-0.14	-962.21	-24.64
195	SLU 81	-104	-75	3309	-0.17	-1009.11	-25.96
195	SLU 82	-107	-75	3299	-0.15	-1006.58	-25.84
195	SLU 83	-104	-75	3309	-0.17	-1009.11	-25.96
195	SLU 84	-107	-75	3299	-0.15	-1006.58	-25.84
195	SLE RA 1	-65	-48	2113	-0.08	-645.81	-16.56
195	SLE RA 2	-69	-47	2102	-0.06	-642.99	-16.43
195	SLE RA 3	-65	-48	2113	-0.08	-645.81	-16.56
195	SLE RA 4	-67	-48	2107	-0.07	-644.12	-16.48
195	SLE RA 5	-69	-47	2102	-0.06	-642.99	-16.43
195	SLE RA 6	-65	-48	2113	-0.08	-645.81	-16.56
195	SLE RA 7	-67	-48	2107	-0.07	-644.12	-16.48
195	SLE RA 8	-65	-48	2113	-0.08	-645.81	-16.56
195	SLE RA 9	-67	-48	2107	-0.07	-644.12	-16.48
195	SLE RA 10	-77	-53	2331	-0.09	-712.01	-18.29
195	SLE RA 11	-73	-53	2342	-0.11	-714.83	-18.42
195	SLE RA 12	-75	-53	2335	-0.1	-713.14	-18.34
195	SLE RA 13	-77	-53	2331	-0.09	-712.01	-18.29

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
195	SLE RA 14	-73	-53	2342	-0.11	-714.83	-18.42
195	SLE RA 15	-75	-53	2335	-0.1	-713.14	-18.34
195	SLE RA 16	-73	-53	2342	-0.11	-714.83	-18.42
195	SLE RA 17	-75	-53	2335	-0.1	-713.14	-18.34
195	SLE RA 18	-76	-56	2440	-0.12	-744.4	-19.22
195	SLE RA 19	-78	-55	2434	-0.11	-742.72	-19.14
195	SLE RA 20	-76	-56	2440	-0.12	-744.4	-19.22
195	SLE RA 21	-78	-55	2434	-0.11	-742.72	-19.14
195	SLE FR 1	-65	-48	2113	-0.08	-645.81	-16.56
195	SLE FR 2	-66	-48	2111	-0.07	-645.24	-16.53
195	SLE FR 3	-65	-48	2113	-0.08	-645.81	-16.56
195	SLE FR 4	-69	-50	2209	-0.09	-674.82	-17.33
195	SLE FR 5	-69	-50	2212	-0.09	-675.39	-17.36
195	SLE FR 6	-71	-52	2277	-0.1	-695.11	-17.89
195	SLE QP 1	-65	-48	2113	-0.08	-645.81	-16.56
195	SLE QP 2	-69	-50	2212	-0.09	-675.39	-17.36
195	SLD 1	28	-17	2517	-0.7	-755.19	-5.77
195	SLD 2	31	-49	2514	-0.67	-754.3	-16.95
195	SLD 3	32	-103	2484	-0.24	-745.5	-35.66
195	SLD 4	35	-135	2481	-0.21	-744.61	-46.84
195	SLD 5	-47	101	2354	-0.97	-714.34	35.4
195	SLD 6	-44	68	2352	-0.95	-713.44	24.14
195	SLD 7	-33	-184	2244	0.55	-682.04	-64.22
195	SLD 8	-30	-216	2241	0.57	-681.14	-75.48
195	SLD 9	-107	116	2182	-0.75	-669.63	40.77
195	SLD 10	-104	84	2179	-0.73	-668.73	29.51
195	SLD 11	-93	-169	2071	0.77	-637.33	-58.85
195	SLD 12	-90	-201	2069	0.79	-636.43	-70.11
195	SLD 13	-172	34	1942	0.03	-606.16	12.13
195	SLD 14	-169	2	1939	0.06	-605.27	0.95
195	SLD 15	-168	-51	1909	0.49	-596.47	-17.76
195	SLD 16	-165	-83	1906	0.52	-595.58	-28.94
195	SLV 1	150	24	2905	-1.47	-856.73	8.67
195	SLV 2	157	-49	2900	-1.41	-854.71	-16.64
195	SLV 3	160	-170	2830	-0.43	-834.74	-59.25
195	SLV 4	167	-243	2824	-0.37	-832.72	-84.56
195	SLV 5	-21	292	2536	-2.09	-763.85	102.4
195	SLV 6	-14	219	2530	-2.03	-761.82	76.92
195	SLV 7	13	-355	2285	1.36	-690.55	-123.99
195	SLV 8	19	-428	2279	1.42	-688.52	-149.47
195	SLV 9	-157	328	2144	-1.6	-662.25	114.76
195	SLV 10	-150	255	2138	-1.54	-660.22	89.28
195	SLV 11	-124	-319	1893	1.85	-588.95	-111.63
195	SLV 12	-117	-393	1887	1.91	-586.92	-137.12
195	SLV 13	-304	143	1599	0.19	-518.05	49.85
195	SLV 14	-297	70	1593	0.25	-516.03	24.54
195	SLV 15	-294	-51	1523	1.23	-496.06	-18.07
195	SLV 16	-287	-124	1518	1.29	-494.04	-43.38
195	CRTFP Ux+	0	0	0	0	0	0
195	CRTFP Ux-	0	0	0	0	0	0
195	CRTFP Uy+	0	0	0	0	0	0
195	CRTFP Uy-	0	0	0	0	0	0
198	SLU 1	-28	112	2282	1.99	11.49	-2.03
198	SLU 2	-39	112	2281	1.99	10.28	-2.01
198	SLU 3	-28	112	2282	1.99	11.49	-2.03
198	SLU 4	-35	112	2281	1.99	10.76	-2.02
198	SLU 5	-39	112	2281	1.99	10.28	-2.01
198	SLU 6	-28	112	2282	1.99	11.49	-2.03
198	SLU 7	-35	112	2281	1.99	10.76	-2.02
198	SLU 8	-28	112	2282	1.99	11.49	-2.03
198	SLU 9	-35	112	2281	1.99	10.76	-2.02
198	SLU 10	-41	129	2879	3.38	10.72	-2.32
198	SLU 11	-30	130	2880	3.38	11.92	-2.34
198	SLU 12	-36	129	2879	3.38	11.2	-2.33
198	SLU 13	-41	129	2879	3.38	10.72	-2.32
198	SLU 14	-30	130	2880	3.38	11.92	-2.34
198	SLU 15	-36	129	2879	3.38	11.2	-2.33
198	SLU 16	-30	130	2880	3.38	11.92	-2.34
198	SLU 17	-36	129	2879	3.38	11.2	-2.33
198	SLU 18	-30	137	3136	3.97	12.11	-2.48
198	SLU 19	-37	137	3135	3.98	11.38	-2.46
198	SLU 20	-30	137	3136	3.97	12.11	-2.48
198	SLU 21	-37	137	3135	3.98	11.38	-2.46
198	SLU 22	-29	123	2704	2.78	11.84	-2.23
198	SLU 23	-40	122	2702	2.79	10.63	-2.21
198	SLU 24	-29	123	2704	2.78	11.84	-2.23
198	SLU 25	-36	122	2703	2.79	11.11	-2.22
198	SLU 26	-40	122	2702	2.79	10.63	-2.21
198	SLU 27	-29	123	2704	2.78	11.84	-2.23
198	SLU 28	-36	122	2703	2.79	11.11	-2.22
198	SLU 29	-29	123	2704	2.78	11.84	-2.23
198	SLU 30	-36	122	2703	2.79	11.11	-2.22
198	SLU 31	-42	140	3300	4.18	11.07	-2.52
198	SLU 32	-31	140	3302	4.17	12.27	-2.54
198	SLU 33	-38	140	3301	4.18	11.55	-2.53
198	SLU 34	-42	140	3300	4.18	11.07	-2.52

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
198	SLU 35	-31	140	3302	4.17	12.27	-2.54
198	SLU 36	-38	140	3301	4.18	11.55	-2.53
198	SLU 37	-31	140	3302	4.17	12.27	-2.54
198	SLU 38	-38	140	3301	4.18	11.55	-2.53
198	SLU 39	-32	147	3558	4.77	12.46	-2.67
198	SLU 40	-39	147	3557	4.77	11.73	-2.66
198	SLU 41	-32	147	3558	4.77	12.46	-2.67
198	SLU 42	-39	147	3557	4.77	11.73	-2.66
198	SLU 43	-36	142	2823	2.31	14.81	-2.58
198	SLU 44	-47	142	2821	2.32	13.61	-2.56
198	SLU 45	-36	142	2823	2.31	14.81	-2.58
198	SLU 46	-42	142	2822	2.31	14.09	-2.57
198	SLU 47	-47	142	2821	2.32	13.61	-2.56
198	SLU 48	-36	142	2823	2.31	14.81	-2.58
198	SLU 49	-42	142	2822	2.31	14.09	-2.57
198	SLU 50	-36	142	2823	2.31	14.81	-2.58
198	SLU 51	-42	142	2822	2.31	14.09	-2.57
198	SLU 52	-49	159	3419	3.71	14.04	-2.87
198	SLU 53	-38	160	3420	3.7	15.25	-2.89
198	SLU 54	-44	159	3419	3.71	14.53	-2.87
198	SLU 55	-49	159	3419	3.71	14.04	-2.87
198	SLU 56	-38	160	3420	3.7	15.25	-2.89
198	SLU 57	-44	159	3419	3.71	14.53	-2.87
198	SLU 58	-38	160	3420	3.7	15.25	-2.89
198	SLU 59	-44	159	3419	3.71	14.53	-2.87
198	SLU 60	-38	167	3677	4.3	15.43	-3.02
198	SLU 61	-45	167	3676	4.3	14.71	-3.01
198	SLU 62	-38	167	3677	4.3	15.43	-3.02
198	SLU 63	-45	167	3676	4.3	14.71	-3.01
198	SLU 64	-37	153	3244	3.11	15.16	-2.78
198	SLU 65	-48	152	3242	3.11	13.96	-2.76
198	SLU 66	-37	153	3244	3.11	15.16	-2.78
198	SLU 67	-44	153	3243	3.11	14.44	-2.76
198	SLU 68	-48	152	3242	3.11	13.96	-2.76
198	SLU 69	-37	153	3244	3.11	15.16	-2.78
198	SLU 70	-44	153	3243	3.11	14.44	-2.76
198	SLU 71	-37	153	3244	3.11	15.16	-2.78
198	SLU 72	-44	153	3243	3.11	14.44	-2.76
198	SLU 73	-50	170	3840	4.5	14.39	-3.06
198	SLU 74	-39	170	3842	4.5	15.6	-3.08
198	SLU 75	-46	170	3841	4.5	14.87	-3.07
198	SLU 76	-50	170	3840	4.5	14.39	-3.06
198	SLU 77	-39	170	3842	4.5	15.6	-3.08
198	SLU 78	-46	170	3841	4.5	14.87	-3.07
198	SLU 79	-39	170	3842	4.5	15.6	-3.08
198	SLU 80	-46	170	3841	4.5	14.87	-3.07
198	SLU 81	-40	177	4098	5.09	15.78	-3.22
198	SLU 82	-46	177	4097	5.1	15.06	-3.2
198	SLU 83	-40	177	4098	5.09	15.78	-3.22
198	SLU 84	-46	177	4097	5.1	15.06	-3.2
198	SLE RA 1	-28	115	2403	2.22	11.59	-2.09
198	SLE RA 2	-36	115	2402	2.22	10.78	-2.08
198	SLE RA 3	-28	115	2403	2.22	11.59	-2.09
198	SLE RA 4	-33	115	2402	2.22	11.11	-2.08
198	SLE RA 5	-36	115	2402	2.22	10.78	-2.08
198	SLE RA 6	-28	115	2403	2.22	11.59	-2.09
198	SLE RA 7	-33	115	2402	2.22	11.11	-2.08
198	SLE RA 8	-28	115	2403	2.22	11.59	-2.09
198	SLE RA 9	-33	115	2402	2.22	11.11	-2.08
198	SLE RA 10	-37	127	2800	3.15	11.07	-2.28
198	SLE RA 11	-30	127	2801	3.14	11.88	-2.3
198	SLE RA 12	-34	127	2801	3.14	11.4	-2.29
198	SLE RA 13	-37	127	2800	3.15	11.07	-2.28
198	SLE RA 14	-30	127	2801	3.14	11.88	-2.3
198	SLE RA 15	-34	127	2801	3.14	11.4	-2.29
198	SLE RA 16	-30	127	2801	3.14	11.88	-2.3
198	SLE RA 17	-34	127	2801	3.14	11.4	-2.29
198	SLE RA 18	-30	132	2972	3.54	12	-2.39
198	SLE RA 19	-34	132	2972	3.54	11.52	-2.38
198	SLE RA 20	-30	132	2972	3.54	12	-2.39
198	SLE RA 21	-34	132	2972	3.54	11.52	-2.38
198	SLE FR 1	-28	115	2403	2.22	11.59	-2.09
198	SLE FR 2	-30	115	2403	2.22	11.43	-2.09
198	SLE FR 3	-28	115	2403	2.22	11.59	-2.09
198	SLE FR 4	-30	120	2573	2.61	11.55	-2.18
198	SLE FR 5	-29	120	2574	2.61	11.71	-2.18
198	SLE FR 6	-29	123	2687	2.88	11.79	-2.24
198	SLE QP 1	-28	115	2403	2.22	11.59	-2.09
198	SLE QP 2	-29	120	2574	2.61	11.71	-2.18
198	SLD 1	155	199	2635	2.12	31.08	-3.28
198	SLD 2	161	200	2634	2.12	31.47	-2.44
198	SLD 3	162	72	2564	2.83	29.31	-3.09
198	SLD 4	169	73	2563	2.84	29.7	-2.25
198	SLD 5	12	336	2700	1.37	20.06	-3.09
198	SLD 6	19	337	2699	1.38	20.46	-2.24
198	SLD 7	38	-87	2464	3.77	14.18	-2.47

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
198	SLD 8	45	-87	2462	3.77	14.57	-1.63
198	SLD 9	-102	327	2685	1.45	8.86	-2.73
198	SLD 10	-96	328	2683	1.46	9.25	-1.89
198	SLD 11	-76	-97	2449	3.85	2.97	-2.12
198	SLD 12	-70	-96	2447	3.85	3.36	-1.27
198	SLD 13	-227	167	2584	2.38	-6.28	-2.11
198	SLD 14	-220	168	2583	2.39	-5.89	-1.27
198	SLD 15	-219	40	2513	3.1	-8.05	-1.92
198	SLD 16	-212	41	2512	3.11	-7.66	-1.08
198	SLV 1	388	300	2714	1.49	55.76	-4.69
198	SLV 2	403	301	2710	1.5	56.64	-2.78
198	SLV 3	406	11	2553	3.12	51.75	-4.26
198	SLV 4	421	13	2549	3.14	52.63	-2.36
198	SLV 5	64	611	2861	-0.21	30.7	-4.25
198	SLV 6	79	613	2858	-0.19	31.58	-2.33
198	SLV 7	123	-351	2324	5.23	17.33	-2.83
198	SLV 8	138	-349	2321	5.25	18.22	-0.92
198	SLV 9	-196	590	2826	-0.02	5.21	-3.44
198	SLV 10	-181	591	2823	-0.01	6.09	-1.53
198	SLV 11	-137	-373	2289	5.41	-8.16	-2.03
198	SLV 12	-122	-371	2286	5.43	-7.27	-0.11
198	SLV 13	-478	227	2598	2.09	-29.21	-2
198	SLV 14	-464	229	2594	2.11	-28.33	-0.1
198	SLV 15	-460	-61	2437	3.72	-33.22	-1.58
198	SLV 16	-446	-59	2433	3.74	-32.34	0.33
198	CRTFP Ux+	0	0	0	0	0	0
198	CRTFP Ux-	0	0	0	0	0	0
198	CRTFP Uy+	0	0	0	0	0	0
198	CRTFP Uy-	0	0	0	0	0	0
200	SLU 1	-22	-10	1934	0.83	-13.84	-0.01
200	SLU 2	-27	-10	1950	0.83	-13.99	-0.02
200	SLU 3	-22	-10	1934	0.83	-13.84	-0.01
200	SLU 4	-25	-10	1943	0.83	-13.93	-0.01
200	SLU 5	-27	-10	1950	0.83	-13.99	-0.02
200	SLU 6	-22	-10	1934	0.83	-13.84	-0.01
200	SLU 7	-25	-10	1943	0.83	-13.93	-0.01
200	SLU 8	-22	-10	1934	0.83	-13.84	-0.01
200	SLU 9	-25	-10	1943	0.83	-13.93	-0.01
200	SLU 10	-30	-9	2256	1.01	-15.15	-0.02
200	SLU 11	-25	-8	2239	1.01	-15	-0.01
200	SLU 12	-28	-8	2249	1.01	-15.09	-0.01
200	SLU 13	-30	-9	2256	1.01	-15.15	-0.02
200	SLU 14	-25	-8	2239	1.01	-15	-0.01
200	SLU 15	-28	-8	2249	1.01	-15.09	-0.01
200	SLU 16	-25	-8	2239	1.01	-15	-0.01
200	SLU 17	-28	-8	2249	1.01	-15.09	-0.01
200	SLU 18	-26	-7	2371	1.09	-15.49	-0.01
200	SLU 19	-29	-8	2380	1.09	-15.59	-0.01
200	SLU 20	-26	-7	2371	1.09	-15.49	-0.01
200	SLU 21	-29	-8	2380	1.09	-15.59	-0.01
200	SLU 22	-24	-9	2160	0.96	-14.83	-0.01
200	SLU 23	-29	-9	2176	0.96	-14.98	-0.02
200	SLU 24	-24	-9	2160	0.96	-14.83	-0.01
200	SLU 25	-27	-9	2169	0.96	-14.92	-0.01
200	SLU 26	-29	-9	2176	0.96	-14.98	-0.02
200	SLU 27	-24	-9	2160	0.96	-14.83	-0.01
200	SLU 28	-27	-9	2169	0.96	-14.92	-0.01
200	SLU 29	-24	-9	2160	0.96	-14.83	-0.01
200	SLU 30	-27	-9	2169	0.96	-14.92	-0.01
200	SLU 31	-32	-8	2482	1.14	-16.14	-0.02
200	SLU 32	-27	-7	2465	1.14	-15.98	-0.01
200	SLU 33	-30	-7	2475	1.14	-16.08	-0.01
200	SLU 34	-32	-8	2482	1.14	-16.14	-0.02
200	SLU 35	-27	-7	2465	1.14	-15.98	-0.01
200	SLU 36	-30	-7	2475	1.14	-16.08	-0.01
200	SLU 37	-27	-7	2465	1.14	-15.98	-0.01
200	SLU 38	-30	-7	2475	1.14	-16.08	-0.01
200	SLU 39	-28	-6	2596	1.22	-16.48	-0.01
200	SLU 40	-31	-7	2606	1.22	-16.57	-0.01
200	SLU 41	-28	-6	2596	1.22	-16.48	-0.01
200	SLU 42	-31	-7	2606	1.22	-16.57	-0.01
200	SLU 43	-28	-13	2436	1.04	-17.65	-0.01
200	SLU 44	-33	-13	2453	1.03	-17.81	-0.02
200	SLU 45	-28	-13	2436	1.04	-17.65	-0.01
200	SLU 46	-31	-13	2446	1.03	-17.74	-0.01
200	SLU 47	-33	-13	2453	1.03	-17.81	-0.02
200	SLU 48	-28	-13	2436	1.04	-17.65	-0.01
200	SLU 49	-31	-13	2446	1.03	-17.74	-0.01
200	SLU 50	-28	-13	2436	1.04	-17.65	-0.01
200	SLU 51	-31	-13	2446	1.03	-17.74	-0.01
200	SLU 52	-36	-12	2758	1.21	-18.97	-0.02
200	SLU 53	-31	-11	2742	1.22	-18.81	-0.01
200	SLU 54	-34	-11	2752	1.21	-18.9	-0.01
200	SLU 55	-36	-12	2758	1.21	-18.97	-0.02
200	SLU 56	-31	-11	2742	1.22	-18.81	-0.01
200	SLU 57	-34	-11	2752	1.21	-18.9	-0.01

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
200	SLU 58	-31	-11	2742	1.22	-18.81	-0.01
200	SLU 59	-34	-11	2752	1.21	-18.9	-0.01
200	SLU 60	-32	-10	2873	1.29	-19.3	-0.01
200	SLU 61	-35	-11	2883	1.29	-19.4	-0.01
200	SLU 62	-32	-10	2873	1.29	-19.3	-0.01
200	SLU 63	-35	-11	2883	1.29	-19.4	-0.01
200	SLU 64	-30	-12	2662	1.16	-18.64	-0.01
200	SLU 65	-35	-13	2679	1.16	-18.8	-0.02
200	SLU 66	-30	-12	2662	1.16	-18.64	-0.01
200	SLU 67	-33	-12	2672	1.16	-18.73	-0.01
200	SLU 68	-35	-13	2679	1.16	-18.8	-0.02
200	SLU 69	-30	-12	2662	1.16	-18.64	-0.01
200	SLU 70	-33	-12	2672	1.16	-18.73	-0.01
200	SLU 71	-30	-12	2662	1.16	-18.64	-0.01
200	SLU 72	-33	-12	2672	1.16	-18.73	-0.01
200	SLU 73	-38	-11	2984	1.34	-19.95	-0.02
200	SLU 74	-33	-10	2968	1.35	-19.8	-0.01
200	SLU 75	-36	-11	2978	1.34	-19.89	-0.01
200	SLU 76	-38	-11	2984	1.34	-19.95	-0.02
200	SLU 77	-33	-10	2968	1.35	-19.8	-0.01
200	SLU 78	-36	-11	2978	1.34	-19.89	-0.01
200	SLU 79	-33	-10	2968	1.35	-19.8	-0.01
200	SLU 80	-36	-11	2978	1.34	-19.89	-0.01
200	SLU 81	-34	-9	3099	1.42	-20.29	-0.01
200	SLU 82	-37	-10	3109	1.42	-20.39	-0.02
200	SLU 83	-34	-9	3099	1.42	-20.29	-0.01
200	SLU 84	-37	-10	3109	1.42	-20.39	-0.02
200	SLE RA 1	-23	-9	1998	0.87	-14.12	-0.01
200	SLE RA 2	-26	-10	2009	0.87	-14.22	-0.01
200	SLE RA 3	-23	-9	1998	0.87	-14.12	-0.01
200	SLE RA 4	-25	-10	2005	0.87	-14.18	-0.01
200	SLE RA 5	-26	-10	2009	0.87	-14.22	-0.01
200	SLE RA 6	-23	-9	1998	0.87	-14.12	-0.01
200	SLE RA 7	-25	-10	2005	0.87	-14.18	-0.01
200	SLE RA 8	-23	-9	1998	0.87	-14.12	-0.01
200	SLE RA 9	-25	-10	2005	0.87	-14.18	-0.01
200	SLE RA 10	-28	-9	2213	0.99	-15	-0.01
200	SLE RA 11	-24	-8	2202	0.99	-14.89	-0.01
200	SLE RA 12	-26	-8	2209	0.99	-14.95	-0.01
200	SLE RA 13	-28	-9	2213	0.99	-15	-0.01
200	SLE RA 14	-24	-8	2202	0.99	-14.89	-0.01
200	SLE RA 15	-26	-8	2209	0.99	-14.95	-0.01
200	SLE RA 16	-24	-8	2202	0.99	-14.89	-0.01
200	SLE RA 17	-26	-8	2209	0.99	-14.95	-0.01
200	SLE RA 18	-25	-8	2289	1.04	-15.22	-0.01
200	SLE RA 19	-27	-8	2296	1.04	-15.29	-0.01
200	SLE RA 20	-25	-8	2289	1.04	-15.22	-0.01
200	SLE RA 21	-27	-8	2296	1.04	-15.29	-0.01
200	SLE FR 1	-23	-9	1998	0.87	-14.12	-0.01
200	SLE FR 2	-23	-9	2000	0.87	-14.14	-0.01
200	SLE FR 3	-23	-9	1998	0.87	-14.12	-0.01
200	SLE FR 4	-24	-9	2088	0.92	-14.47	-0.01
200	SLE FR 5	-23	-9	2086	0.92	-14.45	-0.01
200	SLE FR 6	-24	-8	2144	0.95	-14.67	-0.01
200	SLE QP 1	-23	-9	1998	0.87	-14.12	-0.01
200	SLE QP 2	-23	-9	2086	0.92	-14.45	-0.01
200	SLD 1	60	45	1829	0.79	-25.78	0.1
200	SLD 2	61	77	1833	0.76	-25.9	0.17
200	SLD 3	69	-44	1806	1.26	-25.02	0.06
200	SLD 4	71	-12	1810	1.24	-25.14	0.13
200	SLD 5	-13	130	2041	0.17	-18.95	0.06
200	SLD 6	-11	163	2045	0.15	-19.07	0.14
200	SLD 7	18	-165	1966	1.75	-16.44	-0.08
200	SLD 8	19	-133	1970	1.72	-16.56	0
200	SLD 9	-66	115	2201	0.12	-12.34	-0.01
200	SLD 10	-64	147	2205	0.09	-12.46	0.06
200	SLD 11	-36	-180	2126	1.69	-9.83	-0.15
200	SLD 12	-34	-148	2130	1.67	-9.95	-0.08
200	SLD 13	-117	-6	2361	0.6	-3.76	-0.15
200	SLD 14	-115	26	2365	0.58	-3.88	-0.07
200	SLD 15	-108	-94	2339	1.08	-3.01	-0.19
200	SLD 16	-106	-62	2342	1.05	-3.12	-0.12
200	SLV 1	165	114	1502	0.62	-40.63	0.24
200	SLV 2	169	186	1511	0.57	-40.9	0.41
200	SLV 3	186	-88	1451	1.69	-38.89	0.15
200	SLV 4	190	-15	1459	1.64	-39.16	0.31
200	SLV 5	0	308	1986	-0.78	-24.85	0.15
200	SLV 6	4	381	1994	-0.83	-25.12	0.32
200	SLV 7	70	-363	1814	2.8	-19.05	-0.16
200	SLV 8	74	-291	1823	2.74	-19.32	0
200	SLV 9	-121	273	2348	-0.9	-9.58	-0.02
200	SLV 10	-116	346	2357	-0.96	-9.86	0.15
200	SLV 11	-51	-398	2177	2.67	-3.78	-0.33
200	SLV 12	-47	-325	2186	2.62	-4.05	-0.17
200	SLV 13	-237	-2	2712	0.2	10.26	-0.33
200	SLV 14	-232	70	2720	0.15	9.99	-0.16

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
200	SLV 15	-216	-204	2661	1.27	12	-0.42
200	SLV 16	-211	-131	2669	1.22	11.73	-0.26
200	CRTFP Ux+	0	0	0	0	0	0
200	CRTFP Ux-	0	0	0	0	0	0
200	CRTFP Uy+	0	0	0	0	0	0
200	CRTFP Uy-	0	0	0	0	0	0
201	SLU 1	-66	-46	2035	-0.36	-613.72	-15.89
201	SLU 2	-71	-45	2019	-0.33	-609.85	-15.71
201	SLU 3	-66	-46	2035	-0.36	-613.72	-15.89
201	SLU 4	-69	-45	2026	-0.34	-611.4	-15.78
201	SLU 5	-71	-45	2019	-0.33	-609.85	-15.71
201	SLU 6	-66	-46	2035	-0.36	-613.72	-15.89
201	SLU 7	-69	-45	2026	-0.34	-611.4	-15.78
201	SLU 8	-66	-46	2035	-0.36	-613.72	-15.89
201	SLU 9	-69	-45	2026	-0.34	-611.4	-15.78
201	SLU 10	-85	-53	2360	-0.44	-710.68	-18.36
201	SLU 11	-80	-53	2376	-0.46	-714.56	-18.54
201	SLU 12	-83	-53	2367	-0.45	-712.23	-18.43
201	SLU 13	-85	-53	2360	-0.44	-710.68	-18.36
201	SLU 14	-80	-53	2376	-0.46	-714.56	-18.54
201	SLU 15	-83	-53	2367	-0.45	-712.23	-18.43
201	SLU 16	-80	-53	2376	-0.46	-714.56	-18.54
201	SLU 17	-83	-53	2367	-0.45	-712.23	-18.43
201	SLU 18	-86	-57	2522	-0.51	-757.77	-19.68
201	SLU 19	-89	-56	2513	-0.49	-755.45	-19.57
201	SLU 20	-86	-57	2522	-0.51	-757.77	-19.68
201	SLU 21	-89	-56	2513	-0.49	-755.45	-19.57
201	SLU 22	-75	-50	2284	-0.43	-687.59	-17.38
201	SLU 23	-80	-49	2268	-0.41	-683.72	-17.19
201	SLU 24	-75	-50	2284	-0.43	-687.59	-17.38
201	SLU 25	-78	-50	2274	-0.42	-685.27	-17.27
201	SLU 26	-80	-49	2268	-0.41	-683.72	-17.19
201	SLU 27	-75	-50	2284	-0.43	-687.59	-17.38
201	SLU 28	-78	-50	2274	-0.42	-685.27	-17.27
201	SLU 29	-75	-50	2284	-0.43	-687.59	-17.38
201	SLU 30	-78	-50	2274	-0.42	-685.27	-17.27
201	SLU 31	-94	-57	2609	-0.51	-784.55	-19.84
201	SLU 32	-89	-58	2625	-0.54	-788.43	-20.03
201	SLU 33	-92	-57	2615	-0.52	-786.1	-19.91
201	SLU 34	-94	-57	2609	-0.51	-784.55	-19.84
201	SLU 35	-89	-58	2625	-0.54	-788.43	-20.03
201	SLU 36	-92	-57	2615	-0.52	-786.1	-19.91
201	SLU 37	-89	-58	2625	-0.54	-788.43	-20.03
201	SLU 38	-92	-57	2615	-0.52	-786.1	-19.91
201	SLU 39	-95	-61	2771	-0.58	-831.64	-21.16
201	SLU 40	-98	-61	2761	-0.57	-829.32	-21.05
201	SLU 41	-95	-61	2771	-0.58	-831.64	-21.16
201	SLU 42	-98	-61	2761	-0.57	-829.32	-21.05
201	SLU 43	-83	-58	2561	-0.44	-772.51	-20.15
201	SLU 44	-88	-57	2544	-0.41	-768.64	-19.97
201	SLU 45	-83	-58	2561	-0.44	-772.51	-20.15
201	SLU 46	-86	-57	2551	-0.42	-770.18	-20.04
201	SLU 47	-88	-57	2544	-0.41	-768.64	-19.97
201	SLU 48	-83	-58	2561	-0.44	-772.51	-20.15
201	SLU 49	-86	-57	2551	-0.42	-770.18	-20.04
201	SLU 50	-83	-58	2561	-0.44	-772.51	-20.15
201	SLU 51	-86	-57	2551	-0.42	-770.18	-20.04
201	SLU 52	-102	-65	2885	-0.52	-869.47	-22.62
201	SLU 53	-97	-65	2902	-0.54	-873.34	-22.8
201	SLU 54	-100	-65	2892	-0.53	-871.02	-22.69
201	SLU 55	-102	-65	2885	-0.52	-869.47	-22.62
201	SLU 56	-97	-65	2902	-0.54	-873.34	-22.8
201	SLU 57	-100	-65	2892	-0.53	-871.02	-22.69
201	SLU 58	-97	-65	2902	-0.54	-873.34	-22.8
201	SLU 59	-100	-65	2892	-0.53	-871.02	-22.69
201	SLU 60	-103	-69	3048	-0.59	-916.56	-23.94
201	SLU 61	-106	-68	3038	-0.57	-914.24	-23.83
201	SLU 62	-103	-69	3048	-0.59	-916.56	-23.94
201	SLU 63	-106	-68	3038	-0.57	-914.24	-23.83
201	SLU 64	-92	-62	2809	-0.51	-846.38	-21.64
201	SLU 65	-97	-61	2793	-0.49	-842.51	-21.45
201	SLU 66	-92	-62	2809	-0.51	-846.38	-21.64
201	SLU 67	-95	-62	2800	-0.5	-844.06	-21.52
201	SLU 68	-97	-61	2793	-0.49	-842.51	-21.45
201	SLU 69	-92	-62	2809	-0.51	-846.38	-21.64
201	SLU 70	-95	-62	2800	-0.5	-844.06	-21.52
201	SLU 71	-92	-62	2809	-0.51	-846.38	-21.64
201	SLU 72	-95	-62	2800	-0.5	-844.06	-21.52
201	SLU 73	-110	-69	3134	-0.6	-943.34	-24.1
201	SLU 74	-106	-70	3150	-0.62	-947.22	-24.28
201	SLU 75	-109	-69	3141	-0.6	-944.89	-24.17
201	SLU 76	-110	-69	3134	-0.6	-943.34	-24.1
201	SLU 77	-106	-70	3150	-0.62	-947.22	-24.28
201	SLU 78	-109	-69	3141	-0.6	-944.89	-24.17
201	SLU 79	-106	-70	3150	-0.62	-947.22	-24.28
201	SLU 80	-109	-69	3141	-0.6	-944.89	-24.17

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
201	SLU 81	-112	-73	3296	-0.66	-990.43	-25.42
201	SLU 82	-114	-73	3287	-0.65	-988.11	-25.31
201	SLU 83	-112	-73	3296	-0.66	-990.43	-25.42
201	SLU 84	-114	-73	3287	-0.65	-988.11	-25.31
201	SLE RA 1	-69	-47	2106	-0.38	-634.83	-16.32
201	SLE RA 2	-72	-46	2096	-0.36	-632.24	-16.19
201	SLE RA 3	-69	-47	2106	-0.38	-634.83	-16.32
201	SLE RA 4	-71	-47	2100	-0.37	-633.28	-16.24
201	SLE RA 5	-72	-46	2096	-0.36	-632.24	-16.19
201	SLE RA 6	-69	-47	2106	-0.38	-634.83	-16.32
201	SLE RA 7	-71	-47	2100	-0.37	-633.28	-16.24
201	SLE RA 8	-69	-47	2106	-0.38	-634.83	-16.32
201	SLE RA 9	-71	-47	2100	-0.37	-633.28	-16.24
201	SLE RA 10	-81	-52	2323	-0.43	-699.47	-17.96
201	SLE RA 11	-78	-52	2334	-0.45	-702.05	-18.08
201	SLE RA 12	-80	-52	2327	-0.44	-700.5	-18.01
201	SLE RA 13	-81	-52	2323	-0.43	-699.47	-17.96
201	SLE RA 14	-78	-52	2334	-0.45	-702.05	-18.08
201	SLE RA 15	-80	-52	2327	-0.44	-700.5	-18.01
201	SLE RA 16	-78	-52	2334	-0.45	-702.05	-18.08
201	SLE RA 17	-80	-52	2327	-0.44	-700.5	-18.01
201	SLE RA 18	-82	-54	2431	-0.48	-730.86	-18.84
201	SLE RA 19	-84	-54	2425	-0.47	-729.31	-18.77
201	SLE RA 20	-82	-54	2431	-0.48	-730.86	-18.84
201	SLE RA 21	-84	-54	2425	-0.47	-729.31	-18.77
201	SLE FR 1	-69	-47	2106	-0.38	-634.83	-16.32
201	SLE FR 2	-69	-47	2104	-0.37	-634.31	-16.29
201	SLE FR 3	-69	-47	2106	-0.38	-634.83	-16.32
201	SLE FR 4	-73	-49	2202	-0.4	-663.12	-17.05
201	SLE FR 5	-73	-49	2204	-0.41	-663.64	-17.07
201	SLE FR 6	-75	-50	2269	-0.43	-682.84	-17.58
201	SLE QP 1	-69	-47	2106	-0.38	-634.83	-16.32
201	SLE QP 2	-73	-49	2204	-0.41	-663.64	-17.07
201	SLD 1	21	-16	2490	-1.06	-735.88	-5.49
201	SLD 2	22	-48	2488	-1.03	-735.29	-16.66
201	SLD 3	26	-101	2470	-0.6	-730.54	-35.37
201	SLD 4	26	-134	2469	-0.57	-729.95	-46.55
201	SLD 5	-52	102	2320	-1.31	-693.61	35.68
201	SLD 6	-51	69	2319	-1.28	-693.02	24.42
201	SLD 7	-36	-183	2254	0.22	-675.82	-63.93
201	SLD 8	-36	-215	2253	0.26	-675.23	-75.19
201	SLD 9	-110	117	2155	-1.07	-652.04	41.04
201	SLD 10	-109	85	2153	-1.04	-651.45	29.78
201	SLD 11	-94	-167	2089	0.47	-634.25	-58.56
201	SLD 12	-94	-200	2088	0.5	-633.66	-69.82
201	SLD 13	-172	36	1939	-0.25	-597.32	12.4
201	SLD 14	-172	3	1938	-0.22	-596.73	1.22
201	SLD 15	-167	-50	1919	0.21	-591.98	-17.48
201	SLD 16	-167	-82	1918	0.24	-591.4	-28.66
201	SLV 1	141	25	2854	-1.88	-827.79	8.96
201	SLV 2	142	-48	2850	-1.81	-826.46	-16.35
201	SLV 3	152	-169	2809	-0.83	-815.67	-58.95
201	SLV 4	153	-242	2805	-0.77	-814.34	-84.26
201	SLV 5	-25	294	2468	-2.46	-731.74	102.68
201	SLV 6	-24	220	2465	-2.39	-730.4	77.2
201	SLV 7	11	-354	2319	1.03	-691.33	-123.69
201	SLV 8	11	-427	2315	1.1	-689.99	-149.17
201	SLV 9	-157	329	2093	-1.91	-637.28	115.02
201	SLV 10	-156	256	2089	-1.84	-635.95	89.55
201	SLV 11	-121	-318	1943	1.58	-596.87	-111.35
201	SLV 12	-120	-392	1940	1.65	-595.53	-136.83
201	SLV 13	-298	144	1602	-0.05	-512.93	50.11
201	SLV 14	-297	71	1599	0.02	-511.6	24.8
201	SLV 15	-287	-50	1557	1	-500.81	-17.8
201	SLV 16	-287	-123	1554	1.07	-499.48	-43.11
201	CRTFP Ux+	0	0	0	0	0	0
201	CRTFP Ux-	0	0	0	0	0	0
201	CRTFP Uy+	0	0	0	0	0	0
201	CRTFP Uy-	0	0	0	0	0	0
204	SLU 1	-17	114	2351	2.41	10.82	-1.94
204	SLU 2	-29	114	2349	2.41	9.66	-1.9
204	SLU 3	-17	114	2351	2.41	10.82	-1.94
204	SLU 4	-24	114	2350	2.41	10.13	-1.92
204	SLU 5	-29	114	2349	2.41	9.66	-1.9
204	SLU 6	-17	114	2351	2.41	10.82	-1.94
204	SLU 7	-24	114	2350	2.41	10.13	-1.92
204	SLU 8	-17	114	2351	2.41	10.82	-1.94
204	SLU 9	-24	114	2350	2.41	10.13	-1.92
204	SLU 10	-29	131	2992	3.88	10.09	-2.21
204	SLU 11	-18	131	2993	3.87	11.25	-2.25
204	SLU 12	-24	131	2992	3.88	10.56	-2.22
204	SLU 13	-29	131	2992	3.88	10.09	-2.21
204	SLU 14	-18	131	2993	3.87	11.25	-2.25
204	SLU 15	-24	131	2992	3.88	10.56	-2.22
204	SLU 16	-18	131	2993	3.87	11.25	-2.25
204	SLU 17	-24	131	2992	3.88	10.56	-2.22

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
204	SLU 18	-18	138	3268	4.5	11.44	-2.38
204	SLU 19	-24	138	3267	4.51	10.74	-2.35
204	SLU 20	-18	138	3268	4.5	11.44	-2.38
204	SLU 21	-24	138	3267	4.51	10.74	-2.35
204	SLU 22	-18	124	2798	3.24	11.16	-2.14
204	SLU 23	-29	124	2796	3.24	10	-2.1
204	SLU 24	-18	124	2798	3.24	11.16	-2.14
204	SLU 25	-25	124	2797	3.24	10.47	-2.11
204	SLU 26	-29	124	2796	3.24	10	-2.1
204	SLU 27	-18	124	2798	3.24	11.16	-2.14
204	SLU 28	-25	124	2797	3.24	10.47	-2.11
204	SLU 29	-18	124	2798	3.24	11.16	-2.14
204	SLU 30	-25	124	2797	3.24	10.47	-2.11
204	SLU 31	-29	141	3438	4.71	10.43	-2.4
204	SLU 32	-18	141	3440	4.71	11.59	-2.44
204	SLU 33	-25	141	3439	4.71	10.9	-2.42
204	SLU 34	-29	141	3438	4.71	10.43	-2.4
204	SLU 35	-18	141	3440	4.71	11.59	-2.44
204	SLU 36	-25	141	3439	4.71	10.9	-2.42
204	SLU 37	-18	141	3440	4.71	11.59	-2.44
204	SLU 38	-25	141	3439	4.71	10.9	-2.42
204	SLU 39	-18	149	3715	5.34	11.78	-2.57
204	SLU 40	-25	149	3714	5.34	11.08	-2.55
204	SLU 41	-18	149	3715	5.34	11.78	-2.57
204	SLU 42	-25	149	3714	5.34	11.08	-2.55
204	SLU 43	-22	145	2903	2.84	13.95	-2.46
204	SLU 44	-34	144	2901	2.85	12.79	-2.42
204	SLU 45	-22	145	2903	2.84	13.95	-2.46
204	SLU 46	-29	144	2902	2.85	13.26	-2.43
204	SLU 47	-34	144	2901	2.85	12.79	-2.42
204	SLU 48	-22	145	2903	2.84	13.95	-2.46
204	SLU 49	-29	144	2902	2.85	13.26	-2.43
204	SLU 50	-22	145	2903	2.84	13.95	-2.46
204	SLU 51	-29	144	2902	2.85	13.26	-2.43
204	SLU 52	-34	161	3544	4.32	13.22	-2.72
204	SLU 53	-23	162	3545	4.31	14.38	-2.76
204	SLU 54	-29	162	3544	4.31	13.69	-2.74
204	SLU 55	-34	161	3544	4.32	13.22	-2.72
204	SLU 56	-23	162	3545	4.31	14.38	-2.76
204	SLU 57	-29	162	3544	4.31	13.69	-2.74
204	SLU 58	-23	162	3545	4.31	14.38	-2.76
204	SLU 59	-29	162	3544	4.31	13.69	-2.74
204	SLU 60	-23	169	3820	4.94	14.57	-2.89
204	SLU 61	-29	169	3819	4.94	13.87	-2.87
204	SLU 62	-23	169	3820	4.94	14.57	-2.89
204	SLU 63	-29	169	3819	4.94	13.87	-2.87
204	SLU 64	-23	155	3350	3.68	14.29	-2.65
204	SLU 65	-34	155	3348	3.68	13.13	-2.61
204	SLU 66	-23	155	3350	3.68	14.29	-2.65
204	SLU 67	-30	155	3349	3.68	13.6	-2.63
204	SLU 68	-34	155	3348	3.68	13.13	-2.61
204	SLU 69	-23	155	3350	3.68	14.29	-2.65
204	SLU 70	-30	155	3349	3.68	13.6	-2.63
204	SLU 71	-23	155	3350	3.68	14.29	-2.65
204	SLU 72	-30	155	3349	3.68	13.6	-2.63
204	SLU 73	-34	172	3990	5.15	13.56	-2.92
204	SLU 74	-23	172	3992	5.14	14.72	-2.96
204	SLU 75	-30	172	3991	5.15	14.03	-2.93
204	SLU 76	-34	172	3990	5.15	13.56	-2.92
204	SLU 77	-23	172	3992	5.14	14.72	-2.96
204	SLU 78	-30	172	3991	5.15	14.03	-2.93
204	SLU 79	-23	172	3992	5.14	14.72	-2.96
204	SLU 80	-30	172	3991	5.15	14.03	-2.93
204	SLU 81	-23	179	4267	5.77	14.91	-3.09
204	SLU 82	-30	179	4266	5.78	14.21	-3.06
204	SLU 83	-23	179	4267	5.77	14.91	-3.09
204	SLU 84	-30	179	4266	5.78	14.21	-3.06
204	SLE RA 1	-18	117	2478	2.65	10.92	-2
204	SLE RA 2	-25	117	2477	2.65	10.15	-1.97
204	SLE RA 3	-18	117	2478	2.65	10.92	-2
204	SLE RA 4	-22	117	2478	2.65	10.46	-1.98
204	SLE RA 5	-25	117	2477	2.65	10.15	-1.97
204	SLE RA 6	-18	117	2478	2.65	10.92	-2
204	SLE RA 7	-22	117	2478	2.65	10.46	-1.98
204	SLE RA 8	-18	117	2478	2.65	10.92	-2
204	SLE RA 9	-22	117	2478	2.65	10.46	-1.98
204	SLE RA 10	-25	128	2906	3.63	10.43	-2.18
204	SLE RA 11	-18	128	2907	3.62	11.21	-2.2
204	SLE RA 12	-22	128	2906	3.63	10.74	-2.19
204	SLE RA 13	-25	128	2906	3.63	10.43	-2.18
204	SLE RA 14	-18	128	2907	3.62	11.21	-2.2
204	SLE RA 15	-22	128	2906	3.63	10.74	-2.19
204	SLE RA 16	-18	128	2907	3.62	11.21	-2.2
204	SLE RA 17	-22	128	2906	3.63	10.74	-2.19
204	SLE RA 18	-18	133	3090	4.04	11.33	-2.29
204	SLE RA 19	-22	133	3090	4.04	10.87	-2.27

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
204	SLE RA 20	-18	133	3090	4.04	11.33	-2.29
204	SLE RA 21	-22	133	3090	4.04	10.87	-2.27
204	SLE FR 1	-18	117	2478	2.65	10.92	-2
204	SLE FR 2	-19	117	2478	2.65	10.76	-1.99
204	SLE FR 3	-18	117	2478	2.65	10.92	-2
204	SLE FR 4	-19	122	2662	3.07	10.89	-2.08
204	SLE FR 5	-18	122	2662	3.06	11.04	-2.08
204	SLE FR 6	-18	125	2784	3.34	11.12	-2.14
204	SLE QP 1	-18	117	2478	2.65	10.92	-2
204	SLE QP 2	-18	122	2662	3.06	11.04	-2.08
204	SLD 1	170	201	2709	2.58	29.68	-3.35
204	SLD 2	172	202	2708	2.59	30.06	-2.48
204	SLD 3	178	74	2661	3.33	27.99	-3.17
204	SLD 4	179	74	2659	3.33	28.38	-2.3
204	SLD 5	26	339	2750	1.79	19.05	-3.04
204	SLD 6	28	339	2748	1.79	19.44	-2.16
204	SLD 7	52	-86	2589	4.27	13.44	-2.45
204	SLD 8	54	-86	2588	4.28	13.82	-1.57
204	SLD 9	-89	329	2736	1.85	8.26	-2.6
204	SLD 10	-87	330	2735	1.86	8.64	-1.72
204	SLD 11	-63	-96	2575	4.34	2.65	-2
204	SLD 12	-61	-95	2574	4.34	3.03	-1.13
204	SLD 13	-215	169	2664	2.8	-6.29	-1.87
204	SLD 14	-213	170	2663	2.8	-5.91	-1
204	SLD 15	-207	42	2616	3.54	-7.98	-1.69
204	SLD 16	-205	43	2615	3.55	-7.59	-0.82
204	SLV 1	408	302	2769	1.96	53.43	-4.97
204	SLV 2	413	304	2766	1.98	54.3	-3
204	SLV 3	426	12	2659	3.66	49.61	-4.56
204	SLV 4	430	14	2656	3.68	50.47	-2.59
204	SLV 5	82	614	2861	0.16	29.25	-4.27
204	SLV 6	86	616	2858	0.18	30.12	-2.28
204	SLV 7	141	-351	2496	5.81	16.51	-2.9
204	SLV 8	145	-349	2493	5.82	17.38	-0.92
204	SLV 9	-181	593	2831	0.31	4.7	-3.25
204	SLV 10	-176	594	2828	0.32	5.57	-1.27
204	SLV 11	-121	-373	2466	5.95	-8.04	-1.88
204	SLV 12	-117	-371	2463	5.97	-7.16	0.1
204	SLV 13	-466	229	2668	2.45	-28.39	-1.58
204	SLV 14	-461	231	2665	2.47	-27.52	0.39
204	SLV 15	-448	-60	2558	4.15	-32.21	-1.17
204	SLV 16	-443	-58	2555	4.17	-31.35	0.8
204	CRTFP Ux+	0	0	0	0	0	0
204	CRTFP Ux-	0	0	0	0	0	0
204	CRTFP Uy+	0	0	0	0	0	0
204	CRTFP Uy-	0	0	0	0	0	0
206	SLU 1	-21	-9	1955	0.56	-5.56	-0.04
206	SLU 2	-26	-10	1971	0.55	-5.68	-0.05
206	SLU 3	-21	-9	1955	0.56	-5.56	-0.04
206	SLU 4	-24	-10	1965	0.55	-5.63	-0.05
206	SLU 5	-26	-10	1971	0.55	-5.68	-0.05
206	SLU 6	-21	-9	1955	0.56	-5.56	-0.04
206	SLU 7	-24	-10	1965	0.55	-5.63	-0.05
206	SLU 8	-21	-9	1955	0.56	-5.56	-0.04
206	SLU 9	-24	-10	1965	0.55	-5.63	-0.05
206	SLU 10	-28	-8	2282	0.69	-5.83	-0.06
206	SLU 11	-24	-8	2266	0.7	-5.71	-0.05
206	SLU 12	-27	-8	2275	0.7	-5.78	-0.06
206	SLU 13	-28	-8	2282	0.69	-5.83	-0.06
206	SLU 14	-24	-8	2266	0.7	-5.71	-0.05
206	SLU 15	-27	-8	2275	0.7	-5.78	-0.06
206	SLU 16	-24	-8	2266	0.7	-5.71	-0.05
206	SLU 17	-27	-8	2275	0.7	-5.78	-0.06
206	SLU 18	-25	-7	2399	0.76	-5.77	-0.06
206	SLU 19	-28	-7	2409	0.76	-5.85	-0.06
206	SLU 20	-25	-7	2399	0.76	-5.77	-0.06
206	SLU 21	-28	-7	2409	0.76	-5.85	-0.06
206	SLU 22	-23	-8	2184	0.65	-5.81	-0.05
206	SLU 23	-28	-9	2201	0.65	-5.93	-0.06
206	SLU 24	-23	-8	2184	0.65	-5.81	-0.05
206	SLU 25	-26	-9	2194	0.65	-5.88	-0.05
206	SLU 26	-28	-9	2201	0.65	-5.93	-0.06
206	SLU 27	-23	-8	2184	0.65	-5.81	-0.05
206	SLU 28	-26	-9	2194	0.65	-5.88	-0.05
206	SLU 29	-23	-8	2184	0.65	-5.81	-0.05
206	SLU 30	-26	-9	2194	0.65	-5.88	-0.05
206	SLU 31	-30	-7	2511	0.79	-6.08	-0.06
206	SLU 32	-26	-7	2495	0.8	-5.96	-0.06
206	SLU 33	-28	-7	2505	0.79	-6.03	-0.06
206	SLU 34	-30	-7	2511	0.79	-6.08	-0.06
206	SLU 35	-26	-7	2495	0.8	-5.96	-0.06
206	SLU 36	-28	-7	2505	0.79	-6.03	-0.06
206	SLU 37	-26	-7	2495	0.8	-5.96	-0.06
206	SLU 38	-28	-7	2505	0.79	-6.03	-0.06
206	SLU 39	-27	-6	2628	0.86	-6.02	-0.06
206	SLU 40	-30	-6	2638	0.85	-6.1	-0.07

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
206	SLU 41	-27	-6	2628	0.86	-6.02	-0.06
206	SLU 42	-30	-6	2638	0.85	-6.1	-0.07
206	SLU 43	-27	-12	2463	0.69	-7.14	-0.06
206	SLU 44	-32	-13	2479	0.69	-7.26	-0.06
206	SLU 45	-27	-12	2463	0.69	-7.14	-0.06
206	SLU 46	-30	-13	2473	0.69	-7.21	-0.06
206	SLU 47	-32	-13	2479	0.69	-7.26	-0.06
206	SLU 48	-27	-12	2463	0.69	-7.14	-0.06
206	SLU 49	-30	-13	2473	0.69	-7.21	-0.06
206	SLU 50	-27	-12	2463	0.69	-7.14	-0.06
206	SLU 51	-30	-13	2473	0.69	-7.21	-0.06
206	SLU 52	-34	-11	2790	0.83	-7.41	-0.07
206	SLU 53	-29	-11	2774	0.83	-7.29	-0.06
206	SLU 54	-32	-11	2783	0.83	-7.36	-0.07
206	SLU 55	-34	-11	2790	0.83	-7.41	-0.07
206	SLU 56	-29	-11	2774	0.83	-7.29	-0.06
206	SLU 57	-32	-11	2783	0.83	-7.36	-0.07
206	SLU 58	-29	-11	2774	0.83	-7.29	-0.06
206	SLU 59	-32	-11	2783	0.83	-7.36	-0.07
206	SLU 60	-31	-10	2907	0.89	-7.35	-0.07
206	SLU 61	-33	-10	2917	0.89	-7.43	-0.07
206	SLU 62	-31	-10	2907	0.89	-7.35	-0.07
206	SLU 63	-33	-10	2917	0.89	-7.43	-0.07
206	SLU 64	-29	-12	2692	0.79	-7.39	-0.06
206	SLU 65	-33	-12	2708	0.78	-7.51	-0.07
206	SLU 66	-29	-12	2692	0.79	-7.39	-0.06
206	SLU 67	-32	-12	2702	0.78	-7.46	-0.06
206	SLU 68	-33	-12	2708	0.78	-7.51	-0.07
206	SLU 69	-29	-12	2692	0.79	-7.39	-0.06
206	SLU 70	-32	-12	2702	0.78	-7.46	-0.06
206	SLU 71	-29	-12	2692	0.79	-7.39	-0.06
206	SLU 72	-32	-12	2702	0.78	-7.46	-0.06
206	SLU 73	-36	-11	3019	0.92	-7.66	-0.08
206	SLU 74	-31	-10	3003	0.93	-7.54	-0.07
206	SLU 75	-34	-10	3013	0.93	-7.61	-0.07
206	SLU 76	-36	-11	3019	0.92	-7.66	-0.08
206	SLU 77	-31	-10	3003	0.93	-7.54	-0.07
206	SLU 78	-34	-10	3013	0.93	-7.61	-0.07
206	SLU 79	-31	-10	3003	0.93	-7.54	-0.07
206	SLU 80	-34	-10	3013	0.93	-7.61	-0.07
206	SLU 81	-32	-9	3136	0.99	-7.6	-0.07
206	SLU 82	-35	-9	3146	0.99	-7.68	-0.08
206	SLU 83	-32	-9	3136	0.99	-7.6	-0.07
206	SLU 84	-35	-9	3146	0.99	-7.68	-0.08
206	SLE RA 1	-22	-9	2021	0.58	-5.63	-0.05
206	SLE RA 2	-25	-10	2031	0.58	-5.71	-0.05
206	SLE RA 3	-22	-9	2021	0.58	-5.63	-0.05
206	SLE RA 4	-24	-9	2027	0.58	-5.68	-0.05
206	SLE RA 5	-25	-10	2031	0.58	-5.71	-0.05
206	SLE RA 6	-22	-9	2021	0.58	-5.63	-0.05
206	SLE RA 7	-24	-9	2027	0.58	-5.68	-0.05
206	SLE RA 8	-22	-9	2021	0.58	-5.63	-0.05
206	SLE RA 9	-24	-9	2027	0.58	-5.68	-0.05
206	SLE RA 10	-27	-8	2239	0.68	-5.81	-0.06
206	SLE RA 11	-23	-8	2228	0.68	-5.73	-0.05
206	SLE RA 12	-25	-8	2234	0.68	-5.78	-0.05
206	SLE RA 13	-27	-8	2239	0.68	-5.81	-0.06
206	SLE RA 14	-23	-8	2228	0.68	-5.73	-0.05
206	SLE RA 15	-25	-8	2234	0.68	-5.78	-0.05
206	SLE RA 16	-23	-8	2228	0.68	-5.73	-0.05
206	SLE RA 17	-25	-8	2234	0.68	-5.78	-0.05
206	SLE RA 18	-24	-7	2317	0.72	-5.77	-0.05
206	SLE RA 19	-26	-8	2323	0.72	-5.82	-0.06
206	SLE RA 20	-24	-7	2317	0.72	-5.77	-0.05
206	SLE RA 21	-26	-8	2323	0.72	-5.82	-0.06
206	SLE FR 1	-22	-9	2021	0.58	-5.63	-0.05
206	SLE FR 2	-22	-9	2023	0.58	-5.65	-0.05
206	SLE FR 3	-22	-9	2021	0.58	-5.63	-0.05
206	SLE FR 4	-23	-9	2112	0.62	-5.69	-0.05
206	SLE FR 5	-22	-9	2109	0.62	-5.67	-0.05
206	SLE FR 6	-23	-8	2169	0.65	-5.7	-0.05
206	SLE QP 1	-22	-9	2021	0.58	-5.63	-0.05
206	SLE QP 2	-22	-9	2109	0.62	-5.67	-0.05
206	SLD 1	58	45	1850	0.51	-19.49	0.03
206	SLD 2	58	77	1853	0.49	-19.52	0.09
206	SLD 3	68	-44	1838	1	-20.4	0.04
206	SLD 4	68	-12	1841	0.98	-20.43	0.1
206	SLD 5	-13	131	2050	-0.14	-8.42	-0.07
206	SLD 6	-13	163	2053	-0.17	-8.45	0
206	SLD 7	20	-165	2008	1.49	-11.47	-0.02
206	SLD 8	19	-133	2011	1.46	-11.5	0.04
206	SLD 9	-64	116	2208	-0.21	0.16	-0.13
206	SLD 10	-64	148	2211	-0.24	0.12	-0.07
206	SLD 11	-32	-180	2166	1.42	-2.89	-0.09
206	SLD 12	-32	-148	2169	1.39	-2.93	-0.03
206	SLD 13	-113	-5	2378	0.27	9.09	-0.2

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
206	SLD 14	-113	27	2381	0.25	9.06	-0.13
206	SLD 15	-103	-94	2365	0.76	8.18	-0.18
206	SLD 16	-103	-62	2368	0.74	8.14	-0.12
206	SLV 1	161	114	1521	0.37	-37.8	0.12
206	SLV 2	160	186	1528	0.31	-37.88	0.27
206	SLV 3	183	-88	1492	1.48	-39.93	0.15
206	SLV 4	182	-16	1499	1.42	-40.01	0.3
206	SLV 5	-1	309	1974	-1.12	-12.06	-0.09
206	SLV 6	-1	382	1981	-1.17	-12.13	0.05
206	SLV 7	73	-364	1878	2.59	-19.15	0.01
206	SLV 8	73	-291	1885	2.53	-19.23	0.15
206	SLV 9	-117	274	2334	-1.28	7.88	-0.25
206	SLV 10	-118	347	2340	-1.34	7.81	-0.1
206	SLV 11	-43	-399	2238	2.42	0.79	-0.15
206	SLV 12	-44	-326	2245	2.37	0.71	0
206	SLV 13	-227	-2	2720	-0.17	28.67	-0.39
206	SLV 14	-228	71	2726	-0.23	28.59	-0.25
206	SLV 15	-205	-204	2691	0.94	26.54	-0.36
206	SLV 16	-205	-131	2698	0.88	26.46	-0.22
206	CRTFP Ux+	0	0	0	0	0	0
206	CRTFP Ux-	0	0	0	0	0	0
206	CRTFP Uy+	0	0	0	0	0	0
206	CRTFP Uy-	0	0	0	0	0	0
207	SLU 1	-57	-38	1725	-48.67	-514.28	-15.01
207	SLU 2	-60	-38	1712	-48.29	-511.16	-14.96
207	SLU 3	-57	-38	1725	-48.67	-514.28	-15.01
207	SLU 4	-59	-38	1717	-48.44	-512.4	-14.98
207	SLU 5	-60	-38	1712	-48.29	-511.16	-14.96
207	SLU 6	-57	-38	1725	-48.67	-514.28	-15.01
207	SLU 7	-59	-38	1717	-48.44	-512.4	-14.98
207	SLU 8	-57	-38	1725	-48.67	-514.28	-15.01
207	SLU 9	-59	-38	1717	-48.44	-512.4	-14.98
207	SLU 10	-73	-44	2000	-56.44	-594.69	-17.51
207	SLU 11	-70	-45	2013	-56.83	-597.81	-17.56
207	SLU 12	-72	-44	2005	-56.59	-595.94	-17.53
207	SLU 13	-73	-44	2000	-56.44	-594.69	-17.51
207	SLU 14	-70	-45	2013	-56.83	-597.81	-17.56
207	SLU 15	-72	-44	2005	-56.59	-595.94	-17.53
207	SLU 16	-70	-45	2013	-56.83	-597.81	-17.56
207	SLU 17	-72	-44	2005	-56.59	-595.94	-17.53
207	SLU 18	-75	-47	2136	-60.32	-633.61	-18.65
207	SLU 19	-78	-47	2128	-60.09	-631.74	-18.62
207	SLU 20	-75	-47	2136	-60.32	-633.61	-18.65
207	SLU 21	-78	-47	2128	-60.09	-631.74	-18.62
207	SLU 22	-65	-42	1935	-54.62	-575.47	-16.47
207	SLU 23	-69	-41	1922	-54.23	-572.35	-16.42
207	SLU 24	-65	-42	1935	-54.62	-575.47	-16.47
207	SLU 25	-67	-42	1927	-54.39	-573.6	-16.44
207	SLU 26	-69	-41	1922	-54.23	-572.35	-16.42
207	SLU 27	-65	-42	1935	-54.62	-575.47	-16.47
207	SLU 28	-67	-42	1927	-54.39	-573.6	-16.44
207	SLU 29	-65	-42	1935	-54.62	-575.47	-16.47
207	SLU 30	-67	-42	1927	-54.39	-573.6	-16.44
207	SLU 31	-82	-48	2210	-62.39	-655.89	-18.97
207	SLU 32	-78	-48	2223	-62.77	-659.01	-19.02
207	SLU 33	-80	-48	2215	-62.54	-657.13	-18.99
207	SLU 34	-82	-48	2210	-62.39	-655.89	-18.97
207	SLU 35	-78	-48	2223	-62.77	-659.01	-19.02
207	SLU 36	-80	-48	2215	-62.54	-657.13	-18.99
207	SLU 37	-78	-48	2223	-62.77	-659.01	-19.02
207	SLU 38	-80	-48	2215	-62.54	-657.13	-18.99
207	SLU 39	-84	-51	2346	-66.26	-694.81	-20.12
207	SLU 40	-86	-51	2338	-66.03	-692.94	-20.08
207	SLU 41	-84	-51	2346	-66.26	-694.81	-20.12
207	SLU 42	-86	-51	2338	-66.03	-692.94	-20.08
207	SLU 43	-71	-49	2171	-61.24	-647.58	-19.01
207	SLU 44	-74	-48	2158	-60.85	-644.46	-18.96
207	SLU 45	-71	-49	2171	-61.24	-647.58	-19.01
207	SLU 46	-73	-48	2163	-61.01	-645.7	-18.98
207	SLU 47	-74	-48	2158	-60.85	-644.46	-18.96
207	SLU 48	-71	-49	2171	-61.24	-647.58	-19.01
207	SLU 49	-73	-48	2163	-61.01	-645.7	-18.98
207	SLU 50	-71	-49	2171	-61.24	-647.58	-19.01
207	SLU 51	-73	-48	2163	-61.01	-645.7	-18.98
207	SLU 52	-88	-54	2445	-69	-727.99	-21.51
207	SLU 53	-84	-55	2459	-69.39	-731.11	-21.56
207	SLU 54	-86	-55	2451	-69.16	-729.24	-21.53
207	SLU 55	-88	-54	2445	-69	-727.99	-21.51
207	SLU 56	-84	-55	2459	-69.39	-731.11	-21.56
207	SLU 57	-86	-55	2451	-69.16	-729.24	-21.53
207	SLU 58	-84	-55	2459	-69.39	-731.11	-21.56
207	SLU 59	-86	-55	2451	-69.16	-729.24	-21.53
207	SLU 60	-89	-58	2582	-72.88	-766.91	-22.65
207	SLU 61	-92	-57	2574	-72.65	-765.04	-22.62
207	SLU 62	-89	-58	2582	-72.88	-766.91	-22.65
207	SLU 63	-92	-57	2574	-72.65	-765.04	-22.62

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
207	SLU 64	-79	-52	2381	-67.18	-708.77	-20.48
207	SLU 65	-83	-52	2367	-66.8	-705.65	-20.42
207	SLU 66	-79	-52	2381	-67.18	-708.77	-20.48
207	SLU 67	-81	-52	2373	-66.95	-706.9	-20.44
207	SLU 68	-83	-52	2367	-66.8	-705.65	-20.42
207	SLU 69	-79	-52	2381	-67.18	-708.77	-20.48
207	SLU 70	-81	-52	2373	-66.95	-706.9	-20.44
207	SLU 71	-79	-52	2381	-67.18	-708.77	-20.48
207	SLU 72	-81	-52	2373	-66.95	-706.9	-20.44
207	SLU 73	-96	-58	2655	-74.95	-789.19	-22.97
207	SLU 74	-92	-58	2669	-75.34	-792.31	-23.03
207	SLU 75	-94	-58	2661	-75.1	-790.44	-22.99
207	SLU 76	-96	-58	2655	-74.95	-789.19	-22.97
207	SLU 77	-92	-58	2669	-75.34	-792.31	-23.03
207	SLU 78	-94	-58	2661	-75.1	-790.44	-22.99
207	SLU 79	-92	-58	2669	-75.34	-792.31	-23.03
207	SLU 80	-94	-58	2661	-75.1	-790.44	-22.99
207	SLU 81	-98	-61	2792	-78.83	-828.11	-24.12
207	SLU 82	-100	-61	2784	-78.6	-826.24	-24.09
207	SLU 83	-98	-61	2792	-78.83	-828.11	-24.12
207	SLU 84	-100	-61	2784	-78.6	-826.24	-24.09
207	SLE RA 1	-59	-39	1785	-50.37	-531.76	-15.43
207	SLE RA 2	-61	-39	1776	-50.12	-529.68	-15.39
207	SLE RA 3	-59	-39	1785	-50.37	-531.76	-15.43
207	SLE RA 4	-60	-39	1780	-50.22	-530.51	-15.41
207	SLE RA 5	-61	-39	1776	-50.12	-529.68	-15.39
207	SLE RA 6	-59	-39	1785	-50.37	-531.76	-15.43
207	SLE RA 7	-60	-39	1780	-50.22	-530.51	-15.41
207	SLE RA 8	-59	-39	1785	-50.37	-531.76	-15.43
207	SLE RA 9	-60	-39	1780	-50.22	-530.51	-15.41
207	SLE RA 10	-70	-43	1968	-55.55	-585.37	-17.09
207	SLE RA 11	-68	-44	1977	-55.81	-587.45	-17.13
207	SLE RA 12	-69	-43	1972	-55.65	-586.2	-17.11
207	SLE RA 13	-70	-43	1968	-55.55	-585.37	-17.09
207	SLE RA 14	-68	-44	1977	-55.81	-587.45	-17.13
207	SLE RA 15	-69	-43	1972	-55.65	-586.2	-17.11
207	SLE RA 16	-68	-44	1977	-55.81	-587.45	-17.13
207	SLE RA 17	-69	-43	1972	-55.65	-586.2	-17.11
207	SLE RA 18	-71	-45	2059	-58.14	-611.32	-17.86
207	SLE RA 19	-73	-45	2054	-57.98	-610.07	-17.84
207	SLE RA 20	-71	-45	2059	-58.14	-611.32	-17.86
207	SLE RA 21	-73	-45	2054	-57.98	-610.07	-17.84
207	SLE FR 1	-59	-39	1785	-50.37	-531.76	-15.43
207	SLE FR 2	-59	-39	1784	-50.32	-531.34	-15.42
207	SLE FR 3	-59	-39	1785	-50.37	-531.76	-15.43
207	SLE FR 4	-63	-41	1866	-52.65	-555.21	-16.15
207	SLE FR 5	-63	-41	1868	-52.7	-555.63	-16.16
207	SLE FR 6	-65	-42	1922	-54.26	-571.54	-16.64
207	SLE QP 1	-59	-39	1785	-50.37	-531.76	-15.43
207	SLE QP 2	-63	-41	1868	-52.7	-555.63	-16.16
207	SLD 1	21	-13	2097	-59.48	-611.26	-6.45
207	SLD 2	20	-40	2097	-59.45	-610.97	-16.07
207	SLD 3	17	-86	2088	-59.05	-609.6	-32.02
207	SLD 4	15	-113	2088	-59.01	-609.31	-41.64
207	SLD 5	-30	88	1950	-55.41	-574.94	28.94
207	SLD 6	-32	60	1950	-55.37	-574.65	19.25
207	SLD 7	-45	-156	1920	-53.96	-569.4	-56.3
207	SLD 8	-46	-183	1920	-53.93	-569.11	-65.99
207	SLD 9	-79	101	1815	-51.48	-542.14	33.67
207	SLD 10	-81	73	1815	-51.45	-541.85	23.98
207	SLD 11	-93	-142	1785	-50.03	-536.61	-51.57
207	SLD 12	-95	-170	1785	-50	-536.32	-61.25
207	SLD 13	-141	31	1647	-46.39	-501.95	9.32
207	SLD 14	-142	4	1647	-46.36	-501.66	-0.29
207	SLD 15	-145	-42	1638	-45.96	-500.29	-16.25
207	SLD 16	-147	-69	1638	-45.92	-500	-25.86
207	SLV 1	128	22	2389	-68.11	-682.07	5.67
207	SLV 2	124	-40	2388	-68.03	-681.42	-16.11
207	SLV 3	118	-143	2369	-67.12	-678.25	-52.45
207	SLV 4	114	-206	2368	-67.05	-677.6	-74.22
207	SLV 5	11	252	2056	-58.85	-599.58	86.22
207	SLV 6	7	189	2054	-58.77	-598.93	64.3
207	SLV 7	-22	-301	1987	-55.56	-586.85	-107.49
207	SLV 8	-26	-364	1986	-55.48	-586.2	-129.41
207	SLV 9	-100	282	1749	-49.92	-525.06	97.09
207	SLV 10	-104	219	1748	-49.85	-524.4	75.17
207	SLV 11	-132	-271	1681	-46.63	-512.33	-96.62
207	SLV 12	-136	-334	1679	-46.56	-511.67	-118.54
207	SLV 13	-240	123	1367	-38.36	-433.66	41.91
207	SLV 14	-244	61	1366	-38.28	-433	20.13
207	SLV 15	-250	-42	1347	-37.37	-429.84	-16.21
207	SLV 16	-254	-105	1346	-37.3	-429.18	-37.98
207	CRTFP Ux+	0	0	0	0	0	0
207	CRTFP Ux-	0	0	0	0	0	0
207	CRTFP Uy+	0	0	0	0	0	0
207	CRTFP Uy-	0	0	0	0	0	0

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
210	SLU 1	-7	116	2429	2.62	10.17	-1.85
210	SLU 2	-19	115	2428	2.62	9.06	-1.79
210	SLU 3	-7	116	2429	2.62	10.17	-1.85
210	SLU 4	-14	115	2428	2.62	9.5	-1.81
210	SLU 5	-19	115	2428	2.62	9.06	-1.79
210	SLU 6	-7	116	2429	2.62	10.17	-1.85
210	SLU 7	-14	115	2428	2.62	9.5	-1.81
210	SLU 8	-7	116	2429	2.62	10.17	-1.85
210	SLU 9	-14	115	2428	2.62	9.5	-1.81
210	SLU 10	-17	132	3115	4.05	9.48	-2.09
210	SLU 11	-6	132	3116	4.04	10.6	-2.15
210	SLU 12	-13	132	3115	4.05	9.93	-2.11
210	SLU 13	-17	132	3115	4.05	9.48	-2.09
210	SLU 14	-6	132	3116	4.04	10.6	-2.15
210	SLU 15	-13	132	3115	4.05	9.93	-2.11
210	SLU 16	-6	132	3116	4.04	10.6	-2.15
210	SLU 17	-13	132	3115	4.05	9.93	-2.11
210	SLU 18	-5	139	3411	4.65	10.78	-2.28
210	SLU 19	-12	139	3410	4.66	10.11	-2.24
210	SLU 20	-5	139	3411	4.65	10.78	-2.28
210	SLU 21	-12	139	3410	4.66	10.11	-2.24
210	SLU 22	-7	126	2901	3.42	10.5	-2.04
210	SLU 23	-18	125	2900	3.43	9.39	-1.98
210	SLU 24	-7	126	2901	3.42	10.5	-2.04
210	SLU 25	-14	125	2900	3.42	9.84	-2
210	SLU 26	-18	125	2900	3.43	9.39	-1.98
210	SLU 27	-7	126	2901	3.42	10.5	-2.04
210	SLU 28	-14	125	2900	3.42	9.84	-2
210	SLU 29	-7	126	2901	3.42	10.5	-2.04
210	SLU 30	-14	125	2900	3.42	9.84	-2
210	SLU 31	-17	142	3587	4.85	9.82	-2.28
210	SLU 32	-5	142	3588	4.85	10.93	-2.34
210	SLU 33	-12	142	3587	4.85	10.26	-2.3
210	SLU 34	-17	142	3587	4.85	9.82	-2.28
210	SLU 35	-5	142	3588	4.85	10.93	-2.34
210	SLU 36	-12	142	3587	4.85	10.26	-2.3
210	SLU 37	-5	142	3588	4.85	10.93	-2.34
210	SLU 38	-12	142	3587	4.85	10.26	-2.3
210	SLU 39	-5	149	3883	5.46	11.11	-2.46
210	SLU 40	-12	149	3882	5.46	10.45	-2.43
210	SLU 41	-5	149	3883	5.46	11.11	-2.46
210	SLU 42	-12	149	3882	5.46	10.45	-2.43
210	SLU 43	-10	147	2996	3.13	13.11	-2.33
210	SLU 44	-21	146	2994	3.13	11.99	-2.27
210	SLU 45	-10	147	2996	3.13	13.11	-2.33
210	SLU 46	-17	147	2995	3.13	12.44	-2.3
210	SLU 47	-21	146	2994	3.13	11.99	-2.27
210	SLU 48	-10	147	2996	3.13	13.11	-2.33
210	SLU 49	-17	147	2995	3.13	12.44	-2.3
210	SLU 50	-10	147	2996	3.13	13.11	-2.33
210	SLU 51	-17	147	2995	3.13	12.44	-2.3
210	SLU 52	-20	163	3681	4.56	12.42	-2.57
210	SLU 53	-8	163	3683	4.55	13.53	-2.63
210	SLU 54	-15	163	3682	4.56	12.87	-2.6
210	SLU 55	-20	163	3681	4.56	12.42	-2.57
210	SLU 56	-8	163	3683	4.55	13.53	-2.63
210	SLU 57	-15	163	3682	4.56	12.87	-2.6
210	SLU 58	-8	163	3683	4.55	13.53	-2.63
210	SLU 59	-15	163	3682	4.56	12.87	-2.6
210	SLU 60	-8	170	3977	5.17	13.72	-2.76
210	SLU 61	-15	170	3977	5.17	13.05	-2.73
210	SLU 62	-8	170	3977	5.17	13.72	-2.76
210	SLU 63	-15	170	3977	5.17	13.05	-2.73
210	SLU 64	-9	157	3468	3.93	13.44	-2.52
210	SLU 65	-21	157	3466	3.94	12.33	-2.46
210	SLU 66	-9	157	3468	3.93	13.44	-2.52
210	SLU 67	-16	157	3467	3.93	12.77	-2.49
210	SLU 68	-21	157	3466	3.94	12.33	-2.46
210	SLU 69	-9	157	3468	3.93	13.44	-2.52
210	SLU 70	-16	157	3467	3.93	12.77	-2.49
210	SLU 71	-9	157	3468	3.93	13.44	-2.52
210	SLU 72	-16	157	3467	3.93	12.77	-2.49
210	SLU 73	-19	173	4154	5.36	12.75	-2.76
210	SLU 74	-8	173	4155	5.36	13.87	-2.82
210	SLU 75	-15	173	4154	5.36	13.2	-2.79
210	SLU 76	-19	173	4154	5.36	12.75	-2.76
210	SLU 77	-8	173	4155	5.36	13.87	-2.82
210	SLU 78	-15	173	4154	5.36	13.2	-2.79
210	SLU 79	-8	173	4155	5.36	13.87	-2.82
210	SLU 80	-15	173	4154	5.36	13.2	-2.79
210	SLU 81	-7	180	4450	5.97	14.05	-2.95
210	SLU 82	-14	180	4449	5.97	13.38	-2.92
210	SLU 83	-7	180	4450	5.97	14.05	-2.95
210	SLU 84	-14	180	4449	5.97	13.38	-2.92
210	SLE RA 1	-7	118	2564	2.85	10.27	-1.9
210	SLE RA 2	-15	118	2563	2.85	9.52	-1.86

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
210	SLE RA 3	-7	118	2564	2.85	10.27	-1.9
210	SLE RA 4	-12	118	2563	2.85	9.82	-1.88
210	SLE RA 5	-15	118	2563	2.85	9.52	-1.86
210	SLE RA 6	-7	118	2564	2.85	10.27	-1.9
210	SLE RA 7	-12	118	2563	2.85	9.82	-1.88
210	SLE RA 8	-7	118	2564	2.85	10.27	-1.9
210	SLE RA 9	-12	118	2563	2.85	9.82	-1.88
210	SLE RA 10	-14	129	3021	3.8	9.81	-2.06
210	SLE RA 11	-6	129	3022	3.8	10.55	-2.1
210	SLE RA 12	-11	129	3021	3.8	10.1	-2.08
210	SLE RA 13	-14	129	3021	3.8	9.81	-2.06
210	SLE RA 14	-6	129	3022	3.8	10.55	-2.1
210	SLE RA 15	-11	129	3021	3.8	10.1	-2.08
210	SLE RA 16	-6	129	3022	3.8	10.55	-2.1
210	SLE RA 17	-11	129	3021	3.8	10.1	-2.08
210	SLE RA 18	-6	134	3218	4.21	10.67	-2.19
210	SLE RA 19	-10	134	3218	4.21	10.23	-2.16
210	SLE RA 20	-6	134	3218	4.21	10.67	-2.19
210	SLE RA 21	-10	134	3218	4.21	10.23	-2.16
210	SLE FR 1	-7	118	2564	2.85	10.27	-1.9
210	SLE FR 2	-9	118	2564	2.85	10.12	-1.89
210	SLE FR 3	-7	118	2564	2.85	10.27	-1.9
210	SLE FR 4	-8	123	2760	3.26	10.24	-1.98
210	SLE FR 5	-7	123	2760	3.26	10.39	-1.99
210	SLE FR 6	-7	126	2891	3.53	10.47	-2.04
210	SLE QP 1	-7	118	2564	2.85	10.27	-1.9
210	SLE QP 2	-7	123	2760	3.26	10.39	-1.99
210	SLD 1	186	202	2793	2.78	28.32	-3.56
210	SLD 2	183	203	2792	2.78	28.69	-2.65
210	SLD 3	194	75	2768	3.54	26.71	-3.38
210	SLD 4	191	76	2767	3.54	27.09	-2.47
210	SLD 5	40	340	2808	1.96	18.06	-3.05
210	SLD 6	37	341	2807	1.97	18.45	-2.14
210	SLD 7	67	-85	2725	4.49	12.72	-2.45
210	SLD 8	64	-85	2724	4.5	13.1	-1.54
210	SLD 9	-78	331	2796	2.01	7.67	-2.43
210	SLD 10	-80	332	2796	2.02	8.06	-1.52
210	SLD 11	-51	-95	2713	4.55	2.33	-1.83
210	SLD 12	-53	-94	2712	4.56	2.71	-0.92
210	SLD 13	-205	171	2753	2.97	-6.32	-1.5
210	SLD 14	-208	172	2753	2.98	-5.94	-0.59
210	SLD 15	-197	43	2728	3.73	-7.92	-1.32
210	SLD 16	-200	44	2727	3.74	-7.54	-0.41
210	SLV 1	432	304	2834	2.17	51.17	-5.56
210	SLV 2	425	305	2832	2.18	52.02	-3.51
210	SLV 3	450	13	2777	3.89	47.53	-5.15
210	SLV 4	444	15	2775	3.91	48.39	-3.1
210	SLV 5	99	617	2870	0.3	27.84	-4.41
210	SLV 6	93	619	2867	0.32	28.7	-2.35
210	SLV 7	160	-351	2680	6.06	15.71	-3.03
210	SLV 8	154	-349	2677	6.08	16.57	-0.97
210	SLV 9	-168	595	2843	0.44	4.21	-3
210	SLV 10	-174	597	2841	0.45	5.07	-0.94
210	SLV 11	-106	-372	2653	6.19	-7.92	-1.62
210	SLV 12	-113	-371	2651	6.21	-7.06	0.44
210	SLV 13	-458	231	2745	2.6	-27.61	-0.87
210	SLV 14	-464	233	2743	2.62	-26.76	1.18
210	SLV 15	-439	-59	2688	4.33	-31.25	-0.46
210	SLV 16	-445	-57	2686	4.35	-30.39	1.59
210	CRTFP Ux+	0	0	0	0	0	0
210	CRTFP Ux-	0	0	0	0	0	0
210	CRTFP Uy+	0	0	0	0	0	0
210	CRTFP Uy-	0	0	0	0	0	0
212	SLU 1	-19	-9	1969	0.34	-1.81	-0.07
212	SLU 2	-24	-10	1985	0.34	-1.91	-0.08
212	SLU 3	-19	-9	1969	0.34	-1.81	-0.07
212	SLU 4	-22	-10	1978	0.34	-1.87	-0.08
212	SLU 5	-24	-10	1985	0.34	-1.91	-0.08
212	SLU 6	-19	-9	1969	0.34	-1.81	-0.07
212	SLU 7	-22	-10	1978	0.34	-1.87	-0.08
212	SLU 8	-19	-9	1969	0.34	-1.81	-0.07
212	SLU 9	-22	-10	1978	0.34	-1.87	-0.08
212	SLU 10	-26	-8	2299	0.45	-1.57	-0.09
212	SLU 11	-22	-8	2283	0.46	-1.46	-0.09
212	SLU 12	-24	-8	2293	0.45	-1.53	-0.09
212	SLU 13	-26	-8	2299	0.45	-1.57	-0.09
212	SLU 14	-22	-8	2283	0.46	-1.46	-0.09
212	SLU 15	-24	-8	2293	0.45	-1.53	-0.09
212	SLU 16	-22	-8	2283	0.46	-1.46	-0.09
212	SLU 17	-24	-8	2293	0.45	-1.53	-0.09
212	SLU 18	-23	-7	2418	0.51	-1.32	-0.09
212	SLU 19	-25	-7	2428	0.5	-1.38	-0.1
212	SLU 20	-23	-7	2418	0.51	-1.32	-0.09
212	SLU 21	-25	-7	2428	0.5	-1.38	-0.1
212	SLU 22	-21	-8	2201	0.42	-1.7	-0.08
212	SLU 23	-26	-9	2217	0.41	-1.81	-0.09

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
212	SLU 24	-21	-8	2201	0.42	-1.7	-0.08
212	SLU 25	-24	-9	2210	0.41	-1.77	-0.08
212	SLU 26	-26	-9	2217	0.41	-1.81	-0.09
212	SLU 27	-21	-8	2201	0.42	-1.7	-0.08
212	SLU 28	-24	-9	2210	0.41	-1.77	-0.08
212	SLU 29	-21	-8	2201	0.42	-1.7	-0.08
212	SLU 30	-24	-9	2210	0.41	-1.77	-0.08
212	SLU 31	-28	-7	2532	0.53	-1.47	-0.1
212	SLU 32	-23	-7	2516	0.53	-1.36	-0.1
212	SLU 33	-26	-7	2525	0.53	-1.43	-0.1
212	SLU 34	-28	-7	2532	0.53	-1.47	-0.1
212	SLU 35	-23	-7	2516	0.53	-1.36	-0.1
212	SLU 36	-26	-7	2525	0.53	-1.43	-0.1
212	SLU 37	-23	-7	2516	0.53	-1.36	-0.1
212	SLU 38	-26	-7	2525	0.53	-1.43	-0.1
212	SLU 39	-24	-6	2650	0.58	-1.22	-0.1
212	SLU 40	-27	-6	2660	0.58	-1.28	-0.1
212	SLU 41	-24	-6	2650	0.58	-1.22	-0.1
212	SLU 42	-27	-6	2660	0.58	-1.28	-0.1
212	SLU 43	-25	-12	2480	0.42	-2.38	-0.09
212	SLU 44	-29	-13	2496	0.41	-2.49	-0.1
212	SLU 45	-25	-12	2480	0.42	-2.38	-0.09
212	SLU 46	-27	-13	2489	0.41	-2.45	-0.09
212	SLU 47	-29	-13	2496	0.41	-2.49	-0.1
212	SLU 48	-25	-12	2480	0.42	-2.38	-0.09
212	SLU 49	-27	-13	2489	0.41	-2.45	-0.09
212	SLU 50	-25	-12	2480	0.42	-2.38	-0.09
212	SLU 51	-27	-13	2489	0.41	-2.45	-0.09
212	SLU 52	-31	-11	2811	0.53	-2.15	-0.11
212	SLU 53	-27	-11	2795	0.53	-2.04	-0.11
212	SLU 54	-30	-11	2804	0.53	-2.1	-0.11
212	SLU 55	-31	-11	2811	0.53	-2.15	-0.11
212	SLU 56	-27	-11	2795	0.53	-2.04	-0.11
212	SLU 57	-30	-11	2804	0.53	-2.1	-0.11
212	SLU 58	-27	-11	2795	0.53	-2.04	-0.11
212	SLU 59	-30	-11	2804	0.53	-2.1	-0.11
212	SLU 60	-28	-10	2929	0.58	-1.89	-0.11
212	SLU 61	-31	-10	2939	0.58	-1.96	-0.11
212	SLU 62	-28	-10	2929	0.58	-1.89	-0.11
212	SLU 63	-31	-10	2939	0.58	-1.96	-0.11
212	SLU 64	-26	-12	2712	0.49	-2.28	-0.1
212	SLU 65	-31	-12	2728	0.49	-2.39	-0.11
212	SLU 66	-26	-12	2712	0.49	-2.28	-0.1
212	SLU 67	-29	-12	2721	0.49	-2.35	-0.1
212	SLU 68	-31	-12	2728	0.49	-2.39	-0.11
212	SLU 69	-26	-12	2712	0.49	-2.28	-0.1
212	SLU 70	-29	-12	2721	0.49	-2.35	-0.1
212	SLU 71	-26	-12	2712	0.49	-2.28	-0.1
212	SLU 72	-29	-12	2721	0.49	-2.35	-0.1
212	SLU 73	-33	-10	3043	0.6	-2.05	-0.12
212	SLU 74	-28	-10	3027	0.61	-1.94	-0.11
212	SLU 75	-31	-10	3036	0.61	-2	-0.12
212	SLU 76	-33	-10	3043	0.6	-2.05	-0.12
212	SLU 77	-28	-10	3027	0.61	-1.94	-0.11
212	SLU 78	-31	-10	3036	0.61	-2	-0.12
212	SLU 79	-28	-10	3027	0.61	-1.94	-0.11
212	SLU 80	-31	-10	3036	0.61	-2	-0.12
212	SLU 81	-29	-9	3162	0.66	-1.79	-0.12
212	SLU 82	-32	-9	3171	0.66	-1.86	-0.12
212	SLU 83	-29	-9	3162	0.66	-1.79	-0.12
212	SLU 84	-32	-9	3171	0.66	-1.86	-0.12
212	SLE RA 1	-20	-9	2035	0.36	-1.78	-0.08
212	SLE RA 2	-23	-10	2046	0.36	-1.85	-0.08
212	SLE RA 3	-20	-9	2035	0.36	-1.78	-0.08
212	SLE RA 4	-22	-9	2041	0.36	-1.82	-0.08
212	SLE RA 5	-23	-10	2046	0.36	-1.85	-0.08
212	SLE RA 6	-20	-9	2035	0.36	-1.78	-0.08
212	SLE RA 7	-22	-9	2041	0.36	-1.82	-0.08
212	SLE RA 8	-20	-9	2035	0.36	-1.78	-0.08
212	SLE RA 9	-22	-9	2041	0.36	-1.82	-0.08
212	SLE RA 10	-24	-8	2256	0.44	-1.62	-0.09
212	SLE RA 11	-21	-8	2245	0.44	-1.55	-0.08
212	SLE RA 12	-23	-8	2251	0.44	-1.59	-0.09
212	SLE RA 13	-24	-8	2256	0.44	-1.62	-0.09
212	SLE RA 14	-21	-8	2245	0.44	-1.55	-0.08
212	SLE RA 15	-23	-8	2251	0.44	-1.59	-0.09
212	SLE RA 16	-21	-8	2245	0.44	-1.55	-0.08
212	SLE RA 17	-23	-8	2251	0.44	-1.59	-0.09
212	SLE RA 18	-22	-7	2335	0.47	-1.45	-0.09
212	SLE RA 19	-24	-8	2341	0.47	-1.49	-0.09
212	SLE RA 20	-22	-7	2335	0.47	-1.45	-0.09
212	SLE RA 21	-24	-8	2341	0.47	-1.49	-0.09
212	SLE FR 1	-20	-9	2035	0.36	-1.78	-0.08
212	SLE FR 2	-20	-9	2037	0.36	-1.79	-0.08
212	SLE FR 3	-20	-9	2035	0.36	-1.78	-0.08
212	SLE FR 4	-21	-9	2127	0.39	-1.69	-0.08

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
212	SLE FR 5	-20	-9	2125	0.4	-1.68	-0.08
212	SLE FR 6	-21	-8	2185	0.42	-1.61	-0.08
212	SLE QP 1	-20	-9	2035	0.36	-1.78	-0.08
212	SLE QP 2	-20	-9	2125	0.4	-1.68	-0.08
212	SLD 1	59	45	1855	0.29	-18.52	-0.04
212	SLD 2	57	77	1857	0.26	-18.53	0.02
212	SLD 3	69	-44	1871	0.78	-19.62	-0.02
212	SLD 4	67	-12	1873	0.76	-19.62	0.04
212	SLD 5	-10	131	2019	-0.39	-5.07	-0.12
212	SLD 6	-12	164	2021	-0.41	-5.08	-0.07
212	SLD 7	21	-166	2072	1.28	-8.72	-0.04
212	SLD 8	19	-134	2075	1.25	-8.72	0.01
212	SLD 9	-60	116	2175	-0.46	5.36	-0.17
212	SLD 10	-62	149	2177	-0.49	5.36	-0.12
212	SLD 11	-29	-181	2229	1.2	1.72	-0.09
212	SLD 12	-31	-149	2231	1.18	1.71	-0.03
212	SLD 13	-108	-5	2376	0.03	16.26	-0.2
212	SLD 14	-110	27	2379	0.01	16.26	-0.14
212	SLD 15	-98	-94	2393	0.53	15.17	-0.18
212	SLD 16	-100	-62	2395	0.51	15.16	-0.12
212	SLV 1	160	114	1512	0.15	-41.01	0.02
212	SLV 2	156	186	1517	0.09	-41.02	0.15
212	SLV 3	182	-89	1549	1.28	-43.56	0.07
212	SLV 4	177	-16	1554	1.22	-43.57	0.2
212	SLV 5	3	310	1884	-1.38	-9.61	-0.18
212	SLV 6	-2	383	1889	-1.44	-9.62	-0.05
212	SLV 7	75	-365	2006	2.4	-18.11	0
212	SLV 8	70	-292	2011	2.34	-18.12	0.13
212	SLV 9	-111	275	2239	-1.55	14.76	-0.29
212	SLV 10	-115	348	2244	-1.61	14.75	-0.16
212	SLV 11	-39	-400	2361	2.23	6.26	-0.11
212	SLV 12	-44	-327	2366	2.17	6.25	0.02
212	SLV 13	-218	-1	2696	-0.43	40.21	-0.36
212	SLV 14	-223	71	2701	-0.49	40.2	-0.23
212	SLV 15	-197	-204	2733	0.7	37.66	-0.31
212	SLV 16	-201	-131	2738	0.65	37.65	-0.18
212	CRTFP Ux+	0	0	0	0	0	0
212	CRTFP Ux-	0	0	0	0	0	0
212	CRTFP Uy+	0	0	0	0	0	0
212	CRTFP Uy-	0	0	0	0	0	0
213	SLU 1	-117	-82	3819	297	-932.24	-14.86
213	SLU 2	-124	-81	3789	294.5	-926.27	-13.98
213	SLU 3	-117	-82	3819	297	-932.24	-14.86
213	SLU 4	-121	-81	3801	295.5	-928.66	-14.33
213	SLU 5	-124	-81	3789	294.5	-926.27	-13.98
213	SLU 6	-117	-82	3819	297	-932.24	-14.86
213	SLU 7	-121	-81	3801	295.5	-928.66	-14.33
213	SLU 8	-117	-82	3819	297	-932.24	-14.86
213	SLU 9	-121	-81	3801	295.5	-928.66	-14.33
213	SLU 10	-155	-95	4424	343.72	-1076.8	-15.3
213	SLU 11	-147	-96	4454	346.23	-1082.77	-16.17
213	SLU 12	-152	-95	4436	344.73	-1079.19	-15.65
213	SLU 13	-155	-95	4424	343.72	-1076.8	-15.3
213	SLU 14	-147	-96	4454	346.23	-1082.77	-16.17
213	SLU 15	-152	-95	4436	344.73	-1079.19	-15.65
213	SLU 16	-147	-96	4454	346.23	-1082.77	-16.17
213	SLU 17	-152	-95	4436	344.73	-1079.19	-15.65
213	SLU 18	-160	-101	4726	367.33	-1147.28	-16.74
213	SLU 19	-165	-101	4708	365.82	-1143.7	-16.22
213	SLU 20	-160	-101	4726	367.33	-1147.28	-16.74
213	SLU 21	-165	-101	4708	365.82	-1143.7	-16.22
213	SLU 22	-136	-90	4281	332.74	-1042.34	-15.46
213	SLU 23	-143	-89	4251	330.23	-1036.37	-14.59
213	SLU 24	-136	-90	4281	332.74	-1042.34	-15.46
213	SLU 25	-140	-89	4263	331.24	-1038.75	-14.94
213	SLU 26	-143	-89	4251	330.23	-1036.37	-14.59
213	SLU 27	-136	-90	4281	332.74	-1042.34	-15.46
213	SLU 28	-140	-89	4263	331.24	-1038.75	-14.94
213	SLU 29	-136	-90	4281	332.74	-1042.34	-15.46
213	SLU 30	-140	-89	4263	331.24	-1038.75	-14.94
213	SLU 31	-174	-102	4887	379.46	-1186.9	-15.91
213	SLU 32	-166	-103	4917	381.97	-1192.87	-16.78
213	SLU 33	-171	-103	4899	380.47	-1189.28	-16.26
213	SLU 34	-174	-102	4887	379.46	-1186.9	-15.91
213	SLU 35	-166	-103	4917	381.97	-1192.87	-16.78
213	SLU 36	-171	-103	4899	380.47	-1189.28	-16.26
213	SLU 37	-166	-103	4917	381.97	-1192.87	-16.78
213	SLU 38	-171	-103	4899	380.47	-1189.28	-16.26
213	SLU 39	-180	-109	5189	403.07	-1257.38	-17.34
213	SLU 40	-184	-108	5171	401.56	-1253.8	-16.82
213	SLU 41	-180	-109	5189	403.07	-1257.38	-17.34
213	SLU 42	-184	-108	5171	401.56	-1253.8	-16.82
213	SLU 43	-145	-104	4806	373.85	-1174.17	-19.1
213	SLU 44	-153	-103	4776	371.34	-1168.2	-18.23
213	SLU 45	-145	-104	4806	373.85	-1174.17	-19.1
213	SLU 46	-149	-103	4788	372.35	-1170.59	-18.58

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
213	SLU 47	-153	-103	4776	371.34	-1168.2	-18.23
213	SLU 48	-145	-104	4806	373.85	-1174.17	-19.1
213	SLU 49	-149	-103	4788	372.35	-1170.59	-18.58
213	SLU 50	-145	-104	4806	373.85	-1174.17	-19.1
213	SLU 51	-149	-103	4788	372.35	-1170.59	-18.58
213	SLU 52	-183	-117	5411	420.57	-1318.73	-19.55
213	SLU 53	-176	-118	5441	423.08	-1324.7	-20.42
213	SLU 54	-180	-117	5423	421.57	-1321.12	-19.9
213	SLU 55	-183	-117	5411	420.57	-1318.73	-19.55
213	SLU 56	-176	-118	5441	423.08	-1324.7	-20.42
213	SLU 57	-180	-117	5423	421.57	-1321.12	-19.9
213	SLU 58	-176	-118	5441	423.08	-1324.7	-20.42
213	SLU 59	-180	-117	5423	421.57	-1321.12	-19.9
213	SLU 60	-189	-123	5713	444.18	-1389.21	-20.99
213	SLU 61	-193	-123	5695	442.67	-1385.63	-20.46
213	SLU 62	-189	-123	5713	444.18	-1389.21	-20.99
213	SLU 63	-193	-123	5695	442.67	-1385.63	-20.46
213	SLU 64	-164	-112	5268	409.59	-1284.26	-19.71
213	SLU 65	-172	-111	5238	407.08	-1278.29	-18.84
213	SLU 66	-164	-112	5268	409.59	-1284.26	-19.71
213	SLU 67	-169	-111	5250	408.08	-1280.68	-19.19
213	SLU 68	-172	-111	5238	407.08	-1278.29	-18.84
213	SLU 69	-164	-112	5268	409.59	-1284.26	-19.71
213	SLU 70	-169	-111	5250	408.08	-1280.68	-19.19
213	SLU 71	-164	-112	5268	409.59	-1284.26	-19.71
213	SLU 72	-169	-111	5250	408.08	-1280.68	-19.19
213	SLU 73	-202	-124	5874	456.31	-1428.82	-20.16
213	SLU 74	-195	-125	5904	458.82	-1434.79	-21.03
213	SLU 75	-199	-125	5886	457.31	-1431.21	-20.51
213	SLU 76	-202	-124	5874	456.31	-1428.82	-20.16
213	SLU 77	-195	-125	5904	458.82	-1434.79	-21.03
213	SLU 78	-199	-125	5886	457.31	-1431.21	-20.51
213	SLU 79	-195	-125	5904	458.82	-1434.79	-21.03
213	SLU 80	-199	-125	5886	457.31	-1431.21	-20.51
213	SLU 81	-208	-131	6176	479.91	-1499.3	-21.59
213	SLU 82	-213	-130	6158	478.41	-1495.72	-21.07
213	SLU 83	-208	-131	6176	479.91	-1499.3	-21.59
213	SLU 84	-213	-130	6158	478.41	-1495.72	-21.07
213	SLE RA 1	-122	-84	3951	307.21	-963.7	-15.03
213	SLE RA 2	-127	-84	3931	305.54	-959.72	-14.45
213	SLE RA 3	-122	-84	3951	307.21	-963.7	-15.03
213	SLE RA 4	-125	-84	3939	306.21	-961.31	-14.68
213	SLE RA 5	-127	-84	3931	305.54	-959.72	-14.45
213	SLE RA 6	-122	-84	3951	307.21	-963.7	-15.03
213	SLE RA 7	-125	-84	3939	306.21	-961.31	-14.68
213	SLE RA 8	-122	-84	3951	307.21	-963.7	-15.03
213	SLE RA 9	-125	-84	3939	306.21	-961.31	-14.68
213	SLE RA 10	-148	-93	4354	338.36	-1060.07	-15.33
213	SLE RA 11	-142	-93	4374	340.03	-1064.05	-15.91
213	SLE RA 12	-146	-93	4362	339.03	-1061.66	-15.56
213	SLE RA 13	-148	-93	4354	338.36	-1060.07	-15.33
213	SLE RA 14	-142	-93	4374	340.03	-1064.05	-15.91
213	SLE RA 15	-146	-93	4362	339.03	-1061.66	-15.56
213	SLE RA 16	-142	-93	4374	340.03	-1064.05	-15.91
213	SLE RA 17	-146	-93	4362	339.03	-1061.66	-15.56
213	SLE RA 18	-151	-97	4556	354.1	-1107.06	-16.28
213	SLE RA 19	-154	-97	4544	353.09	-1104.67	-15.94
213	SLE RA 20	-151	-97	4556	354.1	-1107.06	-16.28
213	SLE RA 21	-154	-97	4544	353.09	-1104.67	-15.94
213	SLE FR 1	-122	-84	3951	307.21	-963.7	-15.03
213	SLE FR 2	-123	-84	3947	306.88	-962.9	-14.91
213	SLE FR 3	-122	-84	3951	307.21	-963.7	-15.03
213	SLE FR 4	-132	-88	4128	320.94	-1005.91	-15.29
213	SLE FR 5	-131	-88	4132	321.28	-1006.71	-15.4
213	SLE FR 6	-137	-91	4253	330.65	-1035.38	-15.66
213	SLE QP 1	-122	-84	3951	307.21	-963.7	-15.03
213	SLE QP 2	-131	-88	4132	321.28	-1006.71	-15.4
213	SLD 1	60	-26	4604	356.59	-1101.33	-4.54
213	SLD 2	49	-87	4606	357	-1101.33	-20.67
213	SLD 3	49	-187	4637	362.68	-1106.93	-49.92
213	SLD 4	39	-249	4639	363.09	-1106.93	-66.06
213	SLD 5	-54	198	4223	322.49	-1026.59	62.4
213	SLD 6	-65	136	4224	322.91	-1026.59	46.14
213	SLD 7	-89	-342	4334	342.78	-1045.27	-88.89
213	SLD 8	-99	-404	4335	343.2	-1045.27	-105.14
213	SLD 9	-162	228	3929	299.36	-968.14	74.33
213	SLD 10	-173	165	3931	299.77	-968.14	58.08
213	SLD 11	-197	-312	4041	319.65	-986.82	-76.95
213	SLD 12	-207	-374	4042	320.06	-986.82	-93.21
213	SLD 13	-300	73	3626	279.47	-906.48	35.25
213	SLD 14	-311	11	3627	279.88	-906.48	19.11
213	SLD 15	-311	-89	3659	285.56	-912.08	-10.14
213	SLD 16	-321	-151	3661	285.97	-912.09	-26.27
213	SLV 1	302	53	5204	401.53	-1221.72	8.95
213	SLV 2	278	-87	5208	402.46	-1221.72	-27.58
213	SLV 3	278	-315	5281	415.39	-1234.53	-94.21

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
213	SLV 4	254	-455	5284	416.32	-1234.54	-130.74
213	SLV 5	43	562	4337	324.01	-1051.78	161.26
213	SLV 6	19	421	4340	324.94	-1051.78	124.49
213	SLV 7	-36	-665	4591	370.2	-1094.49	-182.59
213	SLV 8	-59	-806	4595	371.14	-1094.49	-219.36
213	SLV 9	-202	630	3670	271.42	-918.92	188.55
213	SLV 10	-226	489	3673	272.35	-918.93	151.78
213	SLV 11	-281	-597	3924	317.61	-961.63	-155.3
213	SLV 12	-305	-738	3928	318.55	-961.63	-192.07
213	SLV 13	-516	279	2981	226.23	-778.87	99.93
213	SLV 14	-540	139	2984	227.16	-778.88	63.4
213	SLV 15	-540	-89	3057	240.09	-791.69	-3.23
213	SLV 16	-563	-229	3060	241.02	-791.69	-39.76
213	CRTFP Ux+	0	0	0	0	0.01	0
213	CRTFP Ux-	0	0	0	0	-0.01	0
213	CRTFP Uy+	0	0	0	0	0	0
213	CRTFP Uy-	0	0	0	0	0	0
215	SLU 1	-48	-37	1522	283.2	-37.4	10.86
215	SLU 2	-51	-36	1511	280.74	-37.2	11.66
215	SLU 3	-48	-37	1522	283.2	-37.4	10.86
215	SLU 4	-50	-36	1515	281.72	-37.28	11.34
215	SLU 5	-51	-36	1511	280.74	-37.2	11.66
215	SLU 6	-48	-37	1522	283.2	-37.4	10.86
215	SLU 7	-50	-36	1515	281.72	-37.28	11.34
215	SLU 8	-48	-37	1522	283.2	-37.4	10.86
215	SLU 9	-50	-36	1515	281.72	-37.28	11.34
215	SLU 10	-64	-42	1761	325.4	-43.17	14.79
215	SLU 11	-61	-42	1772	327.86	-43.36	14
215	SLU 12	-63	-42	1765	326.38	-43.24	14.47
215	SLU 13	-64	-42	1761	325.4	-43.17	14.79
215	SLU 14	-61	-42	1772	327.86	-43.36	14
215	SLU 15	-63	-42	1765	326.38	-43.24	14.47
215	SLU 16	-61	-42	1772	327.86	-43.36	14
215	SLU 17	-63	-42	1765	326.38	-43.24	14.47
215	SLU 18	-67	-45	1879	347	-45.92	15.34
215	SLU 19	-69	-45	1872	345.52	-45.8	15.82
215	SLU 20	-67	-45	1879	347	-45.92	15.34
215	SLU 21	-69	-45	1872	345.52	-45.8	15.82
215	SLU 22	-56	-40	1704	315.56	-41.77	12.84
215	SLU 23	-59	-40	1693	313.1	-41.57	13.63
215	SLU 24	-56	-40	1704	315.56	-41.77	12.84
215	SLU 25	-58	-40	1697	314.09	-41.65	13.31
215	SLU 26	-59	-40	1693	313.1	-41.57	13.63
215	SLU 27	-56	-40	1704	315.56	-41.77	12.84
215	SLU 28	-58	-40	1697	314.09	-41.65	13.31
215	SLU 29	-56	-40	1704	315.56	-41.77	12.84
215	SLU 30	-58	-40	1697	314.09	-41.65	13.31
215	SLU 31	-73	-45	1943	357.77	-47.53	16.76
215	SLU 32	-70	-46	1954	360.23	-47.73	15.97
215	SLU 33	-71	-46	1947	358.75	-47.61	16.45
215	SLU 34	-73	-45	1943	357.77	-47.53	16.76
215	SLU 35	-70	-46	1954	360.23	-47.73	15.97
215	SLU 36	-71	-46	1947	358.75	-47.61	16.45
215	SLU 37	-70	-46	1954	360.23	-47.73	15.97
215	SLU 38	-71	-46	1947	358.75	-47.61	16.45
215	SLU 39	-75	-48	2061	379.37	-50.29	17.31
215	SLU 40	-77	-48	2054	377.89	-50.17	17.79
215	SLU 41	-75	-48	2061	379.37	-50.29	17.31
215	SLU 42	-77	-48	2054	377.89	-50.17	17.79
215	SLU 43	-60	-46	1916	357.06	-47.12	13.45
215	SLU 44	-63	-46	1905	354.6	-46.93	14.24
215	SLU 45	-60	-46	1916	357.06	-47.12	13.45
215	SLU 46	-61	-46	1909	355.58	-47.01	13.92
215	SLU 47	-63	-46	1905	354.6	-46.93	14.24
215	SLU 48	-60	-46	1916	357.06	-47.12	13.45
215	SLU 49	-61	-46	1909	355.58	-47.01	13.92
215	SLU 50	-60	-46	1916	357.06	-47.12	13.45
215	SLU 51	-61	-46	1909	355.58	-47.01	13.92
215	SLU 52	-76	-52	2155	399.26	-52.89	17.37
215	SLU 53	-73	-52	2166	401.72	-53.09	16.58
215	SLU 54	-75	-52	2159	400.24	-52.97	17.06
215	SLU 55	-76	-52	2155	399.26	-52.89	17.37
215	SLU 56	-73	-52	2166	401.72	-53.09	16.58
215	SLU 57	-75	-52	2159	400.24	-52.97	17.06
215	SLU 58	-73	-52	2166	401.72	-53.09	16.58
215	SLU 59	-75	-52	2159	400.24	-52.97	17.06
215	SLU 60	-78	-55	2273	420.86	-55.64	17.92
215	SLU 61	-80	-55	2266	419.39	-55.52	18.4
215	SLU 62	-78	-55	2273	420.86	-55.64	17.92
215	SLU 63	-80	-55	2266	419.39	-55.52	18.4
215	SLU 64	-68	-50	2098	389.43	-51.49	15.42
215	SLU 65	-71	-49	2087	386.97	-51.3	16.21
215	SLU 66	-68	-50	2098	389.43	-51.49	15.42
215	SLU 67	-70	-50	2091	387.95	-51.37	15.9
215	SLU 68	-71	-49	2087	386.97	-51.3	16.21
215	SLU 69	-68	-50	2098	389.43	-51.49	15.42

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
215	SLU 70	-70	-50	2091	387.95	-51.37	15.9
215	SLU 71	-68	-50	2098	389.43	-51.49	15.42
215	SLU 72	-70	-50	2091	387.95	-51.37	15.9
215	SLU 73	-84	-55	2337	431.63	-57.26	19.35
215	SLU 74	-81	-56	2348	434.09	-57.45	18.55
215	SLU 75	-83	-55	2341	432.61	-57.34	19.03
215	SLU 76	-84	-55	2337	431.63	-57.26	19.35
215	SLU 77	-81	-56	2348	434.09	-57.45	18.55
215	SLU 78	-83	-55	2341	432.61	-57.34	19.03
215	SLU 79	-81	-56	2348	434.09	-57.45	18.55
215	SLU 80	-83	-55	2341	432.61	-57.34	19.03
215	SLU 81	-87	-58	2455	453.23	-60.01	19.9
215	SLU 82	-89	-58	2448	451.75	-59.89	20.37
215	SLU 83	-87	-58	2455	453.23	-60.01	19.9
215	SLU 84	-89	-58	2448	451.75	-59.89	20.37
215	SLE RA 1	-50	-38	1574	292.44	-38.65	11.43
215	SLE RA 2	-52	-37	1566	290.81	-38.52	11.96
215	SLE RA 3	-50	-38	1574	292.44	-38.65	11.43
215	SLE RA 4	-52	-37	1569	291.46	-38.57	11.74
215	SLE RA 5	-52	-37	1566	290.81	-38.52	11.96
215	SLE RA 6	-50	-38	1574	292.44	-38.65	11.43
215	SLE RA 7	-52	-37	1569	291.46	-38.57	11.74
215	SLE RA 8	-50	-38	1574	292.44	-38.65	11.43
215	SLE RA 9	-52	-37	1569	291.46	-38.57	11.74
215	SLE RA 10	-61	-41	1733	320.58	-42.49	14.05
215	SLE RA 11	-59	-41	1740	322.22	-42.62	13.52
215	SLE RA 12	-60	-41	1736	321.24	-42.54	13.83
215	SLE RA 13	-61	-41	1733	320.58	-42.49	14.05
215	SLE RA 14	-59	-41	1740	322.22	-42.62	13.52
215	SLE RA 15	-60	-41	1736	321.24	-42.54	13.83
215	SLE RA 16	-59	-41	1740	322.22	-42.62	13.52
215	SLE RA 17	-60	-41	1736	321.24	-42.54	13.83
215	SLE RA 18	-63	-43	1812	334.98	-44.33	14.41
215	SLE RA 19	-64	-43	1807	334	-44.25	14.73
215	SLE RA 20	-63	-43	1812	334.98	-44.33	14.41
215	SLE RA 21	-64	-43	1807	334	-44.25	14.73
215	SLE FR 1	-50	-38	1574	292.44	-38.65	11.43
215	SLE FR 2	-51	-37	1572	292.12	-38.62	11.53
215	SLE FR 3	-50	-38	1574	292.44	-38.65	11.43
215	SLE FR 4	-55	-39	1644	304.88	-40.33	12.43
215	SLE FR 5	-54	-39	1645	305.21	-40.35	12.32
215	SLE FR 6	-57	-40	1693	313.71	-41.49	12.92
215	SLE QP 1	-50	-38	1574	292.44	-38.65	11.43
215	SLE QP 2	-54	-39	1645	305.21	-40.35	12.32
215	SLD 1	27	-13	1813	338.52	-43.43	-6.3
215	SLD 2	22	-38	1814	338.81	-43.44	-5.58
215	SLD 3	22	-81	1830	343.96	-43.85	-7.92
215	SLD 4	17	-105	1830	344.26	-43.86	-7.2
215	SLD 5	-21	80	1670	306.83	-40.63	8.94
215	SLD 6	-26	55	1671	307.13	-40.64	9.67
215	SLD 7	-36	-145	1726	324.99	-42.04	3.54
215	SLD 8	-42	-170	1726	325.29	-42.05	4.26
215	SLD 9	-67	92	1564	285.12	-38.65	20.39
215	SLD 10	-72	67	1565	285.42	-38.66	21.11
215	SLD 11	-82	-133	1620	303.28	-40.07	14.98
215	SLD 12	-87	-158	1620	303.58	-40.08	15.7
215	SLD 13	-125	27	1460	266.15	-36.84	31.85
215	SLD 14	-131	2	1461	266.45	-36.85	32.57
215	SLD 15	-130	-41	1476	271.6	-37.27	30.22
215	SLD 16	-135	-65	1477	271.89	-37.28	30.94
215	SLV 1	130	20	2027	380.95	-47.34	-29.97
215	SLV 2	118	-37	2028	381.62	-47.36	-28.34
215	SLV 3	120	-134	2065	393.31	-48.31	-33.67
215	SLV 4	108	-190	2066	393.98	-48.33	-32.04
215	SLV 5	21	231	1701	308.94	-40.98	4.67
215	SLV 6	9	174	1703	309.61	-41	6.31
215	SLV 7	-13	-280	1828	350.15	-44.2	-7.67
215	SLV 8	-26	-337	1830	350.83	-44.22	-6.02
215	SLV 9	-83	259	1461	259.58	-36.49	30.67
215	SLV 10	-95	202	1462	260.26	-36.51	32.31
215	SLV 11	-117	-253	1587	300.8	-39.71	18.33
215	SLV 12	-129	-310	1589	301.47	-39.73	19.97
215	SLV 13	-216	112	1224	216.43	-32.38	56.69
215	SLV 14	-228	55	1226	217.1	-32.4	58.32
215	SLV 15	-226	-42	1262	228.79	-33.34	52.99
215	SLV 16	-238	-98	1264	229.46	-33.37	54.62
215	CRTFP Ux+	0	0	0	0	0	0
215	CRTFP Ux-	0	0	0	0	0	0
215	CRTFP Uy+	0	0	0	0	0	0
215	CRTFP Uy-	0	0	0	0	0	0
216	SLU 1	-56	-48	1567	218.67	6.18	13.75
216	SLU 2	-59	-47	1559	216.97	6.03	14.65
216	SLU 3	-56	-48	1567	218.67	6.18	13.75
216	SLU 4	-58	-47	1562	217.65	6.09	14.29
216	SLU 5	-59	-47	1559	216.97	6.03	14.65
216	SLU 6	-56	-48	1567	218.67	6.18	13.75

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
216	SLU 7	-58	-47	1562	217.65	6.09	14.29
216	SLU 8	-56	-48	1567	218.67	6.18	13.75
216	SLU 9	-58	-47	1562	217.65	6.09	14.29
216	SLU 10	-75	-55	1809	248.08	7.29	18.47
216	SLU 11	-71	-55	1817	249.78	7.44	17.57
216	SLU 12	-73	-55	1812	248.76	7.35	18.11
216	SLU 13	-75	-55	1809	248.08	7.29	18.47
216	SLU 14	-71	-55	1817	249.78	7.44	17.57
216	SLU 15	-73	-55	1812	248.76	7.35	18.11
216	SLU 16	-71	-55	1817	249.78	7.44	17.57
216	SLU 17	-73	-55	1812	248.76	7.35	18.11
216	SLU 18	-78	-58	1924	263.12	7.98	19.21
216	SLU 19	-80	-58	1919	262.09	7.89	19.75
216	SLU 20	-78	-58	1924	263.12	7.98	19.21
216	SLU 21	-80	-58	1919	262.09	7.89	19.75
216	SLU 22	-66	-52	1750	241.2	7.07	16.15
216	SLU 23	-69	-52	1742	239.49	6.91	17.04
216	SLU 24	-66	-52	1750	241.2	7.07	16.15
216	SLU 25	-68	-52	1745	240.18	6.98	16.68
216	SLU 26	-69	-52	1742	239.49	6.91	17.04
216	SLU 27	-66	-52	1750	241.2	7.07	16.15
216	SLU 28	-68	-52	1745	240.18	6.98	16.68
216	SLU 29	-66	-52	1750	241.2	7.07	16.15
216	SLU 30	-68	-52	1745	240.18	6.98	16.68
216	SLU 31	-85	-59	1992	270.6	8.17	20.86
216	SLU 32	-81	-60	2000	272.31	8.33	19.97
216	SLU 33	-83	-59	1996	271.29	8.24	20.51
216	SLU 34	-85	-59	1992	270.6	8.17	20.86
216	SLU 35	-81	-60	2000	272.31	8.33	19.97
216	SLU 36	-83	-59	1996	271.29	8.24	20.51
216	SLU 37	-81	-60	2000	272.31	8.33	19.97
216	SLU 38	-83	-59	1996	271.29	8.24	20.51
216	SLU 39	-88	-63	2108	285.64	8.87	21.61
216	SLU 40	-90	-63	2103	284.62	8.78	22.14
216	SLU 41	-88	-63	2108	285.64	8.87	21.61
216	SLU 42	-90	-63	2103	284.62	8.78	22.14
216	SLU 43	-69	-60	1974	276.55	7.73	17.05
216	SLU 44	-73	-60	1966	274.85	7.58	17.95
216	SLU 45	-69	-60	1974	276.55	7.73	17.05
216	SLU 46	-71	-60	1969	275.53	7.64	17.59
216	SLU 47	-73	-60	1966	274.85	7.58	17.95
216	SLU 48	-69	-60	1974	276.55	7.73	17.05
216	SLU 49	-71	-60	1969	275.53	7.64	17.59
216	SLU 50	-69	-60	1974	276.55	7.73	17.05
216	SLU 51	-71	-60	1969	275.53	7.64	17.59
216	SLU 52	-88	-68	2216	305.96	8.84	21.77
216	SLU 53	-85	-68	2224	307.66	8.99	20.87
216	SLU 54	-87	-68	2219	306.64	8.9	21.41
216	SLU 55	-88	-68	2216	305.96	8.84	21.77
216	SLU 56	-85	-68	2224	307.66	8.99	20.87
216	SLU 57	-87	-68	2219	306.64	8.9	21.41
216	SLU 58	-85	-68	2224	307.66	8.99	20.87
216	SLU 59	-87	-68	2219	306.64	8.9	21.41
216	SLU 60	-91	-71	2332	320.99	9.53	22.51
216	SLU 61	-94	-71	2327	319.97	9.44	23.05
216	SLU 62	-91	-71	2332	320.99	9.53	22.51
216	SLU 63	-94	-71	2327	319.97	9.44	23.05
216	SLU 64	-79	-65	2157	299.08	8.62	19.45
216	SLU 65	-83	-65	2149	297.37	8.46	20.35
216	SLU 66	-79	-65	2157	299.08	8.62	19.45
216	SLU 67	-81	-65	2152	298.06	8.53	19.99
216	SLU 68	-83	-65	2149	297.37	8.46	20.35
216	SLU 69	-79	-65	2157	299.08	8.62	19.45
216	SLU 70	-81	-65	2152	298.06	8.53	19.99
216	SLU 71	-79	-65	2157	299.08	8.62	19.45
216	SLU 72	-81	-65	2152	298.06	8.53	19.99
216	SLU 73	-98	-72	2399	328.48	9.72	24.17
216	SLU 74	-94	-72	2408	330.19	9.88	23.27
216	SLU 75	-97	-72	2403	329.16	9.79	23.81
216	SLU 76	-98	-72	2399	328.48	9.72	24.17
216	SLU 77	-94	-72	2408	330.19	9.88	23.27
216	SLU 78	-97	-72	2403	329.16	9.79	23.81
216	SLU 79	-94	-72	2408	330.19	9.88	23.27
216	SLU 80	-97	-72	2403	329.16	9.79	23.81
216	SLU 81	-101	-76	2515	343.52	10.42	24.91
216	SLU 82	-103	-75	2510	342.5	10.33	25.45
216	SLU 83	-101	-76	2515	343.52	10.42	24.91
216	SLU 84	-103	-75	2510	342.5	10.33	25.45
216	SLE RA 1	-59	-49	1619	225.11	6.44	14.43
216	SLE RA 2	-61	-49	1614	223.97	6.33	15.03
216	SLE RA 3	-59	-49	1619	225.11	6.44	14.43
216	SLE RA 4	-60	-49	1616	224.43	6.37	14.79
216	SLE RA 5	-61	-49	1614	223.97	6.33	15.03
216	SLE RA 6	-59	-49	1619	225.11	6.44	14.43
216	SLE RA 7	-60	-49	1616	224.43	6.37	14.79
216	SLE RA 8	-59	-49	1619	225.11	6.44	14.43

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
216	SLE RA 9	-60	-49	1616	224.43	6.37	14.79
216	SLE RA 10	-71	-54	1781	244.71	7.17	17.58
216	SLE RA 11	-69	-54	1786	245.85	7.28	16.98
216	SLE RA 12	-70	-54	1783	245.17	7.21	17.34
216	SLE RA 13	-71	-54	1781	244.71	7.17	17.58
216	SLE RA 14	-69	-54	1786	245.85	7.28	16.98
216	SLE RA 15	-70	-54	1783	245.17	7.21	17.34
216	SLE RA 16	-69	-54	1786	245.85	7.28	16.98
216	SLE RA 17	-70	-54	1783	245.17	7.21	17.34
216	SLE RA 18	-73	-56	1858	254.74	7.64	18.07
216	SLE RA 19	-75	-56	1854	254.06	7.57	18.43
216	SLE RA 20	-73	-56	1858	254.74	7.64	18.07
216	SLE RA 21	-75	-56	1854	254.06	7.57	18.43
216	SLE FR 1	-59	-49	1619	225.11	6.44	14.43
216	SLE FR 2	-59	-49	1618	224.88	6.41	14.55
216	SLE FR 3	-59	-49	1619	225.11	6.44	14.43
216	SLE FR 4	-64	-51	1690	233.77	6.78	15.65
216	SLE FR 5	-63	-51	1691	234	6.8	15.53
216	SLE FR 6	-66	-53	1738	239.92	7.04	16.25
216	SLE QP 1	-59	-49	1619	225.11	6.44	14.43
216	SLE QP 2	-63	-51	1691	234	6.8	15.53
216	SLD 1	30	-22	1819	253.24	9	-7.94
216	SLD 2	24	-47	1820	253.4	9.01	-6.26
216	SLD 3	25	-97	1838	261.39	9.27	-6.6
216	SLD 4	19	-122	1838	261.54	9.29	-4.92
216	SLD 5	-25	81	1701	227.36	7.03	5.87
216	SLD 6	-31	55	1702	227.52	7.04	7.56
216	SLD 7	-42	-170	1762	254.51	7.96	10.32
216	SLD 8	-49	-195	1763	254.67	7.97	12.01
216	SLD 9	-77	93	1619	213.33	5.62	19.04
216	SLD 10	-84	68	1619	213.48	5.64	20.73
216	SLD 11	-95	-157	1680	240.47	6.55	23.5
216	SLD 12	-101	-183	1680	240.63	6.56	25.19
216	SLD 13	-145	20	1543	206.45	4.31	35.98
216	SLD 14	-151	-5	1544	206.61	4.32	37.65
216	SLD 15	-150	-55	1562	214.6	4.58	37.31
216	SLD 16	-156	-81	1562	214.75	4.6	38.99
216	SLV 1	149	15	1983	277.81	11.8	-37.78
216	SLV 2	135	-43	1984	278.16	11.82	-33.98
216	SLV 3	137	-156	2025	296.23	12.43	-34.74
216	SLV 4	123	-213	2026	296.58	12.46	-30.94
216	SLV 5	24	248	1715	219.08	7.33	-6.42
216	SLV 6	10	190	1716	219.44	7.36	-2.6
216	SLV 7	-16	-321	1854	280.48	9.43	3.72
216	SLV 8	-30	-379	1855	280.83	9.46	7.54
216	SLV 9	-96	277	1527	187.16	4.13	23.51
216	SLV 10	-110	219	1528	187.52	4.16	27.33
216	SLV 11	-136	-292	1666	248.56	6.24	33.65
216	SLV 12	-150	-350	1667	248.91	6.26	37.48
216	SLV 13	-249	111	1356	171.41	1.14	61.99
216	SLV 14	-263	53	1357	171.77	1.16	65.79
216	SLV 15	-261	-60	1397	189.83	1.77	65.03
216	SLV 16	-275	-117	1399	190.19	1.8	68.83
216	CRTFP Ux+	0	0	0	0	0	0
216	CRTFP Ux-	0	0	0	0	0	0
216	CRTFP Uy+	0	0	0	0	0	0
216	CRTFP Uy-	0	0	0	0	0	0
217	SLU 1	-56	-54	1406	134.17	4.92	13.81
217	SLU 2	-60	-54	1403	133.54	4.76	14.71
217	SLU 3	-56	-54	1406	134.17	4.92	13.81
217	SLU 4	-58	-54	1404	133.79	4.82	14.35
217	SLU 5	-60	-54	1403	133.54	4.76	14.71
217	SLU 6	-56	-54	1406	134.17	4.92	13.81
217	SLU 7	-58	-54	1404	133.79	4.82	14.35
217	SLU 8	-56	-54	1406	134.17	4.92	13.81
217	SLU 9	-58	-54	1404	133.79	4.82	14.35
217	SLU 10	-75	-63	1620	148.5	5.79	18.55
217	SLU 11	-72	-63	1624	149.13	5.94	17.65
217	SLU 12	-74	-63	1621	148.75	5.85	18.19
217	SLU 13	-75	-63	1620	148.5	5.79	18.55
217	SLU 14	-72	-63	1624	149.13	5.94	17.65
217	SLU 15	-74	-63	1621	148.75	5.85	18.19
217	SLU 16	-72	-63	1624	149.13	5.94	17.65
217	SLU 17	-74	-63	1621	148.75	5.85	18.19
217	SLU 18	-79	-67	1717	155.54	6.38	19.3
217	SLU 19	-81	-67	1714	155.16	6.29	19.83
217	SLU 20	-79	-67	1717	155.54	6.38	19.3
217	SLU 21	-81	-67	1714	155.16	6.29	19.83
217	SLU 22	-66	-60	1567	145.03	5.63	16.22
217	SLU 23	-70	-60	1563	144.4	5.48	17.11
217	SLU 24	-66	-60	1567	145.03	5.63	16.22
217	SLU 25	-68	-60	1564	144.65	5.54	16.76
217	SLU 26	-70	-60	1563	144.4	5.48	17.11
217	SLU 27	-66	-60	1567	145.03	5.63	16.22
217	SLU 28	-68	-60	1564	144.65	5.54	16.76
217	SLU 29	-66	-60	1567	145.03	5.63	16.22

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
217	SLU 30	-68	-60	1564	144.65	5.54	16.76
217	SLU 31	-85	-69	1780	159.36	6.5	20.95
217	SLU 32	-82	-69	1784	159.99	6.66	20.06
217	SLU 33	-84	-69	1782	159.61	6.56	20.59
217	SLU 34	-85	-69	1780	159.36	6.5	20.95
217	SLU 35	-82	-69	1784	159.99	6.66	20.06
217	SLU 36	-84	-69	1782	159.61	6.56	20.59
217	SLU 37	-82	-69	1784	159.99	6.66	20.06
217	SLU 38	-84	-69	1782	159.61	6.56	20.59
217	SLU 39	-88	-73	1877	166.4	7.09	21.7
217	SLU 40	-90	-72	1875	166.03	7	22.24
217	SLU 41	-88	-73	1877	166.4	7.09	21.7
217	SLU 42	-90	-72	1875	166.03	7	22.24
217	SLU 43	-70	-69	1773	170.69	6.15	17.13
217	SLU 44	-73	-69	1770	170.07	5.99	18.03
217	SLU 45	-70	-69	1773	170.69	6.15	17.13
217	SLU 46	-72	-69	1771	170.32	6.05	17.67
217	SLU 47	-73	-69	1770	170.07	5.99	18.03
217	SLU 48	-70	-69	1773	170.69	6.15	17.13
217	SLU 49	-72	-69	1771	170.32	6.05	17.67
217	SLU 50	-70	-69	1773	170.69	6.15	17.13
217	SLU 51	-72	-69	1771	170.32	6.05	17.67
217	SLU 52	-89	-77	1987	185.03	7.02	21.86
217	SLU 53	-85	-78	1991	185.65	7.17	20.97
217	SLU 54	-87	-78	1988	185.28	7.08	21.51
217	SLU 55	-89	-77	1987	185.03	7.02	21.86
217	SLU 56	-85	-78	1991	185.65	7.17	20.97
217	SLU 57	-87	-78	1988	185.28	7.08	21.51
217	SLU 58	-85	-78	1991	185.65	7.17	20.97
217	SLU 59	-87	-78	1988	185.28	7.08	21.51
217	SLU 60	-92	-82	2084	192.07	7.61	22.61
217	SLU 61	-94	-81	2081	191.69	7.52	23.15
217	SLU 62	-92	-82	2084	192.07	7.61	22.61
217	SLU 63	-94	-81	2081	191.69	7.52	23.15
217	SLU 64	-80	-74	1934	181.55	6.86	19.54
217	SLU 65	-83	-74	1930	180.93	6.71	20.43
217	SLU 66	-80	-74	1934	181.55	6.86	19.54
217	SLU 67	-82	-74	1931	181.18	6.77	20.08
217	SLU 68	-83	-74	1930	180.93	6.71	20.43
217	SLU 69	-80	-74	1934	181.55	6.86	19.54
217	SLU 70	-82	-74	1931	181.18	6.77	20.08
217	SLU 71	-80	-74	1934	181.55	6.86	19.54
217	SLU 72	-82	-74	1931	181.18	6.77	20.08
217	SLU 73	-99	-83	2147	195.89	7.73	24.27
217	SLU 74	-95	-83	2151	196.51	7.88	23.38
217	SLU 75	-97	-83	2149	196.14	7.79	23.91
217	SLU 76	-99	-83	2147	195.89	7.73	24.27
217	SLU 77	-95	-83	2151	196.51	7.88	23.38
217	SLU 78	-97	-83	2149	196.14	7.79	23.91
217	SLU 79	-95	-83	2151	196.51	7.88	23.38
217	SLU 80	-97	-83	2149	196.14	7.79	23.91
217	SLU 81	-102	-87	2244	202.93	8.32	25.02
217	SLU 82	-104	-87	2242	202.55	8.23	25.56
217	SLU 83	-102	-87	2244	202.93	8.32	25.02
217	SLU 84	-104	-87	2242	202.55	8.23	25.56
217	SLE RA 1	-59	-56	1452	137.27	5.12	14.5
217	SLE RA 2	-61	-56	1450	136.85	5.02	15.1
217	SLE RA 3	-59	-56	1452	137.27	5.12	14.5
217	SLE RA 4	-60	-56	1451	137.02	5.06	14.86
217	SLE RA 5	-61	-56	1450	136.85	5.02	15.1
217	SLE RA 6	-59	-56	1452	137.27	5.12	14.5
217	SLE RA 7	-60	-56	1451	137.02	5.06	14.86
217	SLE RA 8	-59	-56	1452	137.27	5.12	14.5
217	SLE RA 9	-60	-56	1451	137.02	5.06	14.86
217	SLE RA 10	-72	-62	1594	146.83	5.7	17.66
217	SLE RA 11	-69	-62	1597	147.24	5.8	17.06
217	SLE RA 12	-71	-62	1595	146.99	5.74	17.42
217	SLE RA 13	-72	-62	1594	146.83	5.7	17.66
217	SLE RA 14	-69	-62	1597	147.24	5.8	17.06
217	SLE RA 15	-71	-62	1595	146.99	5.74	17.42
217	SLE RA 16	-69	-62	1597	147.24	5.8	17.06
217	SLE RA 17	-71	-62	1595	146.99	5.74	17.42
217	SLE RA 18	-74	-64	1659	151.52	6.1	18.16
217	SLE RA 19	-75	-64	1657	151.27	6.03	18.51
217	SLE RA 20	-74	-64	1659	151.52	6.1	18.16
217	SLE RA 21	-75	-64	1657	151.27	6.03	18.51
217	SLE FR 1	-59	-56	1452	137.27	5.12	14.5
217	SLE FR 2	-60	-56	1452	137.19	5.1	14.62
217	SLE FR 3	-59	-56	1452	137.27	5.12	14.5
217	SLE FR 4	-64	-58	1514	141.46	5.39	15.72
217	SLE FR 5	-63	-59	1514	141.54	5.41	15.6
217	SLE FR 6	-66	-60	1556	144.39	5.61	16.33
217	SLE QP 1	-59	-56	1452	137.27	5.12	14.5
217	SLE QP 2	-63	-59	1514	141.54	5.41	15.6
217	SLD 1	30	-30	1575	142.38	7.48	-7.84
217	SLD 2	24	-52	1576	142.39	7.49	-6.16

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
217	SLD 3	25	-102	1597	154.49	7.76	-6.5
217	SLD 4	18	-123	1597	154.49	7.77	-4.81
217	SLD 5	-25	66	1499	123.44	5.62	5.93
217	SLD 6	-32	44	1500	123.44	5.63	7.63
217	SLD 7	-43	-172	1572	163.78	6.53	10.41
217	SLD 8	-49	-194	1572	163.79	6.54	12.1
217	SLD 9	-78	77	1456	119.3	4.29	19.09
217	SLD 10	-84	55	1456	119.31	4.3	20.79
217	SLD 11	-95	-161	1529	159.65	5.2	23.56
217	SLD 12	-102	-183	1529	159.65	5.21	25.26
217	SLD 13	-145	6	1431	128.6	3.06	36.01
217	SLD 14	-152	-15	1431	128.6	3.07	37.7
217	SLD 15	-151	-65	1453	140.7	3.33	37.35
217	SLD 16	-157	-87	1453	140.7	3.34	39.04
217	SLV 1	149	5	1653	143.54	10.12	-37.65
217	SLV 2	134	-44	1654	143.55	10.14	-33.83
217	SLV 3	137	-157	1702	170.91	10.74	-34.6
217	SLV 4	122	-206	1703	170.93	10.76	-30.78
217	SLV 5	23	223	1481	100.62	5.88	-6.36
217	SLV 6	9	174	1481	100.64	5.9	-2.51
217	SLV 7	-17	-316	1645	191.86	7.94	3.82
217	SLV 8	-31	-366	1646	191.88	7.96	7.66
217	SLV 9	-96	249	1383	91.21	2.86	23.53
217	SLV 10	-110	199	1383	91.22	2.88	27.38
217	SLV 11	-136	-291	1547	182.45	4.93	33.71
217	SLV 12	-150	-340	1547	182.46	4.95	37.55
217	SLV 13	-249	89	1326	112.16	0.06	61.97
217	SLV 14	-264	40	1326	112.17	0.08	65.8
217	SLV 15	-261	-73	1375	139.53	0.68	65.03
217	SLV 16	-276	-122	1375	139.55	0.7	68.85
217	CRTFP Ux+	0	0	0	0	0	0
217	CRTFP Ux-	0	0	0	0	0	0
217	CRTFP Uy+	0	0	0	0	0	0
217	CRTFP Uy-	0	0	0	0	0	0
218	SLU 1	-57	-62	1276	69.86	4.1	13.85
218	SLU 2	-60	-62	1277	70.22	3.95	14.75
218	SLU 3	-57	-62	1276	69.86	4.1	13.85
218	SLU 4	-59	-62	1277	70.08	4.01	14.39
218	SLU 5	-60	-62	1277	70.22	3.95	14.75
218	SLU 6	-57	-62	1276	69.86	4.1	13.85
218	SLU 7	-59	-62	1277	70.08	4.01	14.39
218	SLU 8	-57	-62	1276	69.86	4.1	13.85
218	SLU 9	-59	-62	1277	70.08	4.01	14.39
218	SLU 10	-76	-73	1467	72.67	4.82	18.59
218	SLU 11	-72	-73	1466	72.31	4.97	17.7
218	SLU 12	-74	-73	1466	72.53	4.88	18.24
218	SLU 13	-76	-73	1467	72.67	4.82	18.59
218	SLU 14	-72	-73	1466	72.31	4.97	17.7
218	SLU 15	-74	-73	1466	72.53	4.88	18.24
218	SLU 16	-72	-73	1466	72.31	4.97	17.7
218	SLU 17	-74	-73	1466	72.53	4.88	18.24
218	SLU 18	-79	-77	1547	73.36	5.35	19.35
218	SLU 19	-81	-77	1548	73.58	5.26	19.88
218	SLU 20	-79	-77	1547	73.36	5.35	19.35
218	SLU 21	-81	-77	1548	73.58	5.26	19.88
218	SLU 22	-66	-69	1417	71.74	4.7	16.27
218	SLU 23	-70	-69	1418	72.1	4.56	17.16
218	SLU 24	-66	-69	1417	71.74	4.7	16.27
218	SLU 25	-69	-69	1418	71.95	4.61	16.8
218	SLU 26	-70	-69	1418	72.1	4.56	17.16
218	SLU 27	-66	-69	1417	71.74	4.7	16.27
218	SLU 28	-69	-69	1418	71.95	4.61	16.8
218	SLU 29	-66	-69	1417	71.74	4.7	16.27
218	SLU 30	-69	-69	1418	71.95	4.61	16.8
218	SLU 31	-86	-79	1608	74.55	5.43	21
218	SLU 32	-82	-80	1607	74.19	5.58	20.11
218	SLU 33	-84	-79	1607	74.41	5.49	20.65
218	SLU 34	-86	-79	1608	74.55	5.43	21
218	SLU 35	-82	-80	1607	74.19	5.58	20.11
218	SLU 36	-84	-79	1607	74.41	5.49	20.65
218	SLU 37	-82	-80	1607	74.19	5.58	20.11
218	SLU 38	-84	-79	1607	74.41	5.49	20.65
218	SLU 39	-89	-84	1688	75.24	5.95	21.76
218	SLU 40	-91	-84	1689	75.46	5.86	22.29
218	SLU 41	-89	-84	1688	75.24	5.95	21.76
218	SLU 42	-91	-84	1689	75.46	5.86	22.29
218	SLU 43	-70	-78	1611	90.17	5.13	17.18
218	SLU 44	-74	-78	1611	90.53	4.98	18.08
218	SLU 45	-70	-78	1611	90.17	5.13	17.18
218	SLU 46	-72	-78	1611	90.39	5.04	17.72
218	SLU 47	-74	-78	1611	90.53	4.98	18.08
218	SLU 48	-70	-78	1611	90.17	5.13	17.18
218	SLU 49	-72	-78	1611	90.39	5.04	17.72
218	SLU 50	-70	-78	1611	90.17	5.13	17.18
218	SLU 51	-72	-78	1611	90.39	5.04	17.72
218	SLU 52	-89	-89	1801	92.99	5.85	21.92

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
218	SLU 53	-86	-89	1800	92.62	6	21.03
218	SLU 54	-88	-89	1801	92.84	5.91	21.56
218	SLU 55	-89	-89	1801	92.99	5.85	21.92
218	SLU 56	-86	-89	1800	92.62	6	21.03
218	SLU 57	-88	-89	1801	92.84	5.91	21.56
218	SLU 58	-86	-89	1800	92.62	6	21.03
218	SLU 59	-88	-89	1801	92.84	5.91	21.56
218	SLU 60	-92	-94	1882	93.67	6.37	22.68
218	SLU 61	-95	-94	1882	93.89	6.28	23.21
218	SLU 62	-92	-94	1882	93.67	6.37	22.68
218	SLU 63	-95	-94	1882	93.89	6.28	23.21
218	SLU 64	-80	-85	1752	92.05	5.73	19.6
218	SLU 65	-84	-85	1752	92.41	5.58	20.49
218	SLU 66	-80	-85	1752	92.05	5.73	19.6
218	SLU 67	-82	-85	1752	92.27	5.64	20.13
218	SLU 68	-84	-85	1752	92.41	5.58	20.49
218	SLU 69	-80	-85	1752	92.05	5.73	19.6
218	SLU 70	-82	-85	1752	92.27	5.64	20.13
218	SLU 71	-80	-85	1752	92.05	5.73	19.6
218	SLU 72	-82	-85	1752	92.27	5.64	20.13
218	SLU 73	-99	-96	1942	94.86	6.45	24.33
218	SLU 74	-96	-96	1941	94.5	6.6	23.44
218	SLU 75	-98	-96	1942	94.72	6.51	23.98
218	SLU 76	-99	-96	1942	94.86	6.45	24.33
218	SLU 77	-96	-96	1941	94.5	6.6	23.44
218	SLU 78	-98	-96	1942	94.72	6.51	23.98
218	SLU 79	-96	-96	1941	94.5	6.6	23.44
218	SLU 80	-98	-96	1942	94.72	6.51	23.98
218	SLU 81	-102	-101	2023	95.55	6.97	25.09
218	SLU 82	-104	-100	2023	95.77	6.88	25.62
218	SLU 83	-102	-101	2023	95.55	6.97	25.09
218	SLU 84	-104	-100	2023	95.77	6.88	25.62
218	SLE RA 1	-59	-64	1316	70.39	4.27	14.54
218	SLE RA 2	-62	-64	1317	70.64	4.17	15.14
218	SLE RA 3	-59	-64	1316	70.39	4.27	14.54
218	SLE RA 4	-61	-64	1317	70.54	4.21	14.9
218	SLE RA 5	-62	-64	1317	70.64	4.17	15.14
218	SLE RA 6	-59	-64	1316	70.39	4.27	14.54
218	SLE RA 7	-61	-64	1317	70.54	4.21	14.9
218	SLE RA 8	-59	-64	1316	70.39	4.27	14.54
218	SLE RA 9	-61	-64	1317	70.54	4.21	14.9
218	SLE RA 10	-72	-71	1443	72.27	4.76	17.7
218	SLE RA 11	-70	-71	1443	72.03	4.85	17.11
218	SLE RA 12	-71	-71	1443	72.17	4.8	17.46
218	SLE RA 13	-72	-71	1443	72.27	4.76	17.7
218	SLE RA 14	-70	-71	1443	72.03	4.85	17.11
218	SLE RA 15	-71	-71	1443	72.17	4.8	17.46
218	SLE RA 16	-70	-71	1443	72.03	4.85	17.11
218	SLE RA 17	-71	-71	1443	72.17	4.8	17.46
218	SLE RA 18	-74	-74	1497	72.73	5.1	18.21
218	SLE RA 19	-76	-74	1497	72.87	5.04	18.56
218	SLE RA 20	-74	-74	1497	72.73	5.1	18.21
218	SLE RA 21	-76	-74	1497	72.87	5.04	18.56
218	SLE FR 1	-59	-64	1316	70.39	4.27	14.54
218	SLE FR 2	-60	-64	1317	70.44	4.25	14.66
218	SLE FR 3	-59	-64	1316	70.39	4.27	14.54
218	SLE FR 4	-64	-67	1371	71.14	4.5	15.76
218	SLE FR 5	-64	-67	1371	71.09	4.52	15.64
218	SLE FR 6	-67	-69	1407	71.56	4.69	16.37
218	SLE QP 1	-59	-64	1316	70.39	4.27	14.54
218	SLE QP 2	-64	-67	1371	71.09	4.52	15.64
218	SLD 1	29	-41	1369	54.64	6.53	-7.78
218	SLD 2	23	-58	1369	54.54	6.53	-6.09
218	SLD 3	24	-108	1396	71.06	6.79	-6.44
218	SLD 4	18	-125	1396	70.96	6.8	-4.75
218	SLD 5	-26	49	1328	41.29	4.72	5.98
218	SLD 6	-32	31	1328	41.19	4.72	7.69
218	SLD 7	-43	-175	1420	96.03	5.6	10.45
218	SLD 8	-49	-192	1420	95.92	5.61	12.16
218	SLD 9	-78	58	1321	46.27	3.43	19.13
218	SLD 10	-84	41	1321	46.16	3.44	20.83
218	SLD 11	-96	-165	1413	101	4.32	23.6
218	SLD 12	-102	-183	1413	100.9	4.33	25.3
218	SLD 13	-146	-9	1345	71.23	2.25	36.03
218	SLD 14	-152	-27	1345	71.13	2.25	37.72
218	SLD 15	-151	-76	1373	87.65	2.51	37.37
218	SLD 16	-157	-94	1372	87.55	2.52	39.06
218	SLV 1	148	-7	1367	33.81	9.08	-37.56
218	SLV 2	134	-47	1367	33.58	9.09	-33.73
218	SLV 3	136	-160	1429	70.95	9.68	-34.51
218	SLV 4	122	-199	1429	70.73	9.7	-30.68
218	SLV 5	23	196	1275	3.65	4.97	-6.3
218	SLV 6	9	156	1275	3.43	4.98	-2.45
218	SLV 7	-17	-312	1483	127.47	6.98	3.88
218	SLV 8	-31	-352	1483	127.24	6.99	7.73
218	SLV 9	-96	218	1258	14.95	2.05	23.55

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
218	SLV 10	-111	178	1258	14.72	2.07	27.41
218	SLV 11	-136	-290	1467	138.76	4.06	33.73
218	SLV 12	-151	-330	1466	138.54	4.08	37.59
218	SLV 13	-250	65	1312	71.46	-0.65	61.96
218	SLV 14	-264	25	1312	71.24	-0.64	65.79
218	SLV 15	-262	-87	1375	108.61	-0.05	65.02
218	SLV 16	-276	-127	1374	108.38	-0.03	68.85
218	CRTFP Ux+	0	0	0	0	0	0
218	CRTFP Ux-	0	0	0	0	0	0
218	CRTFP Uy+	0	0	0	0	0	0
218	CRTFP Uy-	0	0	0	0	0	0
219	SLU 1	-57	-71	1164	17.48	3.68	13.88
219	SLU 2	-60	-70	1169	18.8	3.53	14.77
219	SLU 3	-57	-71	1164	17.48	3.68	13.88
219	SLU 4	-59	-70	1167	18.28	3.59	14.41
219	SLU 5	-60	-70	1169	18.8	3.53	14.77
219	SLU 6	-57	-71	1164	17.48	3.68	13.88
219	SLU 7	-59	-70	1167	18.28	3.59	14.41
219	SLU 8	-57	-71	1164	17.48	3.68	13.88
219	SLU 9	-59	-70	1167	18.28	3.59	14.41
219	SLU 10	-76	-83	1334	10.81	4.32	18.62
219	SLU 11	-72	-84	1329	9.49	4.47	17.73
219	SLU 12	-75	-83	1332	10.28	4.38	18.26
219	SLU 13	-76	-83	1334	10.81	4.32	18.62
219	SLU 14	-72	-84	1329	9.49	4.47	17.73
219	SLU 15	-75	-83	1332	10.28	4.38	18.26
219	SLU 16	-72	-84	1329	9.49	4.47	17.73
219	SLU 17	-75	-83	1332	10.28	4.38	18.26
219	SLU 18	-79	-89	1400	6.06	4.81	19.38
219	SLU 19	-81	-89	1403	6.85	4.72	19.91
219	SLU 20	-79	-89	1400	6.06	4.81	19.38
219	SLU 21	-81	-89	1403	6.85	4.72	19.91
219	SLU 22	-67	-79	1288	11.92	4.22	16.29
219	SLU 23	-70	-79	1293	13.24	4.07	17.18
219	SLU 24	-67	-79	1288	11.92	4.22	16.29
219	SLU 25	-69	-79	1291	12.71	4.13	16.83
219	SLU 26	-70	-79	1293	13.24	4.07	17.18
219	SLU 27	-67	-79	1288	11.92	4.22	16.29
219	SLU 28	-69	-79	1291	12.71	4.13	16.83
219	SLU 29	-67	-79	1288	11.92	4.22	16.29
219	SLU 30	-69	-79	1291	12.71	4.13	16.83
219	SLU 31	-86	-91	1459	5.24	4.86	21.03
219	SLU 32	-82	-92	1454	3.92	5.01	20.14
219	SLU 33	-84	-92	1457	4.71	4.92	20.68
219	SLU 34	-86	-91	1459	5.24	4.86	21.03
219	SLU 35	-82	-92	1454	3.92	5.01	20.14
219	SLU 36	-84	-92	1457	4.71	4.92	20.68
219	SLU 37	-82	-92	1454	3.92	5.01	20.14
219	SLU 38	-84	-92	1457	4.71	4.92	20.68
219	SLU 39	-89	-97	1525	0.49	5.35	21.79
219	SLU 40	-91	-97	1528	1.28	5.26	22.33
219	SLU 41	-89	-97	1525	0.49	5.35	21.79
219	SLU 42	-91	-97	1528	1.28	5.26	22.33
219	SLU 43	-70	-89	1470	24.64	4.59	17.21
219	SLU 44	-74	-89	1475	25.96	4.45	18.1
219	SLU 45	-70	-89	1470	24.64	4.59	17.21
219	SLU 46	-73	-89	1473	25.43	4.5	17.75
219	SLU 47	-74	-89	1475	25.96	4.45	18.1
219	SLU 48	-70	-89	1470	24.64	4.59	17.21
219	SLU 49	-73	-89	1473	25.43	4.5	17.75
219	SLU 50	-70	-89	1470	24.64	4.59	17.21
219	SLU 51	-73	-89	1473	25.43	4.5	17.75
219	SLU 52	-90	-102	1641	17.96	5.24	21.95
219	SLU 53	-86	-102	1636	16.64	5.38	21.06
219	SLU 54	-88	-102	1639	17.43	5.29	21.6
219	SLU 55	-90	-102	1641	17.96	5.24	21.95
219	SLU 56	-86	-102	1636	16.64	5.38	21.06
219	SLU 57	-88	-102	1639	17.43	5.29	21.6
219	SLU 58	-86	-102	1636	16.64	5.38	21.06
219	SLU 59	-88	-102	1639	17.43	5.29	21.6
219	SLU 60	-93	-107	1707	13.21	5.72	22.71
219	SLU 61	-95	-107	1710	14	5.63	23.25
219	SLU 62	-93	-107	1707	13.21	5.72	22.71
219	SLU 63	-95	-107	1710	14	5.63	23.25
219	SLU 64	-80	-97	1595	19.07	5.14	19.63
219	SLU 65	-84	-97	1600	20.39	4.99	20.52
219	SLU 66	-80	-97	1595	19.07	5.14	19.63
219	SLU 67	-82	-97	1598	19.86	5.05	20.16
219	SLU 68	-84	-97	1600	20.39	4.99	20.52
219	SLU 69	-80	-97	1595	19.07	5.14	19.63
219	SLU 70	-82	-97	1598	19.86	5.05	20.16
219	SLU 71	-80	-97	1595	19.07	5.14	19.63
219	SLU 72	-82	-97	1598	19.86	5.05	20.16
219	SLU 73	-100	-110	1765	12.39	5.78	24.37
219	SLU 74	-96	-110	1760	11.07	5.93	23.48
219	SLU 75	-98	-110	1763	11.86	5.84	24.01

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
219	SLU 76	-100	-110	1765	12.39	5.78	24.37
219	SLU 77	-96	-110	1760	11.07	5.93	23.48
219	SLU 78	-98	-110	1763	11.86	5.84	24.01
219	SLU 79	-96	-110	1760	11.07	5.93	23.48
219	SLU 80	-98	-110	1763	11.86	5.84	24.01
219	SLU 81	-103	-116	1831	7.64	6.27	25.13
219	SLU 82	-105	-115	1834	8.44	6.18	25.66
219	SLU 83	-103	-116	1831	7.64	6.27	25.13
219	SLU 84	-105	-115	1834	8.44	6.18	25.66
219	SLE RA 1	-60	-73	1199	15.89	3.83	14.57
219	SLE RA 2	-62	-73	1203	16.77	3.73	15.16
219	SLE RA 3	-60	-73	1199	15.89	3.83	14.57
219	SLE RA 4	-61	-73	1201	16.42	3.77	14.92
219	SLE RA 5	-62	-73	1203	16.77	3.73	15.16
219	SLE RA 6	-60	-73	1199	15.89	3.83	14.57
219	SLE RA 7	-61	-73	1201	16.42	3.77	14.92
219	SLE RA 8	-60	-73	1199	15.89	3.83	14.57
219	SLE RA 9	-61	-73	1201	16.42	3.77	14.92
219	SLE RA 10	-72	-81	1313	11.44	4.26	17.73
219	SLE RA 11	-70	-82	1310	10.56	4.36	17.13
219	SLE RA 12	-71	-81	1312	11.09	4.3	17.49
219	SLE RA 13	-72	-81	1313	11.44	4.26	17.73
219	SLE RA 14	-70	-82	1310	10.56	4.36	17.13
219	SLE RA 15	-71	-81	1312	11.09	4.3	17.49
219	SLE RA 16	-70	-82	1310	10.56	4.36	17.13
219	SLE RA 17	-71	-81	1312	11.09	4.3	17.49
219	SLE RA 18	-75	-85	1357	8.28	4.58	18.23
219	SLE RA 19	-76	-85	1359	8.8	4.53	18.59
219	SLE RA 20	-75	-85	1357	8.28	4.58	18.23
219	SLE RA 21	-76	-85	1359	8.8	4.53	18.59
219	SLE FR 1	-60	-73	1199	15.89	3.83	14.57
219	SLE FR 2	-60	-73	1200	16.07	3.81	14.68
219	SLE FR 3	-60	-73	1199	15.89	3.83	14.57
219	SLE FR 4	-65	-77	1247	13.78	4.04	15.78
219	SLE FR 5	-64	-77	1247	13.61	4.06	15.67
219	SLE FR 6	-67	-79	1278	12.08	4.21	16.4
219	SLE QP 1	-60	-73	1199	15.89	3.83	14.57
219	SLE QP 2	-64	-77	1247	13.61	4.06	15.67
219	SLD 1	29	-52	1176	1.87	6.3	-7.74
219	SLD 2	23	-65	1175	1.69	6.3	-6.05
219	SLD 3	24	-115	1210	-18.7	6.04	-6.4
219	SLD 4	18	-128	1210	-18.89	6.04	-4.71
219	SLD 5	-26	31	1173	41.35	5.12	6.01
219	SLD 6	-32	17	1173	41.17	5.12	7.72
219	SLD 7	-43	-179	1288	-27.22	4.26	10.48
219	SLD 8	-50	-192	1287	-27.41	4.26	12.19
219	SLD 9	-78	39	1206	54.62	3.85	19.15
219	SLD 10	-85	25	1206	54.44	3.86	20.85
219	SLD 11	-96	-171	1320	-13.95	2.99	23.62
219	SLD 12	-102	-184	1320	-14.14	3	25.32
219	SLD 13	-146	-25	1284	46.1	2.07	36.04
219	SLD 14	-152	-39	1283	45.92	2.08	37.73
219	SLD 15	-151	-88	1318	25.53	1.81	37.38
219	SLD 16	-157	-102	1318	25.35	1.82	39.07
219	SLV 1	148	-21	1085	-13.16	9.15	-37.51
219	SLV 2	134	-51	1085	-13.58	9.16	-33.68
219	SLV 3	136	-163	1163	-59.71	8.56	-34.46
219	SLV 4	122	-194	1162	-60.12	8.58	-30.62
219	SLV 5	23	167	1081	76.31	6.47	-6.27
219	SLV 6	8	137	1080	75.89	6.48	-2.41
219	SLV 7	-17	-308	1339	-78.83	4.52	3.9
219	SLV 8	-31	-339	1339	-79.25	4.53	7.76
219	SLV 9	-97	186	1155	106.46	3.58	23.57
219	SLV 10	-111	155	1154	106.04	3.6	27.43
219	SLV 11	-137	-290	1413	-48.68	1.64	33.74
219	SLV 12	-151	-321	1412	-49.1	1.65	37.6
219	SLV 13	-250	40	1331	87.33	-0.46	61.96
219	SLV 14	-264	10	1331	86.92	-0.45	65.79
219	SLV 15	-262	-102	1408	40.79	-1.05	65.01
219	SLV 16	-276	-133	1408	40.38	-1.03	68.84
219	CRTFP Ux+	0	0	0	0	0	0
219	CRTFP Ux-	0	0	0	0	0	0
219	CRTFP Uy+	0	0	0	0	0	0
219	CRTFP Uy-	0	0	0	0	0	0
220	SLU 1	-28	-39	542	-8.36	57.29	11.13
220	SLU 2	-30	-39	546	-7.33	57.7	11.56
220	SLU 3	-28	-39	542	-8.36	57.29	11.13
220	SLU 4	-29	-39	545	-7.74	57.54	11.39
220	SLU 5	-30	-39	546	-7.33	57.7	11.56
220	SLU 6	-28	-39	542	-8.36	57.29	11.13
220	SLU 7	-29	-39	545	-7.74	57.54	11.39
220	SLU 8	-28	-39	542	-8.36	57.29	11.13
220	SLU 9	-29	-39	545	-7.74	57.54	11.39
220	SLU 10	-38	-46	621	-14.83	65.59	14.27
220	SLU 11	-36	-46	617	-15.86	65.18	13.85
220	SLU 12	-37	-46	619	-15.24	65.43	14.1

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
220	SLU 13	-38	-46	621	-14.83	65.59	14.27
220	SLU 14	-36	-46	617	-15.86	65.18	13.85
220	SLU 15	-37	-46	619	-15.24	65.43	14.1
220	SLU 16	-36	-46	617	-15.86	65.18	13.85
220	SLU 17	-37	-46	619	-15.24	65.43	14.1
220	SLU 18	-40	-49	649	-19.07	68.56	15.01
220	SLU 19	-41	-49	651	-18.45	68.81	15.27
220	SLU 20	-40	-49	649	-19.07	68.56	15.01
220	SLU 21	-41	-49	651	-18.45	68.81	15.27
220	SLU 22	-33	-43	599	-13.62	63.27	12.85
220	SLU 23	-35	-43	603	-12.59	63.68	13.28
220	SLU 24	-33	-43	599	-13.62	63.27	12.85
220	SLU 25	-34	-43	601	-13	63.52	13.11
220	SLU 26	-35	-43	603	-12.59	63.68	13.28
220	SLU 27	-33	-43	599	-13.62	63.27	12.85
220	SLU 28	-34	-43	601	-13	63.52	13.11
220	SLU 29	-33	-43	599	-13.62	63.27	12.85
220	SLU 30	-34	-43	601	-13	63.52	13.11
220	SLU 31	-43	-51	677	-20.08	71.57	16
220	SLU 32	-41	-51	673	-21.12	71.16	15.57
220	SLU 33	-42	-51	676	-20.5	71.41	15.83
220	SLU 34	-43	-51	677	-20.08	71.57	16
220	SLU 35	-41	-51	673	-21.12	71.16	15.57
220	SLU 36	-42	-51	676	-20.5	71.41	15.83
220	SLU 37	-41	-51	673	-21.12	71.16	15.57
220	SLU 38	-42	-51	676	-20.5	71.41	15.83
220	SLU 39	-45	-54	705	-24.33	74.54	16.73
220	SLU 40	-46	-54	708	-23.71	74.79	16.99
220	SLU 41	-45	-54	705	-24.33	74.54	16.73
220	SLU 42	-46	-54	708	-23.71	74.79	16.99
220	SLU 43	-35	-49	686	-9.07	72.43	13.88
220	SLU 44	-37	-49	690	-8.03	72.84	14.31
220	SLU 45	-35	-49	686	-9.07	72.43	13.88
220	SLU 46	-36	-49	688	-8.45	72.67	14.13
220	SLU 47	-37	-49	690	-8.03	72.84	14.31
220	SLU 48	-35	-49	686	-9.07	72.43	13.88
220	SLU 49	-36	-49	688	-8.45	72.67	14.13
220	SLU 50	-35	-49	686	-9.07	72.43	13.88
220	SLU 51	-36	-49	688	-8.45	72.67	14.13
220	SLU 52	-45	-56	764	-15.53	80.73	17.02
220	SLU 53	-43	-56	760	-16.56	80.32	16.59
220	SLU 54	-44	-56	763	-15.94	80.56	16.85
220	SLU 55	-45	-56	764	-15.53	80.73	17.02
220	SLU 56	-43	-56	760	-16.56	80.32	16.59
220	SLU 57	-44	-56	763	-15.94	80.56	16.85
220	SLU 58	-43	-56	760	-16.56	80.32	16.59
220	SLU 59	-44	-56	763	-15.94	80.56	16.85
220	SLU 60	-46	-59	792	-19.78	83.7	17.76
220	SLU 61	-48	-59	794	-19.16	83.94	18.01
220	SLU 62	-46	-59	792	-19.78	83.7	17.76
220	SLU 63	-48	-59	794	-19.16	83.94	18.01
220	SLU 64	-40	-54	742	-14.33	78.41	15.6
220	SLU 65	-42	-53	746	-13.29	78.82	16.03
220	SLU 66	-40	-54	742	-14.33	78.41	15.6
220	SLU 67	-41	-53	745	-13.71	78.66	15.86
220	SLU 68	-42	-53	746	-13.29	78.82	16.03
220	SLU 69	-40	-54	742	-14.33	78.41	15.6
220	SLU 70	-41	-53	745	-13.71	78.66	15.86
220	SLU 71	-40	-54	742	-14.33	78.41	15.6
220	SLU 72	-41	-53	745	-13.71	78.66	15.86
220	SLU 73	-50	-61	821	-20.79	86.71	18.75
220	SLU 74	-48	-61	817	-21.82	86.3	18.32
220	SLU 75	-49	-61	819	-21.2	86.54	18.57
220	SLU 76	-50	-61	821	-20.79	86.71	18.75
220	SLU 77	-48	-61	817	-21.82	86.3	18.32
220	SLU 78	-49	-61	819	-21.2	86.54	18.57
220	SLU 79	-48	-61	817	-21.82	86.3	18.32
220	SLU 80	-49	-61	819	-21.2	86.54	18.57
220	SLU 81	-51	-64	848	-25.04	89.68	19.48
220	SLU 82	-52	-64	851	-24.42	89.93	19.74
220	SLU 83	-51	-64	848	-25.04	89.68	19.48
220	SLU 84	-52	-64	851	-24.42	89.93	19.74
220	SLE RA 1	-30	-40	559	-9.86	59	11.62
220	SLE RA 2	-31	-40	561	-9.18	59.27	11.91
220	SLE RA 3	-30	-40	559	-9.86	59	11.62
220	SLE RA 4	-31	-40	560	-9.45	59.16	11.79
220	SLE RA 5	-31	-40	561	-9.18	59.27	11.91
220	SLE RA 6	-30	-40	559	-9.86	59	11.62
220	SLE RA 7	-31	-40	560	-9.45	59.16	11.79
220	SLE RA 8	-30	-40	559	-9.86	59	11.62
220	SLE RA 9	-31	-40	560	-9.45	59.16	11.79
220	SLE RA 10	-36	-45	611	-14.17	64.53	13.72
220	SLE RA 11	-35	-45	608	-14.86	64.26	13.43
220	SLE RA 12	-36	-45	610	-14.45	64.42	13.6
220	SLE RA 13	-36	-45	611	-14.17	64.53	13.72
220	SLE RA 14	-35	-45	608	-14.86	64.26	13.43

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
220	SLE RA 15	-36	-45	610	-14.45	64.42	13.6
220	SLE RA 16	-35	-45	608	-14.86	64.26	13.43
220	SLE RA 17	-36	-45	610	-14.45	64.42	13.6
220	SLE RA 18	-37	-47	629	-17	66.51	14.21
220	SLE RA 19	-38	-47	631	-16.59	66.68	14.38
220	SLE RA 20	-37	-47	629	-17	66.51	14.21
220	SLE RA 21	-38	-47	631	-16.59	66.68	14.38
220	SLE FR 1	-30	-40	559	-9.86	59	11.62
220	SLE FR 2	-30	-40	559	-9.73	59.06	11.68
220	SLE FR 3	-30	-40	559	-9.86	59	11.62
220	SLE FR 4	-32	-42	580	-11.87	61.31	12.45
220	SLE FR 5	-32	-42	580	-12.01	61.25	12.4
220	SLE FR 6	-34	-44	594	-13.43	62.76	12.91
220	SLE QP 1	-30	-40	559	-9.86	59	11.62
220	SLE QP 2	-32	-42	580	-12.01	61.25	12.4
220	SLD 1	15	-30	520	-22.4	55.27	-0.81
220	SLD 2	11	-36	520	-22.52	55.25	0.52
220	SLD 3	12	-60	540	-34.07	57.31	2.79
220	SLD 4	9	-66	540	-34.19	57.29	4.12
220	SLD 5	-13	8	532	2.62	56.38	2.5
220	SLD 6	-16	3	532	2.5	56.36	3.85
220	SLD 7	-22	-91	598	-36.29	63.17	14.5
220	SLD 8	-25	-96	598	-36.41	63.15	15.85
220	SLD 9	-39	12	562	12.4	59.36	8.95
220	SLD 10	-42	7	562	12.27	59.34	10.29
220	SLD 11	-48	-88	628	-26.51	66.15	20.95
220	SLD 12	-51	-93	627	-26.64	66.13	22.29
220	SLD 13	-73	-19	620	10.18	65.22	20.67
220	SLD 14	-76	-24	620	10.06	65.2	22
220	SLD 15	-76	-49	640	-1.5	67.25	24.27
220	SLD 16	-79	-54	639	-1.62	67.24	25.6
220	SLV 1	74	-16	444	-35.68	47.65	-17.59
220	SLV 2	67	-27	444	-35.95	47.62	-14.58
220	SLV 3	68	-84	489	-62.09	52.26	-9.43
220	SLV 4	61	-95	488	-62.36	52.23	-6.41
220	SLV 5	11	73	472	21.05	50.2	-10.05
220	SLV 6	4	61	471	20.77	50.16	-7.01
220	SLV 7	-9	-153	620	-66.99	65.56	17.17
220	SLV 8	-16	-165	620	-67.27	65.52	20.2
220	SLV 9	-48	81	540	43.25	56.99	4.59
220	SLV 10	-55	69	539	42.98	56.95	7.63
220	SLV 11	-68	-145	688	-44.78	72.35	31.81
220	SLV 12	-75	-157	688	-45.06	72.31	34.84
220	SLV 13	-125	11	671	38.35	70.28	31.21
220	SLV 14	-132	-1	671	38.08	70.25	34.22
220	SLV 15	-131	-57	716	11.94	74.89	39.37
220	SLV 16	-138	-69	715	11.66	74.86	42.39
220	CRTFP Ux+	0	0	0	0	0	0
220	CRTFP Ux-	0	0	0	0	0	0
220	CRTFP Uy+	0	0	0	0	0	0
220	CRTFP Uy-	0	0	0	0	0	0
222	SLU 1	2	117	2511	2.67	9.53	-1.75
222	SLU 2	-10	117	2510	2.67	8.46	-1.66
222	SLU 3	2	117	2511	2.67	9.53	-1.75
222	SLU 4	-5	117	2510	2.67	8.89	-1.7
222	SLU 5	-10	117	2510	2.67	8.46	-1.66
222	SLU 6	2	117	2511	2.67	9.53	-1.75
222	SLU 7	-5	117	2510	2.67	8.89	-1.7
222	SLU 8	2	117	2511	2.67	9.53	-1.75
222	SLU 9	-5	117	2510	2.67	8.89	-1.7
222	SLU 10	-7	132	3239	3.95	8.89	-1.96
222	SLU 11	5	133	3240	3.95	9.96	-2.04
222	SLU 12	-2	133	3239	3.95	9.32	-1.99
222	SLU 13	-7	132	3239	3.95	8.89	-1.96
222	SLU 14	5	133	3240	3.95	9.96	-2.04
222	SLU 15	-2	133	3239	3.95	9.32	-1.99
222	SLU 16	5	133	3240	3.95	9.96	-2.04
222	SLU 17	-2	133	3239	3.95	9.32	-1.99
222	SLU 18	6	139	3553	4.49	10.14	-2.17
222	SLU 19	-1	139	3552	4.49	9.5	-2.12
222	SLU 20	6	139	3553	4.49	10.14	-2.17
222	SLU 21	-1	139	3552	4.49	9.5	-2.12
222	SLU 22	4	126	3007	3.38	9.86	-1.93
222	SLU 23	-8	126	3005	3.39	8.79	-1.85
222	SLU 24	4	126	3007	3.38	9.86	-1.93
222	SLU 25	-4	126	3006	3.39	9.22	-1.88
222	SLU 26	-8	126	3005	3.39	8.79	-1.85
222	SLU 27	4	126	3007	3.38	9.86	-1.93
222	SLU 28	-4	126	3006	3.39	9.22	-1.88
222	SLU 29	4	126	3007	3.38	9.86	-1.93
222	SLU 30	-4	126	3006	3.39	9.22	-1.88
222	SLU 31	-5	142	3735	4.66	9.21	-2.14
222	SLU 32	7	142	3736	4.66	10.28	-2.23
222	SLU 33	-1	142	3735	4.66	9.64	-2.18
222	SLU 34	-5	142	3735	4.66	9.21	-2.14
222	SLU 35	7	142	3736	4.66	10.28	-2.23

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
222	SLU 36	-1	142	3735	4.66	9.64	-2.18
222	SLU 37	7	142	3736	4.66	10.28	-2.23
222	SLU 38	-1	142	3735	4.66	9.64	-2.18
222	SLU 39	8	149	4048	5.21	10.47	-2.36
222	SLU 40	1	149	4048	5.21	9.82	-2.3
222	SLU 41	8	149	4048	5.21	10.47	-2.36
222	SLU 42	1	149	4048	5.21	9.82	-2.3
222	SLU 43	2	149	3094	3.23	12.28	-2.21
222	SLU 44	-10	148	3093	3.23	11.21	-2.12
222	SLU 45	2	149	3094	3.23	12.28	-2.21
222	SLU 46	-5	148	3093	3.23	11.64	-2.16
222	SLU 47	-10	148	3093	3.23	11.21	-2.12
222	SLU 48	2	149	3094	3.23	12.28	-2.21
222	SLU 49	-5	148	3093	3.23	11.64	-2.16
222	SLU 50	2	149	3094	3.23	12.28	-2.21
222	SLU 51	-5	148	3093	3.23	11.64	-2.16
222	SLU 52	-7	164	3822	4.51	11.64	-2.42
222	SLU 53	5	164	3823	4.5	12.71	-2.51
222	SLU 54	-2	164	3823	4.5	12.07	-2.45
222	SLU 55	-7	164	3822	4.51	11.64	-2.42
222	SLU 56	5	164	3823	4.5	12.71	-2.51
222	SLU 57	-2	164	3823	4.5	12.07	-2.45
222	SLU 58	5	164	3823	4.5	12.71	-2.51
222	SLU 59	-2	164	3823	4.5	12.07	-2.45
222	SLU 60	6	171	4136	5.05	12.89	-2.63
222	SLU 61	-1	171	4135	5.05	12.25	-2.58
222	SLU 62	6	171	4136	5.05	12.89	-2.63
222	SLU 63	-1	171	4135	5.05	12.25	-2.58
222	SLU 64	4	158	3590	3.94	12.61	-2.4
222	SLU 65	-8	158	3589	3.94	11.54	-2.31
222	SLU 66	4	158	3590	3.94	12.61	-2.4
222	SLU 67	-3	158	3589	3.94	11.97	-2.34
222	SLU 68	-8	158	3589	3.94	11.54	-2.31
222	SLU 69	4	158	3590	3.94	12.61	-2.4
222	SLU 70	-3	158	3589	3.94	11.97	-2.34
222	SLU 71	4	158	3590	3.94	12.61	-2.4
222	SLU 72	-3	158	3589	3.94	11.97	-2.34
222	SLU 73	-5	174	4318	5.22	11.96	-2.6
222	SLU 74	7	174	4319	5.22	13.03	-2.69
222	SLU 75	0	174	4318	5.22	12.39	-2.64
222	SLU 76	-5	174	4318	5.22	11.96	-2.6
222	SLU 77	7	174	4319	5.22	13.03	-2.69
222	SLU 78	0	174	4318	5.22	12.39	-2.64
222	SLU 79	7	174	4319	5.22	13.03	-2.69
222	SLU 80	0	174	4318	5.22	12.39	-2.64
222	SLU 81	8	181	4632	5.76	13.21	-2.82
222	SLU 82	1	181	4631	5.76	12.57	-2.77
222	SLU 83	8	181	4632	5.76	13.21	-2.82
222	SLU 84	1	181	4631	5.76	12.57	-2.77
222	SLE RA 1	3	120	2653	2.88	9.63	-1.8
222	SLE RA 2	-5	119	2652	2.88	8.91	-1.74
222	SLE RA 3	3	120	2653	2.88	9.63	-1.8
222	SLE RA 4	-2	119	2652	2.88	9.2	-1.77
222	SLE RA 5	-5	119	2652	2.88	8.91	-1.74
222	SLE RA 6	3	120	2653	2.88	9.63	-1.8
222	SLE RA 7	-2	119	2652	2.88	9.2	-1.77
222	SLE RA 8	3	120	2653	2.88	9.63	-1.8
222	SLE RA 9	-2	119	2652	2.88	9.2	-1.77
222	SLE RA 10	-3	130	3138	3.73	9.2	-1.94
222	SLE RA 11	5	130	3139	3.73	9.91	-2
222	SLE RA 12	0	130	3138	3.73	9.48	-1.96
222	SLE RA 13	-3	130	3138	3.73	9.2	-1.94
222	SLE RA 14	5	130	3139	3.73	9.91	-2
222	SLE RA 15	0	130	3138	3.73	9.48	-1.96
222	SLE RA 16	5	130	3139	3.73	9.91	-2
222	SLE RA 17	0	130	3138	3.73	9.48	-1.96
222	SLE RA 18	5	135	3347	4.09	10.03	-2.08
222	SLE RA 19	1	135	3346	4.09	9.6	-2.05
222	SLE RA 20	5	135	3347	4.09	10.03	-2.08
222	SLE RA 21	1	135	3346	4.09	9.6	-2.05
222	SLE FR 1	3	120	2653	2.88	9.63	-1.8
222	SLE FR 2	1	120	2652	2.88	9.48	-1.79
222	SLE FR 3	3	120	2653	2.88	9.63	-1.8
222	SLE FR 4	2	124	2861	3.24	9.61	-1.88
222	SLE FR 5	3	124	2861	3.24	9.75	-1.89
222	SLE FR 6	4	127	3000	3.48	9.83	-1.94
222	SLE QP 1	3	120	2653	2.88	9.63	-1.8
222	SLE QP 2	3	124	2861	3.24	9.75	-1.89
222	SLD 1	204	204	2877	2.76	27	-3.87
222	SLD 2	196	204	2877	2.77	27.37	-2.92
222	SLD 3	213	76	2881	3.53	25.47	-3.68
222	SLD 4	205	76	2880	3.54	25.84	-2.73
222	SLD 5	53	342	2861	1.93	17.1	-3.1
222	SLD 6	46	343	2860	1.94	17.48	-2.15
222	SLD 7	82	-85	2872	4.49	12.02	-2.47
222	SLD 8	74	-84	2871	4.5	12.39	-1.52

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
222	SLD 9	-67	332	2850	1.98	7.1	-2.25
222	SLD 10	-75	333	2850	1.99	7.48	-1.3
222	SLD 11	-39	-94	2862	4.54	2.02	-1.62
222	SLD 12	-47	-94	2861	4.55	2.39	-0.67
222	SLD 13	-198	172	2842	2.94	-6.35	-1.04
222	SLD 14	-206	173	2841	2.95	-5.97	-0.09
222	SLD 15	-190	44	2845	3.71	-7.87	-0.85
222	SLD 16	-197	45	2844	3.72	-7.5	0.1
222	SLV 1	459	305	2898	2.15	48.98	-6.4
222	SLV 2	442	307	2896	2.17	49.83	-4.26
222	SLV 3	479	14	2906	3.9	45.52	-5.96
222	SLV 4	462	16	2904	3.92	46.36	-3.82
222	SLV 5	117	619	2861	0.26	26.47	-4.65
222	SLV 6	99	620	2859	0.28	27.32	-2.5
222	SLV 7	182	-351	2887	6.08	14.93	-3.2
222	SLV 8	164	-349	2885	6.09	15.78	-1.05
222	SLV 9	-158	597	2837	0.39	3.72	-2.72
222	SLV 10	-175	599	2835	0.4	4.57	-0.57
222	SLV 11	-93	-372	2862	6.2	-7.82	-1.27
222	SLV 12	-110	-370	2861	6.22	-6.97	0.88
222	SLV 13	-455	232	2818	2.56	-26.87	0.05
222	SLV 14	-472	234	2816	2.58	-26.02	2.19
222	SLV 15	-435	-59	2825	4.31	-30.33	0.48
222	SLV 16	-453	-57	2824	4.32	-29.48	2.62
222	CRTFP Ux+	0	0	0	0	0	0
222	CRTFP Ux-	0	0	0	0	0	0
222	CRTFP Uy+	0	0	0	0	0	0
222	CRTFP Uy-	0	0	0	0	0	0
224	SLU 1	-17	-10	1977	0.19	-0.16	-0.1
224	SLU 2	-21	-10	1993	0.19	-0.25	-0.1
224	SLU 3	-17	-10	1977	0.19	-0.16	-0.1
224	SLU 4	-19	-10	1986	0.19	-0.21	-0.1
224	SLU 5	-21	-10	1993	0.19	-0.25	-0.1
224	SLU 6	-17	-10	1977	0.19	-0.16	-0.1
224	SLU 7	-19	-10	1986	0.19	-0.21	-0.1
224	SLU 8	-17	-10	1977	0.19	-0.16	-0.1
224	SLU 9	-19	-10	1986	0.19	-0.21	-0.1
224	SLU 10	-23	-8	2311	0.29	0.33	-0.11
224	SLU 11	-18	-8	2295	0.29	0.42	-0.11
224	SLU 12	-21	-8	2304	0.29	0.37	-0.11
224	SLU 13	-23	-8	2311	0.29	0.33	-0.11
224	SLU 14	-18	-8	2295	0.29	0.42	-0.11
224	SLU 15	-21	-8	2304	0.29	0.37	-0.11
224	SLU 16	-18	-8	2295	0.29	0.42	-0.11
224	SLU 17	-21	-8	2304	0.29	0.37	-0.11
224	SLU 18	-19	-7	2431	0.34	0.67	-0.12
224	SLU 19	-22	-7	2441	0.33	0.62	-0.12
224	SLU 20	-19	-7	2431	0.34	0.67	-0.12
224	SLU 21	-22	-7	2441	0.33	0.62	-0.12
224	SLU 22	-18	-9	2211	0.25	0.11	-0.11
224	SLU 23	-22	-9	2227	0.25	0.02	-0.11
224	SLU 24	-18	-9	2211	0.25	0.11	-0.11
224	SLU 25	-21	-9	2221	0.25	0.05	-0.11
224	SLU 26	-22	-9	2227	0.25	0.02	-0.11
224	SLU 27	-18	-9	2211	0.25	0.11	-0.11
224	SLU 28	-21	-9	2221	0.25	0.05	-0.11
224	SLU 29	-18	-9	2211	0.25	0.11	-0.11
224	SLU 30	-21	-9	2221	0.25	0.05	-0.11
224	SLU 31	-24	-8	2545	0.35	0.6	-0.13
224	SLU 32	-20	-7	2529	0.35	0.69	-0.13
224	SLU 33	-22	-7	2539	0.35	0.63	-0.13
224	SLU 34	-24	-8	2545	0.35	0.6	-0.13
224	SLU 35	-20	-7	2529	0.35	0.69	-0.13
224	SLU 36	-22	-7	2539	0.35	0.63	-0.13
224	SLU 37	-20	-7	2529	0.35	0.69	-0.13
224	SLU 38	-22	-7	2539	0.35	0.63	-0.13
224	SLU 39	-20	-6	2665	0.4	0.94	-0.13
224	SLU 40	-23	-6	2675	0.39	0.88	-0.13
224	SLU 41	-20	-6	2665	0.4	0.94	-0.13
224	SLU 42	-23	-6	2675	0.39	0.88	-0.13
224	SLU 43	-21	-13	2490	0.23	-0.29	-0.12
224	SLU 44	-26	-13	2505	0.22	-0.39	-0.12
224	SLU 45	-21	-13	2490	0.23	-0.29	-0.12
224	SLU 46	-24	-13	2499	0.22	-0.35	-0.12
224	SLU 47	-26	-13	2505	0.22	-0.39	-0.12
224	SLU 48	-21	-13	2490	0.23	-0.29	-0.12
224	SLU 49	-24	-13	2499	0.22	-0.35	-0.12
224	SLU 50	-21	-13	2490	0.23	-0.29	-0.12
224	SLU 51	-24	-13	2499	0.22	-0.35	-0.12
224	SLU 52	-27	-12	2824	0.32	0.19	-0.14
224	SLU 53	-23	-11	2808	0.33	0.29	-0.14
224	SLU 54	-26	-11	2817	0.33	0.23	-0.14
224	SLU 55	-27	-12	2824	0.32	0.19	-0.14
224	SLU 56	-23	-11	2808	0.33	0.29	-0.14
224	SLU 57	-26	-11	2817	0.33	0.23	-0.14
224	SLU 58	-23	-11	2808	0.33	0.29	-0.14

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
224	SLU 59	-26	-11	2817	0.33	0.23	-0.14
224	SLU 60	-24	-10	2944	0.37	0.53	-0.15
224	SLU 61	-26	-10	2954	0.37	0.48	-0.15
224	SLU 62	-24	-10	2944	0.37	0.53	-0.15
224	SLU 63	-26	-10	2954	0.37	0.48	-0.15
224	SLU 64	-23	-12	2724	0.29	-0.03	-0.13
224	SLU 65	-27	-13	2740	0.28	-0.12	-0.13
224	SLU 66	-23	-12	2724	0.29	-0.03	-0.13
224	SLU 67	-25	-12	2733	0.28	-0.08	-0.13
224	SLU 68	-27	-13	2740	0.28	-0.12	-0.13
224	SLU 69	-23	-12	2724	0.29	-0.03	-0.13
224	SLU 70	-25	-12	2733	0.28	-0.08	-0.13
224	SLU 71	-23	-12	2724	0.29	-0.03	-0.13
224	SLU 72	-25	-12	2733	0.28	-0.08	-0.13
224	SLU 73	-29	-11	3058	0.38	0.46	-0.15
224	SLU 74	-24	-10	3042	0.39	0.55	-0.15
224	SLU 75	-27	-10	3051	0.39	0.5	-0.15
224	SLU 76	-29	-11	3058	0.38	0.46	-0.15
224	SLU 77	-24	-10	3042	0.39	0.55	-0.15
224	SLU 78	-27	-10	3051	0.39	0.5	-0.15
224	SLU 79	-24	-10	3042	0.39	0.55	-0.15
224	SLU 80	-27	-10	3051	0.39	0.5	-0.15
224	SLU 81	-25	-9	3178	0.43	0.8	-0.16
224	SLU 82	-28	-10	3188	0.43	0.74	-0.16
224	SLU 83	-25	-9	3178	0.43	0.8	-0.16
224	SLU 84	-28	-10	3188	0.43	0.74	-0.16
224	SLE RA 1	-17	-9	2044	0.21	-0.08	-0.1
224	SLE RA 2	-20	-10	2054	0.2	-0.14	-0.1
224	SLE RA 3	-17	-9	2044	0.21	-0.08	-0.1
224	SLE RA 4	-19	-10	2050	0.21	-0.12	-0.1
224	SLE RA 5	-20	-10	2054	0.2	-0.14	-0.1
224	SLE RA 6	-17	-9	2044	0.21	-0.08	-0.1
224	SLE RA 7	-19	-10	2050	0.21	-0.12	-0.1
224	SLE RA 8	-17	-9	2044	0.21	-0.08	-0.1
224	SLE RA 9	-19	-10	2050	0.21	-0.12	-0.1
224	SLE RA 10	-21	-9	2266	0.27	0.24	-0.11
224	SLE RA 11	-18	-8	2256	0.28	0.31	-0.11
224	SLE RA 12	-20	-8	2262	0.27	0.27	-0.11
224	SLE RA 13	-21	-9	2266	0.27	0.24	-0.11
224	SLE RA 14	-18	-8	2256	0.28	0.31	-0.11
224	SLE RA 15	-20	-8	2262	0.27	0.27	-0.11
224	SLE RA 16	-18	-8	2256	0.28	0.31	-0.11
224	SLE RA 17	-20	-8	2262	0.27	0.27	-0.11
224	SLE RA 18	-19	-8	2347	0.3	0.47	-0.12
224	SLE RA 19	-21	-8	2353	0.3	0.43	-0.12
224	SLE RA 20	-19	-8	2347	0.3	0.47	-0.12
224	SLE RA 21	-21	-8	2353	0.3	0.43	-0.12
224	SLE FR 1	-17	-9	2044	0.21	-0.08	-0.1
224	SLE FR 2	-18	-9	2046	0.21	-0.09	-0.1
224	SLE FR 3	-17	-9	2044	0.21	-0.08	-0.1
224	SLE FR 4	-18	-9	2137	0.24	0.07	-0.1
224	SLE FR 5	-18	-9	2135	0.24	0.09	-0.1
224	SLE FR 6	-18	-8	2195	0.26	0.2	-0.11
224	SLE QP 1	-17	-9	2044	0.21	-0.08	-0.1
224	SLE QP 2	-18	-9	2135	0.24	0.09	-0.1
224	SLD 1	63	45	1862	0.12	-19.36	-0.09
224	SLD 2	59	77	1863	0.09	-19.36	-0.03
224	SLD 3	72	-44	1891	0.62	-20.56	-0.05
224	SLD 4	68	-12	1892	0.6	-20.56	0.01
224	SLD 5	-5	132	2008	-0.55	-3.92	-0.18
224	SLD 6	-9	164	2010	-0.58	-3.92	-0.13
224	SLD 7	24	-166	2105	1.13	-7.93	-0.05
224	SLD 8	20	-134	2106	1.1	-7.93	0.01
224	SLD 9	-55	116	2163	-0.63	8.1	-0.22
224	SLD 10	-59	149	2164	-0.65	8.1	-0.16
224	SLD 11	-26	-181	2259	1.05	4.09	-0.08
224	SLD 12	-30	-149	2261	1.03	4.09	-0.03
224	SLD 13	-103	-5	2377	-0.12	20.73	-0.22
224	SLD 14	-107	27	2378	-0.15	20.73	-0.16
224	SLD 15	-94	-95	2406	0.38	19.53	-0.18
224	SLD 16	-98	-62	2407	0.35	19.53	-0.12
224	SLV 1	165	114	1515	-0.03	-45.42	-0.07
224	SLV 2	157	186	1518	-0.09	-45.42	0.06
224	SLV 3	185	-89	1581	1.12	-48.24	0.03
224	SLV 4	176	-17	1584	1.06	-48.24	0.15
224	SLV 5	11	310	1848	-1.56	-9.29	-0.28
224	SLV 6	2	383	1851	-1.62	-9.29	-0.15
224	SLV 7	76	-366	2067	2.26	-18.69	0.03
224	SLV 8	67	-293	2070	2.2	-18.69	0.16
224	SLV 9	-102	276	2199	-1.73	18.86	-0.37
224	SLV 10	-111	349	2202	-1.79	18.86	-0.24
224	SLV 11	-37	-401	2418	2.09	9.46	-0.06
224	SLV 12	-46	-328	2421	2.03	9.46	0.07
224	SLV 13	-212	-1	2685	-0.58	48.41	-0.36
224	SLV 14	-220	72	2688	-0.64	48.41	-0.24
224	SLV 15	-192	-204	2751	0.56	45.59	-0.27

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
224	SLV 16	-201	-131	2754	0.5	45.59	-0.14
224	CRTFP Ux+	0	0	0	0	0	0
224	CRTFP Ux-	0	0	0	0	0	0
224	CRTFP Uy+	0	0	0	0	0	0
224	CRTFP Uy-	0	0	0	0	0	0
232	SLU 1	-50	-39	1712	46.4	-461.2	-12.43
232	SLU 2	-53	-39	1699	46.04	-458.16	-12.17
232	SLU 3	-50	-39	1712	46.4	-461.2	-12.43
232	SLU 4	-52	-39	1704	46.18	-459.38	-12.27
232	SLU 5	-53	-39	1699	46.04	-458.16	-12.17
232	SLU 6	-50	-39	1712	46.4	-461.2	-12.43
232	SLU 7	-52	-39	1704	46.18	-459.38	-12.27
232	SLU 8	-50	-39	1712	46.4	-461.2	-12.43
232	SLU 9	-52	-39	1704	46.18	-459.38	-12.27
232	SLU 10	-68	-45	1981	53.65	-529.06	-13.92
232	SLU 11	-64	-45	1995	54.01	-532.09	-14.18
232	SLU 12	-66	-45	1987	53.79	-530.27	-14.02
232	SLU 13	-68	-45	1981	53.65	-529.06	-13.92
232	SLU 14	-64	-45	1995	54.01	-532.09	-14.18
232	SLU 15	-66	-45	1987	53.79	-530.27	-14.02
232	SLU 16	-64	-45	1995	54.01	-532.09	-14.18
232	SLU 17	-66	-45	1987	53.79	-530.27	-14.02
232	SLU 18	-70	-48	2115	57.27	-562.47	-14.93
232	SLU 19	-72	-47	2108	57.06	-560.65	-14.77
232	SLU 20	-70	-48	2115	57.27	-562.47	-14.93
232	SLU 21	-72	-47	2108	57.06	-560.65	-14.77
232	SLU 22	-59	-42	1918	51.93	-513.17	-13.41
232	SLU 23	-62	-42	1905	51.57	-510.13	-13.15
232	SLU 24	-59	-42	1918	51.93	-513.17	-13.41
232	SLU 25	-61	-42	1910	51.72	-511.35	-13.26
232	SLU 26	-62	-42	1905	51.57	-510.13	-13.15
232	SLU 27	-59	-42	1918	51.93	-513.17	-13.41
232	SLU 28	-61	-42	1910	51.72	-511.35	-13.26
232	SLU 29	-59	-42	1918	51.93	-513.17	-13.41
232	SLU 30	-61	-42	1910	51.72	-511.35	-13.26
232	SLU 31	-76	-48	2187	59.19	-581.03	-14.9
232	SLU 32	-73	-49	2200	59.54	-584.06	-15.16
232	SLU 33	-75	-48	2192	59.33	-582.24	-15.01
232	SLU 34	-76	-48	2187	59.19	-581.03	-14.9
232	SLU 35	-73	-49	2200	59.54	-584.06	-15.16
232	SLU 36	-75	-48	2192	59.33	-582.24	-15.01
232	SLU 37	-73	-49	2200	59.54	-584.06	-15.16
232	SLU 38	-75	-48	2192	59.33	-582.24	-15.01
232	SLU 39	-79	-51	2321	62.81	-614.44	-15.91
232	SLU 40	-81	-51	2313	62.59	-612.62	-15.76
232	SLU 41	-79	-51	2321	62.81	-614.44	-15.91
232	SLU 42	-81	-51	2313	62.59	-612.62	-15.76
232	SLU 43	-62	-49	2156	58.42	-581.74	-15.82
232	SLU 44	-65	-49	2142	58.06	-578.7	-15.56
232	SLU 45	-62	-49	2156	58.42	-581.74	-15.82
232	SLU 46	-64	-49	2148	58.2	-579.92	-15.66
232	SLU 47	-65	-49	2142	58.06	-578.7	-15.56
232	SLU 48	-62	-49	2156	58.42	-581.74	-15.82
232	SLU 49	-64	-49	2148	58.2	-579.92	-15.66
232	SLU 50	-62	-49	2156	58.42	-581.74	-15.82
232	SLU 51	-64	-49	2148	58.2	-579.92	-15.66
232	SLU 52	-79	-55	2425	65.67	-649.6	-17.31
232	SLU 53	-76	-56	2438	66.03	-652.63	-17.57
232	SLU 54	-78	-55	2430	65.81	-650.81	-17.42
232	SLU 55	-79	-55	2425	65.67	-649.6	-17.31
232	SLU 56	-76	-56	2438	66.03	-652.63	-17.57
232	SLU 57	-78	-55	2430	65.81	-650.81	-17.42
232	SLU 58	-76	-56	2438	66.03	-652.63	-17.57
232	SLU 59	-78	-55	2430	65.81	-650.81	-17.42
232	SLU 60	-82	-58	2559	69.29	-683.01	-18.32
232	SLU 61	-84	-58	2551	69.08	-681.19	-18.17
232	SLU 62	-82	-58	2559	69.29	-683.01	-18.32
232	SLU 63	-84	-58	2551	69.08	-681.19	-18.17
232	SLU 64	-71	-53	2361	63.95	-633.71	-16.8
232	SLU 65	-74	-53	2348	63.59	-630.68	-16.55
232	SLU 66	-71	-53	2361	63.95	-633.71	-16.8
232	SLU 67	-73	-53	2353	63.74	-631.89	-16.65
232	SLU 68	-74	-53	2348	63.59	-630.68	-16.55
232	SLU 69	-71	-53	2361	63.95	-633.71	-16.8
232	SLU 70	-73	-53	2353	63.74	-631.89	-16.65
232	SLU 71	-71	-53	2361	63.95	-633.71	-16.8
232	SLU 72	-73	-53	2353	63.74	-631.89	-16.65
232	SLU 73	-88	-59	2630	71.21	-701.57	-18.3
232	SLU 74	-85	-59	2643	71.57	-704.6	-18.55
232	SLU 75	-87	-59	2635	71.35	-702.78	-18.4
232	SLU 76	-88	-59	2630	71.21	-701.57	-18.3
232	SLU 77	-85	-59	2643	71.57	-704.6	-18.55
232	SLU 78	-87	-59	2635	71.35	-702.78	-18.4
232	SLU 79	-85	-59	2643	71.57	-704.6	-18.55
232	SLU 80	-87	-59	2635	71.35	-702.78	-18.4
232	SLU 81	-91	-62	2764	74.83	-734.98	-19.3

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
232	SLU 82	-93	-61	2756	74.61	-733.16	-19.15
232	SLU 83	-91	-62	2764	74.83	-734.98	-19.3
232	SLU 84	-93	-61	2756	74.61	-733.16	-19.15
232	SLE RA 1	-52	-40	1771	47.98	-476.05	-12.71
232	SLE RA 2	-55	-40	1762	47.74	-474.02	-12.54
232	SLE RA 3	-52	-40	1771	47.98	-476.05	-12.71
232	SLE RA 4	-54	-40	1766	47.83	-474.83	-12.61
232	SLE RA 5	-55	-40	1762	47.74	-474.02	-12.54
232	SLE RA 6	-52	-40	1771	47.98	-476.05	-12.71
232	SLE RA 7	-54	-40	1766	47.83	-474.83	-12.61
232	SLE RA 8	-52	-40	1771	47.98	-476.05	-12.71
232	SLE RA 9	-54	-40	1766	47.83	-474.83	-12.61
232	SLE RA 10	-64	-44	1950	52.81	-521.28	-13.7
232	SLE RA 11	-62	-44	1959	53.05	-523.31	-13.88
232	SLE RA 12	-63	-44	1954	52.91	-522.09	-13.77
232	SLE RA 13	-64	-44	1950	52.81	-521.28	-13.7
232	SLE RA 14	-62	-44	1959	53.05	-523.31	-13.88
232	SLE RA 15	-63	-44	1954	52.91	-522.09	-13.77
232	SLE RA 16	-62	-44	1959	53.05	-523.31	-13.88
232	SLE RA 17	-63	-44	1954	52.91	-522.09	-13.77
232	SLE RA 18	-66	-46	2040	55.23	-543.56	-14.38
232	SLE RA 19	-67	-46	2035	55.08	-542.35	-14.27
232	SLE RA 20	-66	-46	2040	55.23	-543.56	-14.38
232	SLE RA 21	-67	-46	2035	55.08	-542.35	-14.27
232	SLE FR 1	-52	-40	1771	47.98	-476.05	-12.71
232	SLE FR 2	-53	-40	1769	47.93	-475.64	-12.68
232	SLE FR 3	-52	-40	1771	47.98	-476.05	-12.71
232	SLE FR 4	-57	-42	1850	50.11	-495.9	-13.18
232	SLE FR 5	-56	-42	1852	50.15	-496.3	-13.21
232	SLE FR 6	-59	-43	1905	51.6	-509.8	-13.54
232	SLE QP 1	-52	-40	1771	47.98	-476.05	-12.71
232	SLE QP 2	-56	-42	1852	50.15	-496.3	-13.21
232	SLD 1	36	-12	2046	55.1	-535.8	-3.33
232	SLD 2	29	-41	2047	55.15	-535.84	-13.11
232	SLD 3	31	-88	2069	56.01	-539.73	-29.95
232	SLD 4	24	-117	2070	56.06	-539.77	-39.73
232	SLD 5	-18	93	1874	50.23	-502.17	33.59
232	SLD 6	-25	64	1875	50.29	-502.21	23.74
232	SLD 7	-36	-161	1952	53.27	-515.28	-55.15
232	SLD 8	-43	-190	1954	53.33	-515.32	-65
232	SLD 9	-70	107	1750	46.98	-477.28	38.58
232	SLD 10	-77	78	1751	47.03	-477.32	28.73
232	SLD 11	-87	-147	1828	50.02	-490.39	-50.16
232	SLD 12	-95	-176	1830	50.07	-490.43	-60.01
232	SLD 13	-137	34	1633	44.24	-452.83	13.31
232	SLD 14	-144	5	1634	44.3	-452.87	3.53
232	SLD 15	-142	-43	1656	45.15	-456.76	-13.31
232	SLD 16	-149	-71	1658	45.21	-456.8	-23.09
232	SLV 1	154	25	2292	61.39	-586.1	9
232	SLV 2	138	-40	2295	61.52	-586.2	-13.16
232	SLV 3	142	-149	2346	63.47	-595.05	-51.51
232	SLV 4	126	-214	2349	63.59	-595.15	-73.67
232	SLV 5	30	264	1901	50.33	-509.63	93.04
232	SLV 6	14	199	1904	50.46	-509.73	70.74
232	SLV 7	-9	-314	2080	57.25	-539.47	-108.64
232	SLV 8	-25	-379	2083	57.38	-539.57	-130.94
232	SLV 9	-88	296	1620	42.93	-453.03	104.52
232	SLV 10	-104	230	1623	43.06	-453.13	82.22
232	SLV 11	-127	-282	1799	49.85	-482.87	-97.16
232	SLV 12	-143	-347	1802	49.97	-482.97	-119.46
232	SLV 13	-239	130	1354	36.71	-397.45	47.25
232	SLV 14	-255	65	1357	36.84	-397.55	25.09
232	SLV 15	-251	-43	1408	38.79	-406.4	-13.26
232	SLV 16	-267	-108	1411	38.92	-406.5	-35.41
232	CRTFP Ux+	0	0	0	0	0	0
232	CRTFP Ux-	0	0	0	0	0	0
232	CRTFP Uy+	0	0	0	0	0	0
232	CRTFP Uy-	0	0	0	0	0	0
235	SLU 1	11	118	2593	2.61	8.91	-1.65
235	SLU 2	-1	118	2592	2.61	7.88	-1.54
235	SLU 3	11	118	2593	2.61	8.91	-1.65
235	SLU 4	4	118	2592	2.61	8.29	-1.58
235	SLU 5	-1	118	2592	2.61	7.88	-1.54
235	SLU 6	11	118	2593	2.61	8.91	-1.65
235	SLU 7	4	118	2592	2.61	8.29	-1.58
235	SLU 8	11	118	2593	2.61	8.91	-1.65
235	SLU 9	4	118	2592	2.61	8.29	-1.58
235	SLU 10	3	133	3357	3.64	8.31	-1.83
235	SLU 11	16	133	3358	3.64	9.33	-1.94
235	SLU 12	8	133	3357	3.64	8.72	-1.87
235	SLU 13	3	133	3357	3.64	8.31	-1.83
235	SLU 14	16	133	3358	3.64	9.33	-1.94
235	SLU 15	8	133	3357	3.64	8.72	-1.87
235	SLU 16	16	133	3358	3.64	9.33	-1.94
235	SLU 17	8	133	3357	3.64	8.72	-1.87
235	SLU 18	18	139	3686	4.08	9.52	-2.06

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
235	SLU 19	10	139	3685	4.08	8.9	-2
235	SLU 20	18	139	3686	4.08	9.52	-2.06
235	SLU 21	10	139	3685	4.08	8.9	-2
235	SLU 22	14	127	3108	3.18	9.23	-1.83
235	SLU 23	1	127	3107	3.18	8.2	-1.72
235	SLU 24	14	127	3108	3.18	9.23	-1.83
235	SLU 25	6	127	3108	3.18	8.61	-1.76
235	SLU 26	1	127	3107	3.18	8.2	-1.72
235	SLU 27	14	127	3108	3.18	9.23	-1.83
235	SLU 28	6	127	3108	3.18	8.61	-1.76
235	SLU 29	14	127	3108	3.18	9.23	-1.83
235	SLU 30	6	127	3108	3.18	8.61	-1.76
235	SLU 31	6	142	3872	4.22	8.62	-2.01
235	SLU 32	18	142	3873	4.21	9.65	-2.12
235	SLU 33	11	142	3873	4.22	9.04	-2.05
235	SLU 34	6	142	3872	4.22	8.62	-2.01
235	SLU 35	18	142	3873	4.21	9.65	-2.12
235	SLU 36	11	142	3873	4.22	9.04	-2.05
235	SLU 37	18	142	3873	4.21	9.65	-2.12
235	SLU 38	11	142	3873	4.22	9.04	-2.05
235	SLU 39	20	148	4201	4.66	9.83	-2.24
235	SLU 40	13	148	4201	4.66	9.22	-2.18
235	SLU 41	20	148	4201	4.66	9.83	-2.24
235	SLU 42	13	148	4201	4.66	9.22	-2.18
235	SLU 43	14	150	3194	3.19	11.48	-2.09
235	SLU 44	1	150	3193	3.19	10.45	-1.97
235	SLU 45	14	150	3194	3.19	11.48	-2.09
235	SLU 46	6	150	3193	3.19	10.86	-2.02
235	SLU 47	1	150	3193	3.19	10.45	-1.97
235	SLU 48	14	150	3194	3.19	11.48	-2.09
235	SLU 49	6	150	3193	3.19	10.86	-2.02
235	SLU 50	14	150	3194	3.19	11.48	-2.09
235	SLU 51	6	150	3193	3.19	10.86	-2.02
235	SLU 52	6	165	3957	4.23	10.87	-2.26
235	SLU 53	18	165	3959	4.22	11.9	-2.38
235	SLU 54	11	165	3958	4.23	11.28	-2.31
235	SLU 55	6	165	3957	4.23	10.87	-2.26
235	SLU 56	18	165	3959	4.22	11.9	-2.38
235	SLU 57	11	165	3958	4.23	11.28	-2.31
235	SLU 58	18	165	3959	4.22	11.9	-2.38
235	SLU 59	11	165	3958	4.23	11.28	-2.31
235	SLU 60	20	171	4287	4.67	12.08	-2.5
235	SLU 61	13	171	4286	4.67	11.46	-2.43
235	SLU 62	20	171	4287	4.67	12.08	-2.5
235	SLU 63	13	171	4286	4.67	11.46	-2.43
235	SLU 64	16	159	3709	3.77	11.79	-2.27
235	SLU 65	4	159	3708	3.77	10.77	-2.15
235	SLU 66	16	159	3709	3.77	11.79	-2.27
235	SLU 67	9	159	3709	3.77	11.18	-2.2
235	SLU 68	4	159	3708	3.77	10.77	-2.15
235	SLU 69	16	159	3709	3.77	11.79	-2.27
235	SLU 70	9	159	3709	3.77	11.18	-2.2
235	SLU 71	16	159	3709	3.77	11.79	-2.27
235	SLU 72	9	159	3709	3.77	11.18	-2.2
235	SLU 73	8	174	4473	4.8	11.19	-2.44
235	SLU 74	21	174	4474	4.8	12.22	-2.55
235	SLU 75	13	174	4474	4.8	11.6	-2.49
235	SLU 76	8	174	4473	4.8	11.19	-2.44
235	SLU 77	21	174	4474	4.8	12.22	-2.55
235	SLU 78	13	174	4474	4.8	11.6	-2.49
235	SLU 79	21	174	4474	4.8	12.22	-2.55
235	SLU 80	13	174	4474	4.8	11.6	-2.49
235	SLU 81	22	180	4802	5.24	12.4	-2.68
235	SLU 82	15	180	4802	5.24	11.78	-2.61
235	SLU 83	22	180	4802	5.24	12.4	-2.68
235	SLU 84	15	180	4802	5.24	11.78	-2.61
235	SLE RA 1	12	120	2740	2.77	9	-1.7
235	SLE RA 2	4	120	2739	2.77	8.32	-1.63
235	SLE RA 3	12	120	2740	2.77	9	-1.7
235	SLE RA 4	7	120	2740	2.77	8.59	-1.66
235	SLE RA 5	4	120	2739	2.77	8.32	-1.63
235	SLE RA 6	12	120	2740	2.77	9	-1.7
235	SLE RA 7	7	120	2740	2.77	8.59	-1.66
235	SLE RA 8	12	120	2740	2.77	9	-1.7
235	SLE RA 9	7	120	2740	2.77	8.59	-1.66
235	SLE RA 10	7	130	3249	3.46	8.6	-1.82
235	SLE RA 11	15	130	3250	3.46	9.28	-1.9
235	SLE RA 12	10	130	3250	3.46	8.87	-1.85
235	SLE RA 13	7	130	3249	3.46	8.6	-1.82
235	SLE RA 14	15	130	3250	3.46	9.28	-1.9
235	SLE RA 15	10	130	3250	3.46	8.87	-1.85
235	SLE RA 16	15	130	3250	3.46	9.28	-1.9
235	SLE RA 17	10	130	3250	3.46	8.87	-1.85
235	SLE RA 18	16	135	3469	3.75	9.41	-1.98
235	SLE RA 19	11	135	3468	3.76	8.99	-1.93
235	SLE RA 20	16	135	3469	3.75	9.41	-1.98

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
235	SLE RA 21	11	135	3468	3.76	8.99	-1.93
235	SLE FR 1	12	120	2740	2.77	9	-1.7
235	SLE FR 2	10	120	2740	2.77	8.87	-1.69
235	SLE FR 3	12	120	2740	2.77	9	-1.7
235	SLE FR 4	11	125	2958	3.07	8.99	-1.77
235	SLE FR 5	13	125	2959	3.07	9.12	-1.79
235	SLE FR 6	14	128	3104	3.26	9.2	-1.84
235	SLE QP 1	12	120	2740	2.77	9	-1.7
235	SLE QP 2	13	125	2959	3.07	9.12	-1.79
235	SLD 1	224	204	2964	2.59	25.71	-4.24
235	SLD 2	211	205	2963	2.6	26.08	-3.25
235	SLD 3	233	76	2987	3.36	24.26	-4.04
235	SLD 4	221	77	2986	3.37	24.63	-3.05
235	SLD 5	67	343	2926	1.75	16.17	-3.18
235	SLD 6	54	343	2925	1.75	16.54	-2.19
235	SLD 7	98	-85	3002	4.33	11.34	-2.5
235	SLD 8	85	-84	3001	4.33	11.71	-1.5
235	SLD 9	-59	333	2916	1.8	6.54	-2.07
235	SLD 10	-72	334	2916	1.81	6.91	-1.07
235	SLD 11	-28	-94	2992	4.38	1.71	-1.38
235	SLD 12	-41	-93	2991	4.39	2.08	-0.39
235	SLD 13	-194	172	2931	2.76	-6.39	-0.52
235	SLD 14	-207	173	2931	2.77	-6.02	0.46
235	SLD 15	-185	44	2954	3.54	-7.84	-0.32
235	SLD 16	-198	45	2954	3.54	-7.47	0.67
235	SLV 1	492	306	2970	1.98	46.86	-7.37
235	SLV 2	464	308	2969	2	47.7	-5.13
235	SLV 3	513	15	3022	3.74	43.57	-6.9
235	SLV 4	485	17	3021	3.76	44.41	-4.66
235	SLV 5	135	620	2884	0.07	25.14	-4.96
235	SLV 6	106	622	2883	0.08	25.98	-2.71
235	SLV 7	205	-351	3057	5.93	14.17	-3.4
235	SLV 8	177	-349	3055	5.95	15.01	-1.14
235	SLV 9	-150	598	2862	0.19	3.23	-2.43
235	SLV 10	-179	600	2861	0.2	4.07	-0.18
235	SLV 11	-80	-372	3034	6.05	-7.73	-0.86
235	SLV 12	-109	-370	3033	6.07	-6.89	1.39
235	SLV 13	-459	233	2896	2.38	-26.16	1.09
235	SLV 14	-487	235	2895	2.39	-25.33	3.32
235	SLV 15	-437	-58	2948	4.14	-29.45	1.56
235	SLV 16	-466	-56	2947	4.15	-28.62	3.8
235	CRTFP Ux+	0	0	0	0	0	0
235	CRTFP Ux-	0	0	0	0	0	0
235	CRTFP Uy+	0	0	0	0	0	0
235	CRTFP Uy-	0	0	0	0	0	0
237	SLU 1	-13	-10	1981	0.09	0.53	-0.12
237	SLU 2	-18	-10	1997	0.08	0.45	-0.11
237	SLU 3	-13	-10	1981	0.09	0.53	-0.12
237	SLU 4	-16	-10	1990	0.09	0.48	-0.11
237	SLU 5	-18	-10	1997	0.08	0.45	-0.11
237	SLU 6	-13	-10	1981	0.09	0.53	-0.12
237	SLU 7	-16	-10	1990	0.09	0.48	-0.11
237	SLU 8	-13	-10	1981	0.09	0.53	-0.12
237	SLU 9	-16	-10	1990	0.09	0.48	-0.11
237	SLU 10	-19	-9	2318	0.18	1.13	-0.13
237	SLU 11	-15	-8	2302	0.18	1.22	-0.14
237	SLU 12	-17	-8	2312	0.18	1.17	-0.13
237	SLU 13	-19	-9	2318	0.18	1.13	-0.13
237	SLU 14	-15	-8	2302	0.18	1.22	-0.14
237	SLU 15	-17	-8	2312	0.18	1.17	-0.13
237	SLU 16	-15	-8	2302	0.18	1.22	-0.14
237	SLU 17	-17	-8	2312	0.18	1.17	-0.13
237	SLU 18	-15	-7	2440	0.22	1.51	-0.15
237	SLU 19	-18	-8	2449	0.22	1.46	-0.14
237	SLU 20	-15	-7	2440	0.22	1.51	-0.15
237	SLU 21	-18	-8	2449	0.22	1.46	-0.14
237	SLU 22	-14	-9	2217	0.14	0.87	-0.13
237	SLU 23	-19	-10	2233	0.14	0.79	-0.12
237	SLU 24	-14	-9	2217	0.14	0.87	-0.13
237	SLU 25	-17	-9	2226	0.14	0.82	-0.13
237	SLU 26	-19	-10	2233	0.14	0.79	-0.12
237	SLU 27	-14	-9	2217	0.14	0.87	-0.13
237	SLU 28	-17	-9	2226	0.14	0.82	-0.13
237	SLU 29	-14	-9	2217	0.14	0.87	-0.13
237	SLU 30	-17	-9	2226	0.14	0.82	-0.13
237	SLU 31	-20	-8	2554	0.23	1.47	-0.15
237	SLU 32	-15	-7	2538	0.23	1.56	-0.15
237	SLU 33	-18	-8	2547	0.23	1.51	-0.15
237	SLU 34	-20	-8	2554	0.23	1.47	-0.15
237	SLU 35	-15	-7	2538	0.23	1.56	-0.15
237	SLU 36	-18	-8	2547	0.23	1.51	-0.15
237	SLU 37	-15	-7	2538	0.23	1.56	-0.15
237	SLU 38	-18	-8	2547	0.23	1.51	-0.15
237	SLU 39	-16	-6	2676	0.27	1.85	-0.16
237	SLU 40	-19	-7	2685	0.27	1.8	-0.16
237	SLU 41	-16	-6	2676	0.27	1.85	-0.16

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
237	SLU 42	-19	-7	2685	0.27	1.8	-0.16
237	SLU 43	-17	-13	2494	0.1	0.58	-0.14
237	SLU 44	-22	-14	2510	0.09	0.49	-0.14
237	SLU 45	-17	-13	2494	0.1	0.58	-0.14
237	SLU 46	-20	-13	2504	0.09	0.52	-0.14
237	SLU 47	-22	-14	2510	0.09	0.49	-0.14
237	SLU 48	-17	-13	2494	0.1	0.58	-0.14
237	SLU 49	-20	-13	2504	0.09	0.52	-0.14
237	SLU 50	-17	-13	2494	0.1	0.58	-0.14
237	SLU 51	-20	-13	2504	0.09	0.52	-0.14
237	SLU 52	-23	-12	2831	0.18	1.18	-0.16
237	SLU 53	-18	-11	2816	0.19	1.26	-0.17
237	SLU 54	-21	-12	2825	0.19	1.21	-0.16
237	SLU 55	-23	-12	2831	0.18	1.18	-0.16
237	SLU 56	-18	-11	2816	0.19	1.26	-0.17
237	SLU 57	-21	-12	2825	0.19	1.21	-0.16
237	SLU 58	-18	-11	2816	0.19	1.26	-0.17
237	SLU 59	-21	-12	2825	0.19	1.21	-0.16
237	SLU 60	-19	-10	2953	0.23	1.56	-0.18
237	SLU 61	-21	-11	2963	0.23	1.51	-0.17
237	SLU 62	-19	-10	2953	0.23	1.56	-0.18
237	SLU 63	-21	-11	2963	0.23	1.51	-0.17
237	SLU 64	-18	-12	2730	0.15	0.92	-0.16
237	SLU 65	-23	-13	2746	0.14	0.83	-0.15
237	SLU 66	-18	-12	2730	0.15	0.92	-0.16
237	SLU 67	-21	-13	2740	0.15	0.86	-0.16
237	SLU 68	-23	-13	2746	0.14	0.83	-0.15
237	SLU 69	-18	-12	2730	0.15	0.92	-0.16
237	SLU 70	-21	-13	2740	0.15	0.86	-0.16
237	SLU 71	-18	-12	2730	0.15	0.92	-0.16
237	SLU 72	-21	-13	2740	0.15	0.86	-0.16
237	SLU 73	-24	-11	3067	0.24	1.52	-0.18
237	SLU 74	-19	-10	3052	0.24	1.6	-0.18
237	SLU 75	-22	-11	3061	0.24	1.55	-0.18
237	SLU 76	-24	-11	3067	0.24	1.52	-0.18
237	SLU 77	-19	-10	3052	0.24	1.6	-0.18
237	SLU 78	-22	-11	3061	0.24	1.55	-0.18
237	SLU 79	-19	-10	3052	0.24	1.6	-0.18
237	SLU 80	-22	-11	3061	0.24	1.55	-0.18
237	SLU 81	-20	-10	3189	0.28	1.9	-0.19
237	SLU 82	-22	-10	3199	0.28	1.85	-0.19
237	SLU 83	-20	-10	3189	0.28	1.9	-0.19
237	SLU 84	-22	-10	3199	0.28	1.85	-0.19
237	SLE RA 1	-14	-10	2048	0.1	0.63	-0.12
237	SLE RA 2	-17	-10	2059	0.1	0.57	-0.12
237	SLE RA 3	-14	-10	2048	0.1	0.63	-0.12
237	SLE RA 4	-16	-10	2055	0.1	0.6	-0.12
237	SLE RA 5	-17	-10	2059	0.1	0.57	-0.12
237	SLE RA 6	-14	-10	2048	0.1	0.63	-0.12
237	SLE RA 7	-16	-10	2055	0.1	0.6	-0.12
237	SLE RA 8	-14	-10	2048	0.1	0.63	-0.12
237	SLE RA 9	-16	-10	2055	0.1	0.6	-0.12
237	SLE RA 10	-17	-9	2273	0.16	1.03	-0.13
237	SLE RA 11	-14	-8	2263	0.16	1.09	-0.13
237	SLE RA 12	-16	-9	2269	0.16	1.05	-0.13
237	SLE RA 13	-17	-9	2273	0.16	1.03	-0.13
237	SLE RA 14	-14	-8	2263	0.16	1.09	-0.13
237	SLE RA 15	-16	-9	2269	0.16	1.05	-0.13
237	SLE RA 16	-14	-8	2263	0.16	1.09	-0.13
237	SLE RA 17	-16	-9	2269	0.16	1.05	-0.13
237	SLE RA 18	-15	-8	2354	0.19	1.28	-0.14
237	SLE RA 19	-17	-8	2361	0.19	1.25	-0.14
237	SLE RA 20	-15	-8	2354	0.19	1.28	-0.14
237	SLE RA 21	-17	-8	2361	0.19	1.25	-0.14
237	SLE FR 1	-14	-10	2048	0.1	0.63	-0.12
237	SLE FR 2	-14	-10	2051	0.1	0.62	-0.12
237	SLE FR 3	-14	-10	2048	0.1	0.63	-0.12
237	SLE FR 4	-15	-9	2142	0.13	0.81	-0.12
237	SLE FR 5	-14	-9	2140	0.13	0.83	-0.13
237	SLE FR 6	-14	-9	2201	0.15	0.96	-0.13
237	SLE QP 1	-14	-10	2048	0.1	0.63	-0.12
237	SLE QP 2	-14	-9	2140	0.13	0.83	-0.13
237	SLD 1	70	45	1863	0	-20.58	-0.29
237	SLD 2	64	77	1864	-0.03	-20.58	-0.23
237	SLD 3	77	-45	1907	0.51	-21.85	-0.23
237	SLD 4	72	-13	1908	0.48	-21.86	-0.18
237	SLD 5	2	131	1991	-0.67	-3.66	-0.27
237	SLD 6	-4	164	1991	-0.7	-3.67	-0.21
237	SLD 7	26	-167	2136	1.02	-7.91	-0.1
237	SLD 8	21	-135	2137	0.99	-7.91	-0.04
237	SLD 9	-49	116	2144	-0.74	9.56	-0.21
237	SLD 10	-54	149	2144	-0.76	9.56	-0.15
237	SLD 11	-24	-182	2289	0.95	5.32	-0.04
237	SLD 12	-30	-150	2290	0.93	5.31	0.02
237	SLD 13	-100	-5	2373	-0.22	23.51	-0.08
237	SLD 14	-105	27	2373	-0.25	23.5	-0.02

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
237	SLD 15	-92	-95	2417	0.28	22.24	-0.02
237	SLD 16	-98	-63	2417	0.26	22.23	0.04
237	SLV 1	176	113	1511	-0.16	-49.34	-0.49
237	SLV 2	164	186	1512	-0.22	-49.35	-0.36
237	SLV 3	193	-90	1610	0.99	-52.34	-0.37
237	SLV 4	181	-17	1612	0.93	-52.35	-0.24
237	SLV 5	22	310	1801	-1.68	-9.67	-0.46
237	SLV 6	10	384	1802	-1.75	-9.69	-0.33
237	SLV 7	78	-367	2131	2.16	-19.66	-0.07
237	SLV 8	65	-294	2132	2.1	-19.68	0.07
237	SLV 9	-93	276	2148	-1.84	21.33	-0.32
237	SLV 10	-106	349	2149	-1.9	21.32	-0.18
237	SLV 11	-38	-402	2478	2	11.34	0.08
237	SLV 12	-50	-329	2480	1.94	11.33	0.21
237	SLV 13	-209	-1	2669	-0.68	54	-0.01
237	SLV 14	-221	72	2670	-0.74	53.99	0.12
237	SLV 15	-192	-204	2768	0.48	51.01	0.11
237	SLV 16	-204	-132	2769	0.42	50.99	0.24
237	CRTFP Ux+	0	0	0	0	0	0
237	CRTFP Ux-	0	0	0	0	0	0
237	CRTFP Uy+	0	0	0	0	0	0
237	CRTFP Uy-	0	0	0	0	0	0
238	SLU 1	-49	-45	1925	-2.35	-473.9	-16.1
238	SLU 2	-53	-44	1910	-2.34	-470.35	-15.92
238	SLU 3	-49	-45	1925	-2.35	-473.9	-16.1
238	SLU 4	-51	-45	1916	-2.35	-471.77	-15.99
238	SLU 5	-53	-44	1910	-2.34	-470.35	-15.92
238	SLU 6	-49	-45	1925	-2.35	-473.9	-16.1
238	SLU 7	-51	-45	1916	-2.35	-471.77	-15.99
238	SLU 8	-49	-45	1925	-2.35	-473.9	-16.1
238	SLU 9	-51	-45	1916	-2.35	-471.77	-15.99
238	SLU 10	-68	-51	2226	-2.76	-540.08	-18.37
238	SLU 11	-64	-52	2241	-2.77	-543.63	-18.56
238	SLU 12	-67	-52	2232	-2.76	-541.5	-18.45
238	SLU 13	-68	-51	2226	-2.76	-540.08	-18.37
238	SLU 14	-64	-52	2241	-2.77	-543.63	-18.56
238	SLU 15	-67	-52	2232	-2.76	-541.5	-18.45
238	SLU 16	-64	-52	2241	-2.77	-543.63	-18.56
238	SLU 17	-67	-52	2232	-2.76	-541.5	-18.45
238	SLU 18	-70	-55	2377	-2.95	-573.52	-19.61
238	SLU 19	-73	-54	2368	-2.94	-571.39	-19.5
238	SLU 20	-70	-55	2377	-2.95	-573.52	-19.61
238	SLU 21	-73	-54	2368	-2.94	-571.39	-19.5
238	SLU 22	-58	-49	2155	-2.67	-525.05	-17.53
238	SLU 23	-63	-48	2140	-2.67	-521.49	-17.34
238	SLU 24	-58	-49	2155	-2.67	-525.05	-17.53
238	SLU 25	-61	-49	2146	-2.67	-522.92	-17.42
238	SLU 26	-63	-48	2140	-2.67	-521.49	-17.34
238	SLU 27	-58	-49	2155	-2.67	-525.05	-17.53
238	SLU 28	-61	-49	2146	-2.67	-522.92	-17.42
238	SLU 29	-58	-49	2155	-2.67	-525.05	-17.53
238	SLU 30	-61	-49	2146	-2.67	-522.92	-17.42
238	SLU 31	-78	-55	2456	-3.08	-591.23	-19.8
238	SLU 32	-73	-56	2471	-3.09	-594.78	-19.98
238	SLU 33	-76	-55	2462	-3.09	-592.65	-19.87
238	SLU 34	-78	-55	2456	-3.08	-591.23	-19.8
238	SLU 35	-73	-56	2471	-3.09	-594.78	-19.98
238	SLU 36	-76	-55	2462	-3.09	-592.65	-19.87
238	SLU 37	-73	-56	2471	-3.09	-594.78	-19.98
238	SLU 38	-76	-55	2462	-3.09	-592.65	-19.87
238	SLU 39	-80	-59	2607	-3.27	-624.67	-21.04
238	SLU 40	-82	-58	2598	-3.27	-622.53	-20.92
238	SLU 41	-80	-59	2607	-3.27	-624.67	-21.04
238	SLU 42	-82	-58	2598	-3.27	-622.53	-20.92
238	SLU 43	-60	-57	2424	-2.94	-598.54	-20.45
238	SLU 44	-64	-57	2409	-2.94	-594.98	-20.26
238	SLU 45	-60	-57	2424	-2.94	-598.54	-20.45
238	SLU 46	-63	-57	2415	-2.94	-596.4	-20.33
238	SLU 47	-64	-57	2409	-2.94	-594.98	-20.26
238	SLU 48	-60	-57	2424	-2.94	-598.54	-20.45
238	SLU 49	-63	-57	2415	-2.94	-596.4	-20.33
238	SLU 50	-60	-57	2424	-2.94	-598.54	-20.45
238	SLU 51	-63	-57	2415	-2.94	-596.4	-20.33
238	SLU 52	-80	-63	2725	-3.36	-664.72	-22.71
238	SLU 53	-75	-64	2740	-3.36	-668.27	-22.9
238	SLU 54	-78	-64	2731	-3.36	-666.14	-22.79
238	SLU 55	-80	-63	2725	-3.36	-664.72	-22.71
238	SLU 56	-75	-64	2740	-3.36	-668.27	-22.9
238	SLU 57	-78	-64	2731	-3.36	-666.14	-22.79
238	SLU 58	-75	-64	2740	-3.36	-668.27	-22.9
238	SLU 59	-78	-64	2731	-3.36	-666.14	-22.79
238	SLU 60	-82	-67	2876	-3.54	-698.15	-23.95
238	SLU 61	-84	-67	2867	-3.54	-696.02	-23.84
238	SLU 62	-82	-67	2876	-3.54	-698.15	-23.95
238	SLU 63	-84	-67	2867	-3.54	-696.02	-23.84
238	SLU 64	-70	-61	2654	-3.26	-649.68	-21.87

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
238	SLU 65	-74	-61	2639	-3.26	-646.13	-21.68
238	SLU 66	-70	-61	2654	-3.26	-649.68	-21.87
238	SLU 67	-72	-61	2645	-3.26	-647.55	-21.76
238	SLU 68	-74	-61	2639	-3.26	-646.13	-21.68
238	SLU 69	-70	-61	2654	-3.26	-649.68	-21.87
238	SLU 70	-72	-61	2645	-3.26	-647.55	-21.76
238	SLU 71	-70	-61	2654	-3.26	-649.68	-21.87
238	SLU 72	-72	-61	2645	-3.26	-647.55	-21.76
238	SLU 73	-89	-67	2955	-3.68	-715.86	-24.14
238	SLU 74	-85	-68	2970	-3.68	-719.41	-24.33
238	SLU 75	-87	-68	2961	-3.68	-717.28	-24.21
238	SLU 76	-89	-67	2955	-3.68	-715.86	-24.14
238	SLU 77	-85	-68	2970	-3.68	-719.41	-24.33
238	SLU 78	-87	-68	2961	-3.68	-717.28	-24.21
238	SLU 79	-85	-68	2970	-3.68	-719.41	-24.33
238	SLU 80	-87	-68	2961	-3.68	-717.28	-24.21
238	SLU 81	-91	-71	3105	-3.86	-749.3	-25.38
238	SLU 82	-94	-71	3096	-3.86	-747.17	-25.27
238	SLU 83	-91	-71	3105	-3.86	-749.3	-25.38
238	SLU 84	-94	-71	3096	-3.86	-747.17	-25.27
238	SLE RA 1	-51	-46	1991	-2.44	-488.52	-16.51
238	SLE RA 2	-54	-46	1981	-2.44	-486.15	-16.39
238	SLE RA 3	-51	-46	1991	-2.44	-488.52	-16.51
238	SLE RA 4	-53	-46	1985	-2.44	-487.09	-16.44
238	SLE RA 5	-54	-46	1981	-2.44	-486.15	-16.39
238	SLE RA 6	-51	-46	1991	-2.44	-488.52	-16.51
238	SLE RA 7	-53	-46	1985	-2.44	-487.09	-16.44
238	SLE RA 8	-51	-46	1991	-2.44	-488.52	-16.51
238	SLE RA 9	-53	-46	1985	-2.44	-487.09	-16.44
238	SLE RA 10	-64	-50	2192	-2.72	-532.63	-18.02
238	SLE RA 11	-62	-51	2202	-2.72	-535	-18.15
238	SLE RA 12	-63	-50	2196	-2.72	-533.58	-18.07
238	SLE RA 13	-64	-50	2192	-2.72	-532.63	-18.02
238	SLE RA 14	-62	-51	2202	-2.72	-535	-18.15
238	SLE RA 15	-63	-50	2196	-2.72	-533.58	-18.07
238	SLE RA 16	-62	-51	2202	-2.72	-535	-18.15
238	SLE RA 17	-63	-50	2196	-2.72	-533.58	-18.07
238	SLE RA 18	-66	-53	2292	-2.84	-554.93	-18.85
238	SLE RA 19	-68	-52	2286	-2.84	-553.51	-18.77
238	SLE RA 20	-66	-53	2292	-2.84	-554.93	-18.85
238	SLE RA 21	-68	-52	2286	-2.84	-553.51	-18.77
238	SLE FR 1	-51	-46	1991	-2.44	-488.52	-16.51
238	SLE FR 2	-52	-46	1989	-2.44	-488.04	-16.49
238	SLE FR 3	-51	-46	1991	-2.44	-488.52	-16.51
238	SLE FR 4	-56	-48	2079	-2.56	-507.96	-17.19
238	SLE FR 5	-56	-48	2081	-2.56	-508.44	-17.21
238	SLE FR 6	-59	-49	2141	-2.64	-521.72	-17.68
238	SLE QP 1	-51	-46	1991	-2.44	-488.52	-16.51
238	SLE QP 2	-56	-48	2081	-2.56	-508.44	-17.21
238	SLD 1	58	-14	2287	-3.25	-544.26	-5.18
238	SLD 2	47	-47	2289	-3.22	-544.39	-16.76
238	SLD 3	52	-102	2325	-2.85	-549.72	-36.24
238	SLD 4	41	-136	2327	-2.83	-549.84	-47.82
238	SLD 5	-8	109	2084	-3.38	-510.87	37.6
238	SLD 6	-19	75	2086	-3.35	-511	25.94
238	SLD 7	-29	-187	2212	-2.06	-529.05	-65.93
238	SLD 8	-40	-221	2214	-2.03	-529.18	-77.6
238	SLD 9	-71	125	1948	-3.09	-487.7	43.17
238	SLD 10	-82	91	1951	-3.06	-487.83	31.51
238	SLD 11	-92	-171	2076	-1.77	-505.88	-60.36
238	SLD 12	-103	-205	2079	-1.74	-506.01	-72.03
238	SLD 13	-153	40	1835	-2.29	-467.03	13.39
238	SLD 14	-163	6	1837	-2.26	-467.16	1.81
238	SLD 15	-159	-49	1874	-1.89	-472.49	-17.67
238	SLD 16	-170	-82	1876	-1.87	-472.61	-29.25
238	SLV 1	203	29	2548	-4.13	-589.96	9.84
238	SLV 2	178	-46	2553	-4.07	-590.25	-16.39
238	SLV 3	189	-172	2635	-3.23	-602.35	-60.75
238	SLV 4	164	-248	2641	-3.17	-602.64	-86.98
238	SLV 5	52	308	2087	-4.42	-513.99	107.23
238	SLV 6	27	232	2092	-4.36	-514.28	80.83
238	SLV 7	4	-365	2378	-1.42	-555.31	-128.07
238	SLV 8	-21	-441	2384	-1.35	-555.6	-154.47
238	SLV 9	-91	344	1779	-3.77	-461.27	120.05
238	SLV 10	-116	268	1784	-3.7	-461.57	93.65
238	SLV 11	-139	-328	2070	-0.76	-502.59	-115.26
238	SLV 12	-164	-404	2076	-0.7	-502.89	-141.66
238	SLV 13	-275	152	1522	-1.95	-414.23	52.55
238	SLV 14	-300	76	1527	-1.89	-414.53	26.33
238	SLV 15	-290	-50	1609	-1.05	-426.63	-18.04
238	SLV 16	-315	-125	1615	-0.98	-426.92	-44.27
238	CRTFP Ux+	0	0	0	0	0	0
238	CRTFP Ux-	0	0	0	0	0	0
238	CRTFP Uy+	0	0	0	0	0	0
238	CRTFP Uy-	0	0	0	0	0	0
241	SLU 1	19	119	2671	2.46	8.3	-1.55

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
241	SLU 2	6	118	2670	2.47	7.31	-1.41
241	SLU 3	19	119	2671	2.46	8.3	-1.55
241	SLU 4	12	119	2671	2.47	7.71	-1.47
241	SLU 5	6	118	2670	2.47	7.31	-1.41
241	SLU 6	19	119	2671	2.46	8.3	-1.55
241	SLU 7	12	119	2671	2.47	7.71	-1.47
241	SLU 8	19	119	2671	2.46	8.3	-1.55
241	SLU 9	12	119	2671	2.47	7.71	-1.47
241	SLU 10	13	132	3462	3.19	7.74	-1.69
241	SLU 11	26	132	3463	3.18	8.72	-1.83
241	SLU 12	18	132	3463	3.19	8.13	-1.75
241	SLU 13	13	132	3462	3.19	7.74	-1.69
241	SLU 14	26	132	3463	3.18	8.72	-1.83
241	SLU 15	18	132	3463	3.19	8.13	-1.75
241	SLU 16	26	132	3463	3.18	8.72	-1.83
241	SLU 17	18	132	3463	3.19	8.13	-1.75
241	SLU 18	28	138	3803	3.49	8.9	-1.95
241	SLU 19	20	138	3802	3.49	8.31	-1.87
241	SLU 20	28	138	3803	3.49	8.9	-1.95
241	SLU 21	20	138	3802	3.49	8.31	-1.87
241	SLU 22	23	127	3202	2.86	8.61	-1.73
241	SLU 23	10	127	3201	2.87	7.62	-1.59
241	SLU 24	23	127	3202	2.86	8.61	-1.73
241	SLU 25	15	127	3201	2.86	8.02	-1.64
241	SLU 26	10	127	3201	2.87	7.62	-1.59
241	SLU 27	23	127	3202	2.86	8.61	-1.73
241	SLU 28	15	127	3201	2.86	8.02	-1.64
241	SLU 29	23	127	3202	2.86	8.61	-1.73
241	SLU 30	15	127	3201	2.86	8.02	-1.64
241	SLU 31	16	141	3993	3.58	8.05	-1.87
241	SLU 32	29	141	3994	3.58	9.03	-2.01
241	SLU 33	21	141	3994	3.58	8.44	-1.92
241	SLU 34	16	141	3993	3.58	8.05	-1.87
241	SLU 35	29	141	3994	3.58	9.03	-2.01
241	SLU 36	21	141	3994	3.58	8.44	-1.92
241	SLU 37	29	141	3994	3.58	9.03	-2.01
241	SLU 38	21	141	3994	3.58	8.44	-1.92
241	SLU 39	32	147	4334	3.89	9.22	-2.13
241	SLU 40	24	147	4333	3.89	8.62	-2.04
241	SLU 41	32	147	4334	3.89	9.22	-2.13
241	SLU 42	24	147	4333	3.89	8.62	-2.04
241	SLU 43	24	151	3291	3.07	10.69	-1.96
241	SLU 44	11	151	3289	3.07	9.7	-1.82
241	SLU 45	24	151	3291	3.07	10.69	-1.96
241	SLU 46	16	151	3290	3.07	10.09	-1.88
241	SLU 47	11	151	3289	3.07	9.7	-1.82
241	SLU 48	24	151	3291	3.07	10.69	-1.96
241	SLU 49	16	151	3290	3.07	10.09	-1.88
241	SLU 50	24	151	3291	3.07	10.69	-1.96
241	SLU 51	16	151	3290	3.07	10.09	-1.88
241	SLU 52	17	165	4082	3.79	10.12	-2.1
241	SLU 53	30	165	4083	3.79	11.11	-2.24
241	SLU 54	22	165	4082	3.79	10.51	-2.16
241	SLU 55	17	165	4082	3.79	10.12	-2.1
241	SLU 56	30	165	4083	3.79	11.11	-2.24
241	SLU 57	22	165	4082	3.79	10.51	-2.16
241	SLU 58	30	165	4083	3.79	11.11	-2.24
241	SLU 59	22	165	4082	3.79	10.51	-2.16
241	SLU 60	33	171	4422	4.09	11.29	-2.36
241	SLU 61	25	171	4422	4.1	10.7	-2.28
241	SLU 62	33	171	4422	4.09	11.29	-2.36
241	SLU 63	25	171	4422	4.1	10.7	-2.28
241	SLU 64	28	160	3821	3.47	11	-2.13
241	SLU 65	15	160	3820	3.47	10.01	-1.99
241	SLU 66	28	160	3821	3.47	11	-2.13
241	SLU 67	20	160	3821	3.47	10.4	-2.05
241	SLU 68	15	160	3820	3.47	10.01	-1.99
241	SLU 69	28	160	3821	3.47	11	-2.13
241	SLU 70	20	160	3821	3.47	10.4	-2.05
241	SLU 71	28	160	3821	3.47	11	-2.13
241	SLU 72	20	160	3821	3.47	10.4	-2.05
241	SLU 73	21	173	4613	4.19	10.43	-2.27
241	SLU 74	34	174	4614	4.18	11.42	-2.41
241	SLU 75	26	173	4613	4.19	10.83	-2.33
241	SLU 76	21	173	4613	4.19	10.43	-2.27
241	SLU 77	34	174	4614	4.18	11.42	-2.41
241	SLU 78	26	173	4613	4.19	10.83	-2.33
241	SLU 79	34	174	4614	4.18	11.42	-2.41
241	SLU 80	26	173	4613	4.19	10.83	-2.33
241	SLU 81	36	179	4953	4.49	11.6	-2.54
241	SLU 82	28	179	4952	4.49	11.01	-2.45
241	SLU 83	36	179	4953	4.49	11.6	-2.54
241	SLU 84	28	179	4952	4.49	11.01	-2.45
241	SLE RA 1	20	121	2823	2.58	8.39	-1.6
241	SLE RA 2	12	121	2822	2.58	7.73	-1.51
241	SLE RA 3	20	121	2823	2.58	8.39	-1.6

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
241	SLE RA 4	15	121	2822	2.58	8	-1.55
241	SLE RA 5	12	121	2822	2.58	7.73	-1.51
241	SLE RA 6	20	121	2823	2.58	8.39	-1.6
241	SLE RA 7	15	121	2822	2.58	8	-1.55
241	SLE RA 8	20	121	2823	2.58	8.39	-1.6
241	SLE RA 9	15	121	2822	2.58	8	-1.55
241	SLE RA 10	16	130	3350	3.06	8.01	-1.7
241	SLE RA 11	25	130	3351	3.06	8.67	-1.79
241	SLE RA 12	19	130	3351	3.06	8.28	-1.73
241	SLE RA 13	16	130	3350	3.06	8.01	-1.7
241	SLE RA 14	25	130	3351	3.06	8.67	-1.79
241	SLE RA 15	19	130	3351	3.06	8.28	-1.73
241	SLE RA 16	25	130	3351	3.06	8.67	-1.79
241	SLE RA 17	19	130	3351	3.06	8.28	-1.73
241	SLE RA 18	26	134	3577	3.26	8.79	-1.87
241	SLE RA 19	21	134	3577	3.26	8.4	-1.81
241	SLE RA 20	26	134	3577	3.26	8.79	-1.87
241	SLE RA 21	21	134	3577	3.26	8.4	-1.81
241	SLE FR 1	20	121	2823	2.58	8.39	-1.6
241	SLE FR 2	19	121	2823	2.58	8.26	-1.59
241	SLE FR 3	20	121	2823	2.58	8.39	-1.6
241	SLE FR 4	20	125	3049	2.78	8.38	-1.67
241	SLE FR 5	22	125	3049	2.78	8.51	-1.68
241	SLE FR 6	23	128	3200	2.92	8.59	-1.74
241	SLE QP 1	20	121	2823	2.58	8.39	-1.6
241	SLE QP 2	22	125	3049	2.78	8.51	-1.68
241	SLD 1	246	205	3041	2.3	24.47	-4.64
241	SLD 2	228	206	3041	2.31	24.83	-3.6
241	SLD 3	256	76	3088	3.09	23.09	-4.41
241	SLD 4	238	77	3088	3.09	23.46	-3.38
241	SLD 5	80	343	2976	1.45	15.26	-3.28
241	SLD 6	62	344	2976	1.45	15.62	-2.24
241	SLD 7	114	-84	3132	4.06	10.67	-2.53
241	SLD 8	96	-83	3132	4.07	11.04	-1.48
241	SLD 9	-52	334	2967	1.5	5.99	-1.88
241	SLD 10	-70	334	2967	1.51	6.35	-0.84
241	SLD 11	-18	-94	3123	4.11	1.4	-1.13
241	SLD 12	-36	-93	3122	4.12	1.77	-0.09
241	SLD 13	-194	173	3011	2.47	-6.43	0.01
241	SLD 14	-212	174	3010	2.48	-6.07	1.04
241	SLD 15	-183	45	3057	3.26	-7.81	0.24
241	SLD 16	-201	45	3057	3.27	-7.45	1.27
241	SLV 1	531	306	3031	1.69	44.81	-8.4
241	SLV 2	490	308	3031	1.7	45.64	-6.06
241	SLV 3	554	15	3138	3.47	41.69	-7.88
241	SLV 4	513	17	3137	3.49	42.51	-5.54
241	SLV 5	154	620	2883	-0.25	23.85	-5.31
241	SLV 6	113	622	2882	-0.24	24.68	-2.95
241	SLV 7	231	-351	3237	5.69	13.44	-3.59
241	SLV 8	190	-349	3236	5.7	14.27	-1.23
241	SLV 9	-146	599	2862	-0.14	2.76	-2.14
241	SLV 10	-187	601	2861	-0.12	3.59	0.22
241	SLV 11	-68	-372	3216	5.8	-7.66	-0.42
241	SLV 12	-109	-370	3215	5.82	-6.82	1.94
241	SLV 13	-469	233	2961	2.08	-25.49	2.17
241	SLV 14	-509	235	2961	2.1	-24.67	4.51
241	SLV 15	-445	-58	3068	3.86	-28.62	2.69
241	SLV 16	-486	-56	3067	3.88	-27.79	5.03
241	CRTFP Ux+	0	0	0	0	0	0
241	CRTFP Ux-	0	0	0	0	0	0
241	CRTFP Uy+	0	0	0	0	0	0
241	CRTFP Uy-	0	0	0	0	0	0
243	SLU 1	-10	-10	1983	0.01	0.79	-0.13
243	SLU 2	-14	-11	1998	0.01	0.71	-0.12
243	SLU 3	-10	-10	1983	0.01	0.79	-0.13
243	SLU 4	-12	-11	1992	0.01	0.74	-0.13
243	SLU 5	-14	-11	1998	0.01	0.71	-0.12
243	SLU 6	-10	-10	1983	0.01	0.79	-0.13
243	SLU 7	-12	-11	1992	0.01	0.74	-0.13
243	SLU 8	-10	-10	1983	0.01	0.79	-0.13
243	SLU 9	-12	-11	1992	0.01	0.74	-0.13
243	SLU 10	-15	-9	2322	0.09	1.43	-0.15
243	SLU 11	-10	-8	2306	0.1	1.51	-0.16
243	SLU 12	-13	-9	2316	0.09	1.46	-0.15
243	SLU 13	-15	-9	2322	0.09	1.43	-0.15
243	SLU 14	-10	-8	2306	0.1	1.51	-0.16
243	SLU 15	-13	-9	2316	0.09	1.46	-0.15
243	SLU 16	-10	-8	2306	0.1	1.51	-0.16
243	SLU 17	-13	-9	2316	0.09	1.46	-0.15
243	SLU 18	-10	-8	2445	0.13	1.82	-0.17
243	SLU 19	-13	-8	2455	0.13	1.77	-0.16
243	SLU 20	-10	-8	2445	0.13	1.82	-0.17
243	SLU 21	-13	-8	2455	0.13	1.77	-0.16
243	SLU 22	-10	-10	2220	0.06	1.15	-0.15
243	SLU 23	-15	-10	2236	0.05	1.07	-0.14
243	SLU 24	-10	-10	2220	0.06	1.15	-0.15

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
243	SLU 25	-13	-10	2229	0.05	1.1	-0.14
243	SLU 26	-15	-10	2236	0.05	1.07	-0.14
243	SLU 27	-10	-10	2220	0.06	1.15	-0.15
243	SLU 28	-13	-10	2229	0.05	1.1	-0.14
243	SLU 29	-10	-10	2220	0.06	1.15	-0.15
243	SLU 30	-13	-10	2229	0.05	1.1	-0.14
243	SLU 31	-15	-8	2559	0.14	1.79	-0.16
243	SLU 32	-10	-8	2544	0.14	1.88	-0.17
243	SLU 33	-13	-8	2553	0.14	1.83	-0.17
243	SLU 34	-15	-8	2559	0.14	1.79	-0.16
243	SLU 35	-10	-8	2544	0.14	1.88	-0.17
243	SLU 36	-13	-8	2553	0.14	1.83	-0.17
243	SLU 37	-10	-8	2544	0.14	1.88	-0.17
243	SLU 38	-13	-8	2553	0.14	1.83	-0.17
243	SLU 39	-11	-7	2683	0.18	2.19	-0.18
243	SLU 40	-13	-7	2692	0.17	2.14	-0.18
243	SLU 41	-11	-7	2683	0.18	2.19	-0.18
243	SLU 42	-13	-7	2692	0.17	2.14	-0.18
243	SLU 43	-12	-14	2496	0	0.9	-0.17
243	SLU 44	-17	-14	2512	0	0.82	-0.15
243	SLU 45	-12	-14	2496	0	0.9	-0.17
243	SLU 46	-15	-14	2505	0	0.85	-0.16
243	SLU 47	-17	-14	2512	0	0.82	-0.15
243	SLU 48	-12	-14	2496	0	0.9	-0.17
243	SLU 49	-15	-14	2505	0	0.85	-0.16
243	SLU 50	-12	-14	2496	0	0.9	-0.17
243	SLU 51	-15	-14	2505	0	0.85	-0.16
243	SLU 52	-18	-12	2835	0.08	1.54	-0.18
243	SLU 53	-13	-12	2820	0.08	1.62	-0.19
243	SLU 54	-16	-12	2829	0.08	1.57	-0.18
243	SLU 55	-18	-12	2835	0.08	1.54	-0.18
243	SLU 56	-13	-12	2820	0.08	1.62	-0.19
243	SLU 57	-16	-12	2829	0.08	1.57	-0.18
243	SLU 58	-13	-12	2820	0.08	1.62	-0.19
243	SLU 59	-16	-12	2829	0.08	1.57	-0.18
243	SLU 60	-13	-11	2959	0.12	1.93	-0.2
243	SLU 61	-16	-11	2968	0.12	1.88	-0.19
243	SLU 62	-13	-11	2959	0.12	1.93	-0.2
243	SLU 63	-16	-11	2968	0.12	1.88	-0.19
243	SLU 64	-13	-13	2733	0.04	1.26	-0.18
243	SLU 65	-18	-13	2749	0.04	1.18	-0.17
243	SLU 66	-13	-13	2733	0.04	1.26	-0.18
243	SLU 67	-16	-13	2743	0.04	1.21	-0.18
243	SLU 68	-18	-13	2749	0.04	1.18	-0.17
243	SLU 69	-13	-13	2733	0.04	1.26	-0.18
243	SLU 70	-16	-13	2743	0.04	1.21	-0.18
243	SLU 71	-13	-13	2733	0.04	1.26	-0.18
243	SLU 72	-16	-13	2743	0.04	1.21	-0.18
243	SLU 73	-18	-12	3073	0.12	1.91	-0.2
243	SLU 74	-13	-11	3057	0.13	1.99	-0.21
243	SLU 75	-16	-11	3066	0.13	1.94	-0.2
243	SLU 76	-18	-12	3073	0.12	1.91	-0.2
243	SLU 77	-13	-11	3057	0.13	1.99	-0.21
243	SLU 78	-16	-11	3066	0.13	1.94	-0.2
243	SLU 79	-13	-11	3057	0.13	1.99	-0.21
243	SLU 80	-16	-11	3066	0.13	1.94	-0.2
243	SLU 81	-13	-10	3196	0.16	2.3	-0.22
243	SLU 82	-16	-11	3205	0.16	2.25	-0.21
243	SLU 83	-13	-10	3196	0.16	2.3	-0.22
243	SLU 84	-16	-11	3205	0.16	2.25	-0.21
243	SLE RA 1	-10	-10	2050	0.02	0.89	-0.14
243	SLE RA 2	-13	-10	2061	0.02	0.84	-0.13
243	SLE RA 3	-10	-10	2050	0.02	0.89	-0.14
243	SLE RA 4	-12	-10	2057	0.02	0.86	-0.13
243	SLE RA 5	-13	-10	2061	0.02	0.84	-0.13
243	SLE RA 6	-10	-10	2050	0.02	0.89	-0.14
243	SLE RA 7	-12	-10	2057	0.02	0.86	-0.13
243	SLE RA 8	-10	-10	2050	0.02	0.89	-0.14
243	SLE RA 9	-12	-10	2057	0.02	0.86	-0.13
243	SLE RA 10	-13	-9	2277	0.08	1.32	-0.15
243	SLE RA 11	-10	-9	2266	0.08	1.37	-0.15
243	SLE RA 12	-12	-9	2272	0.08	1.34	-0.15
243	SLE RA 13	-13	-9	2277	0.08	1.32	-0.15
243	SLE RA 14	-10	-9	2266	0.08	1.37	-0.15
243	SLE RA 15	-12	-9	2272	0.08	1.34	-0.15
243	SLE RA 16	-10	-9	2266	0.08	1.37	-0.15
243	SLE RA 17	-12	-9	2272	0.08	1.34	-0.15
243	SLE RA 18	-10	-8	2359	0.1	1.58	-0.16
243	SLE RA 19	-12	-9	2365	0.1	1.55	-0.16
243	SLE RA 20	-10	-8	2359	0.1	1.58	-0.16
243	SLE RA 21	-12	-9	2365	0.1	1.55	-0.16
243	SLE FR 1	-10	-10	2050	0.02	0.89	-0.14
243	SLE FR 2	-10	-10	2052	0.02	0.88	-0.13
243	SLE FR 3	-10	-10	2050	0.02	0.89	-0.14
243	SLE FR 4	-10	-10	2145	0.05	1.09	-0.14
243	SLE FR 5	-10	-10	2143	0.05	1.1	-0.14

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
243	SLE FR 6	-10	-9	2205	0.06	1.24	-0.15
243	SLE QP 1	-10	-10	2050	0.02	0.89	-0.14
243	SLE QP 2	-10	-10	2143	0.05	1.1	-0.14
243	SLD 1	80	44	1861	-0.09	-21.47	-0.39
243	SLD 2	72	76	1861	-0.12	-21.49	-0.32
243	SLD 3	86	-45	1920	0.42	-22.82	-0.33
243	SLD 4	78	-13	1920	0.39	-22.83	-0.26
243	SLD 5	10	131	1969	-0.76	-3.63	-0.33
243	SLD 6	3	164	1969	-0.78	-3.65	-0.26
243	SLD 7	31	-168	2166	0.94	-8.11	-0.13
243	SLD 8	23	-135	2165	0.91	-8.12	-0.07
243	SLD 9	-43	116	2121	-0.82	10.32	-0.22
243	SLD 10	-50	149	2120	-0.85	10.3	-0.15
243	SLD 11	-23	-183	2317	0.88	5.84	-0.03
243	SLD 12	-30	-150	2317	0.85	5.83	0.04
243	SLD 13	-98	-6	2366	-0.3	25.03	-0.02
243	SLD 14	-106	26	2366	-0.32	25.01	0.04
243	SLD 15	-92	-95	2425	0.21	23.68	0.03
243	SLD 16	-100	-63	2425	0.19	23.67	0.1
243	SLV 1	194	113	1503	-0.26	-51.86	-0.69
243	SLV 2	177	186	1502	-0.32	-51.89	-0.55
243	SLV 3	208	-91	1637	0.9	-55.03	-0.56
243	SLV 4	191	-18	1636	0.83	-55.06	-0.42
243	SLV 5	36	310	1748	-1.78	-9.97	-0.56
243	SLV 6	19	384	1747	-1.84	-10	-0.41
243	SLV 7	82	-368	2194	2.08	-20.53	-0.12
243	SLV 8	65	-295	2194	2.02	-20.57	0.03
243	SLV 9	-85	276	2092	-1.92	22.76	-0.31
243	SLV 10	-102	349	2091	-1.98	22.73	-0.16
243	SLV 11	-39	-403	2538	1.94	12.2	0.13
243	SLV 12	-56	-329	2538	1.87	12.17	0.27
243	SLV 13	-210	-1	2650	-0.74	57.25	0.13
243	SLV 14	-227	72	2649	-0.8	57.22	0.28
243	SLV 15	-197	-205	2784	0.42	54.09	0.26
243	SLV 16	-213	-132	2783	0.36	54.05	0.41
243	CRTFP Ux+	0	0	0	0	0	0
243	CRTFP Ux-	0	0	0	0	0	0
243	CRTFP Uy+	0	0	0	0	0	0
243	CRTFP Uy-	0	0	0	0	0	0
244	SLU 1	-37	-45	1857	-2.05	-414.52	-16.08
244	SLU 2	-42	-44	1842	-2.05	-410.85	-15.89
244	SLU 3	-37	-45	1857	-2.05	-414.52	-16.08
244	SLU 4	-40	-44	1848	-2.05	-412.32	-15.96
244	SLU 5	-42	-44	1842	-2.05	-410.85	-15.89
244	SLU 6	-37	-45	1857	-2.05	-414.52	-16.08
244	SLU 7	-40	-44	1848	-2.05	-412.32	-15.96
244	SLU 8	-37	-45	1857	-2.05	-414.52	-16.08
244	SLU 9	-40	-44	1848	-2.05	-412.32	-15.96
244	SLU 10	-54	-51	2147	-2.39	-468.92	-18.29
244	SLU 11	-50	-51	2162	-2.38	-472.59	-18.49
244	SLU 12	-53	-51	2153	-2.38	-470.39	-18.37
244	SLU 13	-54	-51	2147	-2.39	-468.92	-18.29
244	SLU 14	-50	-51	2162	-2.38	-472.59	-18.49
244	SLU 15	-53	-51	2153	-2.38	-470.39	-18.37
244	SLU 16	-50	-51	2162	-2.38	-472.59	-18.49
244	SLU 17	-53	-51	2153	-2.38	-470.39	-18.37
244	SLU 18	-55	-54	2292	-2.53	-497.48	-19.52
244	SLU 19	-58	-54	2283	-2.53	-495.27	-19.4
244	SLU 20	-55	-54	2292	-2.53	-497.48	-19.52
244	SLU 21	-58	-54	2283	-2.53	-495.27	-19.4
244	SLU 22	-45	-49	2078	-2.31	-457.07	-17.49
244	SLU 23	-50	-48	2063	-2.31	-453.4	-17.3
244	SLU 24	-45	-49	2078	-2.31	-457.07	-17.49
244	SLU 25	-48	-48	2069	-2.31	-454.87	-17.38
244	SLU 26	-50	-48	2063	-2.31	-453.4	-17.3
244	SLU 27	-45	-49	2078	-2.31	-457.07	-17.49
244	SLU 28	-48	-48	2069	-2.31	-454.87	-17.38
244	SLU 29	-45	-49	2078	-2.31	-457.07	-17.49
244	SLU 30	-48	-48	2069	-2.31	-454.87	-17.38
244	SLU 31	-62	-55	2367	-2.65	-511.47	-19.71
244	SLU 32	-58	-55	2382	-2.65	-515.14	-19.9
244	SLU 33	-60	-55	2373	-2.65	-512.94	-19.79
244	SLU 34	-62	-55	2367	-2.65	-511.47	-19.71
244	SLU 35	-58	-55	2382	-2.65	-515.14	-19.9
244	SLU 36	-60	-55	2373	-2.65	-512.94	-19.79
244	SLU 37	-58	-55	2382	-2.65	-515.14	-19.9
244	SLU 38	-60	-55	2373	-2.65	-512.94	-19.79
244	SLU 39	-63	-58	2513	-2.79	-540.03	-20.93
244	SLU 40	-66	-58	2504	-2.79	-537.83	-20.82
244	SLU 41	-63	-58	2513	-2.79	-540.03	-20.93
244	SLU 42	-66	-58	2504	-2.79	-537.83	-20.82
244	SLU 43	-45	-57	2339	-2.57	-524.28	-20.42
244	SLU 44	-50	-56	2324	-2.57	-520.61	-20.23
244	SLU 45	-45	-57	2339	-2.57	-524.28	-20.42
244	SLU 46	-48	-57	2330	-2.57	-522.08	-20.3
244	SLU 47	-50	-56	2324	-2.57	-520.61	-20.23

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
244	SLU 48	-45	-57	2339	-2.57	-524.28	-20.42
244	SLU 49	-48	-57	2330	-2.57	-522.08	-20.3
244	SLU 50	-45	-57	2339	-2.57	-524.28	-20.42
244	SLU 51	-48	-57	2330	-2.57	-522.08	-20.3
244	SLU 52	-63	-63	2628	-2.91	-578.68	-22.63
244	SLU 53	-58	-63	2643	-2.91	-582.36	-22.82
244	SLU 54	-61	-63	2634	-2.91	-580.15	-22.71
244	SLU 55	-63	-63	2628	-2.91	-578.68	-22.63
244	SLU 56	-58	-63	2643	-2.91	-582.36	-22.82
244	SLU 57	-61	-63	2634	-2.91	-580.15	-22.71
244	SLU 58	-58	-63	2643	-2.91	-582.36	-22.82
244	SLU 59	-61	-63	2634	-2.91	-580.15	-22.71
244	SLU 60	-64	-66	2774	-3.05	-607.24	-23.86
244	SLU 61	-66	-66	2765	-3.05	-605.04	-23.74
244	SLU 62	-64	-66	2774	-3.05	-607.24	-23.86
244	SLU 63	-66	-66	2765	-3.05	-605.04	-23.74
244	SLU 64	-53	-61	2560	-2.84	-566.84	-21.83
244	SLU 65	-58	-60	2544	-2.84	-563.17	-21.64
244	SLU 66	-53	-61	2560	-2.84	-566.84	-21.83
244	SLU 67	-56	-60	2550	-2.84	-564.64	-21.72
244	SLU 68	-58	-60	2544	-2.84	-563.17	-21.64
244	SLU 69	-53	-61	2560	-2.84	-566.84	-21.83
244	SLU 70	-56	-60	2550	-2.84	-564.64	-21.72
244	SLU 71	-53	-61	2560	-2.84	-566.84	-21.83
244	SLU 72	-56	-60	2550	-2.84	-564.64	-21.72
244	SLU 73	-71	-67	2849	-3.17	-621.24	-24.05
244	SLU 74	-66	-67	2864	-3.17	-624.91	-24.24
244	SLU 75	-69	-67	2855	-3.17	-622.71	-24.12
244	SLU 76	-71	-67	2849	-3.17	-621.24	-24.05
244	SLU 77	-66	-67	2864	-3.17	-624.91	-24.24
244	SLU 78	-69	-67	2855	-3.17	-622.71	-24.12
244	SLU 79	-66	-67	2864	-3.17	-624.91	-24.24
244	SLU 80	-69	-67	2855	-3.17	-622.71	-24.12
244	SLU 81	-71	-70	2994	-3.32	-649.8	-25.27
244	SLU 82	-74	-70	2985	-3.32	-647.59	-25.16
244	SLU 83	-71	-70	2994	-3.32	-649.8	-25.27
244	SLU 84	-74	-70	2985	-3.32	-647.59	-25.16
244	SLE RA 1	-39	-46	1920	-2.12	-426.68	-16.48
244	SLE RA 2	-42	-46	1910	-2.12	-424.23	-16.36
244	SLE RA 3	-39	-46	1920	-2.12	-426.68	-16.48
244	SLE RA 4	-41	-46	1914	-2.12	-425.21	-16.41
244	SLE RA 5	-42	-46	1910	-2.12	-424.23	-16.36
244	SLE RA 6	-39	-46	1920	-2.12	-426.68	-16.48
244	SLE RA 7	-41	-46	1914	-2.12	-425.21	-16.41
244	SLE RA 8	-39	-46	1920	-2.12	-426.68	-16.48
244	SLE RA 9	-41	-46	1914	-2.12	-425.21	-16.41
244	SLE RA 10	-51	-50	2113	-2.35	-462.94	-17.96
244	SLE RA 11	-48	-50	2123	-2.35	-465.39	-18.09
244	SLE RA 12	-50	-50	2117	-2.35	-463.92	-18.01
244	SLE RA 13	-51	-50	2113	-2.35	-462.94	-17.96
244	SLE RA 14	-48	-50	2123	-2.35	-465.39	-18.09
244	SLE RA 15	-50	-50	2117	-2.35	-463.92	-18.01
244	SLE RA 16	-48	-50	2123	-2.35	-465.39	-18.09
244	SLE RA 17	-50	-50	2117	-2.35	-463.92	-18.01
244	SLE RA 18	-51	-52	2210	-2.44	-481.98	-18.77
244	SLE RA 19	-53	-52	2204	-2.44	-480.51	-18.7
244	SLE RA 20	-51	-52	2210	-2.44	-481.98	-18.77
244	SLE RA 21	-53	-52	2204	-2.44	-480.51	-18.7
244	SLE FR 1	-39	-46	1920	-2.12	-426.68	-16.48
244	SLE FR 2	-40	-46	1918	-2.12	-426.19	-16.46
244	SLE FR 3	-39	-46	1920	-2.12	-426.68	-16.48
244	SLE FR 4	-44	-48	2005	-2.22	-442.78	-17.14
244	SLE FR 5	-43	-48	2007	-2.22	-443.27	-17.17
244	SLE FR 6	-45	-49	2065	-2.28	-454.33	-17.63
244	SLE QP 1	-39	-46	1920	-2.12	-426.68	-16.48
244	SLE QP 2	-43	-48	2007	-2.22	-443.27	-17.17
244	SLD 1	81	-13	2193	-2.81	-469.82	-5.13
244	SLD 2	67	-47	2197	-2.78	-470.05	-16.71
244	SLD 3	74	-102	2244	-2.41	-476.33	-36.21
244	SLD 4	60	-135	2247	-2.38	-476.56	-47.79
244	SLD 5	9	109	1986	-3.01	-441.29	37.68
244	SLD 6	-5	75	1989	-2.98	-441.51	26.02
244	SLD 7	-13	-187	2153	-1.68	-462.98	-65.93
244	SLD 8	-27	-221	2157	-1.65	-463.2	-77.59
244	SLD 9	-59	125	1858	-2.79	-423.34	43.25
244	SLD 10	-73	91	1861	-2.76	-423.56	31.59
244	SLD 11	-81	-171	2026	-1.45	-445.02	-60.36
244	SLD 12	-95	-205	2029	-1.43	-445.25	-72.02
244	SLD 13	-146	40	1768	-2.06	-409.98	13.45
244	SLD 14	-160	7	1771	-2.03	-410.21	1.87
244	SLD 15	-153	-49	1818	-1.66	-416.49	-17.63
244	SLD 16	-167	-82	1821	-1.63	-416.71	-29.21
244	SLV 1	238	30	2430	-3.55	-503.8	9.89
244	SLV 2	207	-46	2438	-3.49	-504.31	-16.32
244	SLV 3	223	-172	2545	-2.65	-518.58	-60.75
244	SLV 4	191	-248	2552	-2.59	-519.09	-86.96

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
244	SLV 5	76	308	1958	-4.02	-438.83	107.35
244	SLV 6	44	232	1965	-3.96	-439.34	80.96
244	SLV 7	25	-364	2340	-0.99	-488.1	-128.12
244	SLV 8	-7	-440	2347	-0.93	-488.61	-154.51
244	SLV 9	-79	345	1668	-3.51	-397.92	120.17
244	SLV 10	-111	269	1675	-3.45	-398.44	93.78
244	SLV 11	-130	-328	2049	-0.48	-447.19	-115.3
244	SLV 12	-161	-404	2056	-0.42	-447.71	-141.69
244	SLV 13	-277	152	1463	-1.85	-367.45	52.62
244	SLV 14	-309	77	1470	-1.79	-367.96	26.41
244	SLV 15	-292	-50	1577	-0.94	-382.23	-18.02
244	SLV 16	-324	-125	1584	-0.88	-382.74	-44.23
244	CRTFP Ux+	0	0	0	0	0	0
244	CRTFP Ux-	0	0	0	0	0	0
244	CRTFP Uy+	0	0	0	0	0	0
244	CRTFP Uy-	0	0	0	0	0	0
247	SLU 1	27	119	2745	2.29	7.7	-1.45
247	SLU 2	14	119	2744	2.29	6.76	-1.28
247	SLU 3	27	119	2745	2.29	7.7	-1.45
247	SLU 4	19	119	2744	2.29	7.13	-1.35
247	SLU 5	14	119	2744	2.29	6.76	-1.28
247	SLU 6	27	119	2745	2.29	7.7	-1.45
247	SLU 7	19	119	2744	2.29	7.13	-1.35
247	SLU 8	27	119	2745	2.29	7.7	-1.45
247	SLU 9	19	119	2744	2.29	7.13	-1.35
247	SLU 10	21	132	3553	2.66	7.18	-1.55
247	SLU 11	35	132	3554	2.65	8.13	-1.72
247	SLU 12	27	132	3553	2.65	7.56	-1.62
247	SLU 13	21	132	3553	2.66	7.18	-1.55
247	SLU 14	35	132	3554	2.65	8.13	-1.72
247	SLU 15	27	132	3553	2.65	7.56	-1.62
247	SLU 16	35	132	3554	2.65	8.13	-1.72
247	SLU 17	27	132	3553	2.65	7.56	-1.62
247	SLU 18	38	137	3900	2.81	8.31	-1.84
247	SLU 19	30	137	3900	2.81	7.74	-1.74
247	SLU 20	38	137	3900	2.81	8.31	-1.84
247	SLU 21	30	137	3900	2.81	7.74	-1.74
247	SLU 22	32	127	3285	2.49	8.01	-1.62
247	SLU 23	18	127	3284	2.49	7.06	-1.45
247	SLU 24	32	127	3285	2.49	8.01	-1.62
247	SLU 25	23	127	3284	2.49	7.44	-1.52
247	SLU 26	18	127	3284	2.49	7.06	-1.45
247	SLU 27	32	127	3285	2.49	8.01	-1.62
247	SLU 28	23	127	3284	2.49	7.44	-1.52
247	SLU 29	32	127	3285	2.49	8.01	-1.62
247	SLU 30	23	127	3284	2.49	7.44	-1.52
247	SLU 31	25	139	4093	2.86	7.48	-1.72
247	SLU 32	39	140	4094	2.85	8.43	-1.89
247	SLU 33	31	139	4093	2.85	7.86	-1.79
247	SLU 34	25	139	4093	2.86	7.48	-1.72
247	SLU 35	39	140	4094	2.85	8.43	-1.89
247	SLU 36	31	139	4093	2.85	7.86	-1.79
247	SLU 37	39	140	4094	2.85	8.43	-1.89
247	SLU 38	31	139	4093	2.85	7.86	-1.79
247	SLU 39	42	145	4441	3.01	8.61	-2
247	SLU 40	34	145	4440	3.01	8.04	-1.9
247	SLU 41	42	145	4441	3.01	8.61	-2
247	SLU 42	34	145	4440	3.01	8.04	-1.9
247	SLU 43	34	152	3383	2.9	9.91	-1.83
247	SLU 44	20	152	3382	2.91	8.96	-1.66
247	SLU 45	34	152	3383	2.9	9.91	-1.83
247	SLU 46	26	152	3382	2.91	9.34	-1.73
247	SLU 47	20	152	3382	2.91	8.96	-1.66
247	SLU 48	34	152	3383	2.9	9.91	-1.83
247	SLU 49	26	152	3382	2.91	9.34	-1.73
247	SLU 50	34	152	3383	2.9	9.91	-1.83
247	SLU 51	26	152	3382	2.91	9.34	-1.73
247	SLU 52	28	165	4191	3.27	9.38	-1.93
247	SLU 53	42	165	4192	3.27	10.33	-2.1
247	SLU 54	33	165	4191	3.27	9.76	-2
247	SLU 55	28	165	4191	3.27	9.38	-1.93
247	SLU 56	42	165	4192	3.27	10.33	-2.1
247	SLU 57	33	165	4191	3.27	9.76	-2
247	SLU 58	42	165	4192	3.27	10.33	-2.1
247	SLU 59	33	165	4191	3.27	9.76	-2
247	SLU 60	45	170	4539	3.43	10.51	-2.22
247	SLU 61	37	170	4538	3.43	9.94	-2.12
247	SLU 62	45	170	4539	3.43	10.51	-2.22
247	SLU 63	37	170	4538	3.43	9.94	-2.12
247	SLU 64	38	160	3923	3.1	10.22	-2
247	SLU 65	25	160	3922	3.11	9.27	-1.83
247	SLU 66	38	160	3923	3.1	10.22	-2
247	SLU 67	30	160	3922	3.11	9.65	-1.9
247	SLU 68	25	160	3922	3.11	9.27	-1.83
247	SLU 69	38	160	3923	3.1	10.22	-2
247	SLU 70	30	160	3922	3.11	9.65	-1.9

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
247	SLU 71	38	160	3923	3.1	10.22	-2
247	SLU 72	30	160	3922	3.11	9.65	-1.9
247	SLU 73	32	173	4731	3.47	9.69	-2.1
247	SLU 74	46	173	4732	3.47	10.64	-2.27
247	SLU 75	38	173	4731	3.47	10.07	-2.17
247	SLU 76	32	173	4731	3.47	9.69	-2.1
247	SLU 77	46	173	4732	3.47	10.64	-2.27
247	SLU 78	38	173	4731	3.47	10.07	-2.17
247	SLU 79	46	173	4732	3.47	10.64	-2.27
247	SLU 80	38	173	4731	3.47	10.07	-2.17
247	SLU 81	49	178	5079	3.63	10.82	-2.38
247	SLU 82	41	178	5078	3.63	10.25	-2.28
247	SLU 83	49	178	5079	3.63	10.82	-2.38
247	SLU 84	41	178	5078	3.63	10.25	-2.28
247	SLE RA 1	29	122	2899	2.34	7.79	-1.5
247	SLE RA 2	19	121	2898	2.35	7.16	-1.39
247	SLE RA 3	29	122	2899	2.34	7.79	-1.5
247	SLE RA 4	23	121	2899	2.35	7.41	-1.43
247	SLE RA 5	19	121	2898	2.35	7.16	-1.39
247	SLE RA 6	29	122	2899	2.34	7.79	-1.5
247	SLE RA 7	23	121	2899	2.35	7.41	-1.43
247	SLE RA 8	29	122	2899	2.34	7.79	-1.5
247	SLE RA 9	23	121	2899	2.35	7.41	-1.43
247	SLE RA 10	24	130	3438	2.59	7.44	-1.57
247	SLE RA 11	34	130	3438	2.59	8.07	-1.68
247	SLE RA 12	28	130	3438	2.59	7.69	-1.61
247	SLE RA 13	24	130	3438	2.59	7.44	-1.57
247	SLE RA 14	34	130	3438	2.59	8.07	-1.68
247	SLE RA 15	28	130	3438	2.59	7.69	-1.61
247	SLE RA 16	34	130	3438	2.59	8.07	-1.68
247	SLE RA 17	28	130	3438	2.59	7.69	-1.61
247	SLE RA 18	36	133	3669	2.69	8.19	-1.76
247	SLE RA 19	30	133	3669	2.69	7.81	-1.69
247	SLE RA 20	36	133	3669	2.69	8.19	-1.76
247	SLE RA 21	30	133	3669	2.69	7.81	-1.69
247	SLE FR 1	29	122	2899	2.34	7.79	-1.5
247	SLE FR 2	27	122	2899	2.34	7.66	-1.48
247	SLE FR 3	29	122	2899	2.34	7.79	-1.5
247	SLE FR 4	29	125	3130	2.45	7.79	-1.55
247	SLE FR 5	31	125	3130	2.45	7.91	-1.58
247	SLE FR 6	32	127	3284	2.52	7.99	-1.63
247	SLE QP 1	29	122	2899	2.34	7.79	-1.5
247	SLE QP 2	31	125	3130	2.45	7.91	-1.58
247	SLD 1	270	205	3110	1.96	23.26	-5.02
247	SLD 2	246	206	3110	1.97	23.62	-3.94
247	SLD 3	281	76	3181	2.76	21.96	-4.77
247	SLD 4	258	77	3181	2.77	22.32	-3.69
247	SLD 5	94	343	3016	1.09	14.37	-3.37
247	SLD 6	70	344	3016	1.09	14.73	-2.28
247	SLD 7	131	-84	3253	3.75	10.02	-2.54
247	SLD 8	108	-83	3253	3.76	10.38	-1.45
247	SLD 9	-46	334	3007	1.14	5.44	-1.7
247	SLD 10	-70	335	3007	1.14	5.8	-0.61
247	SLD 11	-8	-94	3244	3.8	1.09	-0.87
247	SLD 12	-32	-93	3244	3.81	1.46	0.21
247	SLD 13	-196	173	3080	2.13	-6.49	0.54
247	SLD 14	-220	174	3080	2.14	-6.13	1.62
247	SLD 15	-185	45	3151	2.93	-7.8	0.78
247	SLD 16	-208	46	3151	2.94	-7.44	1.86
247	SLV 1	574	306	3083	1.33	42.83	-9.4
247	SLV 2	521	308	3083	1.35	43.65	-6.95
247	SLV 3	600	15	3245	3.15	39.87	-8.83
247	SLV 4	547	17	3245	3.17	40.69	-6.38
247	SLV 5	174	621	2871	-0.65	22.59	-5.65
247	SLV 6	120	623	2871	-0.63	23.41	-3.19
247	SLV 7	259	-350	3410	5.41	12.72	-3.76
247	SLV 8	206	-348	3410	5.43	13.54	-1.3
247	SLV 9	-144	599	2850	-0.53	2.28	-1.86
247	SLV 10	-198	601	2850	-0.51	3.1	0.6
247	SLV 11	-58	-372	3389	5.53	-7.59	0.03
247	SLV 12	-112	-370	3389	5.54	-6.76	2.49
247	SLV 13	-485	233	3015	1.73	-24.86	3.23
247	SLV 14	-538	235	3015	1.74	-24.04	5.67
247	SLV 15	-459	-58	3177	3.55	-27.82	3.8
247	SLV 16	-513	-56	3177	3.56	-27	6.24
247	CRTFP Ux+	0	0	0	0	0	0
247	CRTFP Ux-	0	0	0	0	0	0
247	CRTFP Uy+	0	0	0	0	0	0
247	CRTFP Uy-	0	0	0	0	0	0
249	SLU 1	-5	-11	1982	-0.05	0.84	-0.15
249	SLU 2	-11	-11	1997	-0.06	0.76	-0.13
249	SLU 3	-5	-11	1982	-0.05	0.84	-0.15
249	SLU 4	-8	-11	1991	-0.06	0.79	-0.14
249	SLU 5	-11	-11	1997	-0.06	0.76	-0.13
249	SLU 6	-5	-11	1982	-0.05	0.84	-0.15
249	SLU 7	-8	-11	1991	-0.06	0.79	-0.14

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
249	SLU 8	-5	-11	1982	-0.05	0.84	-0.15
249	SLU 9	-8	-11	1991	-0.06	0.79	-0.14
249	SLU 10	-10	-9	2324	0.02	1.47	-0.16
249	SLU 11	-5	-9	2308	0.02	1.55	-0.17
249	SLU 12	-8	-9	2317	0.02	1.51	-0.16
249	SLU 13	-10	-9	2324	0.02	1.47	-0.16
249	SLU 14	-5	-9	2308	0.02	1.55	-0.17
249	SLU 15	-8	-9	2317	0.02	1.51	-0.16
249	SLU 16	-5	-9	2308	0.02	1.55	-0.17
249	SLU 17	-8	-9	2317	0.02	1.51	-0.16
249	SLU 18	-5	-8	2448	0.05	1.86	-0.18
249	SLU 19	-8	-8	2457	0.05	1.81	-0.17
249	SLU 20	-5	-8	2448	0.05	1.86	-0.18
249	SLU 21	-8	-8	2457	0.05	1.81	-0.17
249	SLU 22	-5	-10	2221	-0.02	1.2	-0.16
249	SLU 23	-10	-11	2236	-0.02	1.12	-0.15
249	SLU 24	-5	-10	2221	-0.02	1.2	-0.16
249	SLU 25	-8	-10	2230	-0.02	1.15	-0.15
249	SLU 26	-10	-11	2236	-0.02	1.12	-0.15
249	SLU 27	-5	-10	2221	-0.02	1.2	-0.16
249	SLU 28	-8	-10	2230	-0.02	1.15	-0.15
249	SLU 29	-5	-10	2221	-0.02	1.2	-0.16
249	SLU 30	-8	-10	2230	-0.02	1.15	-0.15
249	SLU 31	-10	-9	2562	0.06	1.84	-0.17
249	SLU 32	-5	-8	2547	0.06	1.91	-0.19
249	SLU 33	-8	-9	2556	0.06	1.87	-0.18
249	SLU 34	-10	-9	2562	0.06	1.84	-0.17
249	SLU 35	-5	-8	2547	0.06	1.91	-0.19
249	SLU 36	-8	-9	2556	0.06	1.87	-0.18
249	SLU 37	-5	-8	2547	0.06	1.91	-0.19
249	SLU 38	-8	-9	2556	0.06	1.87	-0.18
249	SLU 39	-5	-7	2687	0.09	2.22	-0.2
249	SLU 40	-8	-8	2696	0.09	2.17	-0.19
249	SLU 41	-5	-7	2687	0.09	2.22	-0.2
249	SLU 42	-8	-8	2696	0.09	2.17	-0.19
249	SLU 43	-7	-14	2495	-0.08	0.96	-0.18
249	SLU 44	-12	-15	2510	-0.08	0.89	-0.17
249	SLU 45	-7	-14	2495	-0.08	0.96	-0.18
249	SLU 46	-10	-15	2504	-0.08	0.92	-0.17
249	SLU 47	-12	-15	2510	-0.08	0.89	-0.17
249	SLU 48	-7	-14	2495	-0.08	0.96	-0.18
249	SLU 49	-10	-15	2504	-0.08	0.92	-0.17
249	SLU 50	-7	-14	2495	-0.08	0.96	-0.18
249	SLU 51	-10	-15	2504	-0.08	0.92	-0.17
249	SLU 52	-12	-13	2836	-0.01	1.6	-0.19
249	SLU 53	-7	-12	2821	-0.01	1.68	-0.21
249	SLU 54	-10	-13	2830	-0.01	1.63	-0.2
249	SLU 55	-12	-13	2836	-0.01	1.6	-0.19
249	SLU 56	-7	-12	2821	-0.01	1.68	-0.21
249	SLU 57	-10	-13	2830	-0.01	1.63	-0.2
249	SLU 58	-7	-12	2821	-0.01	1.68	-0.21
249	SLU 59	-10	-13	2830	-0.01	1.63	-0.2
249	SLU 60	-6	-12	2961	0.03	1.98	-0.22
249	SLU 61	-9	-12	2970	0.02	1.94	-0.21
249	SLU 62	-6	-12	2961	0.03	1.98	-0.22
249	SLU 63	-9	-12	2970	0.02	1.94	-0.21
249	SLU 64	-7	-13	2733	-0.05	1.33	-0.2
249	SLU 65	-12	-14	2749	-0.05	1.25	-0.19
249	SLU 66	-7	-13	2733	-0.05	1.33	-0.2
249	SLU 67	-10	-14	2743	-0.05	1.28	-0.19
249	SLU 68	-12	-14	2749	-0.05	1.25	-0.19
249	SLU 69	-7	-13	2733	-0.05	1.33	-0.2
249	SLU 70	-10	-14	2743	-0.05	1.28	-0.19
249	SLU 71	-7	-13	2733	-0.05	1.33	-0.2
249	SLU 72	-10	-14	2743	-0.05	1.28	-0.19
249	SLU 73	-12	-12	3075	0.03	1.96	-0.21
249	SLU 74	-6	-12	3060	0.03	2.04	-0.23
249	SLU 75	-10	-12	3069	0.03	1.99	-0.22
249	SLU 76	-12	-12	3075	0.03	1.96	-0.21
249	SLU 77	-6	-12	3060	0.03	2.04	-0.23
249	SLU 78	-10	-12	3069	0.03	1.99	-0.22
249	SLU 79	-6	-12	3060	0.03	2.04	-0.23
249	SLU 80	-10	-12	3069	0.03	1.99	-0.22
249	SLU 81	-6	-11	3199	0.06	2.35	-0.24
249	SLU 82	-9	-11	3209	0.06	2.3	-0.23
249	SLU 83	-6	-11	3199	0.06	2.35	-0.24
249	SLU 84	-9	-11	3209	0.06	2.3	-0.23
249	SLE RA 1	-5	-11	2050	-0.04	0.94	-0.15
249	SLE RA 2	-9	-11	2060	-0.05	0.89	-0.14
249	SLE RA 3	-5	-11	2050	-0.04	0.94	-0.15
249	SLE RA 4	-7	-11	2056	-0.04	0.91	-0.14
249	SLE RA 5	-9	-11	2060	-0.05	0.89	-0.14
249	SLE RA 6	-5	-11	2050	-0.04	0.94	-0.15
249	SLE RA 7	-7	-11	2056	-0.04	0.91	-0.14
249	SLE RA 8	-5	-11	2050	-0.04	0.94	-0.15
249	SLE RA 9	-7	-11	2056	-0.04	0.91	-0.14

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
249	SLE RA 10	-9	-10	2278	0.01	1.37	-0.16
249	SLE RA 11	-5	-9	2268	0.01	1.42	-0.17
249	SLE RA 12	-7	-10	2274	0.01	1.39	-0.16
249	SLE RA 13	-9	-10	2278	0.01	1.37	-0.16
249	SLE RA 14	-5	-9	2268	0.01	1.42	-0.17
249	SLE RA 15	-7	-10	2274	0.01	1.39	-0.16
249	SLE RA 16	-5	-9	2268	0.01	1.42	-0.17
249	SLE RA 17	-7	-10	2274	0.01	1.39	-0.16
249	SLE RA 18	-5	-9	2361	0.03	1.62	-0.18
249	SLE RA 19	-7	-9	2367	0.03	1.59	-0.17
249	SLE RA 20	-5	-9	2361	0.03	1.62	-0.18
249	SLE RA 21	-7	-9	2367	0.03	1.59	-0.17
249	SLE FR 1	-5	-11	2050	-0.04	0.94	-0.15
249	SLE FR 2	-6	-11	2052	-0.04	0.93	-0.15
249	SLE FR 3	-5	-11	2050	-0.04	0.94	-0.15
249	SLE FR 4	-6	-10	2145	-0.02	1.13	-0.16
249	SLE FR 5	-5	-10	2143	-0.02	1.14	-0.16
249	SLE FR 6	-5	-10	2205	-0.01	1.28	-0.16
249	SLE QP 1	-5	-11	2050	-0.04	0.94	-0.15
249	SLE QP 2	-5	-10	2143	-0.02	1.14	-0.16
249	SLD 1	93	44	1856	-0.17	-21.72	-0.49
249	SLD 2	83	76	1855	-0.2	-21.75	-0.41
249	SLD 3	98	-46	1931	0.34	-23.17	-0.43
249	SLD 4	88	-14	1929	0.32	-23.19	-0.36
249	SLD 5	20	131	1945	-0.83	-3.52	-0.37
249	SLD 6	10	163	1943	-0.86	-3.54	-0.3
249	SLD 7	37	-168	2193	0.87	-8.33	-0.18
249	SLD 8	27	-136	2192	0.84	-8.36	-0.1
249	SLD 9	-38	116	2095	-0.89	10.64	-0.21
249	SLD 10	-47	148	2094	-0.92	10.62	-0.14
249	SLD 11	-21	-183	2343	0.82	5.83	-0.02
249	SLD 12	-30	-151	2342	0.79	5.81	0.05
249	SLD 13	-99	-6	2357	-0.36	25.48	0.04
249	SLD 14	-108	26	2356	-0.39	25.46	0.11
249	SLD 15	-94	-96	2432	0.15	24.04	0.1
249	SLD 16	-103	-64	2431	0.12	24.01	0.17
249	SLV 1	217	113	1491	-0.35	-52.53	-0.91
249	SLV 2	196	185	1488	-0.42	-52.58	-0.74
249	SLV 3	229	-91	1660	0.81	-55.94	-0.78
249	SLV 4	207	-19	1657	0.75	-55.99	-0.61
249	SLV 5	51	310	1692	-1.86	-9.77	-0.64
249	SLV 6	30	383	1689	-1.92	-9.82	-0.47
249	SLV 7	90	-369	2256	2.01	-21.13	-0.2
249	SLV 8	69	-296	2253	1.95	-21.18	-0.03
249	SLV 9	-79	276	2034	-1.99	23.47	-0.28
249	SLV 10	-101	349	2031	-2.06	23.42	-0.11
249	SLV 11	-40	-403	2597	1.88	12.11	0.16
249	SLV 12	-62	-330	2595	1.81	12.06	0.33
249	SLV 13	-218	-1	2629	-0.79	58.28	0.29
249	SLV 14	-239	71	2627	-0.85	58.23	0.46
249	SLV 15	-206	-205	2798	0.37	54.87	0.42
249	SLV 16	-228	-133	2796	0.31	54.82	0.59
249	CRTFP Ux+	0	0	0	0	0	0
249	CRTFP Ux-	0	0	0	0	0	0
249	CRTFP Uy+	0	0	0	0	0	0
249	CRTFP Uy-	0	0	0	0	0	0
250	SLU 1	-24	-45	1804	-1.41	-368.41	-16.05
250	SLU 2	-29	-44	1789	-1.42	-364.59	-15.85
250	SLU 3	-24	-45	1804	-1.41	-368.41	-16.05
250	SLU 4	-27	-44	1795	-1.42	-366.12	-15.93
250	SLU 5	-29	-44	1789	-1.42	-364.59	-15.85
250	SLU 6	-24	-45	1804	-1.41	-368.41	-16.05
250	SLU 7	-27	-44	1795	-1.42	-366.12	-15.93
250	SLU 8	-24	-45	1804	-1.41	-368.41	-16.05
250	SLU 9	-27	-44	1795	-1.42	-366.12	-15.93
250	SLU 10	-39	-51	2085	-1.61	-414.01	-18.22
250	SLU 11	-34	-51	2100	-1.61	-417.84	-18.41
250	SLU 12	-37	-51	2091	-1.61	-415.54	-18.29
250	SLU 13	-39	-51	2085	-1.61	-414.01	-18.22
250	SLU 14	-34	-51	2100	-1.61	-417.84	-18.41
250	SLU 15	-37	-51	2091	-1.61	-415.54	-18.29
250	SLU 16	-34	-51	2100	-1.61	-417.84	-18.41
250	SLU 17	-37	-51	2091	-1.61	-415.54	-18.29
250	SLU 18	-38	-54	2227	-1.69	-439.02	-19.42
250	SLU 19	-41	-54	2218	-1.69	-436.72	-19.31
250	SLU 20	-38	-54	2227	-1.69	-439.02	-19.42
250	SLU 21	-41	-54	2218	-1.69	-436.72	-19.31
250	SLU 22	-30	-48	2018	-1.58	-404.51	-17.45
250	SLU 23	-36	-48	2003	-1.58	-400.68	-17.26
250	SLU 24	-30	-48	2018	-1.58	-404.51	-17.45
250	SLU 25	-33	-48	2009	-1.58	-402.21	-17.34
250	SLU 26	-36	-48	2003	-1.58	-400.68	-17.26
250	SLU 27	-30	-48	2018	-1.58	-404.51	-17.45
250	SLU 28	-33	-48	2009	-1.58	-402.21	-17.34
250	SLU 29	-30	-48	2018	-1.58	-404.51	-17.45
250	SLU 30	-33	-48	2009	-1.58	-402.21	-17.34

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
250	SLU 31	-45	-54	2299	-1.78	-450.11	-19.62
250	SLU 32	-40	-55	2314	-1.77	-453.93	-19.81
250	SLU 33	-43	-55	2305	-1.77	-451.64	-19.7
250	SLU 34	-45	-54	2299	-1.78	-450.11	-19.62
250	SLU 35	-40	-55	2314	-1.77	-453.93	-19.81
250	SLU 36	-43	-55	2305	-1.77	-451.64	-19.7
250	SLU 37	-40	-55	2314	-1.77	-453.93	-19.81
250	SLU 38	-43	-55	2305	-1.77	-451.64	-19.7
250	SLU 39	-44	-58	2441	-1.85	-475.12	-20.83
250	SLU 40	-47	-57	2432	-1.86	-472.82	-20.71
250	SLU 41	-44	-58	2441	-1.85	-475.12	-20.83
250	SLU 42	-47	-57	2432	-1.86	-472.82	-20.71
250	SLU 43	-29	-57	2272	-1.78	-466.56	-20.38
250	SLU 44	-35	-56	2256	-1.79	-462.74	-20.19
250	SLU 45	-29	-57	2272	-1.78	-466.56	-20.38
250	SLU 46	-32	-56	2262	-1.78	-464.27	-20.26
250	SLU 47	-35	-56	2256	-1.79	-462.74	-20.19
250	SLU 48	-29	-57	2272	-1.78	-466.56	-20.38
250	SLU 49	-32	-56	2262	-1.78	-464.27	-20.26
250	SLU 50	-29	-57	2272	-1.78	-466.56	-20.38
250	SLU 51	-32	-56	2262	-1.78	-464.27	-20.26
250	SLU 52	-44	-63	2553	-1.98	-512.16	-22.55
250	SLU 53	-39	-63	2568	-1.97	-515.98	-22.74
250	SLU 54	-42	-63	2559	-1.98	-513.69	-22.63
250	SLU 55	-44	-63	2553	-1.98	-512.16	-22.55
250	SLU 56	-39	-63	2568	-1.97	-515.98	-22.74
250	SLU 57	-42	-63	2559	-1.98	-513.69	-22.63
250	SLU 58	-39	-63	2568	-1.97	-515.98	-22.74
250	SLU 59	-42	-63	2559	-1.98	-513.69	-22.63
250	SLU 60	-43	-66	2695	-2.06	-537.17	-23.75
250	SLU 61	-46	-66	2686	-2.06	-534.87	-23.64
250	SLU 62	-43	-66	2695	-2.06	-537.17	-23.75
250	SLU 63	-46	-66	2686	-2.06	-534.87	-23.64
250	SLU 64	-35	-61	2486	-1.95	-502.66	-21.78
250	SLU 65	-41	-60	2470	-1.95	-498.83	-21.59
250	SLU 66	-35	-61	2486	-1.95	-502.66	-21.78
250	SLU 67	-39	-60	2477	-1.95	-500.36	-21.67
250	SLU 68	-41	-60	2470	-1.95	-498.83	-21.59
250	SLU 69	-35	-61	2486	-1.95	-502.66	-21.78
250	SLU 70	-39	-60	2477	-1.95	-500.36	-21.67
250	SLU 71	-35	-61	2486	-1.95	-502.66	-21.78
250	SLU 72	-39	-60	2477	-1.95	-500.36	-21.67
250	SLU 73	-50	-66	2767	-2.14	-548.26	-23.95
250	SLU 74	-45	-67	2782	-2.14	-552.08	-24.15
250	SLU 75	-48	-67	2773	-2.14	-549.79	-24.03
250	SLU 76	-50	-66	2767	-2.14	-548.26	-23.95
250	SLU 77	-45	-67	2782	-2.14	-552.08	-24.15
250	SLU 78	-48	-67	2773	-2.14	-549.79	-24.03
250	SLU 79	-45	-67	2782	-2.14	-552.08	-24.15
250	SLU 80	-48	-67	2773	-2.14	-549.79	-24.03
250	SLU 81	-49	-70	2909	-2.22	-573.26	-25.16
250	SLU 82	-52	-69	2900	-2.22	-570.97	-25.04
250	SLU 83	-49	-70	2909	-2.22	-573.26	-25.16
250	SLU 84	-52	-69	2900	-2.22	-570.97	-25.04
250	SLE RA 1	-26	-46	1865	-1.46	-378.73	-16.45
250	SLE RA 2	-29	-45	1855	-1.46	-376.18	-16.32
250	SLE RA 3	-26	-46	1865	-1.46	-378.73	-16.45
250	SLE RA 4	-28	-46	1859	-1.46	-377.2	-16.37
250	SLE RA 5	-29	-45	1855	-1.46	-376.18	-16.32
250	SLE RA 6	-26	-46	1865	-1.46	-378.73	-16.45
250	SLE RA 7	-28	-46	1859	-1.46	-377.2	-16.37
250	SLE RA 8	-26	-46	1865	-1.46	-378.73	-16.45
250	SLE RA 9	-28	-46	1859	-1.46	-377.2	-16.37
250	SLE RA 10	-36	-50	2052	-1.59	-409.13	-17.89
250	SLE RA 11	-32	-50	2062	-1.59	-411.68	-18.02
250	SLE RA 12	-34	-50	2056	-1.59	-410.15	-17.95
250	SLE RA 13	-36	-50	2052	-1.59	-409.13	-17.89
250	SLE RA 14	-32	-50	2062	-1.59	-411.68	-18.02
250	SLE RA 15	-34	-50	2056	-1.59	-410.15	-17.95
250	SLE RA 16	-32	-50	2062	-1.59	-411.68	-18.02
250	SLE RA 17	-34	-50	2056	-1.59	-410.15	-17.95
250	SLE RA 18	-35	-52	2147	-1.64	-425.8	-18.7
250	SLE RA 19	-37	-52	2141	-1.65	-424.27	-18.62
250	SLE RA 20	-35	-52	2147	-1.64	-425.8	-18.7
250	SLE RA 21	-37	-52	2141	-1.65	-424.27	-18.62
250	SLE FR 1	-26	-46	1865	-1.46	-378.73	-16.45
250	SLE FR 2	-27	-46	1863	-1.46	-378.22	-16.42
250	SLE FR 3	-26	-46	1865	-1.46	-378.73	-16.45
250	SLE FR 4	-29	-47	1948	-1.52	-392.34	-17.1
250	SLE FR 5	-29	-48	1950	-1.52	-392.85	-17.12
250	SLE FR 6	-30	-49	2006	-1.55	-402.26	-17.57
250	SLE QP 1	-26	-46	1865	-1.46	-378.73	-16.45
250	SLE QP 2	-29	-48	1950	-1.52	-392.85	-17.12
250	SLD 1	108	-13	2120	-1.98	-412.38	-5.08
250	SLD 2	91	-47	2124	-1.95	-412.75	-16.65
250	SLD 3	101	-102	2183	-1.55	-420.46	-36.17

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
250	SLD 4	84	-135	2187	-1.52	-420.83	-47.74
250	SLD 5	29	109	1904	-2.31	-386.33	37.74
250	SLD 6	12	76	1908	-2.29	-386.7	26.08
250	SLD 7	5	-187	2113	-0.89	-413.25	-65.9
250	SLD 8	-12	-220	2117	-0.86	-413.62	-77.55
250	SLD 9	-45	125	1782	-2.17	-372.07	43.31
250	SLD 10	-63	92	1786	-2.15	-372.44	31.65
250	SLD 11	-69	-171	1991	-0.75	-399	-60.33
250	SLD 12	-86	-204	1995	-0.72	-399.37	-71.98
250	SLD 13	-141	40	1712	-1.51	-364.86	13.49
250	SLD 14	-158	7	1716	-1.48	-365.23	1.92
250	SLD 15	-148	-49	1775	-1.08	-372.94	-17.6
250	SLD 16	-165	-82	1779	-1.06	-373.31	-29.17
250	SLV 1	281	30	2337	-2.56	-437.52	9.94
250	SLV 2	242	-46	2346	-2.5	-438.35	-16.26
250	SLV 3	265	-172	2480	-1.59	-455.87	-60.72
250	SLV 4	226	-248	2489	-1.53	-456.7	-86.92
250	SLV 5	103	308	1846	-3.33	-378.12	107.42
250	SLV 6	64	232	1855	-3.27	-378.96	81.05
250	SLV 7	48	-364	2322	-0.08	-439.29	-128.11
250	SLV 8	9	-440	2331	-0.02	-440.13	-154.48
250	SLV 9	-66	345	1568	-3.01	-345.56	120.24
250	SLV 10	-106	269	1577	-2.95	-346.4	93.86
250	SLV 11	-121	-327	2044	0.23	-406.74	-115.29
250	SLV 12	-160	-403	2053	0.29	-407.57	-141.66
250	SLV 13	-283	152	1410	-1.5	-328.99	52.67
250	SLV 14	-322	77	1419	-1.44	-329.82	26.47
250	SLV 15	-300	-49	1553	-0.53	-347.34	-17.99
250	SLV 16	-338	-125	1562	-0.47	-348.17	-44.19
250	CRTFP Ux+	0	0	0	0	0	0
250	CRTFP Ux-	0	0	0	0	0	0
250	CRTFP Uy+	0	0	0	0	0	0
250	CRTFP Uy-	0	0	0	0	0	0
253	SLU 1	35	120	2813	2.12	7.12	-1.34
253	SLU 2	20	120	2812	2.12	6.21	-1.15
253	SLU 3	35	120	2813	2.12	7.12	-1.34
253	SLU 4	26	120	2812	2.12	6.57	-1.23
253	SLU 5	20	120	2812	2.12	6.21	-1.15
253	SLU 6	35	120	2813	2.12	7.12	-1.34
253	SLU 7	26	120	2812	2.12	6.57	-1.23
253	SLU 8	35	120	2813	2.12	7.12	-1.34
253	SLU 9	26	120	2812	2.12	6.57	-1.23
253	SLU 10	29	131	3627	2.13	6.63	-1.41
253	SLU 11	44	131	3627	2.13	7.54	-1.6
253	SLU 12	35	131	3627	2.13	6.99	-1.49
253	SLU 13	29	131	3627	2.13	6.63	-1.41
253	SLU 14	44	131	3627	2.13	7.54	-1.6
253	SLU 15	35	131	3627	2.13	6.99	-1.49
253	SLU 16	44	131	3627	2.13	7.54	-1.6
253	SLU 17	35	131	3627	2.13	6.99	-1.49
253	SLU 18	48	136	3977	2.13	7.72	-1.71
253	SLU 19	39	136	3976	2.13	7.17	-1.6
253	SLU 20	48	136	3977	2.13	7.72	-1.71
253	SLU 21	39	136	3976	2.13	7.17	-1.6
253	SLU 22	40	127	3356	2.12	7.42	-1.5
253	SLU 23	25	127	3355	2.12	6.5	-1.31
253	SLU 24	40	127	3356	2.12	7.42	-1.5
253	SLU 25	31	127	3355	2.12	6.87	-1.39
253	SLU 26	25	127	3355	2.12	6.5	-1.31
253	SLU 27	40	127	3356	2.12	7.42	-1.5
253	SLU 28	31	127	3355	2.12	6.87	-1.39
253	SLU 29	40	127	3356	2.12	7.42	-1.5
253	SLU 30	31	127	3355	2.12	6.87	-1.39
253	SLU 31	34	138	4170	2.13	6.93	-1.57
253	SLU 32	49	138	4171	2.13	7.84	-1.76
253	SLU 33	40	138	4170	2.13	7.29	-1.64
253	SLU 34	34	138	4170	2.13	6.93	-1.57
253	SLU 35	49	138	4171	2.13	7.84	-1.76
253	SLU 36	40	138	4170	2.13	7.29	-1.64
253	SLU 37	49	138	4171	2.13	7.84	-1.76
253	SLU 38	40	138	4170	2.13	7.29	-1.64
253	SLU 39	53	143	4520	2.13	8.02	-1.87
253	SLU 40	44	143	4519	2.13	7.47	-1.75
253	SLU 41	53	143	4520	2.13	8.02	-1.87
253	SLU 42	44	143	4519	2.13	7.47	-1.75
253	SLU 43	43	153	3470	2.76	9.15	-1.69
253	SLU 44	29	153	3469	2.76	8.24	-1.5
253	SLU 45	43	153	3470	2.76	9.15	-1.69
253	SLU 46	35	153	3470	2.76	8.6	-1.58
253	SLU 47	29	153	3469	2.76	8.24	-1.5
253	SLU 48	43	153	3470	2.76	9.15	-1.69
253	SLU 49	35	153	3470	2.76	8.6	-1.58
253	SLU 50	43	153	3470	2.76	9.15	-1.69
253	SLU 51	35	153	3470	2.76	8.6	-1.58
253	SLU 52	38	164	4284	2.77	8.66	-1.76
253	SLU 53	52	165	4285	2.76	9.57	-1.95

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
253	SLU 54	44	165	4284	2.76	9.03	-1.84
253	SLU 55	38	164	4284	2.77	8.66	-1.76
253	SLU 56	52	165	4285	2.76	9.57	-1.95
253	SLU 57	44	165	4284	2.76	9.03	-1.84
253	SLU 58	52	165	4285	2.76	9.57	-1.95
253	SLU 59	44	165	4284	2.76	9.03	-1.84
253	SLU 60	56	170	4634	2.76	9.75	-2.06
253	SLU 61	47	169	4634	2.77	9.21	-1.95
253	SLU 62	56	170	4634	2.76	9.75	-2.06
253	SLU 63	47	169	4634	2.77	9.21	-1.95
253	SLU 64	49	160	4014	2.76	9.45	-1.85
253	SLU 65	34	160	4013	2.76	8.54	-1.66
253	SLU 66	49	160	4014	2.76	9.45	-1.85
253	SLU 67	40	160	4013	2.76	8.9	-1.74
253	SLU 68	34	160	4013	2.76	8.54	-1.66
253	SLU 69	49	160	4014	2.76	9.45	-1.85
253	SLU 70	40	160	4013	2.76	8.9	-1.74
253	SLU 71	49	160	4014	2.76	9.45	-1.85
253	SLU 72	40	160	4013	2.76	8.9	-1.74
253	SLU 73	43	171	4827	2.77	8.96	-1.92
253	SLU 74	58	172	4828	2.76	9.87	-2.11
253	SLU 75	49	172	4828	2.76	9.32	-1.99
253	SLU 76	43	171	4827	2.77	8.96	-1.92
253	SLU 77	58	172	4828	2.76	9.87	-2.11
253	SLU 78	49	172	4828	2.76	9.32	-1.99
253	SLU 79	58	172	4828	2.76	9.87	-2.11
253	SLU 80	49	172	4828	2.76	9.32	-1.99
253	SLU 81	61	177	5177	2.76	10.05	-2.22
253	SLU 82	52	176	5177	2.77	9.5	-2.1
253	SLU 83	61	177	5177	2.76	10.05	-2.22
253	SLU 84	52	176	5177	2.77	9.5	-2.1
253	SLE RA 1	36	122	2968	2.12	7.2	-1.39
253	SLE RA 2	26	122	2967	2.12	6.6	-1.26
253	SLE RA 3	36	122	2968	2.12	7.2	-1.39
253	SLE RA 4	30	122	2968	2.12	6.84	-1.31
253	SLE RA 5	26	122	2967	2.12	6.6	-1.26
253	SLE RA 6	36	122	2968	2.12	7.2	-1.39
253	SLE RA 7	30	122	2968	2.12	6.84	-1.31
253	SLE RA 8	36	122	2968	2.12	7.2	-1.39
253	SLE RA 9	30	122	2968	2.12	6.84	-1.31
253	SLE RA 10	32	129	3510	2.13	6.88	-1.43
253	SLE RA 11	42	129	3511	2.12	7.48	-1.56
253	SLE RA 12	36	129	3511	2.13	7.12	-1.48
253	SLE RA 13	32	129	3510	2.13	6.88	-1.43
253	SLE RA 14	42	129	3511	2.12	7.48	-1.56
253	SLE RA 15	36	129	3511	2.13	7.12	-1.48
253	SLE RA 16	42	129	3511	2.12	7.48	-1.56
253	SLE RA 17	36	129	3511	2.13	7.12	-1.48
253	SLE RA 18	45	133	3744	2.13	7.6	-1.63
253	SLE RA 19	39	133	3743	2.13	7.24	-1.56
253	SLE RA 20	45	133	3744	2.13	7.6	-1.63
253	SLE RA 21	39	133	3743	2.13	7.24	-1.56
253	SLE FR 1	36	122	2968	2.12	7.2	-1.39
253	SLE FR 2	34	122	2968	2.12	7.08	-1.36
253	SLE FR 3	36	122	2968	2.12	7.2	-1.39
253	SLE FR 4	37	125	3201	2.12	7.2	-1.44
253	SLE FR 5	39	125	3201	2.12	7.32	-1.46
253	SLE FR 6	41	127	3356	2.12	7.4	-1.51
253	SLE QP 1	36	122	2968	2.12	7.2	-1.39
253	SLE QP 2	39	125	3201	2.12	7.32	-1.46
253	SLD 1	296	205	3168	1.62	22.09	-5.35
253	SLD 2	266	206	3168	1.63	22.45	-4.22
253	SLD 3	308	76	3264	2.44	20.85	-5.08
253	SLD 4	279	77	3264	2.45	21.21	-3.95
253	SLD 5	107	343	3045	0.72	13.5	-3.44
253	SLD 6	78	344	3045	0.73	13.86	-2.3
253	SLD 7	149	-84	3366	3.47	9.38	-2.53
253	SLD 8	120	-83	3366	3.47	9.74	-1.4
253	SLD 9	-42	334	3036	0.77	4.9	-1.52
253	SLD 10	-71	334	3036	0.78	5.26	-0.39
253	SLD 11	0	-94	3356	3.52	0.79	-0.62
253	SLD 12	-30	-93	3357	3.52	1.15	0.51
253	SLD 13	-201	173	3137	1.79	-6.56	1.03
253	SLD 14	-231	174	3138	1.8	-6.2	2.15
253	SLD 15	-189	45	3234	2.62	-7.8	1.3
253	SLD 16	-218	46	3234	2.62	-7.44	2.42
253	SLV 1	623	306	3126	0.98	40.91	-10.29
253	SLV 2	556	308	3126	0.99	41.72	-7.74
253	SLV 3	651	15	3344	2.85	38.1	-9.67
253	SLV 4	585	17	3345	2.87	38.92	-7.13
253	SLV 5	194	620	2846	-1.07	21.36	-5.95
253	SLV 6	127	622	2847	-1.05	22.18	-3.39
253	SLV 7	290	-350	3575	5.18	12.02	-3.89
253	SLV 8	223	-348	3576	5.19	12.84	-1.32
253	SLV 9	-145	598	2826	-0.95	1.81	-1.6
253	SLV 10	-212	601	2826	-0.93	2.63	0.96

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
253	SLV 11	-49	-372	3554	5.29	-7.53	0.46
253	SLV 12	-116	-370	3555	5.31	-6.71	3.02
253	SLV 13	-507	233	3056	1.38	-24.27	4.2
253	SLV 14	-574	235	3057	1.39	-23.46	6.74
253	SLV 15	-479	-58	3275	3.25	-27.07	4.82
253	SLV 16	-545	-56	3276	3.26	-26.26	7.36
253	CRTFP Ux+	0	0	0	0	0	0
253	CRTFP Ux-	0	0	0	0	0	0
253	CRTFP Uy+	0	0	0	0	0	0
253	CRTFP Uy-	0	0	0	0	0	0
255	SLU 1	-1	-11	1979	-0.12	0.76	-0.16
255	SLU 2	-6	-12	1995	-0.12	0.69	-0.14
255	SLU 3	-1	-11	1979	-0.12	0.76	-0.16
255	SLU 4	-4	-12	1988	-0.12	0.72	-0.15
255	SLU 5	-6	-12	1995	-0.12	0.69	-0.14
255	SLU 6	-1	-11	1979	-0.12	0.76	-0.16
255	SLU 7	-4	-12	1988	-0.12	0.72	-0.15
255	SLU 8	-1	-11	1979	-0.12	0.76	-0.16
255	SLU 9	-4	-12	1988	-0.12	0.72	-0.15
255	SLU 10	-5	-10	2323	-0.06	1.36	-0.17
255	SLU 11	1	-9	2308	-0.05	1.43	-0.19
255	SLU 12	-3	-10	2317	-0.06	1.39	-0.17
255	SLU 13	-5	-10	2323	-0.06	1.36	-0.17
255	SLU 14	1	-9	2308	-0.05	1.43	-0.19
255	SLU 15	-3	-10	2317	-0.06	1.39	-0.17
255	SLU 16	1	-9	2308	-0.05	1.43	-0.19
255	SLU 17	-3	-10	2317	-0.06	1.39	-0.17
255	SLU 18	1	-9	2448	-0.03	1.72	-0.2
255	SLU 19	-2	-9	2458	-0.03	1.68	-0.19
255	SLU 20	1	-9	2448	-0.03	1.72	-0.2
255	SLU 21	-2	-9	2458	-0.03	1.68	-0.19
255	SLU 22	0	-11	2219	-0.09	1.1	-0.18
255	SLU 23	-6	-11	2234	-0.1	1.03	-0.16
255	SLU 24	0	-11	2219	-0.09	1.1	-0.18
255	SLU 25	-3	-11	2228	-0.09	1.06	-0.17
255	SLU 26	-6	-11	2234	-0.1	1.03	-0.16
255	SLU 27	0	-11	2219	-0.09	1.1	-0.18
255	SLU 28	-3	-11	2228	-0.09	1.06	-0.17
255	SLU 29	0	-11	2219	-0.09	1.1	-0.18
255	SLU 30	-3	-11	2228	-0.09	1.06	-0.17
255	SLU 31	-5	-9	2563	-0.03	1.7	-0.18
255	SLU 32	1	-9	2547	-0.03	1.77	-0.21
255	SLU 33	-2	-9	2557	-0.03	1.73	-0.19
255	SLU 34	-5	-9	2563	-0.03	1.7	-0.18
255	SLU 35	1	-9	2547	-0.03	1.77	-0.21
255	SLU 36	-2	-9	2557	-0.03	1.73	-0.19
255	SLU 37	1	-9	2547	-0.03	1.77	-0.21
255	SLU 38	-2	-9	2557	-0.03	1.73	-0.19
255	SLU 39	2	-8	2688	0	2.06	-0.22
255	SLU 40	-2	-8	2697	0	2.02	-0.21
255	SLU 41	2	-8	2688	0	2.06	-0.22
255	SLU 42	-2	-8	2697	0	2.02	-0.21
255	SLU 43	-1	-15	2491	-0.17	0.88	-0.2
255	SLU 44	-7	-15	2506	-0.17	0.8	-0.18
255	SLU 45	-1	-15	2491	-0.17	0.88	-0.2
255	SLU 46	-4	-15	2500	-0.17	0.83	-0.19
255	SLU 47	-7	-15	2506	-0.17	0.8	-0.18
255	SLU 48	-1	-15	2491	-0.17	0.88	-0.2
255	SLU 49	-4	-15	2500	-0.17	0.83	-0.19
255	SLU 50	-1	-15	2491	-0.17	0.88	-0.2
255	SLU 51	-4	-15	2500	-0.17	0.83	-0.19
255	SLU 52	-6	-14	2835	-0.1	1.47	-0.21
255	SLU 53	0	-13	2819	-0.1	1.55	-0.23
255	SLU 54	-3	-13	2829	-0.1	1.5	-0.22
255	SLU 55	-6	-14	2835	-0.1	1.47	-0.21
255	SLU 56	0	-13	2819	-0.1	1.55	-0.23
255	SLU 57	-3	-13	2829	-0.1	1.5	-0.22
255	SLU 58	0	-13	2819	-0.1	1.55	-0.23
255	SLU 59	-3	-13	2829	-0.1	1.5	-0.22
255	SLU 60	1	-12	2960	-0.07	1.83	-0.24
255	SLU 61	-3	-13	2969	-0.07	1.79	-0.23
255	SLU 62	1	-12	2960	-0.07	1.83	-0.24
255	SLU 63	-3	-13	2969	-0.07	1.79	-0.23
255	SLU 64	0	-14	2730	-0.14	1.21	-0.22
255	SLU 65	-6	-15	2746	-0.14	1.14	-0.2
255	SLU 66	0	-14	2730	-0.14	1.21	-0.22
255	SLU 67	-4	-14	2740	-0.14	1.17	-0.21
255	SLU 68	-6	-15	2746	-0.14	1.14	-0.2
255	SLU 69	0	-14	2730	-0.14	1.21	-0.22
255	SLU 70	-4	-14	2740	-0.14	1.17	-0.21
255	SLU 71	0	-14	2730	-0.14	1.21	-0.22
255	SLU 72	-4	-14	2740	-0.14	1.17	-0.21
255	SLU 73	-5	-13	3074	-0.07	1.81	-0.23
255	SLU 74	1	-12	3059	-0.07	1.89	-0.25
255	SLU 75	-3	-13	3068	-0.07	1.84	-0.23
255	SLU 76	-5	-13	3074	-0.07	1.81	-0.23

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
255	SLU 77	1	-12	3059	-0.07	1.89	-0.25
255	SLU 78	-3	-13	3068	-0.07	1.84	-0.23
255	SLU 79	1	-12	3059	-0.07	1.89	-0.25
255	SLU 80	-3	-13	3068	-0.07	1.84	-0.23
255	SLU 81	1	-12	3200	-0.04	2.17	-0.26
255	SLU 82	-2	-12	3209	-0.05	2.13	-0.25
255	SLU 83	1	-12	3200	-0.04	2.17	-0.26
255	SLU 84	-2	-12	3209	-0.05	2.13	-0.25
255	SLE RA 1	0	-11	2048	-0.11	0.86	-0.17
255	SLE RA 2	-4	-11	2058	-0.11	0.81	-0.15
255	SLE RA 3	0	-11	2048	-0.11	0.86	-0.17
255	SLE RA 4	-3	-11	2054	-0.11	0.83	-0.16
255	SLE RA 5	-4	-11	2058	-0.11	0.81	-0.15
255	SLE RA 6	0	-11	2048	-0.11	0.86	-0.17
255	SLE RA 7	-3	-11	2054	-0.11	0.83	-0.16
255	SLE RA 8	0	-11	2048	-0.11	0.86	-0.17
255	SLE RA 9	-3	-11	2054	-0.11	0.83	-0.16
255	SLE RA 10	-3	-10	2277	-0.07	1.26	-0.17
255	SLE RA 11	0	-10	2267	-0.07	1.31	-0.18
255	SLE RA 12	-2	-10	2273	-0.07	1.28	-0.18
255	SLE RA 13	-3	-10	2277	-0.07	1.26	-0.17
255	SLE RA 14	0	-10	2267	-0.07	1.31	-0.18
255	SLE RA 15	-2	-10	2273	-0.07	1.28	-0.18
255	SLE RA 16	0	-10	2267	-0.07	1.31	-0.18
255	SLE RA 17	-2	-10	2273	-0.07	1.28	-0.18
255	SLE RA 18	1	-9	2361	-0.05	1.5	-0.19
255	SLE RA 19	-2	-10	2367	-0.05	1.47	-0.18
255	SLE RA 20	1	-9	2361	-0.05	1.5	-0.19
255	SLE RA 21	-2	-10	2367	-0.05	1.47	-0.18
255	SLE FR 1	0	-11	2048	-0.11	0.86	-0.17
255	SLE FR 2	-1	-11	2050	-0.11	0.85	-0.16
255	SLE FR 3	0	-11	2048	-0.11	0.86	-0.17
255	SLE FR 4	-1	-11	2144	-0.09	1.04	-0.17
255	SLE FR 5	0	-11	2142	-0.09	1.05	-0.17
255	SLE FR 6	0	-10	2204	-0.08	1.18	-0.18
255	SLE QP 1	0	-11	2048	-0.11	0.86	-0.17
255	SLE QP 2	0	-11	2142	-0.09	1.05	-0.17
255	SLD 1	113	43	1848	-0.25	-21.22	-0.59
255	SLD 2	101	75	1846	-0.27	-21.25	-0.5
255	SLD 3	109	-47	1938	0.27	-22.82	-0.53
255	SLD 4	97	-15	1936	0.24	-22.84	-0.45
255	SLD 5	46	130	1918	-0.91	-3.21	-0.41
255	SLD 6	34	163	1916	-0.94	-3.24	-0.32
255	SLD 7	29	-169	2218	0.8	-8.51	-0.23
255	SLD 8	17	-137	2216	0.77	-8.54	-0.14
255	SLD 9	-17	116	2067	-0.96	10.64	-0.2
255	SLD 10	-29	148	2065	-0.99	10.62	-0.12
255	SLD 11	-34	-184	2368	0.75	5.34	-0.02
255	SLD 12	-46	-151	2365	0.72	5.31	0.06
255	SLD 13	-97	-7	2347	-0.43	24.95	0.1
255	SLD 14	-109	26	2345	-0.45	24.92	0.19
255	SLD 15	-102	-96	2437	0.09	23.35	0.15
255	SLD 16	-114	-64	2435	0.06	23.33	0.24
255	SLV 1	258	112	1475	-0.44	-51.23	-1.11
255	SLV 2	231	185	1471	-0.5	-51.29	-0.92
255	SLV 3	247	-92	1680	0.73	-54.97	-0.99
255	SLV 4	219	-19	1676	0.66	-55.03	-0.8
255	SLV 5	104	310	1633	-1.94	-8.94	-0.71
255	SLV 6	76	383	1628	-2.01	-9	-0.52
255	SLV 7	67	-370	2315	1.94	-21.4	-0.3
255	SLV 8	39	-297	2311	1.88	-21.47	-0.11
255	SLV 9	-39	276	1973	-2.06	23.57	-0.24
255	SLV 10	-67	349	1968	-2.13	23.51	-0.05
255	SLV 11	-77	-404	2655	1.82	11.11	0.17
255	SLV 12	-104	-331	2650	1.75	11.04	0.36
255	SLV 13	-219	-2	2608	-0.85	57.13	0.45
255	SLV 14	-247	71	2603	-0.92	57.07	0.64
255	SLV 15	-231	-206	2812	0.31	53.4	0.57
255	SLV 16	-258	-133	2808	0.25	53.33	0.77
255	CRTFP Ux+	0	0	0	0	0	0
255	CRTFP Ux-	0	0	0	0	0	0
255	CRTFP Uy+	0	0	0	0	0	0
255	CRTFP Uy-	0	0	0	0	0	0
256	SLU 1	-11	-45	1773	-0.55	-340.63	-16
256	SLU 2	-17	-44	1758	-0.56	-336.67	-15.81
256	SLU 3	-11	-45	1773	-0.55	-340.63	-16
256	SLU 4	-15	-44	1764	-0.56	-338.26	-15.89
256	SLU 5	-17	-44	1758	-0.56	-336.67	-15.81
256	SLU 6	-11	-45	1773	-0.55	-340.63	-16
256	SLU 7	-15	-44	1764	-0.56	-338.26	-15.89
256	SLU 8	-11	-45	1773	-0.55	-340.63	-16
256	SLU 9	-15	-44	1764	-0.56	-338.26	-15.89
256	SLU 10	-24	-50	2051	-0.56	-381.39	-18.13
256	SLU 11	-17	-51	2066	-0.56	-385.34	-18.32
256	SLU 12	-21	-51	2057	-0.56	-382.97	-18.21
256	SLU 13	-24	-50	2051	-0.56	-381.39	-18.13

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
256	SLU 14	-17	-51	2066	-0.56	-385.34	-18.32
256	SLU 15	-21	-51	2057	-0.56	-382.97	-18.21
256	SLU 16	-17	-51	2066	-0.56	-385.34	-18.32
256	SLU 17	-21	-51	2057	-0.56	-382.97	-18.21
256	SLU 18	-20	-54	2192	-0.56	-404.51	-19.32
256	SLU 19	-24	-53	2183	-0.57	-402.13	-19.2
256	SLU 20	-20	-54	2192	-0.56	-404.51	-19.32
256	SLU 21	-24	-53	2183	-0.57	-402.13	-19.2
256	SLU 22	-15	-48	1984	-0.59	-373.08	-17.4
256	SLU 23	-21	-48	1969	-0.59	-369.12	-17.2
256	SLU 24	-15	-48	1984	-0.59	-373.08	-17.4
256	SLU 25	-19	-48	1975	-0.59	-370.7	-17.28
256	SLU 26	-21	-48	1969	-0.59	-369.12	-17.2
256	SLU 27	-15	-48	1984	-0.59	-373.08	-17.4
256	SLU 28	-19	-48	1975	-0.59	-370.7	-17.28
256	SLU 29	-15	-48	1984	-0.59	-373.08	-17.4
256	SLU 30	-19	-48	1975	-0.59	-370.7	-17.28
256	SLU 31	-27	-54	2262	-0.6	-413.83	-19.53
256	SLU 32	-21	-55	2277	-0.59	-417.79	-19.72
256	SLU 33	-25	-54	2268	-0.6	-415.42	-19.6
256	SLU 34	-27	-54	2262	-0.6	-413.83	-19.53
256	SLU 35	-21	-55	2277	-0.59	-417.79	-19.72
256	SLU 36	-25	-54	2268	-0.6	-415.42	-19.6
256	SLU 37	-21	-55	2277	-0.59	-417.79	-19.72
256	SLU 38	-25	-54	2268	-0.6	-415.42	-19.6
256	SLU 39	-24	-57	2403	-0.6	-436.95	-20.71
256	SLU 40	-28	-57	2394	-0.6	-434.58	-20.6
256	SLU 41	-24	-57	2403	-0.6	-436.95	-20.71
256	SLU 42	-28	-57	2394	-0.6	-434.58	-20.6
256	SLU 43	-13	-57	2233	-0.71	-431.69	-20.33
256	SLU 44	-19	-56	2218	-0.71	-427.74	-20.13
256	SLU 45	-13	-57	2233	-0.71	-431.69	-20.33
256	SLU 46	-17	-56	2224	-0.71	-429.32	-20.21
256	SLU 47	-19	-56	2218	-0.71	-427.74	-20.13
256	SLU 48	-13	-57	2233	-0.71	-431.69	-20.33
256	SLU 49	-17	-56	2224	-0.71	-429.32	-20.21
256	SLU 50	-13	-57	2233	-0.71	-431.69	-20.33
256	SLU 51	-17	-56	2224	-0.71	-429.32	-20.21
256	SLU 52	-25	-62	2511	-0.72	-472.45	-22.45
256	SLU 53	-19	-63	2526	-0.71	-476.41	-22.65
256	SLU 54	-23	-63	2517	-0.72	-474.03	-22.53
256	SLU 55	-25	-62	2511	-0.72	-472.45	-22.45
256	SLU 56	-19	-63	2526	-0.71	-476.41	-22.65
256	SLU 57	-23	-63	2517	-0.72	-474.03	-22.53
256	SLU 58	-19	-63	2526	-0.71	-476.41	-22.65
256	SLU 59	-23	-63	2517	-0.72	-474.03	-22.53
256	SLU 60	-22	-66	2652	-0.72	-495.57	-23.64
256	SLU 61	-26	-65	2643	-0.72	-493.2	-23.53
256	SLU 62	-22	-66	2652	-0.72	-495.57	-23.64
256	SLU 63	-26	-65	2643	-0.72	-493.2	-23.53
256	SLU 64	-17	-60	2444	-0.74	-464.14	-21.72
256	SLU 65	-23	-60	2429	-0.75	-460.18	-21.53
256	SLU 66	-17	-60	2444	-0.74	-464.14	-21.72
256	SLU 67	-21	-60	2435	-0.74	-461.77	-21.6
256	SLU 68	-23	-60	2429	-0.75	-460.18	-21.53
256	SLU 69	-17	-60	2444	-0.74	-464.14	-21.72
256	SLU 70	-21	-60	2435	-0.74	-461.77	-21.6
256	SLU 71	-17	-60	2444	-0.74	-464.14	-21.72
256	SLU 72	-21	-60	2435	-0.74	-461.77	-21.6
256	SLU 73	-29	-66	2722	-0.75	-504.9	-23.85
256	SLU 74	-23	-67	2737	-0.75	-508.85	-24.04
256	SLU 75	-27	-66	2728	-0.75	-506.48	-23.93
256	SLU 76	-29	-66	2722	-0.75	-504.9	-23.85
256	SLU 77	-23	-67	2737	-0.75	-508.85	-24.04
256	SLU 78	-27	-66	2728	-0.75	-506.48	-23.93
256	SLU 79	-23	-67	2737	-0.75	-508.85	-24.04
256	SLU 80	-27	-66	2728	-0.75	-506.48	-23.93
256	SLU 81	-26	-69	2863	-0.75	-528.02	-25.04
256	SLU 82	-30	-69	2853	-0.75	-525.64	-24.92
256	SLU 83	-26	-69	2863	-0.75	-528.02	-25.04
256	SLU 84	-30	-69	2853	-0.75	-525.64	-24.92
256	SLE RA 1	-12	-46	1834	-0.56	-349.9	-16.4
256	SLE RA 2	-16	-45	1823	-0.57	-347.26	-16.27
256	SLE RA 3	-12	-46	1834	-0.56	-349.9	-16.4
256	SLE RA 4	-15	-45	1828	-0.56	-348.32	-16.32
256	SLE RA 5	-16	-45	1823	-0.57	-347.26	-16.27
256	SLE RA 6	-12	-46	1834	-0.56	-349.9	-16.4
256	SLE RA 7	-15	-45	1828	-0.56	-348.32	-16.32
256	SLE RA 8	-12	-46	1834	-0.56	-349.9	-16.4
256	SLE RA 9	-15	-45	1828	-0.56	-348.32	-16.32
256	SLE RA 10	-20	-49	2019	-0.57	-377.07	-17.82
256	SLE RA 11	-16	-50	2029	-0.57	-379.71	-17.95
256	SLE RA 12	-19	-50	2023	-0.57	-378.13	-17.87
256	SLE RA 13	-20	-49	2019	-0.57	-377.07	-17.82
256	SLE RA 14	-16	-50	2029	-0.57	-379.71	-17.95
256	SLE RA 15	-19	-50	2023	-0.57	-378.13	-17.87

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
256	SLE RA 16	-16	-50	2029	-0.57	-379.71	-17.95
256	SLE RA 17	-19	-50	2023	-0.57	-378.13	-17.87
256	SLE RA 18	-18	-52	2113	-0.57	-392.48	-18.61
256	SLE RA 19	-21	-51	2107	-0.57	-390.9	-18.53
256	SLE RA 20	-18	-52	2113	-0.57	-392.48	-18.61
256	SLE RA 21	-21	-51	2107	-0.57	-390.9	-18.53
256	SLE FR 1	-12	-46	1834	-0.56	-349.9	-16.4
256	SLE FR 2	-13	-46	1832	-0.56	-349.37	-16.38
256	SLE FR 3	-12	-46	1834	-0.56	-349.9	-16.4
256	SLE FR 4	-15	-47	1915	-0.56	-362.15	-17.04
256	SLE FR 5	-14	-47	1917	-0.56	-362.68	-17.06
256	SLE FR 6	-15	-49	1973	-0.56	-371.19	-17.51
256	SLE QP 1	-12	-46	1834	-0.56	-349.9	-16.4
256	SLE QP 2	-14	-47	1917	-0.56	-362.68	-17.06
256	SLD 1	138	-13	2076	-0.9	-377.77	-5.02
256	SLD 2	117	-46	2081	-0.87	-378.34	-16.58
256	SLD 3	130	-102	2153	-0.42	-388.39	-36.11
256	SLD 4	109	-135	2158	-0.4	-388.97	-47.67
256	SLD 5	51	109	1847	-1.4	-350.88	37.78
256	SLD 6	30	76	1852	-1.37	-351.46	26.14
256	SLD 7	25	-187	2102	0.2	-386.31	-65.83
256	SLD 8	4	-220	2107	0.22	-386.88	-77.48
256	SLD 9	-32	125	1728	-1.35	-338.47	43.35
256	SLD 10	-52	92	1732	-1.32	-339.04	31.71
256	SLD 11	-58	-171	1983	0.25	-373.89	-60.27
256	SLD 12	-79	-204	1987	0.27	-374.47	-71.91
256	SLD 13	-137	40	1677	-0.73	-336.39	13.54
256	SLD 14	-158	7	1682	-0.71	-336.96	1.98
256	SLD 15	-145	-48	1754	-0.25	-347.01	-17.55
256	SLD 16	-166	-82	1758	-0.23	-347.58	-29.11
256	SLV 1	331	30	2279	-1.33	-397.32	10
256	SLV 2	284	-46	2290	-1.27	-398.61	-16.18
256	SLV 3	313	-172	2453	-0.24	-421.46	-60.65
256	SLV 4	266	-247	2464	-0.18	-422.76	-86.83
256	SLV 5	133	308	1758	-2.47	-335.99	107.45
256	SLV 6	86	232	1769	-2.41	-337.29	81.1
256	SLV 7	73	-364	2338	1.16	-416.48	-128.04
256	SLV 8	27	-440	2349	1.22	-417.78	-154.39
256	SLV 9	-54	345	1486	-2.35	-307.57	120.26
256	SLV 10	-101	269	1497	-2.29	-308.88	93.91
256	SLV 11	-114	-327	2066	1.28	-388.06	-115.23
256	SLV 12	-161	-403	2077	1.34	-389.36	-141.58
256	SLV 13	-294	153	1371	-0.94	-302.59	52.7
256	SLV 14	-340	77	1382	-0.88	-303.89	26.52
256	SLV 15	-312	-49	1545	0.14	-326.74	-17.95
256	SLV 16	-358	-125	1556	0.2	-328.03	-44.13
256	CRTFP Ux+	0	0	0	0	0	0
256	CRTFP Ux-	0	0	0	0	0	0
256	CRTFP Uy+	0	0	0	0	0	0
256	CRTFP Uy-	0	0	0	0	0	0
259	SLU 1	42	120	2877	2.02	6.54	-1.23
259	SLU 2	26	120	2876	2.02	5.67	-1.02
259	SLU 3	42	120	2877	2.02	6.54	-1.23
259	SLU 4	32	120	2876	2.02	6.02	-1.1
259	SLU 5	26	120	2876	2.02	5.67	-1.02
259	SLU 6	42	120	2877	2.02	6.54	-1.23
259	SLU 7	32	120	2876	2.02	6.02	-1.1
259	SLU 8	42	120	2877	2.02	6.54	-1.23
259	SLU 9	32	120	2876	2.02	6.02	-1.1
259	SLU 10	36	130	3685	1.7	6.09	-1.25
259	SLU 11	52	130	3686	1.7	6.96	-1.46
259	SLU 12	42	130	3686	1.7	6.44	-1.34
259	SLU 13	36	130	3685	1.7	6.09	-1.25
259	SLU 14	52	130	3686	1.7	6.96	-1.46
259	SLU 15	42	130	3686	1.7	6.44	-1.34
259	SLU 16	52	130	3686	1.7	6.96	-1.46
259	SLU 17	42	130	3686	1.7	6.44	-1.34
259	SLU 18	56	135	4033	1.56	7.14	-1.57
259	SLU 19	47	135	4033	1.56	6.62	-1.44
259	SLU 20	56	135	4033	1.56	7.14	-1.57
259	SLU 21	47	135	4033	1.56	6.62	-1.44
259	SLU 22	48	127	3417	1.84	6.83	-1.37
259	SLU 23	32	126	3416	1.84	5.96	-1.16
259	SLU 24	48	127	3417	1.84	6.83	-1.37
259	SLU 25	38	127	3416	1.84	6.31	-1.25
259	SLU 26	32	126	3416	1.84	5.96	-1.16
259	SLU 27	48	127	3417	1.84	6.83	-1.37
259	SLU 28	38	127	3416	1.84	6.31	-1.25
259	SLU 29	48	127	3417	1.84	6.83	-1.37
259	SLU 30	38	127	3416	1.84	6.31	-1.25
259	SLU 31	42	136	4226	1.52	6.38	-1.4
259	SLU 32	58	137	4227	1.52	7.26	-1.61
259	SLU 33	48	137	4226	1.52	6.73	-1.48
259	SLU 34	42	136	4226	1.52	6.38	-1.4
259	SLU 35	58	137	4227	1.52	7.26	-1.61
259	SLU 36	48	137	4226	1.52	6.73	-1.48

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
259	SLU 37	58	137	4227	1.52	7.26	-1.61
259	SLU 38	48	137	4226	1.52	6.73	-1.48
259	SLU 39	62	141	4574	1.38	7.44	-1.71
259	SLU 40	53	141	4573	1.38	6.91	-1.59
259	SLU 41	62	141	4574	1.38	7.44	-1.71
259	SLU 42	53	141	4573	1.38	6.91	-1.59
259	SLU 43	52	154	3554	2.69	8.4	-1.54
259	SLU 44	36	154	3553	2.69	7.53	-1.33
259	SLU 45	52	154	3554	2.69	8.4	-1.54
259	SLU 46	43	154	3554	2.69	7.88	-1.42
259	SLU 47	36	154	3553	2.69	7.53	-1.33
259	SLU 48	52	154	3554	2.69	8.4	-1.54
259	SLU 49	43	154	3554	2.69	7.88	-1.42
259	SLU 50	52	154	3554	2.69	8.4	-1.54
259	SLU 51	43	154	3554	2.69	7.88	-1.42
259	SLU 52	46	164	4363	2.37	7.95	-1.57
259	SLU 53	62	164	4364	2.37	8.83	-1.78
259	SLU 54	53	164	4363	2.37	8.3	-1.66
259	SLU 55	46	164	4363	2.37	7.95	-1.57
259	SLU 56	62	164	4364	2.37	8.83	-1.78
259	SLU 57	53	164	4363	2.37	8.3	-1.66
259	SLU 58	62	164	4364	2.37	8.83	-1.78
259	SLU 59	53	164	4363	2.37	8.3	-1.66
259	SLU 60	67	169	4711	2.23	9.01	-1.88
259	SLU 61	57	168	4710	2.23	8.48	-1.76
259	SLU 62	67	169	4711	2.23	9.01	-1.88
259	SLU 63	57	168	4710	2.23	8.48	-1.76
259	SLU 64	58	161	4095	2.5	8.7	-1.69
259	SLU 65	42	160	4094	2.51	7.82	-1.48
259	SLU 66	58	161	4095	2.5	8.7	-1.69
259	SLU 67	49	160	4094	2.51	8.17	-1.56
259	SLU 68	42	160	4094	2.51	7.82	-1.48
259	SLU 69	58	161	4095	2.5	8.7	-1.69
259	SLU 70	49	160	4094	2.51	8.17	-1.56
259	SLU 71	58	161	4095	2.5	8.7	-1.69
259	SLU 72	49	160	4094	2.51	8.17	-1.56
259	SLU 73	52	170	4903	2.19	8.24	-1.72
259	SLU 74	68	171	4904	2.18	9.12	-1.93
259	SLU 75	59	170	4904	2.19	8.59	-1.8
259	SLU 76	52	170	4903	2.19	8.24	-1.72
259	SLU 77	68	171	4904	2.18	9.12	-1.93
259	SLU 78	59	170	4904	2.19	8.59	-1.8
259	SLU 79	68	171	4904	2.18	9.12	-1.93
259	SLU 80	59	170	4904	2.19	8.59	-1.8
259	SLU 81	73	175	5251	2.05	9.3	-2.03
259	SLU 82	63	175	5251	2.05	8.77	-1.9
259	SLU 83	73	175	5251	2.05	9.3	-2.03
259	SLU 84	63	175	5251	2.05	8.77	-1.9
259	SLE RA 1	43	122	3031	1.97	6.63	-1.27
259	SLE RA 2	33	122	3030	1.97	6.04	-1.13
259	SLE RA 3	43	122	3031	1.97	6.63	-1.27
259	SLE RA 4	37	122	3031	1.97	6.28	-1.18
259	SLE RA 5	33	122	3030	1.97	6.04	-1.13
259	SLE RA 6	43	122	3031	1.97	6.63	-1.27
259	SLE RA 7	37	122	3031	1.97	6.28	-1.18
259	SLE RA 8	43	122	3031	1.97	6.63	-1.27
259	SLE RA 9	37	122	3031	1.97	6.28	-1.18
259	SLE RA 10	40	129	3570	1.76	6.32	-1.29
259	SLE RA 11	50	129	3571	1.75	6.91	-1.43
259	SLE RA 12	44	129	3570	1.75	6.56	-1.34
259	SLE RA 13	40	129	3570	1.76	6.32	-1.29
259	SLE RA 14	50	129	3571	1.75	6.91	-1.43
259	SLE RA 15	44	129	3570	1.75	6.56	-1.34
259	SLE RA 16	50	129	3571	1.75	6.91	-1.43
259	SLE RA 17	44	129	3570	1.75	6.56	-1.34
259	SLE RA 18	53	132	3802	1.66	7.03	-1.49
259	SLE RA 19	47	132	3802	1.66	6.68	-1.41
259	SLE RA 20	53	132	3802	1.66	7.03	-1.49
259	SLE RA 21	47	132	3802	1.66	6.68	-1.41
259	SLE FR 1	43	122	3031	1.97	6.63	-1.27
259	SLE FR 2	41	122	3031	1.97	6.51	-1.24
259	SLE FR 3	43	122	3031	1.97	6.63	-1.27
259	SLE FR 4	44	125	3262	1.88	6.63	-1.31
259	SLE FR 5	46	125	3262	1.87	6.75	-1.34
259	SLE FR 6	48	127	3416	1.81	6.83	-1.38
259	SLE QP 1	43	122	3031	1.97	6.63	-1.27
259	SLE QP 2	46	125	3262	1.87	6.75	-1.34
259	SLD 1	323	204	3217	1.35	20.95	-5.58
259	SLD 2	288	205	3217	1.36	21.3	-4.42
259	SLD 3	337	76	3339	2.21	19.78	-5.29
259	SLD 4	302	77	3340	2.22	20.14	-4.13
259	SLD 5	121	343	3063	0.41	12.65	-3.46
259	SLD 6	85	344	3064	0.42	13.01	-2.29
259	SLD 7	167	-84	3470	3.28	8.76	-2.49
259	SLD 8	132	-83	3471	3.28	9.12	-1.32
259	SLD 9	-39	333	3054	0.47	4.37	-1.35

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
259	SLD 10	-75	334	3054	0.47	4.73	-0.18
259	SLD 11	8	-94	3461	3.33	0.48	-0.38
259	SLD 12	-28	-93	3461	3.34	0.84	0.79
259	SLD 13	-209	173	3185	1.53	-6.64	1.46
259	SLD 14	-245	174	3185	1.54	-6.29	2.62
259	SLD 15	-195	45	3307	2.39	-7.81	1.75
259	SLD 16	-231	45	3308	2.4	-7.45	2.91
259	SLV 1	676	306	3159	0.69	39.05	-10.98
259	SLV 2	595	308	3160	0.7	39.86	-8.35
259	SLV 3	707	15	3437	2.64	36.4	-10.32
259	SLV 4	627	17	3438	2.66	37.21	-7.69
259	SLV 5	215	620	2810	-1.45	20.17	-6.17
259	SLV 6	134	622	2811	-1.43	20.98	-3.52
259	SLV 7	321	-350	3736	5.06	11.34	-3.95
259	SLV 8	241	-348	3736	5.08	12.15	-1.3
259	SLV 9	-148	598	2788	-1.33	1.34	-1.37
259	SLV 10	-229	600	2789	-1.31	2.15	1.28
259	SLV 11	-42	-372	3714	5.18	-7.49	0.85
259	SLV 12	-123	-370	3715	5.2	-6.68	3.5
259	SLV 13	-535	233	3086	1.09	-23.72	5.02
259	SLV 14	-615	235	3087	1.11	-22.91	7.65
259	SLV 15	-503	-58	3364	3.04	-26.37	5.68
259	SLV 16	-583	-56	3365	3.06	-25.56	8.31
259	CRTFP Ux+	0	0	0	0	0	0
259	CRTFP Ux-	0	0	0	0	0	0
259	CRTFP Uy+	0	0	0	0	0	0
259	CRTFP Uy-	0	0	0	0	0	0
261	SLU 1	5	-12	1974	-0.19	0.56	-0.17
261	SLU 2	-2	-12	1990	-0.2	0.49	-0.15
261	SLU 3	5	-12	1974	-0.19	0.56	-0.17
261	SLU 4	1	-12	1984	-0.19	0.52	-0.16
261	SLU 5	-2	-12	1990	-0.2	0.49	-0.15
261	SLU 6	5	-12	1974	-0.19	0.56	-0.17
261	SLU 7	1	-12	1984	-0.19	0.52	-0.16
261	SLU 8	5	-12	1974	-0.19	0.56	-0.17
261	SLU 9	1	-12	1984	-0.19	0.52	-0.16
261	SLU 10	0	-10	2320	-0.14	1.08	-0.18
261	SLU 11	7	-10	2305	-0.14	1.15	-0.2
261	SLU 12	3	-10	2314	-0.14	1.1	-0.19
261	SLU 13	0	-10	2320	-0.14	1.08	-0.18
261	SLU 14	7	-10	2305	-0.14	1.15	-0.2
261	SLU 15	3	-10	2314	-0.14	1.1	-0.19
261	SLU 16	7	-10	2305	-0.14	1.15	-0.2
261	SLU 17	3	-10	2314	-0.14	1.1	-0.19
261	SLU 18	8	-9	2446	-0.12	1.4	-0.21
261	SLU 19	4	-9	2456	-0.12	1.36	-0.2
261	SLU 20	8	-9	2446	-0.12	1.4	-0.21
261	SLU 21	4	-9	2456	-0.12	1.36	-0.2
261	SLU 22	6	-11	2215	-0.18	0.85	-0.19
261	SLU 23	-1	-12	2230	-0.18	0.78	-0.17
261	SLU 24	6	-11	2215	-0.18	0.85	-0.19
261	SLU 25	2	-11	2224	-0.18	0.81	-0.18
261	SLU 26	-1	-12	2230	-0.18	0.78	-0.17
261	SLU 27	6	-11	2215	-0.18	0.85	-0.19
261	SLU 28	2	-11	2224	-0.18	0.81	-0.18
261	SLU 29	6	-11	2215	-0.18	0.85	-0.19
261	SLU 30	2	-11	2224	-0.18	0.81	-0.18
261	SLU 31	1	-10	2560	-0.13	1.37	-0.19
261	SLU 32	8	-9	2545	-0.13	1.44	-0.22
261	SLU 33	4	-10	2554	-0.13	1.4	-0.21
261	SLU 34	1	-10	2560	-0.13	1.37	-0.19
261	SLU 35	8	-9	2545	-0.13	1.44	-0.22
261	SLU 36	4	-10	2554	-0.13	1.4	-0.21
261	SLU 37	8	-9	2545	-0.13	1.44	-0.22
261	SLU 38	4	-10	2554	-0.13	1.4	-0.21
261	SLU 39	9	-9	2687	-0.1	1.69	-0.23
261	SLU 40	5	-9	2696	-0.1	1.65	-0.22
261	SLU 41	9	-9	2687	-0.1	1.69	-0.23
261	SLU 42	5	-9	2696	-0.1	1.65	-0.22
261	SLU 43	6	-15	2484	-0.26	0.63	-0.22
261	SLU 44	-1	-16	2500	-0.26	0.55	-0.19
261	SLU 45	6	-15	2484	-0.26	0.63	-0.22
261	SLU 46	2	-16	2494	-0.26	0.58	-0.2
261	SLU 47	-1	-16	2500	-0.26	0.55	-0.19
261	SLU 48	6	-15	2484	-0.26	0.63	-0.22
261	SLU 49	2	-16	2494	-0.26	0.58	-0.2
261	SLU 50	6	-15	2484	-0.26	0.63	-0.22
261	SLU 51	2	-16	2494	-0.26	0.58	-0.2
261	SLU 52	1	-14	2830	-0.21	1.14	-0.22
261	SLU 53	8	-14	2815	-0.21	1.22	-0.25
261	SLU 54	4	-14	2824	-0.21	1.17	-0.23
261	SLU 55	1	-14	2830	-0.21	1.14	-0.22
261	SLU 56	8	-14	2815	-0.21	1.22	-0.25
261	SLU 57	4	-14	2824	-0.21	1.17	-0.23
261	SLU 58	8	-14	2815	-0.21	1.22	-0.25
261	SLU 59	4	-14	2824	-0.21	1.17	-0.23

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
261	SLU 60	9	-13	2956	-0.18	1.47	-0.26
261	SLU 61	5	-13	2965	-0.18	1.43	-0.24
261	SLU 62	9	-13	2956	-0.18	1.47	-0.26
261	SLU 63	5	-13	2965	-0.18	1.43	-0.24
261	SLU 64	7	-15	2725	-0.24	0.92	-0.24
261	SLU 65	0	-15	2740	-0.24	0.85	-0.21
261	SLU 66	7	-15	2725	-0.24	0.92	-0.24
261	SLU 67	3	-15	2734	-0.24	0.87	-0.22
261	SLU 68	0	-15	2740	-0.24	0.85	-0.21
261	SLU 69	7	-15	2725	-0.24	0.92	-0.24
261	SLU 70	3	-15	2734	-0.24	0.87	-0.22
261	SLU 71	7	-15	2725	-0.24	0.92	-0.24
261	SLU 72	3	-15	2734	-0.24	0.87	-0.22
261	SLU 73	2	-14	3070	-0.19	1.44	-0.24
261	SLU 74	9	-13	3055	-0.19	1.51	-0.27
261	SLU 75	5	-13	3064	-0.19	1.46	-0.25
261	SLU 76	2	-14	3070	-0.19	1.44	-0.24
261	SLU 77	9	-13	3055	-0.19	1.51	-0.27
261	SLU 78	5	-13	3064	-0.19	1.46	-0.25
261	SLU 79	9	-13	3055	-0.19	1.51	-0.27
261	SLU 80	5	-13	3064	-0.19	1.46	-0.25
261	SLU 81	10	-12	3196	-0.17	1.76	-0.28
261	SLU 82	6	-13	3206	-0.17	1.72	-0.26
261	SLU 83	10	-12	3196	-0.17	1.76	-0.28
261	SLU 84	6	-13	3206	-0.17	1.72	-0.26
261	SLE RA 1	5	-12	2043	-0.19	0.64	-0.18
261	SLE RA 2	1	-12	2053	-0.19	0.59	-0.16
261	SLE RA 3	5	-12	2043	-0.19	0.64	-0.18
261	SLE RA 4	2	-12	2049	-0.19	0.61	-0.17
261	SLE RA 5	1	-12	2053	-0.19	0.59	-0.16
261	SLE RA 6	5	-12	2043	-0.19	0.64	-0.18
261	SLE RA 7	2	-12	2049	-0.19	0.61	-0.17
261	SLE RA 8	5	-12	2043	-0.19	0.64	-0.18
261	SLE RA 9	2	-12	2049	-0.19	0.61	-0.17
261	SLE RA 10	2	-11	2274	-0.15	0.99	-0.18
261	SLE RA 11	6	-10	2263	-0.15	1.04	-0.2
261	SLE RA 12	4	-11	2269	-0.15	1.01	-0.19
261	SLE RA 13	2	-11	2274	-0.15	0.99	-0.18
261	SLE RA 14	6	-10	2263	-0.15	1.04	-0.2
261	SLE RA 15	4	-11	2269	-0.15	1.01	-0.19
261	SLE RA 16	6	-10	2263	-0.15	1.04	-0.2
261	SLE RA 17	4	-11	2269	-0.15	1.01	-0.19
261	SLE RA 18	7	-10	2358	-0.14	1.2	-0.21
261	SLE RA 19	4	-10	2364	-0.14	1.17	-0.2
261	SLE RA 20	7	-10	2358	-0.14	1.2	-0.21
261	SLE RA 21	4	-10	2364	-0.14	1.17	-0.2
261	SLE FR 1	5	-12	2043	-0.19	0.64	-0.18
261	SLE FR 2	4	-12	2045	-0.19	0.63	-0.18
261	SLE FR 3	5	-12	2043	-0.19	0.64	-0.18
261	SLE FR 4	5	-11	2139	-0.17	0.8	-0.18
261	SLE FR 5	6	-11	2137	-0.17	0.81	-0.19
261	SLE FR 6	6	-11	2200	-0.16	0.92	-0.19
261	SLE QP 1	5	-12	2043	-0.19	0.64	-0.18
261	SLE QP 2	6	-11	2137	-0.17	0.81	-0.19
261	SLD 1	132	43	1838	-0.33	-20.01	-0.67
261	SLD 2	117	75	1835	-0.36	-20.04	-0.57
261	SLD 3	127	-47	1944	0.18	-21.78	-0.62
261	SLD 4	112	-15	1941	0.15	-21.81	-0.53
261	SLD 5	57	130	1888	-0.99	-2.75	-0.44
261	SLD 6	42	162	1885	-1.02	-2.77	-0.34
261	SLD 7	39	-170	2241	0.72	-8.63	-0.28
261	SLD 8	24	-137	2238	0.69	-8.66	-0.18
261	SLD 9	-13	115	2037	-1.04	10.28	-0.19
261	SLD 10	-28	147	2034	-1.07	10.26	-0.09
261	SLD 11	-31	-184	2390	0.67	4.4	-0.03
261	SLD 12	-46	-152	2387	0.64	4.37	0.06
261	SLD 13	-101	-7	2334	-0.5	23.43	0.15
261	SLD 14	-116	25	2331	-0.53	23.4	0.25
261	SLD 15	-106	-97	2440	0.01	21.66	0.2
261	SLD 16	-121	-65	2437	-0.02	21.63	0.3
261	SLV 1	293	111	1457	-0.52	-48.04	-1.29
261	SLV 2	260	184	1450	-0.59	-48.1	-1.07
261	SLV 3	281	-93	1697	0.64	-52.16	-1.18
261	SLV 4	247	-20	1691	0.57	-52.23	-0.96
261	SLV 5	122	309	1571	-2.03	-7.56	-0.75
261	SLV 6	89	383	1564	-2.09	-7.63	-0.53
261	SLV 7	81	-371	2373	1.86	-21.32	-0.4
261	SLV 8	48	-297	2366	1.8	-21.38	-0.18
261	SLV 9	-36	275	1909	-2.15	23	-0.19
261	SLV 10	-70	349	1902	-2.21	22.94	0.03
261	SLV 11	-78	-405	2711	1.75	9.25	0.16
261	SLV 12	-111	-331	2704	1.68	9.19	0.38
261	SLV 13	-236	-2	2584	-0.92	53.85	0.59
261	SLV 14	-270	71	2577	-0.99	53.78	0.81
261	SLV 15	-249	-206	2825	0.24	49.72	0.69
261	SLV 16	-282	-133	2818	0.18	49.66	0.91

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
261	CRTFP Ux+	0	0	0	0	0	0
261	CRTFP Ux-	0	0	0	0	0	0
261	CRTFP Uy+	0	0	0	0	0	0
261	CRTFP Uy-	0	0	0	0	0	0
262	SLU 1	2	-44	1772	0.47	-335.09	-15.95
262	SLU 2	-6	-44	1756	0.46	-331.04	-15.76
262	SLU 3	2	-44	1772	0.47	-335.09	-15.95
262	SLU 4	-3	-44	1762	0.46	-332.66	-15.83
262	SLU 5	-6	-44	1756	0.46	-331.04	-15.76
262	SLU 6	2	-44	1772	0.47	-335.09	-15.95
262	SLU 7	-3	-44	1762	0.46	-332.66	-15.83
262	SLU 8	2	-44	1772	0.47	-335.09	-15.95
262	SLU 9	-3	-44	1762	0.46	-332.66	-15.83
262	SLU 10	-8	-50	2052	0.67	-375.73	-18.04
262	SLU 11	-1	-51	2068	0.68	-379.78	-18.23
262	SLU 12	-5	-50	2059	0.67	-377.35	-18.11
262	SLU 13	-8	-50	2052	0.67	-375.73	-18.04
262	SLU 14	-1	-51	2068	0.68	-379.78	-18.23
262	SLU 15	-5	-50	2059	0.67	-377.35	-18.11
262	SLU 16	-1	-51	2068	0.68	-379.78	-18.23
262	SLU 17	-5	-50	2059	0.67	-377.35	-18.11
262	SLU 18	-2	-53	2195	0.77	-398.93	-19.2
262	SLU 19	-7	-53	2185	0.76	-396.5	-19.09
262	SLU 20	-2	-53	2195	0.77	-398.93	-19.2
262	SLU 21	-7	-53	2185	0.76	-396.5	-19.09
262	SLU 22	0	-48	1984	0.59	-367.23	-17.33
262	SLU 23	-8	-48	1969	0.58	-363.19	-17.14
262	SLU 24	0	-48	1984	0.59	-367.23	-17.33
262	SLU 25	-5	-48	1975	0.58	-364.81	-17.22
262	SLU 26	-8	-48	1969	0.58	-363.19	-17.14
262	SLU 27	0	-48	1984	0.59	-367.23	-17.33
262	SLU 28	-5	-48	1975	0.58	-364.81	-17.22
262	SLU 29	0	-48	1984	0.59	-367.23	-17.33
262	SLU 30	-5	-48	1975	0.58	-364.81	-17.22
262	SLU 31	-10	-54	2265	0.79	-407.88	-19.42
262	SLU 32	-3	-54	2280	0.8	-411.92	-19.61
262	SLU 33	-7	-54	2271	0.79	-409.5	-19.5
262	SLU 34	-10	-54	2265	0.79	-407.88	-19.42
262	SLU 35	-3	-54	2280	0.8	-411.92	-19.61
262	SLU 36	-7	-54	2271	0.79	-409.5	-19.5
262	SLU 37	-3	-54	2280	0.8	-411.92	-19.61
262	SLU 38	-7	-54	2271	0.79	-409.5	-19.5
262	SLU 39	-4	-57	2407	0.89	-431.08	-20.59
262	SLU 40	-8	-57	2398	0.88	-428.65	-20.47
262	SLU 41	-4	-57	2407	0.89	-431.08	-20.59
262	SLU 42	-8	-57	2398	0.88	-428.65	-20.47
262	SLU 43	3	-56	2231	0.57	-424.59	-20.26
262	SLU 44	-5	-56	2215	0.56	-420.55	-20.07
262	SLU 45	3	-56	2231	0.57	-424.59	-20.26
262	SLU 46	-2	-56	2221	0.56	-422.17	-20.14
262	SLU 47	-5	-56	2215	0.56	-420.55	-20.07
262	SLU 48	3	-56	2231	0.57	-424.59	-20.26
262	SLU 49	-2	-56	2221	0.56	-422.17	-20.14
262	SLU 50	3	-56	2231	0.57	-424.59	-20.26
262	SLU 51	-2	-56	2221	0.56	-422.17	-20.14
262	SLU 52	-7	-62	2511	0.77	-465.24	-22.35
262	SLU 53	0	-63	2527	0.77	-469.28	-22.54
262	SLU 54	-4	-62	2517	0.77	-466.86	-22.42
262	SLU 55	-7	-62	2511	0.77	-465.24	-22.35
262	SLU 56	0	-63	2527	0.77	-469.28	-22.54
262	SLU 57	-4	-62	2517	0.77	-466.86	-22.42
262	SLU 58	0	-63	2527	0.77	-469.28	-22.54
262	SLU 59	-4	-62	2517	0.77	-466.86	-22.42
262	SLU 60	-1	-65	2654	0.86	-488.44	-23.51
262	SLU 61	-6	-65	2644	0.86	-486.01	-23.4
262	SLU 62	-1	-65	2654	0.86	-488.44	-23.51
262	SLU 63	-6	-65	2644	0.86	-486.01	-23.4
262	SLU 64	1	-60	2443	0.69	-456.74	-21.64
262	SLU 65	-7	-60	2427	0.68	-452.69	-21.45
262	SLU 66	1	-60	2443	0.69	-456.74	-21.64
262	SLU 67	-4	-60	2433	0.68	-454.31	-21.53
262	SLU 68	-7	-60	2427	0.68	-452.69	-21.45
262	SLU 69	1	-60	2443	0.69	-456.74	-21.64
262	SLU 70	-4	-60	2433	0.68	-454.31	-21.53
262	SLU 71	1	-60	2443	0.69	-456.74	-21.64
262	SLU 72	-4	-60	2433	0.68	-454.31	-21.53
262	SLU 73	-9	-66	2723	0.89	-497.38	-23.73
262	SLU 74	-2	-66	2739	0.9	-501.43	-23.92
262	SLU 75	-6	-66	2730	0.89	-499	-23.81
262	SLU 76	-9	-66	2723	0.89	-497.38	-23.73
262	SLU 77	-2	-66	2739	0.9	-501.43	-23.92
262	SLU 78	-6	-66	2730	0.89	-499	-23.81
262	SLU 79	-2	-66	2739	0.9	-501.43	-23.92
262	SLU 80	-6	-66	2730	0.89	-499	-23.81
262	SLU 81	-3	-69	2866	0.98	-520.58	-24.9
262	SLU 82	-7	-69	2856	0.98	-518.15	-24.78

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
262	SLU 83	-3	-69	2866	0.98	-520.58	-24.9
262	SLU 84	-7	-69	2856	0.98	-518.15	-24.78
262	SLE RA 1	1	-46	1832	0.5	-344.27	-16.34
262	SLE RA 2	-4	-45	1822	0.5	-341.58	-16.21
262	SLE RA 3	1	-46	1832	0.5	-344.27	-16.34
262	SLE RA 4	-2	-45	1826	0.5	-342.65	-16.27
262	SLE RA 5	-4	-45	1822	0.5	-341.58	-16.21
262	SLE RA 6	1	-46	1832	0.5	-344.27	-16.34
262	SLE RA 7	-2	-45	1826	0.5	-342.65	-16.27
262	SLE RA 8	1	-46	1832	0.5	-344.27	-16.34
262	SLE RA 9	-2	-45	1826	0.5	-342.65	-16.27
262	SLE RA 10	-6	-49	2019	0.64	-371.37	-17.73
262	SLE RA 11	-1	-50	2030	0.64	-374.07	-17.86
262	SLE RA 12	-4	-49	2024	0.64	-372.45	-17.79
262	SLE RA 13	-6	-49	2019	0.64	-371.37	-17.73
262	SLE RA 14	-1	-50	2030	0.64	-374.07	-17.86
262	SLE RA 15	-4	-49	2024	0.64	-372.45	-17.79
262	SLE RA 16	-1	-50	2030	0.64	-374.07	-17.86
262	SLE RA 17	-4	-49	2024	0.64	-372.45	-17.79
262	SLE RA 18	-1	-51	2114	0.7	-386.83	-18.51
262	SLE RA 19	-4	-51	2108	0.7	-385.22	-18.44
262	SLE RA 20	-1	-51	2114	0.7	-386.83	-18.51
262	SLE RA 21	-4	-51	2108	0.7	-385.22	-18.44
262	SLE FR 1	1	-46	1832	0.5	-344.27	-16.34
262	SLE FR 2	0	-45	1830	0.5	-343.73	-16.32
262	SLE FR 3	1	-46	1832	0.5	-344.27	-16.34
262	SLE FR 4	-1	-47	1915	0.56	-356.5	-16.97
262	SLE FR 5	0	-47	1917	0.56	-357.04	-16.99
262	SLE FR 6	0	-48	1973	0.6	-365.55	-17.43
262	SLE QP 1	1	-46	1832	0.5	-344.27	-16.34
262	SLE QP 2	0	-47	1917	0.56	-357.04	-16.99
262	SLD 1	160	-13	2069	0.41	-370.39	-4.96
262	SLD 2	136	-46	2074	0.43	-371.23	-16.51
262	SLD 3	169	-102	2161	0.96	-384.94	-36.02
262	SLD 4	145	-135	2167	0.99	-385.79	-47.57
262	SLD 5	44	109	1821	-0.33	-338.67	37.82
262	SLD 6	19	76	1826	-0.3	-339.52	26.18
262	SLD 7	73	-186	2128	1.5	-387.19	-65.73
262	SLD 8	49	-220	2134	1.53	-388.04	-77.37
262	SLD 9	-48	125	1700	-0.41	-326.05	43.38
262	SLD 10	-72	92	1706	-0.38	-326.9	31.75
262	SLD 11	-19	-170	2008	1.42	-374.56	-60.17
262	SLD 12	-43	-204	2013	1.45	-375.41	-71.8
262	SLD 13	-144	40	1668	0.14	-328.29	13.59
262	SLD 14	-168	7	1673	0.17	-329.14	2.04
262	SLD 15	-136	-48	1760	0.69	-342.85	-17.48
262	SLD 16	-160	-82	1765	0.72	-343.69	-29.03
262	SLV 1	364	30	2262	0.21	-387.74	10.05
262	SLV 2	309	-46	2275	0.28	-389.65	-16.1
262	SLV 3	384	-172	2472	1.46	-420.81	-60.55
262	SLV 4	329	-247	2484	1.53	-422.72	-86.7
262	SLV 5	98	308	1698	-1.47	-315.42	107.44
262	SLV 6	44	232	1711	-1.4	-317.34	81.12
262	SLV 7	165	-364	2397	2.71	-425.65	-127.9
262	SLV 8	110	-440	2409	2.77	-427.58	-154.22
262	SLV 9	-109	345	1425	-1.65	-286.51	120.24
262	SLV 10	-164	269	1437	-1.58	-288.43	93.91
262	SLV 11	-43	-327	2123	2.52	-396.74	-115.1
262	SLV 12	-98	-403	2136	2.59	-398.66	-141.43
262	SLV 13	-329	153	1350	-0.41	-291.36	52.71
262	SLV 14	-383	77	1362	-0.34	-293.27	26.56
262	SLV 15	-309	-49	1559	0.85	-324.43	-17.89
262	SLV 16	-363	-125	1572	0.91	-326.34	-44.04
262	CRTFP Ux+	0	0	0	0	0	0
262	CRTFP Ux-	0	0	0	0	0	0
262	CRTFP Uy+	0	0	0	0	0	0
262	CRTFP Uy-	0	0	0	0	0	0
265	SLU 1	48	121	2939	2.04	5.97	-1.09
265	SLU 2	31	121	2938	2.05	5.13	-0.87
265	SLU 3	48	121	2939	2.04	5.97	-1.09
265	SLU 4	38	121	2939	2.04	5.47	-0.96
265	SLU 5	31	121	2938	2.05	5.13	-0.87
265	SLU 6	48	121	2939	2.04	5.97	-1.09
265	SLU 7	38	121	2939	2.04	5.47	-0.96
265	SLU 8	48	121	2939	2.04	5.97	-1.09
265	SLU 9	38	121	2939	2.04	5.47	-0.96
265	SLU 10	42	129	3734	1.47	5.56	-1.09
265	SLU 11	59	130	3735	1.47	6.4	-1.31
265	SLU 12	49	130	3734	1.47	5.89	-1.17
265	SLU 13	42	129	3734	1.47	5.56	-1.09
265	SLU 14	59	130	3735	1.47	6.4	-1.31
265	SLU 15	49	130	3734	1.47	5.89	-1.17
265	SLU 16	59	130	3735	1.47	6.4	-1.31
265	SLU 17	49	130	3734	1.47	5.89	-1.17
265	SLU 18	64	134	4076	1.22	6.58	-1.4
265	SLU 19	54	133	4075	1.22	6.07	-1.27

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
265	SLU 20	64	134	4076	1.22	6.58	-1.4
265	SLU 21	54	133	4075	1.22	6.07	-1.27
265	SLU 22	54	126	3471	1.72	6.26	-1.22
265	SLU 23	37	126	3471	1.72	5.42	-1
265	SLU 24	54	126	3471	1.72	6.26	-1.22
265	SLU 25	44	126	3471	1.72	5.76	-1.09
265	SLU 26	37	126	3471	1.72	5.42	-1
265	SLU 27	54	126	3471	1.72	6.26	-1.22
265	SLU 28	44	126	3471	1.72	5.76	-1.09
265	SLU 29	54	126	3471	1.72	6.26	-1.22
265	SLU 30	44	126	3471	1.72	5.76	-1.09
265	SLU 31	49	135	4266	1.15	5.85	-1.22
265	SLU 32	66	135	4267	1.14	6.69	-1.44
265	SLU 33	56	135	4267	1.15	6.18	-1.31
265	SLU 34	49	135	4266	1.15	5.85	-1.22
265	SLU 35	66	135	4267	1.14	6.69	-1.44
265	SLU 36	56	135	4267	1.15	6.18	-1.31
265	SLU 37	66	135	4267	1.14	6.69	-1.44
265	SLU 38	56	135	4267	1.15	6.18	-1.31
265	SLU 39	71	139	4608	0.9	6.87	-1.53
265	SLU 40	61	139	4608	0.9	6.36	-1.4
265	SLU 41	71	139	4608	0.9	6.87	-1.53
265	SLU 42	61	139	4608	0.9	6.36	-1.4
265	SLU 43	60	155	3638	2.76	7.67	-1.37
265	SLU 44	43	155	3637	2.77	6.83	-1.15
265	SLU 45	60	155	3638	2.76	7.67	-1.37
265	SLU 46	50	155	3638	2.77	7.16	-1.24
265	SLU 47	43	155	3637	2.77	6.83	-1.15
265	SLU 48	60	155	3638	2.76	7.67	-1.37
265	SLU 49	50	155	3638	2.77	7.16	-1.24
265	SLU 50	60	155	3638	2.76	7.67	-1.37
265	SLU 51	50	155	3638	2.77	7.16	-1.24
265	SLU 52	54	164	4433	2.19	7.25	-1.37
265	SLU 53	71	164	4434	2.19	8.09	-1.59
265	SLU 54	61	164	4433	2.19	7.59	-1.46
265	SLU 55	54	164	4433	2.19	7.25	-1.37
265	SLU 56	71	164	4434	2.19	8.09	-1.59
265	SLU 57	61	164	4433	2.19	7.59	-1.46
265	SLU 58	71	164	4434	2.19	8.09	-1.59
265	SLU 59	61	164	4433	2.19	7.59	-1.46
265	SLU 60	76	168	4775	1.94	8.27	-1.68
265	SLU 61	66	168	4774	1.95	7.77	-1.55
265	SLU 62	76	168	4775	1.94	8.27	-1.68
265	SLU 63	66	168	4774	1.95	7.77	-1.55
265	SLU 64	67	161	4170	2.44	7.96	-1.51
265	SLU 65	49	160	4170	2.45	7.12	-1.29
265	SLU 66	67	161	4170	2.44	7.96	-1.51
265	SLU 67	56	161	4170	2.44	7.45	-1.37
265	SLU 68	49	160	4170	2.45	7.12	-1.29
265	SLU 69	67	161	4170	2.44	7.96	-1.51
265	SLU 70	56	161	4170	2.44	7.45	-1.37
265	SLU 71	67	161	4170	2.44	7.96	-1.51
265	SLU 72	56	161	4170	2.44	7.45	-1.37
265	SLU 73	61	169	4966	1.87	7.54	-1.5
265	SLU 74	78	170	4966	1.87	8.38	-1.72
265	SLU 75	68	170	4966	1.87	7.88	-1.59
265	SLU 76	61	169	4966	1.87	7.54	-1.5
265	SLU 77	78	170	4966	1.87	8.38	-1.72
265	SLU 78	68	170	4966	1.87	7.88	-1.59
265	SLU 79	78	170	4966	1.87	8.38	-1.72
265	SLU 80	68	170	4966	1.87	7.88	-1.59
265	SLU 81	83	173	5307	1.62	8.56	-1.81
265	SLU 82	73	173	5307	1.62	8.06	-1.68
265	SLU 83	83	173	5307	1.62	8.56	-1.81
265	SLU 84	73	173	5307	1.62	8.06	-1.68
265	SLE RA 1	50	122	3091	1.95	6.06	-1.13
265	SLE RA 2	38	122	3091	1.95	5.5	-0.98
265	SLE RA 3	50	122	3091	1.95	6.06	-1.13
265	SLE RA 4	43	122	3091	1.95	5.72	-1.04
265	SLE RA 5	38	122	3091	1.95	5.5	-0.98
265	SLE RA 6	50	122	3091	1.95	6.06	-1.13
265	SLE RA 7	43	122	3091	1.95	5.72	-1.04
265	SLE RA 8	50	122	3091	1.95	6.06	-1.13
265	SLE RA 9	43	122	3091	1.95	5.72	-1.04
265	SLE RA 10	46	128	3621	1.57	5.78	-1.13
265	SLE RA 11	57	128	3621	1.57	6.34	-1.27
265	SLE RA 12	50	128	3621	1.57	6	-1.18
265	SLE RA 13	46	128	3621	1.57	5.78	-1.13
265	SLE RA 14	57	128	3621	1.57	6.34	-1.27
265	SLE RA 15	50	128	3621	1.57	6	-1.18
265	SLE RA 16	57	128	3621	1.57	6.34	-1.27
265	SLE RA 17	50	128	3621	1.57	6	-1.18
265	SLE RA 18	61	131	3849	1.4	6.46	-1.33
265	SLE RA 19	54	131	3849	1.4	6.12	-1.25
265	SLE RA 20	61	131	3849	1.4	6.46	-1.33
265	SLE RA 21	54	131	3849	1.4	6.12	-1.25

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
265	SLE FR 1	50	122	3091	1.95	6.06	-1.13
265	SLE FR 2	47	122	3091	1.95	5.95	-1.1
265	SLE FR 3	50	122	3091	1.95	6.06	-1.13
265	SLE FR 4	51	125	3318	1.78	6.07	-1.16
265	SLE FR 5	53	125	3318	1.78	6.18	-1.19
265	SLE FR 6	55	127	3470	1.67	6.26	-1.23
265	SLE QP 1	50	122	3091	1.95	6.06	-1.13
265	SLE QP 2	53	125	3318	1.78	6.18	-1.19
265	SLD 1	351	204	3261	1.24	19.84	-5.37
265	SLD 2	310	205	3261	1.24	20.19	-4.18
265	SLD 3	367	76	3410	2.14	18.73	-5.68
265	SLD 4	325	77	3411	2.15	19.09	-4.49
265	SLD 5	134	342	3074	0.24	11.82	-2.4
265	SLD 6	92	343	3075	0.25	12.18	-1.2
265	SLD 7	185	-84	3572	3.27	8.15	-3.42
265	SLD 8	143	-83	3573	3.27	8.51	-2.23
265	SLD 9	-38	333	3064	0.29	3.85	-0.16
265	SLD 10	-80	334	3064	0.3	4.21	1.04
265	SLD 11	14	-94	3562	3.32	0.18	-1.18
265	SLD 12	-28	-93	3563	3.33	0.53	0.02
265	SLD 13	-219	173	3226	1.42	-6.73	2.11
265	SLD 14	-261	173	3227	1.42	-6.38	3.3
265	SLD 15	-204	45	3375	2.33	-7.84	1.8
265	SLD 16	-246	46	3376	2.33	-7.48	2.99
265	SLV 1	731	305	3188	0.54	37.25	-10.69
265	SLV 2	637	307	3189	0.55	38.05	-7.99
265	SLV 3	767	15	3527	2.6	34.75	-11.39
265	SLV 4	672	17	3529	2.62	35.55	-8.7
265	SLV 5	236	619	2764	-1.72	19.01	-3.93
265	SLV 6	141	621	2765	-1.71	19.82	-1.22
265	SLV 7	354	-350	3896	5.15	10.67	-6.27
265	SLV 8	259	-347	3897	5.17	11.48	-3.55
265	SLV 9	-153	597	2740	-1.6	0.88	1.17
265	SLV 10	-248	599	2741	-1.58	1.69	3.89
265	SLV 11	-35	-371	3872	5.28	-7.46	-1.17
265	SLV 12	-130	-369	3873	5.29	-6.65	1.55
265	SLV 13	-566	233	3108	0.95	-23.2	6.31
265	SLV 14	-661	235	3109	0.97	-22.39	9.01
265	SLV 15	-531	-58	3448	3.02	-25.7	5.61
265	SLV 16	-625	-56	3449	3.03	-24.89	8.31
265	CRTFP Ux+	0	0	0	0	0	0
265	CRTFP Ux-	0	0	0	0	0	0
265	CRTFP Uy+	0	0	0	0	0	0
265	CRTFP Uy-	0	0	0	0	0	0
267	SLU 1	10	-12	1967	-0.28	0.13	-0.19
267	SLU 2	3	-13	1982	-0.28	0.05	-0.16
267	SLU 3	10	-12	1967	-0.28	0.13	-0.19
267	SLU 4	6	-12	1976	-0.28	0.08	-0.17
267	SLU 5	3	-13	1982	-0.28	0.05	-0.16
267	SLU 6	10	-12	1967	-0.28	0.13	-0.19
267	SLU 7	6	-12	1976	-0.28	0.08	-0.17
267	SLU 8	10	-12	1967	-0.28	0.13	-0.19
267	SLU 9	6	-12	1976	-0.28	0.08	-0.17
267	SLU 10	6	-11	2314	-0.24	0.51	-0.19
267	SLU 11	13	-10	2299	-0.24	0.58	-0.22
267	SLU 12	9	-11	2308	-0.24	0.54	-0.2
267	SLU 13	6	-11	2314	-0.24	0.51	-0.19
267	SLU 14	13	-10	2299	-0.24	0.58	-0.22
267	SLU 15	9	-11	2308	-0.24	0.54	-0.2
267	SLU 16	13	-10	2299	-0.24	0.58	-0.22
267	SLU 17	9	-11	2308	-0.24	0.54	-0.2
267	SLU 18	14	-10	2441	-0.22	0.78	-0.23
267	SLU 19	10	-10	2450	-0.22	0.73	-0.21
267	SLU 20	14	-10	2441	-0.22	0.78	-0.23
267	SLU 21	10	-10	2450	-0.22	0.73	-0.21
267	SLU 22	12	-12	2208	-0.27	0.33	-0.21
267	SLU 23	5	-12	2223	-0.27	0.26	-0.18
267	SLU 24	12	-12	2208	-0.27	0.33	-0.21
267	SLU 25	7	-12	2217	-0.27	0.29	-0.19
267	SLU 26	5	-12	2223	-0.27	0.26	-0.18
267	SLU 27	12	-12	2208	-0.27	0.33	-0.21
267	SLU 28	7	-12	2217	-0.27	0.29	-0.19
267	SLU 29	12	-12	2208	-0.27	0.33	-0.21
267	SLU 30	7	-12	2217	-0.27	0.29	-0.19
267	SLU 31	8	-10	2555	-0.23	0.72	-0.2
267	SLU 32	15	-10	2539	-0.23	0.79	-0.23
267	SLU 33	11	-10	2549	-0.23	0.75	-0.22
267	SLU 34	8	-10	2555	-0.23	0.72	-0.2
267	SLU 35	15	-10	2539	-0.23	0.79	-0.23
267	SLU 36	11	-10	2549	-0.23	0.75	-0.22
267	SLU 37	15	-10	2539	-0.23	0.79	-0.23
267	SLU 38	11	-10	2549	-0.23	0.75	-0.22
267	SLU 39	16	-9	2682	-0.22	0.98	-0.25
267	SLU 40	12	-10	2691	-0.22	0.94	-0.23
267	SLU 41	16	-9	2682	-0.22	0.98	-0.25
267	SLU 42	12	-10	2691	-0.22	0.94	-0.23

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
267	SLU 43	13	-16	2475	-0.36	0.09	-0.24
267	SLU 44	5	-17	2490	-0.36	0.02	-0.21
267	SLU 45	13	-16	2475	-0.36	0.09	-0.24
267	SLU 46	8	-16	2484	-0.36	0.05	-0.22
267	SLU 47	5	-17	2490	-0.36	0.02	-0.21
267	SLU 48	13	-16	2475	-0.36	0.09	-0.24
267	SLU 49	8	-16	2484	-0.36	0.05	-0.22
267	SLU 50	13	-16	2475	-0.36	0.09	-0.24
267	SLU 51	8	-16	2484	-0.36	0.05	-0.22
267	SLU 52	8	-15	2822	-0.32	0.47	-0.24
267	SLU 53	16	-14	2807	-0.32	0.55	-0.26
267	SLU 54	11	-15	2816	-0.32	0.5	-0.25
267	SLU 55	8	-15	2822	-0.32	0.47	-0.24
267	SLU 56	16	-14	2807	-0.32	0.55	-0.26
267	SLU 57	11	-15	2816	-0.32	0.5	-0.25
267	SLU 58	16	-14	2807	-0.32	0.55	-0.26
267	SLU 59	11	-15	2816	-0.32	0.5	-0.25
267	SLU 60	17	-14	2949	-0.31	0.74	-0.28
267	SLU 61	12	-14	2958	-0.31	0.7	-0.26
267	SLU 62	17	-14	2949	-0.31	0.74	-0.28
267	SLU 63	12	-14	2958	-0.31	0.7	-0.26
267	SLU 64	14	-16	2715	-0.36	0.3	-0.25
267	SLU 65	7	-16	2731	-0.36	0.23	-0.23
267	SLU 66	14	-16	2715	-0.36	0.3	-0.25
267	SLU 67	10	-16	2725	-0.36	0.26	-0.24
267	SLU 68	7	-16	2731	-0.36	0.23	-0.23
267	SLU 69	14	-16	2715	-0.36	0.3	-0.25
267	SLU 70	10	-16	2725	-0.36	0.26	-0.24
267	SLU 71	14	-16	2715	-0.36	0.3	-0.25
267	SLU 72	10	-16	2725	-0.36	0.26	-0.24
267	SLU 73	10	-14	3062	-0.32	0.68	-0.25
267	SLU 74	17	-14	3047	-0.32	0.76	-0.28
267	SLU 75	13	-14	3056	-0.32	0.71	-0.27
267	SLU 76	10	-14	3062	-0.32	0.68	-0.25
267	SLU 77	17	-14	3047	-0.32	0.76	-0.28
267	SLU 78	13	-14	3056	-0.32	0.71	-0.27
267	SLU 79	17	-14	3047	-0.32	0.76	-0.28
267	SLU 80	13	-14	3056	-0.32	0.71	-0.27
267	SLU 81	19	-13	3189	-0.3	0.95	-0.3
267	SLU 82	14	-13	3198	-0.3	0.91	-0.28
267	SLU 83	19	-13	3189	-0.3	0.95	-0.3
267	SLU 84	14	-13	3198	-0.3	0.91	-0.28
267	SLE RA 1	11	-12	2036	-0.28	0.19	-0.19
267	SLE RA 2	6	-12	2046	-0.28	0.14	-0.17
267	SLE RA 3	11	-12	2036	-0.28	0.19	-0.19
267	SLE RA 4	8	-12	2042	-0.28	0.16	-0.18
267	SLE RA 5	6	-12	2046	-0.28	0.14	-0.17
267	SLE RA 6	11	-12	2036	-0.28	0.19	-0.19
267	SLE RA 7	8	-12	2042	-0.28	0.16	-0.18
267	SLE RA 8	11	-12	2036	-0.28	0.19	-0.19
267	SLE RA 9	8	-12	2042	-0.28	0.16	-0.18
267	SLE RA 10	8	-11	2267	-0.25	0.44	-0.19
267	SLE RA 11	13	-11	2257	-0.25	0.49	-0.21
267	SLE RA 12	10	-11	2263	-0.25	0.46	-0.2
267	SLE RA 13	8	-11	2267	-0.25	0.44	-0.19
267	SLE RA 14	13	-11	2257	-0.25	0.49	-0.21
267	SLE RA 15	10	-11	2263	-0.25	0.46	-0.2
267	SLE RA 16	13	-11	2257	-0.25	0.49	-0.21
267	SLE RA 17	10	-11	2263	-0.25	0.46	-0.2
267	SLE RA 18	14	-10	2352	-0.24	0.62	-0.22
267	SLE RA 19	11	-11	2358	-0.24	0.59	-0.21
267	SLE RA 20	14	-10	2352	-0.24	0.62	-0.22
267	SLE RA 21	11	-11	2358	-0.24	0.59	-0.21
267	SLE FR 1	11	-12	2036	-0.28	0.19	-0.19
267	SLE FR 2	10	-12	2038	-0.28	0.18	-0.19
267	SLE FR 3	11	-12	2036	-0.28	0.19	-0.19
267	SLE FR 4	11	-12	2133	-0.27	0.31	-0.2
267	SLE FR 5	12	-12	2131	-0.27	0.32	-0.2
267	SLE FR 6	12	-11	2194	-0.26	0.4	-0.21
267	SLE QP 1	11	-12	2036	-0.28	0.19	-0.19
267	SLE QP 2	12	-12	2131	-0.27	0.32	-0.2
267	SLD 1	154	42	1824	-0.42	-18.26	-0.73
267	SLD 2	136	74	1820	-0.45	-18.29	-0.62
267	SLD 3	147	-48	1946	0.09	-20.19	-0.69
267	SLD 4	129	-16	1942	0.06	-20.22	-0.58
267	SLD 5	70	129	1856	-1.08	-2.33	-0.46
267	SLD 6	52	162	1852	-1.11	-2.35	-0.35
267	SLD 7	49	-170	2261	0.63	-8.75	-0.33
267	SLD 8	31	-138	2257	0.6	-8.78	-0.22
267	SLD 9	-8	115	2004	-1.13	9.41	-0.18
267	SLD 10	-26	147	2000	-1.17	9.38	-0.07
267	SLD 11	-29	-185	2410	0.58	2.98	-0.05
267	SLD 12	-47	-153	2406	0.55	2.96	0.06
267	SLD 13	-106	-7	2319	-0.59	20.85	0.18
267	SLD 14	-124	25	2315	-0.62	20.82	0.29
267	SLD 15	-113	-97	2441	-0.08	18.92	0.22

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
267	SLD 16	-131	-65	2437	-0.11	18.89	0.33
267	SLV 1	334	111	1435	-0.62	-43.23	-1.41
267	SLV 2	294	184	1426	-0.69	-43.28	-1.16
267	SLV 3	320	-93	1711	0.55	-47.71	-1.32
267	SLV 4	279	-20	1702	0.48	-47.76	-1.08
267	SLV 5	145	309	1506	-2.12	-5.94	-0.78
267	SLV 6	104	382	1497	-2.19	-6	-0.54
267	SLV 7	96	-371	2427	1.78	-20.86	-0.49
267	SLV 8	55	-298	2418	1.71	-20.91	-0.24
267	SLV 9	-32	275	1843	-2.24	21.54	-0.16
267	SLV 10	-73	348	1834	-2.31	21.49	0.09
267	SLV 11	-81	-405	2764	1.66	6.63	0.14
267	SLV 12	-122	-332	2755	1.59	6.57	0.38
267	SLV 13	-256	-3	2559	-1.01	48.39	0.68
267	SLV 14	-297	70	2550	-1.08	48.34	0.92
267	SLV 15	-271	-207	2835	0.16	43.91	0.76
267	SLV 16	-311	-134	2826	0.09	43.86	1.01
267	CRTFP Ux+	0	0	0	0	0	0
267	CRTFP Ux-	0	0	0	0	0	0
267	CRTFP Uy+	0	0	0	0	0	0
267	CRTFP Uy-	0	0	0	0	0	0
268	SLU 1	13	-44	1803	1.59	-354.85	-15.88
268	SLU 2	4	-44	1787	1.58	-350.75	-15.69
268	SLU 3	13	-44	1803	1.59	-354.85	-15.88
268	SLU 4	8	-44	1794	1.59	-352.39	-15.76
268	SLU 5	4	-44	1787	1.58	-350.75	-15.69
268	SLU 6	13	-44	1803	1.59	-354.85	-15.88
268	SLU 7	8	-44	1794	1.59	-352.39	-15.76
268	SLU 8	13	-44	1803	1.59	-354.85	-15.88
268	SLU 9	8	-44	1794	1.59	-352.39	-15.76
268	SLU 10	5	-50	2093	2.03	-400.73	-17.93
268	SLU 11	14	-50	2109	2.04	-404.83	-18.12
268	SLU 12	9	-50	2100	2.03	-402.37	-18.01
268	SLU 13	5	-50	2093	2.03	-400.73	-17.93
268	SLU 14	14	-50	2109	2.04	-404.83	-18.12
268	SLU 15	9	-50	2100	2.03	-402.37	-18.01
268	SLU 16	14	-50	2109	2.04	-404.83	-18.12
268	SLU 17	9	-50	2100	2.03	-402.37	-18.01
268	SLU 18	14	-53	2240	2.23	-426.25	-19.08
268	SLU 19	9	-53	2231	2.23	-423.79	-18.97
268	SLU 20	14	-53	2240	2.23	-426.25	-19.08
268	SLU 21	9	-53	2231	2.23	-423.79	-18.97
268	SLU 22	13	-48	2022	1.88	-390.48	-17.25
268	SLU 23	4	-48	2006	1.87	-386.38	-17.06
268	SLU 24	13	-48	2022	1.88	-390.48	-17.25
268	SLU 25	8	-48	2012	1.88	-388.02	-17.14
268	SLU 26	4	-48	2006	1.87	-386.38	-17.06
268	SLU 27	13	-48	2022	1.88	-390.48	-17.25
268	SLU 28	8	-48	2012	1.88	-388.02	-17.14
268	SLU 29	13	-48	2022	1.88	-390.48	-17.25
268	SLU 30	8	-48	2012	1.88	-388.02	-17.14
268	SLU 31	6	-54	2312	2.32	-436.36	-19.3
268	SLU 32	14	-54	2328	2.33	-440.46	-19.49
268	SLU 33	9	-54	2318	2.32	-438	-19.38
268	SLU 34	6	-54	2312	2.32	-436.36	-19.3
268	SLU 35	14	-54	2328	2.33	-440.46	-19.49
268	SLU 36	9	-54	2318	2.32	-438	-19.38
268	SLU 37	14	-54	2328	2.33	-440.46	-19.49
268	SLU 38	9	-54	2318	2.32	-438	-19.38
268	SLU 39	15	-57	2459	2.52	-461.88	-20.45
268	SLU 40	9	-57	2449	2.52	-459.42	-20.34
268	SLU 41	15	-57	2459	2.52	-461.88	-20.45
268	SLU 42	9	-57	2449	2.52	-459.42	-20.34
268	SLU 43	16	-56	2269	1.97	-449.08	-20.17
268	SLU 44	8	-56	2253	1.96	-444.99	-19.98
268	SLU 45	16	-56	2269	1.97	-449.08	-20.17
268	SLU 46	11	-56	2260	1.97	-446.63	-20.06
268	SLU 47	8	-56	2253	1.96	-444.99	-19.98
268	SLU 48	16	-56	2269	1.97	-449.08	-20.17
268	SLU 49	11	-56	2260	1.97	-446.63	-20.06
268	SLU 50	16	-56	2269	1.97	-449.08	-20.17
268	SLU 51	11	-56	2260	1.97	-446.63	-20.06
268	SLU 52	9	-62	2560	2.41	-494.97	-22.22
268	SLU 53	17	-63	2575	2.42	-499.06	-22.41
268	SLU 54	12	-62	2566	2.41	-496.61	-22.3
268	SLU 55	9	-62	2560	2.41	-494.97	-22.22
268	SLU 56	17	-63	2575	2.42	-499.06	-22.41
268	SLU 57	12	-62	2566	2.41	-496.61	-22.3
268	SLU 58	17	-63	2575	2.42	-499.06	-22.41
268	SLU 59	12	-62	2566	2.41	-496.61	-22.3
268	SLU 60	18	-65	2706	2.61	-520.48	-23.37
268	SLU 61	13	-65	2697	2.6	-518.03	-23.26
268	SLU 62	18	-65	2706	2.61	-520.48	-23.37
268	SLU 63	13	-65	2697	2.6	-518.03	-23.26
268	SLU 64	17	-60	2488	2.26	-484.71	-21.54
268	SLU 65	8	-60	2472	2.25	-480.62	-21.35

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
268	SLU 66	17	-60	2488	2.26	-484.71	-21.54
268	SLU 67	12	-60	2478	2.25	-482.26	-21.43
268	SLU 68	8	-60	2472	2.25	-480.62	-21.35
268	SLU 69	17	-60	2488	2.26	-484.71	-21.54
268	SLU 70	12	-60	2478	2.25	-482.26	-21.43
268	SLU 71	17	-60	2488	2.26	-484.71	-21.54
268	SLU 72	12	-60	2478	2.25	-482.26	-21.43
268	SLU 73	9	-66	2778	2.7	-530.6	-23.6
268	SLU 74	18	-66	2794	2.71	-534.7	-23.78
268	SLU 75	13	-66	2784	2.7	-532.24	-23.67
268	SLU 76	9	-66	2778	2.7	-530.6	-23.6
268	SLU 77	18	-66	2794	2.71	-534.7	-23.78
268	SLU 78	13	-66	2784	2.7	-532.24	-23.67
268	SLU 79	18	-66	2794	2.71	-534.7	-23.78
268	SLU 80	13	-66	2784	2.7	-532.24	-23.67
268	SLU 81	18	-69	2925	2.9	-556.12	-24.74
268	SLU 82	13	-69	2915	2.89	-553.66	-24.63
268	SLU 83	18	-69	2925	2.9	-556.12	-24.74
268	SLU 84	13	-69	2915	2.89	-553.66	-24.63
268	SLE RA 1	13	-45	1866	1.67	-365.03	-16.27
268	SLE RA 2	7	-45	1855	1.67	-362.3	-16.14
268	SLE RA 3	13	-45	1866	1.67	-365.03	-16.27
268	SLE RA 4	9	-45	1859	1.67	-363.39	-16.19
268	SLE RA 5	7	-45	1855	1.67	-362.3	-16.14
268	SLE RA 6	13	-45	1866	1.67	-365.03	-16.27
268	SLE RA 7	9	-45	1859	1.67	-363.39	-16.19
268	SLE RA 8	13	-45	1866	1.67	-365.03	-16.27
268	SLE RA 9	9	-45	1859	1.67	-363.39	-16.19
268	SLE RA 10	8	-49	2059	1.97	-395.62	-17.64
268	SLE RA 11	14	-50	2070	1.97	-398.35	-17.76
268	SLE RA 12	10	-49	2063	1.97	-396.71	-17.69
268	SLE RA 13	8	-49	2059	1.97	-395.62	-17.64
268	SLE RA 14	14	-50	2070	1.97	-398.35	-17.76
268	SLE RA 15	10	-49	2063	1.97	-396.71	-17.69
268	SLE RA 16	14	-50	2070	1.97	-398.35	-17.76
268	SLE RA 17	10	-49	2063	1.97	-396.71	-17.69
268	SLE RA 18	14	-51	2157	2.1	-412.63	-18.4
268	SLE RA 19	10	-51	2151	2.1	-410.99	-18.33
268	SLE RA 20	14	-51	2157	2.1	-412.63	-18.4
268	SLE RA 21	10	-51	2151	2.1	-410.99	-18.33
268	SLE FR 1	13	-45	1866	1.67	-365.03	-16.27
268	SLE FR 2	12	-45	1863	1.67	-364.48	-16.24
268	SLE FR 3	13	-45	1866	1.67	-365.03	-16.27
268	SLE FR 4	12	-47	1951	1.8	-378.76	-16.88
268	SLE FR 5	13	-47	1953	1.8	-379.31	-16.91
268	SLE FR 6	13	-48	2011	1.89	-388.83	-17.34
268	SLE QP 1	13	-45	1866	1.67	-365.03	-16.27
268	SLE QP 2	13	-47	1953	1.8	-379.31	-16.91
268	SLD 1	191	-13	2102	1.77	-393.74	-4.88
268	SLD 2	163	-46	2108	1.81	-394.92	-16.42
268	SLD 3	200	-101	2212	2.41	-413.95	-35.92
268	SLD 4	173	-135	2219	2.45	-415.14	-47.45
268	SLD 5	62	109	1828	0.81	-352.56	37.85
268	SLD 6	33	76	1835	0.84	-353.75	26.22
268	SLD 7	94	-186	2196	2.95	-419.94	-65.6
268	SLD 8	66	-220	2202	2.98	-421.13	-77.22
268	SLD 9	-40	125	1704	0.62	-337.48	43.4
268	SLD 10	-68	92	1710	0.66	-338.67	31.78
268	SLD 11	-7	-170	2071	2.76	-404.86	-60.04
268	SLD 12	-35	-204	2078	2.79	-406.05	-71.66
268	SLD 13	-146	40	1687	1.15	-343.48	13.64
268	SLD 14	-174	7	1694	1.19	-344.66	2.1
268	SLD 15	-136	-48	1798	1.8	-363.69	-17.4
268	SLD 16	-164	-82	1804	1.83	-364.87	-28.93
268	SLV 1	416	30	2291	1.74	-412.41	10.12
268	SLV 2	353	-45	2306	1.82	-415.09	-16.01
268	SLV 3	439	-171	2542	3.2	-458.36	-60.41
268	SLV 4	376	-247	2557	3.27	-461.04	-86.53
268	SLV 5	123	308	1669	-0.45	-318.61	107.39
268	SLV 6	59	232	1684	-0.38	-321.31	81.1
268	SLV 7	197	-363	2505	4.4	-471.75	-127.7
268	SLV 8	133	-439	2520	4.48	-474.45	-153.99
268	SLV 9	-107	345	1386	-0.87	-284.16	120.17
268	SLV 10	-170	269	1401	-0.8	-286.86	93.88
268	SLV 11	-33	-327	2222	3.98	-437.3	-114.92
268	SLV 12	-96	-402	2237	4.05	-440	-141.21
268	SLV 13	-349	153	1349	0.33	-297.58	52.72
268	SLV 14	-412	77	1364	0.41	-300.26	26.59
268	SLV 15	-327	-49	1600	1.79	-343.52	-17.81
268	SLV 16	-390	-124	1615	1.86	-346.2	-43.93
268	CRTFP Ux+	0	0	0	0	0	0
268	CRTFP Ux-	0	0	0	0	0	0
268	CRTFP Uy+	0	0	0	0	0	0
268	CRTFP Uy-	0	0	0	0	0	0
271	SLU 1	53	121	3005	2.26	5.42	-0.94
271	SLU 2	35	121	3004	2.27	4.61	-0.71

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
271	SLU 3	53	121	3005	2.26	5.42	-0.94
271	SLU 4	42	121	3005	2.26	4.93	-0.8
271	SLU 5	35	121	3004	2.27	4.61	-0.71
271	SLU 6	53	121	3005	2.26	5.42	-0.94
271	SLU 7	42	121	3005	2.26	4.93	-0.8
271	SLU 8	53	121	3005	2.26	5.42	-0.94
271	SLU 9	42	121	3005	2.26	4.93	-0.8
271	SLU 10	47	129	3780	1.54	5.03	-0.9
271	SLU 11	66	129	3780	1.54	5.84	-1.12
271	SLU 12	55	129	3780	1.54	5.36	-0.99
271	SLU 13	47	129	3780	1.54	5.03	-0.9
271	SLU 14	66	129	3780	1.54	5.84	-1.12
271	SLU 15	55	129	3780	1.54	5.36	-0.99
271	SLU 16	66	129	3780	1.54	5.84	-1.12
271	SLU 17	55	129	3780	1.54	5.36	-0.99
271	SLU 18	71	133	4113	1.23	6.02	-1.2
271	SLU 19	60	132	4112	1.23	5.54	-1.06
271	SLU 20	71	133	4113	1.23	6.02	-1.2
271	SLU 21	60	132	4112	1.23	5.54	-1.06
271	SLU 22	61	126	3526	1.86	5.7	-1.05
271	SLU 23	42	126	3526	1.86	4.89	-0.83
271	SLU 24	61	126	3526	1.86	5.7	-1.05
271	SLU 25	50	126	3526	1.86	5.22	-0.92
271	SLU 26	42	126	3526	1.86	4.89	-0.83
271	SLU 27	61	126	3526	1.86	5.7	-1.05
271	SLU 28	50	126	3526	1.86	5.22	-0.92
271	SLU 29	61	126	3526	1.86	5.7	-1.05
271	SLU 30	50	126	3526	1.86	5.22	-0.92
271	SLU 31	55	134	4301	1.14	5.32	-1.01
271	SLU 32	73	134	4301	1.13	6.12	-1.23
271	SLU 33	62	134	4301	1.14	5.64	-1.1
271	SLU 34	55	134	4301	1.14	5.32	-1.01
271	SLU 35	73	134	4301	1.13	6.12	-1.23
271	SLU 36	62	134	4301	1.14	5.64	-1.1
271	SLU 37	73	134	4301	1.13	6.12	-1.23
271	SLU 38	62	134	4301	1.14	5.64	-1.1
271	SLU 39	78	138	4634	0.82	6.31	-1.31
271	SLU 40	67	138	4633	0.82	5.82	-1.18
271	SLU 41	78	138	4634	0.82	6.31	-1.31
271	SLU 42	67	138	4633	0.82	5.82	-1.18
271	SLU 43	67	156	3728	3.08	6.94	-1.18
271	SLU 44	48	155	3727	3.08	6.14	-0.96
271	SLU 45	67	156	3728	3.08	6.94	-1.18
271	SLU 46	56	156	3727	3.08	6.46	-1.04
271	SLU 47	48	155	3727	3.08	6.14	-0.96
271	SLU 48	67	156	3728	3.08	6.94	-1.18
271	SLU 49	56	156	3727	3.08	6.46	-1.04
271	SLU 50	67	156	3728	3.08	6.94	-1.18
271	SLU 51	56	156	3727	3.08	6.46	-1.04
271	SLU 52	61	164	4503	2.36	6.56	-1.14
271	SLU 53	79	164	4503	2.35	7.37	-1.36
271	SLU 54	68	164	4503	2.36	6.89	-1.23
271	SLU 55	61	164	4503	2.36	6.56	-1.14
271	SLU 56	79	164	4503	2.35	7.37	-1.36
271	SLU 57	68	164	4503	2.36	6.89	-1.23
271	SLU 58	79	164	4503	2.35	7.37	-1.36
271	SLU 59	68	164	4503	2.36	6.89	-1.23
271	SLU 60	84	167	4835	2.04	7.55	-1.44
271	SLU 61	73	167	4835	2.05	7.07	-1.31
271	SLU 62	84	167	4835	2.04	7.55	-1.44
271	SLU 63	73	167	4835	2.05	7.07	-1.31
271	SLU 64	74	161	4249	2.67	7.23	-1.29
271	SLU 65	56	161	4248	2.68	6.42	-1.07
271	SLU 66	74	161	4249	2.67	7.23	-1.29
271	SLU 67	63	161	4248	2.68	6.74	-1.16
271	SLU 68	56	161	4248	2.68	6.42	-1.07
271	SLU 69	74	161	4249	2.67	7.23	-1.29
271	SLU 70	63	161	4248	2.68	6.74	-1.16
271	SLU 71	74	161	4249	2.67	7.23	-1.29
271	SLU 72	63	161	4248	2.68	6.74	-1.16
271	SLU 73	68	169	5024	1.95	6.85	-1.25
271	SLU 74	86	169	5024	1.95	7.65	-1.47
271	SLU 75	76	169	5024	1.95	7.17	-1.34
271	SLU 76	68	169	5024	1.95	6.85	-1.25
271	SLU 77	86	169	5024	1.95	7.65	-1.47
271	SLU 78	76	169	5024	1.95	7.17	-1.34
271	SLU 79	86	169	5024	1.95	7.65	-1.47
271	SLU 80	76	169	5024	1.95	7.17	-1.34
271	SLU 81	92	172	5356	1.64	7.83	-1.55
271	SLU 82	81	172	5356	1.64	7.35	-1.42
271	SLU 83	92	172	5356	1.64	7.83	-1.55
271	SLU 84	81	172	5356	1.64	7.35	-1.42
271	SLE RA 1	55	123	3154	2.14	5.5	-0.97
271	SLE RA 2	43	122	3153	2.15	4.96	-0.82
271	SLE RA 3	55	123	3154	2.14	5.5	-0.97
271	SLE RA 4	48	123	3154	2.15	5.18	-0.88

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
271	SLE RA 5	43	122	3153	2.15	4.96	-0.82
271	SLE RA 6	55	123	3154	2.14	5.5	-0.97
271	SLE RA 7	48	123	3154	2.15	5.18	-0.88
271	SLE RA 8	55	123	3154	2.14	5.5	-0.97
271	SLE RA 9	48	123	3154	2.15	5.18	-0.88
271	SLE RA 10	51	128	3670	1.67	5.24	-0.94
271	SLE RA 11	64	128	3671	1.66	5.78	-1.09
271	SLE RA 12	56	128	3670	1.66	5.46	-1
271	SLE RA 13	51	128	3670	1.67	5.24	-0.94
271	SLE RA 14	64	128	3671	1.66	5.78	-1.09
271	SLE RA 15	56	128	3670	1.66	5.46	-1
271	SLE RA 16	64	128	3671	1.66	5.78	-1.09
271	SLE RA 17	56	128	3670	1.66	5.46	-1
271	SLE RA 18	67	130	3892	1.45	5.9	-1.14
271	SLE RA 19	60	130	3892	1.46	5.58	-1.05
271	SLE RA 20	67	130	3892	1.45	5.9	-1.14
271	SLE RA 21	60	130	3892	1.46	5.58	-1.05
271	SLE FR 1	55	123	3154	2.14	5.5	-0.97
271	SLE FR 2	53	123	3154	2.15	5.39	-0.94
271	SLE FR 3	55	123	3154	2.14	5.5	-0.97
271	SLE FR 4	56	125	3375	1.94	5.51	-0.99
271	SLE FR 5	59	125	3375	1.94	5.62	-1.02
271	SLE FR 6	61	126	3523	1.8	5.7	-1.06
271	SLE QP 1	55	123	3154	2.14	5.5	-0.97
271	SLE QP 2	59	125	3375	1.94	5.62	-1.02
271	SLD 1	380	204	3305	1.35	18.76	-5.28
271	SLD 2	332	205	3306	1.36	19.11	-4.07
271	SLD 3	397	76	3483	2.33	17.72	-5.59
271	SLD 4	349	77	3484	2.33	18.07	-4.39
271	SLD 5	146	342	3083	0.28	11.01	-2.24
271	SLD 6	98	343	3084	0.29	11.37	-1.03
271	SLD 7	203	-84	3678	3.53	7.55	-3.3
271	SLD 8	155	-83	3679	3.54	7.9	-2.09
271	SLD 9	-37	333	3072	0.34	3.34	0.04
271	SLD 10	-86	333	3072	0.34	3.69	1.26
271	SLD 11	20	-93	3667	3.59	-0.13	-1.01
271	SLD 12	-28	-92	3667	3.6	0.22	0.2
271	SLD 13	-231	172	3266	1.54	-6.83	2.35
271	SLD 14	-279	173	3267	1.55	-6.48	3.55
271	SLD 15	-214	45	3445	2.52	-7.87	2.03
271	SLD 16	-262	46	3446	2.53	-7.52	3.23
271	SLV 1	788	305	3216	0.6	35.5	-10.69
271	SLV 2	679	307	3218	0.62	36.31	-7.96
271	SLV 3	827	15	3621	2.82	33.14	-11.41
271	SLV 4	718	17	3623	2.84	33.94	-8.68
271	SLV 5	257	618	2711	-1.83	17.88	-3.79
271	SLV 6	147	620	2713	-1.82	18.69	-1.04
271	SLV 7	387	-349	4064	5.56	10.01	-6.2
271	SLV 8	278	-347	4066	5.58	10.82	-3.45
271	SLV 9	-160	596	2685	-1.7	0.42	1.41
271	SLV 10	-269	599	2687	-1.69	1.23	4.15
271	SLV 11	-30	-370	4037	5.69	-7.45	-1
271	SLV 12	-139	-368	4039	5.71	-6.64	1.74
271	SLV 13	-601	233	3127	1.04	-22.71	6.64
271	SLV 14	-709	235	3129	1.06	-21.9	9.37
271	SLV 15	-562	-57	3533	3.26	-25.07	5.92
271	SLV 16	-670	-55	3535	3.27	-24.27	8.64
271	CRTFP Ux+	0	0	0	0	0	0
271	CRTFP Ux-	0	0	0	0	0	0
271	CRTFP Uy+	0	0	0	0	0	0
271	CRTFP Uy-	0	0	0	0	0	0
273	SLU 1	16	-13	1957	-0.36	-0.8	-0.2
273	SLU 2	8	-13	1973	-0.36	-0.88	-0.17
273	SLU 3	16	-13	1957	-0.36	-0.8	-0.2
273	SLU 4	11	-13	1966	-0.36	-0.85	-0.18
273	SLU 5	8	-13	1973	-0.36	-0.88	-0.17
273	SLU 6	16	-13	1957	-0.36	-0.8	-0.2
273	SLU 7	11	-13	1966	-0.36	-0.85	-0.18
273	SLU 8	16	-13	1957	-0.36	-0.8	-0.2
273	SLU 9	11	-13	1966	-0.36	-0.85	-0.18
273	SLU 10	12	-11	2305	-0.33	-0.66	-0.2
273	SLU 11	20	-11	2290	-0.33	-0.57	-0.23
273	SLU 12	15	-11	2299	-0.33	-0.62	-0.21
273	SLU 13	12	-11	2305	-0.33	-0.66	-0.2
273	SLU 14	20	-11	2290	-0.33	-0.57	-0.23
273	SLU 15	15	-11	2299	-0.33	-0.62	-0.21
273	SLU 16	20	-11	2290	-0.33	-0.57	-0.23
273	SLU 17	15	-11	2299	-0.33	-0.62	-0.21
273	SLU 18	22	-10	2433	-0.32	-0.48	-0.24
273	SLU 19	17	-11	2442	-0.32	-0.53	-0.22
273	SLU 20	22	-10	2433	-0.32	-0.48	-0.24
273	SLU 21	17	-11	2442	-0.32	-0.53	-0.22
273	SLU 22	18	-12	2198	-0.37	-0.74	-0.22
273	SLU 23	10	-13	2213	-0.36	-0.82	-0.19
273	SLU 24	18	-12	2198	-0.37	-0.74	-0.22
273	SLU 25	13	-12	2207	-0.37	-0.79	-0.2

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
273	SLU 26	10	-13	2213	-0.36	-0.82	-0.19
273	SLU 27	18	-12	2198	-0.37	-0.74	-0.22
273	SLU 28	13	-12	2207	-0.37	-0.79	-0.2
273	SLU 29	18	-12	2198	-0.37	-0.74	-0.22
273	SLU 30	13	-12	2207	-0.37	-0.79	-0.2
273	SLU 31	14	-11	2546	-0.34	-0.6	-0.21
273	SLU 32	22	-11	2530	-0.34	-0.51	-0.24
273	SLU 33	17	-11	2540	-0.34	-0.56	-0.23
273	SLU 34	14	-11	2546	-0.34	-0.6	-0.21
273	SLU 35	22	-11	2530	-0.34	-0.51	-0.24
273	SLU 36	17	-11	2540	-0.34	-0.56	-0.23
273	SLU 37	22	-11	2530	-0.34	-0.51	-0.24
273	SLU 38	17	-11	2540	-0.34	-0.56	-0.23
273	SLU 39	24	-10	2673	-0.33	-0.42	-0.26
273	SLU 40	19	-10	2682	-0.33	-0.47	-0.24
273	SLU 41	24	-10	2673	-0.33	-0.42	-0.26
273	SLU 42	19	-10	2682	-0.33	-0.47	-0.24
273	SLU 43	20	-17	2462	-0.46	-1.06	-0.25
273	SLU 44	12	-17	2477	-0.46	-1.14	-0.22
273	SLU 45	20	-17	2462	-0.46	-1.06	-0.25
273	SLU 46	15	-17	2471	-0.46	-1.11	-0.23
273	SLU 47	12	-17	2477	-0.46	-1.14	-0.22
273	SLU 48	20	-17	2462	-0.46	-1.06	-0.25
273	SLU 49	15	-17	2471	-0.46	-1.11	-0.23
273	SLU 50	20	-17	2462	-0.46	-1.06	-0.25
273	SLU 51	15	-17	2471	-0.46	-1.11	-0.23
273	SLU 52	16	-15	2810	-0.44	-0.92	-0.25
273	SLU 53	24	-15	2795	-0.44	-0.83	-0.28
273	SLU 54	19	-15	2804	-0.44	-0.88	-0.26
273	SLU 55	16	-15	2810	-0.44	-0.92	-0.25
273	SLU 56	24	-15	2795	-0.44	-0.83	-0.28
273	SLU 57	19	-15	2804	-0.44	-0.88	-0.26
273	SLU 58	24	-15	2795	-0.44	-0.83	-0.28
273	SLU 59	19	-15	2804	-0.44	-0.88	-0.26
273	SLU 60	26	-14	2937	-0.43	-0.74	-0.29
273	SLU 61	21	-14	2947	-0.43	-0.79	-0.27
273	SLU 62	26	-14	2937	-0.43	-0.74	-0.29
273	SLU 63	21	-14	2947	-0.43	-0.79	-0.27
273	SLU 64	22	-16	2702	-0.47	-1	-0.27
273	SLU 65	14	-17	2718	-0.47	-1.08	-0.24
273	SLU 66	22	-16	2702	-0.47	-1	-0.27
273	SLU 67	17	-16	2712	-0.47	-1.05	-0.25
273	SLU 68	14	-17	2718	-0.47	-1.08	-0.24
273	SLU 69	22	-16	2702	-0.47	-1	-0.27
273	SLU 70	17	-16	2712	-0.47	-1.05	-0.25
273	SLU 71	22	-16	2702	-0.47	-1	-0.27
273	SLU 72	17	-16	2712	-0.47	-1.05	-0.25
273	SLU 73	18	-15	3051	-0.45	-0.86	-0.27
273	SLU 74	26	-14	3035	-0.45	-0.77	-0.3
273	SLU 75	21	-15	3044	-0.45	-0.82	-0.28
273	SLU 76	18	-15	3051	-0.45	-0.86	-0.27
273	SLU 77	26	-14	3035	-0.45	-0.77	-0.3
273	SLU 78	21	-15	3044	-0.45	-0.82	-0.28
273	SLU 79	26	-14	3035	-0.45	-0.77	-0.3
273	SLU 80	21	-15	3044	-0.45	-0.82	-0.28
273	SLU 81	28	-14	3178	-0.44	-0.68	-0.31
273	SLU 82	23	-14	3187	-0.43	-0.73	-0.29
273	SLU 83	28	-14	3178	-0.44	-0.68	-0.31
273	SLU 84	23	-14	3187	-0.43	-0.73	-0.29
273	SLE RA 1	17	-13	2026	-0.36	-0.78	-0.2
273	SLE RA 2	11	-13	2036	-0.36	-0.84	-0.18
273	SLE RA 3	17	-13	2026	-0.36	-0.78	-0.2
273	SLE RA 4	13	-13	2032	-0.36	-0.82	-0.19
273	SLE RA 5	11	-13	2036	-0.36	-0.84	-0.18
273	SLE RA 6	17	-13	2026	-0.36	-0.78	-0.2
273	SLE RA 7	13	-13	2032	-0.36	-0.82	-0.19
273	SLE RA 8	17	-13	2026	-0.36	-0.78	-0.2
273	SLE RA 9	13	-13	2032	-0.36	-0.82	-0.19
273	SLE RA 10	14	-12	2258	-0.34	-0.69	-0.2
273	SLE RA 11	19	-11	2248	-0.34	-0.63	-0.22
273	SLE RA 12	16	-12	2254	-0.34	-0.67	-0.21
273	SLE RA 13	14	-12	2258	-0.34	-0.69	-0.2
273	SLE RA 14	19	-11	2248	-0.34	-0.63	-0.22
273	SLE RA 15	16	-12	2254	-0.34	-0.67	-0.21
273	SLE RA 16	19	-11	2248	-0.34	-0.63	-0.22
273	SLE RA 17	16	-12	2254	-0.34	-0.67	-0.21
273	SLE RA 18	20	-11	2343	-0.34	-0.57	-0.23
273	SLE RA 19	17	-11	2349	-0.34	-0.6	-0.22
273	SLE RA 20	20	-11	2343	-0.34	-0.57	-0.23
273	SLE RA 21	17	-11	2349	-0.34	-0.6	-0.22
273	SLE FR 1	17	-13	2026	-0.36	-0.78	-0.2
273	SLE FR 2	16	-13	2028	-0.36	-0.79	-0.2
273	SLE FR 3	17	-13	2026	-0.36	-0.78	-0.2
273	SLE FR 4	17	-12	2123	-0.35	-0.73	-0.21
273	SLE FR 5	18	-12	2121	-0.35	-0.72	-0.21
273	SLE FR 6	19	-12	2184	-0.35	-0.67	-0.22

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
273	SLE QP 1	17	-13	2026	-0.36	-0.78	-0.2
273	SLE QP 2	18	-12	2121	-0.35	-0.72	-0.21
273	SLD 1	177	41	1808	-0.51	-16.4	-0.73
273	SLD 2	155	74	1803	-0.54	-16.41	-0.61
273	SLD 3	169	-48	1945	0.01	-18.39	-0.76
273	SLD 4	148	-16	1940	-0.02	-18.4	-0.64
273	SLD 5	84	129	1820	-1.17	-2.39	-0.35
273	SLD 6	63	161	1815	-1.21	-2.4	-0.23
273	SLD 7	60	-170	2279	0.55	-9.05	-0.47
273	SLD 8	38	-138	2274	0.52	-9.06	-0.35
273	SLD 9	-2	114	1968	-1.22	7.62	-0.07
273	SLD 10	-24	146	1963	-1.26	7.61	0.05
273	SLD 11	-27	-185	2427	0.5	0.96	-0.19
273	SLD 12	-49	-153	2422	0.47	0.95	-0.07
273	SLD 13	-112	-8	2302	-0.68	16.97	0.22
273	SLD 14	-133	24	2297	-0.71	16.96	0.34
273	SLD 15	-119	-98	2439	-0.16	14.97	0.19
273	SLD 16	-141	-66	2434	-0.2	14.96	0.3
273	SLV 1	378	110	1409	-0.71	-37.4	-1.38
273	SLV 2	330	183	1398	-0.78	-37.42	-1.12
273	SLV 3	361	-94	1722	0.47	-42.02	-1.47
273	SLV 4	313	-21	1711	0.39	-42.04	-1.2
273	SLV 5	169	308	1437	-2.22	-4.71	-0.53
273	SLV 6	120	381	1426	-2.29	-4.73	-0.26
273	SLV 7	112	-372	2479	1.7	-20.11	-0.81
273	SLV 8	63	-298	2468	1.63	-20.13	-0.54
273	SLV 9	-27	274	1774	-2.33	18.69	0.12
273	SLV 10	-76	347	1763	-2.41	18.67	0.39
273	SLV 11	-84	-406	2816	1.59	3.3	-0.16
273	SLV 12	-133	-332	2805	1.51	3.27	0.11
273	SLV 13	-277	-3	2531	-1.1	40.61	0.78
273	SLV 14	-326	70	2520	-1.18	40.58	1.05
273	SLV 15	-294	-207	2844	0.08	35.99	0.69
273	SLV 16	-343	-134	2833	0	35.96	0.96
273	CRTFP Ux+	0	0	0	0	0	0
273	CRTFP Ux-	0	0	0	0	0	0
273	CRTFP Uy+	0	0	0	0	0	0
273	CRTFP Uy-	0	0	0	0	0	0
274	SLU 1	22	-44	1870	2.77	-402.3	-15.79
274	SLU 2	12	-44	1854	2.77	-398.15	-15.61
274	SLU 3	22	-44	1870	2.77	-402.3	-15.79
274	SLU 4	16	-44	1860	2.77	-399.81	-15.68
274	SLU 5	12	-44	1854	2.77	-398.15	-15.61
274	SLU 6	22	-44	1870	2.77	-402.3	-15.79
274	SLU 7	16	-44	1860	2.77	-399.81	-15.68
274	SLU 8	22	-44	1870	2.77	-402.3	-15.79
274	SLU 9	16	-44	1860	2.77	-399.81	-15.68
274	SLU 10	16	-50	2177	3.46	-459.27	-17.82
274	SLU 11	26	-50	2193	3.47	-463.42	-17.99
274	SLU 12	20	-50	2184	3.47	-460.93	-17.89
274	SLU 13	16	-50	2177	3.46	-459.27	-17.82
274	SLU 14	26	-50	2193	3.47	-463.42	-17.99
274	SLU 15	20	-50	2184	3.47	-460.93	-17.89
274	SLU 16	26	-50	2193	3.47	-463.42	-17.99
274	SLU 17	20	-50	2184	3.47	-460.93	-17.89
274	SLU 18	28	-53	2332	3.77	-489.62	-18.94
274	SLU 19	22	-53	2322	3.77	-487.13	-18.83
274	SLU 20	28	-53	2332	3.77	-489.62	-18.94
274	SLU 21	22	-53	2322	3.77	-487.13	-18.83
274	SLU 22	24	-48	2100	3.24	-445.57	-17.15
274	SLU 23	14	-48	2084	3.23	-441.42	-16.97
274	SLU 24	24	-48	2100	3.24	-445.57	-17.15
274	SLU 25	18	-48	2090	3.24	-443.08	-17.04
274	SLU 26	14	-48	2084	3.23	-441.42	-16.97
274	SLU 27	24	-48	2100	3.24	-445.57	-17.15
274	SLU 28	18	-48	2090	3.24	-443.08	-17.04
274	SLU 29	24	-48	2100	3.24	-445.57	-17.15
274	SLU 30	18	-48	2090	3.24	-443.08	-17.04
274	SLU 31	19	-54	2407	3.93	-502.55	-19.17
274	SLU 32	29	-54	2423	3.94	-506.7	-19.35
274	SLU 33	23	-54	2414	3.93	-504.21	-19.25
274	SLU 34	19	-54	2407	3.93	-502.55	-19.17
274	SLU 35	29	-54	2423	3.94	-506.7	-19.35
274	SLU 36	23	-54	2414	3.93	-504.21	-19.25
274	SLU 37	29	-54	2423	3.94	-506.7	-19.35
274	SLU 38	23	-54	2414	3.93	-504.21	-19.25
274	SLU 39	31	-57	2562	4.24	-532.89	-20.3
274	SLU 40	25	-56	2552	4.23	-530.4	-20.19
274	SLU 41	31	-57	2562	4.24	-532.89	-20.3
274	SLU 42	25	-56	2552	4.23	-530.4	-20.19
274	SLU 43	28	-56	2352	3.45	-508.15	-20.06
274	SLU 44	18	-56	2336	3.44	-504	-19.88
274	SLU 45	28	-56	2352	3.45	-508.15	-20.06
274	SLU 46	22	-56	2342	3.44	-505.66	-19.95
274	SLU 47	18	-56	2336	3.44	-504	-19.88
274	SLU 48	28	-56	2352	3.45	-508.15	-20.06

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
274	SLU 49	22	-56	2342	3.44	-505.66	-19.95
274	SLU 50	28	-56	2352	3.45	-508.15	-20.06
274	SLU 51	22	-56	2342	3.44	-505.66	-19.95
274	SLU 52	22	-62	2659	4.14	-565.13	-22.09
274	SLU 53	32	-62	2675	4.14	-569.27	-22.27
274	SLU 54	26	-62	2666	4.14	-566.78	-22.16
274	SLU 55	22	-62	2659	4.14	-565.13	-22.09
274	SLU 56	32	-62	2675	4.14	-569.27	-22.27
274	SLU 57	26	-62	2666	4.14	-566.78	-22.16
274	SLU 58	32	-62	2675	4.14	-569.27	-22.27
274	SLU 59	26	-62	2666	4.14	-566.78	-22.16
274	SLU 60	34	-65	2814	4.44	-595.47	-23.21
274	SLU 61	28	-65	2805	4.44	-592.98	-23.1
274	SLU 62	34	-65	2814	4.44	-595.47	-23.21
274	SLU 63	28	-65	2805	4.44	-592.98	-23.1
274	SLU 64	30	-60	2582	3.91	-551.42	-21.42
274	SLU 65	20	-60	2566	3.91	-547.27	-21.24
274	SLU 66	30	-60	2582	3.91	-551.42	-21.42
274	SLU 67	24	-60	2572	3.91	-548.93	-21.31
274	SLU 68	20	-60	2566	3.91	-547.27	-21.24
274	SLU 69	30	-60	2582	3.91	-551.42	-21.42
274	SLU 70	24	-60	2572	3.91	-548.93	-21.31
274	SLU 71	30	-60	2582	3.91	-551.42	-21.42
274	SLU 72	24	-60	2572	3.91	-548.93	-21.31
274	SLU 73	24	-66	2889	4.6	-608.4	-23.45
274	SLU 74	34	-66	2905	4.61	-612.55	-23.62
274	SLU 75	28	-66	2896	4.61	-610.06	-23.52
274	SLU 76	24	-66	2889	4.6	-608.4	-23.45
274	SLU 77	34	-66	2905	4.61	-612.55	-23.62
274	SLU 78	28	-66	2896	4.61	-610.06	-23.52
274	SLU 79	34	-66	2905	4.61	-612.55	-23.62
274	SLU 80	28	-66	2896	4.61	-610.06	-23.52
274	SLU 81	36	-69	3044	4.91	-638.75	-24.57
274	SLU 82	30	-68	3035	4.91	-636.26	-24.46
274	SLU 83	36	-69	3044	4.91	-638.75	-24.57
274	SLU 84	30	-68	3035	4.91	-636.26	-24.46
274	SLE RA 1	23	-45	1935	2.91	-414.66	-16.18
274	SLE RA 2	16	-45	1925	2.9	-411.9	-16.06
274	SLE RA 3	23	-45	1935	2.91	-414.66	-16.18
274	SLE RA 4	19	-45	1929	2.9	-413	-16.11
274	SLE RA 5	16	-45	1925	2.9	-411.9	-16.06
274	SLE RA 6	23	-45	1935	2.91	-414.66	-16.18
274	SLE RA 7	19	-45	1929	2.9	-413	-16.11
274	SLE RA 8	23	-45	1935	2.91	-414.66	-16.18
274	SLE RA 9	19	-45	1929	2.9	-413	-16.11
274	SLE RA 10	19	-49	2141	3.37	-452.65	-17.53
274	SLE RA 11	26	-49	2151	3.37	-455.41	-17.65
274	SLE RA 12	22	-49	2145	3.37	-453.75	-17.58
274	SLE RA 13	19	-49	2141	3.37	-452.65	-17.53
274	SLE RA 14	26	-49	2151	3.37	-455.41	-17.65
274	SLE RA 15	22	-49	2145	3.37	-453.75	-17.58
274	SLE RA 16	26	-49	2151	3.37	-455.41	-17.65
274	SLE RA 17	22	-49	2145	3.37	-453.75	-17.58
274	SLE RA 18	27	-51	2244	3.57	-472.88	-18.28
274	SLE RA 19	23	-51	2237	3.57	-471.22	-18.21
274	SLE RA 20	27	-51	2244	3.57	-472.88	-18.28
274	SLE RA 21	23	-51	2237	3.57	-471.22	-18.21
274	SLE FR 1	23	-45	1935	2.91	-414.66	-16.18
274	SLE FR 2	21	-45	1933	2.91	-414.11	-16.16
274	SLE FR 3	23	-45	1935	2.91	-414.66	-16.18
274	SLE FR 4	23	-47	2026	3.11	-431.57	-16.78
274	SLE FR 5	24	-47	2028	3.11	-432.13	-16.81
274	SLE FR 6	25	-48	2090	3.24	-443.77	-17.23
274	SLE QP 1	23	-45	1935	2.91	-414.66	-16.18
274	SLE QP 2	24	-47	2028	3.11	-432.13	-16.81
274	SLD 1	219	-13	2178	3.2	-450.6	-4.8
274	SLD 2	187	-46	2185	3.24	-452.21	-16.32
274	SLD 3	230	-101	2309	3.95	-478.56	-35.79
274	SLD 4	198	-135	2317	3.99	-480.17	-47.31
274	SLD 5	77	109	1871	1.99	-394.7	37.87
274	SLD 6	45	76	1879	2.03	-396.31	26.26
274	SLD 7	113	-186	2309	4.48	-487.9	-65.42
274	SLD 8	81	-219	2317	4.51	-489.51	-77.03
274	SLD 9	-34	125	1739	1.7	-374.74	43.42
274	SLD 10	-66	92	1747	1.74	-376.36	31.81
274	SLD 11	2	-170	2177	4.18	-467.94	-59.88
274	SLD 12	-30	-203	2185	4.22	-469.55	-71.49
274	SLD 13	-150	40	1739	2.23	-384.09	13.69
274	SLD 14	-182	7	1747	2.27	-385.69	2.17
274	SLD 15	-140	-48	1871	2.97	-412.04	-17.29
274	SLD 16	-171	-81	1878	3.01	-413.65	-28.82
274	SLV 1	468	30	2368	3.33	-474.35	10.18
274	SLV 2	396	-46	2386	3.41	-477.97	-15.91
274	SLV 3	492	-171	2667	5.02	-537.9	-60.24
274	SLV 4	420	-247	2685	5.11	-541.53	-86.34
274	SLV 5	145	308	1671	0.57	-347.12	107.32

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
274	SLV 6	73	232	1688	0.66	-350.78	81.05
274	SLV 7	227	-363	2667	6.22	-558.96	-127.43
274	SLV 8	155	-439	2684	6.3	-562.61	-153.7
274	SLV 9	-107	344	1372	-0.09	-301.64	120.08
274	SLV 10	-179	269	1389	0	-305.29	93.81
274	SLV 11	-25	-326	2367	5.55	-513.47	-114.67
274	SLV 12	-97	-402	2385	5.64	-517.13	-140.94
274	SLV 13	-372	152	1371	1.11	-322.73	52.72
274	SLV 14	-444	77	1389	1.2	-326.35	26.62
274	SLV 15	-348	-49	1670	2.8	-386.28	-17.7
274	SLV 16	-420	-124	1687	2.89	-389.9	-43.8
274	CRTFP Ux+	0	0	0	0	0	0
274	CRTFP Ux-	0	0	0	0	0	0
274	CRTFP Uy+	0	0	0	0	0	0
274	CRTFP Uy-	0	0	0	0	0	0
277	SLU 1	58	121	3082	2.77	4.87	-0.75
277	SLU 2	38	121	3082	2.78	4.09	-0.54
277	SLU 3	58	121	3082	2.77	4.87	-0.75
277	SLU 4	46	121	3082	2.78	4.4	-0.62
277	SLU 5	38	121	3082	2.78	4.09	-0.54
277	SLU 6	58	121	3082	2.77	4.87	-0.75
277	SLU 7	46	121	3082	2.78	4.4	-0.62
277	SLU 8	58	121	3082	2.77	4.87	-0.75
277	SLU 9	46	121	3082	2.78	4.4	-0.62
277	SLU 10	52	129	3834	2.04	4.52	-0.68
277	SLU 11	71	129	3834	2.03	5.29	-0.9
277	SLU 12	59	129	3834	2.04	4.83	-0.77
277	SLU 13	52	129	3834	2.04	4.52	-0.68
277	SLU 14	71	129	3834	2.03	5.29	-0.9
277	SLU 15	59	129	3834	2.04	4.83	-0.77
277	SLU 16	71	129	3834	2.03	5.29	-0.9
277	SLU 17	59	129	3834	2.04	4.83	-0.77
277	SLU 18	77	132	4157	1.72	5.48	-0.96
277	SLU 19	65	132	4157	1.72	5.01	-0.83
277	SLU 20	77	132	4157	1.72	5.48	-0.96
277	SLU 21	65	132	4157	1.72	5.01	-0.83
277	SLU 22	66	126	3590	2.37	5.15	-0.84
277	SLU 23	46	126	3590	2.38	4.37	-0.63
277	SLU 24	66	126	3590	2.37	5.15	-0.84
277	SLU 25	54	126	3590	2.37	4.68	-0.72
277	SLU 26	46	126	3590	2.38	4.37	-0.63
277	SLU 27	66	126	3590	2.37	5.15	-0.84
277	SLU 28	54	126	3590	2.37	4.68	-0.72
277	SLU 29	66	126	3590	2.37	5.15	-0.84
277	SLU 30	54	126	3590	2.37	4.68	-0.72
277	SLU 31	60	133	4342	1.63	4.8	-0.78
277	SLU 32	79	134	4343	1.63	5.57	-0.99
277	SLU 33	67	133	4343	1.63	5.11	-0.86
277	SLU 34	60	133	4342	1.63	4.8	-0.78
277	SLU 35	79	134	4343	1.63	5.57	-0.99
277	SLU 36	67	133	4343	1.63	5.11	-0.86
277	SLU 37	79	134	4343	1.63	5.57	-0.99
277	SLU 38	67	133	4343	1.63	5.11	-0.86
277	SLU 39	85	137	4665	1.31	5.76	-1.05
277	SLU 40	73	137	4665	1.32	5.29	-0.92
277	SLU 41	85	137	4665	1.31	5.76	-1.05
277	SLU 42	73	137	4665	1.32	5.29	-0.92
277	SLU 43	72	156	3832	3.74	6.23	-0.95
277	SLU 44	53	156	3832	3.75	5.46	-0.73
277	SLU 45	72	156	3832	3.74	6.23	-0.95
277	SLU 46	61	156	3832	3.75	5.77	-0.82
277	SLU 47	53	156	3832	3.75	5.46	-0.73
277	SLU 48	72	156	3832	3.74	6.23	-0.95
277	SLU 49	61	156	3832	3.75	5.77	-0.82
277	SLU 50	72	156	3832	3.74	6.23	-0.95
277	SLU 51	61	156	3832	3.75	5.77	-0.82
277	SLU 52	66	163	4584	3.01	5.88	-0.88
277	SLU 53	86	164	4585	3	6.66	-1.09
277	SLU 54	74	164	4584	3.01	6.19	-0.96
277	SLU 55	66	163	4584	3.01	5.88	-0.88
277	SLU 56	86	164	4585	3	6.66	-1.09
277	SLU 57	74	164	4584	3.01	6.19	-0.96
277	SLU 58	86	164	4585	3	6.66	-1.09
277	SLU 59	74	164	4584	3.01	6.19	-0.96
277	SLU 60	91	167	4907	2.69	6.84	-1.15
277	SLU 61	80	167	4907	2.69	6.38	-1.02
277	SLU 62	91	167	4907	2.69	6.84	-1.15
277	SLU 63	80	167	4907	2.69	6.38	-1.02
277	SLU 64	80	161	4341	3.34	6.51	-1.04
277	SLU 65	61	161	4340	3.35	5.74	-0.83
277	SLU 66	80	161	4341	3.34	6.51	-1.04
277	SLU 67	69	161	4340	3.34	6.05	-0.91
277	SLU 68	61	161	4340	3.35	5.74	-0.83
277	SLU 69	80	161	4341	3.34	6.51	-1.04
277	SLU 70	69	161	4340	3.34	6.05	-0.91
277	SLU 71	80	161	4341	3.34	6.51	-1.04

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
277	SLU 72	69	161	4340	3.34	6.05	-0.91
277	SLU 73	74	168	5093	2.61	6.16	-0.97
277	SLU 74	94	168	5093	2.6	6.94	-1.18
277	SLU 75	82	168	5093	2.6	6.47	-1.05
277	SLU 76	74	168	5093	2.61	6.16	-0.97
277	SLU 77	94	168	5093	2.6	6.94	-1.18
277	SLU 78	82	168	5093	2.6	6.47	-1.05
277	SLU 79	94	168	5093	2.6	6.94	-1.18
277	SLU 80	82	168	5093	2.6	6.47	-1.05
277	SLU 81	99	172	5416	2.28	7.12	-1.24
277	SLU 82	88	171	5415	2.29	6.66	-1.12
277	SLU 83	99	172	5416	2.28	7.12	-1.24
277	SLU 84	88	171	5415	2.29	6.66	-1.12
277	SLE RA 1	60	123	3227	2.66	4.95	-0.78
277	SLE RA 2	47	123	3227	2.66	4.43	-0.64
277	SLE RA 3	60	123	3227	2.66	4.95	-0.78
277	SLE RA 4	52	123	3227	2.66	4.64	-0.69
277	SLE RA 5	47	123	3227	2.66	4.43	-0.64
277	SLE RA 6	60	123	3227	2.66	4.95	-0.78
277	SLE RA 7	52	123	3227	2.66	4.64	-0.69
277	SLE RA 8	60	123	3227	2.66	4.95	-0.78
277	SLE RA 9	52	123	3227	2.66	4.64	-0.69
277	SLE RA 10	56	128	3729	2.17	4.71	-0.73
277	SLE RA 11	69	128	3729	2.16	5.23	-0.87
277	SLE RA 12	61	128	3729	2.17	4.92	-0.79
277	SLE RA 13	56	128	3729	2.17	4.71	-0.73
277	SLE RA 14	69	128	3729	2.16	5.23	-0.87
277	SLE RA 15	61	128	3729	2.17	4.92	-0.79
277	SLE RA 16	69	128	3729	2.16	5.23	-0.87
277	SLE RA 17	61	128	3729	2.17	4.92	-0.79
277	SLE RA 18	73	130	3944	1.95	5.35	-0.91
277	SLE RA 19	65	130	3944	1.96	5.04	-0.83
277	SLE RA 20	73	130	3944	1.95	5.35	-0.91
277	SLE RA 21	65	130	3944	1.96	5.04	-0.83
277	SLE FR 1	60	123	3227	2.66	4.95	-0.78
277	SLE FR 2	57	123	3227	2.66	4.84	-0.75
277	SLE FR 3	60	123	3227	2.66	4.95	-0.78
277	SLE FR 4	61	125	3442	2.45	4.97	-0.79
277	SLE FR 5	64	125	3442	2.45	5.07	-0.82
277	SLE FR 6	66	126	3586	2.31	5.15	-0.85
277	SLE QP 1	60	123	3227	2.66	4.95	-0.78
277	SLE QP 2	64	125	3442	2.45	5.07	-0.82
277	SLD 1	407	204	3358	1.8	17.7	-4.95
277	SLD 2	353	205	3359	1.81	18.06	-3.76
277	SLD 3	426	77	3568	2.88	16.72	-5.27
277	SLD 4	372	77	3570	2.88	17.08	-4.08
277	SLD 5	158	342	3098	0.63	10.22	-2
277	SLD 6	103	343	3099	0.63	10.58	-0.8
277	SLD 7	220	-83	3798	4.2	6.95	-3.06
277	SLD 8	165	-82	3799	4.2	7.31	-1.85
277	SLD 9	-38	332	3085	0.69	2.83	0.22
277	SLD 10	-93	333	3086	0.7	3.18	1.42
277	SLD 11	25	-93	3785	4.26	-0.44	-0.84
277	SLD 12	-30	-92	3786	4.27	-0.09	0.36
277	SLD 13	-244	172	3315	2.01	-6.94	2.44
277	SLD 14	-298	173	3316	2.02	-6.59	3.63
277	SLD 15	-225	45	3525	3.08	-7.92	2.12
277	SLD 16	-280	46	3526	3.09	-7.57	3.32
277	SLV 1	844	305	3252	0.99	33.81	-10.21
277	SLV 2	721	307	3254	1	34.61	-7.5
277	SLV 3	887	15	3729	3.42	31.58	-10.93
277	SLV 4	764	17	3732	3.43	32.38	-8.23
277	SLV 5	276	617	2660	-1.69	16.79	-3.5
277	SLV 6	152	619	2663	-1.67	17.59	-0.77
277	SLV 7	419	-348	4252	6.42	9.36	-5.91
277	SLV 8	295	-346	4254	6.44	10.17	-3.18
277	SLV 9	-168	595	2630	-1.55	-0.03	1.54
277	SLV 10	-292	598	2633	-1.53	0.77	4.27
277	SLV 11	-25	-369	4222	6.57	-7.45	-0.87
277	SLV 12	-149	-367	4224	6.58	-6.65	1.86
277	SLV 13	-636	233	3153	1.46	-22.25	6.59
277	SLV 14	-759	235	3155	1.47	-21.45	9.3
277	SLV 15	-593	-57	3630	3.89	-24.47	5.87
277	SLV 16	-716	-55	3632	3.91	-23.67	8.57
277	CRTFP Ux+	0	0	0	0	0	0
277	CRTFP Ux-	0	0	0	0	0	0
277	CRTFP Uy+	0	0	0	0	0	0
277	CRTFP Uy-	0	0	0	0	0	0
279	SLU 1	22	-13	1945	-0.4	-2.84	-0.21
279	SLU 2	13	-13	1961	-0.4	-2.95	-0.18
279	SLU 3	22	-13	1945	-0.4	-2.84	-0.21
279	SLU 4	17	-13	1955	-0.4	-2.9	-0.19
279	SLU 5	13	-13	1961	-0.4	-2.95	-0.18
279	SLU 6	22	-13	1945	-0.4	-2.84	-0.21
279	SLU 7	17	-13	1955	-0.4	-2.9	-0.19
279	SLU 8	22	-13	1945	-0.4	-2.84	-0.21

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
279	SLU 9	17	-13	1955	-0.4	-2.9	-0.19
279	SLU 10	18	-12	2294	-0.38	-3.15	-0.2
279	SLU 11	27	-11	2279	-0.38	-3.04	-0.23
279	SLU 12	22	-12	2288	-0.38	-3.11	-0.22
279	SLU 13	18	-12	2294	-0.38	-3.15	-0.2
279	SLU 14	27	-11	2279	-0.38	-3.04	-0.23
279	SLU 15	22	-12	2288	-0.38	-3.11	-0.22
279	SLU 16	27	-11	2279	-0.38	-3.04	-0.23
279	SLU 17	22	-12	2288	-0.38	-3.11	-0.22
279	SLU 18	29	-11	2422	-0.37	-3.13	-0.24
279	SLU 19	24	-11	2431	-0.37	-3.19	-0.23
279	SLU 20	29	-11	2422	-0.37	-3.13	-0.24
279	SLU 21	24	-11	2431	-0.37	-3.19	-0.23
279	SLU 22	25	-13	2186	-0.41	-3.07	-0.23
279	SLU 23	16	-13	2201	-0.41	-3.19	-0.2
279	SLU 24	25	-13	2186	-0.41	-3.07	-0.23
279	SLU 25	20	-13	2195	-0.41	-3.14	-0.21
279	SLU 26	16	-13	2201	-0.41	-3.19	-0.2
279	SLU 27	25	-13	2186	-0.41	-3.07	-0.23
279	SLU 28	20	-13	2195	-0.41	-3.14	-0.21
279	SLU 29	25	-13	2186	-0.41	-3.07	-0.23
279	SLU 30	20	-13	2195	-0.41	-3.14	-0.21
279	SLU 31	21	-11	2534	-0.39	-3.39	-0.22
279	SLU 32	30	-11	2519	-0.39	-3.28	-0.25
279	SLU 33	24	-11	2528	-0.39	-3.34	-0.23
279	SLU 34	21	-11	2534	-0.39	-3.39	-0.22
279	SLU 35	30	-11	2519	-0.39	-3.28	-0.25
279	SLU 36	24	-11	2528	-0.39	-3.34	-0.23
279	SLU 37	30	-11	2519	-0.39	-3.28	-0.25
279	SLU 38	24	-11	2528	-0.39	-3.34	-0.23
279	SLU 39	32	-10	2662	-0.38	-3.36	-0.26
279	SLU 40	27	-10	2671	-0.38	-3.43	-0.25
279	SLU 41	32	-10	2662	-0.38	-3.36	-0.26
279	SLU 42	27	-10	2671	-0.38	-3.43	-0.25
279	SLU 43	28	-17	2447	-0.51	-3.61	-0.26
279	SLU 44	19	-17	2462	-0.51	-3.72	-0.23
279	SLU 45	28	-17	2447	-0.51	-3.61	-0.26
279	SLU 46	22	-17	2456	-0.51	-3.67	-0.25
279	SLU 47	19	-17	2462	-0.51	-3.72	-0.23
279	SLU 48	28	-17	2447	-0.51	-3.61	-0.26
279	SLU 49	22	-17	2456	-0.51	-3.67	-0.25
279	SLU 50	28	-17	2447	-0.51	-3.61	-0.26
279	SLU 51	22	-17	2456	-0.51	-3.67	-0.25
279	SLU 52	24	-16	2796	-0.49	-3.92	-0.26
279	SLU 53	33	-15	2780	-0.49	-3.81	-0.29
279	SLU 54	27	-16	2789	-0.49	-3.88	-0.27
279	SLU 55	24	-16	2796	-0.49	-3.92	-0.26
279	SLU 56	33	-15	2780	-0.49	-3.81	-0.29
279	SLU 57	27	-16	2789	-0.49	-3.88	-0.27
279	SLU 58	33	-15	2780	-0.49	-3.81	-0.29
279	SLU 59	27	-16	2789	-0.49	-3.88	-0.27
279	SLU 60	35	-15	2923	-0.49	-3.9	-0.3
279	SLU 61	29	-15	2932	-0.48	-3.96	-0.28
279	SLU 62	35	-15	2923	-0.49	-3.9	-0.3
279	SLU 63	29	-15	2932	-0.48	-3.96	-0.28
279	SLU 64	31	-17	2687	-0.52	-3.84	-0.28
279	SLU 65	22	-17	2702	-0.52	-3.96	-0.25
279	SLU 66	31	-17	2687	-0.52	-3.84	-0.28
279	SLU 67	25	-17	2696	-0.52	-3.91	-0.26
279	SLU 68	22	-17	2702	-0.52	-3.96	-0.25
279	SLU 69	31	-17	2687	-0.52	-3.84	-0.28
279	SLU 70	25	-17	2696	-0.52	-3.91	-0.26
279	SLU 71	31	-17	2687	-0.52	-3.84	-0.28
279	SLU 72	25	-17	2696	-0.52	-3.91	-0.26
279	SLU 73	26	-15	3036	-0.51	-4.16	-0.28
279	SLU 74	36	-15	3020	-0.51	-4.05	-0.31
279	SLU 75	30	-15	3029	-0.51	-4.11	-0.29
279	SLU 76	26	-15	3036	-0.51	-4.16	-0.28
279	SLU 77	36	-15	3020	-0.51	-4.05	-0.31
279	SLU 78	30	-15	3029	-0.51	-4.11	-0.29
279	SLU 79	36	-15	3020	-0.51	-4.05	-0.31
279	SLU 80	30	-15	3029	-0.51	-4.11	-0.29
279	SLU 81	38	-14	3163	-0.5	-4.13	-0.32
279	SLU 82	32	-15	3172	-0.5	-4.2	-0.3
279	SLU 83	38	-14	3163	-0.5	-4.13	-0.32
279	SLU 84	32	-15	3172	-0.5	-4.2	-0.3
279	SLE RA 1	23	-13	2014	-0.4	-2.9	-0.21
279	SLE RA 2	17	-13	2024	-0.4	-2.98	-0.19
279	SLE RA 3	23	-13	2014	-0.4	-2.9	-0.21
279	SLE RA 4	19	-13	2020	-0.4	-2.95	-0.2
279	SLE RA 5	17	-13	2024	-0.4	-2.98	-0.19
279	SLE RA 6	23	-13	2014	-0.4	-2.9	-0.21
279	SLE RA 7	19	-13	2020	-0.4	-2.95	-0.2
279	SLE RA 8	23	-13	2014	-0.4	-2.9	-0.21
279	SLE RA 9	19	-13	2020	-0.4	-2.95	-0.2
279	SLE RA 10	20	-12	2247	-0.39	-3.11	-0.21

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
279	SLE RA 11	26	-12	2236	-0.39	-3.04	-0.23
279	SLE RA 12	23	-12	2242	-0.39	-3.08	-0.22
279	SLE RA 13	20	-12	2247	-0.39	-3.11	-0.21
279	SLE RA 14	26	-12	2236	-0.39	-3.04	-0.23
279	SLE RA 15	23	-12	2242	-0.39	-3.08	-0.22
279	SLE RA 16	26	-12	2236	-0.39	-3.04	-0.23
279	SLE RA 17	23	-12	2242	-0.39	-3.08	-0.22
279	SLE RA 18	28	-11	2332	-0.38	-3.1	-0.24
279	SLE RA 19	24	-11	2338	-0.38	-3.14	-0.23
279	SLE RA 20	28	-11	2332	-0.38	-3.1	-0.24
279	SLE RA 21	24	-11	2338	-0.38	-3.14	-0.23
279	SLE FR 1	23	-13	2014	-0.4	-2.9	-0.21
279	SLE FR 2	22	-13	2016	-0.4	-2.92	-0.21
279	SLE FR 3	23	-13	2014	-0.4	-2.9	-0.21
279	SLE FR 4	23	-12	2111	-0.4	-2.98	-0.22
279	SLE FR 5	25	-12	2109	-0.4	-2.96	-0.22
279	SLE FR 6	25	-12	2173	-0.39	-3	-0.22
279	SLE QP 1	23	-13	2014	-0.4	-2.9	-0.21
279	SLE QP 2	25	-12	2109	-0.4	-2.96	-0.22
279	SLD 1	200	41	1789	-0.55	-15.35	-0.71
279	SLD 2	175	73	1783	-0.59	-15.34	-0.58
279	SLD 3	191	-49	1942	-0.03	-17.2	-0.76
279	SLD 4	166	-17	1936	-0.06	-17.18	-0.63
279	SLD 5	99	128	1782	-1.23	-3.88	-0.34
279	SLD 6	74	161	1776	-1.26	-3.87	-0.21
279	SLD 7	71	-171	2294	0.52	-10.04	-0.5
279	SLD 8	45	-138	2288	0.49	-10.03	-0.37
279	SLD 9	4	114	1930	-1.28	4.1	-0.07
279	SLD 10	-21	146	1924	-1.31	4.12	0.06
279	SLD 11	-24	-186	2442	0.47	-2.06	-0.23
279	SLD 12	-50	-153	2436	0.44	-2.04	-0.1
279	SLD 13	-117	-8	2282	-0.73	11.26	0.19
279	SLD 14	-142	24	2276	-0.76	11.27	0.32
279	SLD 15	-125	-98	2436	-0.2	9.41	0.14
279	SLD 16	-151	-66	2430	-0.24	9.43	0.27
279	SLV 1	423	110	1381	-0.75	-31.84	-1.33
279	SLV 2	366	182	1367	-0.83	-31.81	-1.05
279	SLV 3	403	-94	1730	0.44	-36.1	-1.44
279	SLV 4	346	-21	1716	0.36	-36.07	-1.16
279	SLV 5	194	308	1366	-2.28	-5.17	-0.49
279	SLV 6	136	381	1353	-2.36	-5.14	-0.2
279	SLV 7	129	-372	2530	1.69	-19.38	-0.85
279	SLV 8	71	-298	2516	1.61	-19.35	-0.57
279	SLV 9	-22	274	1703	-2.4	13.42	0.13
279	SLV 10	-80	347	1689	-2.48	13.46	0.41
279	SLV 11	-87	-406	2866	1.57	-0.78	-0.24
279	SLV 12	-145	-332	2852	1.49	-0.75	0.05
279	SLV 13	-297	-3	2502	-1.15	30.15	0.72
279	SLV 14	-354	69	2489	-1.23	30.18	1
279	SLV 15	-316	-207	2851	0.04	25.89	0.61
279	SLV 16	-374	-134	2838	-0.04	25.92	0.89
279	CRTFP Ux+	0	0	0	0	0	0
279	CRTFP Ux-	0	0	0	0	0	0
279	CRTFP Uy+	0	0	0	0	0	0
279	CRTFP Uy-	0	0	0	0	0	0
280	SLU 1	28	-44	1973	3.96	-479.28	-15.69
280	SLU 2	17	-44	1957	3.95	-475.01	-15.52
280	SLU 3	28	-44	1973	3.96	-479.28	-15.69
280	SLU 4	21	-44	1963	3.95	-476.72	-15.59
280	SLU 5	17	-44	1957	3.95	-475.01	-15.52
280	SLU 6	28	-44	1973	3.96	-479.28	-15.69
280	SLU 7	21	-44	1963	3.95	-476.72	-15.59
280	SLU 8	28	-44	1973	3.96	-479.28	-15.69
280	SLU 9	21	-44	1963	3.95	-476.72	-15.59
280	SLU 10	24	-50	2305	4.9	-553.56	-17.68
280	SLU 11	36	-50	2322	4.91	-557.83	-17.85
280	SLU 12	29	-50	2312	4.9	-555.27	-17.75
280	SLU 13	24	-50	2305	4.9	-553.56	-17.68
280	SLU 14	36	-50	2322	4.91	-557.83	-17.85
280	SLU 15	29	-50	2312	4.9	-555.27	-17.75
280	SLU 16	36	-50	2322	4.91	-557.83	-17.85
280	SLU 17	29	-50	2312	4.9	-555.27	-17.75
280	SLU 18	39	-53	2471	5.31	-591.49	-18.78
280	SLU 19	32	-53	2461	5.31	-588.93	-18.68
280	SLU 20	39	-53	2471	5.31	-591.49	-18.78
280	SLU 21	32	-53	2461	5.31	-588.93	-18.68
280	SLU 22	32	-48	2220	4.6	-534.64	-17.03
280	SLU 23	21	-48	2204	4.59	-530.38	-16.86
280	SLU 24	32	-48	2220	4.6	-534.64	-17.03
280	SLU 25	26	-48	2210	4.6	-532.09	-16.93
280	SLU 26	21	-48	2204	4.59	-530.38	-16.86
280	SLU 27	32	-48	2220	4.6	-534.64	-17.03
280	SLU 28	26	-48	2210	4.6	-532.09	-16.93
280	SLU 29	32	-48	2220	4.6	-534.64	-17.03
280	SLU 30	26	-48	2210	4.6	-532.09	-16.93
280	SLU 31	28	-54	2552	5.54	-608.93	-19.03

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
280	SLU 32	40	-54	2569	5.55	-613.19	-19.19
280	SLU 33	33	-54	2559	5.54	-610.63	-19.09
280	SLU 34	28	-54	2552	5.54	-608.93	-19.03
280	SLU 35	40	-54	2569	5.55	-613.19	-19.19
280	SLU 36	33	-54	2559	5.54	-610.63	-19.09
280	SLU 37	40	-54	2569	5.55	-613.19	-19.19
280	SLU 38	33	-54	2559	5.54	-610.63	-19.09
280	SLU 39	43	-57	2718	5.96	-646.86	-20.12
280	SLU 40	36	-56	2708	5.95	-644.3	-20.02
280	SLU 41	43	-57	2718	5.96	-646.86	-20.12
280	SLU 42	36	-56	2708	5.95	-644.3	-20.02
280	SLU 43	35	-56	2480	4.92	-604.08	-19.93
280	SLU 44	24	-56	2464	4.91	-599.81	-19.76
280	SLU 45	35	-56	2480	4.92	-604.08	-19.93
280	SLU 46	29	-56	2470	4.92	-601.52	-19.83
280	SLU 47	24	-56	2464	4.91	-599.81	-19.76
280	SLU 48	35	-56	2480	4.92	-604.08	-19.93
280	SLU 49	29	-56	2470	4.92	-601.52	-19.83
280	SLU 50	35	-56	2480	4.92	-604.08	-19.93
280	SLU 51	29	-56	2470	4.92	-601.52	-19.83
280	SLU 52	31	-62	2812	5.86	-678.36	-21.93
280	SLU 53	43	-62	2829	5.87	-682.63	-22.09
280	SLU 54	36	-62	2819	5.87	-680.07	-21.99
280	SLU 55	31	-62	2812	5.86	-678.36	-21.93
280	SLU 56	43	-62	2829	5.87	-682.63	-22.09
280	SLU 57	36	-62	2819	5.87	-680.07	-21.99
280	SLU 58	43	-62	2829	5.87	-682.63	-22.09
280	SLU 59	36	-62	2819	5.87	-680.07	-21.99
280	SLU 60	46	-65	2978	6.28	-716.29	-23.02
280	SLU 61	39	-65	2968	6.27	-713.73	-22.92
280	SLU 62	46	-65	2978	6.28	-716.29	-23.02
280	SLU 63	39	-65	2968	6.27	-713.73	-22.92
280	SLU 64	39	-60	2727	5.57	-659.45	-21.27
280	SLU 65	28	-60	2711	5.56	-655.18	-21.11
280	SLU 66	39	-60	2727	5.57	-659.45	-21.27
280	SLU 67	33	-60	2717	5.56	-656.89	-21.17
280	SLU 68	28	-60	2711	5.56	-655.18	-21.11
280	SLU 69	39	-60	2727	5.57	-659.45	-21.27
280	SLU 70	33	-60	2717	5.56	-656.89	-21.17
280	SLU 71	39	-60	2727	5.57	-659.45	-21.27
280	SLU 72	33	-60	2717	5.56	-656.89	-21.17
280	SLU 73	35	-66	3059	6.51	-733.73	-23.27
280	SLU 74	47	-66	3076	6.52	-737.99	-23.44
280	SLU 75	40	-66	3066	6.51	-735.43	-23.34
280	SLU 76	35	-66	3059	6.51	-733.73	-23.27
280	SLU 77	47	-66	3076	6.52	-737.99	-23.44
280	SLU 78	40	-66	3066	6.51	-735.43	-23.34
280	SLU 79	47	-66	3076	6.52	-737.99	-23.44
280	SLU 80	40	-66	3066	6.51	-735.43	-23.34
280	SLU 81	50	-69	3225	6.92	-771.66	-24.37
280	SLU 82	43	-68	3215	6.92	-769.1	-24.27
280	SLU 83	50	-69	3225	6.92	-771.66	-24.37
280	SLU 84	43	-68	3215	6.92	-769.1	-24.27
280	SLE RA 1	29	-45	2043	4.14	-495.1	-16.07
280	SLE RA 2	22	-45	2033	4.13	-492.25	-15.96
280	SLE RA 3	29	-45	2043	4.14	-495.1	-16.07
280	SLE RA 4	25	-45	2037	4.14	-493.39	-16
280	SLE RA 5	22	-45	2033	4.13	-492.25	-15.96
280	SLE RA 6	29	-45	2043	4.14	-495.1	-16.07
280	SLE RA 7	25	-45	2037	4.14	-493.39	-16
280	SLE RA 8	29	-45	2043	4.14	-495.1	-16.07
280	SLE RA 9	25	-45	2037	4.14	-493.39	-16
280	SLE RA 10	27	-49	2265	4.77	-544.62	-17.4
280	SLE RA 11	34	-49	2276	4.78	-547.46	-17.51
280	SLE RA 12	30	-49	2269	4.77	-545.76	-17.45
280	SLE RA 13	27	-49	2265	4.77	-544.62	-17.4
280	SLE RA 14	34	-49	2276	4.78	-547.46	-17.51
280	SLE RA 15	30	-49	2269	4.77	-545.76	-17.45
280	SLE RA 16	34	-49	2276	4.78	-547.46	-17.51
280	SLE RA 17	30	-49	2269	4.77	-545.76	-17.45
280	SLE RA 18	36	-51	2376	5.05	-569.9	-18.13
280	SLE RA 19	32	-51	2369	5.04	-568.2	-18.06
280	SLE RA 20	36	-51	2376	5.05	-569.9	-18.13
280	SLE RA 21	32	-51	2369	5.04	-568.2	-18.06
280	SLE FR 1	29	-45	2043	4.14	-495.1	-16.07
280	SLE FR 2	28	-45	2041	4.14	-494.53	-16.05
280	SLE FR 3	29	-45	2043	4.14	-495.1	-16.07
280	SLE FR 4	30	-47	2141	4.41	-516.97	-16.67
280	SLE FR 5	31	-47	2143	4.41	-517.54	-16.69
280	SLE FR 6	33	-48	2209	4.59	-532.5	-17.1
280	SLE QP 1	29	-45	2043	4.14	-495.1	-16.07
280	SLE QP 2	31	-47	2143	4.41	-517.54	-16.69
280	SLD 1	256	-13	2297	4.62	-543	-4.7
280	SLD 2	220	-46	2306	4.66	-545.12	-16.21
280	SLD 3	244	-101	2453	5.47	-581.14	-35.63
280	SLD 4	208	-135	2462	5.52	-583.27	-47.15

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
280	SLD 5	129	109	1950	3.16	-466.58	37.9
280	SLD 6	93	75	1959	3.2	-468.72	26.3
280	SLD 7	90	-186	2469	6.02	-593.72	-65.21
280	SLD 8	54	-219	2478	6.06	-595.86	-76.81
280	SLD 9	9	125	1808	2.77	-439.22	43.44
280	SLD 10	-27	91	1817	2.81	-441.36	31.84
280	SLD 11	-30	-170	2327	5.62	-566.36	-59.67
280	SLD 12	-66	-203	2336	5.67	-568.5	-71.27
280	SLD 13	-145	40	1824	3.31	-451.81	13.77
280	SLD 14	-181	7	1833	3.35	-453.94	2.25
280	SLD 15	-157	-48	1980	4.17	-489.95	-17.16
280	SLD 16	-193	-81	1989	4.21	-492.08	-28.68
280	SLV 1	541	30	2494	4.87	-575.55	10.26
280	SLV 2	460	-46	2514	4.97	-580.36	-15.81
280	SLV 3	514	-171	2848	6.82	-662.25	-60.04
280	SLV 4	433	-247	2868	6.92	-667.07	-86.11
280	SLV 5	254	307	1704	1.56	-401.74	107.23
280	SLV 6	172	231	1724	1.66	-406.58	80.98
280	SLV 7	164	-362	2885	8.05	-690.76	-127.1
280	SLV 8	82	-438	2905	8.16	-695.6	-153.35
280	SLV 9	-19	344	1381	0.67	-339.48	119.98
280	SLV 10	-101	268	1401	0.77	-344.32	93.72
280	SLV 11	-109	-326	2562	7.16	-628.5	-114.36
280	SLV 12	-191	-402	2582	7.27	-633.34	-140.61
280	SLV 13	-370	152	1418	1.91	-368.01	52.74
280	SLV 14	-451	77	1438	2.01	-372.83	26.66
280	SLV 15	-397	-49	1772	3.85	-454.72	-17.56
280	SLV 16	-478	-124	1792	3.95	-459.53	-43.64
280	CRTFP Ux+	0	0	0	0	0	0
280	CRTFP Ux-	0	0	0	0	0	0
280	CRTFP Uy+	0	0	0	0	0	0
280	CRTFP Uy-	0	0	0	0	0	0
283	SLU 1	61	122	3181	3.71	4.32	-0.53
283	SLU 2	41	122	3181	3.71	3.58	-0.34
283	SLU 3	61	122	3181	3.71	4.32	-0.53
283	SLU 4	49	122	3181	3.71	3.88	-0.42
283	SLU 5	41	122	3181	3.71	3.58	-0.34
283	SLU 6	61	122	3181	3.71	4.32	-0.53
283	SLU 7	49	122	3181	3.71	3.88	-0.42
283	SLU 8	61	122	3181	3.71	4.32	-0.53
283	SLU 9	49	122	3181	3.71	3.88	-0.42
283	SLU 10	55	128	3912	3.13	4.01	-0.44
283	SLU 11	75	129	3913	3.12	4.75	-0.63
283	SLU 12	63	128	3913	3.12	4.31	-0.51
283	SLU 13	55	128	3912	3.13	4.01	-0.44
283	SLU 14	75	129	3913	3.12	4.75	-0.63
283	SLU 15	63	128	3913	3.12	4.31	-0.51
283	SLU 16	75	129	3913	3.12	4.75	-0.63
283	SLU 17	63	128	3913	3.12	4.31	-0.51
283	SLU 18	81	131	4226	2.87	4.94	-0.67
283	SLU 19	69	131	4226	2.87	4.49	-0.55
283	SLU 20	81	131	4226	2.87	4.94	-0.67
283	SLU 21	69	131	4226	2.87	4.49	-0.55
283	SLU 22	69	126	3679	3.41	4.6	-0.59
283	SLU 23	49	126	3678	3.42	3.86	-0.41
283	SLU 24	69	126	3679	3.41	4.6	-0.59
283	SLU 25	57	126	3678	3.42	4.15	-0.48
283	SLU 26	49	126	3678	3.42	3.86	-0.41
283	SLU 27	69	126	3679	3.41	4.6	-0.59
283	SLU 28	57	126	3678	3.42	4.15	-0.48
283	SLU 29	69	126	3679	3.41	4.6	-0.59
283	SLU 30	57	126	3678	3.42	4.15	-0.48
283	SLU 31	63	133	4410	2.83	4.29	-0.5
283	SLU 32	83	133	4410	2.82	5.03	-0.69
283	SLU 33	71	133	4410	2.83	4.58	-0.58
283	SLU 34	63	133	4410	2.83	4.29	-0.5
283	SLU 35	83	133	4410	2.82	5.03	-0.69
283	SLU 36	71	133	4410	2.83	4.58	-0.58
283	SLU 37	83	133	4410	2.82	5.03	-0.69
283	SLU 38	71	133	4410	2.83	4.58	-0.58
283	SLU 39	89	136	4723	2.57	5.21	-0.73
283	SLU 40	77	136	4723	2.58	4.77	-0.62
283	SLU 41	89	136	4723	2.57	5.21	-0.73
283	SLU 42	77	136	4723	2.58	4.77	-0.62
283	SLU 43	77	157	3965	4.92	5.53	-0.67
283	SLU 44	56	157	3965	4.93	4.78	-0.48
283	SLU 45	77	157	3965	4.92	5.53	-0.67
283	SLU 46	64	157	3965	4.93	5.08	-0.56
283	SLU 47	56	157	3965	4.93	4.78	-0.48
283	SLU 48	77	157	3965	4.92	5.53	-0.67
283	SLU 49	64	157	3965	4.93	5.08	-0.56
283	SLU 50	77	157	3965	4.92	5.53	-0.67
283	SLU 51	64	157	3965	4.93	5.08	-0.56
283	SLU 52	70	163	4696	4.34	5.21	-0.58
283	SLU 53	91	164	4696	4.33	5.96	-0.76
283	SLU 54	78	163	4696	4.34	5.51	-0.65

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
283	SLU 55	70	163	4696	4.34	5.21	-0.58
283	SLU 56	91	164	4696	4.33	5.96	-0.76
283	SLU 57	78	163	4696	4.34	5.51	-0.65
283	SLU 58	91	164	4696	4.33	5.96	-0.76
283	SLU 59	78	163	4696	4.34	5.51	-0.65
283	SLU 60	97	166	5010	4.08	6.14	-0.8
283	SLU 61	84	166	5010	4.08	5.69	-0.69
283	SLU 62	97	166	5010	4.08	6.14	-0.8
283	SLU 63	84	166	5010	4.08	5.69	-0.69
283	SLU 64	85	161	4462	4.63	5.8	-0.73
283	SLU 65	64	161	4462	4.63	5.06	-0.55
283	SLU 66	85	161	4462	4.63	5.8	-0.73
283	SLU 67	73	161	4462	4.63	5.36	-0.62
283	SLU 68	64	161	4462	4.63	5.06	-0.55
283	SLU 69	85	161	4462	4.63	5.8	-0.73
283	SLU 70	73	161	4462	4.63	5.36	-0.62
283	SLU 71	85	161	4462	4.63	5.8	-0.73
283	SLU 72	73	161	4462	4.63	5.36	-0.62
283	SLU 73	79	168	5194	4.04	5.49	-0.64
283	SLU 74	99	168	5194	4.04	6.23	-0.83
283	SLU 75	87	168	5194	4.04	5.79	-0.71
283	SLU 76	79	168	5194	4.04	5.49	-0.64
283	SLU 77	99	168	5194	4.04	6.23	-0.83
283	SLU 78	87	168	5194	4.04	5.79	-0.71
283	SLU 79	99	168	5194	4.04	6.23	-0.83
283	SLU 80	87	168	5194	4.04	5.79	-0.71
283	SLU 81	105	171	5507	3.79	6.42	-0.87
283	SLU 82	93	171	5507	3.79	5.97	-0.75
283	SLU 83	105	171	5507	3.79	6.42	-0.87
283	SLU 84	93	171	5507	3.79	5.97	-0.75
283	SLE RA 1	64	123	3323	3.63	4.4	-0.55
283	SLE RA 2	50	123	3323	3.63	3.91	-0.42
283	SLE RA 3	64	123	3323	3.63	4.4	-0.55
283	SLE RA 4	55	123	3323	3.63	4.1	-0.47
283	SLE RA 5	50	123	3323	3.63	3.91	-0.42
283	SLE RA 6	64	123	3323	3.63	4.4	-0.55
283	SLE RA 7	55	123	3323	3.63	4.1	-0.47
283	SLE RA 8	64	123	3323	3.63	4.4	-0.55
283	SLE RA 9	55	123	3323	3.63	4.1	-0.47
283	SLE RA 10	59	127	3811	3.24	4.19	-0.49
283	SLE RA 11	73	128	3811	3.23	4.69	-0.61
283	SLE RA 12	65	128	3811	3.23	4.39	-0.54
283	SLE RA 13	59	127	3811	3.24	4.19	-0.49
283	SLE RA 14	73	128	3811	3.23	4.69	-0.61
283	SLE RA 15	65	128	3811	3.23	4.39	-0.54
283	SLE RA 16	73	128	3811	3.23	4.69	-0.61
283	SLE RA 17	65	128	3811	3.23	4.39	-0.54
283	SLE RA 18	77	130	4020	3.06	4.81	-0.64
283	SLE RA 19	69	129	4020	3.07	4.51	-0.56
283	SLE RA 20	77	130	4020	3.06	4.81	-0.64
283	SLE RA 21	69	129	4020	3.07	4.51	-0.56
283	SLE FR 1	64	123	3323	3.63	4.4	-0.55
283	SLE FR 2	61	123	3323	3.63	4.3	-0.52
283	SLE FR 3	64	123	3323	3.63	4.4	-0.55
283	SLE FR 4	65	125	3532	3.46	4.43	-0.55
283	SLE FR 5	68	125	3532	3.46	4.52	-0.58
283	SLE FR 6	70	126	3672	3.34	4.61	-0.59
283	SLE QP 1	64	123	3323	3.63	4.4	-0.55
283	SLE QP 2	68	125	3532	3.46	4.52	-0.58
283	SLD 1	432	204	3434	2.97	16.68	-4.36
283	SLD 2	372	205	3435	2.97	17.03	-3.2
283	SLD 3	453	77	3679	4.17	15.75	-4.66
283	SLD 4	392	78	3680	4.18	16.11	-3.5
283	SLD 5	167	341	3130	1.48	9.45	-1.66
283	SLD 6	106	342	3132	1.49	9.8	-0.49
283	SLD 7	235	-83	3948	5.49	6.37	-2.67
283	SLD 8	174	-82	3949	5.5	6.72	-1.51
283	SLD 9	-39	332	3116	1.41	2.33	0.35
283	SLD 10	-100	333	3117	1.42	2.68	1.52
283	SLD 11	29	-92	3933	5.43	-0.75	-0.66
283	SLD 12	-32	-91	3934	5.43	-0.4	0.5
283	SLD 13	-257	172	3384	2.74	-7.06	2.35
283	SLD 14	-317	173	3386	2.74	-6.7	3.51
283	SLD 15	-236	45	3629	3.94	-7.98	2.04
283	SLD 16	-297	46	3631	3.95	-7.63	3.2
283	SLV 1	896	304	3309	2.34	32.16	-9.16
283	SLV 2	759	306	3312	2.36	32.96	-6.53
283	SLV 3	942	15	3866	5.08	30.06	-9.85
283	SLV 4	805	18	3869	5.09	30.86	-7.23
283	SLV 5	294	616	2619	-1.03	15.72	-3.02
283	SLV 6	156	618	2622	-1.02	16.52	-0.38
283	SLV 7	449	-347	4476	8.09	8.72	-5.34
283	SLV 8	311	-344	4479	8.1	9.53	-2.7
283	SLV 9	-176	594	2585	-1.19	-0.48	1.55
283	SLV 10	-314	597	2588	-1.17	0.33	4.19
283	SLV 11	-21	-368	4442	7.93	-7.47	-0.77

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
283	SLV 12	-159	-366	4445	7.94	-6.67	1.87
283	SLV 13	-670	232	3196	1.82	-21.81	6.08
283	SLV 14	-807	235	3199	1.83	-21.01	8.7
283	SLV 15	-624	-56	3753	4.55	-23.91	5.38
283	SLV 16	-761	-54	3756	4.57	-23.11	8
283	CRTFP Ux+	0	0	0	0	0	0
283	CRTFP Ux-	0	0	0	0	0	0
283	CRTFP Uy+	0	0	0	0	0	0
283	CRTFP Uy-	0	0	0	0	0	0
285	SLU 1	29	-13	1934	-0.31	-7.5	-0.21
285	SLU 2	19	-14	1950	-0.31	-7.68	-0.19
285	SLU 3	29	-13	1934	-0.31	-7.5	-0.21
285	SLU 4	23	-13	1943	-0.31	-7.61	-0.2
285	SLU 5	19	-14	1950	-0.31	-7.68	-0.19
285	SLU 6	29	-13	1934	-0.31	-7.5	-0.21
285	SLU 7	23	-13	1943	-0.31	-7.61	-0.2
285	SLU 8	29	-13	1934	-0.31	-7.5	-0.21
285	SLU 9	23	-13	1943	-0.31	-7.61	-0.2
285	SLU 10	24	-12	2284	-0.27	-8.77	-0.21
285	SLU 11	34	-12	2268	-0.27	-8.59	-0.24
285	SLU 12	28	-12	2278	-0.27	-8.7	-0.22
285	SLU 13	24	-12	2284	-0.27	-8.77	-0.21
285	SLU 14	34	-12	2268	-0.27	-8.59	-0.24
285	SLU 15	28	-12	2278	-0.27	-8.7	-0.22
285	SLU 16	34	-12	2268	-0.27	-8.59	-0.24
285	SLU 17	28	-12	2278	-0.27	-8.7	-0.22
285	SLU 18	37	-11	2411	-0.26	-9.06	-0.24
285	SLU 19	31	-11	2421	-0.25	-9.17	-0.23
285	SLU 20	37	-11	2411	-0.26	-9.06	-0.24
285	SLU 21	31	-11	2421	-0.25	-9.17	-0.23
285	SLU 22	32	-13	2174	-0.31	-8.38	-0.23
285	SLU 23	22	-13	2190	-0.31	-8.55	-0.21
285	SLU 24	32	-13	2174	-0.31	-8.38	-0.23
285	SLU 25	26	-13	2183	-0.31	-8.48	-0.21
285	SLU 26	22	-13	2190	-0.31	-8.55	-0.21
285	SLU 27	32	-13	2174	-0.31	-8.38	-0.23
285	SLU 28	26	-13	2183	-0.31	-8.48	-0.21
285	SLU 29	32	-13	2174	-0.31	-8.38	-0.23
285	SLU 30	26	-13	2183	-0.31	-8.48	-0.21
285	SLU 31	28	-12	2524	-0.27	-9.65	-0.23
285	SLU 32	38	-11	2508	-0.27	-9.47	-0.25
285	SLU 33	32	-11	2517	-0.27	-9.57	-0.24
285	SLU 34	28	-12	2524	-0.27	-9.65	-0.23
285	SLU 35	38	-11	2508	-0.27	-9.47	-0.25
285	SLU 36	32	-11	2517	-0.27	-9.57	-0.24
285	SLU 37	38	-11	2508	-0.27	-9.47	-0.25
285	SLU 38	32	-11	2517	-0.27	-9.57	-0.24
285	SLU 39	40	-11	2651	-0.26	-9.93	-0.26
285	SLU 40	34	-11	2661	-0.25	-10.04	-0.25
285	SLU 41	40	-11	2651	-0.26	-9.93	-0.26
285	SLU 42	34	-11	2661	-0.25	-10.04	-0.25
285	SLU 43	36	-17	2432	-0.4	-9.45	-0.27
285	SLU 44	26	-18	2448	-0.4	-9.63	-0.25
285	SLU 45	36	-17	2432	-0.4	-9.45	-0.27
285	SLU 46	30	-18	2441	-0.4	-9.56	-0.26
285	SLU 47	26	-18	2448	-0.4	-9.63	-0.25
285	SLU 48	36	-17	2432	-0.4	-9.45	-0.27
285	SLU 49	30	-18	2441	-0.4	-9.56	-0.26
285	SLU 50	36	-17	2432	-0.4	-9.45	-0.27
285	SLU 51	30	-18	2441	-0.4	-9.56	-0.26
285	SLU 52	32	-16	2782	-0.36	-10.72	-0.27
285	SLU 53	42	-16	2766	-0.36	-10.54	-0.29
285	SLU 54	36	-16	2776	-0.36	-10.65	-0.28
285	SLU 55	32	-16	2782	-0.36	-10.72	-0.27
285	SLU 56	42	-16	2766	-0.36	-10.54	-0.29
285	SLU 57	36	-16	2776	-0.36	-10.65	-0.28
285	SLU 58	42	-16	2766	-0.36	-10.54	-0.29
285	SLU 59	36	-16	2776	-0.36	-10.65	-0.28
285	SLU 60	44	-15	2909	-0.35	-11.01	-0.3
285	SLU 61	38	-15	2919	-0.35	-11.12	-0.29
285	SLU 62	44	-15	2909	-0.35	-11.01	-0.3
285	SLU 63	38	-15	2919	-0.35	-11.12	-0.29
285	SLU 64	40	-17	2672	-0.4	-10.33	-0.29
285	SLU 65	30	-17	2688	-0.4	-10.51	-0.26
285	SLU 66	40	-17	2672	-0.4	-10.33	-0.29
285	SLU 67	34	-17	2681	-0.4	-10.43	-0.27
285	SLU 68	30	-17	2688	-0.4	-10.51	-0.26
285	SLU 69	40	-17	2672	-0.4	-10.33	-0.29
285	SLU 70	34	-17	2681	-0.4	-10.43	-0.27
285	SLU 71	40	-17	2672	-0.4	-10.33	-0.29
285	SLU 72	34	-17	2681	-0.4	-10.43	-0.27
285	SLU 73	35	-16	3022	-0.36	-11.6	-0.29
285	SLU 74	45	-15	3006	-0.36	-11.42	-0.31
285	SLU 75	39	-16	3015	-0.36	-11.52	-0.3
285	SLU 76	35	-16	3022	-0.36	-11.6	-0.29
285	SLU 77	45	-15	3006	-0.36	-11.42	-0.31

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
285	SLU 78	39	-16	3015	-0.36	-11.52	-0.3
285	SLU 79	45	-15	3006	-0.36	-11.42	-0.31
285	SLU 80	39	-16	3015	-0.36	-11.52	-0.3
285	SLU 81	48	-15	3149	-0.35	-11.88	-0.32
285	SLU 82	42	-15	3159	-0.35	-11.99	-0.31
285	SLU 83	48	-15	3149	-0.35	-11.88	-0.32
285	SLU 84	42	-15	3159	-0.35	-11.99	-0.31
285	SLE RA 1	30	-13	2003	-0.31	-7.75	-0.22
285	SLE RA 2	23	-13	2013	-0.31	-7.87	-0.2
285	SLE RA 3	30	-13	2003	-0.31	-7.75	-0.22
285	SLE RA 4	26	-13	2009	-0.31	-7.82	-0.21
285	SLE RA 5	23	-13	2013	-0.31	-7.87	-0.2
285	SLE RA 6	30	-13	2003	-0.31	-7.75	-0.22
285	SLE RA 7	26	-13	2009	-0.31	-7.82	-0.21
285	SLE RA 8	30	-13	2003	-0.31	-7.75	-0.22
285	SLE RA 9	26	-13	2009	-0.31	-7.82	-0.21
285	SLE RA 10	27	-12	2236	-0.28	-8.6	-0.22
285	SLE RA 11	34	-12	2225	-0.28	-8.48	-0.23
285	SLE RA 12	29	-12	2232	-0.28	-8.55	-0.22
285	SLE RA 13	27	-12	2236	-0.28	-8.6	-0.22
285	SLE RA 14	34	-12	2225	-0.28	-8.48	-0.23
285	SLE RA 15	29	-12	2232	-0.28	-8.55	-0.22
285	SLE RA 16	34	-12	2225	-0.28	-8.48	-0.23
285	SLE RA 17	29	-12	2232	-0.28	-8.55	-0.22
285	SLE RA 18	35	-12	2321	-0.27	-8.79	-0.24
285	SLE RA 19	31	-12	2327	-0.27	-8.86	-0.23
285	SLE RA 20	35	-12	2321	-0.27	-8.79	-0.24
285	SLE RA 21	31	-12	2327	-0.27	-8.86	-0.23
285	SLE FR 1	30	-13	2003	-0.31	-7.75	-0.22
285	SLE FR 2	29	-13	2005	-0.31	-7.78	-0.21
285	SLE FR 3	30	-13	2003	-0.31	-7.75	-0.22
285	SLE FR 4	30	-13	2100	-0.3	-8.09	-0.22
285	SLE FR 5	31	-13	2098	-0.3	-8.06	-0.22
285	SLE FR 6	32	-12	2162	-0.29	-8.27	-0.23
285	SLE QP 1	30	-13	2003	-0.31	-7.75	-0.22
285	SLE QP 2	31	-13	2098	-0.3	-8.06	-0.22
285	SLD 1	222	41	1769	-0.46	2.51	-0.62
285	SLD 2	193	73	1762	-0.5	2.58	-0.5
285	SLD 3	212	-49	1940	0.09	1.17	-0.69
285	SLD 4	183	-17	1932	0.05	1.23	-0.57
285	SLD 5	114	128	1744	-1.16	-2.87	-0.28
285	SLD 6	84	160	1737	-1.2	-2.81	-0.15
285	SLD 7	81	-171	2311	0.66	-7.36	-0.52
285	SLD 8	52	-139	2304	0.62	-7.3	-0.39
285	SLD 9	11	113	1892	-1.22	-8.83	-0.06
285	SLD 10	-18	145	1885	-1.26	-8.77	0.07
285	SLD 11	-21	-186	2459	0.6	-13.32	-0.3
285	SLD 12	-51	-153	2452	0.56	-13.26	-0.17
285	SLD 13	-120	-9	2264	-0.64	-17.36	0.12
285	SLD 14	-149	24	2257	-0.68	-17.29	0.25
285	SLD 15	-130	-98	2434	-0.1	-18.7	0.05
285	SLD 16	-159	-66	2427	-0.14	-18.64	0.17
285	SLV 1	464	109	1351	-0.66	16.39	-1.13
285	SLV 2	398	182	1335	-0.75	16.53	-0.84
285	SLV 3	442	-94	1738	0.58	13.27	-1.3
285	SLV 4	376	-22	1722	0.49	13.41	-1.01
285	SLV 5	218	307	1294	-2.26	3.96	-0.35
285	SLV 6	152	380	1277	-2.35	4.1	-0.06
285	SLV 7	144	-372	2582	1.88	-6.45	-0.9
285	SLV 8	78	-298	2566	1.79	-6.31	-0.61
285	SLV 9	-15	273	1631	-2.39	-9.82	0.16
285	SLV 10	-81	346	1614	-2.47	-9.68	0.45
285	SLV 11	-89	-406	2919	1.75	-20.23	-0.39
285	SLV 12	-155	-332	2903	1.66	-20.09	-0.1
285	SLV 13	-313	-4	2475	-1.09	-29.54	0.56
285	SLV 14	-379	69	2458	-1.17	-29.4	0.85
285	SLV 15	-335	-207	2861	0.15	-32.66	0.4
285	SLV 16	-401	-135	2845	0.07	-32.52	0.68
285	CRTFP Ux+	0	0	0	0	0	0
285	CRTFP Ux-	0	0	0	0	0	0
285	CRTFP Uy+	0	0	0	0	0	0
285	CRTFP Uy-	0	0	0	0	0	0
286	SLU 1	27	-38	1806	-47.24	-498.95	-12.63
286	SLU 2	16	-38	1792	-46.85	-495.07	-12.81
286	SLU 3	27	-38	1806	-47.24	-498.95	-12.63
286	SLU 4	20	-38	1797	-47.01	-496.62	-12.74
286	SLU 5	16	-38	1792	-46.85	-495.07	-12.81
286	SLU 6	27	-38	1806	-47.24	-498.95	-12.63
286	SLU 7	20	-38	1797	-47.01	-496.62	-12.74
286	SLU 8	27	-38	1806	-47.24	-498.95	-12.63
286	SLU 9	20	-38	1797	-47.01	-496.62	-12.74
286	SLU 10	24	-43	2117	-55.2	-581.95	-14.4
286	SLU 11	35	-43	2132	-55.59	-585.83	-14.22
286	SLU 12	28	-43	2123	-55.36	-583.5	-14.33
286	SLU 13	24	-43	2117	-55.2	-581.95	-14.4
286	SLU 14	35	-43	2132	-55.59	-585.83	-14.22

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
286	SLU 15	28	-43	2123	-55.36	-583.5	-14.33
286	SLU 16	35	-43	2132	-55.59	-585.83	-14.22
286	SLU 17	28	-43	2123	-55.36	-583.5	-14.33
286	SLU 18	38	-45	2271	-59.17	-623.06	-14.9
286	SLU 19	32	-45	2263	-58.94	-620.74	-15.01
286	SLU 20	38	-45	2271	-59.17	-623.06	-14.9
286	SLU 21	32	-45	2263	-58.94	-620.74	-15.01
286	SLU 22	31	-41	2036	-53.15	-560.04	-13.64
286	SLU 23	20	-41	2022	-52.77	-556.17	-13.82
286	SLU 24	31	-41	2036	-53.15	-560.04	-13.64
286	SLU 25	25	-41	2027	-52.92	-557.72	-13.75
286	SLU 26	20	-41	2022	-52.77	-556.17	-13.82
286	SLU 27	31	-41	2036	-53.15	-560.04	-13.64
286	SLU 28	25	-41	2027	-52.92	-557.72	-13.75
286	SLU 29	31	-41	2036	-53.15	-560.04	-13.64
286	SLU 30	25	-41	2027	-52.92	-557.72	-13.75
286	SLU 31	28	-46	2347	-61.12	-643.05	-15.41
286	SLU 32	39	-46	2362	-61.51	-646.92	-15.23
286	SLU 33	33	-46	2353	-61.27	-644.6	-15.34
286	SLU 34	28	-46	2347	-61.12	-643.05	-15.41
286	SLU 35	39	-46	2362	-61.51	-646.92	-15.23
286	SLU 36	33	-46	2353	-61.27	-644.6	-15.34
286	SLU 37	39	-46	2362	-61.51	-646.92	-15.23
286	SLU 38	33	-46	2353	-61.27	-644.6	-15.34
286	SLU 39	43	-49	2501	-65.09	-684.15	-15.91
286	SLU 40	36	-48	2493	-64.85	-681.83	-16.02
286	SLU 41	43	-49	2501	-65.09	-684.15	-15.91
286	SLU 42	36	-48	2493	-64.85	-681.83	-16.02
286	SLU 43	33	-49	2269	-59.39	-627.68	-16.07
286	SLU 44	22	-48	2254	-59	-623.81	-16.25
286	SLU 45	33	-49	2269	-59.39	-627.68	-16.07
286	SLU 46	27	-48	2260	-59.15	-625.36	-16.18
286	SLU 47	22	-48	2254	-59	-623.81	-16.25
286	SLU 48	33	-49	2269	-59.39	-627.68	-16.07
286	SLU 49	27	-48	2260	-59.15	-625.36	-16.18
286	SLU 50	33	-49	2269	-59.39	-627.68	-16.07
286	SLU 51	27	-48	2260	-59.15	-625.36	-16.18
286	SLU 52	30	-53	2580	-67.35	-710.69	-17.84
286	SLU 53	41	-54	2595	-67.74	-714.56	-17.67
286	SLU 54	35	-53	2586	-67.5	-712.24	-17.77
286	SLU 55	30	-53	2580	-67.35	-710.69	-17.84
286	SLU 56	41	-54	2595	-67.74	-714.56	-17.67
286	SLU 57	35	-53	2586	-67.5	-712.24	-17.77
286	SLU 58	41	-54	2595	-67.74	-714.56	-17.67
286	SLU 59	35	-53	2586	-67.5	-712.24	-17.77
286	SLU 60	45	-56	2734	-71.32	-751.8	-18.35
286	SLU 61	38	-56	2726	-71.08	-749.47	-18.45
286	SLU 62	45	-56	2734	-71.32	-751.8	-18.35
286	SLU 63	38	-56	2726	-71.08	-749.47	-18.45
286	SLU 64	38	-52	2499	-65.3	-688.78	-17.08
286	SLU 65	27	-51	2485	-64.91	-684.91	-17.26
286	SLU 66	38	-52	2499	-65.3	-688.78	-17.08
286	SLU 67	31	-52	2490	-65.07	-686.45	-17.19
286	SLU 68	27	-51	2485	-64.91	-684.91	-17.26
286	SLU 69	38	-52	2499	-65.3	-688.78	-17.08
286	SLU 70	31	-52	2490	-65.07	-686.45	-17.19
286	SLU 71	38	-52	2499	-65.3	-688.78	-17.08
286	SLU 72	31	-52	2490	-65.07	-686.45	-17.19
286	SLU 73	35	-56	2810	-73.26	-771.78	-18.85
286	SLU 74	46	-57	2825	-73.65	-775.66	-18.68
286	SLU 75	39	-57	2816	-73.42	-773.33	-18.78
286	SLU 76	35	-56	2810	-73.26	-771.78	-18.85
286	SLU 77	46	-57	2825	-73.65	-775.66	-18.68
286	SLU 78	39	-57	2816	-73.42	-773.33	-18.78
286	SLU 79	46	-57	2825	-73.65	-775.66	-18.68
286	SLU 80	39	-57	2816	-73.42	-773.33	-18.78
286	SLU 81	49	-59	2964	-77.23	-812.89	-19.36
286	SLU 82	43	-59	2956	-77	-810.57	-19.46
286	SLU 83	49	-59	2964	-77.23	-812.89	-19.36
286	SLU 84	43	-59	2956	-77	-810.57	-19.46
286	SLE RA 1	28	-39	1872	-48.93	-516.4	-12.92
286	SLE RA 2	21	-39	1862	-48.67	-513.82	-13.04
286	SLE RA 3	28	-39	1872	-48.93	-516.4	-12.92
286	SLE RA 4	24	-39	1866	-48.77	-514.85	-12.99
286	SLE RA 5	21	-39	1862	-48.67	-513.82	-13.04
286	SLE RA 6	28	-39	1872	-48.93	-516.4	-12.92
286	SLE RA 7	24	-39	1866	-48.77	-514.85	-12.99
286	SLE RA 8	28	-39	1872	-48.93	-516.4	-12.92
286	SLE RA 9	24	-39	1866	-48.77	-514.85	-12.99
286	SLE RA 10	26	-42	2079	-54.24	-571.74	-14.1
286	SLE RA 11	33	-42	2089	-54.5	-574.32	-13.98
286	SLE RA 12	29	-42	2083	-54.34	-572.77	-14.05
286	SLE RA 13	26	-42	2079	-54.24	-571.74	-14.1
286	SLE RA 14	33	-42	2089	-54.5	-574.32	-13.98
286	SLE RA 15	29	-42	2083	-54.34	-572.77	-14.05
286	SLE RA 16	33	-42	2089	-54.5	-574.32	-13.98

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
286	SLE RA 17	29	-42	2083	-54.34	-572.77	-14.05
286	SLE RA 18	36	-44	2182	-56.88	-599.14	-14.44
286	SLE RA 19	31	-44	2176	-56.73	-597.6	-14.51
286	SLE RA 20	36	-44	2182	-56.88	-599.14	-14.44
286	SLE RA 21	31	-44	2176	-56.73	-597.6	-14.51
286	SLE FR 1	28	-39	1872	-48.93	-516.4	-12.92
286	SLE FR 2	27	-39	1870	-48.88	-515.89	-12.94
286	SLE FR 3	28	-39	1872	-48.93	-516.4	-12.92
286	SLE FR 4	29	-40	1963	-51.26	-540.71	-13.4
286	SLE FR 5	30	-41	1965	-51.32	-541.22	-13.37
286	SLE FR 6	32	-41	2027	-52.91	-557.77	-13.68
286	SLE QP 1	28	-39	1872	-48.93	-516.4	-12.92
286	SLE QP 2	30	-41	1965	-51.32	-541.22	-13.37
286	SLD 1	236	-11	2103	-55.01	-570.99	-4.76
286	SLD 2	202	-40	2112	-55.22	-573.35	-15.64
286	SLD 3	225	-87	2260	-58.76	-614.17	-31.33
286	SLD 4	191	-116	2268	-58.97	-616.53	-42.21
286	SLD 5	121	94	1766	-46.66	-483.83	33.35
286	SLD 6	86	65	1775	-46.88	-486.21	22.39
286	SLD 7	84	-160	2287	-59.16	-627.76	-55.21
286	SLD 8	50	-188	2296	-59.38	-630.14	-66.17
286	SLD 9	11	107	1634	-43.25	-452.31	39.42
286	SLD 10	-24	79	1642	-43.47	-454.69	28.46
286	SLD 11	-26	-146	2154	-55.76	-596.24	-49.14
286	SLD 12	-60	-175	2163	-55.97	-598.62	-60.1
286	SLD 13	-131	35	1661	-43.66	-465.92	15.47
286	SLD 14	-165	6	1670	-43.87	-468.28	4.58
286	SLD 15	-142	-41	1817	-47.41	-509.1	-11.1
286	SLD 16	-176	-70	1826	-47.63	-511.46	-21.99
286	SLV 1	498	25	2280	-59.71	-608.96	5.99
286	SLV 2	421	-39	2300	-60.2	-614.3	-18.65
286	SLV 3	473	-147	2635	-68.24	-707.12	-54.4
286	SLV 4	396	-212	2655	-68.72	-712.46	-79.04
286	SLV 5	236	264	1513	-40.73	-410.78	92.72
286	SLV 6	158	199	1534	-41.22	-416.16	67.92
286	SLV 7	153	-311	2697	-69.15	-737.98	-108.56
286	SLV 8	75	-377	2718	-69.64	-743.36	-133.36
286	SLV 9	-14	296	1212	-32.99	-339.09	106.61
286	SLV 10	-92	230	1232	-33.48	-344.47	81.81
286	SLV 11	-98	-280	2396	-61.41	-666.29	-94.67
286	SLV 12	-175	-345	2416	-61.9	-671.67	-119.47
286	SLV 13	-336	131	1275	-33.91	-369.99	52.29
286	SLV 14	-413	66	1295	-34.4	-375.33	27.65
286	SLV 15	-361	-42	1630	-42.44	-468.15	-8.09
286	SLV 16	-438	-107	1650	-42.92	-473.49	-32.73
286	CRTFP Ux+	0	0	0	0	0	0
286	CRTFP Ux-	0	0	0	0	0	0
286	CRTFP Uy+	0	0	0	0	0	0
286	CRTFP Uy-	0	0	0	0	0	0
289	SLU 1	54	105	2838	-75.99	3.31	1.28
289	SLU 2	36	105	2838	-75.99	2.69	0.89
289	SLU 3	54	105	2838	-75.99	3.31	1.28
289	SLU 4	43	105	2838	-75.99	2.94	1.05
289	SLU 5	36	105	2838	-75.99	2.69	0.89
289	SLU 6	54	105	2838	-75.99	3.31	1.28
289	SLU 7	43	105	2838	-75.99	2.94	1.05
289	SLU 8	54	105	2838	-75.99	3.31	1.28
289	SLU 9	43	105	2838	-75.99	2.94	1.05
289	SLU 10	48	110	3455	-93.37	3.07	1.2
289	SLU 11	67	110	3455	-93.37	3.68	1.59
289	SLU 12	56	110	3455	-93.37	3.31	1.36
289	SLU 13	48	110	3455	-93.37	3.07	1.2
289	SLU 14	67	110	3455	-93.37	3.68	1.59
289	SLU 15	56	110	3455	-93.37	3.31	1.36
289	SLU 16	67	110	3455	-93.37	3.68	1.59
289	SLU 17	56	110	3455	-93.37	3.31	1.36
289	SLU 18	72	113	3719	-100.83	3.84	1.73
289	SLU 19	61	113	3719	-100.82	3.47	1.49
289	SLU 20	72	113	3719	-100.83	3.84	1.73
289	SLU 21	61	113	3719	-100.82	3.47	1.49
289	SLU 22	62	108	3260	-87.82	3.54	1.46
289	SLU 23	43	108	3260	-87.81	2.93	1.07
289	SLU 24	62	108	3260	-87.82	3.54	1.46
289	SLU 25	51	108	3260	-87.81	3.17	1.23
289	SLU 26	43	108	3260	-87.81	2.93	1.07
289	SLU 27	62	108	3260	-87.82	3.54	1.46
289	SLU 28	51	108	3260	-87.81	3.17	1.23
289	SLU 29	62	108	3260	-87.82	3.54	1.46
289	SLU 30	51	108	3260	-87.81	3.17	1.23
289	SLU 31	56	114	3877	-105.2	3.3	1.39
289	SLU 32	74	114	3877	-105.2	3.92	1.77
289	SLU 33	63	114	3877	-105.2	3.55	1.54
289	SLU 34	56	114	3877	-105.2	3.3	1.39
289	SLU 35	74	114	3877	-105.2	3.92	1.77
289	SLU 36	63	114	3877	-105.2	3.55	1.54
289	SLU 37	74	114	3877	-105.2	3.92	1.77

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
289	SLU 38	63	114	3877	-105.2	3.55	1.54
289	SLU 39	79	116	4141	-112.65	4.08	1.91
289	SLU 40	68	116	4141	-112.65	3.71	1.67
289	SLU 41	79	116	4141	-112.65	4.08	1.91
289	SLU 42	68	116	4141	-112.65	3.71	1.67
289	SLU 43	68	135	3545	-94.73	4.22	1.6
289	SLU 44	50	135	3545	-94.73	3.61	1.21
289	SLU 45	68	135	3545	-94.73	4.22	1.6
289	SLU 46	57	135	3545	-94.73	3.85	1.37
289	SLU 47	50	135	3545	-94.73	3.61	1.21
289	SLU 48	68	135	3545	-94.73	4.22	1.6
289	SLU 49	57	135	3545	-94.73	3.85	1.37
289	SLU 50	68	135	3545	-94.73	4.22	1.6
289	SLU 51	57	135	3545	-94.73	3.85	1.37
289	SLU 52	62	140	4162	-112.11	3.98	1.53
289	SLU 53	80	140	4162	-112.12	4.6	1.91
289	SLU 54	69	140	4162	-112.12	4.23	1.68
289	SLU 55	62	140	4162	-112.11	3.98	1.53
289	SLU 56	80	140	4162	-112.12	4.6	1.91
289	SLU 57	69	140	4162	-112.12	4.23	1.68
289	SLU 58	80	140	4162	-112.12	4.6	1.91
289	SLU 59	69	140	4162	-112.12	4.23	1.68
289	SLU 60	86	143	4426	-119.57	4.76	2.05
289	SLU 61	75	143	4426	-119.57	4.39	1.81
289	SLU 62	86	143	4426	-119.57	4.76	2.05
289	SLU 63	75	143	4426	-119.57	4.39	1.81
289	SLU 64	75	138	3967	-106.56	4.46	1.78
289	SLU 65	57	138	3967	-106.56	3.84	1.39
289	SLU 66	75	138	3967	-106.56	4.46	1.78
289	SLU 67	64	138	3967	-106.56	4.09	1.55
289	SLU 68	57	138	3967	-106.56	3.84	1.39
289	SLU 69	75	138	3967	-106.56	4.46	1.78
289	SLU 70	64	138	3967	-106.56	4.09	1.55
289	SLU 71	75	138	3967	-106.56	4.46	1.78
289	SLU 72	64	138	3967	-106.56	4.09	1.55
289	SLU 73	69	144	4584	-123.94	4.21	1.71
289	SLU 74	88	144	4584	-123.94	4.83	2.09
289	SLU 75	77	144	4584	-123.94	4.46	1.86
289	SLU 76	69	144	4584	-123.94	4.21	1.71
289	SLU 77	88	144	4584	-123.94	4.83	2.09
289	SLU 78	77	144	4584	-123.94	4.46	1.86
289	SLU 79	88	144	4584	-123.94	4.83	2.09
289	SLU 80	77	144	4584	-123.94	4.46	1.86
289	SLU 81	93	146	4848	-131.39	4.99	2.23
289	SLU 82	82	146	4848	-131.39	4.62	2
289	SLU 83	93	146	4848	-131.39	4.99	2.23
289	SLU 84	82	146	4848	-131.39	4.62	2
289	SLE RA 1	56	106	2959	-79.37	3.38	1.33
289	SLE RA 2	44	106	2959	-79.37	2.97	1.07
289	SLE RA 3	56	106	2959	-79.37	3.38	1.33
289	SLE RA 4	49	106	2959	-79.37	3.13	1.18
289	SLE RA 5	44	106	2959	-79.37	2.97	1.07
289	SLE RA 6	56	106	2959	-79.37	3.38	1.33
289	SLE RA 7	49	106	2959	-79.37	3.13	1.18
289	SLE RA 8	56	106	2959	-79.37	3.38	1.33
289	SLE RA 9	49	106	2959	-79.37	3.13	1.18
289	SLE RA 10	52	109	3370	-90.96	3.22	1.28
289	SLE RA 11	65	109	3370	-90.96	3.63	1.54
289	SLE RA 12	57	109	3370	-90.96	3.38	1.38
289	SLE RA 13	52	109	3370	-90.96	3.22	1.28
289	SLE RA 14	65	109	3370	-90.96	3.63	1.54
289	SLE RA 15	57	109	3370	-90.96	3.38	1.38
289	SLE RA 16	65	109	3370	-90.96	3.63	1.54
289	SLE RA 17	57	109	3370	-90.96	3.38	1.38
289	SLE RA 18	68	111	3546	-95.93	3.73	1.63
289	SLE RA 19	61	111	3546	-95.93	3.49	1.47
289	SLE RA 20	68	111	3546	-95.93	3.73	1.63
289	SLE RA 21	61	111	3546	-95.93	3.49	1.47
289	SLE FR 1	56	106	2959	-79.37	3.38	1.33
289	SLE FR 2	54	106	2959	-79.37	3.3	1.28
289	SLE FR 3	56	106	2959	-79.37	3.38	1.33
289	SLE FR 4	57	107	3135	-84.34	3.4	1.37
289	SLE FR 5	60	107	3135	-84.34	3.48	1.42
289	SLE FR 6	62	108	3252	-87.65	3.56	1.48
289	SLE QP 1	56	106	2959	-79.37	3.38	1.33
289	SLE QP 2	60	107	3135	-84.34	3.48	1.42
289	SLD 1	388	175	3037	-81.97	13.61	7.99
289	SLD 2	331	176	3038	-82	13.91	7.3
289	SLD 3	407	66	3279	-87.86	12.85	8.29
289	SLD 4	350	67	3281	-87.89	13.16	7.6
289	SLD 5	150	292	2738	-74.68	7.56	3.17
289	SLD 6	93	293	2739	-74.71	7.87	2.48
289	SLD 7	212	-71	3545	-94.31	5.04	4.18
289	SLD 8	155	-70	3546	-94.34	5.35	3.49
289	SLD 9	-35	284	2723	-74.33	1.62	-0.65
289	SLD 10	-93	285	2725	-74.36	1.93	-1.35

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
289	SLD 11	27	-79	3530	-93.96	-0.9	0.36
289	SLD 12	-30	-78	3532	-93.99	-0.59	-0.33
289	SLD 13	-230	148	2989	-80.78	-6.19	-4.76
289	SLD 14	-287	149	2990	-80.81	-5.88	-5.45
289	SLD 15	-211	39	3231	-86.67	-6.94	-4.46
289	SLD 16	-268	40	3232	-86.7	-6.64	-5.15
289	SLV 1	805	261	2913	-78.97	26.5	16.34
289	SLV 2	676	263	2916	-79.03	27.2	14.78
289	SLV 3	848	13	3463	-92.35	24.79	17.03
289	SLV 4	719	15	3466	-92.42	25.48	15.48
289	SLV 5	264	528	2233	-62.41	12.75	5.4
289	SLV 6	135	530	2236	-62.47	13.44	3.83
289	SLV 7	407	-297	4067	-107.01	7.03	7.71
289	SLV 8	277	-295	4070	-107.08	7.72	6.14
289	SLV 9	-157	509	2200	-61.59	-0.76	-3.3
289	SLV 10	-287	511	2203	-61.66	-0.06	-4.87
289	SLV 11	-15	-315	4034	-106.2	-6.48	-0.99
289	SLV 12	-144	-313	4037	-106.27	-5.78	-2.56
289	SLV 13	-599	199	2803	-76.26	-18.51	-12.64
289	SLV 14	-728	201	2806	-76.32	-17.82	-14.2
289	SLV 15	-557	-48	3353	-89.64	-20.23	-11.94
289	SLV 16	-685	-46	3356	-89.7	-19.53	-13.5
289	CRTFP Ux+	0	0	0	0	0	0
289	CRTFP Ux-	0	0	0	0	0	0
289	CRTFP Uy+	0	0	0	0	0	0
289	CRTFP Uy-	0	0	0	0	0	0
291	SLU 1	30	-12	1656	-46.21	-14.88	0.7
291	SLU 2	21	-12	1669	-46.58	-15.15	0.46
291	SLU 3	30	-12	1656	-46.21	-14.88	0.7
291	SLU 4	25	-12	1664	-46.43	-15.04	0.56
291	SLU 5	21	-12	1669	-46.58	-15.15	0.46
291	SLU 6	30	-12	1656	-46.21	-14.88	0.7
291	SLU 7	25	-12	1664	-46.43	-15.04	0.56
291	SLU 8	30	-12	1656	-46.21	-14.88	0.7
291	SLU 9	25	-12	1664	-46.43	-15.04	0.56
291	SLU 10	26	-10	1958	-54.57	-17.63	0.59
291	SLU 11	35	-10	1944	-54.2	-17.35	0.84
291	SLU 12	30	-10	1953	-54.42	-17.52	0.69
291	SLU 13	26	-10	1958	-54.57	-17.63	0.59
291	SLU 14	35	-10	1944	-54.2	-17.35	0.84
291	SLU 15	30	-10	1953	-54.42	-17.52	0.69
291	SLU 16	35	-10	1944	-54.2	-17.35	0.84
291	SLU 17	30	-10	1953	-54.42	-17.52	0.69
291	SLU 18	37	-9	2068	-57.62	-18.41	0.9
291	SLU 19	32	-10	2076	-57.84	-18.58	0.75
291	SLU 20	37	-9	2068	-57.62	-18.41	0.9
291	SLU 21	32	-10	2076	-57.84	-18.58	0.75
291	SLU 22	33	-11	1862	-51.94	-16.75	0.79
291	SLU 23	24	-12	1876	-52.31	-17.03	0.54
291	SLU 24	33	-11	1862	-51.94	-16.75	0.79
291	SLU 25	28	-11	1870	-52.16	-16.92	0.64
291	SLU 26	24	-12	1876	-52.31	-17.03	0.54
291	SLU 27	33	-11	1862	-51.94	-16.75	0.79
291	SLU 28	28	-11	1870	-52.16	-16.92	0.64
291	SLU 29	33	-11	1862	-51.94	-16.75	0.79
291	SLU 30	28	-11	1870	-52.16	-16.92	0.64
291	SLU 31	29	-10	2164	-60.3	-19.5	0.68
291	SLU 32	39	-10	2151	-59.93	-19.23	0.92
291	SLU 33	33	-10	2159	-60.15	-19.39	0.78
291	SLU 34	29	-10	2164	-60.3	-19.5	0.68
291	SLU 35	39	-10	2151	-59.93	-19.23	0.92
291	SLU 36	33	-10	2159	-60.15	-19.39	0.78
291	SLU 37	39	-10	2151	-59.93	-19.23	0.92
291	SLU 38	33	-10	2159	-60.15	-19.39	0.78
291	SLU 39	41	-9	2274	-63.35	-20.29	0.98
291	SLU 40	35	-9	2283	-63.57	-20.45	0.83
291	SLU 41	41	-9	2274	-63.35	-20.29	0.98
291	SLU 42	35	-9	2283	-63.57	-20.45	0.83
291	SLU 43	38	-15	2082	-58.11	-18.7	0.89
291	SLU 44	29	-15	2096	-58.48	-18.98	0.64
291	SLU 45	38	-15	2082	-58.11	-18.7	0.89
291	SLU 46	32	-15	2090	-58.33	-18.87	0.74
291	SLU 47	29	-15	2096	-58.48	-18.98	0.64
291	SLU 48	38	-15	2082	-58.11	-18.7	0.89
291	SLU 49	32	-15	2090	-58.33	-18.87	0.74
291	SLU 50	38	-15	2082	-58.11	-18.7	0.89
291	SLU 51	32	-15	2090	-58.33	-18.87	0.74
291	SLU 52	34	-14	2384	-66.46	-21.45	0.77
291	SLU 53	43	-14	2371	-66.09	-21.18	1.02
291	SLU 54	38	-14	2379	-66.32	-21.34	0.87
291	SLU 55	34	-14	2384	-66.46	-21.45	0.77
291	SLU 56	43	-14	2371	-66.09	-21.18	1.02
291	SLU 57	38	-14	2379	-66.32	-21.34	0.87
291	SLU 58	43	-14	2371	-66.09	-21.18	1.02
291	SLU 59	38	-14	2379	-66.32	-21.34	0.87
291	SLU 60	45	-13	2494	-69.52	-22.24	1.08

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
291	SLU 61	40	-13	2502	-69.74	-22.4	0.93
291	SLU 62	45	-13	2494	-69.52	-22.24	1.08
291	SLU 63	40	-13	2502	-69.74	-22.4	0.93
291	SLU 64	41	-15	2288	-63.84	-20.58	0.97
291	SLU 65	32	-15	2302	-64.21	-20.85	0.73
291	SLU 66	41	-15	2288	-63.84	-20.58	0.97
291	SLU 67	36	-15	2297	-64.06	-20.74	0.82
291	SLU 68	32	-15	2302	-64.21	-20.85	0.73
291	SLU 69	41	-15	2288	-63.84	-20.58	0.97
291	SLU 70	36	-15	2297	-64.06	-20.74	0.82
291	SLU 71	41	-15	2288	-63.84	-20.58	0.97
291	SLU 72	36	-15	2297	-64.06	-20.74	0.82
291	SLU 73	37	-14	2590	-72.2	-23.32	0.86
291	SLU 74	46	-13	2577	-71.82	-23.05	1.11
291	SLU 75	41	-14	2585	-72.05	-23.21	0.96
291	SLU 76	37	-14	2590	-72.2	-23.32	0.86
291	SLU 77	46	-13	2577	-71.82	-23.05	1.11
291	SLU 78	41	-14	2585	-72.05	-23.21	0.96
291	SLU 79	46	-13	2577	-71.82	-23.05	1.11
291	SLU 80	41	-14	2585	-72.05	-23.21	0.96
291	SLU 81	49	-13	2701	-75.25	-24.11	1.16
291	SLU 82	43	-13	2709	-75.47	-24.27	1.02
291	SLU 83	49	-13	2701	-75.25	-24.11	1.16
291	SLU 84	43	-13	2709	-75.47	-24.27	1.02
291	SLE RA 1	31	-11	1715	-47.85	-15.42	0.73
291	SLE RA 2	25	-12	1724	-48.1	-15.6	0.56
291	SLE RA 3	31	-11	1715	-47.85	-15.42	0.73
291	SLE RA 4	27	-12	1720	-48	-15.53	0.63
291	SLE RA 5	25	-12	1724	-48.1	-15.6	0.56
291	SLE RA 6	31	-11	1715	-47.85	-15.42	0.73
291	SLE RA 7	27	-12	1720	-48	-15.53	0.63
291	SLE RA 8	31	-11	1715	-47.85	-15.42	0.73
291	SLE RA 9	27	-12	1720	-48	-15.53	0.63
291	SLE RA 10	28	-11	1916	-53.42	-17.25	0.65
291	SLE RA 11	34	-10	1907	-53.17	-17.07	0.82
291	SLE RA 12	31	-11	1913	-53.32	-17.17	0.72
291	SLE RA 13	28	-11	1916	-53.42	-17.25	0.65
291	SLE RA 14	34	-10	1907	-53.17	-17.07	0.82
291	SLE RA 15	31	-11	1913	-53.32	-17.17	0.72
291	SLE RA 16	34	-10	1907	-53.17	-17.07	0.82
291	SLE RA 17	31	-11	1913	-53.32	-17.17	0.72
291	SLE RA 18	36	-10	1990	-55.45	-17.77	0.86
291	SLE RA 19	32	-10	1995	-55.6	-17.88	0.76
291	SLE RA 20	36	-10	1990	-55.45	-17.77	0.86
291	SLE RA 21	32	-10	1995	-55.6	-17.88	0.76
291	SLE FR 1	31	-11	1715	-47.85	-15.42	0.73
291	SLE FR 2	30	-11	1717	-47.9	-15.45	0.7
291	SLE FR 3	31	-11	1715	-47.85	-15.42	0.73
291	SLE FR 4	31	-11	1799	-50.18	-16.16	0.73
291	SLE FR 5	32	-11	1797	-50.13	-16.12	0.77
291	SLE FR 6	33	-11	1852	-51.65	-16.59	0.79
291	SLE QP 1	31	-11	1715	-47.85	-15.42	0.73
291	SLE QP 2	32	-11	1797	-50.13	-16.12	0.77
291	SLD 1	196	35	1508	-42.26	-8.59	5.4
291	SLD 2	168	62	1501	-42.09	-8.46	4.69
291	SLD 3	206	-42	1668	-46.35	-10.13	5.16
291	SLD 4	177	-15	1661	-46.18	-10.01	4.45
291	SLD 5	77	110	1470	-41.62	-11.56	2.76
291	SLD 6	49	137	1463	-41.45	-11.44	2.05
291	SLD 7	109	-147	2004	-55.26	-16.71	1.98
291	SLD 8	80	-119	1996	-55.09	-16.59	1.26
291	SLD 9	-16	97	1598	-45.17	-15.66	0.27
291	SLD 10	-44	125	1591	-45	-15.53	-0.45
291	SLD 11	16	-159	2132	-58.81	-20.81	-0.52
291	SLD 12	-12	-132	2124	-58.64	-20.68	-1.23
291	SLD 13	-112	-8	1934	-54.08	-22.24	-2.92
291	SLD 14	-141	20	1927	-53.91	-22.11	-3.63
291	SLD 15	-103	-84	2094	-58.17	-23.78	-3.16
291	SLD 16	-131	-57	2087	-58	-23.66	-3.87
291	SLV 1	404	93	1139	-32.25	1.07	11.29
291	SLV 2	340	156	1123	-31.86	1.35	9.69
291	SLV 3	426	-81	1503	-41.55	-2.46	10.75
291	SLV 4	362	-19	1486	-41.16	-2.18	9.15
291	SLV 5	133	263	1055	-30.81	-5.71	5.31
291	SLV 6	69	326	1038	-30.41	-5.42	3.69
291	SLV 7	206	-319	2266	-61.79	-17.48	3.51
291	SLV 8	142	-256	2250	-61.4	-17.2	1.9
291	SLV 9	-77	234	1345	-38.86	-15.05	-0.36
291	SLV 10	-141	297	1329	-38.47	-14.76	-1.98
291	SLV 11	-4	-348	2556	-69.85	-26.82	-2.16
291	SLV 12	-69	-285	2540	-69.45	-26.54	-3.77
291	SLV 13	-297	-3	2108	-59.1	-30.07	-7.62
291	SLV 14	-361	59	2092	-58.71	-29.78	-9.22
291	SLV 15	-275	-178	2472	-68.4	-33.6	-8.15
291	SLV 16	-339	-116	2456	-68.01	-33.31	-9.76
291	CRTFP Ux+	0	0	0	0	0	0

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
291	CRTFP Ux-	0	0	0	0	0	0
291	CRTFP Uy+	0	0	0	0	0	0
291	CRTFP Uy-	0	0	0	0	0	0
319	SLU 1	39	-56	2761	-606.32	-607.82	-3.93
319	SLU 2	23	-56	2739	-601.27	-603.34	-7.6
319	SLU 3	39	-56	2761	-606.32	-607.82	-3.93
319	SLU 4	29	-56	2748	-603.29	-605.13	-6.13
319	SLU 5	23	-56	2739	-601.27	-603.34	-7.6
319	SLU 6	39	-56	2761	-606.32	-607.82	-3.93
319	SLU 7	29	-56	2748	-603.29	-605.13	-6.13
319	SLU 8	39	-56	2761	-606.32	-607.82	-3.93
319	SLU 9	29	-56	2748	-603.29	-605.13	-6.13
319	SLU 10	35	-63	3243	-709.59	-713.91	-6.38
319	SLU 11	52	-63	3265	-714.64	-718.39	-2.71
319	SLU 12	42	-63	3252	-711.61	-715.7	-4.91
319	SLU 13	35	-63	3243	-709.59	-713.91	-6.38
319	SLU 14	52	-63	3265	-714.64	-718.39	-2.71
319	SLU 15	42	-63	3252	-711.61	-715.7	-4.91
319	SLU 16	52	-63	3265	-714.64	-718.39	-2.71
319	SLU 17	42	-63	3252	-711.61	-715.7	-4.91
319	SLU 18	57	-66	3481	-761.06	-765.78	-2.18
319	SLU 19	47	-66	3468	-758.03	-763.09	-4.38
319	SLU 20	57	-66	3481	-761.06	-765.78	-2.18
319	SLU 21	47	-66	3468	-758.03	-763.09	-4.38
319	SLU 22	46	-60	3117	-682.98	-685.61	-3.38
319	SLU 23	30	-60	3095	-677.94	-681.14	-7.05
319	SLU 24	46	-60	3117	-682.98	-685.61	-3.38
319	SLU 25	36	-60	3104	-679.95	-682.93	-5.58
319	SLU 26	30	-60	3095	-677.94	-681.14	-7.05
319	SLU 27	46	-60	3117	-682.98	-685.61	-3.38
319	SLU 28	36	-60	3104	-679.95	-682.93	-5.58
319	SLU 29	46	-60	3117	-682.98	-685.61	-3.38
319	SLU 30	36	-60	3104	-679.95	-682.93	-5.58
319	SLU 31	42	-67	3599	-786.25	-791.71	-5.83
319	SLU 32	59	-67	3621	-791.3	-796.18	-2.16
319	SLU 33	49	-67	3607	-788.27	-793.5	-4.36
319	SLU 34	42	-67	3599	-786.25	-791.71	-5.83
319	SLU 35	59	-67	3621	-791.3	-796.18	-2.16
319	SLU 36	49	-67	3607	-788.27	-793.5	-4.36
319	SLU 37	59	-67	3621	-791.3	-796.18	-2.16
319	SLU 38	49	-67	3607	-788.27	-793.5	-4.36
319	SLU 39	64	-70	3836	-837.72	-843.57	-1.63
319	SLU 40	54	-70	3823	-834.69	-840.88	-3.83
319	SLU 41	64	-70	3836	-837.72	-843.57	-1.63
319	SLU 42	54	-70	3823	-834.69	-840.88	-3.83
319	SLU 43	48	-71	3468	-761.93	-763.49	-5.3
319	SLU 44	32	-71	3446	-756.88	-759.02	-8.97
319	SLU 45	48	-71	3468	-761.93	-763.49	-5.3
319	SLU 46	39	-71	3454	-758.9	-760.81	-7.5
319	SLU 47	32	-71	3446	-756.88	-759.02	-8.97
319	SLU 48	48	-71	3468	-761.93	-763.49	-5.3
319	SLU 49	39	-71	3454	-758.9	-760.81	-7.5
319	SLU 50	48	-71	3468	-761.93	-763.49	-5.3
319	SLU 51	39	-71	3454	-758.9	-760.81	-7.5
319	SLU 52	45	-78	3949	-865.2	-869.59	-7.74
319	SLU 53	61	-78	3971	-870.25	-874.06	-4.08
319	SLU 54	51	-78	3958	-867.22	-871.38	-6.28
319	SLU 55	45	-78	3949	-865.2	-869.59	-7.74
319	SLU 56	61	-78	3971	-870.25	-874.06	-4.08
319	SLU 57	51	-78	3958	-867.22	-871.38	-6.28
319	SLU 58	61	-78	3971	-870.25	-874.06	-4.08
319	SLU 59	51	-78	3958	-867.22	-871.38	-6.28
319	SLU 60	66	-81	4187	-916.67	-921.45	-3.55
319	SLU 61	57	-81	4174	-913.64	-918.76	-5.75
319	SLU 62	66	-81	4187	-916.67	-921.45	-3.55
319	SLU 63	57	-81	4174	-913.64	-918.76	-5.75
319	SLU 64	55	-75	3823	-838.6	-841.28	-4.75
319	SLU 65	39	-75	3801	-833.55	-836.81	-8.42
319	SLU 66	55	-75	3823	-838.6	-841.28	-4.75
319	SLU 67	46	-75	3810	-835.57	-838.6	-6.95
319	SLU 68	39	-75	3801	-833.55	-836.81	-8.42
319	SLU 69	55	-75	3823	-838.6	-841.28	-4.75
319	SLU 70	46	-75	3810	-835.57	-838.6	-6.95
319	SLU 71	55	-75	3823	-838.6	-841.28	-4.75
319	SLU 72	46	-75	3810	-835.57	-838.6	-6.95
319	SLU 73	52	-82	4305	-941.86	-947.38	-7.19
319	SLU 74	68	-82	4327	-946.91	-951.85	-3.52
319	SLU 75	58	-82	4314	-943.88	-949.17	-5.73
319	SLU 76	52	-82	4305	-941.86	-947.38	-7.19
319	SLU 77	68	-82	4327	-946.91	-951.85	-3.52
319	SLU 78	58	-82	4314	-943.88	-949.17	-5.73
319	SLU 79	68	-82	4327	-946.91	-951.85	-3.52
319	SLU 80	58	-82	4314	-943.88	-949.17	-5.73
319	SLU 81	73	-85	4543	-993.33	-999.24	-3
319	SLU 82	64	-85	4530	-990.3	-996.56	-5.2
319	SLU 83	73	-85	4543	-993.33	-999.24	-3

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
319	SLU 84	64	-85	4530	-990.3	-996.56	-5.2
319	SLE RA 1	41	-57	2863	-628.22	-630.04	-3.77
319	SLE RA 2	30	-57	2848	-624.86	-627.06	-6.22
319	SLE RA 3	41	-57	2863	-628.22	-630.04	-3.77
319	SLE RA 4	34	-57	2854	-626.2	-628.25	-5.24
319	SLE RA 5	30	-57	2848	-624.86	-627.06	-6.22
319	SLE RA 6	41	-57	2863	-628.22	-630.04	-3.77
319	SLE RA 7	34	-57	2854	-626.2	-628.25	-5.24
319	SLE RA 8	41	-57	2863	-628.22	-630.04	-3.77
319	SLE RA 9	34	-57	2854	-626.2	-628.25	-5.24
319	SLE RA 10	39	-62	3184	-697.07	-700.78	-5.4
319	SLE RA 11	49	-62	3199	-700.44	-703.76	-2.96
319	SLE RA 12	43	-62	3190	-698.42	-701.97	-4.43
319	SLE RA 13	39	-62	3184	-697.07	-700.78	-5.4
319	SLE RA 14	49	-62	3199	-700.44	-703.76	-2.96
319	SLE RA 15	43	-62	3190	-698.42	-701.97	-4.43
319	SLE RA 16	49	-62	3199	-700.44	-703.76	-2.96
319	SLE RA 17	43	-62	3190	-698.42	-701.97	-4.43
319	SLE RA 18	53	-64	3343	-731.38	-735.35	-2.61
319	SLE RA 19	46	-64	3334	-729.36	-733.56	-4.08
319	SLE RA 20	53	-64	3343	-731.38	-735.35	-2.61
319	SLE RA 21	46	-64	3334	-729.36	-733.56	-4.08
319	SLE FR 1	41	-57	2863	-628.22	-630.04	-3.77
319	SLE FR 2	39	-57	2860	-627.55	-629.45	-4.26
319	SLE FR 3	41	-57	2863	-628.22	-630.04	-3.77
319	SLE FR 4	42	-59	3004	-658.5	-661.04	-3.91
319	SLE FR 5	44	-59	3007	-659.17	-661.63	-3.42
319	SLE FR 6	47	-60	3103	-679.8	-682.7	-3.19
319	SLE QP 1	41	-57	2863	-628.22	-630.04	-3.77
319	SLE QP 2	44	-59	3007	-659.17	-661.63	-3.42
319	SLD 1	350	-17	3223	-708.63	-703.73	86.81
319	SLD 2	299	-60	3238	-711.59	-706.73	64.87
319	SLD 3	334	-127	3473	-759.56	-758.57	60.18
319	SLD 4	282	-169	3488	-762.52	-761.58	38.25
319	SLD 5	179	135	2687	-595.72	-590.02	71.78
319	SLD 6	127	92	2702	-598.7	-593.05	49.68
319	SLD 7	125	-231	3521	-765.48	-772.83	-16.96
319	SLD 8	73	-274	3535	-768.46	-775.86	-39.06
319	SLD 9	16	156	2478	-549.88	-547.41	32.21
319	SLD 10	-36	113	2492	-552.86	-550.44	10.11
319	SLD 11	-38	-210	3312	-719.64	-730.22	-56.53
319	SLD 12	-90	-253	3326	-722.62	-733.25	-78.63
319	SLD 13	-193	52	2526	-555.83	-561.69	-45.09
319	SLD 14	-245	9	2540	-558.78	-564.7	-67.03
319	SLD 15	-210	-58	2776	-606.75	-616.54	-71.72
319	SLD 16	-261	-101	2790	-609.71	-619.54	-93.65
319	SLV 1	739	35	3499	-771.63	-757.34	201.58
319	SLV 2	623	-61	3531	-778.33	-764.14	151.9
319	SLV 3	702	-214	4068	-887.4	-882.02	141.06
319	SLV 4	585	-311	4100	-894.1	-888.82	91.39
319	SLV 5	351	382	2281	-514.96	-498.85	167.41
319	SLV 6	233	285	2313	-521.7	-505.7	117.41
319	SLV 7	226	-450	4176	-900.86	-914.44	-34.31
319	SLV 8	109	-547	4208	-907.6	-921.28	-84.31
319	SLV 9	-20	429	1805	-410.75	-401.99	77.47
319	SLV 10	-137	332	1837	-417.49	-408.83	27.47
319	SLV 11	-144	-403	3700	-796.64	-817.57	-124.26
319	SLV 12	-262	-500	3733	-803.38	-824.42	-174.26
319	SLV 13	-496	193	1913	-424.25	-434.45	-98.23
319	SLV 14	-613	96	1946	-430.94	-441.25	-147.91
319	SLV 15	-534	-57	2482	-540.01	-559.12	-158.75
319	SLV 16	-650	-153	2514	-546.71	-565.93	-208.42
319	CRTFP Ux+	0	0	0	0	0	0
319	CRTFP Ux-	0	0	0	0	0	0
319	CRTFP Uy+	0	0	0	-0.01	-0.01	0
319	CRTFP Uy-	0	0	0	0.01	0.01	0
321	SLU 1	25	-33	1646	-464.98	-43.37	7.94
321	SLU 2	15	-33	1633	-461.16	-43.06	4.48
321	SLU 3	25	-33	1646	-464.98	-43.37	7.94
321	SLU 4	19	-33	1638	-462.69	-43.18	5.86
321	SLU 5	15	-33	1633	-461.16	-43.06	4.48
321	SLU 6	25	-33	1646	-464.98	-43.37	7.94
321	SLU 7	19	-33	1638	-462.69	-43.18	5.86
321	SLU 8	25	-33	1646	-464.98	-43.37	7.94
321	SLU 9	19	-33	1638	-462.69	-43.18	5.86
321	SLU 10	23	-38	1931	-541.32	-50.9	7.04
321	SLU 11	33	-38	1944	-545.15	-51.21	10.5
321	SLU 12	27	-38	1937	-542.85	-51.02	8.43
321	SLU 13	23	-38	1931	-541.32	-50.9	7.04
321	SLU 14	33	-38	1944	-545.15	-51.21	10.5
321	SLU 15	27	-38	1937	-542.85	-51.02	8.43
321	SLU 16	33	-38	1944	-545.15	-51.21	10.5
321	SLU 17	27	-38	1937	-542.85	-51.02	8.43
321	SLU 18	36	-40	2072	-579.5	-54.57	11.6
321	SLU 19	30	-40	2064	-577.21	-54.38	9.52
321	SLU 20	36	-40	2072	-579.5	-54.57	11.6

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
321	SLU 21	30	-40	2064	-577.21	-54.38	9.52
321	SLU 22	29	-36	1856	-521.75	-48.89	9.36
321	SLU 23	19	-36	1844	-517.93	-48.58	5.9
321	SLU 24	29	-36	1856	-521.75	-48.89	9.36
321	SLU 25	23	-36	1849	-519.46	-48.7	7.28
321	SLU 26	19	-36	1844	-517.93	-48.58	5.9
321	SLU 27	29	-36	1856	-521.75	-48.89	9.36
321	SLU 28	23	-36	1849	-519.46	-48.7	7.28
321	SLU 29	29	-36	1856	-521.75	-48.89	9.36
321	SLU 30	23	-36	1849	-519.46	-48.7	7.28
321	SLU 31	27	-40	2142	-598.09	-56.42	8.46
321	SLU 32	37	-41	2155	-601.92	-56.73	11.92
321	SLU 33	31	-41	2147	-599.62	-56.54	9.85
321	SLU 34	27	-40	2142	-598.09	-56.42	8.46
321	SLU 35	37	-41	2155	-601.92	-56.73	11.92
321	SLU 36	31	-41	2147	-599.62	-56.54	9.85
321	SLU 37	37	-41	2155	-601.92	-56.73	11.92
321	SLU 38	31	-41	2147	-599.62	-56.54	9.85
321	SLU 39	40	-43	2282	-636.27	-60.09	13.02
321	SLU 40	34	-42	2275	-633.98	-59.9	10.94
321	SLU 41	40	-43	2282	-636.27	-60.09	13.02
321	SLU 42	34	-42	2275	-633.98	-59.9	10.94
321	SLU 43	31	-42	2068	-585.01	-54.49	9.83
321	SLU 44	21	-42	2055	-581.19	-54.18	6.37
321	SLU 45	31	-42	2068	-585.01	-54.49	9.83
321	SLU 46	25	-42	2060	-582.72	-54.3	7.76
321	SLU 47	21	-42	2055	-581.19	-54.18	6.37
321	SLU 48	31	-42	2068	-585.01	-54.49	9.83
321	SLU 49	25	-42	2060	-582.72	-54.3	7.76
321	SLU 50	31	-42	2068	-585.01	-54.49	9.83
321	SLU 51	25	-42	2060	-582.72	-54.3	7.76
321	SLU 52	29	-47	2353	-661.35	-62.02	8.94
321	SLU 53	39	-47	2366	-665.18	-62.33	12.39
321	SLU 54	33	-47	2358	-662.88	-62.14	10.32
321	SLU 55	29	-47	2353	-661.35	-62.02	8.94
321	SLU 56	39	-47	2366	-665.18	-62.33	12.39
321	SLU 57	33	-47	2358	-662.88	-62.14	10.32
321	SLU 58	39	-47	2366	-665.18	-62.33	12.39
321	SLU 59	33	-47	2358	-662.88	-62.14	10.32
321	SLU 60	42	-49	2494	-699.53	-65.69	13.49
321	SLU 61	36	-49	2486	-697.24	-65.5	11.42
321	SLU 62	42	-49	2494	-699.53	-65.69	13.49
321	SLU 63	36	-49	2486	-697.24	-65.5	11.42
321	SLU 64	35	-45	2278	-641.79	-60.01	11.25
321	SLU 65	26	-45	2265	-637.96	-59.7	7.8
321	SLU 66	35	-45	2278	-641.79	-60.01	11.25
321	SLU 67	30	-45	2270	-639.49	-59.82	9.18
321	SLU 68	26	-45	2265	-637.96	-59.7	7.8
321	SLU 69	35	-45	2278	-641.79	-60.01	11.25
321	SLU 70	30	-45	2270	-639.49	-59.82	9.18
321	SLU 71	35	-45	2278	-641.79	-60.01	11.25
321	SLU 72	30	-45	2270	-639.49	-59.82	9.18
321	SLU 73	33	-50	2563	-718.12	-67.54	10.36
321	SLU 74	43	-50	2576	-721.95	-67.85	13.81
321	SLU 75	37	-50	2569	-719.65	-67.66	11.74
321	SLU 76	33	-50	2563	-718.12	-67.54	10.36
321	SLU 77	43	-50	2576	-721.95	-67.85	13.81
321	SLU 78	37	-50	2569	-719.65	-67.66	11.74
321	SLU 79	43	-50	2576	-721.95	-67.85	13.81
321	SLU 80	37	-50	2569	-719.65	-67.66	11.74
321	SLU 81	46	-52	2704	-756.3	-71.21	14.91
321	SLU 82	41	-52	2696	-754.01	-71.02	12.84
321	SLU 83	46	-52	2704	-756.3	-71.21	14.91
321	SLU 84	41	-52	2696	-754.01	-71.02	12.84
321	SLE RA 1	26	-34	1706	-481.2	-44.95	8.34
321	SLE RA 2	20	-34	1698	-478.65	-44.74	6.04
321	SLE RA 3	26	-34	1706	-481.2	-44.95	8.34
321	SLE RA 4	22	-34	1701	-479.67	-44.82	6.96
321	SLE RA 5	20	-34	1698	-478.65	-44.74	6.04
321	SLE RA 6	26	-34	1706	-481.2	-44.95	8.34
321	SLE RA 7	22	-34	1701	-479.67	-44.82	6.96
321	SLE RA 8	26	-34	1706	-481.2	-44.95	8.34
321	SLE RA 9	22	-34	1701	-479.67	-44.82	6.96
321	SLE RA 10	25	-37	1896	-532.1	-49.97	7.75
321	SLE RA 11	31	-37	1905	-534.65	-50.18	10.05
321	SLE RA 12	27	-37	1900	-533.12	-50.05	8.67
321	SLE RA 13	25	-37	1896	-532.1	-49.97	7.75
321	SLE RA 14	31	-37	1905	-534.65	-50.18	10.05
321	SLE RA 15	27	-37	1900	-533.12	-50.05	8.67
321	SLE RA 16	31	-37	1905	-534.65	-50.18	10.05
321	SLE RA 17	27	-37	1900	-533.12	-50.05	8.67
321	SLE RA 18	34	-38	1990	-557.55	-52.42	10.78
321	SLE RA 19	30	-38	1985	-556.02	-52.29	9.4
321	SLE RA 20	34	-38	1990	-557.55	-52.42	10.78
321	SLE RA 21	30	-38	1985	-556.02	-52.29	9.4
321	SLE FR 1	26	-34	1706	-481.2	-44.95	8.34

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
321	SLE FR 2	25	-34	1704	-480.69	-44.91	7.88
321	SLE FR 3	26	-34	1706	-481.2	-44.95	8.34
321	SLE FR 4	27	-35	1790	-503.6	-47.15	8.61
321	SLE FR 5	29	-35	1791	-504.11	-47.19	9.08
321	SLE FR 6	30	-36	1848	-519.38	-48.68	9.56
321	SLE QP 1	26	-34	1706	-481.2	-44.95	8.34
321	SLE QP 2	29	-35	1791	-504.11	-47.19	9.08
321	SLD 1	219	-9	1916	-541.64	-50.16	76.18
321	SLD 2	187	-35	1924	-543.69	-50.37	64.48
321	SLD 3	208	-77	2060	-577.05	-53.9	72.14
321	SLD 4	177	-103	2068	-579.1	-54.11	60.44
321	SLD 5	112	85	1607	-460.94	-42.34	39.47
321	SLD 6	80	60	1615	-463.01	-42.54	27.69
321	SLD 7	78	-143	2088	-578.96	-54.8	26.01
321	SLD 8	47	-169	2096	-581.03	-55.01	14.22
321	SLD 9	10	98	1486	-427.19	-39.37	3.93
321	SLD 10	-21	72	1495	-429.25	-39.57	-7.86
321	SLD 11	-23	-131	1968	-545.21	-51.84	-9.54
321	SLD 12	-55	-156	1976	-547.27	-52.04	-21.32
321	SLD 13	-120	32	1515	-429.11	-40.27	-42.29
321	SLD 14	-151	6	1523	-431.16	-40.47	-53.99
321	SLD 15	-130	-36	1659	-464.52	-44.01	-46.33
321	SLD 16	-161	-62	1667	-466.57	-44.21	-58.03
321	SLV 1	460	24	2074	-589.45	-53.95	161.55
321	SLV 2	389	-34	2092	-594.09	-54.41	135.07
321	SLV 3	437	-132	2402	-669.96	-62.46	152.35
321	SLV 4	366	-190	2420	-674.61	-62.91	125.86
321	SLV 5	218	239	1372	-405.96	-36.16	78.15
321	SLV 6	146	180	1390	-410.63	-36.62	51.48
321	SLV 7	141	-280	2466	-674.34	-64.5	47.45
321	SLV 8	70	-338	2484	-679.01	-64.96	20.78
321	SLV 9	-12	267	1098	-329.21	-29.42	-2.63
321	SLV 10	-84	209	1117	-333.88	-29.88	-29.3
321	SLV 11	-89	-251	2192	-597.58	-57.75	-33.33
321	SLV 12	-161	-310	2211	-602.26	-58.21	-60
321	SLV 13	-309	119	1162	-333.61	-31.46	-107.71
321	SLV 14	-380	61	1181	-338.25	-31.92	-134.19
321	SLV 15	-332	-37	1491	-414.12	-39.97	-116.91
321	SLV 16	-403	-95	1509	-418.76	-40.42	-143.4
321	CRTFP Ux+	0	0	0	0	0	0
321	CRTFP Ux-	0	0	0	0	0	0
321	CRTFP Uy+	0	0	0	0	0	0
321	CRTFP Uy-	0	0	0	0	0	0
322	SLU 1	30	-34	1823	-459.81	3.51	10.63
322	SLU 2	18	-33	1810	-456.33	3.44	6.53
322	SLU 3	30	-34	1823	-459.81	3.51	10.63
322	SLU 4	23	-34	1815	-457.72	3.47	8.17
322	SLU 5	18	-33	1810	-456.33	3.44	6.53
322	SLU 6	30	-34	1823	-459.81	3.51	10.63
322	SLU 7	23	-34	1815	-457.72	3.47	8.17
322	SLU 8	30	-34	1823	-459.81	3.51	10.63
322	SLU 9	23	-34	1815	-457.72	3.47	8.17
322	SLU 10	27	-39	2140	-533.66	4.07	9.72
322	SLU 11	39	-39	2153	-537.14	4.14	13.82
322	SLU 12	32	-39	2145	-535.05	4.1	11.36
322	SLU 13	27	-39	2140	-533.66	4.07	9.72
322	SLU 14	39	-39	2153	-537.14	4.14	13.82
322	SLU 15	32	-39	2145	-535.05	4.1	11.36
322	SLU 16	39	-39	2153	-537.14	4.14	13.82
322	SLU 17	32	-39	2145	-535.05	4.1	11.36
322	SLU 18	43	-42	2294	-570.28	4.41	15.18
322	SLU 19	36	-41	2286	-568.19	4.37	12.72
322	SLU 20	43	-42	2294	-570.28	4.41	15.18
322	SLU 21	36	-41	2286	-568.19	4.37	12.72
322	SLU 22	35	-37	2055	-514.41	3.97	12.41
322	SLU 23	23	-37	2042	-510.93	3.91	8.31
322	SLU 24	35	-37	2055	-514.41	3.97	12.41
322	SLU 25	28	-37	2047	-512.32	3.93	9.95
322	SLU 26	23	-37	2042	-510.93	3.91	8.31
322	SLU 27	35	-37	2055	-514.41	3.97	12.41
322	SLU 28	28	-37	2047	-512.32	3.93	9.95
322	SLU 29	35	-37	2055	-514.41	3.97	12.41
322	SLU 30	28	-37	2047	-512.32	3.93	9.95
322	SLU 31	32	-42	2372	-588.25	4.54	11.5
322	SLU 32	44	-43	2385	-591.73	4.6	15.6
322	SLU 33	37	-42	2377	-589.65	4.56	13.14
322	SLU 34	32	-42	2372	-588.25	4.54	11.5
322	SLU 35	44	-43	2385	-591.73	4.6	15.6
322	SLU 36	37	-42	2377	-589.65	4.56	13.14
322	SLU 37	44	-43	2385	-591.73	4.6	15.6
322	SLU 38	37	-42	2377	-589.65	4.56	13.14
322	SLU 39	48	-45	2526	-624.87	4.87	16.97
322	SLU 40	41	-45	2518	-622.79	4.83	14.51
322	SLU 41	48	-45	2526	-624.87	4.87	16.97
322	SLU 42	41	-45	2518	-622.79	4.83	14.51
322	SLU 43	37	-43	2290	-579.04	4.4	13.21

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
322	SLU 44	25	-42	2277	-575.55	4.33	9.11
322	SLU 45	37	-43	2290	-579.04	4.4	13.21
322	SLU 46	30	-43	2282	-576.95	4.36	10.75
322	SLU 47	25	-42	2277	-575.55	4.33	9.11
322	SLU 48	37	-43	2290	-579.04	4.4	13.21
322	SLU 49	30	-43	2282	-576.95	4.36	10.75
322	SLU 50	37	-43	2290	-579.04	4.4	13.21
322	SLU 51	30	-43	2282	-576.95	4.36	10.75
322	SLU 52	34	-48	2607	-652.88	4.96	12.3
322	SLU 53	46	-48	2620	-656.36	5.03	16.4
322	SLU 54	39	-48	2612	-654.27	4.99	13.94
322	SLU 55	34	-48	2607	-652.88	4.96	12.3
322	SLU 56	46	-48	2620	-656.36	5.03	16.4
322	SLU 57	39	-48	2612	-654.27	4.99	13.94
322	SLU 58	46	-48	2620	-656.36	5.03	16.4
322	SLU 59	39	-48	2612	-654.27	4.99	13.94
322	SLU 60	50	-51	2761	-689.5	5.3	17.76
322	SLU 61	43	-50	2753	-687.41	5.26	15.3
322	SLU 62	50	-51	2761	-689.5	5.3	17.76
322	SLU 63	43	-50	2753	-687.41	5.26	15.3
322	SLU 64	42	-46	2522	-633.63	4.86	14.99
322	SLU 65	30	-46	2509	-630.15	4.8	10.89
322	SLU 66	42	-46	2522	-633.63	4.86	14.99
322	SLU 67	35	-46	2514	-631.54	4.82	12.53
322	SLU 68	30	-46	2509	-630.15	4.8	10.89
322	SLU 69	42	-46	2522	-633.63	4.86	14.99
322	SLU 70	35	-46	2514	-631.54	4.82	12.53
322	SLU 71	42	-46	2522	-633.63	4.86	14.99
322	SLU 72	35	-46	2514	-631.54	4.82	12.53
322	SLU 73	39	-51	2839	-707.48	5.43	14.08
322	SLU 74	51	-52	2852	-710.96	5.49	18.18
322	SLU 75	44	-51	2844	-708.87	5.45	15.72
322	SLU 76	39	-51	2839	-707.48	5.43	14.08
322	SLU 77	51	-52	2852	-710.96	5.49	18.18
322	SLU 78	44	-51	2844	-708.87	5.45	15.72
322	SLU 79	51	-52	2852	-710.96	5.49	18.18
322	SLU 80	44	-51	2844	-708.87	5.45	15.72
322	SLU 81	55	-54	2993	-744.1	5.76	19.54
322	SLU 82	48	-54	2986	-742.01	5.72	17.08
322	SLU 83	55	-54	2993	-744.1	5.76	19.54
322	SLU 84	48	-54	2986	-742.01	5.72	17.08
322	SLE RA 1	31	-35	1889	-475.41	3.64	11.14
322	SLE RA 2	23	-34	1880	-473.09	3.6	8.41
322	SLE RA 3	31	-35	1889	-475.41	3.64	11.14
322	SLE RA 4	27	-35	1884	-474.02	3.61	9.5
322	SLE RA 5	23	-34	1880	-473.09	3.6	8.41
322	SLE RA 6	31	-35	1889	-475.41	3.64	11.14
322	SLE RA 7	27	-35	1884	-474.02	3.61	9.5
322	SLE RA 8	31	-35	1889	-475.41	3.64	11.14
322	SLE RA 9	27	-35	1884	-474.02	3.61	9.5
322	SLE RA 10	29	-38	2100	-524.64	4.02	10.53
322	SLE RA 11	37	-39	2109	-526.96	4.06	13.27
322	SLE RA 12	33	-38	2104	-525.57	4.03	11.63
322	SLE RA 13	29	-38	2100	-524.64	4.02	10.53
322	SLE RA 14	37	-39	2109	-526.96	4.06	13.27
322	SLE RA 15	33	-38	2104	-525.57	4.03	11.63
322	SLE RA 16	37	-39	2109	-526.96	4.06	13.27
322	SLE RA 17	33	-38	2104	-525.57	4.03	11.63
322	SLE RA 18	40	-40	2203	-549.05	4.24	14.18
322	SLE RA 19	35	-40	2198	-547.66	4.21	12.54
322	SLE RA 20	40	-40	2203	-549.05	4.24	14.18
322	SLE RA 21	35	-40	2198	-547.66	4.21	12.54
322	SLE FR 1	31	-35	1889	-475.41	3.64	11.14
322	SLE FR 2	30	-35	1887	-474.95	3.63	10.59
322	SLE FR 3	31	-35	1889	-475.41	3.64	11.14
322	SLE FR 4	32	-36	1982	-497.04	3.81	11.51
322	SLE FR 5	34	-36	1983	-497.5	3.82	12.05
322	SLE FR 6	36	-37	2046	-512.23	3.94	12.66
322	SLE QP 1	31	-35	1889	-475.41	3.64	11.14
322	SLE QP 2	34	-36	1983	-497.5	3.82	12.05
322	SLD 1	258	-6	2106	-531.94	4.56	90.51
322	SLD 2	221	-33	2114	-533.73	4.6	77.56
322	SLD 3	246	-85	2263	-564.14	4.98	86.34
322	SLD 4	209	-112	2271	-565.93	5.01	73.4
322	SLD 5	132	102	1780	-458.36	3.4	46.48
322	SLD 6	95	75	1788	-460.16	3.44	33.44
322	SLD 7	93	-161	2302	-565.71	4.78	32.6
322	SLD 8	55	-188	2310	-567.51	4.82	19.56
322	SLD 9	12	116	1656	-427.5	2.82	4.54
322	SLD 10	-25	88	1665	-429.3	2.86	-8.5
322	SLD 11	-27	-148	2179	-534.85	4.2	-9.34
322	SLD 12	-65	-175	2187	-536.65	4.24	-22.38
322	SLD 13	-142	39	1696	-429.08	2.62	-49.29
322	SLD 14	-179	12	1704	-430.87	2.66	-62.24
322	SLD 15	-153	-40	1852	-461.28	3.04	-53.46
322	SLD 16	-191	-67	1861	-463.07	3.07	-66.4

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
322	SLV 1	544	33	2262	-575.77	5.51	190.32
322	SLV 2	460	-29	2281	-579.82	5.59	161.01
322	SLV 3	517	-146	2619	-649.05	6.45	180.82
322	SLV 4	432	-208	2638	-653.1	6.53	151.51
322	SLV 5	258	278	1520	-408.41	2.87	90.3
322	SLV 6	173	216	1539	-412.49	2.96	60.79
322	SLV 7	167	-320	2708	-652.68	6	58.63
322	SLV 8	82	-382	2727	-656.76	6.09	29.12
322	SLV 9	-15	309	1240	-338.25	1.55	-5.02
322	SLV 10	-100	247	1259	-342.33	1.63	-34.52
322	SLV 11	-105	-289	2428	-582.52	4.68	-36.69
322	SLV 12	-190	-351	2447	-586.6	4.76	-66.2
322	SLV 13	-365	135	1329	-341.91	1.11	-127.4
322	SLV 14	-449	74	1348	-345.96	1.19	-156.71
322	SLV 15	-392	-44	1685	-415.19	2.04	-136.9
322	SLV 16	-476	-106	1704	-419.24	2.13	-166.22
322	CRTFP Ux+	0	0	0	0	0	0
322	CRTFP Ux-	0	0	0	0	0	0
322	CRTFP Uy+	0	0	0	0	0	0
322	CRTFP Uy-	0	0	0	0	0	0
323	SLU 1	30	-26	1720	-388.72	2.65	10.78
323	SLU 2	18	-25	1709	-386.16	2.59	6.66
323	SLU 3	30	-26	1720	-388.72	2.65	10.78
323	SLU 4	23	-25	1714	-387.18	2.62	8.3
323	SLU 5	18	-25	1709	-386.16	2.59	6.66
323	SLU 6	30	-26	1720	-388.72	2.65	10.78
323	SLU 7	23	-25	1714	-387.18	2.62	8.3
323	SLU 8	30	-26	1720	-388.72	2.65	10.78
323	SLU 9	23	-25	1714	-387.18	2.62	8.3
323	SLU 10	27	-30	2021	-450.23	3.03	9.86
323	SLU 11	39	-31	2032	-452.79	3.09	13.98
323	SLU 12	32	-30	2026	-451.25	3.05	11.51
323	SLU 13	27	-30	2021	-450.23	3.03	9.86
323	SLU 14	39	-31	2032	-452.79	3.09	13.98
323	SLU 15	32	-30	2026	-451.25	3.05	11.51
323	SLU 16	39	-31	2032	-452.79	3.09	13.98
323	SLU 17	32	-30	2026	-451.25	3.05	11.51
323	SLU 18	43	-33	2166	-480.25	3.28	15.35
323	SLU 19	36	-33	2160	-478.71	3.24	12.88
323	SLU 20	43	-33	2166	-480.25	3.28	15.35
323	SLU 21	36	-33	2160	-478.71	3.24	12.88
323	SLU 22	35	-29	1939	-433.72	2.98	12.57
323	SLU 23	23	-28	1928	-431.16	2.92	8.45
323	SLU 24	35	-29	1939	-433.72	2.98	12.57
323	SLU 25	28	-28	1933	-432.19	2.95	10.1
323	SLU 26	23	-28	1928	-431.16	2.92	8.45
323	SLU 27	35	-29	1939	-433.72	2.98	12.57
323	SLU 28	28	-28	1933	-432.19	2.95	10.1
323	SLU 29	35	-29	1939	-433.72	2.98	12.57
323	SLU 30	28	-28	1933	-432.19	2.95	10.1
323	SLU 31	32	-33	2240	-495.23	3.36	11.65
323	SLU 32	44	-34	2251	-497.79	3.42	15.77
323	SLU 33	37	-33	2245	-496.26	3.38	13.3
323	SLU 34	32	-33	2240	-495.23	3.36	11.65
323	SLU 35	44	-34	2251	-497.79	3.42	15.77
323	SLU 36	37	-33	2245	-496.26	3.38	13.3
323	SLU 37	44	-34	2251	-497.79	3.42	15.77
323	SLU 38	37	-33	2245	-496.26	3.38	13.3
323	SLU 39	48	-36	2385	-525.25	3.6	17.14
323	SLU 40	41	-35	2378	-523.72	3.57	14.67
323	SLU 41	48	-36	2385	-525.25	3.6	17.14
323	SLU 42	41	-35	2378	-523.72	3.57	14.67
323	SLU 43	37	-33	2162	-489.9	3.33	13.39
323	SLU 44	25	-32	2150	-487.35	3.28	9.27
323	SLU 45	37	-33	2162	-489.9	3.33	13.39
323	SLU 46	30	-32	2155	-488.37	3.3	10.92
323	SLU 47	25	-32	2150	-487.35	3.28	9.27
323	SLU 48	37	-33	2162	-489.9	3.33	13.39
323	SLU 49	30	-32	2155	-488.37	3.3	10.92
323	SLU 50	37	-33	2162	-489.9	3.33	13.39
323	SLU 51	30	-32	2155	-488.37	3.3	10.92
323	SLU 52	35	-37	2463	-551.42	3.71	12.48
323	SLU 53	46	-38	2474	-553.97	3.77	16.59
323	SLU 54	39	-37	2467	-552.44	3.74	14.12
323	SLU 55	35	-37	2463	-551.42	3.71	12.48
323	SLU 56	46	-38	2474	-553.97	3.77	16.59
323	SLU 57	39	-37	2467	-552.44	3.74	14.12
323	SLU 58	46	-38	2474	-553.97	3.77	16.59
323	SLU 59	39	-37	2467	-552.44	3.74	14.12
323	SLU 60	50	-40	2607	-581.43	3.96	17.97
323	SLU 61	43	-39	2601	-579.9	3.92	15.5
323	SLU 62	50	-40	2607	-581.43	3.96	17.97
323	SLU 63	43	-39	2601	-579.9	3.92	15.5
323	SLU 64	42	-35	2380	-534.91	3.66	15.19
323	SLU 65	31	-35	2369	-532.35	3.61	11.07
323	SLU 66	42	-35	2380	-534.91	3.66	15.19

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
323	SLU 67	35	-35	2374	-533.37	3.63	12.72
323	SLU 68	31	-35	2369	-532.35	3.61	11.07
323	SLU 69	42	-35	2380	-534.91	3.66	15.19
323	SLU 70	35	-35	2374	-533.37	3.63	12.72
323	SLU 71	42	-35	2380	-534.91	3.66	15.19
323	SLU 72	35	-35	2374	-533.37	3.63	12.72
323	SLU 73	40	-40	2681	-596.42	4.04	14.27
323	SLU 74	51	-41	2692	-598.98	4.1	18.39
323	SLU 75	44	-40	2686	-597.44	4.07	15.92
323	SLU 76	40	-40	2681	-596.42	4.04	14.27
323	SLU 77	51	-41	2692	-598.98	4.1	18.39
323	SLU 78	44	-40	2686	-597.44	4.07	15.92
323	SLU 79	51	-41	2692	-598.98	4.1	18.39
323	SLU 80	44	-40	2686	-597.44	4.07	15.92
323	SLU 81	55	-43	2826	-626.44	4.29	19.76
323	SLU 82	48	-42	2820	-624.9	4.25	17.29
323	SLU 83	55	-43	2826	-626.44	4.29	19.76
323	SLU 84	48	-42	2820	-624.9	4.25	17.29
323	SLE RA 1	31	-27	1783	-401.58	2.75	11.29
323	SLE RA 2	24	-26	1776	-399.87	2.71	8.54
323	SLE RA 3	31	-27	1783	-401.58	2.75	11.29
323	SLE RA 4	27	-26	1779	-400.55	2.72	9.64
323	SLE RA 5	24	-26	1776	-399.87	2.71	8.54
323	SLE RA 6	31	-27	1783	-401.58	2.75	11.29
323	SLE RA 7	27	-26	1779	-400.55	2.72	9.64
323	SLE RA 8	31	-27	1783	-401.58	2.75	11.29
323	SLE RA 9	27	-26	1779	-400.55	2.72	9.64
323	SLE RA 10	30	-29	1984	-442.58	3	10.68
323	SLE RA 11	38	-30	1991	-444.29	3.04	13.42
323	SLE RA 12	33	-30	1987	-443.27	3.01	11.78
323	SLE RA 13	30	-29	1984	-442.58	3	10.68
323	SLE RA 14	38	-30	1991	-444.29	3.04	13.42
323	SLE RA 15	33	-30	1987	-443.27	3.01	11.78
323	SLE RA 16	38	-30	1991	-444.29	3.04	13.42
323	SLE RA 17	33	-30	1987	-443.27	3.01	11.78
323	SLE RA 18	40	-31	2080	-462.6	3.16	14.34
323	SLE RA 19	35	-31	2076	-461.57	3.14	12.69
323	SLE RA 20	40	-31	2080	-462.6	3.16	14.34
323	SLE RA 21	35	-31	2076	-461.57	3.14	12.69
323	SLE FR 1	31	-27	1783	-401.58	2.75	11.29
323	SLE FR 2	30	-27	1781	-401.24	2.74	10.74
323	SLE FR 3	31	-27	1783	-401.58	2.75	11.29
323	SLE FR 4	32	-28	1871	-419.54	2.86	11.65
323	SLE FR 5	34	-28	1872	-419.88	2.87	12.2
323	SLE FR 6	36	-29	1932	-432.09	2.95	12.81
323	SLE QP 1	31	-27	1783	-401.58	2.75	11.29
323	SLE QP 2	34	-28	1872	-419.88	2.87	12.2
323	SLD 1	259	2	1971	-445.31	3.55	90.87
323	SLD 2	222	-22	1978	-446.58	3.58	77.91
323	SLD 3	247	-75	2116	-469.8	3.87	86.7
323	SLD 4	210	-99	2123	-471.07	3.91	73.74
323	SLD 5	133	106	1680	-389.92	2.57	46.72
323	SLD 6	95	82	1687	-391.2	2.61	33.66
323	SLD 7	93	-150	2162	-471.55	3.65	32.8
323	SLD 8	55	-174	2169	-472.83	3.68	19.75
323	SLD 9	13	118	1575	-366.94	2.06	4.66
323	SLD 10	-25	94	1582	-368.21	2.09	-8.4
323	SLD 11	-27	-138	2057	-448.57	3.14	-9.26
323	SLD 12	-65	-162	2064	-449.84	3.17	-22.32
323	SLD 13	-142	43	1621	-368.7	1.83	-49.33
323	SLD 14	-179	19	1629	-369.96	1.87	-62.29
323	SLD 15	-154	-34	1766	-393.19	2.16	-53.51
323	SLD 16	-191	-58	1773	-394.45	2.19	-66.47
323	SLV 1	545	40	2097	-477.66	4.42	190.97
323	SLV 2	461	-15	2114	-480.52	4.49	161.61
323	SLV 3	518	-135	2426	-533.45	5.15	181.44
323	SLV 4	434	-190	2442	-536.31	5.23	152.09
323	SLV 5	259	276	1435	-351.59	2.19	90.65
323	SLV 6	174	221	1452	-354.48	2.27	61.1
323	SLV 7	168	-305	2531	-537.55	4.64	58.9
323	SLV 8	83	-361	2548	-540.44	4.72	29.35
323	SLV 9	-15	304	1197	-299.33	1.02	-4.95
323	SLV 10	-100	249	1213	-302.21	1.1	-34.49
323	SLV 11	-106	-277	2293	-485.29	3.47	-36.7
323	SLV 12	-191	-333	2309	-488.18	3.55	-66.24
323	SLV 13	-365	133	1302	-303.45	0.51	-127.68
323	SLV 14	-450	79	1318	-306.32	0.59	-157.04
323	SLV 15	-393	-41	1631	-359.24	1.25	-137.21
323	SLV 16	-477	-96	1647	-362.11	1.32	-166.56
323	CRTFP Ux+	0	0	0	0	0	0
323	CRTFP Ux-	0	0	0	0	0	0
323	CRTFP Uy+	0	0	0	0	0	0
323	CRTFP Uy-	0	0	0	0	0	0
324	SLU 1	30	-16	1647	-340.67	1.78	10.92
324	SLU 2	18	-15	1638	-338.86	1.73	6.79
324	SLU 3	30	-16	1647	-340.67	1.78	10.92

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
324	SLU 4	23	-15	1641	-339.58	1.75	8.44
324	SLU 5	18	-15	1638	-338.86	1.73	6.79
324	SLU 6	30	-16	1647	-340.67	1.78	10.92
324	SLU 7	23	-15	1641	-339.58	1.75	8.44
324	SLU 8	30	-16	1647	-340.67	1.78	10.92
324	SLU 9	23	-15	1641	-339.58	1.75	8.44
324	SLU 10	28	-19	1938	-394.78	1.96	10
324	SLU 11	39	-20	1948	-396.59	2.01	14.13
324	SLU 12	32	-20	1942	-395.5	1.98	11.65
324	SLU 13	28	-19	1938	-394.78	1.96	10
324	SLU 14	39	-20	1948	-396.59	2.01	14.13
324	SLU 15	32	-20	1942	-395.5	1.98	11.65
324	SLU 16	39	-20	1948	-396.59	2.01	14.13
324	SLU 17	32	-20	1942	-395.5	1.98	11.65
324	SLU 18	43	-22	2077	-420.56	2.12	15.51
324	SLU 19	36	-21	2071	-419.47	2.08	13.03
324	SLU 20	43	-22	2077	-420.56	2.12	15.51
324	SLU 21	36	-21	2071	-419.47	2.08	13.03
324	SLU 22	35	-18	1857	-379.67	1.97	12.73
324	SLU 23	24	-17	1848	-377.85	1.92	8.59
324	SLU 24	35	-18	1857	-379.67	1.97	12.73
324	SLU 25	28	-18	1852	-378.58	1.94	10.25
324	SLU 26	24	-17	1848	-377.85	1.92	8.59
324	SLU 27	35	-18	1857	-379.67	1.97	12.73
324	SLU 28	28	-18	1852	-378.58	1.94	10.25
324	SLU 29	35	-18	1857	-379.67	1.97	12.73
324	SLU 30	28	-18	1852	-378.58	1.94	10.25
324	SLU 31	33	-22	2149	-433.78	2.15	11.8
324	SLU 32	44	-23	2158	-435.59	2.2	15.94
324	SLU 33	37	-22	2152	-434.5	2.17	13.46
324	SLU 34	33	-22	2149	-433.78	2.15	11.8
324	SLU 35	44	-23	2158	-435.59	2.2	15.94
324	SLU 36	37	-22	2152	-434.5	2.17	13.46
324	SLU 37	44	-23	2158	-435.59	2.2	15.94
324	SLU 38	37	-22	2152	-434.5	2.17	13.46
324	SLU 39	48	-24	2287	-459.56	2.3	17.31
324	SLU 40	41	-24	2281	-458.47	2.27	14.83
324	SLU 41	48	-24	2287	-459.56	2.3	17.31
324	SLU 42	41	-24	2281	-458.47	2.27	14.83
324	SLU 43	38	-20	2069	-429.5	2.25	13.58
324	SLU 44	26	-19	2060	-427.69	2.2	9.45
324	SLU 45	38	-20	2069	-429.5	2.25	13.58
324	SLU 46	31	-19	2063	-428.41	2.22	11.1
324	SLU 47	26	-19	2060	-427.69	2.2	9.45
324	SLU 48	38	-20	2069	-429.5	2.25	13.58
324	SLU 49	31	-19	2063	-428.41	2.22	11.1
324	SLU 50	38	-20	2069	-429.5	2.25	13.58
324	SLU 51	31	-19	2063	-428.41	2.22	11.1
324	SLU 52	35	-23	2360	-483.61	2.43	12.66
324	SLU 53	47	-24	2370	-485.42	2.48	16.79
324	SLU 54	40	-24	2364	-484.33	2.45	14.31
324	SLU 55	35	-23	2360	-483.61	2.43	12.66
324	SLU 56	47	-24	2370	-485.42	2.48	16.79
324	SLU 57	40	-24	2364	-484.33	2.45	14.31
324	SLU 58	47	-24	2370	-485.42	2.48	16.79
324	SLU 59	40	-24	2364	-484.33	2.45	14.31
324	SLU 60	51	-26	2499	-509.39	2.59	18.17
324	SLU 61	44	-25	2493	-508.3	2.55	15.69
324	SLU 62	51	-26	2499	-509.39	2.59	18.17
324	SLU 63	44	-25	2493	-508.3	2.55	15.69
324	SLU 64	43	-22	2279	-468.5	2.44	15.39
324	SLU 65	31	-21	2270	-466.68	2.39	11.25
324	SLU 66	43	-22	2279	-468.5	2.44	15.39
324	SLU 67	36	-22	2273	-467.41	2.41	12.91
324	SLU 68	31	-21	2270	-466.68	2.39	11.25
324	SLU 69	43	-22	2279	-468.5	2.44	15.39
324	SLU 70	36	-22	2273	-467.41	2.41	12.91
324	SLU 71	43	-22	2279	-468.5	2.44	15.39
324	SLU 72	36	-22	2273	-467.41	2.41	12.91
324	SLU 73	40	-26	2571	-522.61	2.62	14.46
324	SLU 74	52	-26	2580	-524.42	2.67	18.6
324	SLU 75	45	-26	2574	-523.33	2.64	16.12
324	SLU 76	40	-26	2571	-522.61	2.62	14.46
324	SLU 77	52	-26	2580	-524.42	2.67	18.6
324	SLU 78	45	-26	2574	-523.33	2.64	16.12
324	SLU 79	52	-26	2580	-524.42	2.67	18.6
324	SLU 80	45	-26	2574	-523.33	2.64	16.12
324	SLU 81	56	-28	2709	-548.39	2.77	19.97
324	SLU 82	49	-28	2703	-547.3	2.74	17.49
324	SLU 83	56	-28	2709	-548.39	2.77	19.97
324	SLU 84	49	-28	2703	-547.3	2.74	17.49
324	SLE RA 1	32	-16	1707	-351.81	1.83	11.44
324	SLE RA 2	24	-16	1701	-350.6	1.8	8.68
324	SLE RA 3	32	-16	1707	-351.81	1.83	11.44
324	SLE RA 4	27	-16	1703	-351.09	1.81	9.79
324	SLE RA 5	24	-16	1701	-350.6	1.8	8.68

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
324	SLE RA 6	32	-16	1707	-351.81	1.83	11.44
324	SLE RA 7	27	-16	1703	-351.09	1.81	9.79
324	SLE RA 8	32	-16	1707	-351.81	1.83	11.44
324	SLE RA 9	27	-16	1703	-351.09	1.81	9.79
324	SLE RA 10	30	-19	1901	-387.88	1.96	10.82
324	SLE RA 11	38	-19	1907	-389.09	1.99	13.58
324	SLE RA 12	33	-19	1904	-388.37	1.97	11.92
324	SLE RA 13	30	-19	1901	-387.88	1.96	10.82
324	SLE RA 14	38	-19	1907	-389.09	1.99	13.58
324	SLE RA 15	33	-19	1904	-388.37	1.97	11.92
324	SLE RA 16	38	-19	1907	-389.09	1.99	13.58
324	SLE RA 17	33	-19	1904	-388.37	1.97	11.92
324	SLE RA 18	40	-21	1993	-405.07	2.06	14.5
324	SLE RA 19	36	-20	1990	-404.35	2.04	12.84
324	SLE RA 20	40	-21	1993	-405.07	2.06	14.5
324	SLE RA 21	36	-20	1990	-404.35	2.04	12.84
324	SLE FR 1	32	-16	1707	-351.81	1.83	11.44
324	SLE FR 2	30	-16	1706	-351.57	1.83	10.89
324	SLE FR 3	32	-16	1707	-351.81	1.83	11.44
324	SLE FR 4	33	-18	1792	-367.55	1.89	11.8
324	SLE FR 5	34	-18	1793	-367.79	1.9	12.36
324	SLE FR 6	36	-19	1850	-378.44	1.95	12.97
324	SLE QP 1	32	-16	1707	-351.81	1.83	11.44
324	SLE QP 2	34	-18	1793	-367.79	1.9	12.36
324	SLD 1	260	12	1870	-385.42	2.53	91.21
324	SLD 2	222	-9	1876	-386.32	2.56	78.23
324	SLD 3	248	-63	2006	-404.79	2.75	87.02
324	SLD 4	210	-84	2012	-405.68	2.78	74.04
324	SLD 5	133	112	1608	-343.39	1.74	46.95
324	SLD 6	96	91	1614	-344.29	1.76	33.87
324	SLD 7	93	-137	2060	-407.94	2.49	33
324	SLD 8	56	-158	2066	-408.84	2.52	19.93
324	SLD 9	13	123	1519	-326.73	1.28	4.78
324	SLD 10	-25	102	1526	-327.63	1.31	-8.29
324	SLD 11	-27	-126	1971	-391.28	2.04	-9.16
324	SLD 12	-65	-147	1978	-392.18	2.07	-22.24
324	SLD 13	-142	49	1574	-329.9	1.02	-49.33
324	SLD 14	-179	27	1580	-330.79	1.05	-62.31
324	SLD 15	-154	-26	1709	-349.26	1.25	-53.52
324	SLD 16	-191	-47	1716	-350.15	1.28	-66.5
324	SLV 1	546	49	1969	-407.82	3.32	191.53
324	SLV 2	462	1	1983	-409.85	3.39	162.14
324	SLV 3	519	-121	2277	-452	3.83	181.98
324	SLV 4	435	-169	2291	-454.02	3.9	152.59
324	SLV 5	259	277	1373	-312.08	1.53	90.97
324	SLV 6	174	228	1387	-314.12	1.59	61.39
324	SLV 7	168	-289	2401	-459.34	3.24	59.15
324	SLV 8	83	-338	2415	-461.37	3.3	29.56
324	SLV 9	-14	302	1171	-274.2	0.5	-4.85
324	SLV 10	-100	253	1185	-276.24	0.57	-34.44
324	SLV 11	-106	-264	2199	-421.46	2.21	-36.68
324	SLV 12	-191	-312	2213	-423.49	2.28	-66.26
324	SLV 13	-366	134	1295	-281.55	-0.1	-127.88
324	SLV 14	-450	85	1309	-283.58	-0.03	-157.27
324	SLV 15	-393	-36	1603	-325.73	0.41	-137.43
324	SLV 16	-478	-84	1617	-327.75	0.48	-166.82
324	CRTFP Ux+	0	0	0	0	0	0
324	CRTFP Ux-	0	0	0	0	0	0
324	CRTFP Uy+	0	0	0	0	0	0
324	CRTFP Uy-	0	0	0	0	0	0
325	SLU 1	31	-5	1602	-314.49	0.93	11.07
325	SLU 2	19	-4	1594	-313.26	0.89	6.93
325	SLU 3	31	-5	1602	-314.49	0.93	11.07
325	SLU 4	24	-4	1597	-313.76	0.91	8.59
325	SLU 5	19	-4	1594	-313.26	0.89	6.93
325	SLU 6	31	-5	1602	-314.49	0.93	11.07
325	SLU 7	24	-4	1597	-313.76	0.91	8.59
325	SLU 8	31	-5	1602	-314.49	0.93	11.07
325	SLU 9	24	-4	1597	-313.76	0.91	8.59
325	SLU 10	28	-7	1891	-365.98	0.92	10.14
325	SLU 11	40	-8	1898	-367.21	0.97	14.28
325	SLU 12	33	-8	1894	-366.47	0.94	11.79
325	SLU 13	28	-7	1891	-365.98	0.92	10.14
325	SLU 14	40	-8	1898	-367.21	0.97	14.28
325	SLU 15	33	-8	1894	-366.47	0.94	11.79
325	SLU 16	40	-8	1898	-367.21	0.97	14.28
325	SLU 17	33	-8	1894	-366.47	0.94	11.79
325	SLU 18	44	-9	2025	-389.8	0.98	15.66
325	SLU 19	37	-9	2021	-389.06	0.96	13.17
325	SLU 20	44	-9	2025	-389.8	0.98	15.66
325	SLU 21	37	-9	2021	-389.06	0.96	13.17
325	SLU 22	36	-6	1808	-350.95	0.98	12.89
325	SLU 23	24	-6	1801	-349.72	0.94	8.74
325	SLU 24	36	-6	1808	-350.95	0.98	12.89
325	SLU 25	29	-6	1804	-350.21	0.95	10.4
325	SLU 26	24	-6	1801	-349.72	0.94	8.74

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
325	SLU 27	36	-6	1808	-350.95	0.98	12.89
325	SLU 28	29	-6	1804	-350.21	0.95	10.4
325	SLU 29	36	-6	1808	-350.95	0.98	12.89
325	SLU 30	29	-6	1804	-350.21	0.95	10.4
325	SLU 31	33	-9	2097	-402.43	0.97	11.95
325	SLU 32	45	-10	2105	-403.66	1.01	16.09
325	SLU 33	38	-9	2100	-402.92	0.99	13.61
325	SLU 34	33	-9	2097	-402.43	0.97	11.95
325	SLU 35	45	-10	2105	-403.66	1.01	16.09
325	SLU 36	38	-9	2100	-402.92	0.99	13.61
325	SLU 37	45	-10	2105	-403.66	1.01	16.09
325	SLU 38	38	-9	2100	-402.92	0.99	13.61
325	SLU 39	49	-11	2232	-426.25	1.03	17.47
325	SLU 40	42	-11	2227	-425.51	1	14.98
325	SLU 41	49	-11	2232	-426.25	1.03	17.47
325	SLU 42	42	-11	2227	-425.51	1	14.98
325	SLU 43	38	-5	2012	-396.34	1.2	13.77
325	SLU 44	26	-5	2004	-395.11	1.15	9.63
325	SLU 45	38	-5	2012	-396.34	1.2	13.77
325	SLU 46	31	-5	2007	-395.61	1.17	11.29
325	SLU 47	26	-5	2004	-395.11	1.15	9.63
325	SLU 48	38	-5	2012	-396.34	1.2	13.77
325	SLU 49	31	-5	2007	-395.61	1.17	11.29
325	SLU 50	38	-5	2012	-396.34	1.2	13.77
325	SLU 51	31	-5	2007	-395.61	1.17	11.29
325	SLU 52	35	-8	2300	-447.83	1.19	12.84
325	SLU 53	47	-9	2308	-449.06	1.23	16.98
325	SLU 54	40	-8	2303	-448.32	1.2	14.5
325	SLU 55	35	-8	2300	-447.83	1.19	12.84
325	SLU 56	47	-9	2308	-449.06	1.23	16.98
325	SLU 57	40	-8	2303	-448.32	1.2	14.5
325	SLU 58	47	-9	2308	-449.06	1.23	16.98
325	SLU 59	40	-8	2303	-448.32	1.2	14.5
325	SLU 60	51	-10	2435	-471.65	1.25	18.36
325	SLU 61	44	-10	2431	-470.91	1.22	15.87
325	SLU 62	51	-10	2435	-471.65	1.25	18.36
325	SLU 63	44	-10	2431	-470.91	1.22	15.87
325	SLU 64	43	-7	2218	-432.8	1.24	15.59
325	SLU 65	31	-6	2210	-431.57	1.2	11.44
325	SLU 66	43	-7	2218	-432.8	1.24	15.59
325	SLU 67	36	-7	2213	-432.06	1.22	13.1
325	SLU 68	31	-6	2210	-431.57	1.2	11.44
325	SLU 69	43	-7	2218	-432.8	1.24	15.59
325	SLU 70	36	-7	2213	-432.06	1.22	13.1
325	SLU 71	43	-7	2218	-432.8	1.24	15.59
325	SLU 72	36	-7	2213	-432.06	1.22	13.1
325	SLU 73	40	-10	2507	-484.28	1.23	14.65
325	SLU 74	52	-11	2514	-485.51	1.28	18.79
325	SLU 75	45	-10	2510	-484.77	1.25	16.31
325	SLU 76	40	-10	2507	-484.28	1.23	14.65
325	SLU 77	52	-11	2514	-485.51	1.28	18.79
325	SLU 78	45	-10	2510	-484.77	1.25	16.31
325	SLU 79	52	-11	2514	-485.51	1.28	18.79
325	SLU 80	45	-10	2510	-484.77	1.25	16.31
325	SLU 81	56	-12	2642	-508.1	1.29	20.17
325	SLU 82	49	-12	2637	-507.36	1.27	17.68
325	SLU 83	56	-12	2642	-508.1	1.29	20.17
325	SLU 84	49	-12	2637	-507.36	1.27	17.68
325	SLE RA 1	32	-5	1661	-324.91	0.95	11.59
325	SLE RA 2	24	-5	1656	-324.09	0.92	8.83
325	SLE RA 3	32	-5	1661	-324.91	0.95	11.59
325	SLE RA 4	27	-5	1658	-324.42	0.93	9.93
325	SLE RA 5	24	-5	1656	-324.09	0.92	8.83
325	SLE RA 6	32	-5	1661	-324.91	0.95	11.59
325	SLE RA 7	27	-5	1658	-324.42	0.93	9.93
325	SLE RA 8	32	-5	1661	-324.91	0.95	11.59
325	SLE RA 9	27	-5	1658	-324.42	0.93	9.93
325	SLE RA 10	30	-7	1853	-359.23	0.94	10.97
325	SLE RA 11	38	-7	1858	-360.05	0.97	13.73
325	SLE RA 12	33	-7	1855	-359.56	0.95	12.07
325	SLE RA 13	30	-7	1853	-359.23	0.94	10.97
325	SLE RA 14	38	-7	1858	-360.05	0.97	13.73
325	SLE RA 15	33	-7	1855	-359.56	0.95	12.07
325	SLE RA 16	38	-7	1858	-360.05	0.97	13.73
325	SLE RA 17	33	-7	1855	-359.56	0.95	12.07
325	SLE RA 18	41	-8	1943	-375.11	0.98	14.65
325	SLE RA 19	36	-8	1940	-374.62	0.96	12.99
325	SLE RA 20	41	-8	1943	-375.11	0.98	14.65
325	SLE RA 21	36	-8	1940	-374.62	0.96	12.99
325	SLE FR 1	32	-5	1661	-324.91	0.95	11.59
325	SLE FR 2	31	-5	1660	-324.74	0.94	11.04
325	SLE FR 3	32	-5	1661	-324.91	0.95	11.59
325	SLE FR 4	33	-6	1744	-339.81	0.95	11.96
325	SLE FR 5	35	-6	1745	-339.97	0.96	12.51
325	SLE FR 6	36	-7	1802	-350.01	0.96	13.12
325	SLE QP 1	32	-5	1661	-324.91	0.95	11.59

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
325	SLE QP 2	35	-6	1745	-339.97	0.96	12.51
325	SLD 1	260	23	1803	-350.84	1.54	91.5
325	SLD 2	223	5	1808	-351.49	1.56	78.51
325	SLD 3	248	-50	1933	-367.48	1.66	87.3
325	SLD 4	211	-68	1938	-368.13	1.69	74.31
325	SLD 5	134	120	1564	-317.77	0.93	47.16
325	SLD 6	96	101	1569	-318.42	0.96	34.07
325	SLD 7	94	-123	1997	-373.23	1.35	33.18
325	SLD 8	56	-142	2002	-373.88	1.38	20.1
325	SLD 9	13	129	1489	-306.06	0.54	4.92
325	SLD 10	-24	111	1494	-306.71	0.56	-8.17
325	SLD 11	-27	-113	1922	-361.52	0.96	-9.05
325	SLD 12	-64	-132	1927	-362.17	0.98	-22.14
325	SLD 13	-142	56	1553	-311.82	0.22	-49.3
325	SLD 14	-179	37	1558	-312.46	0.25	-62.29
325	SLD 15	-154	-17	1683	-328.45	0.35	-53.49
325	SLD 16	-191	-35	1688	-329.1	0.38	-66.48
325	SLV 1	547	60	1876	-364.61	2.28	191.99
325	SLV 2	463	18	1888	-366.08	2.34	162.58
325	SLV 3	520	-105	2171	-402.62	2.56	182.43
325	SLV 4	436	-147	2183	-404.08	2.62	153.01
325	SLV 5	260	279	1332	-289.21	0.9	91.25
325	SLV 6	175	237	1344	-290.69	0.95	61.64
325	SLV 7	169	-272	2317	-415.88	1.85	59.37
325	SLV 8	84	-314	2329	-417.36	1.91	29.76
325	SLV 9	-14	302	1162	-262.58	0	-4.74
325	SLV 10	-99	259	1174	-264.06	0.06	-34.35
325	SLV 11	-105	-249	2147	-389.25	0.96	-36.63
325	SLV 12	-191	-292	2159	-390.73	1.02	-66.24
325	SLV 13	-366	135	1308	-275.86	-0.71	-128
325	SLV 14	-451	93	1320	-277.32	-0.65	-157.41
325	SLV 15	-394	-30	1603	-313.86	-0.42	-137.56
325	SLV 16	-478	-72	1615	-315.33	-0.36	-166.98
325	CRTFP Ux+	0	0	0	0	0	0
325	CRTFP Ux-	0	0	0	0	0	0
325	CRTFP Uy+	0	0	0	0	0	0
325	CRTFP Uy-	0	0	0	0	0	0
326	SLU 1	31	7	1584	-308.77	0.14	11.22
326	SLU 2	19	8	1578	-307.97	0.1	7.07
326	SLU 3	31	7	1584	-308.77	0.14	11.22
326	SLU 4	24	8	1580	-308.29	0.12	8.73
326	SLU 5	19	8	1578	-307.97	0.1	7.07
326	SLU 6	31	7	1584	-308.77	0.14	11.22
326	SLU 7	24	8	1580	-308.29	0.12	8.73
326	SLU 8	31	7	1584	-308.77	0.14	11.22
326	SLU 9	24	8	1580	-308.29	0.12	8.73
326	SLU 10	28	5	1876	-362.16	-0.05	10.27
326	SLU 11	40	5	1883	-362.96	-0.01	14.42
326	SLU 12	33	5	1879	-362.48	-0.04	11.93
326	SLU 13	28	5	1876	-362.16	-0.05	10.27
326	SLU 14	40	5	1883	-362.96	-0.01	14.42
326	SLU 15	33	5	1879	-362.48	-0.04	11.93
326	SLU 16	40	5	1883	-362.96	-0.01	14.42
326	SLU 17	33	5	1879	-362.48	-0.04	11.93
326	SLU 18	44	4	2011	-386.19	-0.08	15.79
326	SLU 19	37	4	2007	-385.71	-0.1	13.3
326	SLU 20	44	4	2011	-386.19	-0.08	15.79
326	SLU 21	37	4	2007	-385.71	-0.1	13.3
326	SLU 22	36	6	1791	-345.96	0.06	13.04
326	SLU 23	24	7	1785	-345.16	0.02	8.88
326	SLU 24	36	6	1791	-345.96	0.06	13.04
326	SLU 25	29	6	1787	-345.48	0.03	10.55
326	SLU 26	24	7	1785	-345.16	0.02	8.88
326	SLU 27	36	6	1791	-345.96	0.06	13.04
326	SLU 28	29	6	1787	-345.48	0.03	10.55
326	SLU 29	36	6	1791	-345.96	0.06	13.04
326	SLU 30	29	6	1787	-345.48	0.03	10.55
326	SLU 31	33	4	2083	-399.35	-0.14	12.08
326	SLU 32	45	4	2090	-400.15	-0.1	16.24
326	SLU 33	38	4	2086	-399.67	-0.12	13.74
326	SLU 34	33	4	2083	-399.35	-0.14	12.08
326	SLU 35	45	4	2090	-400.15	-0.1	16.24
326	SLU 36	38	4	2086	-399.67	-0.12	13.74
326	SLU 37	45	4	2090	-400.15	-0.1	16.24
326	SLU 38	38	4	2086	-399.67	-0.12	13.74
326	SLU 39	49	3	2218	-423.38	-0.17	17.61
326	SLU 40	42	3	2214	-422.9	-0.19	15.11
326	SLU 41	49	3	2218	-423.38	-0.17	17.61
326	SLU 42	42	3	2214	-422.9	-0.19	15.11
326	SLU 43	39	10	1988	-388.64	0.21	13.97
326	SLU 44	27	10	1982	-387.85	0.18	9.81
326	SLU 45	39	10	1988	-388.64	0.21	13.97
326	SLU 46	31	10	1985	-388.17	0.19	11.48
326	SLU 47	27	10	1982	-387.85	0.18	9.81
326	SLU 48	39	10	1988	-388.64	0.21	13.97
326	SLU 49	31	10	1985	-388.17	0.19	11.48

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
326	SLU 50	39	10	1988	-388.64	0.21	13.97
326	SLU 51	31	10	1985	-388.17	0.19	11.48
326	SLU 52	36	8	2281	-442.04	0.02	13.01
326	SLU 53	48	7	2287	-442.84	0.06	17.17
326	SLU 54	41	8	2283	-442.36	0.04	14.67
326	SLU 55	36	8	2281	-442.04	0.02	13.01
326	SLU 56	48	7	2287	-442.84	0.06	17.17
326	SLU 57	41	8	2283	-442.36	0.04	14.67
326	SLU 58	48	7	2287	-442.84	0.06	17.17
326	SLU 59	41	8	2283	-442.36	0.04	14.67
326	SLU 60	52	6	2415	-466.07	-0.01	18.54
326	SLU 61	44	7	2411	-465.59	-0.03	16.05
326	SLU 62	52	6	2415	-466.07	-0.01	18.54
326	SLU 63	44	7	2411	-465.59	-0.03	16.05
326	SLU 64	44	9	2195	-425.83	0.13	15.78
326	SLU 65	32	9	2189	-425.04	0.09	11.63
326	SLU 66	44	9	2195	-425.83	0.13	15.78
326	SLU 67	37	9	2192	-425.36	0.11	13.29
326	SLU 68	32	9	2189	-425.04	0.09	11.63
326	SLU 69	44	9	2195	-425.83	0.13	15.78
326	SLU 70	37	9	2192	-425.36	0.11	13.29
326	SLU 71	44	9	2195	-425.83	0.13	15.78
326	SLU 72	37	9	2192	-425.36	0.11	13.29
326	SLU 73	41	7	2488	-479.23	-0.07	14.83
326	SLU 74	53	6	2494	-480.03	-0.03	18.98
326	SLU 75	46	7	2490	-479.55	-0.05	16.49
326	SLU 76	41	7	2488	-479.23	-0.07	14.83
326	SLU 77	53	6	2494	-480.03	-0.03	18.98
326	SLU 78	46	7	2490	-479.55	-0.05	16.49
326	SLU 79	53	6	2494	-480.03	-0.03	18.98
326	SLU 80	46	7	2490	-479.55	-0.05	16.49
326	SLU 81	57	5	2622	-503.26	-0.1	20.35
326	SLU 82	50	6	2618	-502.78	-0.12	17.86
326	SLU 83	57	5	2622	-503.26	-0.1	20.35
326	SLU 84	50	6	2618	-502.78	-0.12	17.86
326	SLE RA 1	32	7	1643	-319.39	0.12	11.74
326	SLE RA 2	25	7	1639	-318.86	0.09	8.97
326	SLE RA 3	32	7	1643	-319.39	0.12	11.74
326	SLE RA 4	28	7	1641	-319.07	0.1	10.08
326	SLE RA 5	25	7	1639	-318.86	0.09	8.97
326	SLE RA 6	32	7	1643	-319.39	0.12	11.74
326	SLE RA 7	28	7	1641	-319.07	0.1	10.08
326	SLE RA 8	32	7	1643	-319.39	0.12	11.74
326	SLE RA 9	28	7	1641	-319.07	0.1	10.08
326	SLE RA 10	31	6	1838	-354.99	-0.01	11.1
326	SLE RA 11	39	5	1842	-355.52	0.01	13.87
326	SLE RA 12	34	6	1840	-355.2	0	12.21
326	SLE RA 13	31	6	1838	-354.99	-0.01	11.1
326	SLE RA 14	39	5	1842	-355.52	0.01	13.87
326	SLE RA 15	34	6	1840	-355.2	0	12.21
326	SLE RA 16	39	5	1842	-355.52	0.01	13.87
326	SLE RA 17	34	6	1840	-355.2	0	12.21
326	SLE RA 18	41	5	1928	-371.01	-0.03	14.79
326	SLE RA 19	36	5	1925	-370.69	-0.05	13.13
326	SLE RA 20	41	5	1928	-371.01	-0.03	14.79
326	SLE RA 21	36	5	1925	-370.69	-0.05	13.13
326	SLE FR 1	32	7	1643	-319.39	0.12	11.74
326	SLE FR 2	31	7	1642	-319.29	0.11	11.19
326	SLE FR 3	32	7	1643	-319.39	0.12	11.74
326	SLE FR 4	34	6	1728	-334.77	0.07	12.1
326	SLE FR 5	35	6	1729	-334.88	0.07	12.66
326	SLE FR 6	37	6	1785	-345.2	0.04	13.27
326	SLE QP 1	32	7	1643	-319.39	0.12	11.74
326	SLE QP 2	35	6	1729	-334.88	0.07	12.66
326	SLD 1	261	35	1767	-339.96	0.62	91.73
326	SLD 2	224	19	1772	-340.47	0.64	78.74
326	SLD 3	249	-36	1895	-355.89	0.65	87.54
326	SLD 4	212	-52	1899	-356.39	0.68	74.54
326	SLD 5	134	129	1545	-312.06	0.17	47.35
326	SLD 6	97	112	1550	-312.57	0.19	34.25
326	SLD 7	94	-109	1970	-365.16	0.3	33.35
326	SLD 8	57	-125	1974	-365.67	0.32	20.25
326	SLD 9	14	137	1483	-304.08	-0.18	5.06
326	SLD 10	-24	121	1487	-304.59	-0.15	-8.04
326	SLD 11	-26	-100	1907	-357.18	-0.05	-8.94
326	SLD 12	-64	-116	1912	-357.69	-0.02	-22.03
326	SLD 13	-141	64	1558	-313.36	-0.53	-49.22
326	SLD 14	-179	48	1563	-313.86	-0.51	-62.22
326	SLD 15	-153	-7	1685	-329.29	-0.49	-53.42
326	SLD 16	-191	-23	1690	-329.79	-0.47	-66.42
326	SLV 1	548	72	1816	-346.37	1.31	192.35
326	SLV 2	464	35	1827	-347.51	1.36	162.91
326	SLV 3	521	-90	2106	-382.77	1.4	182.76
326	SLV 4	436	-126	2116	-383.91	1.45	153.33
326	SLV 5	261	284	1312	-282.71	0.29	91.49
326	SLV 6	175	247	1322	-283.86	0.34	61.86

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
326	SLV 7	169	-255	2278	-404.05	0.58	59.56
326	SLV 8	84	-291	2288	-405.2	0.64	29.93
326	SLV 9	-14	304	1169	-264.55	-0.49	-4.62
326	SLV 10	-99	267	1180	-265.7	-0.44	-34.24
326	SLV 11	-105	-235	2135	-385.89	-0.2	-36.55
326	SLV 12	-190	-271	2145	-387.04	-0.15	-66.18
326	SLV 13	-366	139	1341	-285.84	-1.3	-128.02
326	SLV 14	-451	102	1351	-286.98	-1.25	-157.45
326	SLV 15	-394	-23	1631	-322.24	-1.21	-137.6
326	SLV 16	-478	-59	1641	-323.38	-1.16	-167.03
326	CRTFP Ux+	0	0	0	0	0	0
326	CRTFP Ux-	0	0	0	0	0	0
326	CRTFP Uy+	0	0	0	0	0	0
326	CRTFP Uy-	0	0	0	0	0	0
327	SLU 1	31	19	1591	-321.6	-0.56	11.37
327	SLU 2	20	20	1586	-321.11	-0.59	7.21
327	SLU 3	31	19	1591	-321.6	-0.56	11.37
327	SLU 4	24	19	1588	-321.3	-0.58	8.88
327	SLU 5	20	20	1586	-321.11	-0.59	7.21
327	SLU 6	31	19	1591	-321.6	-0.56	11.37
327	SLU 7	24	19	1588	-321.3	-0.58	8.88
327	SLU 8	31	19	1591	-321.6	-0.56	11.37
327	SLU 9	24	19	1588	-321.3	-0.58	8.88
327	SLU 10	29	18	1893	-381.1	-0.92	10.39
327	SLU 11	40	18	1898	-381.59	-0.89	14.55
327	SLU 12	33	18	1895	-381.29	-0.91	12.05
327	SLU 13	29	18	1893	-381.1	-0.92	10.39
327	SLU 14	40	18	1898	-381.59	-0.89	14.55
327	SLU 15	33	18	1895	-381.29	-0.91	12.05
327	SLU 16	40	18	1898	-381.59	-0.89	14.55
327	SLU 17	33	18	1895	-381.29	-0.91	12.05
327	SLU 18	44	18	2029	-407.3	-1.03	15.91
327	SLU 19	37	18	2026	-407	-1.05	13.41
327	SLU 20	44	18	2029	-407.3	-1.03	15.91
327	SLU 21	37	18	2026	-407	-1.05	13.41
327	SLU 22	37	19	1803	-362.54	-0.77	13.18
327	SLU 23	25	19	1798	-362.05	-0.8	9.02
327	SLU 24	37	19	1803	-362.54	-0.77	13.18
327	SLU 25	29	19	1800	-362.24	-0.79	10.69
327	SLU 26	25	19	1798	-362.05	-0.8	9.02
327	SLU 27	37	19	1803	-362.54	-0.77	13.18
327	SLU 28	29	19	1800	-362.24	-0.79	10.69
327	SLU 29	37	19	1803	-362.54	-0.77	13.18
327	SLU 30	29	19	1800	-362.24	-0.79	10.69
327	SLU 31	34	18	2105	-422.04	-1.13	12.2
327	SLU 32	46	18	2110	-422.53	-1.09	16.36
327	SLU 33	38	18	2107	-422.23	-1.11	13.86
327	SLU 34	34	18	2105	-422.04	-1.13	12.2
327	SLU 35	46	18	2110	-422.53	-1.09	16.36
327	SLU 36	38	18	2107	-422.23	-1.11	13.86
327	SLU 37	46	18	2110	-422.53	-1.09	16.36
327	SLU 38	38	18	2107	-422.23	-1.11	13.86
327	SLU 39	49	17	2241	-448.24	-1.23	17.72
327	SLU 40	42	17	2238	-447.94	-1.25	15.22
327	SLU 41	49	17	2241	-448.24	-1.23	17.72
327	SLU 42	42	17	2238	-447.94	-1.25	15.22
327	SLU 43	39	25	1996	-404.04	-0.66	14.16
327	SLU 44	27	26	1991	-403.55	-0.69	10
327	SLU 45	39	25	1996	-404.04	-0.66	14.16
327	SLU 46	32	25	1993	-403.75	-0.68	11.67
327	SLU 47	27	26	1991	-403.55	-0.69	10
327	SLU 48	39	25	1996	-404.04	-0.66	14.16
327	SLU 49	32	25	1993	-403.75	-0.68	11.67
327	SLU 50	39	25	1996	-404.04	-0.66	14.16
327	SLU 51	32	25	1993	-403.75	-0.68	11.67
327	SLU 52	36	24	2298	-463.54	-1.02	13.18
327	SLU 53	48	24	2303	-464.03	-0.99	17.34
327	SLU 54	41	24	2300	-463.74	-1.01	14.84
327	SLU 55	36	24	2298	-463.54	-1.02	13.18
327	SLU 56	48	24	2303	-464.03	-0.99	17.34
327	SLU 57	41	24	2300	-463.74	-1.01	14.84
327	SLU 58	48	24	2303	-464.03	-0.99	17.34
327	SLU 59	41	24	2300	-463.74	-1.01	14.84
327	SLU 60	52	23	2434	-489.74	-1.13	18.7
327	SLU 61	45	24	2431	-489.45	-1.15	16.2
327	SLU 62	52	23	2434	-489.74	-1.13	18.7
327	SLU 63	45	24	2431	-489.45	-1.15	16.2
327	SLU 64	44	25	2208	-444.98	-0.87	15.98
327	SLU 65	32	25	2203	-444.49	-0.9	11.81
327	SLU 66	44	25	2208	-444.98	-0.87	15.98
327	SLU 67	37	25	2205	-444.69	-0.89	13.48
327	SLU 68	32	25	2203	-444.49	-0.9	11.81
327	SLU 69	44	25	2208	-444.98	-0.87	15.98
327	SLU 70	37	25	2205	-444.69	-0.89	13.48
327	SLU 71	44	25	2208	-444.98	-0.87	15.98
327	SLU 72	37	25	2205	-444.69	-0.89	13.48

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
327	SLU 73	41	24	2510	-504.48	-1.23	14.99
327	SLU 74	53	24	2515	-504.97	-1.19	19.15
327	SLU 75	46	24	2512	-504.68	-1.21	16.65
327	SLU 76	41	24	2510	-504.48	-1.23	14.99
327	SLU 77	53	24	2515	-504.97	-1.19	19.15
327	SLU 78	46	24	2512	-504.68	-1.21	16.65
327	SLU 79	53	24	2515	-504.97	-1.19	19.15
327	SLU 80	46	24	2512	-504.68	-1.21	16.65
327	SLU 81	57	23	2646	-530.68	-1.33	20.51
327	SLU 82	50	23	2643	-530.39	-1.35	18.01
327	SLU 83	57	23	2646	-530.68	-1.33	20.51
327	SLU 84	50	23	2643	-530.39	-1.35	18.01
327	SLE RA 1	33	19	1652	-333.3	-0.62	11.89
327	SLE RA 2	25	19	1648	-332.97	-0.64	9.12
327	SLE RA 3	33	19	1652	-333.3	-0.62	11.89
327	SLE RA 4	28	19	1650	-333.1	-0.63	10.23
327	SLE RA 5	25	19	1648	-332.97	-0.64	9.12
327	SLE RA 6	33	19	1652	-333.3	-0.62	11.89
327	SLE RA 7	28	19	1650	-333.1	-0.63	10.23
327	SLE RA 8	33	19	1652	-333.3	-0.62	11.89
327	SLE RA 9	28	19	1650	-333.1	-0.63	10.23
327	SLE RA 10	31	19	1853	-372.96	-0.86	11.23
327	SLE RA 11	39	18	1856	-373.29	-0.84	14.01
327	SLE RA 12	34	18	1854	-373.09	-0.85	12.34
327	SLE RA 13	31	19	1853	-372.96	-0.86	11.23
327	SLE RA 14	39	18	1856	-373.29	-0.84	14.01
327	SLE RA 15	34	18	1854	-373.09	-0.85	12.34
327	SLE RA 16	39	18	1856	-373.29	-0.84	14.01
327	SLE RA 17	34	18	1854	-373.09	-0.85	12.34
327	SLE RA 18	41	18	1944	-390.43	-0.93	14.91
327	SLE RA 19	37	18	1942	-390.23	-0.94	13.25
327	SLE RA 20	41	18	1944	-390.43	-0.93	14.91
327	SLE RA 21	37	18	1942	-390.23	-0.94	13.25
327	SLE FR 1	33	19	1652	-333.3	-0.62	11.89
327	SLE FR 2	31	19	1651	-333.23	-0.63	11.34
327	SLE FR 3	33	19	1652	-333.3	-0.62	11.89
327	SLE FR 4	34	19	1739	-350.37	-0.72	12.24
327	SLE FR 5	35	19	1739	-350.44	-0.71	12.8
327	SLE FR 6	37	19	1798	-361.86	-0.78	13.4
327	SLE QP 1	33	19	1652	-333.3	-0.62	11.89
327	SLE QP 2	35	19	1739	-350.44	-0.71	12.8
327	SLD 1	261	47	1760	-350.64	-0.18	91.92
327	SLD 2	224	34	1764	-351.07	-0.16	78.91
327	SLD 3	249	-23	1888	-367.61	-0.25	87.71
327	SLD 4	212	-36	1892	-368.04	-0.23	74.71
327	SLD 5	135	138	1550	-324.62	-0.45	47.51
327	SLD 6	97	125	1554	-325.06	-0.43	34.41
327	SLD 7	95	-95	1977	-381.16	-0.69	33.49
327	SLD 8	57	-109	1981	-381.59	-0.67	20.4
327	SLD 9	14	146	1498	-319.28	-0.76	5.2
327	SLD 10	-24	133	1502	-319.71	-0.74	-7.9
327	SLD 11	-26	-87	1925	-375.82	-1	-8.82
327	SLD 12	-64	-101	1929	-376.25	-0.98	-21.91
327	SLD 13	-141	74	1587	-332.84	-1.19	-49.11
327	SLD 14	-178	60	1591	-333.27	-1.17	-62.11
327	SLD 15	-153	4	1715	-349.8	-1.27	-53.32
327	SLD 16	-190	-10	1719	-350.23	-1.25	-66.32
327	SLV 1	549	83	1787	-350.86	0.5	192.58
327	SLV 2	464	52	1796	-351.83	0.54	163.14
327	SLV 3	521	-76	2078	-389.6	0.33	182.98
327	SLV 4	437	-107	2087	-390.57	0.38	153.54
327	SLV 5	261	290	1310	-291.46	-0.12	91.68
327	SLV 6	176	259	1318	-292.44	-0.07	62.05
327	SLV 7	170	-240	2279	-420.6	-0.66	59.7
327	SLV 8	84	-271	2288	-421.58	-0.62	30.07
327	SLV 9	-13	308	1191	-279.3	-0.81	-4.47
327	SLV 10	-99	277	1200	-280.28	-0.76	-34.11
327	SLV 11	-105	-221	2161	-408.43	-1.36	-36.45
327	SLV 12	-190	-252	2169	-409.41	-1.31	-66.09
327	SLV 13	-366	144	1392	-310.31	-1.81	-127.95
327	SLV 14	-450	113	1401	-311.28	-1.76	-157.39
327	SLV 15	-393	-15	1683	-349.05	-1.97	-137.54
327	SLV 16	-478	-45	1692	-350.02	-1.93	-166.98
327	CRTFP Ux+	0	0	0	0	0	0
327	CRTFP Ux-	0	0	0	0	0	0
327	CRTFP Uy+	0	0	0	0	0	0
327	CRTFP Uy-	0	0	0	0	0	0
328	SLU 1	32	31	1620	-350.57	-1.14	11.52
328	SLU 2	20	31	1616	-350.27	-1.17	7.35
328	SLU 3	32	31	1620	-350.57	-1.14	11.52
328	SLU 4	25	31	1618	-350.39	-1.16	9.02
328	SLU 5	20	31	1616	-350.27	-1.17	7.35
328	SLU 6	32	31	1620	-350.57	-1.14	11.52
328	SLU 7	25	31	1618	-350.39	-1.16	9.02
328	SLU 8	32	31	1620	-350.57	-1.14	11.52
328	SLU 9	25	31	1618	-350.39	-1.16	9.02

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
328	SLU 10	29	31	1936	-419.82	-1.64	10.49
328	SLU 11	41	31	1940	-420.12	-1.61	14.66
328	SLU 12	34	31	1937	-419.94	-1.63	12.16
328	SLU 13	29	31	1936	-419.82	-1.64	10.49
328	SLU 14	41	31	1940	-420.12	-1.61	14.66
328	SLU 15	34	31	1937	-419.94	-1.63	12.16
328	SLU 16	41	31	1940	-420.12	-1.61	14.66
328	SLU 17	34	31	1937	-419.94	-1.63	12.16
328	SLU 18	45	31	2077	-449.93	-1.81	16
328	SLU 19	37	31	2074	-449.75	-1.83	13.5
328	SLU 20	45	31	2077	-449.93	-1.81	16
328	SLU 21	37	31	2074	-449.75	-1.83	13.5
328	SLU 22	37	31	1841	-397.88	-1.45	13.32
328	SLU 23	25	31	1836	-397.58	-1.48	9.15
328	SLU 24	37	31	1841	-397.88	-1.45	13.32
328	SLU 25	30	31	1838	-397.7	-1.46	10.82
328	SLU 26	25	31	1836	-397.58	-1.48	9.15
328	SLU 27	37	31	1841	-397.88	-1.45	13.32
328	SLU 28	30	31	1838	-397.7	-1.46	10.82
328	SLU 29	37	31	1841	-397.88	-1.45	13.32
328	SLU 30	30	31	1838	-397.7	-1.46	10.82
328	SLU 31	34	31	2156	-467.13	-1.94	12.29
328	SLU 32	46	31	2160	-467.43	-1.91	16.46
328	SLU 33	39	31	2158	-467.25	-1.93	13.96
328	SLU 34	34	31	2156	-467.13	-1.94	12.29
328	SLU 35	46	31	2160	-467.43	-1.91	16.46
328	SLU 36	39	31	2158	-467.25	-1.93	13.96
328	SLU 37	46	31	2160	-467.43	-1.91	16.46
328	SLU 38	39	31	2158	-467.25	-1.93	13.96
328	SLU 39	50	31	2297	-497.24	-2.11	17.8
328	SLU 40	43	31	2295	-497.06	-2.13	15.3
328	SLU 41	50	31	2297	-497.24	-2.11	17.8
328	SLU 42	43	31	2295	-497.06	-2.13	15.3
328	SLU 43	40	40	2030	-439.52	-1.38	14.36
328	SLU 44	28	40	2026	-439.22	-1.41	10.19
328	SLU 45	40	40	2030	-439.52	-1.38	14.36
328	SLU 46	33	40	2028	-439.34	-1.4	11.86
328	SLU 47	28	40	2026	-439.22	-1.41	10.19
328	SLU 48	40	40	2030	-439.52	-1.38	14.36
328	SLU 49	33	40	2028	-439.34	-1.4	11.86
328	SLU 50	40	40	2030	-439.52	-1.38	14.36
328	SLU 51	33	40	2028	-439.34	-1.4	11.86
328	SLU 52	37	40	2346	-508.77	-1.88	13.33
328	SLU 53	49	40	2350	-509.07	-1.85	17.49
328	SLU 54	41	40	2348	-508.89	-1.87	14.99
328	SLU 55	37	40	2346	-508.77	-1.88	13.33
328	SLU 56	49	40	2350	-509.07	-1.85	17.49
328	SLU 57	41	40	2348	-508.89	-1.87	14.99
328	SLU 58	49	40	2350	-509.07	-1.85	17.49
328	SLU 59	41	40	2348	-508.89	-1.87	14.99
328	SLU 60	52	40	2487	-538.88	-2.05	18.84
328	SLU 61	45	40	2485	-538.7	-2.06	16.34
328	SLU 62	52	40	2487	-538.88	-2.05	18.84
328	SLU 63	45	40	2485	-538.7	-2.06	16.34
328	SLU 64	45	40	2251	-486.83	-1.69	16.16
328	SLU 65	33	41	2247	-486.53	-1.71	11.99
328	SLU 66	45	40	2251	-486.83	-1.69	16.16
328	SLU 67	38	41	2248	-486.65	-1.7	13.66
328	SLU 68	33	41	2247	-486.53	-1.71	11.99
328	SLU 69	45	40	2251	-486.83	-1.69	16.16
328	SLU 70	38	41	2248	-486.65	-1.7	13.66
328	SLU 71	45	40	2251	-486.83	-1.69	16.16
328	SLU 72	38	41	2248	-486.65	-1.7	13.66
328	SLU 73	42	40	2567	-556.08	-2.18	15.13
328	SLU 74	54	40	2571	-556.38	-2.15	19.29
328	SLU 75	47	40	2568	-556.2	-2.17	16.8
328	SLU 76	42	40	2567	-556.08	-2.18	15.13
328	SLU 77	54	40	2571	-556.38	-2.15	19.29
328	SLU 78	47	40	2568	-556.2	-2.17	16.8
328	SLU 79	54	40	2571	-556.38	-2.15	19.29
328	SLU 80	47	40	2568	-556.2	-2.17	16.8
328	SLU 81	58	40	2708	-586.19	-2.35	20.64
328	SLU 82	50	40	2705	-586.01	-2.37	18.14
328	SLU 83	58	40	2708	-586.19	-2.35	20.64
328	SLU 84	50	40	2705	-586.01	-2.37	18.14
328	SLE RA 1	33	31	1683	-364.09	-1.23	12.03
328	SLE RA 2	25	31	1680	-363.89	-1.25	9.26
328	SLE RA 3	33	31	1683	-364.09	-1.23	12.03
328	SLE RA 4	29	31	1681	-363.97	-1.24	10.37
328	SLE RA 5	25	31	1680	-363.89	-1.25	9.26
328	SLE RA 6	33	31	1683	-364.09	-1.23	12.03
328	SLE RA 7	29	31	1681	-363.97	-1.24	10.37
328	SLE RA 8	33	31	1683	-364.09	-1.23	12.03
328	SLE RA 9	29	31	1681	-363.97	-1.24	10.37
328	SLE RA 10	31	31	1893	-410.25	-1.56	11.35
328	SLE RA 11	39	31	1896	-410.45	-1.54	14.12

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
328	SLE RA 12	35	31	1895	-410.33	-1.55	12.46
328	SLE RA 13	31	31	1893	-410.25	-1.56	11.35
328	SLE RA 14	39	31	1896	-410.45	-1.54	14.12
328	SLE RA 15	35	31	1895	-410.33	-1.55	12.46
328	SLE RA 16	39	31	1896	-410.45	-1.54	14.12
328	SLE RA 17	35	31	1895	-410.33	-1.55	12.46
328	SLE RA 18	42	31	1988	-430.33	-1.67	15.02
328	SLE RA 19	37	31	1986	-430.21	-1.68	13.35
328	SLE RA 20	42	31	1988	-430.33	-1.67	15.02
328	SLE RA 21	37	31	1986	-430.21	-1.68	13.35
328	SLE FR 1	33	31	1683	-364.09	-1.23	12.03
328	SLE FR 2	32	31	1682	-364.05	-1.23	11.48
328	SLE FR 3	33	31	1683	-364.09	-1.23	12.03
328	SLE FR 4	34	31	1774	-383.92	-1.37	12.37
328	SLE FR 5	36	31	1774	-383.96	-1.36	12.93
328	SLE FR 6	38	31	1835	-397.21	-1.45	13.53
328	SLE QP 1	33	31	1683	-364.09	-1.23	12.03
328	SLE QP 2	36	31	1774	-383.96	-1.36	12.93
328	SLD 1	262	58	1778	-380.01	-0.84	92.03
328	SLD 2	225	47	1782	-380.4	-0.83	79.04
328	SLD 3	250	-11	1910	-399.69	-0.99	87.82
328	SLD 4	212	-22	1913	-400.08	-0.97	74.83
328	SLD 5	135	148	1576	-352.79	-0.99	47.64
328	SLD 6	98	137	1579	-353.19	-0.98	34.55
328	SLD 7	95	-82	2013	-418.38	-1.48	33.61
328	SLD 8	57	-94	2016	-418.78	-1.46	20.52
328	SLD 9	14	156	1533	-349.14	-1.27	5.34
328	SLD 10	-23	144	1536	-349.54	-1.25	-7.75
328	SLD 11	-26	-75	1970	-414.73	-1.75	-8.69
328	SLD 12	-63	-86	1973	-415.13	-1.73	-21.79
328	SLD 13	-141	84	1636	-367.84	-1.75	-48.97
328	SLD 14	-178	73	1639	-368.23	-1.74	-61.97
328	SLD 15	-153	15	1767	-387.52	-1.9	-53.18
328	SLD 16	-190	4	1770	-387.91	-1.88	-66.18
328	SLV 1	549	93	1784	-374.96	-0.18	192.68
328	SLV 2	465	67	1791	-375.85	-0.14	163.25
328	SLV 3	522	-64	2082	-419.85	-0.51	183.08
328	SLV 4	437	-90	2089	-420.74	-0.48	153.64
328	SLV 5	262	297	1322	-312.86	-0.52	91.82
328	SLV 6	176	271	1330	-313.76	-0.48	62.2
328	SLV 7	170	-227	2316	-462.49	-1.62	59.8
328	SLV 8	85	-252	2323	-463.39	-1.58	30.17
328	SLV 9	-13	315	1225	-304.53	-1.14	-4.32
328	SLV 10	-98	289	1232	-305.43	-1.1	-33.94
328	SLV 11	-105	-209	2219	-454.16	-2.24	-36.34
328	SLV 12	-190	-235	2226	-455.06	-2.2	-65.97
328	SLV 13	-365	152	1460	-347.18	-2.25	-127.79
328	SLV 14	-450	126	1467	-348.07	-2.21	-157.22
328	SLV 15	-393	-5	1758	-392.07	-2.58	-137.39
328	SLV 16	-478	-31	1765	-392.96	-2.54	-166.83
328	CRTFP Ux+	0	0	0	0	0	0
328	CRTFP Ux-	0	0	0	0	0	0
328	CRTFP Uy+	0	0	0	0	0	0
328	CRTFP Uy-	0	0	0	0	0	0
329	SLU 1	32	42	1665	-392.45	-1.55	11.66
329	SLU 2	21	42	1662	-392.26	-1.58	7.49
329	SLU 3	32	42	1665	-392.45	-1.55	11.66
329	SLU 4	25	42	1663	-392.33	-1.56	9.16
329	SLU 5	21	42	1662	-392.26	-1.58	7.49
329	SLU 6	32	42	1665	-392.45	-1.55	11.66
329	SLU 7	25	42	1663	-392.33	-1.56	9.16
329	SLU 8	32	42	1665	-392.45	-1.55	11.66
329	SLU 9	25	42	1663	-392.33	-1.56	9.16
329	SLU 10	29	43	1999	-474.31	-2.13	10.58
329	SLU 11	41	43	2002	-474.5	-2.11	14.74
329	SLU 12	34	43	2000	-474.39	-2.12	12.24
329	SLU 13	29	43	1999	-474.31	-2.13	10.58
329	SLU 14	41	43	2002	-474.5	-2.11	14.74
329	SLU 15	34	43	2000	-474.39	-2.12	12.24
329	SLU 16	41	43	2002	-474.5	-2.11	14.74
329	SLU 17	34	43	2000	-474.39	-2.12	12.24
329	SLU 18	45	43	2147	-509.67	-2.35	16.06
329	SLU 19	38	43	2145	-509.55	-2.36	13.57
329	SLU 20	45	43	2147	-509.67	-2.35	16.06
329	SLU 21	38	43	2145	-509.55	-2.36	13.57
329	SLU 22	37	43	1897	-448.19	-1.92	13.44
329	SLU 23	26	43	1894	-448	-1.94	9.27
329	SLU 24	37	43	1897	-448.19	-1.92	13.44
329	SLU 25	30	43	1895	-448.07	-1.93	10.94
329	SLU 26	26	43	1894	-448	-1.94	9.27
329	SLU 27	37	43	1897	-448.19	-1.92	13.44
329	SLU 28	30	43	1895	-448.07	-1.93	10.94
329	SLU 29	37	43	1897	-448.19	-1.92	13.44
329	SLU 30	30	43	1895	-448.07	-1.93	10.94
329	SLU 31	34	44	2231	-530.05	-2.5	12.36
329	SLU 32	46	44	2234	-530.24	-2.48	16.52

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
329	SLU 33	39	44	2232	-530.13	-2.49	14.03
329	SLU 34	34	44	2231	-530.05	-2.5	12.36
329	SLU 35	46	44	2234	-530.24	-2.48	16.52
329	SLU 36	39	44	2232	-530.13	-2.49	14.03
329	SLU 37	46	44	2234	-530.24	-2.48	16.52
329	SLU 38	39	44	2232	-530.13	-2.49	14.03
329	SLU 39	50	44	2378	-565.41	-2.72	17.85
329	SLU 40	43	44	2376	-565.29	-2.73	15.35
329	SLU 41	50	44	2378	-565.41	-2.72	17.85
329	SLU 42	43	44	2376	-565.29	-2.73	15.35
329	SLU 43	40	54	2085	-491.08	-1.89	14.54
329	SLU 44	29	54	2082	-490.88	-1.91	10.38
329	SLU 45	40	54	2085	-491.08	-1.89	14.54
329	SLU 46	33	54	2083	-490.96	-1.9	12.04
329	SLU 47	29	54	2082	-490.88	-1.91	10.38
329	SLU 48	40	54	2085	-491.08	-1.89	14.54
329	SLU 49	33	54	2083	-490.96	-1.9	12.04
329	SLU 50	40	54	2085	-491.08	-1.89	14.54
329	SLU 51	33	54	2083	-490.96	-1.9	12.04
329	SLU 52	37	55	2419	-572.94	-2.47	13.46
329	SLU 53	49	55	2422	-573.13	-2.45	17.63
329	SLU 54	42	55	2420	-573.01	-2.46	15.13
329	SLU 55	37	55	2419	-572.94	-2.47	13.46
329	SLU 56	49	55	2422	-573.13	-2.45	17.63
329	SLU 57	42	55	2420	-573.01	-2.46	15.13
329	SLU 58	49	55	2422	-573.13	-2.45	17.63
329	SLU 59	42	55	2420	-573.01	-2.46	15.13
329	SLU 60	53	56	2567	-608.29	-2.68	18.95
329	SLU 61	46	56	2565	-608.18	-2.7	16.45
329	SLU 62	53	56	2567	-608.29	-2.68	18.95
329	SLU 63	46	56	2565	-608.18	-2.7	16.45
329	SLU 64	45	55	2317	-546.81	-2.26	16.32
329	SLU 65	34	55	2314	-546.62	-2.28	12.16
329	SLU 66	45	55	2317	-546.81	-2.26	16.32
329	SLU 67	38	55	2315	-546.7	-2.27	13.83
329	SLU 68	34	55	2314	-546.62	-2.28	12.16
329	SLU 69	45	55	2317	-546.81	-2.26	16.32
329	SLU 70	38	55	2315	-546.7	-2.27	13.83
329	SLU 71	45	55	2317	-546.81	-2.26	16.32
329	SLU 72	38	55	2315	-546.7	-2.27	13.83
329	SLU 73	42	56	2651	-628.67	-2.84	15.25
329	SLU 74	54	56	2654	-628.87	-2.81	19.41
329	SLU 75	47	56	2652	-628.75	-2.83	16.91
329	SLU 76	42	56	2651	-628.67	-2.84	15.25
329	SLU 77	54	56	2654	-628.87	-2.81	19.41
329	SLU 78	47	56	2652	-628.75	-2.83	16.91
329	SLU 79	54	56	2654	-628.87	-2.81	19.41
329	SLU 80	47	56	2652	-628.75	-2.83	16.91
329	SLU 81	58	56	2799	-664.03	-3.05	20.73
329	SLU 82	51	56	2797	-663.92	-3.07	18.23
329	SLU 83	58	56	2799	-664.03	-3.05	20.73
329	SLU 84	51	56	2797	-663.92	-3.07	18.23
329	SLE RA 1	34	42	1731	-408.38	-1.65	12.16
329	SLE RA 2	26	42	1729	-408.25	-1.67	9.39
329	SLE RA 3	34	42	1731	-408.38	-1.65	12.16
329	SLE RA 4	29	42	1730	-408.3	-1.67	10.5
329	SLE RA 5	26	42	1729	-408.25	-1.67	9.39
329	SLE RA 6	34	42	1731	-408.38	-1.65	12.16
329	SLE RA 7	29	42	1730	-408.3	-1.67	10.5
329	SLE RA 8	34	42	1731	-408.38	-1.65	12.16
329	SLE RA 9	29	42	1730	-408.3	-1.67	10.5
329	SLE RA 10	32	43	1954	-462.95	-2.04	11.45
329	SLE RA 11	40	43	1956	-463.08	-2.03	14.22
329	SLE RA 12	35	43	1955	-463	-2.04	12.56
329	SLE RA 13	32	43	1954	-462.95	-2.04	11.45
329	SLE RA 14	40	43	1956	-463.08	-2.03	14.22
329	SLE RA 15	35	43	1955	-463	-2.04	12.56
329	SLE RA 16	40	43	1956	-463.08	-2.03	14.22
329	SLE RA 17	35	43	1955	-463	-2.04	12.56
329	SLE RA 18	42	43	2052	-486.52	-2.19	15.1
329	SLE RA 19	37	43	2051	-486.45	-2.2	13.44
329	SLE RA 20	42	43	2052	-486.52	-2.19	15.1
329	SLE RA 21	37	43	2051	-486.45	-2.2	13.44
329	SLE FR 1	34	42	1731	-408.38	-1.65	12.16
329	SLE FR 2	32	42	1731	-408.35	-1.66	11.61
329	SLE FR 3	34	42	1731	-408.38	-1.65	12.16
329	SLE FR 4	35	43	1827	-431.79	-1.82	12.49
329	SLE FR 5	36	43	1828	-431.82	-1.81	13.05
329	SLE FR 6	38	43	1892	-447.45	-1.92	13.63
329	SLE QP 1	34	42	1731	-408.38	-1.65	12.16
329	SLE QP 2	36	43	1828	-431.82	-1.81	13.05
329	SLD 1	262	94	1815	-424.28	-1.3	92.09
329	SLD 2	225	85	1818	-424.65	-1.29	79.1
329	SLD 3	250	26	1952	-448.22	-1.5	87.88
329	SLD 4	213	17	1954	-448.6	-1.49	74.89
329	SLD 5	136	166	1616	-393.11	-1.36	47.75

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
329	SLD 6	98	157	1619	-393.48	-1.35	34.66
329	SLD 7	95	-64	2071	-472.93	-2.03	33.7
329	SLD 8	58	-73	2074	-473.31	-2.01	20.61
329	SLD 9	15	158	1582	-390.33	-1.61	5.48
329	SLD 10	-23	149	1584	-390.71	-1.6	-7.6
329	SLD 11	-25	-71	2037	-470.16	-2.28	-8.57
329	SLD 12	-63	-81	2040	-470.54	-2.27	-21.65
329	SLD 13	-140	69	1701	-415.04	-2.14	-48.8
329	SLD 14	-177	59	1704	-415.42	-2.13	-61.78
329	SLD 15	-152	0	1838	-438.99	-2.34	-53.01
329	SLD 16	-189	-9	1840	-439.36	-2.33	-66
329	SLV 1	549	161	1800	-414.68	-0.65	192.66
329	SLV 2	465	140	1805	-415.53	-0.62	163.25
329	SLV 3	522	4	2110	-469.24	-1.11	183.05
329	SLV 4	437	-16	2116	-470.08	-1.07	153.64
329	SLV 5	262	322	1346	-343.64	-0.79	91.91
329	SLV 6	177	301	1352	-344.49	-0.76	62.3
329	SLV 7	170	-199	2381	-525.48	-2.3	59.85
329	SLV 8	85	-219	2387	-526.33	-2.27	30.25
329	SLV 9	-12	304	1268	-337.31	-1.36	-4.15
329	SLV 10	-97	284	1274	-338.16	-1.33	-33.76
329	SLV 11	-104	-216	2303	-519.15	-2.87	-36.21
329	SLV 12	-189	-237	2309	-520	-2.84	-65.82
329	SLV 13	-365	101	1540	-393.56	-2.56	-127.54
329	SLV 14	-449	81	1545	-394.41	-2.52	-156.95
329	SLV 15	-392	-55	1850	-448.11	-3.01	-137.16
329	SLV 16	-477	-75	1856	-448.96	-2.97	-166.57
329	CRTFP Ux+	0	0	0	0	0	0
329	CRTFP Ux-	0	0	0	0	0	0
329	CRTFP Uy+	0	0	0	0	0	0
329	CRTFP Uy-	0	0	0	0	0	0
330	SLU 1	33	52	1720	-442.88	-1.71	11.79
330	SLU 2	21	52	1718	-442.73	-1.73	7.63
330	SLU 3	33	52	1720	-442.88	-1.71	11.79
330	SLU 4	26	52	1719	-442.79	-1.72	9.29
330	SLU 5	21	52	1718	-442.73	-1.73	7.63
330	SLU 6	33	52	1720	-442.88	-1.71	11.79
330	SLU 7	26	52	1719	-442.79	-1.72	9.29
330	SLU 8	33	52	1720	-442.88	-1.71	11.79
330	SLU 9	26	52	1719	-442.79	-1.72	9.29
330	SLU 10	30	53	2074	-539.05	-2.31	10.65
330	SLU 11	41	54	2076	-539.2	-2.29	14.81
330	SLU 12	34	54	2075	-539.11	-2.3	12.31
330	SLU 13	30	53	2074	-539.05	-2.31	10.65
330	SLU 14	41	54	2076	-539.2	-2.29	14.81
330	SLU 15	34	54	2075	-539.11	-2.3	12.31
330	SLU 16	41	54	2076	-539.2	-2.29	14.81
330	SLU 17	34	54	2075	-539.11	-2.3	12.31
330	SLU 18	45	54	2229	-580.48	-2.54	16.1
330	SLU 19	38	54	2227	-580.39	-2.55	13.61
330	SLU 20	45	54	2229	-580.48	-2.54	16.1
330	SLU 21	38	54	2227	-580.39	-2.55	13.61
330	SLU 22	38	53	1964	-508.29	-2.1	13.55
330	SLU 23	26	53	1962	-508.14	-2.12	9.39
330	SLU 24	38	53	1964	-508.29	-2.1	13.55
330	SLU 25	31	53	1963	-508.2	-2.11	11.05
330	SLU 26	26	53	1962	-508.14	-2.12	9.39
330	SLU 27	38	53	1964	-508.29	-2.1	13.55
330	SLU 28	31	53	1963	-508.2	-2.11	11.05
330	SLU 29	38	53	1964	-508.29	-2.1	13.55
330	SLU 30	31	53	1963	-508.2	-2.11	11.05
330	SLU 31	35	55	2318	-604.46	-2.7	12.41
330	SLU 32	46	55	2321	-604.61	-2.68	16.57
330	SLU 33	39	55	2319	-604.52	-2.69	14.07
330	SLU 34	35	55	2318	-604.46	-2.7	12.41
330	SLU 35	46	55	2321	-604.61	-2.68	16.57
330	SLU 36	39	55	2319	-604.52	-2.69	14.07
330	SLU 37	46	55	2321	-604.61	-2.68	16.57
330	SLU 38	39	55	2319	-604.52	-2.69	14.07
330	SLU 39	50	56	2473	-645.89	-2.93	17.86
330	SLU 40	43	56	2472	-645.8	-2.94	15.37
330	SLU 41	50	56	2473	-645.89	-2.93	17.86
330	SLU 42	43	56	2472	-645.8	-2.94	15.37
330	SLU 43	41	67	2152	-553.32	-2.09	14.72
330	SLU 44	29	67	2150	-553.17	-2.11	10.56
330	SLU 45	41	67	2152	-553.32	-2.09	14.72
330	SLU 46	34	67	2151	-553.23	-2.1	12.23
330	SLU 47	29	67	2150	-553.17	-2.11	10.56
330	SLU 48	41	67	2152	-553.32	-2.09	14.72
330	SLU 49	34	67	2151	-553.23	-2.1	12.23
330	SLU 50	41	67	2152	-553.32	-2.09	14.72
330	SLU 51	34	67	2151	-553.23	-2.1	12.23
330	SLU 52	38	69	2506	-649.49	-2.69	13.58
330	SLU 53	50	69	2508	-649.64	-2.67	17.74
330	SLU 54	42	69	2507	-649.55	-2.68	15.25
330	SLU 55	38	69	2506	-649.49	-2.69	13.58

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
330	SLU 56	50	69	2508	-649.64	-2.67	17.74
330	SLU 57	42	69	2507	-649.55	-2.68	15.25
330	SLU 58	50	69	2508	-649.64	-2.67	17.74
330	SLU 59	42	69	2507	-649.55	-2.68	15.25
330	SLU 60	53	70	2661	-690.92	-2.92	19.04
330	SLU 61	46	69	2659	-690.83	-2.93	16.54
330	SLU 62	53	70	2661	-690.92	-2.92	19.04
330	SLU 63	46	69	2659	-690.83	-2.93	16.54
330	SLU 64	46	68	2397	-618.73	-2.48	16.48
330	SLU 65	34	68	2394	-618.58	-2.5	12.32
330	SLU 66	46	68	2397	-618.73	-2.48	16.48
330	SLU 67	39	68	2395	-618.64	-2.49	13.99
330	SLU 68	34	68	2394	-618.58	-2.5	12.32
330	SLU 69	46	68	2397	-618.73	-2.48	16.48
330	SLU 70	39	68	2395	-618.64	-2.49	13.99
330	SLU 71	46	68	2397	-618.73	-2.48	16.48
330	SLU 72	39	68	2395	-618.64	-2.49	13.99
330	SLU 73	43	70	2750	-714.9	-3.08	15.34
330	SLU 74	55	70	2753	-715.05	-3.06	19.5
330	SLU 75	47	70	2751	-714.96	-3.07	17.01
330	SLU 76	43	70	2750	-714.9	-3.08	15.34
330	SLU 77	55	70	2753	-715.05	-3.06	19.5
330	SLU 78	47	70	2751	-714.96	-3.07	17.01
330	SLU 79	55	70	2753	-715.05	-3.06	19.5
330	SLU 80	47	70	2751	-714.96	-3.07	17.01
330	SLU 81	58	71	2905	-756.33	-3.31	20.8
330	SLU 82	51	71	2904	-756.24	-3.32	18.3
330	SLU 83	58	71	2905	-756.33	-3.31	20.8
330	SLU 84	51	71	2904	-756.24	-3.32	18.3
330	SLE RA 1	34	52	1790	-461.57	-1.82	12.29
330	SLE RA 2	26	52	1788	-461.47	-1.84	9.52
330	SLE RA 3	34	52	1790	-461.57	-1.82	12.29
330	SLE RA 4	30	52	1789	-461.51	-1.83	10.63
330	SLE RA 5	26	52	1788	-461.47	-1.84	9.52
330	SLE RA 6	34	52	1790	-461.57	-1.82	12.29
330	SLE RA 7	30	52	1789	-461.51	-1.83	10.63
330	SLE RA 8	34	52	1790	-461.57	-1.82	12.29
330	SLE RA 9	30	52	1789	-461.51	-1.83	10.63
330	SLE RA 10	32	53	2026	-525.68	-2.22	11.53
330	SLE RA 11	40	53	2027	-525.78	-2.21	14.31
330	SLE RA 12	35	53	2026	-525.72	-2.22	12.64
330	SLE RA 13	32	53	2026	-525.68	-2.22	11.53
330	SLE RA 14	40	53	2027	-525.78	-2.21	14.31
330	SLE RA 15	35	53	2026	-525.72	-2.22	12.64
330	SLE RA 16	40	53	2027	-525.78	-2.21	14.31
330	SLE RA 17	35	53	2026	-525.72	-2.22	12.64
330	SLE RA 18	42	54	2129	-553.3	-2.37	15.17
330	SLE RA 19	38	54	2128	-553.24	-2.38	13.5
330	SLE RA 20	42	54	2129	-553.3	-2.37	15.17
330	SLE RA 21	38	54	2128	-553.24	-2.38	13.5
330	SLE FR 1	34	52	1790	-461.57	-1.82	12.29
330	SLE FR 2	33	52	1790	-461.55	-1.82	11.74
330	SLE FR 3	34	52	1790	-461.57	-1.82	12.29
330	SLE FR 4	35	53	1891	-489.07	-1.99	12.6
330	SLE FR 5	37	53	1892	-489.09	-1.99	13.15
330	SLE FR 6	38	53	1959	-507.44	-2.1	13.73
330	SLE QP 1	34	52	1790	-461.57	-1.82	12.29
330	SLE QP 2	37	53	1892	-489.09	-1.99	13.15
330	SLD 1	262	104	1863	-478.42	-1.48	92.09
330	SLD 2	225	97	1865	-478.76	-1.47	79.12
330	SLD 3	250	35	2007	-507.75	-1.71	87.87
330	SLD 4	213	28	2009	-508.09	-1.69	74.9
330	SLD 5	136	175	1665	-441.29	-1.5	47.83
330	SLD 6	98	168	1667	-441.63	-1.48	34.76
330	SLD 7	96	-54	2143	-539.04	-2.25	33.76
330	SLD 8	58	-61	2145	-539.39	-2.23	20.69
330	SLD 9	15	167	1638	-438.79	-1.74	5.62
330	SLD 10	-22	160	1640	-439.13	-1.72	-7.45
330	SLD 11	-25	-62	2116	-536.54	-2.49	-8.45
330	SLD 12	-62	-69	2118	-536.89	-2.47	-21.52
330	SLD 13	-139	78	1775	-470.09	-2.28	-48.59
330	SLD 14	-177	71	1777	-470.43	-2.26	-61.56
330	SLD 15	-152	9	1918	-499.41	-2.5	-52.81
330	SLD 16	-189	2	1920	-499.76	-2.49	-65.78
330	SLV 1	549	168	1827	-464.87	-0.84	192.53
330	SLV 2	465	153	1832	-465.65	-0.81	163.15
330	SLV 3	522	12	2153	-531.61	-1.35	182.9
330	SLV 4	437	-3	2158	-532.39	-1.32	153.52
330	SLV 5	262	330	1376	-380.33	-0.88	91.95
330	SLV 6	177	314	1381	-381.12	-0.85	62.38
330	SLV 7	170	-191	2463	-602.78	-2.58	59.85
330	SLV 8	85	-206	2467	-603.57	-2.55	30.28
330	SLV 9	-12	312	1316	-374.61	-1.42	-3.97
330	SLV 10	-97	296	1321	-375.4	-1.39	-33.54
330	SLV 11	-104	-209	2402	-597.06	-3.12	-36.07
330	SLV 12	-189	-224	2407	-597.84	-3.09	-65.64

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
330	SLV 13	-364	109	1625	-445.79	-2.65	-127.21
330	SLV 14	-448	93	1630	-446.57	-2.62	-156.59
330	SLV 15	-392	-47	1951	-512.52	-3.16	-136.84
330	SLV 16	-476	-63	1956	-513.31	-3.13	-166.22
330	CRTFP Ux+	0	0	0	0	0	0
330	CRTFP Ux-	0	0	0	0	0	0
330	CRTFP Uy+	0	0	0	0	0	0
330	CRTFP Uy-	0	0	0	0	0	0
331	SLU 1	33	60	1775	-496.16	-1.52	11.93
331	SLU 2	22	60	1773	-496.03	-1.54	7.78
331	SLU 3	33	60	1775	-496.16	-1.52	11.93
331	SLU 4	26	60	1774	-496.08	-1.53	9.44
331	SLU 5	22	60	1773	-496.03	-1.54	7.78
331	SLU 6	33	60	1775	-496.16	-1.52	11.93
331	SLU 7	26	60	1774	-496.08	-1.53	9.44
331	SLU 8	33	60	1775	-496.16	-1.52	11.93
331	SLU 9	26	60	1774	-496.08	-1.53	9.44
331	SLU 10	30	62	2147	-606.75	-2.05	10.72
331	SLU 11	42	63	2149	-606.88	-2.02	14.87
331	SLU 12	35	62	2148	-606.8	-2.04	12.38
331	SLU 13	30	62	2147	-606.75	-2.05	10.72
331	SLU 14	42	63	2149	-606.88	-2.02	14.87
331	SLU 15	35	62	2148	-606.8	-2.04	12.38
331	SLU 16	42	63	2149	-606.88	-2.02	14.87
331	SLU 17	35	62	2148	-606.8	-2.04	12.38
331	SLU 18	45	64	2309	-654.33	-2.24	16.13
331	SLU 19	38	63	2308	-654.25	-2.25	13.64
331	SLU 20	45	64	2309	-654.33	-2.24	16.13
331	SLU 21	38	63	2308	-654.25	-2.25	13.64
331	SLU 22	38	62	2031	-571.36	-1.86	13.66
331	SLU 23	27	61	2030	-571.23	-1.88	9.5
331	SLU 24	38	62	2031	-571.36	-1.86	13.66
331	SLU 25	31	62	2030	-571.28	-1.87	11.16
331	SLU 26	27	61	2030	-571.23	-1.88	9.5
331	SLU 27	38	62	2031	-571.36	-1.86	13.66
331	SLU 28	31	62	2030	-571.28	-1.87	11.16
331	SLU 29	38	62	2031	-571.36	-1.86	13.66
331	SLU 30	31	62	2030	-571.28	-1.87	11.16
331	SLU 31	35	64	2404	-681.95	-2.39	12.44
331	SLU 32	47	64	2406	-682.08	-2.36	16.6
331	SLU 33	40	64	2405	-682	-2.38	14.11
331	SLU 34	35	64	2404	-681.95	-2.39	12.44
331	SLU 35	47	64	2406	-682.08	-2.36	16.6
331	SLU 36	40	64	2405	-682	-2.38	14.11
331	SLU 37	47	64	2406	-682.08	-2.36	16.6
331	SLU 38	40	64	2405	-682	-2.38	14.11
331	SLU 39	50	66	2566	-729.53	-2.58	17.86
331	SLU 40	43	65	2565	-729.45	-2.59	15.37
331	SLU 41	50	66	2566	-729.53	-2.58	17.86
331	SLU 42	43	65	2565	-729.45	-2.59	15.37
331	SLU 43	42	77	2219	-619.22	-1.86	14.92
331	SLU 44	30	77	2217	-619.09	-1.88	10.76
331	SLU 45	42	77	2219	-619.22	-1.86	14.92
331	SLU 46	35	77	2218	-619.14	-1.87	12.42
331	SLU 47	30	77	2217	-619.09	-1.88	10.76
331	SLU 48	42	77	2219	-619.22	-1.86	14.92
331	SLU 49	35	77	2218	-619.14	-1.87	12.42
331	SLU 50	42	77	2219	-619.22	-1.86	14.92
331	SLU 51	35	77	2218	-619.14	-1.87	12.42
331	SLU 52	38	80	2592	-729.81	-2.39	13.7
331	SLU 53	50	80	2593	-729.94	-2.36	17.86
331	SLU 54	43	80	2592	-729.86	-2.38	15.37
331	SLU 55	38	80	2592	-729.81	-2.39	13.7
331	SLU 56	50	80	2593	-729.94	-2.36	17.86
331	SLU 57	43	80	2592	-729.86	-2.38	15.37
331	SLU 58	50	80	2593	-729.94	-2.36	17.86
331	SLU 59	43	80	2592	-729.86	-2.38	15.37
331	SLU 60	54	81	2754	-777.39	-2.58	19.12
331	SLU 61	47	81	2753	-777.31	-2.59	16.63
331	SLU 62	54	81	2754	-777.39	-2.58	19.12
331	SLU 63	47	81	2753	-777.31	-2.59	16.63
331	SLU 64	47	79	2476	-694.42	-2.2	16.64
331	SLU 65	35	79	2474	-694.3	-2.22	12.49
331	SLU 66	47	79	2476	-694.42	-2.2	16.64
331	SLU 67	40	79	2475	-694.35	-2.21	14.15
331	SLU 68	35	79	2474	-694.3	-2.22	12.49
331	SLU 69	47	79	2476	-694.42	-2.2	16.64
331	SLU 70	40	79	2475	-694.35	-2.21	14.15
331	SLU 71	47	79	2476	-694.42	-2.2	16.64
331	SLU 72	40	79	2475	-694.35	-2.21	14.15
331	SLU 73	43	81	2848	-805.01	-2.73	15.43
331	SLU 74	55	82	2850	-805.14	-2.7	19.58
331	SLU 75	48	82	2849	-805.06	-2.72	17.09
331	SLU 76	43	81	2848	-805.01	-2.73	15.43
331	SLU 77	55	82	2850	-805.14	-2.7	19.58
331	SLU 78	48	82	2849	-805.06	-2.72	17.09

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
331	SLU 79	55	82	2850	-805.14	-2.7	19.58
331	SLU 80	48	82	2849	-805.06	-2.72	17.09
331	SLU 81	59	83	3010	-852.59	-2.92	20.84
331	SLU 82	52	83	3010	-852.51	-2.93	18.35
331	SLU 83	59	83	3010	-852.59	-2.92	20.84
331	SLU 84	52	83	3010	-852.51	-2.93	18.35
331	SLE RA 1	35	60	1848	-517.65	-1.62	12.42
331	SLE RA 2	27	60	1847	-517.56	-1.63	9.65
331	SLE RA 3	35	60	1848	-517.65	-1.62	12.42
331	SLE RA 4	30	60	1847	-517.59	-1.63	10.76
331	SLE RA 5	27	60	1847	-517.56	-1.63	9.65
331	SLE RA 6	35	60	1848	-517.65	-1.62	12.42
331	SLE RA 7	30	60	1847	-517.59	-1.63	10.76
331	SLE RA 8	35	60	1848	-517.65	-1.62	12.42
331	SLE RA 9	30	60	1847	-517.59	-1.63	10.76
331	SLE RA 10	33	62	2096	-591.37	-1.97	11.61
331	SLE RA 11	40	62	2098	-591.46	-1.95	14.38
331	SLE RA 12	36	62	2097	-591.4	-1.96	12.72
331	SLE RA 13	33	62	2096	-591.37	-1.97	11.61
331	SLE RA 14	40	62	2098	-591.46	-1.95	14.38
331	SLE RA 15	36	62	2097	-591.4	-1.96	12.72
331	SLE RA 16	40	62	2098	-591.46	-1.95	14.38
331	SLE RA 17	36	62	2097	-591.4	-1.96	12.72
331	SLE RA 18	43	63	2204	-623.09	-2.1	15.22
331	SLE RA 19	38	63	2204	-623.04	-2.11	13.56
331	SLE RA 20	43	63	2204	-623.09	-2.1	15.22
331	SLE RA 21	38	63	2204	-623.04	-2.11	13.56
331	SLE FR 1	35	60	1848	-517.65	-1.62	12.42
331	SLE FR 2	33	60	1848	-517.63	-1.62	11.87
331	SLE FR 3	35	60	1848	-517.65	-1.62	12.42
331	SLE FR 4	36	61	1955	-549.26	-1.76	12.71
331	SLE FR 5	37	61	1955	-549.28	-1.76	13.26
331	SLE FR 6	39	62	2026	-570.37	-1.86	13.82
331	SLE QP 1	35	60	1848	-517.65	-1.62	12.42
331	SLE QP 2	37	61	1955	-549.28	-1.76	13.26
331	SLD 1	250	110	1911	-535.84	-1.27	87.83
331	SLD 2	213	106	1913	-536.14	-1.26	74.87
331	SLD 3	263	41	2062	-570.93	-1.48	92.05
331	SLD 4	225	37	2063	-571.24	-1.46	79.1
331	SLD 5	96	182	1713	-491.91	-1.3	33.8
331	SLD 6	59	178	1715	-492.21	-1.29	20.75
331	SLD 7	136	-48	2214	-608.9	-2	47.89
331	SLD 8	99	-52	2216	-609.21	-1.98	34.84
331	SLD 9	-24	175	1694	-489.35	-1.54	-8.32
331	SLD 10	-62	170	1695	-489.66	-1.52	-21.37
331	SLD 11	16	-55	2195	-606.34	-2.23	5.77
331	SLD 12	-21	-60	2197	-606.65	-2.22	-7.28
331	SLD 13	-151	86	1846	-527.32	-2.06	-52.58
331	SLD 14	-188	81	1848	-527.62	-2.04	-65.53
331	SLD 15	-139	17	1997	-562.41	-2.26	-48.35
331	SLD 16	-176	12	1998	-562.72	-2.25	-61.3
331	SLV 1	522	173	1856	-518.78	-0.65	182.65
331	SLV 2	437	163	1860	-519.47	-0.62	153.33
331	SLV 3	549	16	2198	-598.59	-1.12	192.3
331	SLV 4	465	6	2202	-599.28	-1.09	162.97
331	SLV 5	170	336	1406	-418.84	-0.72	59.81
331	SLV 6	86	326	1409	-419.54	-0.69	30.29
331	SLV 7	263	-186	2545	-684.87	-2.29	91.96
331	SLV 8	178	-197	2549	-685.57	-2.26	62.44
331	SLV 9	-103	319	1361	-412.99	-1.26	-35.92
331	SLV 10	-188	309	1365	-413.69	-1.23	-65.44
331	SLV 11	-11	-203	2500	-679.02	-2.83	-3.77
331	SLV 12	-96	-214	2504	-679.72	-2.8	-33.29
331	SLV 13	-391	116	1708	-499.28	-2.43	-136.45
331	SLV 14	-475	106	1712	-499.97	-2.4	-165.77
331	SLV 15	-363	-40	2050	-579.09	-2.9	-126.8
331	SLV 16	-447	-51	2054	-579.78	-2.88	-156.13
331	CRTFP Ux+	0	0	0	0	0	0
331	CRTFP Ux-	0	0	0	0	0	0
331	CRTFP Uy+	0	0	0	0	0	0
331	CRTFP Uy-	0	0	0	0	0	0
332	SLU 1	31	59	1655	-496.78	26.01	10.05
332	SLU 2	20	59	1654	-496.69	25.98	6.27
332	SLU 3	31	59	1655	-496.78	26.01	10.05
332	SLU 4	25	59	1654	-496.73	25.99	7.78
332	SLU 5	20	59	1654	-496.69	25.98	6.27
332	SLU 6	31	59	1655	-496.78	26.01	10.05
332	SLU 7	25	59	1654	-496.73	25.99	7.78
332	SLU 8	31	59	1655	-496.78	26.01	10.05
332	SLU 9	25	59	1654	-496.73	25.99	7.78
332	SLU 10	28	62	2007	-608.96	31.45	8.83
332	SLU 11	39	62	2008	-609.05	31.48	12.61
332	SLU 12	32	62	2008	-609	31.46	10.34
332	SLU 13	28	62	2007	-608.96	31.45	8.83
332	SLU 14	39	62	2008	-609.05	31.48	12.61
332	SLU 15	32	62	2008	-609	31.46	10.34

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
332	SLU 16	39	62	2008	-609.05	31.48	12.61
332	SLU 17	32	62	2008	-609	31.46	10.34
332	SLU 18	42	64	2160	-657.17	33.82	13.7
332	SLU 19	35	63	2159	-657.11	33.81	11.44
332	SLU 20	42	64	2160	-657.17	33.82	13.7
332	SLU 21	35	63	2159	-657.11	33.81	11.44
332	SLU 22	36	61	1897	-573.1	29.76	11.56
332	SLU 23	25	61	1896	-573	29.73	7.78
332	SLU 24	36	61	1897	-573.1	29.76	11.56
332	SLU 25	29	61	1896	-573.04	29.74	9.29
332	SLU 26	25	61	1896	-573	29.73	7.78
332	SLU 27	36	61	1897	-573.1	29.76	11.56
332	SLU 28	29	61	1896	-573.04	29.74	9.29
332	SLU 29	36	61	1897	-573.1	29.76	11.56
332	SLU 30	29	61	1896	-573.04	29.74	9.29
332	SLU 31	32	64	2250	-685.27	35.2	10.34
332	SLU 32	43	64	2250	-685.37	35.23	14.12
332	SLU 33	37	64	2250	-685.31	35.21	11.85
332	SLU 34	32	64	2250	-685.27	35.2	10.34
332	SLU 35	43	64	2250	-685.37	35.23	14.12
332	SLU 36	37	64	2250	-685.31	35.21	11.85
332	SLU 37	43	64	2250	-685.37	35.23	14.12
332	SLU 38	37	64	2250	-685.31	35.21	11.85
332	SLU 39	46	66	2402	-733.48	37.58	15.22
332	SLU 40	40	65	2401	-733.42	37.56	12.95
332	SLU 41	46	66	2402	-733.48	37.58	15.22
332	SLU 42	40	65	2401	-733.42	37.56	12.95
332	SLU 43	39	77	2068	-619.66	32.52	12.55
332	SLU 44	28	76	2067	-619.56	32.49	8.77
332	SLU 45	39	77	2068	-619.66	32.52	12.55
332	SLU 46	33	76	2068	-619.6	32.51	10.28
332	SLU 47	28	76	2067	-619.56	32.49	8.77
332	SLU 48	39	77	2068	-619.66	32.52	12.55
332	SLU 49	33	76	2068	-619.6	32.51	10.28
332	SLU 50	39	77	2068	-619.66	32.52	12.55
332	SLU 51	33	76	2068	-619.6	32.51	10.28
332	SLU 52	36	79	2421	-731.83	37.96	11.33
332	SLU 53	46	80	2422	-731.92	38	15.11
332	SLU 54	40	79	2421	-731.87	37.98	12.84
332	SLU 55	36	79	2421	-731.83	37.96	11.33
332	SLU 56	46	80	2422	-731.92	38	15.11
332	SLU 57	40	79	2421	-731.87	37.98	12.84
332	SLU 58	46	80	2422	-731.92	38	15.11
332	SLU 59	40	79	2421	-731.87	37.98	12.84
332	SLU 60	50	81	2573	-780.04	40.34	16.2
332	SLU 61	43	81	2573	-779.98	40.32	13.94
332	SLU 62	50	81	2573	-780.04	40.34	16.2
332	SLU 63	43	81	2573	-779.98	40.32	13.94
332	SLU 64	43	79	2310	-695.97	36.28	14.06
332	SLU 65	33	78	2309	-695.87	36.24	10.28
332	SLU 66	43	79	2310	-695.97	36.28	14.06
332	SLU 67	37	78	2310	-695.91	36.26	11.79
332	SLU 68	33	78	2309	-695.87	36.24	10.28
332	SLU 69	43	79	2310	-695.97	36.28	14.06
332	SLU 70	37	78	2310	-695.91	36.26	11.79
332	SLU 71	43	79	2310	-695.97	36.28	14.06
332	SLU 72	37	78	2310	-695.91	36.26	11.79
332	SLU 73	40	81	2663	-808.14	41.72	12.84
332	SLU 74	51	82	2664	-808.24	41.75	16.62
332	SLU 75	44	81	2663	-808.18	41.73	14.35
332	SLU 76	40	81	2663	-808.14	41.72	12.84
332	SLU 77	51	82	2664	-808.24	41.75	16.62
332	SLU 78	44	81	2663	-808.18	41.73	14.35
332	SLU 79	51	82	2664	-808.24	41.75	16.62
332	SLU 80	44	81	2663	-808.18	41.73	14.35
332	SLU 81	54	83	2815	-856.35	44.09	17.71
332	SLU 82	48	83	2815	-856.29	44.07	15.45
332	SLU 83	54	83	2815	-856.35	44.09	17.71
332	SLU 84	48	83	2815	-856.29	44.07	15.45
332	SLE RA 1	32	60	1724	-518.59	27.08	10.48
332	SLE RA 2	25	60	1723	-518.52	27.06	7.96
332	SLE RA 3	32	60	1724	-518.59	27.08	10.48
332	SLE RA 4	28	60	1724	-518.55	27.07	8.97
332	SLE RA 5	25	60	1723	-518.52	27.06	7.96
332	SLE RA 6	32	60	1724	-518.59	27.08	10.48
332	SLE RA 7	28	60	1724	-518.55	27.07	8.97
332	SLE RA 8	32	60	1724	-518.59	27.08	10.48
332	SLE RA 9	28	60	1724	-518.55	27.07	8.97
332	SLE RA 10	30	62	1959	-593.37	30.71	9.67
332	SLE RA 11	37	62	1960	-593.43	30.73	12.19
332	SLE RA 12	33	62	1959	-593.4	30.72	10.68
332	SLE RA 13	30	62	1959	-593.37	30.71	9.67
332	SLE RA 14	37	62	1960	-593.43	30.73	12.19
332	SLE RA 15	33	62	1959	-593.4	30.72	10.68
332	SLE RA 16	37	62	1960	-593.43	30.73	12.19
332	SLE RA 17	33	62	1959	-593.4	30.72	10.68

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
332	SLE RA 18	40	63	2061	-625.51	32.29	12.92
332	SLE RA 19	35	63	2060	-625.47	32.28	11.41
332	SLE RA 20	40	63	2061	-625.51	32.29	12.92
332	SLE RA 21	35	63	2060	-625.47	32.28	11.41
332	SLE FR 1	32	60	1724	-518.59	27.08	10.48
332	SLE FR 2	31	60	1724	-518.58	27.08	9.98
332	SLE FR 3	32	60	1724	-518.59	27.08	10.48
332	SLE FR 4	33	61	1825	-550.65	28.64	10.71
332	SLE FR 5	35	61	1825	-550.66	28.64	11.21
332	SLE FR 6	36	61	1892	-572.05	29.69	11.7
332	SLE QP 1	32	60	1724	-518.59	27.08	10.48
332	SLE QP 2	35	61	1825	-550.66	28.64	11.21
332	SLD 1	229	103	1774	-536.23	28.12	78.81
332	SLD 2	195	101	1775	-536.47	28.15	67.04
332	SLD 3	240	40	1916	-572.99	30.31	82.96
332	SLD 4	206	38	1917	-573.24	30.34	71.19
332	SLD 5	88	170	1593	-490.49	25.16	29.36
332	SLD 6	54	168	1595	-490.73	25.18	17.5
332	SLD 7	125	-41	2067	-613.04	32.45	43.19
332	SLD 8	91	-43	2069	-613.28	32.48	31.34
332	SLD 9	-22	164	1581	-488.05	24.8	-8.91
332	SLD 10	-56	162	1582	-488.29	24.83	-20.77
332	SLD 11	15	-47	2055	-610.6	32.1	4.92
332	SLD 12	-19	-49	2056	-610.84	32.13	-6.93
332	SLD 13	-137	84	1733	-528.09	26.95	-48.76
332	SLD 14	-171	82	1734	-528.33	26.97	-60.53
332	SLD 15	-126	20	1875	-564.86	29.14	-44.61
332	SLD 16	-160	18	1876	-565.1	29.16	-56.38
332	SLV 1	476	158	1709	-517.92	27.46	164.77
332	SLV 2	399	153	1711	-518.46	27.53	138.12
332	SLV 3	501	14	2032	-601.48	32.44	174.24
332	SLV 4	424	9	2034	-602.03	32.5	147.59
332	SLV 5	156	309	1299	-413.91	20.72	52.34
332	SLV 6	78	305	1302	-414.46	20.78	25.52
332	SLV 7	240	-169	2376	-692.46	37.31	83.89
332	SLV 8	163	-174	2379	-693.01	37.37	57.07
332	SLV 9	-94	296	1271	-408.32	19.92	-34.64
332	SLV 10	-171	291	1274	-408.87	19.98	-61.46
332	SLV 11	-9	-183	2348	-686.87	36.5	-3.09
332	SLV 12	-86	-188	2351	-687.42	36.57	-29.91
332	SLV 13	-355	112	1615	-499.3	24.78	-125.16
332	SLV 14	-432	108	1618	-499.85	24.85	-151.81
332	SLV 15	-330	-31	1939	-582.87	29.76	-115.7
332	SLV 16	-406	-36	1941	-583.41	29.82	-142.35
332	CRTFP Ux+	0	0	0	0	0	0
332	CRTFP Ux-	0	0	0	0	0	0
332	CRTFP Uy+	0	0	0	0	0	0
332	CRTFP Uy-	0	0	0	0	0	0
334	SLU 1	82	157	4349	-970.86	3.81	19.55
334	SLU 2	54	156	4349	-970.85	3.31	12.98
334	SLU 3	82	157	4349	-970.86	3.81	19.55
334	SLU 4	66	157	4349	-970.85	3.51	15.61
334	SLU 5	54	156	4349	-970.85	3.31	12.98
334	SLU 6	82	157	4349	-970.86	3.81	19.55
334	SLU 7	66	157	4349	-970.85	3.51	15.61
334	SLU 8	82	157	4349	-970.86	3.81	19.55
334	SLU 9	66	157	4349	-970.85	3.51	15.61
334	SLU 10	73	165	5269	-1186.62	3.88	17.43
334	SLU 11	101	165	5269	-1186.63	4.38	24
334	SLU 12	84	165	5269	-1186.62	4.08	20.06
334	SLU 13	73	165	5269	-1186.62	3.88	17.43
334	SLU 14	101	165	5269	-1186.63	4.38	24
334	SLU 15	84	165	5269	-1186.62	4.08	20.06
334	SLU 16	101	165	5269	-1186.63	4.38	24
334	SLU 17	84	165	5269	-1186.62	4.08	20.06
334	SLU 18	109	168	5663	-1279.1	4.63	25.9
334	SLU 19	92	168	5663	-1279.09	4.33	21.97
334	SLU 20	109	168	5663	-1279.1	4.63	25.9
334	SLU 21	92	168	5663	-1279.09	4.33	21.97
334	SLU 22	93	162	4980	-1118.05	4.18	22.2
334	SLU 23	65	162	4981	-1118.04	3.68	15.64
334	SLU 24	93	162	4980	-1118.05	4.18	22.2
334	SLU 25	77	162	4981	-1118.04	3.88	18.26
334	SLU 26	65	162	4981	-1118.04	3.68	15.64
334	SLU 27	93	162	4980	-1118.05	4.18	22.2
334	SLU 28	77	162	4981	-1118.04	3.88	18.26
334	SLU 29	93	162	4980	-1118.05	4.18	22.2
334	SLU 30	77	162	4981	-1118.04	3.88	18.26
334	SLU 31	84	170	5900	-1333.81	4.25	20.09
334	SLU 32	112	170	5900	-1333.82	4.76	26.65
334	SLU 33	95	170	5900	-1333.81	4.45	22.72
334	SLU 34	84	170	5900	-1333.81	4.25	20.09
334	SLU 35	112	170	5900	-1333.82	4.76	26.65
334	SLU 36	95	170	5900	-1333.81	4.45	22.72
334	SLU 37	112	170	5900	-1333.82	4.76	26.65
334	SLU 38	95	170	5900	-1333.81	4.45	22.72

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
334	SLU 39	120	174	6295	-1426.29	5	28.56
334	SLU 40	103	174	6295	-1426.29	4.7	24.62
334	SLU 41	120	174	6295	-1426.29	5	28.56
334	SLU 42	103	174	6295	-1426.29	4.7	24.62
334	SLU 43	103	202	5437	-1211.65	4.82	24.5
334	SLU 44	75	202	5438	-1211.64	4.32	17.94
334	SLU 45	103	202	5437	-1211.65	4.82	24.5
334	SLU 46	86	202	5437	-1211.64	4.52	20.56
334	SLU 47	75	202	5438	-1211.64	4.32	17.94
334	SLU 48	103	202	5437	-1211.65	4.82	24.5
334	SLU 49	86	202	5437	-1211.64	4.52	20.56
334	SLU 50	103	202	5437	-1211.65	4.82	24.5
334	SLU 51	86	202	5437	-1211.64	4.52	20.56
334	SLU 52	94	210	6357	-1427.41	4.89	22.39
334	SLU 53	122	210	6357	-1427.42	5.4	28.95
334	SLU 54	105	210	6357	-1427.41	5.1	25.01
334	SLU 55	94	210	6357	-1427.41	4.89	22.39
334	SLU 56	122	210	6357	-1427.42	5.4	28.95
334	SLU 57	105	210	6357	-1427.41	5.1	25.01
334	SLU 58	122	210	6357	-1427.42	5.4	28.95
334	SLU 59	105	210	6357	-1427.41	5.1	25.01
334	SLU 60	130	213	6751	-1519.89	5.64	30.86
334	SLU 61	113	213	6752	-1519.89	5.34	26.92
334	SLU 62	130	213	6751	-1519.89	5.64	30.86
334	SLU 63	113	213	6752	-1519.89	5.34	26.92
334	SLU 64	114	207	6069	-1358.84	5.2	27.16
334	SLU 65	86	207	6069	-1358.83	4.69	20.59
334	SLU 66	114	207	6069	-1358.84	5.2	27.16
334	SLU 67	98	207	6069	-1358.84	4.89	23.22
334	SLU 68	86	207	6069	-1358.83	4.69	20.59
334	SLU 69	114	207	6069	-1358.84	5.2	27.16
334	SLU 70	98	207	6069	-1358.84	4.89	23.22
334	SLU 71	114	207	6069	-1358.84	5.2	27.16
334	SLU 72	98	207	6069	-1358.84	4.89	23.22
334	SLU 73	105	215	6989	-1574.6	5.27	25.04
334	SLU 74	133	215	6989	-1574.61	5.77	31.61
334	SLU 75	116	215	6989	-1574.61	5.47	27.67
334	SLU 76	105	215	6989	-1574.6	5.27	25.04
334	SLU 77	133	215	6989	-1574.61	5.77	31.61
334	SLU 78	116	215	6989	-1574.61	5.47	27.67
334	SLU 79	133	215	6989	-1574.61	5.77	31.61
334	SLU 80	116	215	6989	-1574.61	5.47	27.67
334	SLU 81	141	219	7383	-1667.08	6.02	33.51
334	SLU 82	124	219	7383	-1667.08	5.72	29.58
334	SLU 83	141	219	7383	-1667.08	6.02	33.51
334	SLU 84	124	219	7383	-1667.08	5.72	29.58
334	SLE RA 1	85	158	4530	-1012.91	3.92	20.3
334	SLE RA 2	67	158	4530	-1012.91	3.58	15.93
334	SLE RA 3	85	158	4530	-1012.91	3.92	20.3
334	SLE RA 4	74	158	4530	-1012.91	3.71	17.68
334	SLE RA 5	67	158	4530	-1012.91	3.58	15.93
334	SLE RA 6	85	158	4530	-1012.91	3.92	20.3
334	SLE RA 7	74	158	4530	-1012.91	3.71	17.68
334	SLE RA 8	85	158	4530	-1012.91	3.92	20.3
334	SLE RA 9	74	158	4530	-1012.91	3.71	17.68
334	SLE RA 10	79	163	5143	-1156.75	3.96	18.9
334	SLE RA 11	98	164	5143	-1156.76	4.3	23.27
334	SLE RA 12	87	164	5143	-1156.76	4.1	20.65
334	SLE RA 13	79	163	5143	-1156.75	3.96	18.9
334	SLE RA 14	98	164	5143	-1156.76	4.3	23.27
334	SLE RA 15	87	164	5143	-1156.76	4.1	20.65
334	SLE RA 16	98	164	5143	-1156.76	4.3	23.27
334	SLE RA 17	87	164	5143	-1156.76	4.1	20.65
334	SLE RA 18	103	166	5406	-1218.41	4.46	24.54
334	SLE RA 19	92	166	5406	-1218.4	4.26	21.92
334	SLE RA 20	103	166	5406	-1218.41	4.46	24.54
334	SLE RA 21	92	166	5406	-1218.4	4.26	21.92
334	SLE FR 1	85	158	4530	-1012.91	3.92	20.3
334	SLE FR 2	82	158	4530	-1012.91	3.85	19.43
334	SLE FR 3	85	158	4530	-1012.91	3.92	20.3
334	SLE FR 4	87	160	4792	-1074.56	4.01	20.7
334	SLE FR 5	91	161	4792	-1074.56	4.08	21.58
334	SLE FR 6	94	162	4968	-1115.66	4.19	22.42
334	SLE QP 1	85	158	4530	-1012.91	3.92	20.3
334	SLE QP 2	91	161	4792	-1074.56	4.08	21.58
334	SLD 1	593	261	4635	-1042.94	12.31	139.15
334	SLD 2	504	263	4637	-1043.33	12.56	118.9
334	SLD 3	622	99	5024	-1121.46	11.78	145.85
334	SLD 4	533	100	5026	-1121.85	12.03	125.6
334	SLD 5	229	437	4155	-945.85	7.26	53.84
334	SLD 6	139	439	4157	-946.24	7.51	33.45
334	SLD 7	325	-106	5450	-1207.58	5.5	76.18
334	SLD 8	236	-104	5452	-1207.97	5.76	55.79
334	SLD 9	-54	425	4132	-941.15	2.4	-12.64
334	SLD 10	-144	427	4134	-941.54	2.66	-33.03
334	SLD 11	42	-118	5427	-1202.88	0.65	9.71

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
334	SLD 12	-47	-116	5429	-1203.27	0.9	-10.69
334	SLD 13	-351	221	4559	-1027.27	-3.87	-82.45
334	SLD 14	-440	222	4561	-1027.66	-3.62	-102.7
334	SLD 15	-322	58	4947	-1105.79	-4.4	-75.75
334	SLD 16	-411	60	4949	-1106.18	-4.15	-95.99
334	SLV 1	1231	390	4437	-1002.82	22.78	288.68
334	SLV 2	1030	393	4441	-1003.71	23.36	242.83
334	SLV 3	1297	20	5319	-1181.24	21.59	303.97
334	SLV 4	1096	23	5324	-1182.13	22.16	258.12
334	SLV 5	404	790	3345	-782.12	11.3	94.71
334	SLV 6	201	792	3349	-783.01	11.88	48.56
334	SLV 7	624	-444	6288	-1376.86	7.31	145.68
334	SLV 8	422	-441	6292	-1377.75	7.89	99.53
334	SLV 9	-240	762	3292	-771.37	0.27	-56.38
334	SLV 10	-442	765	3297	-772.26	0.85	-102.53
334	SLV 11	-20	-471	6235	-1366.11	-3.73	-5.41
334	SLV 12	-222	-468	6240	-1367	-3.14	-51.56
334	SLV 13	-915	298	4261	-966.99	-14.01	-214.97
334	SLV 14	-1116	301	4265	-967.88	-13.43	-260.81
334	SLV 15	-849	-72	5144	-1145.41	-15.2	-199.68
334	SLV 16	-1050	-69	5148	-1146.3	-14.63	-245.52
334	CRTFP Ux+	0	0	0	0	0	0
334	CRTFP Ux-	0	0	0	0	0	0
334	CRTFP Uy+	0	0	0	-0.01	0	0
334	CRTFP Uy-	0	0	0	0.01	0	0
336	SLU 1	33	59	1636	-493.06	-25.6	12.37
336	SLU 2	22	60	1637	-493.17	-25.63	8.61
336	SLU 3	33	59	1636	-493.06	-25.6	12.37
336	SLU 4	26	60	1637	-493.12	-25.62	10.11
336	SLU 5	22	60	1637	-493.17	-25.63	8.61
336	SLU 6	33	59	1636	-493.06	-25.6	12.37
336	SLU 7	26	60	1637	-493.12	-25.62	10.11
336	SLU 8	33	59	1636	-493.06	-25.6	12.37
336	SLU 9	26	60	1637	-493.12	-25.62	10.11
336	SLU 10	29	63	1987	-605.49	-31.03	11.14
336	SLU 11	40	63	1986	-605.39	-31	14.9
336	SLU 12	33	63	1987	-605.45	-31.02	12.65
336	SLU 13	29	63	1987	-605.49	-31.03	11.14
336	SLU 14	40	63	1986	-605.39	-31	14.9
336	SLU 15	33	63	1987	-605.45	-31.02	12.65
336	SLU 16	40	63	1986	-605.39	-31	14.9
336	SLU 17	33	63	1987	-605.45	-31.02	12.65
336	SLU 18	43	64	2136	-653.53	-33.31	15.98
336	SLU 19	36	64	2137	-653.59	-33.33	13.73
336	SLU 20	43	64	2136	-653.53	-33.31	15.98
336	SLU 21	36	64	2137	-653.59	-33.33	13.73
336	SLU 22	37	62	1876	-569.38	-29.31	13.9
336	SLU 23	26	62	1877	-569.49	-29.34	10.14
336	SLU 24	37	62	1876	-569.38	-29.31	13.9
336	SLU 25	31	62	1877	-569.45	-29.32	11.64
336	SLU 26	26	62	1877	-569.49	-29.34	10.14
336	SLU 27	37	62	1876	-569.38	-29.31	13.9
336	SLU 28	31	62	1877	-569.45	-29.32	11.64
336	SLU 29	37	62	1876	-569.38	-29.31	13.9
336	SLU 30	31	62	1877	-569.45	-29.32	11.64
336	SLU 31	33	65	2227	-681.82	-34.74	12.67
336	SLU 32	44	65	2226	-681.71	-34.7	16.43
336	SLU 33	38	65	2227	-681.78	-34.72	14.18
336	SLU 34	33	65	2227	-681.82	-34.74	12.67
336	SLU 35	44	65	2226	-681.71	-34.7	16.43
336	SLU 36	38	65	2227	-681.78	-34.72	14.18
336	SLU 37	44	65	2226	-681.71	-34.7	16.43
336	SLU 38	38	65	2227	-681.78	-34.72	14.18
336	SLU 39	47	66	2376	-729.86	-37.02	17.51
336	SLU 40	41	66	2377	-729.92	-37.04	15.26
336	SLU 41	47	66	2376	-729.86	-37.02	17.51
336	SLU 42	41	66	2377	-729.92	-37.04	15.26
336	SLU 43	41	77	2045	-614.81	-32.01	15.55
336	SLU 44	30	77	2046	-614.92	-32.04	11.8
336	SLU 45	41	77	2045	-614.81	-32.01	15.55
336	SLU 46	35	77	2045	-614.87	-32.03	13.3
336	SLU 47	30	77	2046	-614.92	-32.04	11.8
336	SLU 48	41	77	2045	-614.81	-32.01	15.55
336	SLU 49	35	77	2045	-614.87	-32.03	13.3
336	SLU 50	41	77	2045	-614.81	-32.01	15.55
336	SLU 51	35	77	2045	-614.87	-32.03	13.3
336	SLU 52	37	80	2396	-727.25	-37.44	14.33
336	SLU 53	48	80	2395	-727.14	-37.41	18.08
336	SLU 54	42	80	2396	-727.2	-37.43	15.83
336	SLU 55	37	80	2396	-727.25	-37.44	14.33
336	SLU 56	48	80	2395	-727.14	-37.41	18.08
336	SLU 57	42	80	2396	-727.2	-37.43	15.83
336	SLU 58	48	80	2395	-727.14	-37.41	18.08
336	SLU 59	42	80	2396	-727.2	-37.43	15.83
336	SLU 60	51	81	2545	-775.28	-39.72	19.17
336	SLU 61	45	81	2546	-775.35	-39.74	16.92

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
336	SLU 62	51	81	2545	-775.28	-39.72	19.17
336	SLU 63	45	81	2546	-775.35	-39.74	16.92
336	SLU 64	45	79	2285	-691.14	-35.72	17.08
336	SLU 65	35	79	2286	-691.24	-35.75	13.33
336	SLU 66	45	79	2285	-691.14	-35.72	17.08
336	SLU 67	39	79	2285	-691.2	-35.73	14.83
336	SLU 68	35	79	2286	-691.24	-35.75	13.33
336	SLU 69	45	79	2285	-691.14	-35.72	17.08
336	SLU 70	39	79	2285	-691.2	-35.73	14.83
336	SLU 71	45	79	2285	-691.14	-35.72	17.08
336	SLU 72	39	79	2285	-691.2	-35.73	14.83
336	SLU 73	42	82	2636	-803.57	-41.15	15.86
336	SLU 74	52	82	2635	-803.47	-41.11	19.61
336	SLU 75	46	82	2636	-803.53	-41.13	17.36
336	SLU 76	42	82	2636	-803.57	-41.15	15.86
336	SLU 77	52	82	2635	-803.47	-41.11	19.61
336	SLU 78	46	82	2636	-803.53	-41.13	17.36
336	SLU 79	52	82	2635	-803.47	-41.11	19.61
336	SLU 80	46	82	2636	-803.53	-41.13	17.36
336	SLU 81	56	83	2785	-851.61	-43.43	20.7
336	SLU 82	49	83	2786	-851.67	-43.45	18.45
336	SLU 83	56	83	2785	-851.61	-43.43	20.7
336	SLU 84	49	83	2786	-851.67	-43.45	18.45
336	SLE RA 1	34	60	1705	-514.87	-26.66	12.8
336	SLE RA 2	27	60	1705	-514.94	-26.68	10.3
336	SLE RA 3	34	60	1705	-514.87	-26.66	12.8
336	SLE RA 4	30	60	1705	-514.91	-26.67	11.3
336	SLE RA 5	27	60	1705	-514.94	-26.68	10.3
336	SLE RA 6	34	60	1705	-514.87	-26.66	12.8
336	SLE RA 7	30	60	1705	-514.91	-26.67	11.3
336	SLE RA 8	34	60	1705	-514.87	-26.66	12.8
336	SLE RA 9	30	60	1705	-514.91	-26.67	11.3
336	SLE RA 10	32	62	1939	-589.82	-30.28	11.99
336	SLE RA 11	39	62	1938	-589.75	-30.26	14.49
336	SLE RA 12	34	62	1939	-589.8	-30.27	12.99
336	SLE RA 13	32	62	1939	-589.82	-30.28	11.99
336	SLE RA 14	39	62	1938	-589.75	-30.26	14.49
336	SLE RA 15	34	62	1939	-589.8	-30.27	12.99
336	SLE RA 16	39	62	1938	-589.75	-30.26	14.49
336	SLE RA 17	34	62	1939	-589.8	-30.27	12.99
336	SLE RA 18	41	63	2038	-621.85	-31.8	15.22
336	SLE RA 19	36	63	2039	-621.89	-31.81	13.71
336	SLE RA 20	41	63	2038	-621.85	-31.8	15.22
336	SLE RA 21	36	63	2039	-621.89	-31.81	13.71
336	SLE FR 1	34	60	1705	-514.87	-26.66	12.8
336	SLE FR 2	33	60	1705	-514.88	-26.66	12.3
336	SLE FR 3	34	60	1705	-514.87	-26.66	12.8
336	SLE FR 4	35	61	1805	-546.98	-28.21	13.03
336	SLE FR 5	36	61	1805	-546.96	-28.2	13.53
336	SLE FR 6	37	62	1872	-568.36	-29.23	14.01
336	SLE QP 1	34	60	1705	-514.87	-26.66	12.8
336	SLE QP 2	36	61	1805	-546.96	-28.2	13.53
336	SLD 1	229	83	1715	-524.24	-26.56	84.7
336	SLD 2	195	86	1716	-524.36	-26.55	73.03
336	SLD 3	240	20	1858	-561.65	-28.79	80.9
336	SLD 4	206	23	1858	-561.77	-28.78	69.24
336	SLD 5	89	162	1561	-483.37	-24.32	44.76
336	SLD 6	55	165	1562	-483.49	-24.31	33.01
336	SLD 7	126	-48	2037	-608.06	-31.77	32.11
336	SLD 8	92	-45	2038	-608.19	-31.76	20.36
336	SLD 9	-20	167	1572	-485.74	-24.64	6.7
336	SLD 10	-54	170	1573	-485.86	-24.63	-5.06
336	SLD 11	17	-43	2048	-610.43	-32.09	-5.95
336	SLD 12	-17	-40	2048	-610.56	-32.08	-17.7
336	SLD 13	-134	99	1752	-532.15	-27.62	-42.18
336	SLD 14	-168	102	1752	-532.28	-27.61	-53.85
336	SLD 15	-123	36	1894	-569.56	-29.85	-45.97
336	SLD 16	-157	39	1895	-569.69	-29.85	-57.64
336	SLV 1	474	111	1601	-495.27	-24.46	175.25
336	SLV 2	398	118	1602	-495.55	-24.45	148.83
336	SLV 3	499	-32	1925	-580.29	-29.54	166.59
336	SLV 4	423	-26	1926	-580.57	-29.52	140.17
336	SLV 5	156	291	1252	-402.41	-19.38	84.51
336	SLV 6	79	298	1252	-402.69	-19.37	57.91
336	SLV 7	240	-187	2333	-685.8	-36.31	55.65
336	SLV 8	164	-180	2334	-686.09	-36.3	29.06
336	SLV 9	-92	302	1276	-407.84	-20.11	-2
336	SLV 10	-168	309	1277	-408.12	-20.09	-28.6
336	SLV 11	-7	-176	2358	-691.23	-37.04	-30.86
336	SLV 12	-84	-169	2358	-691.52	-37.02	-57.45
336	SLV 13	-351	148	1684	-513.36	-26.88	-113.11
336	SLV 14	-427	154	1684	-513.64	-26.86	-139.53
336	SLV 15	-326	4	2008	-598.38	-31.96	-121.77
336	SLV 16	-402	11	2009	-598.66	-31.94	-148.19
336	CRTFP Ux+	0	0	0	0	0	0
336	CRTFP Ux-	0	0	0	0	0	0

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
336	CRTFP Uy+	0	0	0	0	0	0
336	CRTFP Uy-	0	0	0	0	0	0
337	SLU 1	37	62	1752	-494.73	1.56	12.75
337	SLU 2	25	62	1754	-494.92	1.54	8.62
337	SLU 3	37	62	1752	-494.73	1.56	12.75
337	SLU 4	30	62	1753	-494.84	1.55	10.27
337	SLU 5	25	62	1754	-494.92	1.54	8.62
337	SLU 6	37	62	1752	-494.73	1.56	12.75
337	SLU 7	30	62	1753	-494.84	1.55	10.27
337	SLU 8	37	62	1752	-494.73	1.56	12.75
337	SLU 9	30	62	1753	-494.84	1.55	10.27
337	SLU 10	33	66	2124	-606.83	2.06	11.28
337	SLU 11	44	65	2122	-606.64	2.09	15.42
337	SLU 12	37	65	2123	-606.76	2.07	12.94
337	SLU 13	33	66	2124	-606.83	2.06	11.28
337	SLU 14	44	65	2122	-606.64	2.09	15.42
337	SLU 15	37	65	2123	-606.76	2.07	12.94
337	SLU 16	44	65	2122	-606.64	2.09	15.42
337	SLU 17	37	65	2123	-606.76	2.07	12.94
337	SLU 18	48	67	2281	-654.6	2.31	16.56
337	SLU 19	41	67	2282	-654.72	2.29	14.08
337	SLU 20	48	67	2281	-654.6	2.31	16.56
337	SLU 21	41	67	2282	-654.72	2.29	14.08
337	SLU 22	41	64	2006	-570.7	1.91	14.38
337	SLU 23	30	64	2008	-570.89	1.89	10.24
337	SLU 24	41	64	2006	-570.7	1.91	14.38
337	SLU 25	34	64	2007	-570.81	1.9	11.9
337	SLU 26	30	64	2008	-570.89	1.89	10.24
337	SLU 27	41	64	2006	-570.7	1.91	14.38
337	SLU 28	34	64	2007	-570.81	1.9	11.9
337	SLU 29	41	64	2006	-570.7	1.91	14.38
337	SLU 30	34	64	2007	-570.81	1.9	11.9
337	SLU 31	37	68	2378	-682.8	2.41	12.91
337	SLU 32	49	68	2376	-682.61	2.43	17.04
337	SLU 33	42	68	2377	-682.72	2.42	14.56
337	SLU 34	37	68	2378	-682.8	2.41	12.91
337	SLU 35	49	68	2376	-682.61	2.43	17.04
337	SLU 36	42	68	2377	-682.72	2.42	14.56
337	SLU 37	49	68	2376	-682.61	2.43	17.04
337	SLU 38	42	68	2377	-682.72	2.42	14.56
337	SLU 39	52	69	2535	-730.57	2.65	18.18
337	SLU 40	45	69	2536	-730.69	2.64	15.7
337	SLU 41	52	69	2535	-730.57	2.65	18.18
337	SLU 42	45	69	2536	-730.69	2.64	15.7
337	SLU 43	46	80	2191	-617.1	1.91	16.02
337	SLU 44	34	80	2193	-617.29	1.89	11.89
337	SLU 45	46	80	2191	-617.1	1.91	16.02
337	SLU 46	39	80	2192	-617.22	1.9	13.54
337	SLU 47	34	80	2193	-617.29	1.89	11.89
337	SLU 48	46	80	2191	-617.1	1.91	16.02
337	SLU 49	39	80	2192	-617.22	1.9	13.54
337	SLU 50	46	80	2191	-617.1	1.91	16.02
337	SLU 51	39	80	2192	-617.22	1.9	13.54
337	SLU 52	42	83	2563	-729.2	2.41	14.56
337	SLU 53	54	83	2561	-729.01	2.44	18.69
337	SLU 54	47	83	2562	-729.13	2.42	16.21
337	SLU 55	42	83	2563	-729.2	2.41	14.56
337	SLU 56	54	83	2561	-729.01	2.44	18.69
337	SLU 57	47	83	2562	-729.13	2.42	16.21
337	SLU 58	54	83	2561	-729.01	2.44	18.69
337	SLU 59	47	83	2562	-729.13	2.42	16.21
337	SLU 60	57	85	2720	-776.97	2.66	19.83
337	SLU 61	50	85	2721	-777.09	2.65	17.35
337	SLU 62	57	85	2720	-776.97	2.66	19.83
337	SLU 63	50	85	2721	-777.09	2.65	17.35
337	SLU 64	51	82	2445	-693.07	2.26	17.65
337	SLU 65	39	82	2447	-693.26	2.24	13.51
337	SLU 66	51	82	2445	-693.07	2.26	17.65
337	SLU 67	44	82	2446	-693.19	2.25	15.17
337	SLU 68	39	82	2447	-693.26	2.24	13.51
337	SLU 69	51	82	2445	-693.07	2.26	17.65
337	SLU 70	44	82	2446	-693.19	2.25	15.17
337	SLU 71	51	82	2445	-693.07	2.26	17.65
337	SLU 72	44	82	2446	-693.19	2.25	15.17
337	SLU 73	47	86	2817	-805.17	2.76	16.18
337	SLU 74	59	85	2815	-804.98	2.78	20.31
337	SLU 75	51	85	2816	-805.1	2.77	17.83
337	SLU 76	47	86	2817	-805.17	2.76	16.18
337	SLU 77	59	85	2815	-804.98	2.78	20.31
337	SLU 78	51	85	2816	-805.1	2.77	17.83
337	SLU 79	59	85	2815	-804.98	2.78	20.31
337	SLU 80	51	85	2816	-805.1	2.77	17.83
337	SLU 81	62	87	2974	-852.94	3.01	21.45
337	SLU 82	55	87	2975	-853.06	2.99	18.97
337	SLU 83	62	87	2974	-852.94	3.01	21.45
337	SLU 84	55	87	2975	-853.06	2.99	18.97

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
337	SLE RA 1	38	62	1825	-516.43	1.66	13.22
337	SLE RA 2	30	63	1826	-516.56	1.65	10.46
337	SLE RA 3	38	62	1825	-516.43	1.66	13.22
337	SLE RA 4	33	63	1826	-516.51	1.65	11.56
337	SLE RA 5	30	63	1826	-516.56	1.65	10.46
337	SLE RA 6	38	62	1825	-516.43	1.66	13.22
337	SLE RA 7	33	63	1826	-516.51	1.65	11.56
337	SLE RA 8	38	62	1825	-516.43	1.66	13.22
337	SLE RA 9	33	63	1826	-516.51	1.65	11.56
337	SLE RA 10	35	65	2073	-591.17	1.99	12.24
337	SLE RA 11	43	65	2072	-591.04	2.01	14.99
337	SLE RA 12	38	65	2072	-591.12	2	13.34
337	SLE RA 13	35	65	2073	-591.17	1.99	12.24
337	SLE RA 14	43	65	2072	-591.04	2.01	14.99
337	SLE RA 15	38	65	2072	-591.12	2	13.34
337	SLE RA 16	43	65	2072	-591.04	2.01	14.99
337	SLE RA 17	38	65	2072	-591.12	2	13.34
337	SLE RA 18	45	66	2177	-623.02	2.16	15.76
337	SLE RA 19	41	66	2178	-623.09	2.15	14.1
337	SLE RA 20	45	66	2177	-623.02	2.16	15.76
337	SLE RA 21	41	66	2178	-623.09	2.15	14.1
337	SLE FR 1	38	62	1825	-516.43	1.66	13.22
337	SLE FR 2	37	62	1825	-516.46	1.66	12.67
337	SLE FR 3	38	62	1825	-516.43	1.66	13.22
337	SLE FR 4	39	63	1931	-548.43	1.81	13.43
337	SLE FR 5	40	63	1931	-548.41	1.81	13.98
337	SLE FR 6	42	64	2001	-569.72	1.91	14.49
337	SLE QP 1	38	62	1825	-516.43	1.66	13.22
337	SLE QP 2	40	63	1931	-548.41	1.81	13.98
337	SLD 1	252	85	1825	-525.53	2.1	88.08
337	SLD 2	215	91	1825	-525.59	2.12	75.22
337	SLD 3	265	16	1978	-562.15	2.27	92.35
337	SLD 4	228	21	1978	-562.2	2.28	79.5
337	SLD 5	98	173	1668	-486	1.65	34.27
337	SLD 6	61	179	1668	-486.05	1.66	21.32
337	SLD 7	139	-58	2176	-608.04	2.19	48.52
337	SLD 8	102	-52	2176	-608.09	2.21	35.57
337	SLD 9	-21	179	1685	-488.72	1.42	-7.61
337	SLD 10	-59	185	1685	-488.77	1.43	-20.56
337	SLD 11	19	-52	2194	-610.77	1.96	6.64
337	SLD 12	-18	-46	2193	-610.82	1.98	-6.31
337	SLD 13	-147	106	1884	-534.62	1.34	-51.54
337	SLD 14	-184	111	1883	-534.67	1.36	-64.39
337	SLD 15	-135	36	2036	-571.23	1.5	-47.26
337	SLD 16	-172	42	2036	-571.28	1.52	-60.12
337	SLV 1	522	113	1691	-496.36	2.47	182.32
337	SLV 2	438	125	1691	-496.48	2.51	153.2
337	SLV 3	550	-45	2038	-579.6	2.85	192.07
337	SLV 4	466	-32	2038	-579.71	2.88	162.96
337	SLV 5	172	313	1333	-406.52	1.44	59.97
337	SLV 6	88	325	1333	-406.64	1.47	30.67
337	SLV 7	265	-212	2489	-683.96	2.67	92.48
337	SLV 8	181	-200	2488	-684.08	2.71	63.18
337	SLV 9	-100	327	1373	-412.74	0.92	-35.22
337	SLV 10	-184	339	1373	-412.86	0.95	-64.53
337	SLV 11	-7	-198	2528	-690.18	2.15	-2.71
337	SLV 12	-91	-186	2528	-690.3	2.19	-32.02
337	SLV 13	-386	159	1824	-517.1	0.74	-135
337	SLV 14	-469	172	1823	-517.22	0.78	-164.11
337	SLV 15	-358	2	2170	-600.33	1.11	-125.24
337	SLV 16	-441	14	2170	-600.45	1.15	-154.36
337	CRTFP Ux+	0	0	0	0	0	0
337	CRTFP Ux-	0	0	0	0	0	0
337	CRTFP Uy+	0	0	0	0	0	0
337	CRTFP Uy-	0	0	0	0	0	0
338	SLU 1	38	57	1697	-445.77	1.67	12.97
338	SLU 2	26	57	1700	-446.06	1.64	8.83
338	SLU 3	38	57	1697	-445.77	1.67	12.97
338	SLU 4	30	57	1699	-445.94	1.65	10.49
338	SLU 5	26	57	1700	-446.06	1.64	8.83
338	SLU 6	38	57	1697	-445.77	1.67	12.97
338	SLU 7	30	57	1699	-445.94	1.65	10.49
338	SLU 8	38	57	1697	-445.77	1.67	12.97
338	SLU 9	30	57	1699	-445.94	1.65	10.49
338	SLU 10	33	61	2051	-544.74	2.23	11.44
338	SLU 11	45	60	2049	-544.45	2.26	15.58
338	SLU 12	38	61	2050	-544.62	2.24	13.09
338	SLU 13	33	61	2051	-544.74	2.23	11.44
338	SLU 14	45	60	2049	-544.45	2.26	15.58
338	SLU 15	38	61	2050	-544.62	2.24	13.09
338	SLU 16	45	60	2049	-544.45	2.26	15.58
338	SLU 17	38	61	2050	-544.62	2.24	13.09
338	SLU 18	48	62	2199	-586.74	2.51	16.7
338	SLU 19	41	62	2201	-586.91	2.5	14.21
338	SLU 20	48	62	2199	-586.74	2.51	16.7
338	SLU 21	41	62	2201	-586.91	2.5	14.21

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
338	SLU 22	42	59	1939	-512.75	2.06	14.57
338	SLU 23	30	59	1941	-513.04	2.03	10.43
338	SLU 24	42	59	1939	-512.75	2.06	14.57
338	SLU 25	35	59	1940	-512.92	2.04	12.09
338	SLU 26	30	59	1941	-513.04	2.03	10.43
338	SLU 27	42	59	1939	-512.75	2.06	14.57
338	SLU 28	35	59	1940	-512.92	2.04	12.09
338	SLU 29	42	59	1939	-512.75	2.06	14.57
338	SLU 30	35	59	1940	-512.92	2.04	12.09
338	SLU 31	38	63	2293	-611.72	2.62	13.04
338	SLU 32	50	63	2290	-611.43	2.65	17.18
338	SLU 33	42	63	2292	-611.6	2.63	14.7
338	SLU 34	38	63	2293	-611.72	2.62	13.04
338	SLU 35	50	63	2290	-611.43	2.65	17.18
338	SLU 36	42	63	2292	-611.6	2.63	14.7
338	SLU 37	50	63	2290	-611.43	2.65	17.18
338	SLU 38	42	63	2292	-611.6	2.63	14.7
338	SLU 39	53	64	2441	-653.72	2.9	18.3
338	SLU 40	46	64	2442	-653.89	2.89	15.81
338	SLU 41	53	64	2441	-653.72	2.9	18.3
338	SLU 42	46	64	2442	-653.89	2.89	15.81
338	SLU 43	47	73	2124	-556.54	2.03	16.31
338	SLU 44	35	73	2126	-556.82	2.01	12.17
338	SLU 45	47	73	2124	-556.54	2.03	16.31
338	SLU 46	40	73	2125	-556.71	2.02	13.83
338	SLU 47	35	73	2126	-556.82	2.01	12.17
338	SLU 48	47	73	2124	-556.54	2.03	16.31
338	SLU 49	40	73	2125	-556.71	2.02	13.83
338	SLU 50	47	73	2124	-556.54	2.03	16.31
338	SLU 51	40	73	2125	-556.71	2.02	13.83
338	SLU 52	43	77	2477	-655.5	2.6	14.78
338	SLU 53	55	77	2475	-655.22	2.62	18.92
338	SLU 54	48	77	2476	-655.39	2.61	16.44
338	SLU 55	43	77	2477	-655.5	2.6	14.78
338	SLU 56	55	77	2475	-655.22	2.62	18.92
338	SLU 57	48	77	2476	-655.39	2.61	16.44
338	SLU 58	55	77	2475	-655.22	2.62	18.92
338	SLU 59	48	77	2476	-655.39	2.61	16.44
338	SLU 60	58	78	2626	-697.51	2.88	20.04
338	SLU 61	51	78	2627	-697.68	2.86	17.55
338	SLU 62	58	78	2626	-697.51	2.88	20.04
338	SLU 63	51	78	2627	-697.68	2.86	17.55
338	SLU 64	52	75	2365	-623.52	2.42	17.92
338	SLU 65	40	76	2368	-623.8	2.4	13.77
338	SLU 66	52	75	2365	-623.52	2.42	17.92
338	SLU 67	45	76	2367	-623.69	2.41	15.43
338	SLU 68	40	76	2368	-623.8	2.4	13.77
338	SLU 69	52	75	2365	-623.52	2.42	17.92
338	SLU 70	45	76	2367	-623.69	2.41	15.43
338	SLU 71	52	75	2365	-623.52	2.42	17.92
338	SLU 72	45	76	2367	-623.69	2.41	15.43
338	SLU 73	47	79	2719	-722.48	2.99	16.38
338	SLU 74	59	79	2717	-722.2	3.02	20.52
338	SLU 75	52	79	2718	-722.37	3	18.04
338	SLU 76	47	79	2719	-722.48	2.99	16.38
338	SLU 77	59	79	2717	-722.2	3.02	20.52
338	SLU 78	52	79	2718	-722.37	3	18.04
338	SLU 79	59	79	2717	-722.2	3.02	20.52
338	SLU 80	52	79	2718	-722.37	3	18.04
338	SLU 81	62	80	2867	-764.49	3.27	21.64
338	SLU 82	55	81	2869	-764.66	3.25	19.16
338	SLU 83	62	80	2867	-764.49	3.27	21.64
338	SLU 84	55	81	2869	-764.66	3.25	19.16
338	SLE RA 1	39	57	1766	-464.91	1.78	13.43
338	SLE RA 2	31	58	1768	-465.1	1.76	10.67
338	SLE RA 3	39	57	1766	-464.91	1.78	13.43
338	SLE RA 4	34	58	1767	-465.02	1.77	11.77
338	SLE RA 5	31	58	1768	-465.1	1.76	10.67
338	SLE RA 6	39	57	1766	-464.91	1.78	13.43
338	SLE RA 7	34	58	1767	-465.02	1.77	11.77
338	SLE RA 8	39	57	1766	-464.91	1.78	13.43
338	SLE RA 9	34	58	1767	-465.02	1.77	11.77
338	SLE RA 10	36	60	2002	-530.89	2.16	12.41
338	SLE RA 11	44	60	2001	-530.7	2.17	15.17
338	SLE RA 12	39	60	2002	-530.81	2.16	13.51
338	SLE RA 13	36	60	2002	-530.89	2.16	12.41
338	SLE RA 14	44	60	2001	-530.7	2.17	15.17
338	SLE RA 15	39	60	2002	-530.81	2.16	13.51
338	SLE RA 16	44	60	2001	-530.7	2.17	15.17
338	SLE RA 17	39	60	2002	-530.81	2.16	13.51
338	SLE RA 18	46	61	2101	-558.89	2.34	15.91
338	SLE RA 19	41	61	2102	-559	2.33	14.26
338	SLE RA 20	46	61	2101	-558.89	2.34	15.91
338	SLE RA 21	41	61	2102	-559	2.33	14.26
338	SLE FR 1	39	57	1766	-464.91	1.78	13.43
338	SLE FR 2	37	57	1767	-464.95	1.78	12.88

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
338	SLE FR 3	39	57	1766	-464.91	1.78	13.43
338	SLE FR 4	39	58	1867	-493.14	1.94	13.62
338	SLE FR 5	41	58	1867	-493.1	1.95	14.18
338	SLE FR 6	42	59	1934	-511.9	2.06	14.67
338	SLE QP 1	39	57	1766	-464.91	1.78	13.43
338	SLE QP 2	41	58	1867	-493.1	1.95	14.18
338	SLD 1	253	78	1753	-472.13	2.23	88.44
338	SLD 2	216	85	1753	-472.11	2.25	75.57
338	SLD 3	266	8	1900	-503.67	2.42	92.74
338	SLD 4	229	16	1899	-503.65	2.43	79.87
338	SLD 5	99	167	1610	-438.99	1.75	34.49
338	SLD 6	62	175	1610	-438.97	1.77	21.52
338	SLD 7	140	-65	2100	-544.11	2.36	48.82
338	SLD 8	103	-57	2099	-544.09	2.38	35.85
338	SLD 9	-21	174	1635	-442.12	1.52	-7.5
338	SLD 10	-58	182	1634	-442.1	1.54	-20.47
338	SLD 11	20	-58	2124	-547.23	2.13	6.83
338	SLD 12	-17	-50	2123	-547.22	2.14	-6.14
338	SLD 13	-147	101	1834	-482.56	1.46	-51.52
338	SLD 14	-184	109	1833	-482.54	1.48	-64.39
338	SLD 15	-134	31	1981	-514.09	1.64	-47.22
338	SLD 16	-171	39	1980	-514.08	1.66	-60.09
338	SLV 1	523	102	1609	-445.38	2.6	182.89
338	SLV 2	440	120	1607	-445.34	2.64	153.74
338	SLV 3	552	-56	1943	-517.1	3.01	192.69
338	SLV 4	468	-38	1941	-517.06	3.05	163.55
338	SLV 5	173	305	1284	-370.02	1.5	60.21
338	SLV 6	88	323	1282	-369.98	1.54	30.88
338	SLV 7	266	-222	2396	-609.09	2.88	92.9
338	SLV 8	182	-204	2394	-609.05	2.92	63.57
338	SLV 9	-100	321	1339	-377.15	0.98	-35.21
338	SLV 10	-184	339	1337	-377.11	1.01	-64.55
338	SLV 11	-6	-206	2451	-616.22	2.35	-2.53
338	SLV 12	-91	-188	2449	-616.18	2.39	-31.86
338	SLV 13	-386	155	1792	-469.15	0.84	-135.2
338	SLV 14	-470	173	1791	-469.11	0.88	-164.34
338	SLV 15	-358	-3	2126	-540.87	1.26	-125.39
338	SLV 16	-441	15	2124	-540.83	1.3	-154.54
338	CRTFP Ux+	0	0	0	0	0	0
338	CRTFP Ux-	0	0	0	0	0	0
338	CRTFP Uy+	0	0	0	0	0	0
338	CRTFP Uy-	0	0	0	0	0	0
339	SLU 1	38	51	1645	-401.19	1.44	13.16
339	SLU 2	26	51	1648	-401.61	1.41	9.01
339	SLU 3	38	51	1645	-401.19	1.44	13.16
339	SLU 4	31	51	1647	-401.44	1.42	10.67
339	SLU 5	26	51	1648	-401.61	1.41	9.01
339	SLU 6	38	51	1645	-401.19	1.44	13.16
339	SLU 7	31	51	1647	-401.44	1.42	10.67
339	SLU 8	38	51	1645	-401.19	1.44	13.16
339	SLU 9	31	51	1647	-401.44	1.42	10.67
339	SLU 10	34	55	1980	-487.26	1.98	11.57
339	SLU 11	45	54	1976	-486.84	2	15.72
339	SLU 12	38	55	1978	-487.09	1.99	13.23
339	SLU 13	34	55	1980	-487.26	1.98	11.57
339	SLU 14	45	54	1976	-486.84	2	15.72
339	SLU 15	38	55	1978	-487.09	1.99	13.23
339	SLU 16	45	54	1976	-486.84	2	15.72
339	SLU 17	38	55	1978	-487.09	1.99	13.23
339	SLU 18	49	56	2119	-523.55	2.24	16.82
339	SLU 19	41	56	2121	-523.8	2.23	14.33
339	SLU 20	49	56	2119	-523.55	2.24	16.82
339	SLU 21	41	56	2121	-523.8	2.23	14.33
339	SLU 22	43	53	1873	-459.39	1.81	14.75
339	SLU 23	31	53	1877	-459.81	1.78	10.59
339	SLU 24	43	53	1873	-459.39	1.81	14.75
339	SLU 25	36	53	1875	-459.64	1.79	12.25
339	SLU 26	31	53	1877	-459.81	1.78	10.59
339	SLU 27	43	53	1873	-459.39	1.81	14.75
339	SLU 28	36	53	1875	-459.64	1.79	12.25
339	SLU 29	43	53	1873	-459.39	1.81	14.75
339	SLU 30	36	53	1875	-459.64	1.79	12.25
339	SLU 31	38	57	2209	-545.46	2.34	13.15
339	SLU 32	50	57	2205	-545.04	2.37	17.31
339	SLU 33	43	57	2207	-545.29	2.35	14.81
339	SLU 34	38	57	2209	-545.46	2.34	13.15
339	SLU 35	50	57	2205	-545.04	2.37	17.31
339	SLU 36	43	57	2207	-545.29	2.35	14.81
339	SLU 37	50	57	2205	-545.04	2.37	17.31
339	SLU 38	43	57	2207	-545.29	2.35	14.81
339	SLU 39	53	58	2347	-581.74	2.61	18.4
339	SLU 40	46	58	2349	-581.99	2.6	15.91
339	SLU 41	53	58	2347	-581.74	2.61	18.4
339	SLU 42	46	58	2349	-581.99	2.6	15.91
339	SLU 43	48	65	2060	-501.6	1.74	16.57
339	SLU 44	36	66	2063	-502.02	1.72	12.41

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
339	SLU 45	48	65	2060	-501.6	1.74	16.57
339	SLU 46	41	65	2062	-501.85	1.73	14.07
339	SLU 47	36	66	2063	-502.02	1.72	12.41
339	SLU 48	48	65	2060	-501.6	1.74	16.57
339	SLU 49	41	65	2062	-501.85	1.73	14.07
339	SLU 50	48	65	2060	-501.6	1.74	16.57
339	SLU 51	41	65	2062	-501.85	1.73	14.07
339	SLU 52	43	69	2395	-587.67	2.28	14.97
339	SLU 53	55	69	2392	-587.25	2.31	19.13
339	SLU 54	48	69	2393	-587.5	2.29	16.63
339	SLU 55	43	69	2395	-587.67	2.28	14.97
339	SLU 56	55	69	2392	-587.25	2.31	19.13
339	SLU 57	48	69	2393	-587.5	2.29	16.63
339	SLU 58	55	69	2392	-587.25	2.31	19.13
339	SLU 59	48	69	2393	-587.5	2.29	16.63
339	SLU 60	58	70	2534	-623.95	2.55	20.22
339	SLU 61	51	71	2536	-624.21	2.53	17.73
339	SLU 62	58	70	2534	-623.95	2.55	20.22
339	SLU 63	51	71	2536	-624.21	2.53	17.73
339	SLU 64	53	67	2288	-559.79	2.11	18.15
339	SLU 65	41	68	2292	-560.21	2.09	14
339	SLU 66	53	67	2288	-559.79	2.11	18.15
339	SLU 67	45	68	2290	-560.04	2.1	15.66
339	SLU 68	41	68	2292	-560.21	2.09	14
339	SLU 69	53	67	2288	-559.79	2.11	18.15
339	SLU 70	45	68	2290	-560.04	2.1	15.66
339	SLU 71	53	67	2288	-559.79	2.11	18.15
339	SLU 72	45	68	2290	-560.04	2.1	15.66
339	SLU 73	48	71	2624	-645.86	2.65	16.56
339	SLU 74	60	71	2620	-645.44	2.68	20.71
339	SLU 75	53	71	2622	-645.69	2.66	18.22
339	SLU 76	48	71	2624	-645.86	2.65	16.56
339	SLU 77	60	71	2620	-645.44	2.68	20.71
339	SLU 78	53	71	2622	-645.69	2.66	18.22
339	SLU 79	60	71	2620	-645.44	2.68	20.71
339	SLU 80	53	71	2622	-645.69	2.66	18.22
339	SLU 81	63	73	2762	-682.15	2.92	21.81
339	SLU 82	56	73	2764	-682.4	2.9	19.32
339	SLU 83	63	73	2762	-682.15	2.92	21.81
339	SLU 84	56	73	2764	-682.4	2.9	19.32
339	SLE RA 1	39	51	1710	-417.82	1.54	13.61
339	SLE RA 2	32	52	1712	-418.1	1.53	10.85
339	SLE RA 3	39	51	1710	-417.82	1.54	13.61
339	SLE RA 4	35	52	1711	-417.99	1.53	11.95
339	SLE RA 5	32	52	1712	-418.1	1.53	10.85
339	SLE RA 6	39	51	1710	-417.82	1.54	13.61
339	SLE RA 7	35	52	1711	-417.99	1.53	11.95
339	SLE RA 8	39	51	1710	-417.82	1.54	13.61
339	SLE RA 9	35	52	1711	-417.99	1.53	11.95
339	SLE RA 10	36	54	1933	-475.2	1.9	12.55
339	SLE RA 11	44	54	1931	-474.92	1.92	15.32
339	SLE RA 12	40	54	1933	-475.09	1.91	13.66
339	SLE RA 13	36	54	1933	-475.2	1.9	12.55
339	SLE RA 14	44	54	1931	-474.92	1.92	15.32
339	SLE RA 15	40	54	1933	-475.09	1.91	13.66
339	SLE RA 16	44	54	1931	-474.92	1.92	15.32
339	SLE RA 17	40	54	1933	-475.09	1.91	13.66
339	SLE RA 18	46	55	2026	-499.39	2.08	16.05
339	SLE RA 19	42	55	2027	-499.56	2.07	14.39
339	SLE RA 20	46	55	2026	-499.39	2.08	16.05
339	SLE RA 21	42	55	2027	-499.56	2.07	14.39
339	SLE FR 1	39	51	1710	-417.82	1.54	13.61
339	SLE FR 2	38	51	1711	-417.88	1.54	13.06
339	SLE FR 3	39	51	1710	-417.82	1.54	13.61
339	SLE FR 4	40	52	1805	-442.35	1.7	13.79
339	SLE FR 5	42	52	1805	-442.29	1.7	14.35
339	SLE FR 6	43	53	1868	-458.61	1.81	14.83
339	SLE QP 1	39	51	1710	-417.82	1.54	13.61
339	SLE QP 2	42	52	1805	-442.29	1.7	14.35
339	SLD 1	254	70	1682	-422.12	2.03	88.74
339	SLD 2	217	80	1681	-422.06	2.04	75.86
339	SLD 3	267	0	1823	-448.88	2.18	93.05
339	SLD 4	230	10	1822	-448.83	2.2	80.18
339	SLD 5	100	160	1554	-395.67	1.56	34.67
339	SLD 6	62	170	1553	-395.61	1.57	21.7
339	SLD 7	141	-73	2025	-484.88	2.08	49.06
339	SLD 8	104	-63	2024	-484.82	2.1	36.09
339	SLD 9	-21	168	1586	-399.76	1.31	-7.4
339	SLD 10	-58	178	1585	-399.7	1.33	-20.37
339	SLD 11	21	-66	2057	-488.97	1.84	6.99
339	SLD 12	-17	-56	2055	-488.91	1.85	-5.98
339	SLD 13	-146	95	1788	-435.76	1.21	-51.49
339	SLD 14	-183	105	1786	-435.7	1.23	-64.36
339	SLD 15	-134	25	1929	-462.52	1.37	-47.17
339	SLD 16	-171	35	1928	-462.46	1.38	-60.05
339	SLV 1	525	92	1526	-396.39	2.44	183.35

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
339	SLV 2	441	115	1523	-396.26	2.48	154.19
339	SLV 3	553	-67	1847	-457.3	2.79	193.2
339	SLV 4	469	-45	1844	-457.16	2.83	164.04
339	SLV 5	173	297	1235	-336.2	1.37	60.41
339	SLV 6	89	320	1232	-336.06	1.41	31.06
339	SLV 7	267	-233	2305	-539.21	2.56	93.24
339	SLV 8	183	-210	2302	-539.08	2.6	63.89
339	SLV 9	-100	315	1307	-345.51	0.81	-35.2
339	SLV 10	-184	338	1304	-345.37	0.85	-64.55
339	SLV 11	-6	-216	2377	-548.52	2	-2.37
339	SLV 12	-90	-193	2374	-548.39	2.04	-31.72
339	SLV 13	-386	149	1766	-427.42	0.58	-135.35
339	SLV 14	-470	172	1763	-427.29	0.62	-164.51
339	SLV 15	-358	-10	2087	-488.33	0.93	-125.5
339	SLV 16	-442	13	2084	-488.19	0.97	-154.66
339	CRTFP Ux+	0	0	0	0	0	0
339	CRTFP Ux-	0	0	0	0	0	0
339	CRTFP Uy+	0	0	0	0	0	0
339	CRTFP Uy-	0	0	0	0	0	0
340	SLU 1	39	44	1604	-366.38	0.98	13.33
340	SLU 2	27	44	1608	-366.99	0.95	9.17
340	SLU 3	39	44	1604	-366.38	0.98	13.33
340	SLU 4	32	44	1606	-366.74	0.96	10.83
340	SLU 5	27	44	1608	-366.99	0.95	9.17
340	SLU 6	39	44	1604	-366.38	0.98	13.33
340	SLU 7	32	44	1606	-366.74	0.96	10.83
340	SLU 8	39	44	1604	-366.38	0.98	13.33
340	SLU 9	32	44	1606	-366.74	0.96	10.83
340	SLU 10	34	48	1922	-441.43	1.42	11.69
340	SLU 11	46	48	1918	-440.81	1.44	15.85
340	SLU 12	39	48	1921	-441.18	1.43	13.35
340	SLU 13	34	48	1922	-441.43	1.42	11.69
340	SLU 14	46	48	1918	-440.81	1.44	15.85
340	SLU 15	39	48	1921	-441.18	1.43	13.35
340	SLU 16	46	48	1918	-440.81	1.44	15.85
340	SLU 17	39	48	1921	-441.18	1.43	13.35
340	SLU 18	49	49	2053	-472.72	1.64	16.92
340	SLU 19	42	49	2056	-473.08	1.63	14.43
340	SLU 20	49	49	2053	-472.72	1.64	16.92
340	SLU 21	42	49	2056	-473.08	1.63	14.43
340	SLU 22	43	46	1821	-417.09	1.28	14.9
340	SLU 23	31	46	1826	-417.7	1.25	10.74
340	SLU 24	43	46	1821	-417.09	1.28	14.9
340	SLU 25	36	46	1824	-417.46	1.26	12.4
340	SLU 26	31	46	1826	-417.7	1.25	10.74
340	SLU 27	43	46	1821	-417.09	1.28	14.9
340	SLU 28	36	46	1824	-417.46	1.26	12.4
340	SLU 29	43	46	1821	-417.09	1.28	14.9
340	SLU 30	36	46	1824	-417.46	1.26	12.4
340	SLU 31	38	50	2140	-492.14	1.71	13.26
340	SLU 32	50	50	2136	-491.53	1.74	17.42
340	SLU 33	43	50	2138	-491.9	1.72	14.92
340	SLU 34	38	50	2140	-492.14	1.71	13.26
340	SLU 35	50	50	2136	-491.53	1.74	17.42
340	SLU 36	43	50	2138	-491.9	1.72	14.92
340	SLU 37	50	50	2136	-491.53	1.74	17.42
340	SLU 38	43	50	2138	-491.9	1.72	14.92
340	SLU 39	53	51	2271	-523.43	1.94	18.5
340	SLU 40	46	52	2273	-523.8	1.92	16
340	SLU 41	53	51	2271	-523.43	1.94	18.5
340	SLU 42	46	52	2273	-523.8	1.92	16
340	SLU 43	49	56	2010	-458.9	1.17	16.78
340	SLU 44	37	57	2015	-459.51	1.14	12.62
340	SLU 45	49	56	2010	-458.9	1.17	16.78
340	SLU 46	42	57	2013	-459.27	1.15	14.29
340	SLU 47	37	57	2015	-459.51	1.14	12.62
340	SLU 48	49	56	2010	-458.9	1.17	16.78
340	SLU 49	42	57	2013	-459.27	1.15	14.29
340	SLU 50	49	56	2010	-458.9	1.17	16.78
340	SLU 51	42	57	2013	-459.27	1.15	14.29
340	SLU 52	44	60	2329	-533.95	1.61	15.14
340	SLU 53	56	60	2325	-533.34	1.64	19.3
340	SLU 54	49	60	2327	-533.71	1.62	16.81
340	SLU 55	44	60	2329	-533.95	1.61	15.14
340	SLU 56	56	60	2325	-533.34	1.64	19.3
340	SLU 57	49	60	2327	-533.71	1.62	16.81
340	SLU 58	56	60	2325	-533.34	1.64	19.3
340	SLU 59	49	60	2327	-533.71	1.62	16.81
340	SLU 60	59	62	2460	-565.24	1.83	20.38
340	SLU 61	52	62	2462	-565.61	1.82	17.89
340	SLU 62	59	62	2460	-565.24	1.83	20.38
340	SLU 63	52	62	2462	-565.61	1.82	17.89
340	SLU 64	53	59	2228	-509.62	1.47	18.36
340	SLU 65	41	59	2232	-510.23	1.44	14.2
340	SLU 66	53	59	2228	-509.62	1.47	18.36
340	SLU 67	46	59	2230	-509.98	1.45	15.86

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
340	SLU 68	41	59	2232	-510.23	1.44	14.2
340	SLU 69	53	59	2228	-509.62	1.47	18.36
340	SLU 70	46	59	2230	-509.98	1.45	15.86
340	SLU 71	53	59	2228	-509.62	1.47	18.36
340	SLU 72	46	59	2230	-509.98	1.45	15.86
340	SLU 73	49	63	2547	-584.67	1.9	16.72
340	SLU 74	60	62	2542	-584.05	1.93	20.88
340	SLU 75	53	62	2545	-584.42	1.92	18.38
340	SLU 76	49	63	2547	-584.67	1.9	16.72
340	SLU 77	60	62	2542	-584.05	1.93	20.88
340	SLU 78	53	62	2545	-584.42	1.92	18.38
340	SLU 79	60	62	2542	-584.05	1.93	20.88
340	SLU 80	53	62	2545	-584.42	1.92	18.38
340	SLU 81	64	64	2677	-615.96	2.13	21.96
340	SLU 82	56	64	2680	-616.32	2.12	19.46
340	SLU 83	64	64	2677	-615.96	2.13	21.96
340	SLU 84	56	64	2680	-616.32	2.12	19.46
340	SLE RA 1	40	45	1666	-380.87	1.06	13.78
340	SLE RA 2	32	45	1669	-381.27	1.04	11
340	SLE RA 3	40	45	1666	-380.87	1.06	13.78
340	SLE RA 4	35	45	1668	-381.11	1.05	12.11
340	SLE RA 5	32	45	1669	-381.27	1.04	11
340	SLE RA 6	40	45	1666	-380.87	1.06	13.78
340	SLE RA 7	35	45	1668	-381.11	1.05	12.11
340	SLE RA 8	40	45	1666	-380.87	1.06	13.78
340	SLE RA 9	35	45	1668	-381.11	1.05	12.11
340	SLE RA 10	37	47	1878	-430.9	1.35	12.68
340	SLE RA 11	45	47	1876	-430.49	1.37	15.45
340	SLE RA 12	40	47	1877	-430.74	1.36	13.79
340	SLE RA 13	37	47	1878	-430.9	1.35	12.68
340	SLE RA 14	45	47	1876	-430.49	1.37	15.45
340	SLE RA 15	40	47	1877	-430.74	1.36	13.79
340	SLE RA 16	45	47	1876	-430.49	1.37	15.45
340	SLE RA 17	40	47	1877	-430.74	1.36	13.79
340	SLE RA 18	47	48	1965	-451.76	1.51	16.17
340	SLE RA 19	42	48	1967	-452	1.5	14.51
340	SLE RA 20	47	48	1965	-451.76	1.51	16.17
340	SLE RA 21	42	48	1967	-452	1.5	14.51
340	SLE FR 1	40	45	1666	-380.87	1.06	13.78
340	SLE FR 2	38	45	1667	-380.95	1.06	13.22
340	SLE FR 3	40	45	1666	-380.87	1.06	13.78
340	SLE FR 4	40	46	1756	-402.22	1.19	13.94
340	SLE FR 5	42	46	1756	-402.13	1.2	14.49
340	SLE FR 6	43	46	1816	-416.31	1.28	14.97
340	SLE QP 1	40	45	1666	-380.87	1.06	13.78
340	SLE QP 2	42	46	1756	-402.13	1.2	14.49
340	SLD 1	255	62	1622	-380.94	1.59	88.97
340	SLD 2	218	74	1620	-380.86	1.61	76.1
340	SLD 3	267	-9	1759	-403.98	1.69	93.3
340	SLD 4	230	3	1757	-403.89	1.71	80.43
340	SLD 5	100	154	1508	-360.87	1.15	34.83
340	SLD 6	63	166	1506	-360.79	1.17	21.85
340	SLD 7	142	-83	1965	-437.65	1.49	49.26
340	SLD 8	104	-71	1963	-437.57	1.51	36.29
340	SLD 9	-20	162	1548	-366.7	0.88	-7.3
340	SLD 10	-57	174	1546	-366.62	0.9	-20.27
340	SLD 11	21	-75	2005	-443.48	1.22	7.14
340	SLD 12	-16	-63	2003	-443.4	1.24	-5.84
340	SLD 13	-146	88	1755	-400.37	0.68	-51.44
340	SLD 14	-183	101	1753	-400.29	0.7	-64.31
340	SLD 15	-134	17	1892	-423.41	0.79	-47.11
340	SLD 16	-171	30	1890	-423.33	0.81	-59.98
340	SLV 1	526	82	1451	-353.91	2.08	183.7
340	SLV 2	442	110	1447	-353.72	2.13	154.54
340	SLV 3	554	-80	1763	-406.37	2.31	193.57
340	SLV 4	470	-52	1758	-406.18	2.36	164.41
340	SLV 5	174	291	1193	-308.17	1.1	60.58
340	SLV 6	89	320	1189	-307.98	1.14	31.22
340	SLV 7	268	-247	2232	-483.04	1.86	93.5
340	SLV 8	184	-218	2228	-482.85	1.91	64.15
340	SLV 9	-100	310	1284	-321.42	0.48	-35.16
340	SLV 10	-184	338	1280	-321.23	0.53	-64.51
340	SLV 11	-5	-228	2323	-496.29	1.25	-2.23
340	SLV 12	-90	-200	2318	-496.1	1.3	-31.59
340	SLV 13	-386	143	1753	-398.09	0.03	-135.42
340	SLV 14	-470	171	1749	-397.9	0.08	-164.59
340	SLV 15	-358	-18	2065	-450.55	0.26	-125.55
340	SLV 16	-441	9	2061	-450.36	0.31	-154.71
340	CRTFP Ux+	0	0	0	0	0	0
340	CRTFP Ux-	0	0	0	0	0	0
340	CRTFP Uy+	0	0	0	0	0	0
340	CRTFP Uy-	0	0	0	0	0	0
341	SLU 1	39	37	1581	-345.52	0.36	13.46
341	SLU 2	27	37	1586	-346.41	0.32	9.3
341	SLU 3	39	37	1581	-345.52	0.36	13.46
341	SLU 4	32	37	1584	-346.05	0.34	10.97

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
341	SLU 5	27	37	1586	-346.41	0.32	9.3
341	SLU 6	39	37	1581	-345.52	0.36	13.46
341	SLU 7	32	37	1584	-346.05	0.34	10.97
341	SLU 8	39	37	1581	-345.52	0.36	13.46
341	SLU 9	32	37	1584	-346.05	0.34	10.97
341	SLU 10	34	40	1888	-412.64	0.65	11.79
341	SLU 11	46	40	1882	-411.75	0.68	15.95
341	SLU 12	39	40	1886	-412.29	0.66	13.45
341	SLU 13	34	40	1888	-412.64	0.65	11.79
341	SLU 14	46	40	1882	-411.75	0.68	15.95
341	SLU 15	39	40	1886	-412.29	0.66	13.45
341	SLU 16	46	40	1882	-411.75	0.68	15.95
341	SLU 17	39	40	1886	-412.29	0.66	13.45
341	SLU 18	49	42	2011	-440.14	0.82	17.02
341	SLU 19	42	42	2015	-440.67	0.8	14.52
341	SLU 20	49	42	2011	-440.14	0.82	17.02
341	SLU 21	42	42	2015	-440.67	0.8	14.52
341	SLU 22	44	39	1790	-390.88	0.55	15.03
341	SLU 23	32	39	1796	-391.76	0.52	10.87
341	SLU 24	44	39	1790	-390.88	0.55	15.03
341	SLU 25	36	39	1794	-391.41	0.53	12.53
341	SLU 26	32	39	1796	-391.76	0.52	10.87
341	SLU 27	44	39	1790	-390.88	0.55	15.03
341	SLU 28	36	39	1794	-391.41	0.53	12.53
341	SLU 29	44	39	1790	-390.88	0.55	15.03
341	SLU 30	36	39	1794	-391.41	0.53	12.53
341	SLU 31	39	43	2097	-458	0.84	13.35
341	SLU 32	51	42	2092	-457.11	0.87	17.52
341	SLU 33	44	43	2095	-457.64	0.86	15.02
341	SLU 34	39	43	2097	-458	0.84	13.35
341	SLU 35	51	42	2092	-457.11	0.87	17.52
341	SLU 36	44	43	2095	-457.64	0.86	15.02
341	SLU 37	51	42	2092	-457.11	0.87	17.52
341	SLU 38	44	43	2095	-457.64	0.86	15.02
341	SLU 39	54	44	2221	-485.49	1.01	18.58
341	SLU 40	47	44	2224	-486.03	0.99	16.08
341	SLU 41	54	44	2221	-485.49	1.01	18.58
341	SLU 42	47	44	2224	-486.03	0.99	16.08
341	SLU 43	49	47	1984	-433.63	0.39	16.97
341	SLU 44	37	47	1989	-434.51	0.36	12.8
341	SLU 45	49	47	1984	-433.63	0.39	16.97
341	SLU 46	42	47	1987	-434.16	0.38	14.47
341	SLU 47	37	47	1989	-434.51	0.36	12.8
341	SLU 48	49	47	1984	-433.63	0.39	16.97
341	SLU 49	42	47	1987	-434.16	0.38	14.47
341	SLU 50	49	47	1984	-433.63	0.39	16.97
341	SLU 51	42	47	1987	-434.16	0.38	14.47
341	SLU 52	45	51	2290	-500.75	0.69	15.29
341	SLU 53	56	51	2285	-499.86	0.72	19.46
341	SLU 54	49	51	2288	-500.39	0.7	16.96
341	SLU 55	45	51	2290	-500.75	0.69	15.29
341	SLU 56	56	51	2285	-499.86	0.72	19.46
341	SLU 57	49	51	2288	-500.39	0.7	16.96
341	SLU 58	56	51	2285	-499.86	0.72	19.46
341	SLU 59	49	51	2288	-500.39	0.7	16.96
341	SLU 60	59	52	2414	-528.25	0.86	20.52
341	SLU 61	52	52	2417	-528.78	0.84	18.02
341	SLU 62	59	52	2414	-528.25	0.86	20.52
341	SLU 63	52	52	2417	-528.78	0.84	18.02
341	SLU 64	54	49	2193	-478.98	0.59	18.53
341	SLU 65	42	49	2198	-479.87	0.56	14.37
341	SLU 66	54	49	2193	-478.98	0.59	18.53
341	SLU 67	47	49	2196	-479.51	0.57	16.03
341	SLU 68	42	49	2198	-479.87	0.56	14.37
341	SLU 69	54	49	2193	-478.98	0.59	18.53
341	SLU 70	47	49	2196	-479.51	0.57	16.03
341	SLU 71	54	49	2193	-478.98	0.59	18.53
341	SLU 72	47	49	2196	-479.51	0.57	16.03
341	SLU 73	49	53	2499	-546.1	0.88	16.86
341	SLU 74	61	53	2494	-545.21	0.91	21.02
341	SLU 75	54	53	2497	-545.75	0.89	18.52
341	SLU 76	49	53	2499	-546.1	0.88	16.86
341	SLU 77	61	53	2494	-545.21	0.91	21.02
341	SLU 78	54	53	2497	-545.75	0.89	18.52
341	SLU 79	61	53	2494	-545.21	0.91	21.02
341	SLU 80	54	53	2497	-545.75	0.89	18.52
341	SLU 81	64	54	2623	-573.6	1.05	22.09
341	SLU 82	57	54	2626	-574.13	1.03	19.59
341	SLU 83	64	54	2623	-573.6	1.05	22.09
341	SLU 84	57	54	2626	-574.13	1.03	19.59
341	SLE RA 1	40	37	1641	-358.48	0.41	13.91
341	SLE RA 2	32	37	1644	-359.07	0.39	11.14
341	SLE RA 3	40	37	1641	-358.48	0.41	13.91
341	SLE RA 4	36	37	1643	-358.83	0.4	12.25
341	SLE RA 5	32	37	1644	-359.07	0.39	11.14
341	SLE RA 6	40	37	1641	-358.48	0.41	13.91

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
341	SLE RA 7	36	37	1643	-358.83	0.4	12.25
341	SLE RA 8	40	37	1641	-358.48	0.41	13.91
341	SLE RA 9	36	37	1643	-358.83	0.4	12.25
341	SLE RA 10	37	40	1845	-403.23	0.61	12.79
341	SLE RA 11	45	40	1842	-402.63	0.63	15.57
341	SLE RA 12	40	40	1844	-402.99	0.61	13.9
341	SLE RA 13	37	40	1845	-403.23	0.61	12.79
341	SLE RA 14	45	40	1842	-402.63	0.63	15.57
341	SLE RA 15	40	40	1844	-402.99	0.61	13.9
341	SLE RA 16	45	40	1842	-402.63	0.63	15.57
341	SLE RA 17	40	40	1844	-402.99	0.61	13.9
341	SLE RA 18	47	41	1928	-421.56	0.72	16.28
341	SLE RA 19	42	41	1930	-421.91	0.71	14.62
341	SLE RA 20	47	41	1928	-421.56	0.72	16.28
341	SLE RA 21	42	41	1930	-421.91	0.71	14.62
341	SLE FR 1	40	37	1641	-358.48	0.41	13.91
341	SLE FR 2	39	37	1642	-358.6	0.41	13.36
341	SLE FR 3	40	37	1641	-358.48	0.41	13.91
341	SLE FR 4	41	38	1728	-377.52	0.5	14.07
341	SLE FR 5	42	38	1727	-377.4	0.5	14.62
341	SLE FR 6	44	39	1784	-390.02	0.57	15.1
341	SLE QP 1	40	37	1641	-358.48	0.41	13.91
341	SLE QP 2	42	38	1727	-377.4	0.5	14.62
341	SLD 1	255	81	1579	-352.97	1.02	89.15
341	SLD 2	218	96	1576	-352.85	1.04	76.28
341	SLD 3	268	9	1714	-373.82	0.99	93.49
341	SLD 4	231	23	1711	-373.7	1.01	80.61
341	SLD 5	100	156	1478	-338.49	0.7	34.95
341	SLD 6	63	171	1476	-338.37	0.72	21.99
341	SLD 7	142	-86	1929	-407.99	0.6	49.41
341	SLD 8	105	-71	1926	-407.87	0.62	36.45
341	SLD 9	-20	148	1528	-346.93	0.39	-7.2
341	SLD 10	-57	163	1525	-346.81	0.41	-20.17
341	SLD 11	22	-94	1978	-416.43	0.29	7.26
341	SLD 12	-16	-80	1976	-416.31	0.31	-5.71
341	SLD 13	-146	53	1743	-381.11	0	-51.37
341	SLD 14	-183	68	1740	-380.99	0.02	-64.24
341	SLD 15	-134	-19	1878	-401.95	-0.03	-47.03
341	SLD 16	-170	-5	1876	-401.83	-0.01	-59.9
341	SLV 1	526	136	1390	-321.82	1.67	183.93
341	SLV 2	442	170	1384	-321.54	1.72	154.78
341	SLV 3	555	-29	1697	-369.33	1.6	193.82
341	SLV 4	471	5	1691	-369.06	1.65	164.68
341	SLV 5	174	306	1162	-288.76	0.94	60.7
341	SLV 6	90	340	1156	-288.48	0.99	31.36
341	SLV 7	269	-244	2186	-447.14	0.71	93.69
341	SLV 8	184	-210	2180	-446.87	0.76	64.35
341	SLV 9	-100	287	1274	-307.94	0.25	-35.1
341	SLV 10	-184	320	1268	-307.66	0.3	-64.44
341	SLV 11	-5	-263	2298	-466.32	0.02	-2.12
341	SLV 12	-89	-230	2292	-466.05	0.07	-31.46
341	SLV 13	-386	72	1763	-385.75	-0.65	-135.43
341	SLV 14	-470	105	1757	-385.47	-0.6	-164.58
341	SLV 15	-358	-93	2071	-433.26	-0.72	-125.54
341	SLV 16	-441	-60	2064	-432.99	-0.67	-154.68
341	CRTFP Ux+	0	0	0	0	0	0
341	CRTFP Ux-	0	0	0	0	0	0
341	CRTFP Uy+	0	0	0	0	0	0
341	CRTFP Uy-	0	0	0	0	0	0
342	SLU 1	39	29	1581	-341.69	-0.37	13.58
342	SLU 2	28	29	1588	-342.94	-0.41	9.41
342	SLU 3	39	29	1581	-341.69	-0.37	13.58
342	SLU 4	32	29	1585	-342.44	-0.4	11.08
342	SLU 5	28	29	1588	-342.94	-0.41	9.41
342	SLU 6	39	29	1581	-341.69	-0.37	13.58
342	SLU 7	32	29	1585	-342.44	-0.4	11.08
342	SLU 8	39	29	1581	-341.69	-0.37	13.58
342	SLU 9	32	29	1585	-342.44	-0.4	11.08
342	SLU 10	35	33	1881	-404.77	-0.26	11.87
342	SLU 11	46	33	1875	-403.52	-0.22	16.04
342	SLU 12	39	33	1878	-404.27	-0.25	13.54
342	SLU 13	35	33	1881	-404.77	-0.26	11.87
342	SLU 14	46	33	1875	-403.52	-0.22	16.04
342	SLU 15	39	33	1878	-404.27	-0.25	13.54
342	SLU 16	46	33	1875	-403.52	-0.22	16.04
342	SLU 17	39	33	1878	-404.27	-0.25	13.54
342	SLU 18	50	34	2000	-430.01	-0.16	17.09
342	SLU 19	42	34	2004	-430.77	-0.18	14.59
342	SLU 20	50	34	2000	-430.01	-0.16	17.09
342	SLU 21	42	34	2004	-430.77	-0.18	14.59
342	SLU 22	44	31	1786	-384.35	-0.3	15.13
342	SLU 23	32	31	1792	-385.61	-0.33	10.97
342	SLU 24	44	31	1786	-384.35	-0.3	15.13
342	SLU 25	37	31	1790	-385.11	-0.32	12.63
342	SLU 26	32	31	1792	-385.61	-0.33	10.97
342	SLU 27	44	31	1786	-384.35	-0.3	15.13

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
342	SLU 28	37	31	1790	-385.11	-0.32	12.63
342	SLU 29	44	31	1786	-384.35	-0.3	15.13
342	SLU 30	37	31	1790	-385.11	-0.32	12.63
342	SLU 31	39	35	2085	-447.44	-0.18	13.43
342	SLU 32	51	35	2079	-446.18	-0.15	17.59
342	SLU 33	44	35	2083	-446.93	-0.17	15.1
342	SLU 34	39	35	2085	-447.44	-0.18	13.43
342	SLU 35	51	35	2079	-446.18	-0.15	17.59
342	SLU 36	44	35	2083	-446.93	-0.17	15.1
342	SLU 37	51	35	2079	-446.18	-0.15	17.59
342	SLU 38	44	35	2083	-446.93	-0.17	15.1
342	SLU 39	54	36	2205	-472.68	-0.08	18.65
342	SLU 40	47	36	2209	-473.43	-0.11	16.15
342	SLU 41	54	36	2205	-472.68	-0.08	18.65
342	SLU 42	47	36	2209	-473.43	-0.11	16.15
342	SLU 43	50	37	1986	-429.57	-0.51	17.11
342	SLU 44	38	37	1992	-430.82	-0.55	12.95
342	SLU 45	50	37	1986	-429.57	-0.51	17.11
342	SLU 46	43	37	1989	-430.32	-0.53	14.62
342	SLU 47	38	37	1992	-430.82	-0.55	12.95
342	SLU 48	50	37	1986	-429.57	-0.51	17.11
342	SLU 49	43	37	1989	-430.32	-0.53	14.62
342	SLU 50	50	37	1986	-429.57	-0.51	17.11
342	SLU 51	43	37	1989	-430.32	-0.53	14.62
342	SLU 52	45	41	2285	-492.65	-0.4	15.41
342	SLU 53	57	41	2279	-491.4	-0.36	19.58
342	SLU 54	50	41	2283	-492.15	-0.38	17.08
342	SLU 55	45	41	2285	-492.65	-0.4	15.41
342	SLU 56	57	41	2279	-491.4	-0.36	19.58
342	SLU 57	50	41	2283	-492.15	-0.38	17.08
342	SLU 58	57	41	2279	-491.4	-0.36	19.58
342	SLU 59	50	41	2283	-492.15	-0.38	17.08
342	SLU 60	60	42	2404	-517.89	-0.3	20.63
342	SLU 61	53	42	2408	-518.65	-0.32	18.13
342	SLU 62	60	42	2404	-517.89	-0.3	20.63
342	SLU 63	53	42	2408	-518.65	-0.32	18.13
342	SLU 64	54	39	2190	-472.23	-0.44	18.67
342	SLU 65	42	39	2197	-473.49	-0.47	14.51
342	SLU 66	54	39	2190	-472.23	-0.44	18.67
342	SLU 67	47	39	2194	-472.98	-0.46	16.17
342	SLU 68	42	39	2197	-473.49	-0.47	14.51
342	SLU 69	54	39	2190	-472.23	-0.44	18.67
342	SLU 70	47	39	2194	-472.98	-0.46	16.17
342	SLU 71	54	39	2190	-472.23	-0.44	18.67
342	SLU 72	47	39	2194	-472.98	-0.46	16.17
342	SLU 73	49	43	2490	-535.31	-0.32	16.97
342	SLU 74	61	43	2483	-534.06	-0.29	21.13
342	SLU 75	54	43	2487	-534.81	-0.31	18.63
342	SLU 76	49	43	2490	-535.31	-0.32	16.97
342	SLU 77	61	43	2483	-534.06	-0.29	21.13
342	SLU 78	54	43	2487	-534.81	-0.31	18.63
342	SLU 79	61	43	2483	-534.06	-0.29	21.13
342	SLU 80	54	43	2487	-534.81	-0.31	18.63
342	SLU 81	64	44	2609	-560.56	-0.22	22.19
342	SLU 82	57	44	2613	-561.31	-0.24	19.69
342	SLU 83	64	44	2609	-560.56	-0.22	22.19
342	SLU 84	57	44	2613	-561.31	-0.24	19.69
342	SLE RA 1	41	30	1640	-353.88	-0.35	14.02
342	SLE RA 2	33	30	1644	-354.71	-0.38	11.24
342	SLE RA 3	41	30	1640	-353.88	-0.35	14.02
342	SLE RA 4	36	30	1642	-354.38	-0.37	12.36
342	SLE RA 5	33	30	1644	-354.71	-0.38	11.24
342	SLE RA 6	41	30	1640	-353.88	-0.35	14.02
342	SLE RA 7	36	30	1642	-354.38	-0.37	12.36
342	SLE RA 8	41	30	1640	-353.88	-0.35	14.02
342	SLE RA 9	36	30	1642	-354.38	-0.37	12.36
342	SLE RA 10	37	32	1839	-395.93	-0.28	12.89
342	SLE RA 11	45	32	1835	-395.1	-0.25	15.66
342	SLE RA 12	41	32	1838	-395.6	-0.27	14
342	SLE RA 13	37	32	1839	-395.93	-0.28	12.89
342	SLE RA 14	45	32	1835	-395.1	-0.25	15.66
342	SLE RA 15	41	32	1838	-395.6	-0.27	14
342	SLE RA 16	45	32	1835	-395.1	-0.25	15.66
342	SLE RA 17	41	32	1838	-395.6	-0.27	14
342	SLE RA 18	47	33	1919	-412.76	-0.21	16.37
342	SLE RA 19	43	33	1922	-413.26	-0.22	14.7
342	SLE RA 20	47	33	1919	-412.76	-0.21	16.37
342	SLE RA 21	43	33	1922	-413.26	-0.22	14.7
342	SLE FR 1	41	30	1640	-353.88	-0.35	14.02
342	SLE FR 2	39	30	1641	-354.05	-0.36	13.47
342	SLE FR 3	41	30	1640	-353.88	-0.35	14.02
342	SLE FR 4	41	31	1724	-371.71	-0.31	14.17
342	SLE FR 5	43	31	1724	-371.54	-0.31	14.72
342	SLE FR 6	44	31	1779	-383.32	-0.28	15.19
342	SLE QP 1	41	30	1640	-353.88	-0.35	14.02
342	SLE QP 2	43	31	1724	-371.54	-0.31	14.72

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
342	SLD 1	256	74	1557	-341.42	0.3	89.25
342	SLD 2	219	92	1553	-341.22	0.33	76.39
342	SLD 3	268	0	1693	-361.91	0.23	93.59
342	SLD 4	231	17	1690	-361.71	0.25	80.73
342	SLD 5	101	151	1468	-331.51	-0.01	35.05
342	SLD 6	64	168	1465	-331.31	0.01	22.09
342	SLD 7	142	-98	1922	-399.79	-0.28	49.52
342	SLD 8	105	-81	1919	-399.59	-0.25	36.56
342	SLD 9	-20	142	1528	-343.5	-0.37	-7.11
342	SLD 10	-57	159	1525	-343.29	-0.34	-20.07
342	SLD 11	22	-107	1982	-411.78	-0.63	7.36
342	SLD 12	-15	-90	1979	-411.58	-0.61	-5.6
342	SLD 13	-146	44	1757	-381.38	-0.87	-51.28
342	SLD 14	-183	62	1754	-381.18	-0.84	-64.14
342	SLD 15	-133	-30	1894	-401.87	-0.95	-46.94
342	SLD 16	-170	-13	1890	-401.67	-0.92	-59.8
342	SLV 1	526	130	1345	-303.03	1.08	184.04
342	SLV 2	443	169	1337	-302.58	1.14	154.91
342	SLV 3	555	-39	1654	-349.73	0.91	193.94
342	SLV 4	471	-1	1647	-349.27	0.96	164.82
342	SLV 5	174	305	1143	-280.33	0.36	60.79
342	SLV 6	90	344	1135	-279.87	0.42	31.47
342	SLV 7	269	-262	2175	-435.98	-0.24	93.8
342	SLV 8	185	-223	2167	-435.52	-0.18	64.48
342	SLV 9	-99	284	1280	-307.56	-0.44	-35.03
342	SLV 10	-184	323	1272	-307.11	-0.38	-64.35
342	SLV 11	-4	-282	2312	-463.22	-1.04	-2.03
342	SLV 12	-89	-243	2304	-462.76	-0.98	-31.34
342	SLV 13	-386	62	1801	-393.81	-1.58	-135.37
342	SLV 14	-469	101	1793	-393.36	-1.52	-164.49
342	SLV 15	-357	-108	2110	-440.51	-1.76	-125.47
342	SLV 16	-441	-69	2102	-440.06	-1.7	-154.59
342	CRTFP Ux+	0	0	0	0	0	0
342	CRTFP Ux-	0	0	0	0	0	0
342	CRTFP Uy+	0	0	0	0	0	0
342	CRTFP Uy-	0	0	0	0	0	0
343	SLU 1	40	21	1607	-357.04	-1.17	13.66
343	SLU 2	28	21	1615	-358.76	-1.21	9.49
343	SLU 3	40	21	1607	-357.04	-1.17	13.66
343	SLU 4	33	21	1612	-358.07	-1.19	11.16
343	SLU 5	28	21	1615	-358.76	-1.21	9.49
343	SLU 6	40	21	1607	-357.04	-1.17	13.66
343	SLU 7	33	21	1612	-358.07	-1.19	11.16
343	SLU 8	40	21	1607	-357.04	-1.17	13.66
343	SLU 9	33	21	1612	-358.07	-1.19	11.16
343	SLU 10	35	25	1906	-420.48	-1.25	11.93
343	SLU 11	47	25	1898	-418.76	-1.2	16.1
343	SLU 12	40	25	1903	-419.79	-1.23	13.6
343	SLU 13	35	25	1906	-420.48	-1.25	11.93
343	SLU 14	47	25	1898	-418.76	-1.2	16.1
343	SLU 15	40	25	1903	-419.79	-1.23	13.6
343	SLU 16	47	25	1898	-418.76	-1.2	16.1
343	SLU 17	40	25	1903	-419.79	-1.23	13.6
343	SLU 18	50	26	2023	-445.21	-1.22	17.14
343	SLU 19	43	26	2028	-446.24	-1.25	14.64
343	SLU 20	50	26	2023	-445.21	-1.22	17.14
343	SLU 21	43	26	2028	-446.24	-1.25	14.64
343	SLU 22	44	23	1811	-400.03	-1.22	15.21
343	SLU 23	32	23	1819	-401.76	-1.26	11.05
343	SLU 24	44	23	1811	-400.03	-1.22	15.21
343	SLU 25	37	23	1816	-401.07	-1.25	12.71
343	SLU 26	32	23	1819	-401.76	-1.26	11.05
343	SLU 27	44	23	1811	-400.03	-1.22	15.21
343	SLU 28	37	23	1816	-401.07	-1.25	12.71
343	SLU 29	44	23	1811	-400.03	-1.22	15.21
343	SLU 30	37	23	1816	-401.07	-1.25	12.71
343	SLU 31	39	26	2110	-463.48	-1.3	13.49
343	SLU 32	51	26	2102	-461.75	-1.26	17.65
343	SLU 33	44	26	2107	-462.79	-1.28	15.15
343	SLU 34	39	26	2110	-463.48	-1.3	13.49
343	SLU 35	51	26	2102	-461.75	-1.26	17.65
343	SLU 36	44	26	2107	-462.79	-1.28	15.15
343	SLU 37	51	26	2102	-461.75	-1.26	17.65
343	SLU 38	44	26	2107	-462.79	-1.28	15.15
343	SLU 39	54	28	2227	-488.2	-1.28	18.69
343	SLU 40	47	28	2232	-489.24	-1.3	16.2
343	SLU 41	54	28	2227	-488.2	-1.28	18.69
343	SLU 42	47	28	2232	-489.24	-1.3	16.2
343	SLU 43	50	27	2019	-449.41	-1.5	17.22
343	SLU 44	38	27	2027	-451.13	-1.54	13.06
343	SLU 45	50	27	2019	-449.41	-1.5	17.22
343	SLU 46	43	27	2024	-450.44	-1.52	14.72
343	SLU 47	38	27	2027	-451.13	-1.54	13.06
343	SLU 48	50	27	2019	-449.41	-1.5	17.22
343	SLU 49	43	27	2024	-450.44	-1.52	14.72
343	SLU 50	50	27	2019	-449.41	-1.5	17.22

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
343	SLU 51	43	27	2024	-450.44	-1.52	14.72
343	SLU 52	45	30	2318	-512.85	-1.58	15.5
343	SLU 53	57	30	2310	-511.12	-1.54	19.66
343	SLU 54	50	30	2315	-512.16	-1.56	17.16
343	SLU 55	45	30	2318	-512.85	-1.58	15.5
343	SLU 56	57	30	2310	-511.12	-1.54	19.66
343	SLU 57	50	30	2315	-512.16	-1.56	17.16
343	SLU 58	57	30	2310	-511.12	-1.54	19.66
343	SLU 59	50	30	2315	-512.16	-1.56	17.16
343	SLU 60	60	32	2435	-537.58	-1.55	20.71
343	SLU 61	53	32	2440	-538.61	-1.58	18.21
343	SLU 62	60	32	2435	-537.58	-1.55	20.71
343	SLU 63	53	32	2440	-538.61	-1.58	18.21
343	SLU 64	55	29	2223	-492.4	-1.55	18.77
343	SLU 65	43	29	2231	-494.13	-1.6	14.61
343	SLU 66	55	29	2223	-492.4	-1.55	18.77
343	SLU 67	47	29	2228	-493.44	-1.58	16.28
343	SLU 68	43	29	2231	-494.13	-1.6	14.61
343	SLU 69	55	29	2223	-492.4	-1.55	18.77
343	SLU 70	47	29	2228	-493.44	-1.58	16.28
343	SLU 71	55	29	2223	-492.4	-1.55	18.77
343	SLU 72	47	29	2228	-493.44	-1.58	16.28
343	SLU 73	50	32	2522	-555.85	-1.63	17.05
343	SLU 74	62	32	2515	-554.12	-1.59	21.21
343	SLU 75	54	32	2519	-555.16	-1.62	18.72
343	SLU 76	50	32	2522	-555.85	-1.63	17.05
343	SLU 77	62	32	2515	-554.12	-1.59	21.21
343	SLU 78	54	32	2519	-555.16	-1.62	18.72
343	SLU 79	62	32	2515	-554.12	-1.59	21.21
343	SLU 80	54	32	2519	-555.16	-1.62	18.72
343	SLU 81	65	34	2639	-580.57	-1.61	22.26
343	SLU 82	57	34	2644	-581.61	-1.63	19.76
343	SLU 83	65	34	2639	-580.57	-1.61	22.26
343	SLU 84	57	34	2644	-581.61	-1.63	19.76
343	SLE RA 1	41	22	1665	-369.32	-1.18	14.1
343	SLE RA 2	33	22	1670	-370.47	-1.21	11.32
343	SLE RA 3	41	22	1665	-369.32	-1.18	14.1
343	SLE RA 4	36	22	1668	-370.01	-1.2	12.43
343	SLE RA 5	33	22	1670	-370.47	-1.21	11.32
343	SLE RA 6	41	22	1665	-369.32	-1.18	14.1
343	SLE RA 7	36	22	1668	-370.01	-1.2	12.43
343	SLE RA 8	41	22	1665	-369.32	-1.18	14.1
343	SLE RA 9	36	22	1668	-370.01	-1.2	12.43
343	SLE RA 10	38	24	1865	-411.62	-1.24	12.95
343	SLE RA 11	46	24	1860	-410.47	-1.21	15.73
343	SLE RA 12	41	24	1863	-411.16	-1.22	14.06
343	SLE RA 13	38	24	1865	-411.62	-1.24	12.95
343	SLE RA 14	46	24	1860	-410.47	-1.21	15.73
343	SLE RA 15	41	24	1863	-411.16	-1.22	14.06
343	SLE RA 16	46	24	1860	-410.47	-1.21	15.73
343	SLE RA 17	41	24	1863	-411.16	-1.22	14.06
343	SLE RA 18	48	25	1943	-428.1	-1.22	16.42
343	SLE RA 19	43	25	1946	-428.79	-1.24	14.76
343	SLE RA 20	48	25	1943	-428.1	-1.22	16.42
343	SLE RA 21	43	25	1946	-428.79	-1.24	14.76
343	SLE FR 1	41	22	1665	-369.32	-1.18	14.1
343	SLE FR 2	39	22	1666	-369.55	-1.19	13.55
343	SLE FR 3	41	22	1665	-369.32	-1.18	14.1
343	SLE FR 4	41	23	1750	-387.19	-1.2	14.24
343	SLE FR 5	43	23	1749	-386.96	-1.19	14.8
343	SLE FR 6	44	23	1804	-398.71	-1.2	15.26
343	SLE QP 1	41	22	1665	-369.32	-1.18	14.1
343	SLE QP 2	43	23	1749	-386.96	-1.19	14.8
343	SLD 1	256	68	1559	-348.52	-0.44	89.29
343	SLD 2	219	88	1555	-348.15	-0.42	76.44
343	SLD 3	268	-10	1700	-370.68	-0.62	93.63
343	SLD 4	231	10	1695	-370.32	-0.6	80.78
343	SLD 5	101	147	1480	-341.94	-0.7	35.11
343	SLD 6	64	167	1476	-341.57	-0.68	22.17
343	SLD 7	143	-112	1948	-415.82	-1.3	49.57
343	SLD 8	105	-92	1944	-415.45	-1.28	36.63
343	SLD 9	-19	137	1553	-358.46	-1.11	-7.04
343	SLD 10	-57	157	1549	-358.1	-1.08	-19.98
343	SLD 11	22	-122	2021	-432.34	-1.71	7.43
343	SLD 12	-15	-102	2017	-431.97	-1.68	-5.51
343	SLD 13	-145	35	1802	-403.6	-1.79	-51.19
343	SLD 14	-182	55	1797	-403.23	-1.77	-64.03
343	SLD 15	-133	-42	1942	-425.76	-1.97	-46.85
343	SLD 16	-170	-23	1938	-425.4	-1.95	-59.69
343	SLV 1	526	126	1318	-299.56	0.51	184.03
343	SLV 2	443	170	1309	-298.73	0.57	154.94
343	SLV 3	555	-51	1637	-350.05	0.11	193.93
343	SLV 4	471	-6	1628	-349.23	0.17	164.84
343	SLV 5	174	305	1139	-284.43	-0.08	60.83
343	SLV 6	90	350	1129	-283.61	-0.03	31.55
343	SLV 7	269	-282	2202	-452.77	-1.44	93.83

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
343	SLV 8	185	-238	2193	-451.94	-1.38	64.55
343	SLV 9	-99	283	1304	-321.97	-1	-34.96
343	SLV 10	-183	328	1295	-321.14	-0.95	-64.23
343	SLV 11	-4	-305	2368	-490.3	-2.36	-1.95
343	SLV 12	-88	-260	2358	-489.48	-2.3	-31.23
343	SLV 13	-385	51	1869	-424.68	-2.55	-135.25
343	SLV 14	-469	96	1860	-423.86	-2.49	-164.33
343	SLV 15	-357	-125	2188	-475.18	-2.96	-125.35
343	SLV 16	-440	-80	2179	-474.36	-2.9	-154.43
343	CRTFP Ux+	0	0	0	0	0	0
343	CRTFP Ux-	0	0	0	0	0	0
343	CRTFP Uy+	0	0	0	0	0	0
343	CRTFP Uy-	0	0	0	0	0	0
344	SLU 1	40	13	1660	-392.83	-1.98	13.71
344	SLU 2	28	13	1669	-395.14	-2.03	9.55
344	SLU 3	40	13	1660	-392.83	-1.98	13.71
344	SLU 4	33	13	1665	-394.22	-2.01	11.21
344	SLU 5	28	13	1669	-395.14	-2.03	9.55
344	SLU 6	40	13	1660	-392.83	-1.98	13.71
344	SLU 7	33	13	1665	-394.22	-2.01	11.21
344	SLU 8	40	13	1660	-392.83	-1.98	13.71
344	SLU 9	33	13	1665	-394.22	-2.01	11.21
344	SLU 10	35	16	1964	-461.29	-2.26	11.97
344	SLU 11	47	17	1955	-458.99	-2.21	16.13
344	SLU 12	40	16	1961	-460.37	-2.24	13.63
344	SLU 13	35	16	1964	-461.29	-2.26	11.97
344	SLU 14	47	17	1955	-458.99	-2.21	16.13
344	SLU 15	40	16	1961	-460.37	-2.24	13.63
344	SLU 16	47	17	1955	-458.99	-2.21	16.13
344	SLU 17	40	16	1961	-460.37	-2.24	13.63
344	SLU 18	50	18	2082	-487.34	-2.3	17.17
344	SLU 19	43	18	2087	-488.72	-2.33	14.67
344	SLU 20	50	18	2082	-487.34	-2.3	17.17
344	SLU 21	43	18	2087	-488.72	-2.33	14.67
344	SLU 22	44	15	1868	-439.37	-2.17	15.25
344	SLU 23	32	15	1877	-441.67	-2.22	11.09
344	SLU 24	44	15	1868	-439.37	-2.17	15.25
344	SLU 25	37	15	1873	-440.75	-2.2	12.76
344	SLU 26	32	15	1877	-441.67	-2.22	11.09
344	SLU 27	44	15	1868	-439.37	-2.17	15.25
344	SLU 28	37	15	1873	-440.75	-2.2	12.76
344	SLU 29	44	15	1868	-439.37	-2.17	15.25
344	SLU 30	37	15	1873	-440.75	-2.2	12.76
344	SLU 31	39	18	2173	-507.83	-2.44	13.51
344	SLU 32	51	18	2164	-505.52	-2.4	17.67
344	SLU 33	44	18	2169	-506.9	-2.43	15.18
344	SLU 34	39	18	2173	-507.83	-2.44	13.51
344	SLU 35	51	18	2164	-505.52	-2.4	17.67
344	SLU 36	44	18	2169	-506.9	-2.43	15.18
344	SLU 37	51	18	2164	-505.52	-2.4	17.67
344	SLU 38	44	18	2169	-506.9	-2.43	15.18
344	SLU 39	54	20	2290	-533.87	-2.49	18.71
344	SLU 40	47	19	2296	-535.26	-2.52	16.22
344	SLU 41	54	20	2290	-533.87	-2.49	18.71
344	SLU 42	47	19	2296	-535.26	-2.52	16.22
344	SLU 43	50	17	2086	-494.73	-2.51	17.29
344	SLU 44	38	17	2095	-497.03	-2.56	13.13
344	SLU 45	50	17	2086	-494.73	-2.51	17.29
344	SLU 46	43	17	2092	-496.11	-2.54	14.79
344	SLU 47	38	17	2095	-497.03	-2.56	13.13
344	SLU 48	50	17	2086	-494.73	-2.51	17.29
344	SLU 49	43	17	2092	-496.11	-2.54	14.79
344	SLU 50	50	17	2086	-494.73	-2.51	17.29
344	SLU 51	43	17	2092	-496.11	-2.54	14.79
344	SLU 52	45	20	2391	-563.19	-2.79	15.55
344	SLU 53	57	20	2382	-560.89	-2.74	19.71
344	SLU 54	50	20	2387	-562.27	-2.77	17.21
344	SLU 55	45	20	2391	-563.19	-2.79	15.55
344	SLU 56	57	20	2382	-560.89	-2.74	19.71
344	SLU 57	50	20	2387	-562.27	-2.77	17.21
344	SLU 58	57	20	2382	-560.89	-2.74	19.71
344	SLU 59	50	20	2387	-562.27	-2.77	17.21
344	SLU 60	60	21	2508	-589.24	-2.83	20.75
344	SLU 61	53	21	2514	-590.62	-2.86	18.25
344	SLU 62	60	21	2508	-589.24	-2.83	20.75
344	SLU 63	53	21	2514	-590.62	-2.86	18.25
344	SLU 64	55	18	2294	-541.26	-2.7	18.83
344	SLU 65	43	18	2304	-543.57	-2.75	14.68
344	SLU 66	55	18	2294	-541.26	-2.7	18.83
344	SLU 67	48	18	2300	-542.65	-2.73	16.34
344	SLU 68	43	18	2304	-543.57	-2.75	14.68
344	SLU 69	55	18	2294	-541.26	-2.7	18.83
344	SLU 70	48	18	2300	-542.65	-2.73	16.34
344	SLU 71	55	18	2294	-541.26	-2.7	18.83
344	SLU 72	48	18	2300	-542.65	-2.73	16.34
344	SLU 73	50	21	2599	-609.72	-2.97	17.1

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
344	SLU 74	62	22	2590	-607.42	-2.93	21.26
344	SLU 75	55	22	2596	-608.8	-2.96	18.76
344	SLU 76	50	21	2599	-609.72	-2.97	17.1
344	SLU 77	62	22	2590	-607.42	-2.93	21.26
344	SLU 78	55	22	2596	-608.8	-2.96	18.76
344	SLU 79	62	22	2590	-607.42	-2.93	21.26
344	SLU 80	55	22	2596	-608.8	-2.96	18.76
344	SLU 81	65	23	2717	-635.77	-3.02	22.29
344	SLU 82	57	23	2722	-637.15	-3.05	19.8
344	SLU 83	65	23	2717	-635.77	-3.02	22.29
344	SLU 84	57	23	2722	-637.15	-3.05	19.8
344	SLE RA 1	41	14	1719	-406.13	-2.03	14.15
344	SLE RA 2	33	14	1725	-407.67	-2.07	11.38
344	SLE RA 3	41	14	1719	-406.13	-2.03	14.15
344	SLE RA 4	36	14	1723	-407.05	-2.05	12.48
344	SLE RA 5	33	14	1725	-407.67	-2.07	11.38
344	SLE RA 6	41	14	1719	-406.13	-2.03	14.15
344	SLE RA 7	36	14	1723	-407.05	-2.05	12.48
344	SLE RA 8	41	14	1719	-406.13	-2.03	14.15
344	SLE RA 9	36	14	1723	-407.05	-2.05	12.48
344	SLE RA 10	38	16	1922	-451.77	-2.22	12.99
344	SLE RA 11	46	16	1916	-450.23	-2.19	15.76
344	SLE RA 12	41	16	1920	-451.15	-2.21	14.1
344	SLE RA 13	38	16	1922	-451.77	-2.22	12.99
344	SLE RA 14	46	16	1916	-450.23	-2.19	15.76
344	SLE RA 15	41	16	1920	-451.15	-2.21	14.1
344	SLE RA 16	46	16	1916	-450.23	-2.19	15.76
344	SLE RA 17	41	16	1920	-451.15	-2.21	14.1
344	SLE RA 18	48	17	2001	-469.13	-2.25	16.45
344	SLE RA 19	43	17	2004	-470.06	-2.27	14.79
344	SLE RA 20	48	17	2001	-469.13	-2.25	16.45
344	SLE RA 21	43	17	2004	-470.06	-2.27	14.79
344	SLE FR 1	41	14	1719	-406.13	-2.03	14.15
344	SLE FR 2	40	14	1720	-406.44	-2.04	13.59
344	SLE FR 3	41	14	1719	-406.13	-2.03	14.15
344	SLE FR 4	41	15	1805	-425.34	-2.11	14.29
344	SLE FR 5	43	15	1804	-425.03	-2.1	14.84
344	SLE FR 6	44	15	1860	-437.63	-2.14	15.3
344	SLE QP 1	41	14	1719	-406.13	-2.03	14.15
344	SLE QP 2	43	15	1804	-425.03	-2.1	14.84
344	SLD 1	256	62	1587	-375.41	-1.2	89.26
344	SLD 2	219	84	1582	-374.77	-1.17	76.43
344	SLD 3	268	-19	1735	-401.54	-1.48	93.59
344	SLD 4	231	3	1730	-400.91	-1.45	80.77
344	SLD 5	101	144	1516	-370.73	-1.41	35.13
344	SLD 6	64	166	1511	-370.09	-1.38	22.21
344	SLD 7	143	-126	2009	-457.84	-2.35	49.58
344	SLD 8	105	-104	2004	-457.21	-2.32	36.66
344	SLD 9	-19	133	1603	-392.85	-1.87	-6.98
344	SLD 10	-56	156	1598	-392.22	-1.85	-19.9
344	SLD 11	22	-137	2096	-479.97	-2.82	7.47
344	SLD 12	-15	-114	2091	-479.33	-2.79	-5.44
344	SLD 13	-145	26	1878	-449.15	-2.74	-51.09
344	SLD 14	-182	49	1872	-448.52	-2.72	-63.91
344	SLD 15	-133	-55	2025	-475.29	-3.03	-46.75
344	SLD 16	-169	-32	2020	-474.66	-3	-59.58
344	SLV 1	526	122	1311	-312.23	-0.05	183.9
344	SLV 2	442	173	1300	-310.8	0.01	154.86
344	SLV 3	555	-62	1647	-371.73	-0.7	193.79
344	SLV 4	471	-11	1636	-370.3	-0.63	164.75
344	SLV 5	174	308	1150	-301.46	-0.54	60.82
344	SLV 6	90	359	1138	-300.02	-0.47	31.59
344	SLV 7	269	-305	2271	-499.78	-2.67	93.79
344	SLV 8	185	-254	2259	-498.34	-2.61	64.56
344	SLV 9	-99	284	1348	-351.72	-1.59	-34.88
344	SLV 10	-183	335	1336	-350.28	-1.53	-64.11
344	SLV 11	-4	-330	2469	-550.04	-3.72	-1.9
344	SLV 12	-88	-279	2457	-548.6	-3.66	-31.14
344	SLV 13	-385	40	1971	-479.76	-3.57	-135.07
344	SLV 14	-468	91	1960	-478.33	-3.5	-164.11
344	SLV 15	-356	-144	2308	-539.26	-4.21	-125.18
344	SLV 16	-440	-93	2296	-537.83	-4.14	-154.22
344	CRTFP Ux+	0	0	0	0	0	0
344	CRTFP Ux-	0	0	0	0	0	0
344	CRTFP Uy+	0	0	0	0	0	0
344	CRTFP Uy-	0	0	0	0	0	0
345	SLU 1	40	6	1739	-449.39	-2.76	13.73
345	SLU 2	28	5	1750	-452.4	-2.82	9.57
345	SLU 3	40	6	1739	-449.39	-2.76	13.73
345	SLU 4	33	6	1746	-451.2	-2.8	11.23
345	SLU 5	28	5	1750	-452.4	-2.82	9.57
345	SLU 6	40	6	1739	-449.39	-2.76	13.73
345	SLU 7	33	6	1746	-451.2	-2.8	11.23
345	SLU 8	40	6	1739	-449.39	-2.76	13.73
345	SLU 9	33	6	1746	-451.2	-2.8	11.23
345	SLU 10	35	8	2056	-527.54	-3.23	11.98

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
345	SLU 11	47	9	2045	-524.54	-3.17	16.13
345	SLU 12	40	9	2052	-526.34	-3.2	13.64
345	SLU 13	35	8	2056	-527.54	-3.23	11.98
345	SLU 14	47	9	2045	-524.54	-3.17	16.13
345	SLU 15	40	9	2052	-526.34	-3.2	13.64
345	SLU 16	47	9	2045	-524.54	-3.17	16.13
345	SLU 17	40	9	2052	-526.34	-3.2	13.64
345	SLU 18	50	10	2177	-556.74	-3.35	17.16
345	SLU 19	43	10	2183	-558.55	-3.38	14.67
345	SLU 20	50	10	2177	-556.74	-3.35	17.16
345	SLU 21	43	10	2183	-558.55	-3.38	14.67
345	SLU 22	44	7	1956	-502.67	-3.08	15.27
345	SLU 23	32	7	1967	-505.68	-3.13	11.11
345	SLU 24	44	7	1956	-502.67	-3.08	15.27
345	SLU 25	37	7	1962	-504.48	-3.11	12.77
345	SLU 26	32	7	1967	-505.68	-3.13	11.11
345	SLU 27	44	7	1956	-502.67	-3.08	15.27
345	SLU 28	37	7	1962	-504.48	-3.11	12.77
345	SLU 29	44	7	1956	-502.67	-3.08	15.27
345	SLU 30	37	7	1962	-504.48	-3.11	12.77
345	SLU 31	39	10	2273	-580.82	-3.54	13.52
345	SLU 32	51	10	2262	-577.82	-3.49	17.67
345	SLU 33	44	10	2269	-579.62	-3.52	15.18
345	SLU 34	39	10	2273	-580.82	-3.54	13.52
345	SLU 35	51	10	2262	-577.82	-3.49	17.67
345	SLU 36	44	10	2269	-579.62	-3.52	15.18
345	SLU 37	51	10	2262	-577.82	-3.49	17.67
345	SLU 38	44	10	2269	-579.62	-3.52	15.18
345	SLU 39	54	11	2393	-610.03	-3.66	18.7
345	SLU 40	47	11	2400	-611.83	-3.69	16.21
345	SLU 41	54	11	2393	-610.03	-3.66	18.7
345	SLU 42	47	11	2400	-611.83	-3.69	16.21
345	SLU 43	50	7	2186	-565.94	-3.49	17.32
345	SLU 44	38	7	2197	-568.95	-3.54	13.16
345	SLU 45	50	7	2186	-565.94	-3.49	17.32
345	SLU 46	43	7	2193	-567.75	-3.52	14.82
345	SLU 47	38	7	2197	-568.95	-3.54	13.16
345	SLU 48	50	7	2186	-565.94	-3.49	17.32
345	SLU 49	43	7	2193	-567.75	-3.52	14.82
345	SLU 50	50	7	2186	-565.94	-3.49	17.32
345	SLU 51	43	7	2193	-567.75	-3.52	14.82
345	SLU 52	45	10	2504	-644.09	-3.95	15.57
345	SLU 53	57	10	2493	-641.09	-3.89	19.72
345	SLU 54	50	10	2499	-642.89	-3.93	17.23
345	SLU 55	45	10	2504	-644.09	-3.95	15.57
345	SLU 56	57	10	2493	-641.09	-3.89	19.72
345	SLU 57	50	10	2499	-642.89	-3.93	17.23
345	SLU 58	57	10	2493	-641.09	-3.89	19.72
345	SLU 59	50	10	2499	-642.89	-3.93	17.23
345	SLU 60	60	11	2624	-673.29	-4.07	20.75
345	SLU 61	53	11	2631	-675.1	-4.1	18.26
345	SLU 62	60	11	2624	-673.29	-4.07	20.75
345	SLU 63	53	11	2631	-675.1	-4.1	18.26
345	SLU 64	55	8	2403	-619.22	-3.8	18.86
345	SLU 65	43	8	2414	-622.23	-3.86	14.7
345	SLU 66	55	8	2403	-619.22	-3.8	18.86
345	SLU 67	48	8	2410	-621.03	-3.83	16.36
345	SLU 68	43	8	2414	-622.23	-3.86	14.7
345	SLU 69	55	8	2403	-619.22	-3.8	18.86
345	SLU 70	48	8	2410	-621.03	-3.83	16.36
345	SLU 71	55	8	2403	-619.22	-3.8	18.86
345	SLU 72	48	8	2410	-621.03	-3.83	16.36
345	SLU 73	50	11	2720	-697.37	-4.26	17.11
345	SLU 74	62	11	2710	-694.37	-4.21	21.26
345	SLU 75	54	11	2716	-696.17	-4.24	18.77
345	SLU 76	50	11	2720	-697.37	-4.26	17.11
345	SLU 77	62	11	2710	-694.37	-4.21	21.26
345	SLU 78	54	11	2716	-696.17	-4.24	18.77
345	SLU 79	62	11	2710	-694.37	-4.21	21.26
345	SLU 80	54	11	2716	-696.17	-4.24	18.77
345	SLU 81	65	13	2841	-726.58	-4.38	22.29
345	SLU 82	57	12	2847	-728.38	-4.42	19.8
345	SLU 83	65	13	2841	-726.58	-4.38	22.29
345	SLU 84	57	12	2847	-728.38	-4.42	19.8
345	SLE RA 1	41	6	1801	-464.62	-2.85	14.17
345	SLE RA 2	33	6	1808	-466.62	-2.89	11.4
345	SLE RA 3	41	6	1801	-464.62	-2.85	14.17
345	SLE RA 4	36	6	1805	-465.82	-2.88	12.5
345	SLE RA 5	33	6	1808	-466.62	-2.89	11.4
345	SLE RA 6	41	6	1801	-464.62	-2.85	14.17
345	SLE RA 7	36	6	1805	-465.82	-2.88	12.5
345	SLE RA 8	41	6	1801	-464.62	-2.85	14.17
345	SLE RA 9	36	6	1805	-465.82	-2.88	12.5
345	SLE RA 10	38	8	2012	-516.72	-3.16	13
345	SLE RA 11	46	8	2005	-514.71	-3.13	15.77
345	SLE RA 12	41	8	2010	-515.92	-3.15	14.11

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
345	SLE RA 13	38	8	2012	-516.72	-3.16	13
345	SLE RA 14	46	8	2005	-514.71	-3.13	15.77
345	SLE RA 15	41	8	2010	-515.92	-3.15	14.11
345	SLE RA 16	46	8	2005	-514.71	-3.13	15.77
345	SLE RA 17	41	8	2010	-515.92	-3.15	14.11
345	SLE RA 18	48	9	2093	-536.18	-3.24	16.46
345	SLE RA 19	43	9	2097	-537.39	-3.26	14.79
345	SLE RA 20	48	9	2093	-536.18	-3.24	16.46
345	SLE RA 21	43	9	2097	-537.39	-3.26	14.79
345	SLE FR 1	41	6	1801	-464.62	-2.85	14.17
345	SLE FR 2	40	6	1802	-465.02	-2.86	13.61
345	SLE FR 3	41	6	1801	-464.62	-2.85	14.17
345	SLE FR 4	42	7	1890	-486.49	-2.98	14.3
345	SLE FR 5	43	7	1888	-486.09	-2.97	14.85
345	SLE FR 6	44	8	1947	-500.4	-3.05	15.31
345	SLE QP 1	41	6	1801	-464.62	-2.85	14.17
345	SLE QP 2	43	7	1888	-486.09	-2.97	14.85
345	SLD 1	255	57	1639	-422.25	-1.92	89.17
345	SLD 2	219	82	1633	-421.23	-1.9	76.36
345	SLD 3	268	-28	1798	-454.8	-2.3	93.5
345	SLD 4	231	-3	1792	-453.78	-2.28	80.7
345	SLD 5	101	142	1575	-417.92	-2.09	35.11
345	SLD 6	64	167	1569	-416.9	-2.06	22.21
345	SLD 7	143	-141	2104	-526.43	-3.36	49.54
345	SLD 8	105	-116	2098	-525.41	-3.33	36.65
345	SLD 9	-19	130	1679	-446.77	-2.61	-6.94
345	SLD 10	-56	155	1673	-445.74	-2.58	-19.84
345	SLD 11	22	-153	2208	-555.27	-3.88	7.5
345	SLD 12	-15	-128	2202	-554.25	-3.85	-5.4
345	SLD 13	-145	17	1985	-518.39	-3.67	-50.99
345	SLD 14	-182	42	1979	-517.37	-3.64	-63.79
345	SLD 15	-132	-68	2144	-550.94	-4.05	-46.66
345	SLD 16	-169	-43	2138	-549.92	-4.02	-59.46
345	SLV 1	525	120	1322	-341.01	-0.59	183.68
345	SLV 2	442	178	1309	-338.71	-0.53	154.69
345	SLV 3	554	-72	1683	-415.06	-1.46	193.56
345	SLV 4	471	-15	1670	-412.76	-1.39	164.57
345	SLV 5	174	313	1176	-331.07	-0.97	60.76
345	SLV 6	90	371	1162	-328.75	-0.91	31.58
345	SLV 7	269	-329	2379	-577.9	-3.85	93.69
345	SLV 8	185	-272	2365	-575.58	-3.78	64.51
345	SLV 9	-99	286	1412	-396.59	-2.16	-34.8
345	SLV 10	-183	344	1398	-394.28	-2.1	-63.98
345	SLV 11	-4	-357	2615	-643.42	-5.03	-1.87
345	SLV 12	-88	-299	2601	-641.1	-4.97	-31.05
345	SLV 13	-384	29	2107	-559.42	-4.55	-134.86
345	SLV 14	-468	86	2094	-557.11	-4.49	-163.85
345	SLV 15	-356	-164	2468	-633.46	-5.41	-124.98
345	SLV 16	-439	-106	2454	-631.16	-5.35	-153.97
345	CRTFP Ux+	0	0	0	0	0	0
345	CRTFP Ux-	0	0	0	0	0	0
345	CRTFP Uy+	0	0	0	0	0	0
345	CRTFP Uy-	0	0	0	0	0	0
346	SLU 1	40	-1	1843	-525.87	-3.45	13.72
346	SLU 2	28	-2	1856	-529.7	-3.51	9.57
346	SLU 3	40	-1	1843	-525.87	-3.45	13.72
346	SLU 4	33	-2	1851	-528.17	-3.49	11.23
346	SLU 5	28	-2	1856	-529.7	-3.51	9.57
346	SLU 6	40	-1	1843	-525.87	-3.45	13.72
346	SLU 7	33	-2	1851	-528.17	-3.49	11.23
346	SLU 8	40	-1	1843	-525.87	-3.45	13.72
346	SLU 9	33	-2	1851	-528.17	-3.49	11.23
346	SLU 10	35	1	2179	-618.14	-4.07	11.96
346	SLU 11	47	1	2166	-614.31	-4.01	16.11
346	SLU 12	40	1	2174	-616.61	-4.05	13.62
346	SLU 13	35	1	2179	-618.14	-4.07	11.96
346	SLU 14	47	1	2166	-614.31	-4.01	16.11
346	SLU 15	40	1	2174	-616.61	-4.05	13.62
346	SLU 16	47	1	2166	-614.31	-4.01	16.11
346	SLU 17	40	1	2174	-616.61	-4.05	13.62
346	SLU 18	50	2	2304	-652.22	-4.25	17.13
346	SLU 19	42	2	2312	-654.51	-4.29	14.64
346	SLU 20	50	2	2304	-652.22	-4.25	17.13
346	SLU 21	42	2	2312	-654.51	-4.29	14.64
346	SLU 22	44	0	2072	-588.94	-3.88	15.25
346	SLU 23	32	-1	2085	-592.77	-3.94	11.11
346	SLU 24	44	0	2072	-588.94	-3.88	15.25
346	SLU 25	37	-1	2080	-591.24	-3.91	12.77
346	SLU 26	32	-1	2085	-592.77	-3.94	11.11
346	SLU 27	44	0	2072	-588.94	-3.88	15.25
346	SLU 28	37	-1	2080	-591.24	-3.91	12.77
346	SLU 29	44	0	2072	-588.94	-3.88	15.25
346	SLU 30	37	-1	2080	-591.24	-3.91	12.77
346	SLU 31	39	2	2408	-681.21	-4.5	13.5
346	SLU 32	51	2	2395	-677.39	-4.44	17.64
346	SLU 33	44	2	2403	-679.68	-4.47	15.15

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
346	SLU 34	39	2	2408	-681.21	-4.5	13.5
346	SLU 35	51	2	2395	-677.39	-4.44	17.64
346	SLU 36	44	2	2403	-679.68	-4.47	15.15
346	SLU 37	51	2	2395	-677.39	-4.44	17.64
346	SLU 38	44	2	2403	-679.68	-4.47	15.15
346	SLU 39	54	3	2533	-715.29	-4.68	18.66
346	SLU 40	47	3	2541	-717.59	-4.72	16.18
346	SLU 41	54	3	2533	-715.29	-4.68	18.66
346	SLU 42	47	3	2541	-717.59	-4.72	16.18
346	SLU 43	50	-2	2318	-662	-4.34	17.31
346	SLU 44	38	-3	2330	-665.83	-4.4	13.16
346	SLU 45	50	-2	2318	-662	-4.34	17.31
346	SLU 46	43	-2	2325	-664.3	-4.38	14.82
346	SLU 47	38	-3	2330	-665.83	-4.4	13.16
346	SLU 48	50	-2	2318	-662	-4.34	17.31
346	SLU 49	43	-2	2325	-664.3	-4.38	14.82
346	SLU 50	50	-2	2318	-662	-4.34	17.31
346	SLU 51	43	-2	2325	-664.3	-4.38	14.82
346	SLU 52	45	0	2653	-754.27	-4.96	15.55
346	SLU 53	57	0	2640	-750.45	-4.9	19.7
346	SLU 54	50	0	2648	-752.74	-4.94	17.21
346	SLU 55	45	0	2653	-754.27	-4.96	15.55
346	SLU 56	57	0	2640	-750.45	-4.9	19.7
346	SLU 57	50	0	2648	-752.74	-4.94	17.21
346	SLU 58	57	0	2640	-750.45	-4.9	19.7
346	SLU 59	50	0	2648	-752.74	-4.94	17.21
346	SLU 60	60	1	2778	-788.35	-5.14	20.72
346	SLU 61	53	1	2786	-790.65	-5.18	18.23
346	SLU 62	60	1	2778	-788.35	-5.14	20.72
346	SLU 63	53	1	2786	-790.65	-5.18	18.23
346	SLU 64	55	-1	2547	-725.08	-4.76	18.84
346	SLU 65	43	-2	2560	-728.91	-4.82	14.7
346	SLU 66	55	-1	2547	-725.08	-4.76	18.84
346	SLU 67	48	-1	2555	-727.38	-4.8	16.36
346	SLU 68	43	-2	2560	-728.91	-4.82	14.7
346	SLU 69	55	-1	2547	-725.08	-4.76	18.84
346	SLU 70	48	-1	2555	-727.38	-4.8	16.36
346	SLU 71	55	-1	2547	-725.08	-4.76	18.84
346	SLU 72	48	-1	2555	-727.38	-4.8	16.36
346	SLU 73	50	1	2882	-817.35	-5.39	17.09
346	SLU 74	61	1	2869	-813.52	-5.33	21.23
346	SLU 75	54	1	2877	-815.82	-5.36	18.74
346	SLU 76	50	1	2882	-817.35	-5.39	17.09
346	SLU 77	61	1	2869	-813.52	-5.33	21.23
346	SLU 78	54	1	2877	-815.82	-5.36	18.74
346	SLU 79	61	1	2869	-813.52	-5.33	21.23
346	SLU 80	54	1	2877	-815.82	-5.36	18.74
346	SLU 81	64	3	3008	-851.43	-5.57	22.26
346	SLU 82	57	2	3015	-853.72	-5.6	19.77
346	SLU 83	64	3	3008	-851.43	-5.57	22.26
346	SLU 84	57	2	3015	-853.72	-5.6	19.77
346	SLE RA 1	41	-1	1909	-543.89	-3.57	14.16
346	SLE RA 2	33	-1	1917	-546.44	-3.61	11.39
346	SLE RA 3	41	-1	1909	-543.89	-3.57	14.16
346	SLE RA 4	36	-1	1914	-545.42	-3.6	12.5
346	SLE RA 5	33	-1	1917	-546.44	-3.61	11.39
346	SLE RA 6	41	-1	1909	-543.89	-3.57	14.16
346	SLE RA 7	36	-1	1914	-545.42	-3.6	12.5
346	SLE RA 8	41	-1	1909	-543.89	-3.57	14.16
346	SLE RA 9	36	-1	1914	-545.42	-3.6	12.5
346	SLE RA 10	38	0	2132	-605.4	-3.99	12.99
346	SLE RA 11	46	1	2124	-602.85	-3.95	15.75
346	SLE RA 12	41	0	2129	-604.38	-3.97	14.09
346	SLE RA 13	38	0	2132	-605.4	-3.99	12.99
346	SLE RA 14	46	1	2124	-602.85	-3.95	15.75
346	SLE RA 15	41	0	2129	-604.38	-3.97	14.09
346	SLE RA 16	46	1	2124	-602.85	-3.95	15.75
346	SLE RA 17	41	0	2129	-604.38	-3.97	14.09
346	SLE RA 18	48	1	2216	-628.12	-4.11	16.43
346	SLE RA 19	43	1	2221	-629.65	-4.13	14.77
346	SLE RA 20	48	1	2216	-628.12	-4.11	16.43
346	SLE RA 21	43	1	2221	-629.65	-4.13	14.77
346	SLE FR 1	41	-1	1909	-543.89	-3.57	14.16
346	SLE FR 2	39	-1	1910	-544.4	-3.58	13.61
346	SLE FR 3	41	-1	1909	-543.89	-3.57	14.16
346	SLE FR 4	41	0	2003	-569.67	-3.74	14.29
346	SLE FR 5	43	0	2001	-569.16	-3.73	14.84
346	SLE FR 6	44	0	2062	-586.01	-3.84	15.3
346	SLE QP 1	41	-1	1909	-543.89	-3.57	14.16
346	SLE QP 2	43	0	2001	-569.16	-3.73	14.84
346	SLD 1	255	52	1715	-488.07	-2.56	89.02
346	SLD 2	218	81	1708	-486.55	-2.52	76.25
346	SLD 3	268	-37	1887	-529.4	-3.02	93.35
346	SLD 4	231	-9	1880	-527.89	-2.99	80.57
346	SLD 5	101	140	1656	-482.67	-2.69	35.06
346	SLD 6	64	169	1648	-481.15	-2.66	22.18

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
346	SLD 7	142	-157	2231	-620.46	-4.23	49.47
346	SLD 8	105	-128	2224	-618.94	-4.2	36.6
346	SLD 9	-19	127	1778	-519.38	-3.26	-6.92
346	SLD 10	-56	156	1770	-517.86	-3.23	-19.79
346	SLD 11	22	-170	2353	-657.17	-4.81	7.5
346	SLD 12	-15	-141	2346	-655.65	-4.78	-5.38
346	SLD 13	-145	8	2121	-610.43	-4.48	-50.89
346	SLD 14	-181	36	2114	-608.92	-4.45	-63.67
346	SLD 15	-132	-81	2294	-651.77	-4.94	-46.56
346	SLD 16	-169	-53	2287	-650.25	-4.91	-59.34
346	SLV 1	525	119	1351	-384.9	-1.06	183.37
346	SLV 2	441	184	1335	-381.47	-0.99	154.43
346	SLV 3	553	-83	1743	-478.86	-2.11	193.23
346	SLV 4	470	-19	1727	-475.44	-2.04	164.3
346	SLV 5	174	320	1216	-372.57	-1.36	60.66
346	SLV 6	90	384	1200	-369.13	-1.29	31.54
346	SLV 7	269	-355	2525	-685.8	-4.86	93.54
346	SLV 8	185	-290	2508	-682.35	-4.79	64.41
346	SLV 9	-99	289	1493	-455.97	-2.67	-34.73
346	SLV 10	-183	354	1477	-452.52	-2.6	-63.86
346	SLV 11	-4	-385	2802	-769.19	-6.17	-1.85
346	SLV 12	-88	-320	2786	-765.75	-6.1	-30.98
346	SLV 13	-384	18	2275	-662.88	-5.42	-134.61
346	SLV 14	-467	82	2259	-659.46	-5.35	-163.55
346	SLV 15	-355	-185	2667	-756.85	-6.47	-124.75
346	SLV 16	-439	-120	2651	-753.43	-6.4	-153.69
346	CRTFP Ux+	0	0	0	0	0	0
346	CRTFP Ux-	0	0	0	0	0	0
346	CRTFP Uy+	0	0	0	0	0	0
346	CRTFP Uy-	0	0	0	0	0	0
347	SLU 1	34	-7	1658	-519.92	43.89	11.83
347	SLU 2	24	-7	1670	-523.9	44.2	8.34
347	SLU 3	34	-7	1658	-519.92	43.89	11.83
347	SLU 4	28	-7	1665	-522.31	44.08	9.74
347	SLU 5	24	-7	1670	-523.9	44.2	8.34
347	SLU 6	34	-7	1658	-519.92	43.89	11.83
347	SLU 7	28	-7	1665	-522.31	44.08	9.74
347	SLU 8	34	-7	1658	-519.92	43.89	11.83
347	SLU 9	28	-7	1665	-522.31	44.08	9.74
347	SLU 10	29	-5	1959	-612.31	51.87	10.3
347	SLU 11	39	-5	1947	-608.33	51.56	13.79
347	SLU 12	33	-5	1954	-610.72	51.75	11.7
347	SLU 13	29	-5	1959	-612.31	51.87	10.3
347	SLU 14	39	-5	1947	-608.33	51.56	13.79
347	SLU 15	33	-5	1954	-610.72	51.75	11.7
347	SLU 16	39	-5	1947	-608.33	51.56	13.79
347	SLU 17	33	-5	1954	-610.72	51.75	11.7
347	SLU 18	42	-4	2071	-646.22	54.85	14.63
347	SLU 19	36	-4	2078	-648.61	55.03	12.54
347	SLU 20	42	-4	2071	-646.22	54.85	14.63
347	SLU 21	36	-4	2078	-648.61	55.03	12.54
347	SLU 22	37	-6	1864	-583.2	49.34	13.11
347	SLU 23	27	-6	1876	-587.18	49.65	9.62
347	SLU 24	37	-6	1864	-583.2	49.34	13.11
347	SLU 25	31	-6	1871	-585.59	49.53	11.01
347	SLU 26	27	-6	1876	-587.18	49.65	9.62
347	SLU 27	37	-6	1864	-583.2	49.34	13.11
347	SLU 28	31	-6	1871	-585.59	49.53	11.01
347	SLU 29	37	-6	1864	-583.2	49.34	13.11
347	SLU 30	31	-6	1871	-585.59	49.53	11.01
347	SLU 31	33	-4	2166	-675.59	57.32	11.58
347	SLU 32	43	-4	2153	-671.61	57.02	15.07
347	SLU 33	37	-4	2161	-674	57.2	12.97
347	SLU 34	33	-4	2166	-675.59	57.32	11.58
347	SLU 35	43	-4	2153	-671.61	57.02	15.07
347	SLU 36	37	-4	2161	-674	57.2	12.97
347	SLU 37	43	-4	2153	-671.61	57.02	15.07
347	SLU 38	37	-4	2161	-674	57.2	12.97
347	SLU 39	46	-3	2277	-709.5	60.3	15.91
347	SLU 40	40	-3	2285	-711.89	60.49	13.82
347	SLU 41	46	-3	2277	-709.5	60.3	15.91
347	SLU 42	40	-3	2285	-711.89	60.49	13.82
347	SLU 43	42	-9	2084	-654.19	55.19	14.94
347	SLU 44	32	-9	2097	-658.18	55.5	11.45
347	SLU 45	42	-9	2084	-654.19	55.19	14.94
347	SLU 46	36	-9	2092	-656.58	55.37	12.85
347	SLU 47	32	-9	2097	-658.18	55.5	11.45
347	SLU 48	42	-9	2084	-654.19	55.19	14.94
347	SLU 49	36	-9	2092	-656.58	55.37	12.85
347	SLU 50	42	-9	2084	-654.19	55.19	14.94
347	SLU 51	36	-9	2092	-656.58	55.37	12.85
347	SLU 52	38	-7	2386	-746.59	63.17	13.41
347	SLU 53	48	-7	2373	-742.61	62.86	16.9
347	SLU 54	42	-7	2381	-745	63.04	14.81
347	SLU 55	38	-7	2386	-746.59	63.17	13.41
347	SLU 56	48	-7	2373	-742.61	62.86	16.9

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
347	SLU 57	42	-7	2381	-745	63.04	14.81
347	SLU 58	48	-7	2373	-742.61	62.86	16.9
347	SLU 59	42	-7	2381	-745	63.04	14.81
347	SLU 60	51	-6	2497	-780.5	66.15	17.74
347	SLU 61	45	-6	2505	-782.89	66.33	15.65
347	SLU 62	51	-6	2497	-780.5	66.15	17.74
347	SLU 63	45	-6	2505	-782.89	66.33	15.65
347	SLU 64	46	-8	2290	-717.48	60.64	16.22
347	SLU 65	36	-8	2303	-721.46	60.95	12.73
347	SLU 66	46	-8	2290	-717.48	60.64	16.22
347	SLU 67	40	-8	2298	-719.87	60.83	14.12
347	SLU 68	36	-8	2303	-721.46	60.95	12.73
347	SLU 69	46	-8	2290	-717.48	60.64	16.22
347	SLU 70	40	-8	2298	-719.87	60.83	14.12
347	SLU 71	46	-8	2290	-717.48	60.64	16.22
347	SLU 72	40	-8	2298	-719.87	60.83	14.12
347	SLU 73	42	-7	2592	-809.87	68.62	14.69
347	SLU 74	52	-6	2580	-805.89	68.31	18.18
347	SLU 75	46	-6	2587	-808.28	68.5	16.09
347	SLU 76	42	-7	2592	-809.87	68.62	14.69
347	SLU 77	52	-6	2580	-805.89	68.31	18.18
347	SLU 78	46	-6	2587	-808.28	68.5	16.09
347	SLU 79	52	-6	2580	-805.89	68.31	18.18
347	SLU 80	46	-6	2587	-808.28	68.5	16.09
347	SLU 81	54	-5	2704	-843.78	71.6	19.02
347	SLU 82	48	-6	2711	-846.17	71.79	16.93
347	SLU 83	54	-5	2704	-843.78	71.6	19.02
347	SLU 84	48	-6	2711	-846.17	71.79	16.93
347	SLE RA 1	35	-6	1716	-538	45.45	12.2
347	SLE RA 2	28	-7	1725	-540.65	45.65	9.87
347	SLE RA 3	35	-6	1716	-538	45.45	12.2
347	SLE RA 4	31	-7	1721	-539.59	45.57	10.8
347	SLE RA 5	28	-7	1725	-540.65	45.65	9.87
347	SLE RA 6	35	-6	1716	-538	45.45	12.2
347	SLE RA 7	31	-7	1721	-539.59	45.57	10.8
347	SLE RA 8	35	-6	1716	-538	45.45	12.2
347	SLE RA 9	31	-7	1721	-539.59	45.57	10.8
347	SLE RA 10	32	-5	1918	-599.59	50.77	11.18
347	SLE RA 11	39	-5	1909	-596.94	50.56	13.5
347	SLE RA 12	35	-5	1914	-598.53	50.69	12.11
347	SLE RA 13	32	-5	1918	-599.59	50.77	11.18
347	SLE RA 14	39	-5	1909	-596.94	50.56	13.5
347	SLE RA 15	35	-5	1914	-598.53	50.69	12.11
347	SLE RA 16	39	-5	1909	-596.94	50.56	13.5
347	SLE RA 17	35	-5	1914	-598.53	50.69	12.11
347	SLE RA 18	40	-5	1992	-622.2	52.75	14.06
347	SLE RA 19	36	-5	1997	-623.79	52.88	12.67
347	SLE RA 20	40	-5	1992	-622.2	52.75	14.06
347	SLE RA 21	36	-5	1997	-623.79	52.88	12.67
347	SLE FR 1	35	-6	1716	-538	45.45	12.2
347	SLE FR 2	33	-6	1718	-538.53	45.49	11.73
347	SLE FR 3	35	-6	1716	-538	45.45	12.2
347	SLE FR 4	35	-6	1801	-563.79	47.68	12.29
347	SLE FR 5	36	-6	1799	-563.26	47.64	12.76
347	SLE FR 6	37	-5	1854	-580.1	49.1	13.13
347	SLE QP 1	35	-6	1716	-538	45.45	12.2
347	SLE QP 2	36	-6	1799	-563.26	47.64	12.76
347	SLD 1	216	41	1525	-478.76	40.75	75.28
347	SLD 2	185	68	1518	-477.03	40.58	63.71
347	SLD 3	226	-38	1684	-522.29	44.88	80.13
347	SLD 4	195	-11	1677	-520.55	44.71	68.56
347	SLD 5	85	118	1478	-472.51	39.37	28.26
347	SLD 6	54	145	1471	-470.76	39.2	16.6
347	SLD 7	120	-144	2008	-617.59	53.13	44.41
347	SLD 8	89	-118	2001	-615.85	52.96	32.75
347	SLD 9	-16	106	1597	-510.67	42.32	-7.24
347	SLD 10	-48	133	1590	-508.92	42.15	-18.9
347	SLD 11	19	-157	2127	-655.75	56.08	8.92
347	SLD 12	-12	-130	2120	-654.01	55.91	-2.74
347	SLD 13	-122	0	1921	-605.96	50.57	-43.04
347	SLD 14	-154	26	1914	-604.23	50.4	-54.61
347	SLD 15	-112	-79	2080	-649.49	54.7	-38.2
347	SLD 16	-143	-53	2073	-647.76	54.53	-49.77
347	SLV 1	444	101	1176	-371.27	31.99	154.8
347	SLV 2	373	161	1161	-367.35	31.6	128.59
347	SLV 3	468	-78	1537	-470.17	41.37	165.83
347	SLV 4	397	-18	1522	-466.25	40.98	139.63
347	SLV 5	147	277	1070	-357.06	28.86	47.88
347	SLV 6	76	337	1054	-353.11	28.47	21.51
347	SLV 7	227	-320	2274	-686.71	60.12	84.68
347	SLV 8	156	-260	2258	-682.76	59.73	58.3
347	SLV 9	-84	248	1340	-443.75	35.55	-32.79
347	SLV 10	-155	309	1324	-439.8	35.16	-59.17
347	SLV 11	-3	-349	2544	-773.41	66.81	4
347	SLV 12	-74	-288	2528	-769.46	66.42	-22.37
347	SLV 13	-325	6	2076	-660.27	54.3	-114.12

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
347	SLV 14	-395	67	2061	-656.34	53.91	-140.32
347	SLV 15	-300	-173	2438	-759.16	63.68	-103.08
347	SLV 16	-371	-112	2422	-755.24	63.29	-129.28
347	CRTFP Ux+	0	0	0	0	0	0
347	CRTFP Ux-	0	0	0	0	0	0
347	CRTFP Uy+	0	0	0	-0.01	0	0
347	CRTFP Uy-	0	0	0	0.01	0	0
348	SLU 1	51	-17	2586	-617.98	139.27	13.19
348	SLU 2	37	-17	2607	-622.89	140.2	9.64
348	SLU 3	51	-17	2586	-617.98	139.27	13.19
348	SLU 4	43	-17	2598	-620.93	139.82	11.06
348	SLU 5	37	-17	2607	-622.89	140.2	9.64
348	SLU 6	51	-17	2586	-617.98	139.27	13.19
348	SLU 7	43	-17	2598	-620.93	139.82	11.06
348	SLU 8	51	-17	2586	-617.98	139.27	13.19
348	SLU 9	43	-17	2598	-620.93	139.82	11.06
348	SLU 10	45	-15	3059	-729.76	164.53	11.56
348	SLU 11	60	-15	3038	-724.84	163.6	15.11
348	SLU 12	51	-15	3051	-727.79	164.16	12.98
348	SLU 13	45	-15	3059	-729.76	164.53	11.56
348	SLU 14	60	-15	3038	-724.84	163.6	15.11
348	SLU 15	51	-15	3051	-727.79	164.16	12.98
348	SLU 16	60	-15	3038	-724.84	163.6	15.11
348	SLU 17	51	-15	3051	-727.79	164.16	12.98
348	SLU 18	64	-14	3232	-770.64	174.03	15.94
348	SLU 19	55	-14	3245	-773.59	174.59	13.81
348	SLU 20	64	-14	3232	-770.64	174.03	15.94
348	SLU 21	55	-14	3245	-773.59	174.59	13.81
348	SLU 22	57	-16	2909	-694.53	156.53	14.49
348	SLU 23	42	-17	2930	-699.44	157.46	10.94
348	SLU 24	57	-16	2909	-694.53	156.53	14.49
348	SLU 25	48	-17	2921	-697.48	157.09	12.36
348	SLU 26	42	-17	2930	-699.44	157.46	10.94
348	SLU 27	57	-16	2909	-694.53	156.53	14.49
348	SLU 28	48	-17	2921	-697.48	157.09	12.36
348	SLU 29	57	-16	2909	-694.53	156.53	14.49
348	SLU 30	48	-17	2921	-697.48	157.09	12.36
348	SLU 31	51	-15	3382	-806.31	181.79	12.86
348	SLU 32	66	-14	3361	-801.4	180.86	16.41
348	SLU 33	57	-14	3374	-804.34	181.42	14.28
348	SLU 34	51	-15	3382	-806.31	181.79	12.86
348	SLU 35	66	-14	3361	-801.4	180.86	16.41
348	SLU 36	57	-14	3374	-804.34	181.42	14.28
348	SLU 37	66	-14	3361	-801.4	180.86	16.41
348	SLU 38	57	-14	3374	-804.34	181.42	14.28
348	SLU 39	69	-13	3555	-847.19	191.29	17.23
348	SLU 40	60	-13	3568	-850.14	191.85	15.1
348	SLU 41	69	-13	3555	-847.19	191.29	17.23
348	SLU 42	60	-13	3568	-850.14	191.85	15.1
348	SLU 43	65	-22	3251	-777.12	175.13	16.71
348	SLU 44	50	-23	3272	-782.04	176.06	13.15
348	SLU 45	65	-22	3251	-777.12	175.13	16.71
348	SLU 46	56	-22	3264	-780.07	175.68	14.57
348	SLU 47	50	-23	3272	-782.04	176.06	13.15
348	SLU 48	65	-22	3251	-777.12	175.13	16.71
348	SLU 49	56	-22	3264	-780.07	175.68	14.57
348	SLU 50	65	-22	3251	-777.12	175.13	16.71
348	SLU 51	56	-22	3264	-780.07	175.68	14.57
348	SLU 52	59	-20	3724	-888.9	200.39	15.08
348	SLU 53	74	-20	3703	-883.99	199.46	18.63
348	SLU 54	65	-20	3716	-886.94	200.02	16.5
348	SLU 55	59	-20	3724	-888.9	200.39	15.08
348	SLU 56	74	-20	3703	-883.99	199.46	18.63
348	SLU 57	65	-20	3716	-886.94	200.02	16.5
348	SLU 58	74	-20	3703	-883.99	199.46	18.63
348	SLU 59	65	-20	3716	-886.94	200.02	16.5
348	SLU 60	77	-19	3897	-929.79	209.89	19.45
348	SLU 61	68	-19	3910	-932.74	210.45	17.32
348	SLU 62	77	-19	3897	-929.79	209.89	19.45
348	SLU 63	68	-19	3910	-932.74	210.45	17.32
348	SLU 64	71	-22	3574	-853.68	192.39	18
348	SLU 65	56	-22	3595	-858.59	193.32	14.45
348	SLU 66	71	-22	3574	-853.68	192.39	18
348	SLU 67	62	-22	3587	-856.62	192.95	15.87
348	SLU 68	56	-22	3595	-858.59	193.32	14.45
348	SLU 69	71	-22	3574	-853.68	192.39	18
348	SLU 70	62	-22	3587	-856.62	192.95	15.87
348	SLU 71	71	-22	3574	-853.68	192.39	18
348	SLU 72	62	-22	3587	-856.62	192.95	15.87
348	SLU 73	64	-20	4047	-965.46	217.65	16.37
348	SLU 74	79	-19	4026	-960.54	216.72	19.92
348	SLU 75	70	-20	4039	-963.49	217.28	17.79
348	SLU 76	64	-20	4047	-965.46	217.65	16.37
348	SLU 77	79	-19	4026	-960.54	216.72	19.92
348	SLU 78	70	-20	4039	-963.49	217.28	17.79
348	SLU 79	79	-19	4026	-960.54	216.72	19.92

Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
348	SLU 80	70	-20	4039	-963.49	217.28	17.79
348	SLU 81	83	-18	4220	-1006.34	227.15	20.75
348	SLU 82	74	-19	4233	-1009.29	227.71	18.62
348	SLU 83	83	-18	4220	-1006.34	227.15	20.75
348	SLU 84	74	-19	4233	-1009.29	227.71	18.62
348	SLE RA 1	53	-17	2678	-639.85	144.2	13.56
348	SLE RA 2	43	-17	2692	-643.12	144.82	11.2
348	SLE RA 3	53	-17	2678	-639.85	144.2	13.56
348	SLE RA 4	47	-17	2687	-641.81	144.57	12.14
348	SLE RA 5	43	-17	2692	-643.12	144.82	11.2
348	SLE RA 6	53	-17	2678	-639.85	144.2	13.56
348	SLE RA 7	47	-17	2687	-641.81	144.57	12.14
348	SLE RA 8	53	-17	2678	-639.85	144.2	13.56
348	SLE RA 9	47	-17	2687	-641.81	144.57	12.14
348	SLE RA 10	49	-16	2994	-714.37	161.04	12.48
348	SLE RA 11	59	-15	2980	-711.09	160.42	14.84
348	SLE RA 12	53	-15	2988	-713.06	160.79	13.42
348	SLE RA 13	49	-16	2994	-714.37	161.04	12.48
348	SLE RA 14	59	-15	2980	-711.09	160.42	14.84
348	SLE RA 15	53	-15	2988	-713.06	160.79	13.42
348	SLE RA 16	59	-15	2980	-711.09	160.42	14.84
348	SLE RA 17	53	-15	2988	-713.06	160.79	13.42
348	SLE RA 18	61	-15	3109	-741.63	167.37	15.39
348	SLE RA 19	55	-15	3117	-743.59	167.74	13.97
348	SLE RA 20	61	-15	3109	-741.63	167.37	15.39
348	SLE RA 21	55	-15	3117	-743.59	167.74	13.97
348	SLE FR 1	53	-17	2678	-639.85	144.2	13.56
348	SLE FR 2	51	-17	2681	-640.5	144.32	13.09
348	SLE FR 3	53	-17	2678	-639.85	144.2	13.56
348	SLE FR 4	54	-16	2810	-671.04	151.27	13.64
348	SLE FR 5	55	-16	2808	-670.38	151.15	14.11
348	SLE FR 6	57	-16	2894	-690.74	155.79	14.48
348	SLE QP 1	53	-17	2678	-639.85	144.2	13.56
348	SLE QP 2	55	-16	2808	-670.38	151.15	14.11
348	SLD 1	319	55	2353	-565.06	130.38	76.91
348	SLD 2	272	98	2341	-562.66	129.86	63.03
348	SLD 3	335	-65	2613	-621.52	143.32	86.55
348	SLD 4	288	-22	2601	-619.11	142.8	72.67
348	SLD 5	126	173	2281	-554.02	125.47	23.24
348	SLD 6	79	216	2269	-551.59	124.95	9.25
348	SLD 7	181	-228	3148	-742.19	168.62	55.38
348	SLD 8	133	-185	3136	-739.77	168.09	41.4
348	SLD 9	-22	153	2479	-601	134.21	-13.17
348	SLD 10	-70	196	2467	-598.57	133.68	-27.16
348	SLD 11	32	-248	3346	-789.17	177.35	18.97
348	SLD 12	-15	-205	3334	-786.74	176.83	4.99
348	SLD 13	-177	-10	3014	-721.66	159.5	-44.45
348	SLD 14	-224	33	3002	-719.25	158.98	-58.33
348	SLD 15	-161	-130	3274	-778.11	172.45	-34.81
348	SLD 16	-208	-88	3262	-775.7	171.92	-48.69
348	SLV 1	653	147	1774	-431.11	103.94	156.78
348	SLV 2	548	244	1748	-425.65	102.77	125.35
348	SLV 3	690	-126	2365	-559.34	133.35	178.7
348	SLV 4	585	-29	2338	-553.88	132.17	147.27
348	SLV 5	216	413	1611	-406.04	92.8	34.77
348	SLV 6	109	511	1584	-400.55	91.62	3.13
348	SLV 7	340	-498	3580	-833.48	190.83	107.84
348	SLV 8	233	-400	3553	-827.99	189.64	76.2
348	SLV 9	-122	368	2062	-512.77	112.66	-47.98
348	SLV 10	-229	465	2035	-507.28	111.47	-79.62
348	SLV 11	2	-543	4031	-940.21	210.68	25.09
348	SLV 12	-105	-445	4004	-934.72	209.5	-6.55
348	SLV 13	-474	-3	3277	-786.88	170.13	-119.05
348	SLV 14	-579	94	3250	-781.42	168.95	-150.48
348	SLV 15	-437	-276	3867	-915.11	199.54	-97.13
348	SLV 16	-542	-179	3841	-909.65	198.36	-128.56
348	CRTFP Ux+	0	0	0	0	0	0
348	CRTFP Ux-	0	0	0	0	0	0
348	CRTFP Uy+	0	0	0	-0.01	0	0
348	CRTFP Uy-	0	0	0	0.01	0	0

1.3 Pressioni massime sul terreno

Nodo: *Nodo che interagisce col terreno.*
Ind.: *indice del nodo.*
Pressione minima: *situazione in cui si verifica la pressione minima nel nodo.*
Cont.: *nome breve della condizione o combinazione di carico a cui si riferisce la pressione minima.*
uz: *spostamento massimo verticale del nodo. [m]*
Valore: *pressione minima sul terreno del nodo. [daN/m²]*
Pressione massima: *situazione in cui si verifica la pressione massima nel nodo.*
Cont.: *nome breve della condizione o combinazione di carico a cui si riferisce la pressione massima.*

uz: spostamento minimo verticale del nodo. [m]
Valore: pressione massima sul terreno del nodo. [daN/m²]

Compressione estrema massima -7943.1 al nodo di indice 29, di coordinate x = -34.18, y = -3.6, z = -1.3, nel contesto SLU 81.
Spostamento estremo minimo -0.0026477 al nodo di indice 29, di coordinate x = -34.18, y = -3.6, z = -1.3, nel contesto SLU 81.
Spostamento estremo massimo -0.000479 al nodo di indice 89, di coordinate x = -30.55, y = -2.28, z = -1.3, nel contesto SLV 13.

Nodo	Pressione minima			Pressione massima		
Ind.	Cont.	uz	Valore	Cont.	uz	Valore
5	SLU 81	-0.0025515	-7654.4	SLV 16	-0.0008926	-2677.7
24	SLU 82	-0.0023364	-7009.3	SLV 7	-0.0009913	-2973.8
28	SLU 82	-0.0023451	-7035.3	SLV 7	-0.000979	-2937
29	SLU 81	-0.0026477	-7943.1	SLV 16	-0.0009003	-2700.9
30	SLU 81	-0.0024306	-7291.8	SLV 16	-0.0008715	-2614.5
31	SLU 81	-0.0022531	-6759.2	SLV 16	-0.0008555	-2566.4
32	SLU 81	-0.0021147	-6344	SLV 16	-0.0008516	-2554.8
33	SLU 81	-0.0020109	-6032.6	SLV 16	-0.0008581	-2574.4
34	SLU 81	-0.0019357	-5807.1	SLV 16	-0.0008729	-2618.8
35	SLU 81	-0.0018831	-5649.4	SLV 15	-0.0008935	-2680.4
36	SLU 81	-0.0018479	-5543.6	SLV 11	-0.0008951	-2685.3
37	SLU 81	-0.0018258	-5477.3	SLV 11	-0.0008998	-2699.3
38	SLU 81	-0.0018142	-5442.5	SLV 11	-0.0009072	-2721.6
39	SLU 81	-0.0018117	-5435	SLV 11	-0.0009175	-2752.5
40	SLU 81	-0.0018185	-5455.6	SLV 11	-0.0009306	-2791.9
41	SLU 81	-0.0018356	-5506.9	SLV 11	-0.0009465	-2839.5
42	SLU 82	-0.0018649	-5594.7	SLV 7	-0.0009555	-2866.4
43	SLU 82	-0.0019076	-5722.9	SLV 7	-0.0009551	-2865.2
44	SLU 82	-0.0019641	-5892.4	SLV 7	-0.0009575	-2872.5
45	SLU 82	-0.0020327	-6098.2	SLV 7	-0.0009631	-2889.4
46	SLU 82	-0.0021076	-6322.8	SLV 7	-0.0009699	-2909.6
47	SLU 82	-0.0021776	-6532.7	SLV 7	-0.0009733	-2919.9
48	SLU 82	-0.0022513	-6754	SLV 7	-0.0009719	-2915.7
49	SLU 82	-0.0023496	-7048.7	SLV 7	-0.0009719	-2915.6
52	SLU 82	-0.0021745	-6523.4	SLV 7	-0.0009694	-2908.1
54	SLU 81	-0.0024107	-7232	SLV 16	-0.0008649	-2594.8
55	SLU 82	-0.0022769	-6830.7	SLV 7	-0.0009514	-2854.2
57	SLU 82	-0.0023445	-7033.4	SLV 3	-0.0009168	-2750.4
58	SLU 82	-0.0022433	-6730	SLV 7	-0.0009373	-2811.8
61	SLU 82	-0.0020403	-6120.9	SLV 7	-0.000956	-2868.1
63	SLU 81	-0.002291	-6872.9	SLV 16	-0.0008444	-2533.3
64	SLU 82	-0.0022401	-6720.2	SLV 3	-0.0009128	-2738.5
65	SLU 82	-0.0022807	-6842.2	SLV 3	-0.0008725	-2617.6
67	SLU 82	-0.0019278	-5783.4	SLV 7	-0.0009447	-2834.1
69	SLU 81	-0.0021994	-6598.1	SLV 16	-0.0008333	-2500
70	SLU 82	-0.002175	-6525.1	SLV 3	-0.0008756	-2626.7
84	SLU 82	-0.0018253	-5476	SLV 4	-0.0008946	-2683.9
86	SLU 81	-0.0021388	-6416.4	SLV 16	-0.0008326	-2497.9
87	SLU 82	-0.0020899	-6269.7	SLV 3	-0.0008612	-2583.5
89	SLU 81	-0.0008763	-2628.9	SLV 13	-0.000479	-1437
90	SLU 81	-0.0009671	-2901.3	SLV 14	-0.0005705	-1711.6
91	SLU 81	-0.0010586	-3175.9	SLU 2	-0.0006382	-1914.5
92	SLU 81	-0.0011516	-3454.7	SLU 2	-0.0006976	-2092.9
93	SLU 82	-0.0012469	-3740.6	SLU 1	-0.0007578	-2273.4
94	SLU 82	-0.0013442	-4032.6	SLU 1	-0.0008191	-2457.3
95	SLU 82	-0.0014424	-4327.1	SLV 4	-0.0008601	-2580.3
96	SLU 82	-0.0015386	-4615.8	SLV 4	-0.0008819	-2645.8
97	SLU 82	-0.001628	-4884.1	SLV 4	-0.0008958	-2687.3
98	SLU 82	-0.0017032	-5109.6	SLV 4	-0.0008975	-2692.4
99	SLU 82	-0.0017542	-5262.7	SLV 4	-0.0008823	-2646.8
100	SLU 82	-0.0017819	-5345.6	SLV 4	-0.0008677	-2603
103	SLU 81	-0.0021088	-6326.5	SLV 16	-0.0008423	-2526.8
104	SLU 82	-0.0020477	-6143.1	SLV 3	-0.0008628	-2588.3
107	SLU 81	-0.0021061	-6318.2	SLV 16	-0.0008613	-2583.8
108	SLU 82	-0.0020452	-6135.7	SLV 3	-0.000879	-2637
111	SLU 81	-0.0021238	-6371.5	SLV 16	-0.0008877	-2663
113	SLU 82	-0.0014579	-4373.6	SLV 4	-0.0006281	-1884.3
114	SLU 82	-0.0020735	-6220.5	SLV 3	-0.0009069	-2720.7
117	SLU 81	-0.0021518	-6455.4	SLV 16	-0.0009181	-2754.4
118	SLU 81	-0.0023081	-6924.3	SLV 16	-0.0009423	-2827
119	SLU 81	-0.0021428	-6428.4	SLV 16	-0.0009284	-2785.2
120	SLU 81	-0.0020065	-6019.5	SLV 16	-0.0009226	-2767.7
121	SLU 81	-0.0018915	-5674.5	SLV 16	-0.0009192	-2757.5
122	SLU 81	-0.0017911	-5373.2	SLV 16	-0.0009118	-2735.3
123	SLU 81	-0.0017013	-5104	SLV 16	-0.0008944	-2683.2
124	SLU 81	-0.0016224	-4867.3	SLV 16	-0.0008642	-2592.7
125	SLU 81	-0.001506	-4518.1	SLV 12	-0.0007646	-2293.8
126	SLU 81	-0.0014907	-4472.2	SLV 12	-0.0007473	-2241.8
127	SLU 81	-0.0014796	-4438.9	SLV 12	-0.0007388	-2216.5
128	SLU 81	-0.0014694	-4408.2	SLV 12	-0.0007377	-2213
129	SLU 81	-0.0014571	-4371.4	SLV 12	-0.0007415	-2224.6
130	SLU 82	-0.0014407	-4322.1	SLV 8	-0.0007438	-2231.5
131	SLU 82	-0.0014209	-4262.6	SLV 8	-0.0007299	-2189.6
132	SLU 82	-0.0014002	-4200.5	SLV 8	-0.0007172	-2151.7
133	SLU 82	-0.0013829	-4148.6	SLV 4	-0.0006838	-2051.3
134	SLU 82	-0.0013738	-4121.4	SLV 4	-0.0006371	-1911.2
135	SLU 82	-0.0013791	-4137.4	SLV 4	-0.0006061	-1818.3
136	SLU 82	-0.0014025	-4207.5	SLV 4	-0.0006003	-1800.9
137	SLU 82	-0.0020105	-6031.4	SLV 3	-0.0008786	-2635.8

Nodo	Pressione minima			Pressione massima		
Ind.	Cont.	uz	Valore	Cont.	uz	Valore
138	SLU 82	-0.0022615	-6784.5	SLV 3	-0.0010093	-3027.8
140	SLU 81	-0.0021761	-6528.3	SLV 16	-0.0009481	-2844.2
151	SLU 81	-0.0014847	-4454	SLV 12	-0.0007629	-2288.8
153	SLU 81	-0.0014641	-4392.2	SLV 8	-0.0007693	-2307.9
162	SLU 82	-0.0014229	-4268.8	SLV 4	-0.0005915	-1774.6
165	SLU 82	-0.0021181	-6354.4	SLV 3	-0.0009424	-2827.1
166	SLU 82	-0.002289	-6867	SLV 3	-0.0010311	-3093.4
167	SLU 81	-0.0023363	-7008.9	SLV 16	-0.0009824	-2947.1
168	SLU 81	-0.002171	-6513	SLV 16	-0.0009681	-2904.4
169	SLU 81	-0.0020347	-6104.2	SLV 16	-0.0009616	-2884.9
170	SLU 81	-0.0019198	-5759.5	SLV 16	-0.0009576	-2872.8
171	SLU 81	-0.0018196	-5458.7	SLV 16	-0.0009496	-2848.9
172	SLU 81	-0.0017301	-5190.2	SLV 16	-0.0009318	-2795.3
173	SLU 81	-0.0016514	-4954.2	SLV 16	-0.0009012	-2703.5
174	SLU 81	-0.0015397	-4619	SLV 12	-0.0008156	-2446.8
175	SLU 81	-0.0015246	-4573.7	SLV 12	-0.0007982	-2394.5
176	SLU 81	-0.0015137	-4541.1	SLV 12	-0.0007897	-2369.1
177	SLU 81	-0.0015037	-4511.1	SLV 12	-0.0007885	-2365.5
178	SLU 81	-0.0014916	-4474.8	SLV 12	-0.0007923	-2377
179	SLU 82	-0.0014723	-4416.8	SLV 8	-0.0007885	-2365.4
180	SLU 82	-0.0014471	-4341.3	SLV 8	-0.0007696	-2308.9
181	SLU 82	-0.0014211	-4263.3	SLV 4	-0.0007462	-2238.7
182	SLU 82	-0.0013985	-4195.6	SLV 4	-0.0006863	-2058.8
183	SLU 82	-0.0013842	-4152.5	SLV 4	-0.0006354	-1906.3
184	SLU 82	-0.0013843	-4152.8	SLV 4	-0.0006003	-1800.9
185	SLU 82	-0.001401	-4203.1	SLV 4	-0.0005825	-1747.4
186	SLU 82	-0.0014175	-4252.6	SLV 4	-0.0005818	-1745.3
187	SLU 82	-0.002065	-6194.9	SLV 3	-0.0009217	-2765
188	SLU 82	-0.0023165	-6949.5	SLV 3	-0.0010529	-3158.7
190	SLU 81	-0.0021916	-6574.7	SLV 16	-0.0009781	-2934.2
191	SLU 81	-0.0015195	-4558.4	SLV 12	-0.0008088	-2426.4
193	SLU 82	-0.0014995	-4498.4	SLV 8	-0.000814	-2441.9
194	SLU 82	-0.0023336	-7000.8	SLV 3	-0.0010685	-3205.5
196	SLU 81	-0.002193	-6579.1	SLV 16	-0.0010058	-3017.3
197	SLU 81	-0.0015723	-4717	SLV 12	-0.0008679	-2603.6
199	SLU 82	-0.0015535	-4660.4	SLU 1	-0.0008635	-2590.5
200	SLU 82	-0.0023724	-7117.1	SLV 3	-0.0011071	-3321.2
202	SLU 81	-0.0021846	-6553.9	SLV 16	-0.00103	-3089.9
203	SLU 81	-0.0016366	-4909.7	SLU 2	-0.0009019	-2705.6
205	SLU 82	-0.0016188	-4856.3	SLU 1	-0.0008901	-2670.3
206	SLU 82	-0.0024006	-7201.7	SLV 3	-0.0011389	-3416.6
208	SLU 81	-0.0021629	-6488.6	SLV 16	-0.001044	-3131.9
209	SLU 81	-0.0017058	-5117.5	SLU 2	-0.0009314	-2794.2
211	SLU 82	-0.0016891	-5067.2	SLU 1	-0.0009204	-2761.1
212	SLU 82	-0.0024197	-7259	SLV 1	-0.0011539	-3461.6
214	SLU 81	-0.0021179	-6353.7	SLV 13	-0.0010333	-3099.9
221	SLU 81	-0.001775	-5324.9	SLU 2	-0.0009625	-2887.4
223	SLU 82	-0.0017592	-5277.6	SLU 1	-0.0009521	-2856.4
224	SLU 82	-0.0024322	-7296.7	SLV 1	-0.0011561	-3468.4
225	SLU 81	-0.0023589	-7076.7	SLV 13	-0.0010893	-3267.9
226	SLU 81	-0.0020473	-6142	SLV 13	-0.0010154	-3046.1
227	SLU 81	-0.0018016	-5404.9	SLV 13	-0.0009714	-2914.2
228	SLU 81	-0.0016079	-4823.7	SLV 13	-0.00095	-2850
229	SLU 82	-0.0014502	-4350.7	SLV 10	-0.000902	-2705.9
230	SLU 82	-0.0013153	-3946	SLV 6	-0.0007747	-2324
231	SLU 82	-0.0011898	-3569.3	SLV 2	-0.0005902	-1770.7
233	SLU 81	-0.0020564	-6169.1	SLV 13	-0.0010073	-3021.9
234	SLU 81	-0.0018397	-5519.1	SLU 2	-0.0009934	-2980.2
236	SLU 82	-0.0018249	-5474.8	SLU 1	-0.0009838	-2951.3
237	SLU 82	-0.0024404	-7321.3	SLV 1	-0.0011531	-3459.3
239	SLU 81	-0.0019815	-5944.5	SLV 13	-0.0009711	-2913.4
240	SLU 81	-0.0018968	-5690.5	SLU 2	-0.0010231	-3069.2
242	SLU 82	-0.001883	-5649.1	SLU 1	-0.0010141	-3042.3
243	SLU 82	-0.0024456	-7336.7	SLV 2	-0.0011461	-3438.4
245	SLU 81	-0.0019101	-5730.3	SLV 13	-0.0009332	-2799.6
246	SLU 81	-0.0019443	-5833	SLU 2	-0.0010508	-3152.4
248	SLU 82	-0.0019315	-5794.4	SLU 1	-0.0010425	-3127.5
249	SLU 82	-0.0024482	-7344.5	SLV 2	-0.0011355	-3406.4
251	SLU 81	-0.0018551	-5565.3	SLV 13	-0.0008996	-2698.9
252	SLU 81	-0.0019814	-5944.3	SLU 2	-0.0010764	-3229.3
254	SLU 82	-0.0019695	-5908.5	SLU 1	-0.0010688	-3206.3
255	SLU 82	-0.0024484	-7345.1	SLV 2	-0.0011222	-3366.7
257	SLU 81	-0.0018255	-5476.4	SLV 13	-0.0008745	-2623.6
258	SLU 81	-0.0020091	-6027.2	SLV 9	-0.0010655	-3196.4
260	SLU 82	-0.0019981	-5994.2	SLV 6	-0.0010566	-3169.7
261	SLU 82	-0.0024459	-7337.7	SLV 2	-0.0011065	-3319.4
263	SLU 81	-0.0018273	-5481.9	SLV 13	-0.0008608	-2582.3
264	SLU 81	-0.0020298	-6089.4	SLV 9	-0.0010471	-3141.2
266	SLU 82	-0.0020197	-6059.1	SLV 5	-0.0010385	-3115.6
267	SLU 82	-0.0024404	-7321.2	SLV 2	-0.001088	-3264
269	SLU 81	-0.0018649	-5594.6	SLV 13	-0.0008603	-2580.8
270	SLU 81	-0.0020479	-6143.7	SLV 9	-0.0010262	-3078.6
272	SLU 82	-0.0020387	-6116.1	SLV 5	-0.001018	-3053.9
273	SLU 82	-0.0024316	-7294.9	SLV 2	-0.0010668	-3200.5
275	SLU 81	-0.0019409	-5822.7	SLV 13	-0.0008744	-2623.2
276	SLU 81	-0.0020697	-6209	SLV 9	-0.0010053	-3016

Nodo	Pressione minima			Pressione massima		
Ind.	Cont.	uz	Valore	Cont.	uz	Valore
278	SLU 82	-0.0020613	-6184	SLV 5	-0.0009975	-2992.5
279	SLU 82	-0.0024203	-7261	SLV 6	-0.001032	-3096.1
281	SLU 81	-0.0020565	-6169.5	SLV 9	-0.0008806	-2641.7
282	SLU 81	-0.0021038	-6311.3	SLV 9	-0.000988	-2964
284	SLU 82	-0.0020963	-6288.9	SLV 5	-0.0009807	-2942
285	SLU 82	-0.0024096	-7228.7	SLV 6	-0.0009746	-2923.8
287	SLU 81	-0.0022103	-6630.9	SLV 9	-0.0009007	-2702
288	SLU 81	-0.002162	-6486.1	SLV 9	-0.0009791	-2937.3
290	SLU 82	-0.0021554	-6466.3	SLV 5	-0.0009724	-2917.2
291	SLU 82	-0.0024072	-7221.5	SLV 6	-0.000919	-2757
292	SLU 81	-0.0024002	-7200.5	SLV 9	-0.0009544	-2863.1
293	SLU 81	-0.002224	-6672	SLV 9	-0.0009019	-2705.6
294	SLU 81	-0.0020752	-6225.7	SLV 9	-0.0008598	-2579.3
295	SLU 81	-0.0019592	-5877.5	SLV 9	-0.0008296	-2488.8
296	SLU 81	-0.0018778	-5633.4	SLV 9	-0.0008117	-2435
297	SLU 81	-0.0018311	-5493.4	SLV 9	-0.0008057	-2417
298	SLU 81	-0.0018176	-5452.9	SLV 9	-0.0008108	-2432.5
299	SLU 81	-0.0018346	-5503.7	SLV 9	-0.0008261	-2478.2
300	SLU 81	-0.0018777	-5633	SLV 9	-0.0008498	-2549.3
301	SLU 81	-0.0019409	-5822.8	SLV 9	-0.0008797	-2639.2
302	SLU 81	-0.0020156	-6046.7	SLV 9	-0.0009129	-2738.7
303	SLU 81	-0.0020892	-6267.5	SLV 9	-0.0009446	-2833.8
304	SLU 81	-0.0021443	-6433	SLV 9	-0.0009681	-2904.3
305	SLU 82	-0.0021588	-6476.4	SLV 9	-0.0009734	-2920.2
306	SLU 82	-0.0021365	-6409.6	SLV 5	-0.0009599	-2879.7
307	SLU 82	-0.0020772	-6231.5	SLV 6	-0.0009307	-2792.1
308	SLU 82	-0.0020024	-6007.2	SLV 6	-0.0008952	-2685.6
309	SLU 82	-0.0019292	-5787.6	SLV 6	-0.0008602	-2580.5
310	SLU 82	-0.0018697	-5609.1	SLV 6	-0.0008297	-2489.1
311	SLU 82	-0.0018323	-5496.9	SLV 6	-0.0008065	-2419.4
312	SLU 82	-0.0018227	-5468	SLV 6	-0.0007922	-2376.6
313	SLU 82	-0.0018444	-5533.1	SLV 6	-0.000788	-2364
314	SLU 82	-0.001899	-5697	SLV 6	-0.0007943	-2382.8
315	SLU 82	-0.0019864	-5959.3	SLV 6	-0.000811	-2433
316	SLU 82	-0.002104	-6311.9	SLV 6	-0.0008374	-2512.2
317	SLU 82	-0.0022458	-6737.3	SLV 6	-0.0008717	-2615
318	SLU 82	-0.0024017	-7205	SLV 6	-0.0009105	-2731.6
320	SLU 81	-0.002397	-7191	SLV 9	-0.0009327	-2798.1
333	SLU 81	-0.0022585	-6775.4	SLV 9	-0.0009848	-2954.4
335	SLU 82	-0.0022522	-6756.6	SLV 5	-0.0009782	-2934.5
348	SLU 82	-0.0024271	-7281.3	SLV 6	-0.0008706	-2611.8

1.4 Cedimenti fondazioni superficiali

Nodo: *nodo che interagisce col terreno.*
Ind.: *indice del nodo.*
spostamento nodale massimo: *situazione in cui si verifica lo spostamento massimo verticale nel nodo calcolato dal solutore ad elementi finiti. Lo spostamento massimo con segno è quello con valore massimo lungo l'asse Z, dove valori positivi rappresentano spostamenti verso l'alto.*
Cont.: *nome breve della condizione o combinazione di carico a cui si riferisce lo spostamento.*
uz: *spostamento verticale del nodo calcolato dal solutore ad elementi finiti. Lo spostamento è dotato di segno. [m]*
Press.: *pressione sul terreno corrispondente allo spostamento. Valori positivi indicano trazione, valori negativi indicano compressione. [daN/m²]*
spostamento nodale minimo: *situazione in cui si verifica lo spostamento minimo verticale del nodo calcolato dal solutore ad elementi finiti. Lo spostamento minimo con segno è quello con valore minimo lungo l'asse Z, dove valori negativi rappresentano spostamenti verso il basso.*
Cont.: *nome breve della condizione o combinazione di carico a cui si riferisce lo spostamento.*
uz: *spostamento verticale del nodo calcolato dal solutore ad elementi finiti. Lo spostamento è dotato di segno. [m]*
Press.: *pressione sul terreno corrispondente allo spostamento. Valori positivi indicano trazione, valori negativi indicano compressione. [daN/m²]*
Cedimento elastico: *cedimento teorico elastico massimo.*
Cont.: *nome breve della combinazione di carico in cui è stato calcolato il cedimento teorico elastico massimo.*
v.: *valore del cedimento teorico elastico massimo. [m]*
Cedimento edometrico: *cedimento teorico edometrico massimo.*
Cont.: *nome breve della combinazione di carico in cui è stato calcolato il cedimento teorico edometrico massimo.*
v.: *valore del cedimento teorico edometrico massimo. [m]*
Cedimento di consolidazione: *cedimento teorico di consolidazione massimo.*
Cont.: *nome breve della combinazione di carico in cui è stato calcolato il cedimento teorico di consolidazione massimo.*
v.: *valore del cedimento teorico di consolidazione massimo. [m]*

Spostamento estremo minimo -0.0021365 al nodo di indice 29, di coordinate x = -34.18, y = -3.6, z = -1.3, nel contesto SLD 1.
Spostamento estremo massimo -0.0005358 al nodo di indice 89, di coordinate x = -30.55, y = -2.28, z = -1.3, nel contesto SLD 13.
Cedimento elastico estremo massimo 0.0008056 al nodo di indice 197, di coordinate x = -29.63, y = 0.17, z = -1.3, nel contesto SLE rara 18.

Nodo	spostamento nodale massimo			spostamento nodale minimo			Cedimento elastico		Cedimento edometrico		Cedimento di consolidazione	
Ind.	Cont.	uz	Press.	Cont.	uz	Press.	Cont.	v.	Cont.	v.	Cont.	v.
5	SLD 16	-1.3E-03	-4025	SLD 1	-2.0E-03	-6142.6	SLE RA 18	1.69E-04				
24	SLD 7	-1.3E-03	-3939.2	SLD 10	-1.8E-03	-5456.9	SLE RA 19	3.54E-04				
28	SLD 7	-1.3E-03	-3942.8	SLD 10	-1.8E-03	-5524.2	SLE RA 19	3.56E-04				
29	SLD 16	-1.4E-03	-4142.9	SLD 1	-2.1E-03	-6409.6	SLE RA 18	1.67E-04				
30	SLD 16	-1.3E-03	-3865.7	SLD 1	-1.9E-03	-5832.1	SLE RA 18	2.07E-04				
31	SLD 16	-1.2E-03	-3648.6	SLD 1	-1.8E-03	-5349.3	SLE RA 18	2.41E-04				

Nodo	spostamento nodale massimo			spostamento nodale minimo			Cedimento elastico		Cedimento edometrico		Cedimento di consolidazione	
Ind.	Cont.	uz	Press.	Cont.	uz	Press.	Cont.	v.	Cont.	v.	Cont.	v.
32	SLD 16	-1.2E-03	-3490.6	SLD 1	-1.7E-03	-4961	SLE RA 18	2.67E-04				
33	SLD 16	-1.1E-03	-3384.6	SLD 1	-1.6E-03	-4657.1	SLE RA 18	2.87E-04				
34	SLD 16	-1.1E-03	-3321.1	SLD 1	-1.5E-03	-4423.7	SLE RA 18	0.000303				
35	SLD 15	-1.1E-03	-3290.3	SLD 2	-1.4E-03	-4247.2	SLE RA 18	3.17E-04				
36	SLD 11	-1.1E-03	-3254.8	SLD 6	-1.4E-03	-4144.1	SLE RA 18	3.33E-04				
37	SLD 11	-1.1E-03	-3237	SLD 6	-1.4E-03	-4075.8	SLE RA 18	3.48E-04				
38	SLD 11	-1.1E-03	-3234.5	SLD 6	-1.3E-03	-4033.9	SLE RA 18	3.63E-04				
39	SLD 11	-1.1E-03	-3245.8	SLD 6	-1.3E-03	-4014.7	SLE RA 18	3.77E-04				
40	SLD 11	-1.1E-03	-3271.2	SLE RA 18	-1.3E-03	-4025.3	SLE RA 18	3.91E-04				
41	SLD 11	-1.1E-03	-3311.7	SLE RA 18	-1.4E-03	-4063.1	SLE RA 19	4.03E-04				
42	SLD 7	-1.1E-03	-3356	SLE RA 19	-1.4E-03	-4127.8	SLE RA 19	0.000413				
43	SLD 7	-1.1E-03	-3402.7	SLD 10	-1.4E-03	-4244.5	SLE RA 19	4.21E-04				
44	SLD 7	-1.2E-03	-3468.9	SLD 10	-1.5E-03	-4404.3	SLE RA 19	0.000427				
45	SLD 7	-1.2E-03	-3553.5	SLD 10	-1.5E-03	-4596.3	SLE RA 19	4.29E-04				
46	SLD 7	-1.2E-03	-3647.9	SLD 10	-1.6E-03	-4807.9	SLE RA 19	4.26E-04				
47	SLD 7	-1.2E-03	-3734.6	SLD 10	-1.7E-03	-5015.1	SLE RA 19	4.15E-04				
48	SLD 7	-1.3E-03	-3821.7	SLD 10	-1.7E-03	-5246.2	SLE RA 19	3.90E-04				
49	SLD 7	-1.3E-03	-3941	SLD 10	-1.9E-03	-5553.2	SLE RA 19	3.43E-04				
52	SLD 7	-1.2E-03	-3728.4	SLD 10	-1.7E-03	-5017.8	SLE RA 19	4.24E-04				
54	SLD 16	-1.3E-03	-3835.9	SLD 1	-1.9E-03	-5786.4	SLE RA 18	0.000216				
55	SLD 7	-1.3E-03	-3832	SLD 10	-1.8E-03	-5369.3	SLE RA 19	3.51E-04				
57	SLD 3	-1.3E-03	-3868.6	SLD 14	-1.9E-03	-5626.1	SLE RA 19	2.57E-04				
58	SLD 7	-1.3E-03	-3777.6	SLD 10	-1.8E-03	-5295.9	SLE RA 19	3.36E-04				
61	SLD 7	-1.2E-03	-3558.8	SLD 10	-1.5E-03	-4644.3	SLE RA 19	4.85E-04				
63	SLD 16	-1.2E-03	-3679.2	SLD 1	-1.8E-03	-5480.2	SLE RA 18	2.64E-04				
64	SLD 3	-1.2E-03	-3743.6	SLD 14	-1.8E-03	-5323.2	SLE RA 19	3.13E-04				
65	SLD 3	-1.2E-03	-3738.2	SLD 14	-1.8E-03	-5499.4	SLE RA 19	2.68E-04				
67	SLD 7	-1.1E-03	-3414.5	SLD 10	-1.4E-03	-4326.6	SLE RA 19	5.36E-04				
69	SLD 16	-1.2E-03	-3565.8	SLD 1	-1.7E-03	-5240.7	SLE RA 18	0.000308				
70	SLD 3	-1.2E-03	-3620.7	SLD 14	-1.7E-03	-5182.9	SLE RA 19	3.29E-04				
84	SLD 4	-1.1E-03	-3228.8	SLD 13	-1.4E-03	-4084.5	SLE RA 19	5.78E-04				
86	SLD 16	-1.2E-03	-3499.9	SLD 1	-1.7E-03	-5074.6	SLE RA 18	3.49E-04				
87	SLD 3	-1.2E-03	-3503.2	SLD 14	-1.6E-03	-4948.6	SLE RA 19	3.71E-04				
89	SLD 13	-5.4E-04	-1607.3	SLE RA 18	-6.4E-04	-1910.1	SLE RA 18	5.59E-04				
90	SLD 14	-6.1E-04	-1830.9	SLE RA 18	-7.0E-04	-2113.1	SLE RA 18	5.45E-04				
91	SLE RA 2	-6.7E-04	-2018.6	SLE RA 18	-7.7E-04	-2317.8	SLE RA 18	5.95E-04				
92	SLE RA 2	-7.3E-04	-2199.3	SLE RA 18	-8.4E-04	-2525.6	SLE RA 19	6.09E-04				
93	SLE RA 1	-7.9E-04	-2382.6	SLE RA 19	-9.1E-04	-2738.6	SLE RA 19	6.27E-04				
94	SLE RA 1	-8.6E-04	-2569.3	SLE RA 19	-9.9E-04	-2956.3	SLE RA 19	6.37E-04				
95	SLD 4	-9.2E-04	-2749.4	SLE RA 19	-1.1E-03	-3176	SLE RA 19	6.41E-04				
96	SLD 4	-9.6E-04	-2886.6	SLE RA 19	-1.1E-03	-3391.7	SLE RA 19	6.42E-04				
97	SLD 4	-1.0E-03	-3005.5	SLE RA 19	-1.2E-03	-3592.5	SLE RA 19	6.38E-04				
98	SLD 4	-1.0E-03	-3092.5	SLE RA 19	-1.3E-03	-3761.9	SLE RA 19	6.29E-04				
99	SLD 4	-1.0E-03	-3129.9	SLD 13	-1.3E-03	-3888.7	SLE RA 19	6.10E-04				
100	SLD 4	-1.0E-03	-3141.8	SLD 13	-1.3E-03	-3988	SLE RA 19	5.93E-04				
103	SLD 16	-1.2E-03	-3481	SLD 1	-1.7E-03	-4980.6	SLE RA 18	3.89E-04				
104	SLD 3	-1.2E-03	-3454.5	SLD 14	-1.6E-03	-4815.8	SLE RA 19	4.07E-04				
107	SLD 16	-1.2E-03	-3503.9	SLD 1	-0.00165	-4950.1	SLE RA 18	4.28E-04				
108	SLD 3	-1.2E-03	-3469.2	SLD 14	-1.6E-03	-4777.2	SLE RA 19	4.37E-04				
111	SLD 16	-1.2E-03	-3558.7	SLD 1	-1.7E-03	-4966.6	SLE RA 18	4.65E-04				
113	SLD 4	-8.1E-04	-2431.3	SLD 13	-1.1E-03	-3289.8	SLE RA 19	6.56E-04				
114	SLD 3	-1.2E-03	-3533.7	SLD 14	-1.6E-03	-4811.4	SLE RA 19	4.60E-04				
117	SLD 16	-1.2E-03	-3629.6	SLD 1	-1.7E-03	-5005.1	SLE RA 18	4.96E-04				
118	SLD 16	-1.3E-03	-3836	SLD 1	-1.8E-03	-5421.9	SLE RA 18	4.33E-04				
119	SLD 16	-1.2E-03	-3632.6	SLD 1	-1.7E-03	-4964.7	SLE RA 18	5.16E-04				
120	SLD 16	-1.2E-03	-3471.5	SLD 1	-1.5E-03	-4577.8	SLE RA 18	0.000552				
121	SLD 16	-1.1E-03	-3336.1	SLD 1	-1.4E-03	-4245.7	SLE RA 18	5.99E-04				
122	SLD 16	-0.00107	-3210	SLE RA 18	-1.3E-03	-3959	SLE RA 18	6.49E-04				
123	SLD 16	-1.0E-03	-3080.3	SLE RA 18	-1.3E-03	-3757	SLE RA 18	6.75E-04				
124	SLD 16	-9.8E-04	-2942.8	SLE RA 18	-1.2E-03	-3577.5	SLE RA 18	0.000696				
125	SLD 12	-8.8E-04	-2654.1	SLE RA 18	-1.1E-03	-3305.5	SLE RA 18	7.41E-04				
126	SLD 12	-8.7E-04	-2604.9	SLE RA 18	-1.1E-03	-3266.8	SLE RA 18	7.55E-04				
127	SLD 12	-8.6E-04	-2574	SLE RA 18	-1.1E-03	-3238.4	SLE RA 18	7.66E-04				
128	SLD 12	-8.5E-04	-2555.9	SLE RA 18	-1.1E-03	-3212.9	SLE RA 18	7.74E-04				
129	SLD 12	-8.5E-04	-2544.7	SLE RA 18	-1.1E-03	-3184.5	SLE RA 19	7.79E-04				
130	SLD 8	-8.4E-04	-2528.4	SLE RA 19	-1.0E-03	-3147.5	SLE RA 19	7.79E-04				
131	SLD 8	-8.3E-04	-2488.2	SLE RA 19	-1.0E-03	-3104.2	SLE RA 19	7.74E-04				
132	SLD 8	-8.2E-04	-2450.4	SLE RA 19	-0.00102	-3059.9	SLE RA 19	7.52E-04				
133	SLD 4	-8.0E-04	-2390.6	SLE RA 19	-1.0E-03	-3023.8	SLE RA 19	7.36E-04				
134	SLD 4	-7.7E-04	-2323.5	SLE RA 19	-1.0E-03	-3006.6	SLE RA 19	7.15E-04				
135	SLD 4	-7.7E-04	-2295	SLD 13	-1.0E-03	-3043.1	SLE RA 19	6.91E-04				
136	SLD 4	-7.7E-04	-2320.3	SLD 13	-1.0E-03	-3135.4	SLE RA 19	6.80E-04				
137	SLD 3	-1.1E-03	-3419.6	SLD 14	-1.6E-03	-4651.3	SLE RA 19	4.86E-04				
138	SLD 3	-1.3E-03	-3886.9	SLD 14	-1.7E-03	-5237.4	SLE RA 19	4.19E-04				
140	SLD 16	-1.2E-03	-3695	SLD 1	-1.7E-03	-5032.4	SLE RA 18	5.16E-04				
151	SLD 12	-8.7E-04	-2597.6	SLE RA 18	-1.1E-03	-3242.2	SLE RA 18	0.00079				
153	SLD 8	-8.6E-04	-2580.3	SLE RA 18	-1.1E-03	-3195.2	SLE RA 19	7.92E-04				
162	SLD 4	-7.8E-04	-2330.3	SLD 13	-1.1E-03	-3202.6	SLE RA 19	6.59E-04				
165	SLD 3	-1.2E-03	-3627	SLD 14	-1.6E-03	-4884.3	SLE RA 19	4.69E-04				
166	SLD 3	-1.3E-03	-3944.8	SLD 14	-1.8E-03	-5283.1	SLE RA 19	4.23E-04				
167	SLD 16	-1.3E-03	-3918.4	SLD 1	-1.8E-03	-5445.1	SLE RA 18	4.52E-04				
168	SLD 16	-1.2E-03	-3714.4	SLD 1	-1.7E-03	-4987.7	SLE RA 18	0.000535				
169	SLD 16	-1.2E-03	-3551.9	SLD 1	-1.5E-03	-4600.3	SLE RA 18	5.72E-04				
170	SLD 16	-1.1E-03	-3415.1	SLD 1	-1.4E-03	-4267.8	SLE RA 18	6.20E-04				
171	SLD 16	-1.1E-03	-3287.8	SLE RA 18	-1.3E-03	-4019.8	SLE RA 18	6.72E-04				
172	SLD 16	-1.1E-03	-3157	SLE RA 18	-1.3E-03	-3818	SLE RA 18	6.98E-04				

Nodo	spostamento nodale massimo			spostamento nodale minimo			Cedimento elastico		Cedimento edometrico		Cedimento di consolidazione	
Ind.	Cont.	uz	Press.	Cont.	uz	Press.	Cont.	v.	Cont.	v.	Cont.	v.
173	SLD 16	-1.0E-03	-3018.6	SLE RA 18	-1.2E-03	-3638.7	SLE RA 18	7.20E-04				
174	SLD 12	-9.2E-04	-2745	SLE RA 18	-1.1E-03	-3372.8	SLE RA 18	7.67E-04				
175	SLD 12	-9.0E-04	-2695.6	SLE RA 18	-1.1E-03	-3334.3	SLE RA 18	7.80E-04				
176	SLD 12	-8.9E-04	-2664.6	SLE RA 18	-1.1E-03	-3306.2	SLE RA 18	7.91E-04				
177	SLD 12	-8.8E-04	-2646.4	SLE RA 18	-1.1E-03	-3281.2	SLE RA 18	7.99E-04				
178	SLD 12	-8.8E-04	-2635.2	SLE RA 18	-1.1E-03	-3252.9	SLE RA 19	8.01E-04				
179	SLD 8	-8.7E-04	-2607.4	SLE RA 19	-1.1E-03	-3209.6	SLE RA 19	7.99E-04				
180	SLD 8	-8.5E-04	-2555.1	SLE RA 19	-1.1E-03	-3154.5	SLE RA 19	7.89E-04				
181	SLD 4	-8.3E-04	-2497.6	SLE RA 19	-1.0E-03	-3098.5	SLE RA 19	0.000774				
182	SLD 4	-8.0E-04	-2396.7	SLE RA 19	-1.0E-03	-3050.9	SLE RA 19	7.54E-04				
183	SLD 4	-7.7E-04	-2318.4	SLE RA 19	-1.0E-03	-3022.1	SLE RA 19	7.29E-04				
184	SLD 4	-7.6E-04	-2278.7	SLD 13	-1.0E-03	-3028.4	SLE RA 19	0.000701				
185	SLD 4	-7.6E-04	-2282.2	SLD 13	-1.0E-03	-3121.5	SLE RA 19	6.70E-04				
186	SLD 4	-7.7E-04	-2304	SLD 13	-1.1E-03	-3180.8	SLE RA 19	6.54E-04				
187	SLD 3	-1.2E-03	-3533.8	SLD 14	-1.6E-03	-4741.9	SLE RA 19	4.85E-04				
188	SLD 3	-1.3E-03	-4002.5	SLD 14	-1.8E-03	-5328.8	SLE RA 19	4.22E-04				
190	SLD 16	-1.3E-03	-3750.9	SLD 1	-1.7E-03	-5034.8	SLE RA 18	5.24E-04				
191	SLD 12	-8.9E-04	-2684	SLE RA 18	-1.1E-03	-3312.5	SLE RA 18	8.03E-04				
193	SLE RA 1	-8.9E-04	-2660	SLE RA 19	-1.1E-03	-3266.9	SLE RA 19	0.000803				
194	SLD 3	-1.3E-03	-4041.8	SLD 14	-1.8E-03	-5356.5	SLE RA 19	0.000419				
196	SLD 16	-1.3E-03	-3789.5	SLD 1	-1.7E-03	-5003.4	SLE RA 18	5.19E-04				
197	SLE RA 2	-9.2E-04	-2767.2	SLE RA 18	-1.1E-03	-3422	SLE RA 18	8.06E-04				
199	SLE RA 1	-9.1E-04	-2728.1	SLE RA 19	-1.1E-03	-3378.9	SLE RA 19	0.000803				
200	SLD 3	-1.4E-03	-4134.9	SLD 14	-1.8E-03	-5414	SLE RA 19	4.04E-04				
202	SLD 16	-1.3E-03	-3813.2	SLD 1	-0.00165	-4950	SLE RA 18	5.06E-04				
203	SLE RA 2	-9.5E-04	-2853.1	SLE RA 18	-1.2E-03	-3556.4	SLE RA 18	7.99E-04				
205	SLE RA 1	-9.4E-04	-2816.3	SLE RA 19	-1.2E-03	-3515.7	SLE RA 19	7.94E-04				
206	SLD 3	-1.4E-03	-4207.3	SLD 14	-1.8E-03	-5450.2	SLE RA 19	3.82E-04				
208	SLD 16	-1.3E-03	-3808.8	SLD 1	-1.6E-03	-4872.2	SLE RA 18	4.90E-04				
209	SLE RA 2	-9.8E-04	-2950	SLE RA 18	-1.2E-03	-3702.2	SLE RA 18	7.92E-04				
211	SLE RA 1	-9.7E-04	-2915.4	SLE RA 19	-1.2E-03	-3664	SLE RA 19	7.86E-04				
212	SLD 1	-1.4E-03	-4246.9	SLD 16	-1.8E-03	-5481.7	SLE RA 19	3.58E-04				
214	SLD 13	-1.2E-03	-3745.7	SLD 4	-1.6E-03	-4760.3	SLE RA 18	4.70E-04				
221	SLE RA 2	-1.0E-03	-3050.8	SLE RA 18	-1.3E-03	-3848.8	SLE RA 18	7.70E-04				
223	SLE RA 1	-1.0E-03	-3018.4	SLE RA 19	-1.3E-03	-3812.8	SLE RA 19	7.63E-04				
224	SLD 1	-1.4E-03	-4262.1	SLD 16	-1.8E-03	-5510.3	SLE RA 19	3.34E-04				
225	SLD 13	-1.4E-03	-4085.1	SLD 4	-1.8E-03	-5368.9	SLE RA 18	3.94E-04				
226	SLD 13	-1.2E-03	-3644.8	SLD 4	-1.5E-03	-4585.3	SLE RA 18	4.65E-04				
227	SLD 13	-1.1E-03	-3317.1	SLE RA 18	-1.3E-03	-3992.3	SLE RA 18	5.16E-04				
228	SLD 13	-1.0E-03	-3076.9	SLE RA 18	-1.2E-03	-3566.5	SLE RA 18	5.54E-04				
229	SLE RA 1	-9.4E-04	-2831	SLE RA 19	-1.1E-03	-3220.1	SLE RA 18	5.82E-04				
230	SLD 6	-8.4E-04	-2523.8	SLE RA 19	-9.7E-04	-2923.6	SLE RA 18	6.07E-04				
231	SLD 2	-7.1E-04	-2142.3	SLD 15	-9.1E-04	-2726.3	SLE RA 18	6.23E-04				
233	SLD 13	-1.2E-03	-3643.8	SLD 4	-1.5E-03	-4620.8	SLE RA 18	4.43E-04				
234	SLE RA 2	-0.00105	-3150.1	SLE RA 18	-1.3E-03	-3987.1	SLE RA 18	7.47E-04				
236	SLE RA 1	-1.0E-03	-3119.8	SLE RA 19	-1.3E-03	-3953.4	SLE RA 19	7.39E-04				
237	SLD 1	-1.4E-03	-4265.2	SLD 16	-1.8E-03	-5532.5	SLE RA 19	3.11E-04				
239	SLD 13	-1.2E-03	-3513.1	SLD 4	-1.5E-03	-4455	SLE RA 18	4.10E-04				
240	SLE RA 2	-1.1E-03	-3244	SLE RA 18	-1.4E-03	-4110.6	SLE RA 18	7.22E-04				
242	SLE RA 1	-1.1E-03	-3215.8	SLE RA 19	-1.4E-03	-4079.2	SLE RA 19	7.14E-04				
243	SLD 2	-1.4E-03	-4259.5	SLD 15	-1.9E-03	-5550.5	SLE RA 19	0.000289				
245	SLD 13	-1.1E-03	-3383.2	SLD 4	-1.4E-03	-4299.7	SLE RA 18	3.74E-04				
246	SLE RA 2	-1.1E-03	-3330.2	SLE RA 18	-1.4E-03	-4215	SLE RA 18	6.97E-04				
248	SLE RA 1	-1.1E-03	-3304	SLE RA 19	-1.4E-03	-4185.7	SLE RA 19	6.89E-04				
249	SLD 2	-1.4E-03	-4245.9	SLD 15	-1.9E-03	-5565.9	SLE RA 19	0.000268				
251	SLD 13	-1.1E-03	-3276.7	SLD 4	-1.4E-03	-4183.9	SLE RA 18	3.39E-04				
252	SLE RA 2	-1.1E-03	-3408.1	SLE RA 18	-1.4E-03	-4299	SLE RA 18	6.71E-04				
254	SLE RA 1	-1.1E-03	-3383.9	SLE RA 19	-1.4E-03	-4271.8	SLE RA 19	6.64E-04				
255	SLD 2	-1.4E-03	-4226.1	SLD 15	-1.9E-03	-5577.6	SLE RA 19	2.48E-04				
257	SLD 13	-1.1E-03	-3208.8	SLD 4	-1.4E-03	-4127.4	SLE RA 18	3.08E-04				
258	SLE RA 2	-1.2E-03	-3479.1	SLE RA 18	-1.5E-03	-4364.3	SLE RA 18	6.45E-04				
260	SLE RA 1	-1.2E-03	-3456.8	SLE RA 19	-1.4E-03	-4339.3	SLE RA 19	6.38E-04				
261	SLD 2	-0.0014	-4200	SLD 15	-1.9E-03	-5584.9	SLE RA 19	2.27E-04				
263	SLD 13	-1.1E-03	-3190	SLD 4	-1.4E-03	-4144.2	SLE RA 18	0.000279				
264	SLD 9	-1.2E-03	-3515	SLE RA 18	-1.5E-03	-4416.5	SLE RA 18	6.17E-04				
266	SLD 5	-1.2E-03	-3491.3	SLE RA 19	-1.5E-03	-4393.6	SLE RA 19	6.11E-04				
267	SLD 2	-1.4E-03	-4167	SLD 15	-1.9E-03	-5586.9	SLE RA 19	2.07E-04				
269	SLD 13	-1.1E-03	-3227.7	SLD 4	-1.4E-03	-4243.6	SLE RA 18	2.51E-04				
270	SLD 9	-1.2E-03	-3523.1	SLE RA 18	-1.5E-03	-4464.6	SLE RA 18	5.86E-04				
272	SLD 5	-1.2E-03	-3500.9	SLE RA 19	-1.5E-03	-4443.7	SLE RA 19	5.80E-04				
273	SLD 2	-1.4E-03	-4126.7	SLD 15	-1.9E-03	-5583.2	SLE RA 19	1.86E-04				
275	SLD 13	-1.1E-03	-3326.7	SLD 4	-1.5E-03	-4431.4	SLE RA 18	2.23E-04				
276	SLD 9	-1.2E-03	-3537.6	SLE RA 18	-1.5E-03	-4521.9	SLE RA 18	5.50E-04				
278	SLD 5	-1.2E-03	-3517	SLE RA 19	-1.5E-03	-4503.1	SLE RA 19	5.45E-04				
279	SLD 6	-1.4E-03	-4065.4	SLD 11	-1.9E-03	-5590.3	SLE RA 19	1.68E-04				
281	SLD 9	-1.2E-03	-3458.2	SLD 8	-1.6E-03	-4740.7	SLE RA 18	1.94E-04				
282	SLD 9	-1.2E-03	-3571.3	SLE RA 18	-1.5E-03	-4607	SLE RA 18	5.06E-04				
284	SLD 5	-1.2E-03	-3552.5	SLE RA 19	-0.00153	-4590.1	SLE RA 19	5.02E-04				
285	SLD 6	-1.3E-03	-3974.9	SLD 11	-1.9E-03	-5628.5	SLE RA 19	0.000146				
287	SLD 9	-1.2E-03	-3649.7	SLD 8	-1.7E-03	-5138.6	SLE RA 18	1.63E-04				
288	SLD 9	-1.2E-03	-3642.7	SLD 8	-1.6E-03	-4751.3	SLE RA 18	4.47E-04				
290	SLD 5	-1.2E-03	-3625.8	SLD 12	-1.6E-03	-4739.6	SLE RA 19	4.43E-04				
291	SLD 6	-1.3E-03	-3896	SLD 11	-1.9E-03	-5687.8	SLE RA 19	0.000117				
292	SLD 9	-1.3E-03	-3929.7	SLD 8	-1.9E-03	-5605.7	SLE RA 18	1.21E-04				
293	SLD 9	-1.2E-03	-3665.7	SLD 8	-1.7E-03	-5174.1	SLE RA 18	1.60E-04				
294	SLD 9	-1.1E-03	-3445.2	SLD 8	-1.6E-03	-4805.1	SLE RA 18	1.89E-04				

Nodo	spostamento nodale massimo			spostamento nodale minimo			Cedimento elastico		Cedimento edometrico		Cedimento di consolidazione	
Ind.	Cont.	uz	Press.	Cont.	uz	Press.	Cont.	v.	Cont.	v.	Cont.	v.
295	SLD 9	-1.1E-03	-3275.7	SLD 8	-1.5E-03	-4511.3	SLE RA 18	0.000213				
296	SLD 9	-1.1E-03	-3159.7	SLD 8	-1.4E-03	-4297.4	SLE RA 18	2.38E-04				
297	SLD 9	-1.0E-03	-3096.6	SLD 8	-1.4E-03	-4163.5	SLE RA 18	2.62E-04				
298	SLD 9	-1.0E-03	-3083.8	SLD 8	-1.4E-03	-4106.3	SLE RA 18	2.87E-04				
299	SLD 9	-1.0E-03	-3116.8	SLD 8	-1.4E-03	-4119.5	SLE RA 18	3.12E-04				
300	SLD 9	-1.1E-03	-3189	SLD 8	-1.4E-03	-4193.5	SLE RA 18	3.38E-04				
301	SLD 9	-1.1E-03	-3291	SLD 8	-1.4E-03	-4314.7	SLE RA 18	3.65E-04				
302	SLD 9	-1.1E-03	-3409.7	SLD 8	-1.5E-03	-4463.9	SLE RA 18	3.93E-04				
303	SLD 9	-1.2E-03	-3526	SLD 8	-1.5E-03	-4613.6	SLE RA 18	4.18E-04				
304	SLD 9	-1.2E-03	-3612.8	SLD 8	-1.6E-03	-4726.4	SLE RA 18	4.35E-04				
305	SLD 9	-1.2E-03	-3634	SLD 8	-1.6E-03	-4755.9	SLE RA 18	4.40E-04				
306	SLD 5	-1.2E-03	-3592.5	SLD 12	-1.6E-03	-4713	SLE RA 19	0.00043				
307	SLD 6	-1.2E-03	-3493.2	SLD 11	-1.5E-03	-4595.2	SLE RA 19	4.08E-04				
308	SLD 6	-1.1E-03	-3370.7	SLD 11	-1.5E-03	-4447.6	SLE RA 19	3.78E-04				
309	SLD 6	-1.1E-03	-3251.5	SLD 11	-1.4E-03	-4306	SLE RA 19	3.47E-04				
310	SLD 6	-1.1E-03	-3153.4	SLD 11	-1.4E-03	-4197.4	SLE RA 19	3.16E-04				
311	SLD 6	-1.0E-03	-3088.7	SLD 11	-1.4E-03	-4140.6	SLE RA 19	2.86E-04				
312	SLD 6	-1.0E-03	-3065.7	SLD 11	-1.4E-03	-4148.5	SLE RA 19	2.58E-04				
313	SLD 6	-1.0E-03	-3089.3	SLD 11	-1.4E-03	-4229.3	SLE RA 19	2.31E-04				
314	SLD 6	-1.1E-03	-3162.1	SLD 11	-1.5E-03	-4387.1	SLE RA 19	0.000206				
315	SLD 6	-1.1E-03	-3283.8	SLD 11	-1.5E-03	-4621.4	SLE RA 19	1.84E-04				
316	SLD 6	-1.2E-03	-3450.6	SLD 11	-1.6E-03	-4926.2	SLE RA 19	1.65E-04				
317	SLD 6	-1.2E-03	-3653.9	SLD 11	-1.8E-03	-5287.9	SLE RA 19	1.41E-04				
318	SLD 6	-1.3E-03	-3878.5	SLD 11	-1.9E-03	-5682.6	SLE RA 19	1.14E-04				
320	SLD 9	-1.3E-03	-3892.8	SLD 8	-1.9E-03	-5612.7	SLE RA 18	1.21E-04				
333	SLD 9	-1.3E-03	-3773.7	SLD 8	-1.7E-03	-5061.6	SLE RA 18	3.72E-04				
335	SLD 5	-1.3E-03	-3757.3	SLD 12	-1.7E-03	-5050.8	SLE RA 19	3.69E-04				
348	SLD 6	-1.3E-03	-3850.9	SLD 11	-1.9E-03	-5800.2	SLE RA 19	1.03E-04				

1.5 Baricentri delle rigidezze

Quota: *quota alla quale è stato valutato il baricentro delle rigidezze. esprimibile come livello, falda, piano orizzontale alla Z specificata. [m]*
Posizione: *posizione in pianta del baricentro delle rigidezze.*
X: *coordinata X. [m]*
Y: *coordinata Y. [m]*
Baricentro masse: *posizione in pianta del baricentro delle masse.*
X: *coordinata X. [m]*
Y: *coordinata Y. [m]*
Distanza: *distanza in pianta tra il baricentro delle rigidezze e il baricentro delle masse.*
X: *coordinata X. [m]*
Y: *coordinata Y. [m]*

Quota	Posizione		Baricentro masse		Distanza	
	X	Y	X	Y	X	Y
Rialzato	-29.51	0.843	-29.475	0.842	-0.036	0.001
Primo	-28.784	-0.778	-29.396	0.084	0.612	-0.862

1.6 Rigidezze di interpiano

Quota inferiore: *quota inferiore dell'interpiano per il quale è stata valutata la rigidezza relativa. esprimibile come livello, falda, piano orizzontale alla Z specificata. [m]*
Quota superiore: *quota superiore dell'interpiano per il quale è stata valutata la rigidezza relativa. esprimibile come livello, falda, piano orizzontale alla Z specificata. [m]*
KUx: *rigidezza relativa alla traslazione in direzione globale X. [daN/m]*
KUy: *rigidezza relativa alla traslazione in direzione globale Y. [daN/m]*

Quota inferiore	Quota superiore	KUx	KUy
Fondazione	Rialzato	71073193	77824685
Rialzato	Primo	35364055	42076870

1.7 Risposta modale

Modo: *identificativo del modo di vibrare.*
Periodo: *periodo. [s]*
Massa X: *massa partecipante in direzione globale X. Il valore è adimensionale.*
Massa Y: *massa partecipante in direzione globale Y. Il valore è adimensionale.*
Massa Z: *massa partecipante in direzione globale Z. Il valore è adimensionale.*
Massa rot. X: *massa rotazionale partecipante attorno la direzione globale X. Il valore è adimensionale.*
Massa rot. Y: *massa rotazionale partecipante attorno la direzione globale Y. Il valore è adimensionale.*
Massa rot. Z: *massa rotazionale partecipante attorno la direzione globale Z. Il valore è adimensionale.*
Massa sX: *massa partecipante in direzione Sisma X. Il valore è adimensionale.*
Massa sY: *massa partecipante in direzione Sisma Y. Il valore è adimensionale.*

Totale masse partecipanti:

Traslazione X: 0.998561
Traslazione Y: 0.998918
Traslazione Z: 0
Rotazione X: 0.969458
Rotazione Y: 0.93723
Rotazione Z: 0.983101

Modo	Periodo	Massa X	Massa Y	Massa Z	Massa rot. X	Massa rot. Y	Massa rot. Z	Massa sX	Massa sY
1	2.835305602	0.000000021	0.048127806	0	0.111650311	0.000000032	0.04718818	0.000000021	0.048127806
2	1.292964247	0.000054076	0.000009069	0	0.000020941	0.000072461	0.000192754	0.000054076	0.000009069
3	0.743828057	0.000000001	0.006699347	0	0.018104925	0.000000001	0.006482085	0.000000001	0.006699347
4	0.718336527	0.006888966	0.000405003	0	0.000537072	0.00879668	0.000180633	0.006888966	0.000405003
5	0.545428002	0.000000045	0.003379228	0	0.000143248	0.000000024	0.003324248	0.000000045	0.003379228
6	0.525511022	0.036286322	0.006858027	0	0.009104403	0.04483442	0.006773466	0.036286322	0.006858027
7	0.509721387	0.007597659	0.033747323	0	0.041395954	0.009427566	0.03667291	0.007597659	0.033747323
8	0.504409337	0.001999882	0.004536085	0	0.00254351	0.002538	0.003311254	0.001999882	0.004536085
9	0.486793379	0.000247866	0.000764007	0	0.000416848	0.000346743	0.001708704	0.000247866	0.000764007
10	0.458769428	0	0.001170908	0	0.000043701	0.00000014	0.001002222	0	0.001170908
11	0.454205037	0.030481012	0.000199169	0	0.000177169	0.037809792	0.000723291	0.030481012	0.000199169
12	0.411828417	0.000833016	0.000175942	0	0.000204368	0.000990591	0.000017556	0.000833016	0.000175942
13	0.401476415	0.000403858	0.007236383	0	0.006104993	0.000730333	0.005622701	0.000403858	0.007236383
14	0.374869988	0.003264504	0.000048286	0	0.000232854	0.003527254	0.000043179	0.003264504	0.000048286
15	0.37196835	0.000604948	0.000451873	0	0.00051641	0.000046055	0.000327561	0.000604948	0.000451873
16	0.355546916	0.001180436	0.000014458	0	0.000011948	0.001569224	0.000029247	0.001180436	0.000014458
17	0.351975326	0.002218734	0.002133615	0	0.00404352	0.002577601	0.001384028	0.002218734	0.002133615
18	0.345508897	0.000392832	0.000238398	0	0.00002768	0.000299096	0.00018976	0.000392832	0.000238398
19	0.338643266	0.001131657	0.001555851	0	0.002870451	0.001589609	0.002496696	0.001131657	0.001555851
20	0.321929581	0.003149128	0.001339736	0	0.003284908	0.004079308	0.001144545	0.003149128	0.001339736
21	0.306267508	0.000372673	0.000004157	0	0.000059656	0.000498263	0.000078458	0.000372673	0.000004157
22	0.290804995	0.002878011	0.000760501	0	0.001532132	0.003387709	0.000682464	0.002878011	0.000760501
23	0.28180271	0.000028667	0.000685492	0	0.000496223	0.000062861	0.001131482	0.000028667	0.000685492
24	0.26884296	0.000088317	0.000851025	0	0.000652497	0.000160954	0.000592199	0.000088317	0.000851025
25	0.266324287	0.000000016	0.000241761	0	0.000003784	0.000005756	0.000158302	0.000000016	0.000241761
26	0.239603544	0.014087114	0.00073381	0	0.00084837	0.009157766	0.000864399	0.014087114	0.00073381
27	0.231198412	0.026940995	0.001309427	0	0.001142464	0.004274078	0.001228984	0.026940995	0.001309427
28	0.226360542	0.00236138	0.009797054	0	0.01157243	0.00626832	0.009010237	0.00236138	0.009797054
29	0.223925318	0.024414586	0.000126519	0	0.000023285	0.017760149	0.000151022	0.024414586	0.000126519
30	0.210621146	0.002669601	0.001490444	0	0.00224268	0.007811347	0.00207818	0.002669601	0.001490444
31	0.192734347	0.014111285	0.010055231	0	0.006002141	0.012838945	0.009542883	0.014111285	0.010055231
32	0.192051717	0.015289394	0.015853639	0	0.010920257	0.015686605	0.017174413	0.015289394	0.015853639
33	0.179448079	0.000168244	0.017247884	0	0.010239077	0.000098354	0.017818383	0.000168244	0.017247884
34	0.172550068	0.017096114	0.00016855	0	0.000159251	0.024040271	0.000044092	0.017096114	0.00016855
35	0.144716119	0.00269171	0.277393738	0	0.144065854	0.0035963	0.274481521	0.00269171	0.277393738
36	0.139713048	0.330622599	0.000029372	0	0.000011326	0.268127346	0.000102768	0.330622599	0.000029372
37	0.134433479	0.023152175	0.274898256	0	0.216343624	0.022017098	0.270713169	0.023152175	0.274898256
38	0.132376922	0.307984644	0.031923813	0	0.02213807	0.331472929	0.019449553	0.307984644	0.031923813
39	0.116773713	0.00027044	0.16031689	0	0.259470218	0.000227327	0.141176203	0.00027044	0.16031689
40	0.109944384	0.035181878	0.006420002	0	0.008884075	0.037084223	0.022289659	0.035181878	0.006420002
41	0.087436818	0.000012282	0.008058064	0	0.007340723	0.000039881	0.010453663	0.000012282	0.008058064
42	0.083086614	0.007287067	0.000059686	0	0.000676066	0.000293315	0.002103582	0.007287067	0.000059686
43	0.050423811	0.028587929	0.005658186	0	0.004126088	0.017899927	0.002430958	0.028587929	0.005658186
44	0.048726278	0.029600643	0.010268509	0	0.006113332	0.017457622	0.013108989	0.029600643	0.010268509
45	0.038138033	0.005240663	0.039274332	0	0.041000014	0.005011405	0.041589092	0.005240663	0.039274332
46	0.033483559	0.010685673	0.006200937	0	0.011777475	0.011665662	0.00577995	0.010685673	0.006200937
47	0.014915163	0.000002141	0.000000169	0	0.000007071	0.000006374	0.000014862	0.000002141	0.000000169
48	0.006212155	0.000000009	0.000000031	0	0.000001761	0.000076243	0.000001761	0.000000009	0.000000031
49	0.005225182	0.000000131	0.000000332	0	0.000130139	0.000590791	0.000032263	0.000000131	0.000000332
50	0.003260217	0.000000103	0.000000078	0	0.000042341	0.000377437	0.000002927	0.000000103	0.000000078

1.8 Equilibrio globale forze

***Contributo**: Nome attribuito al sistema risultante.*
***Fx**: Componente X di forza del sistema risultante. [daN]*
***Fy**: Componente Y di forza del sistema risultante. [daN]*
***Fz**: Componente Z di forza del sistema risultante. [daN]*
***Mx**: Componente di momento attorno l'asse X del sistema risultante. [daN*m]*
***My**: Componente di momento attorno l'asse Y del sistema risultante. [daN*m]*
***Mz**: Componente di momento attorno l'asse Z del sistema risultante. [daN*m]*

Bilancio in condizione di carico: Pesi strutturali

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	-0.02	-4.337	-265569.144	-189546.08	-7810398.91	111.86
Reazioni	0.02	4.337	265569.144	189546.08	7810398.91	-111.86
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Permanenti portati

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-61098.696	-51774.03	-1797090.56	0
Reazioni	0	0	61098.696	51774.03	1797090.56	0

Contributo	Fx	Fy	Fz	Mx	My	Mz
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Variabile A

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	-56704.354	-52462.75	-1669070.67	0
Reazioni	0	0	56704.354	52462.75	1669070.67	0
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Vento

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	986.498	0	0	0	3211.21	-959.37
Reazioni	-986.498	0	0	0	-3211.21	959.37
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Sisma X SLV

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	87785.615	0	0	0	332511.08	-67396.47
Reazioni	-87785.615	0	0	0	-332511.08	67396.47
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Sisma Y SLV

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	88864.915	0	-336599.21	0	-2603560.98
Reazioni	0	-88864.915	0	336599.21	0	2603560.98
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Eccentricità Y per sisma X SLV

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	-22854.32
Reazioni	0	0	0	0	0	22854.32
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Eccentricità X per sisma Y SLV

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	23135.31
Reazioni	0	0	0	0	0	-23135.31
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Sisma X SLD

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	38754.264	0	0	0	146791.96	-29753.17
Reazioni	-38754.264	0	0	0	-146791.96	29753.17
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Sisma Y SLD

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	39287.864	0	-148813.11	0	-1151054.39
Reazioni	0	-39287.864	0	148813.11	0	1151054.39
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Eccentricità Y per sisma X SLD

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	-10089.38
Reazioni	0	0	0	0	0	10089.38
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Eccentricità X per sisma Y SLD

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	10228.3
Reazioni	0	0	0	0	0	-10228.3
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Rig Ux

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	1	0	0	0	5.15	-0.08
Reazioni	-1	0	0	0	-5.15	0.08
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Rig Uy

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	1	0	-5.15	0	-29.4
Reazioni	0	-1	0	5.15	0	29.4
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

Bilancio in condizione di carico: Rig Rz

Contributo	Fx	Fy	Fz	Mx	My	Mz
Forze applicate	0	0	0	0	0	0.01
Reazioni	0	0	0	0	0	-0.01
P-Delta	0	0	0	0	0	0
Totale	0	0	0	0	0	0

1.9 Risposta di spettro

Spettro: condizione elementare corrispondente allo spettro.
N.b.: nome breve della condizione elementare.
Fx: componente della forza lungo l'asse X. [daN]
Fy: componente della forza lungo l'asse Y. [daN]
Fz: componente della forza lungo l'asse Z. [daN]
*Mx: componente della coppia attorno all'asse X. [daN*m]*
*My: componente della coppia attorno all'asse Y. [daN*m]*
*Mz: componente della coppia attorno all'asse Z. [daN*m]*
Max X: massima reazione lungo l'asse X.
Valore: valore massimo della reazione. [daN]
Angolo: angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]
Max Y: massima reazione lungo l'asse Y.
Valore: valore massimo della reazione. [daN]
Angolo: angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]
Max Z: massima reazione lungo l'asse Z.
Valore: valore massimo della reazione. [daN]
Angolo: angolo d'ingresso del sisma che provoca il valore massimo della reazione. [deg]

Spettro	Fx	Fy	Fz	Mx	My	Mz	Max X		Max Y		Max Z	
N.b.							Valore	Angolo	Valore	Angolo	Valore	Angolo
SLV X	57000.07	3464.61	0	9376.5964	1.725E05	1.359E05	57000.07	0	53037.33	89	0	0
SLV Y	3464.61	53035.74	0	1.460E05	1.184E04	1.548E06	57000.07	0	53037.33	89	0	0
X SLD	25079.33	1516.1	0	4083.0125	7.588E04	5.954E04	25079.33	179	23352.7	89	0	0
Y SLD	1516.1	23351.88	0	6.421E04	5184.7706	6.815E05	25079.33	179	23352.7	89	0	0

1.10 Annotazioni solutore

Informazioni: informazioni fornite dal solutore al termine del calcolo del modello.

Informazioni

1.11 Statistiche soluzione

Tipo di equazioni	Lineari
Tecnica di soluzione	Intel MKL PARDISO
Numero equazioni	13131
Elemento min. diagonale	545.75906924
Elemento max diagonale	26736116775919.1
Rapporto max/min	48988863919.3368
Elementi non nulli	498246

SIDEL
INGEGNERIA

TABULATI DI CALCOLO – VERIFICHE
CIVICO 29/2
STATO DI PROGETTO

Sommario

1 Verifiche

1.1 Verifica regolarità strutturale

Le unità di misura elencate nel capitolo sono in [m, daN] ove non espressamente specificato.

Livello:
Descr: *descrizione livello.*
Quota: *quota livello. [m]*
Q: *quota livello. [m]*
Qinf: *quota livello precedente. [m]*
Comb: *combinazione.*
A1: *a1 (Distribuzione masse).*
A1n: *a1 numeratore (distanza tra centro massa vs. centro rigidezza [se presente] o centro dell'ingombro del piano). [m]*
A1d: *a1 denominatore (ingombro del piano nella medesima direzione [x o y globale]). [m]*
A1r: *a1 rapporto (distanza centro massa/rigidezza su ingombro del piano).*
A2: *a2 (Distribuzione rigidezze).*
A2n: *a2 numeratore (rigidezza max [x o y globale]).*
A2d: *a2 denominatore (rigidezza min [x o y globale]).*
A2r: *a2 rapporto (rigidezza max/min).*
A3: *a3 (Forma compatta).*
A3n: *a3 numeratore (area convessa). [m²]*
A3d: *a3 denominatore (area piano). [m²]*
A3r: *a3 rapporto (area convessa/area piano).*
B: *b (Rapporto lati).*
Bn: *b numeratore (lato max [x o y globale]). [m]*
Bd: *b denominatore (lato min [x o y globale]). [m]*
Br: *b rapporto (lato max/min).*
C: *c (Rapporto rigidezze piano).*
Cn: *c numeratore (rigidezza elementi verticali).*
Cd: *c denominatore (rigidezza piano).*
Cr: *c rapporto (rigidezza elementi verticali/rigidezza piano).*
E1: *e1 (Variazione masse).*
E1n: *e1 numeratore (massa max). [daN]*
E1d: *e1 denominatore (massa min). [daN]*
E1r: *e1 rapporto (massa max/min).*
E2: *e2 (Riduzione rigidezze).*
E2n: *e2 numeratore (rigidezza relativa alla traslazione KUmax). [daN/m]*
E2d: *e2 denominatore (rigidezza relativa alla traslazione KUmin). [daN/m]*
E2r: *e2 rapporto (variazione massima in decremento Kmax/Kmin).*
E3: *e3 (Incremento rigidezze).*
E3n: *e3 numeratore (rigidezza relativa alla traslazione KUmax). [daN/m]*
E3d: *e3 denominatore (rigidezza relativa alla traslazione KUmin). [daN/m]*
E3r: *e3 rapporto (variazione massima in incremento Kmax/Kmin).*
F: *f (Rapporto Capacità/Domanda).*
Fn: *f numeratore (rapporto capacità/domanda massimo [c/d max]). [daN]*
Fd: *f denominatore (rapporto capacità/domanda minimo [c/d min]). [daN]*
Fr: *f rapporto (variazione massima [rapporto (c/d max)/(c/d min)]).*
G1: *g1 (Rastremazione di piano).*
G1n: *g1 numeratore (L1). [m]*
G1d: *g1 denominatore (L2). [m]*
G1r: *g1 rapporto (L1/L2).*
G2: *g2 (Rastremazione totale).*
G2n: *g2 numeratore (L0). [m]*
G2d: *g2 denominatore (Li). [m]*
G2r: *g2 rapporto (L0/Li).*
Capacità/Domanda in X:
VrdX: *taglio resistente complessivo in direzione X. [daN]*
VedX: *taglio agente complessivo in direzione X). [daN]*
|Rd/Ed|: *|Rd/Ed| (rapporto capacità/domanda in termini di resistenza a taglio).*
Capacità/Domanda in Y:
VrdY: *taglio resistente complessivo in direzione Y. [daN]*
VedY: *taglio agente complessivo in direzione Y). [daN]*

Verifica regolarità strutturale

Controllo regolarità edificio secondo D.M. 17-01-18 (N.T.C.) §7.2.1 - §C7.2.1

Avvertenze

La seguente procedura valuta la regolarità della costruzione secondo quanto indicato nelle NTC 2018 §7.2.1.
Tali valutazioni sono a carattere puramente informativo e vengono condotte sulla base del modello e delle verifiche presenti alla sua generazione, con le limitazioni indicate nella manualistica.
In ogni caso l'impostazione di regolarità della costruzione, in pianta ed elevazione, va indicata nelle preferenze di analisi dall'utente utilizzatore del software.

Sintesi dei risultati

Orizzontamenti considerati nella valutazione
Livelli di fondazione o di struttura scatolare non dissipativa: Fondazione(L1),
Livelli di elevazione considerati: Rialzato(L2), Primo(L3),

Regolarità in pianta - SI
L'edificio risulta regolare in pianta, in base alle condizioni indicate in NTC 2018 §7.2.1
Ok - Criterio A1 (Distribuzione masse) rispettato, con rapporto massimo 0,09 (limite=0,2) al livello Primo
Ok - Criterio A2 (Distribuzione rigidezze) rispettato, con rapporto massimo 1,19 (limite=1,2) al livello Primo
Ok - Criterio A3 (Forma compatta) rispettato, con rapporto massimo 0,99 (limite=1,05) al livello Primo
Ok - Criterio B (Rapporto lati) rispettato, con rapporto massimo 1,02 (limite=4) al livello Rialzato
Ok - Criterio C (Rapporto rigidezze piano) rispettato, con rapporto massimo 0 (limite=0,1) al livello Rialzato

Regolarità in altezza - NO
L'edificio risulta NON regolare in altezza, in base alle condizioni indicate in NTC 2018 §7.2.1
Ok - Criterio D (Altezza elementi sismoresistenti) rispettato, con rapporto massimo 1 (limite=1,01)
Ok - Criterio E1 (Variazione masse) rispettato, con rapporto massimo 1,04 (limite=1,25) tra il livello Primo ed il precedente
No - Criterio E2 (Riduzione rigidezze) NON rispettato, con rapporto massimo 710731.9/353640.6=2 (limite=1,3) tra il livello Primo ed il precedente
Ok - Criterio E3 (Incremento rigidezze) rispettato, con rapporto massimo 1 (limite=1,1) tra il livello Primo ed il precedente
No - Criterio F (Rapporto Capacità/Domanda) NON rispettato, con rapporto massimo 16.4/9.6=1.7 (limite=1,3) tra il livello Primo ed il precedente
Ok - Criterio G1 (Rastremazione di piano) rispettato, con rapporto massimo 0,01 (limite=0,1) tra il livello Primo ed il precedente
Ok - Criterio G2 (Rastremazione totale) rispettato, con rapporto massimo 0,01 (limite=0,3) tra il livello Primo ed il precedente

Valori per piano

Verifiche di regolarità in pianta

Livello		A1			A2			A3			B			C		
Descr	Quota	A1n	A1d	A1r	A2n	A2d	A2r	A3n	A3d	A3r	Bn	Bd	Br	Cn	Cd	Cr
Rialzato	1.39	0.04	9.81	0	778247	710732	1.09	97.9584	99.9682	0.98	10.03	9.81	1.02	0	+∞	0
Primo	5.15	0.86	9.88	0.09	420769	353641	1.19	95.7597	97.1314	0.99	9.88	9.73	1.02	0	+∞	0

Verifiche di regolarità in elevazione

Rapporto di regolarità per la condizione D (Altezza elementi sismoresistenti): 6.45/6.45=0.01.

Livello			E1			E2			E3			F			G1			G2		
Descr	Q	Qinf	E1n	E1d	E1r	E2n	E2d	E2r	E3n	E3d	E3r	Fn	Fd	Fr	G1n	G1d	G1r	G2n	G2d	G2r
Primo	5.15	1.39	74014	71093	1.04	71073193	35364055	2.01	71073193	71073193	1	16.4	9.6	1.7	0.08	10.03	0.01	0.08	10.03	0.01

Dettaglio delle resistenze di piano a taglio (per valutazione punto F)

Livello			Capacità/Domanda in X			Capacità/Domanda in Y		
Descr	Q	Comb	VrdX	VedX	|Rd/Ed|	VrdY	VedY	|Rd/Ed|
Rialzato	1.39	SLV 1	438277	-47249	9.3	389322	-12081	32.2
Rialzato	1.39	SLV 2	438403	-47249	9.3	389287	-12081	32.2
Rialzato	1.39	SLV 3	439511	-46830	9.4	380954	11295	33.7
Rialzato	1.39	SLV 4	439637	-46830	9.4	380871	11295	33.7
Rialzato	1.39	SLV 5	443181	-14810	29.9	389497	-39080	10
Rialzato	1.39	SLV 6	435933	-14810	29.4	389462	-39080	10
Rialzato	1.39	SLV 7	447296	-13413	33.3	374576	38838	9.6
Rialzato	1.39	SLV 8	447423	-13413	33.4	374492	38838	9.6
Rialzato	1.39	SLV 9	442298	13413	33	389925	-38847	10
Rialzato	1.39	SLV 10	437216	13413	32.6	389890	-38847	10
Rialzato	1.39	SLV 11	446413	14810	30.1	375464	39071	9.6
Rialzato	1.39	SLV 12	446540	14810	30.2	375380	39071	9.6
Rialzato	1.39	SLV 13	437627	46830	9.3	383196	-11303	33.9
Rialzato	1.39	SLV 14	438012	46830	9.4	383161	-11303	33.9
Rialzato	1.39	SLV 15	438417	47249	9.3	383473	12072	31.8
Rialzato	1.39	SLV 16	438802	47249	9.3	383438	12072	31.8
Primo	5.15	SLV 1	248226	-16939	14.7	221985	-4476	49.6
Primo	5.15	SLV 2	251892	-16939	14.9	222023	-4476	49.6
Primo	5.15	SLV 3	253629	-16817	15.1	221980	3950	56.2
Primo	5.15	SLV 4	257294	-16817	15.3	222019	3950	56.2
Primo	5.15	SLV 5	257262	-5266	48.9	222191	-14123	15.7
Primo	5.15	SLV 6	257274	-5266	48.9	222230	-14123	15.7
Primo	5.15	SLV 7	257233	-4860	52.9	228897	13965	16.4
Primo	5.15	SLV 8	257245	-4860	52.9	222215	13965	15.9
Primo	5.15	SLV 9	257229	4860	52.9	222364	-13965	15.9
Primo	5.15	SLV 10	252241	4860	51.9	222403	-13965	15.9
Primo	5.15	SLV 11	257199	5266	48.8	222349	14123	15.7
Primo	5.15	SLV 12	257211	5266	48.8	222388	14123	15.7
Primo	5.15	SLV 13	252180	16817	15	222560	-3950	56.3
Primo	5.15	SLV 14	252191	16817	15	222599	-3950	56.4
Primo	5.15	SLV 15	252171	16939	14.9	224074	4476	50.1
Primo	5.15	SLV 16	252183	16939	14.9	224112	4476	50.1

1.2 Verifiche travate C.A.

Le unità di misura elencate nel capitolo sono in [m, daN, deg] ove non espressamente specificato.

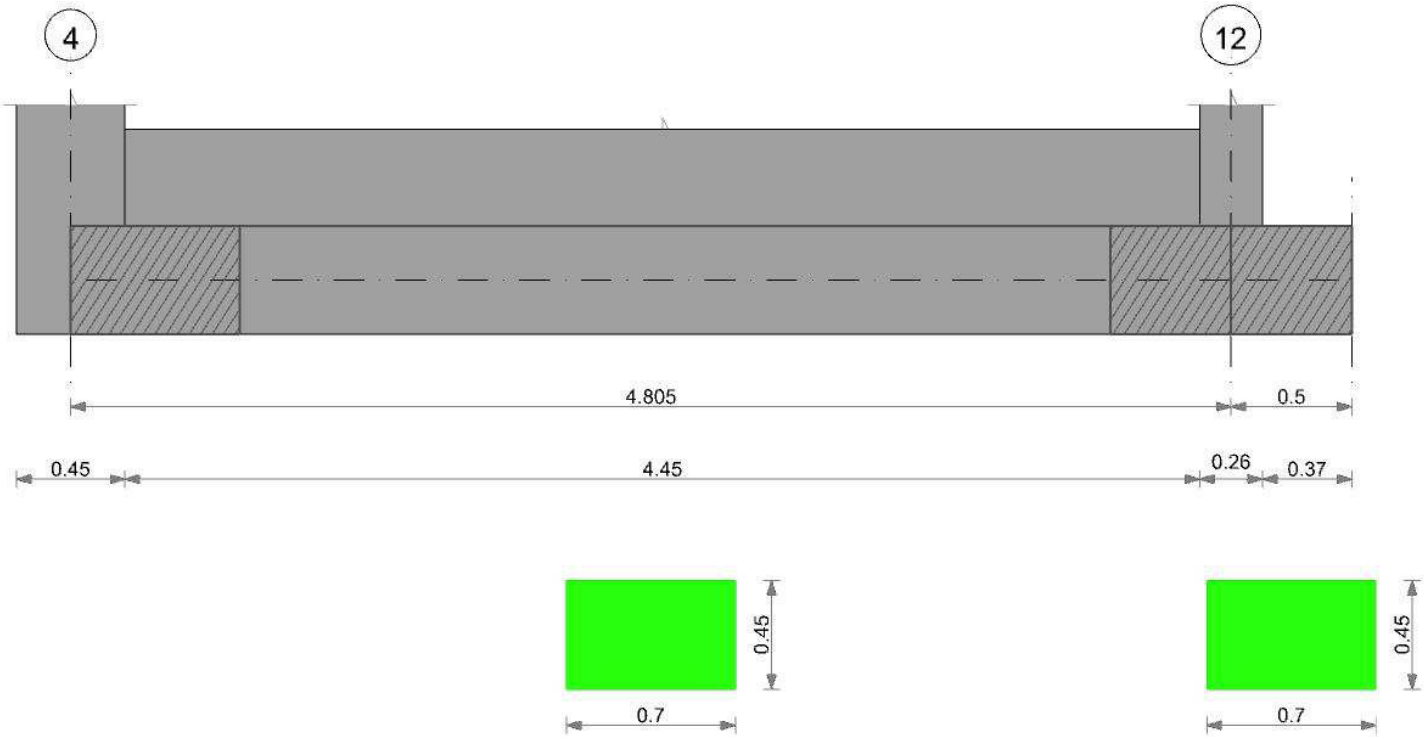
N°: *indice progressivo della sezione.*
Descrizione: *descrizione della sezione.*
Tipo: *tipo di sezione.*
Base: *base della sezione. [m]*
Altezza: *altezza della sezione. [m]*
Copriferro sup.: *distanza del bordo della staffa dalla superficie superiore del getto. [m]*
Copriferro inf.: *distanza del bordo della staffa dalla superficie inferiore del getto. [m]*
Copriferro lat.: *distanza del bordo della staffa dalle superfici laterali del getto. [m]*
x: *distanza da asse appoggio sinistro. [m]*
A sup.: *area efficace di armatura longitudinale superiore. [m²]*
C.b. sup.: *distanza dal bordo del baricentro dell'armatura longitudinale superiore. [m]*
A inf.: *area efficace di armatura longitudinale inferiore. [m²]*
C.b. inf.: *distanza dal bordo del baricentro dell'armatura longitudinale inferiore. [m]*
M+ela: *momento flettente desunto dal solutore che tende le fibre inferiori. [daN*m]*
Comb.: *combinazione.*
M+des: *momento flettente di progetto che tende le fibre inferiori. [daN*m]*
M+ult: *momento ultimo per trazione delle fibre inferiori. [daN*m]*
x/d: *rapporto tra posizione asse neutro e altezza utile.*
coeff: *coefficiente di sicurezza.*
M-ela: *momento flettente desunto dal solutore che tende le fibre superiori. [daN*m]*
M-des: *momento flettente di progetto che tende le fibre superiori. [daN*m]*
M-ult: *momento ultimo per trazione delle fibre superiori. [daN*m]*
Verifica: *stato di verifica.*
A st: *area di staffe per unità di lunghezza. [m²]*
A sl: *area di armatura longitudinale tesa per valutazione resistenza taglio in assenza di armature a taglio. [m²]*
A sag: *area equivalente di barre piegate per unità di lunghezza. [m²]*
Vela: *taglio elastico. [daN]*
Vdes: *taglio di progetto. [daN]*
Vrd: *resistenza a taglio della sezione senza armature. [daN]*
Vrcd: *sforzo di taglio che produce il cedimento delle bielle. [daN]*
Vrsd: *resistenza a taglio per la presenza delle armature. [daN]*
Vult: *taglio ultimo. [daN]*
cotgϑ: *cotg dell'angolo di inclinazione dei puntoni in calcestruzzo.*
Rara: *famiglia di combinazione di verifica.*
Mela: *momento elastico. [daN*m]*
Mdes: *momento di progetto. [daN*m]*
σ c: *tensione di compressione nel calcestruzzo. [daN/m²]*
σ c lim.: *tensione limite di compressione nel calcestruzzo. [daN/m²]*
σ f.: *tensione di trazione nell'acciaio. [daN/m²]*
σ f lim.: *tensione limite di trazione nell'acciaio. [daN/m²]*
σ c limite: *tensione di compressione limite nel calcestruzzo. [daN/m²]*
σ f: *tensione di trazione nell'acciaio. [daN/m²]*
σ f limite: *tensione di trazione limite nell'acciaio. [daN/m²]*
Quasi permanente: *famiglia di combinazione di verifica.*
σ FRP: *tensione di trazione nell'FRP. [daN/m²]*
σ FRP lim.: *tensione limite di trazione nell'FRP. [daN/m²]*
T gravità: *taglio dovuto ai carichi gravitazionali. [daN]*
T sisma: *taglio dovuto a sisma. [daN]*
T ultimo: *taglio ultimo. [daN]*
Comb.: *combinazione per indicatore minimo per taglio.*
Pga: *pga per taglio.*
Tr: *tempo di ritorno per taglio.*
Ind. taglio: *indicatore di rischio per taglio.*
M gravità: *momento dovuto ai carichi gravitazionali. [daN*m]*
M sisma: *momento dovuto a sisma. [daN*m]*
M ultimo: *momento ultimo. [daN*m]*
Comb.: *combinazione per indicatore minimo per momento.*
Pga: *pga per momento.*
Tr: *tempo di ritorno per momento.*
Ind. momento: *indicatore di rischio per momento.*
Ver: *stato di verifica.*
d: *altezza utile. [m]*
Af: *area di armatura inferiore per unità di lunghezza. [m]*
M: *momento flettente. [daN*m/m]*
Comb: *combinazione.*

***Mult**: momento ultimo. [daN*m/m]*
***V**: sforzo di taglio. [daN/m]*
***Vult**: sforzo di taglio ultimo. [daN/m]*
***Af**: area di armatura. [m²]*
***Aste**: numero delle aste del tratto in verifica.*
***Size X**: misura dell'impronta al suolo lungo la direzione X locale. [m]*
***Size Y**: misura dell'impronta al suolo lungo la direzione Y locale. [m]*
***Type**: indicazione del tipo di combinazione statica o sismica.*
***Cond**: indicazione della condizione di carico (BT breve termine o LT lungo termine).*
***γR**: coefficiente parziale sulla resistenza di progetto.*
***Rd**: resistenza di progetto. [daN]*
***Ed**: azione di progetto. [daN]*
***Rd/Ed**: coefficiente di sicurezza alla capacità portante.*
***Fx**: componente orizzontale del carico lungo x. [daN]*
***Fy**: componente orizzontale del carico lungo y. [daN]*
***Fz**: componente verticale del carico. [daN]*
***Mx**: momento risultante agente attorno x. [daN*m]*
***My**: momento risultante agente attorno y. [daN*m]*
***Inc.x**: inclinazione del carico lungo x. [deg]*
***Inc.y**: inclinazione del carico lungo y. [deg]*
***Ecc.x**: eccentricità del carico lungo x. [m]*
***Ecc.y**: eccentricità del carico lungo y. [m]*
***B'**: larghezza efficace. [m]*
***L'**: lunghezza efficace. [m]*
***qd**: sovraccarico di progetto. [daN/m²]*
***γs**: peso specifico di progetto del suolo. [daN/m³]*
***Fi**: angolo di attrito di progetto. [deg]*
***Coes**: coesione di progetto. [daN/m²]*
***Amax**: accelerazione normalizzata max al suolo.*
***N**:*
***Nq**: fattore di capacità portante per il termine di sovraccarico.*
***Nc**: fattore di capacità portante per il termine coesivo.*
***Ng**: fattore di capacità portante per il termine attritivo.*
***S**:*
***Sq**: fattore correttivo di capacità portante per forma (shape), per il termine di sovraccarico.*
***Sc**: fattore correttivo di capacità portante per forma (shape), per il termine coesivo.*
***Sg**: fattore correttivo di capacità portante per forma (shape), per il termine attritivo.*
***D**:*
***Dq**: fattore correttivo di capacità portante per approfondimento (deep), per il termine di sovraccarico.*
***Dc**: fattore correttivo di capacità portante per approfondimento (deep), per il termine coesivo.*
***Dg**: fattore correttivo di capacità portante per approfondimento (deep), per il termine attritivo.*
***I**:*
***Iq**: fattore correttivo di capacità portante per inclinazione del carico, per il termine di sovraccarico.*
***Ic**: fattore correttivo di capacità portante per inclinazione del carico, per il termine coesivo.*
***Ig**: fattore correttivo di capacità portante per inclinazione del carico, per il termine attritivo.*
***B**:*
***Bq**: fattore correttivo di capacità portante per inclinazione della base, per il termine di sovraccarico.*
***Bc**: fattore correttivo di capacità portante per inclinazione della base, per il termine coesivo.*
***Bg**: fattore correttivo di capacità portante per inclinazione della base, per il termine attritivo.*
***G**:*
***Gq**: fattore correttivo di capacità portante per inclinazione del pendio, per il termine di sovraccarico.*
***Gc**: fattore correttivo di capacità portante per inclinazione del pendio, per il termine coesivo.*
***Gg**: fattore correttivo di capacità portante per inclinazione del pendio, per il termine attritivo.*
***P**:*
***Pq**: fattore correttivo di capacità portante per punzonamento, per il termine di sovraccarico.*
***Pc**: fattore correttivo di capacità portante per punzonamento, per il termine coesivo.*
***Pg**: fattore correttivo di capacità portante per punzonamento, per il termine attritivo.*
***E**:*
***Eq**: fattore correttivo di capacità portante per sisma (earthquake), per il termine di sovraccarico.*
***Ec**: fattore correttivo di capacità portante per sisma (earthquake), per il termine coesivo.*
***Eg**: fattore correttivo di capacità portante per sisma (earthquake), per il termine attritivo.*
***Tipo**: tipologia di cedimento considerato (E = elastico, D = edometrico, Z = consolidazione primaria).*
***Assoluto**: cedimento assoluto massimo.*
***Sa adm**: cedimento assoluto ammissibile. [m]*
***Sa**: cedimento assoluto massimo. [m]*
***Nodo**: nodo dove avviene il cedimento assoluto massimo.*
***Differenziale**: cedimento differenziale massimo.*
***Sd adm**: cedimento differenziale ammissibile. [m]*
***Sd**: cedimento differenziale massimo. [m]*
***Nodo I**: nodo dove avviene il cedimento differenziale massimo.*
***Nodo j**: nodo dove avviene il cedimento differenziale massimo.*
***Relativo**: cedimento relativo massimo.*

***Sr adm**: cedimento relativo ammissibile. [m]*
***Sr**: cedimento relativo massimo. [m]*
***Nodo**: nodo dove avviene il cedimento relativo massimo.*
***Rapp. inflessione**: rapporto di inflessione (cedimento relativo max su lunghezza complessiva tratta).*
***RI adm**: rapporto di inflessione ammissibile.*
***RI**: rapporto di inflessione (cedimento relativo max su lunghezza complessiva tratta).*
***Rotazione rigida**: rotazione rigida valutata tra primo ed ultimo punto.*
***RR adm**: rotazione rigida ammissibile. [deg]*
***RR**: rotazione rigida massima (tra primo ed ultimo punto). [deg]*
***Rotazione assoluta**: rotazione assoluta dei singoli tratti.*
***R Adm**: rotazione assoluta ammissibile. [deg]*
***R Max**: rotazione assoluta massima. [deg]*
***Nodo I**: dal nodo.*
***Nodo J**: al nodo.*
***Distorsione angolare positiva**: distorsione angolare positiva (concavità verso l'alto).*
***D+ adm**: distorsione angolare ammissibile. [deg]*
***D+**: distorsione angolare massima positiva (concavità verso l'alto). [deg]*
***Nodo**: nodo dove avviene la distorsione angolare massima positiva (concavità verso l'alto).*
***Distorsione angolare negativa**: distorsione angolare negativa (concavità verso il basso).*
***D- adm**: distorsione angolare ammissibile. [deg]*
***D-**: distorsione angolare massima negativa (concavità verso il basso). [deg]*
***Nodo**: nodo dove avviene la distorsione angolare massima negativa (concavità verso il basso).*

CORDOLO 1

Geometria



Caratteristiche dei materiali

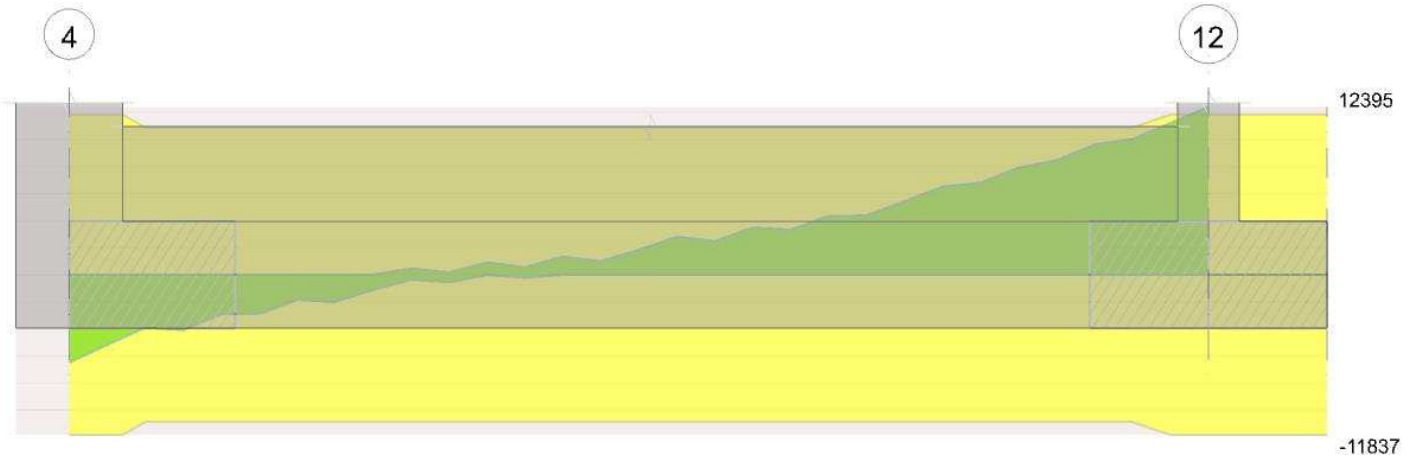
Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x45	Rettangolare	0.7	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 4 - 12, sezione R 70x45, aste 64, 63, 62, 61, 60, 59, 58, 57, 56, 55, 54, 53, 52

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1723	SLU 81	0.017	2713	4447	SLU 81	15877	Si
0.23	0.41	0.0002	1624	SLU 81	0.017	2713	4191	SLU 81	15877	Si
2.4	0.41	0.0002	1203	SLU 81	0.017	2713	3104	SLU 81	15877	Si
4.68	0.41	0.0002	1506	SLU 81	0.017	2713	3887	SLU 81	15877	Si
4.81	0.41	0.0002	1506	SLU 82	0.017	2713	3886	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.0000017	1253	SLE RA 18	36293	1494000	450033	36000000	1094	SLE QP 2	31678	1120500	Si
0.23	0.41	0.0000017	1181	SLE RA 18	34187	1494000	423923	36000000	1029	SLE QP 2	29791	1120500	Si
2.4	0.41	0.0000017	869	SLE RA 18	25161	1494000	311992	36000000	743	SLE QP 2	21521	1120500	Si
4.68	0.41	0.0000017	1086	SLE RA 18	31445	1494000	389916	36000000	922	SLE QP 2	26712	1120500	Si
4.81	0.41	0.0000017	1085	SLE RA 19	31431	1494000	389741	36000000	922	SLE QP 2	26697	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	28	15	159	SLV 8	0.36	1618	1.653	10.94	5.72	26.39	SLV 8	0.36	1618	1.653	Si
0.23	27	14	159	SLV 8	0.36	1618	1.653	10.29	5.37	26.39	SLV 8	0.36	1618	1.653	Si
2.4	19	9	159	SLV 8	0.36	1618	1.653	7.43	3.45	26.39	SLV 8	0.36	1618	1.653	Si
4.68	24	10	159	SLV 8	0.36	1618	1.653	9.22	3.83	26.39	SLV 8	0.36	1618	1.653	Si
4.81	24	10	159	SLV 8	0.36	1618	1.653	9.22	3.83	26.39	SLV 8	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
64,63,62,61,60,59,58,57,56,55,54,53,52	5.03	1.3	SLU 81	ST	BT	2.3	235489	43786	5.38	Si
64,63,62,61,60,59,58,57,56,55,54,53,52	5.03	1.3	SLV 8	SIS	BT	2.3	203076	37667	5.39	Si
64,63,62,61,60,59,58,57,56,55,54,53,52	5.03	1.3	SLD 8	SIS	BT	2.3	219666	33078	6.64	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	-186	-43786	-3782.45	-653.05	0	0	-0.01	-0.09	1.13	5	1496	2060	0	14430	
0	3719	-37667	-5507.7	-2326.01	0	6	-0.06	-0.15	1.01	4.91	1496	2060	0	14430	0.07
0	1547	-33078	-3802.19	-1416.59	0	3	-0.04	-0.11	1.07	4.94	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.05	0	0	0.23	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.04	0	0	0.23	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.04	0	0	0.23	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

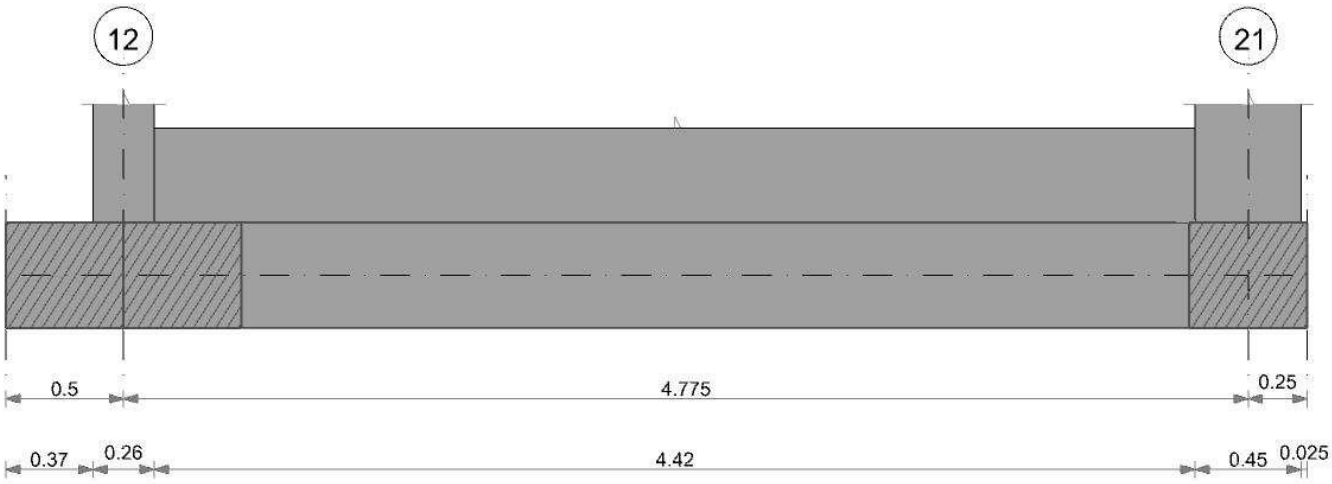
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0	305	SLE RA 18	0.05	0	305	292	SLE RA 19	0.05	0	305	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	305	SLE RA 1	0.05	0	305	305	SLE RA 1	0.05	0	305	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	305	SLE RA 1	0.05	0	305	305	SLE RA 1	0.05	0	305	SLE RA 1	0.0033	0	SLE RA 1	Si

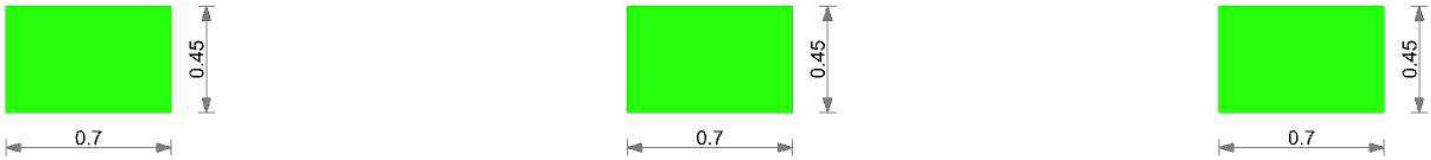
Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 19	0.19	0	305	292	SLE RA 19	0.19	0	305	SLE RA 1	0.1	0	305	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	305	292	SLE RA 1	0.19	0	305	SLE RA 1	0.1	0	305	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	305	292	SLE RA 1	0.19	0	305	SLE RA 1	0.1	0	305	SLE RA 1	Si

CORDOLO 2

Geometria





Caratteristiche dei materiali

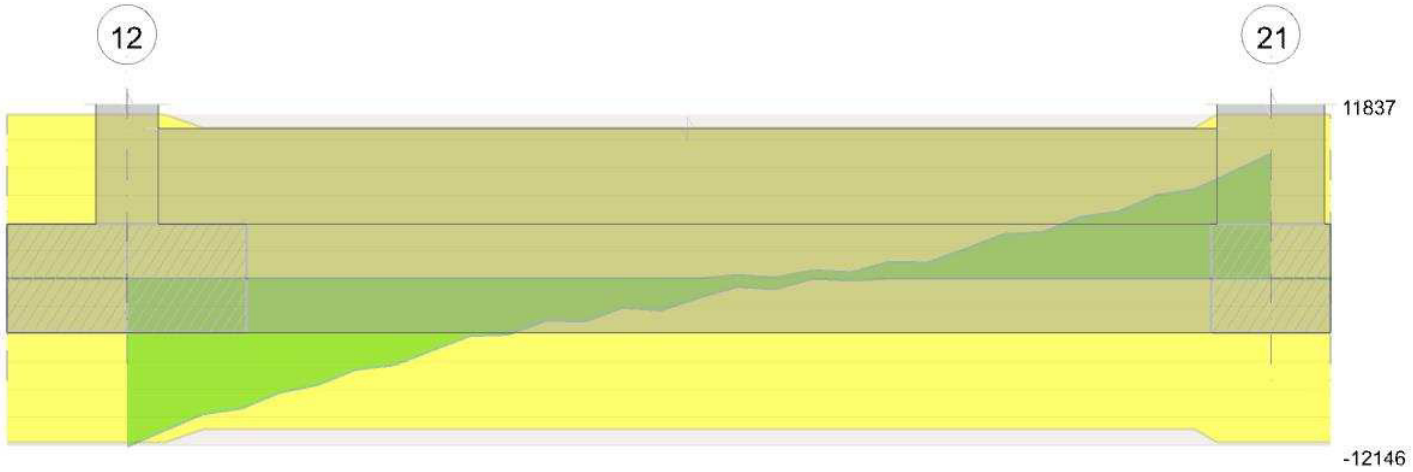
Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x45	Rettangolare	0.7	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 12 - 21, sezione R 70x45, aste 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1510	SLU 82	0.017	2730	3892	SLU 82	15877	Si
0.13	0.41	0.0002	1508	SLU 82	0.017	2730	3886	SLU 82	15877	Si
2.39	0.41	0.0002	1206	SLU 82	0.017	2730	3109	SLU 82	15877	Si
4.55	0.41	0.0002	1620	SLV 11	0.085	2655	4226	SLU 82	15877	Si
4.78	0.41	0.0002	1713	SLV 11	0.085	2655	4450	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000171	1089	SLE RA 19	31521	1494000	390858	36000000	925	SLE QP 2	26774	1120500	Si
0.13	0.41	0.00000171	1087	SLE RA 19	31469	1494000	390222	36000000	923	SLE QP 2	26726	1120500	Si
2.39	0.41	0.00000171	871	SLE RA 19	25228	1494000	312825	36000000	745	SLE QP 2	21585	1120500	Si
4.55	0.41	0.00000171	1192	SLE RA 19	34513	1494000	427965	36000000	1040	SLE QP 2	30123	1120500	Si
4.78	0.41	0.00000171	1256	SLE RA 19	36360	1494000	450866	36000000	1098	SLE QP 2	31784	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	24	10	159	SLV 8	0.36	1618	1.653	9.25	3.84	26.55	SLV 8	0.36	1618	1.653	Si
0.13	24	10	159	SLV 12	0.36	1618	1.653	9.23	3.84	26.55	SLV 12	0.36	1618	1.653	Si
2.39	19	9	159	SLV 11	0.36	1618	1.653	7.45	3.64	26.55	SLV 11	0.36	1618	1.653	Si
4.55	27	15	159	SLV 11	0.36	1618	1.653	10.4	5.8	26.55	SLV 11	0.36	1618	1.653	Si
4.78	28	16	159	SLV 11	0.36	1618	1.653	10.98	6.15	26.55	SLV 11	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
104,105,106,107,108,109,110,111,112,113,114,115,116	4.78	1.3	SLU 82	ST	BT	2.3	232307	43321	5.36	Si
104,105,106,107,108,109,110,111,112,113,114,115,116	4.78	1.3	SLV 11	SIS	BT	2.3	199082	37707	5.28	Si
104,105,106,107,108,109,110,111,112,113,114,115,116	4.78	1.3	SLD 11	SIS	BT	2.3	215896	32914	6.56	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	-597	-43321	-2899.53	318.71	0	-1	0.01	-0.07	1.17	4.76	1496	2060	0	14430	
0	3700	-37707	-4905.55	2391.45	0	6	0.06	-0.13	1.04	4.65	1496	2060	0	14430	0.07
0	1394	-32914	-3225.28	1328.05	0	2	0.04	-0.1	1.1	4.69	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.05	0	0	0.23	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.04	0	0	0.23	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.05	0	0	0.23	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

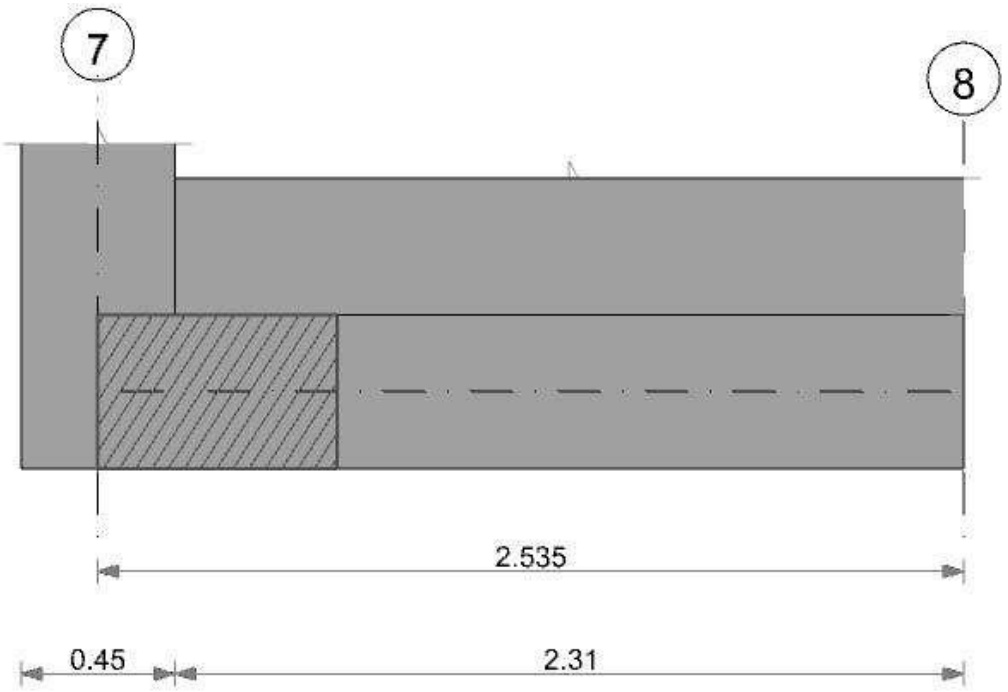
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0	305	SLE RA 18	0.05	0	305	318	SLE RA 18	0.05	0	318	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	318	SLE RA 1	0.05	0	318	318	SLE RA 1	0.05	0	318	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	318	SLE RA 1	0.05	0	318	318	SLE RA 1	0.05	0	318	SLE RA 1	0.0033	0	SLE RA 1	Si

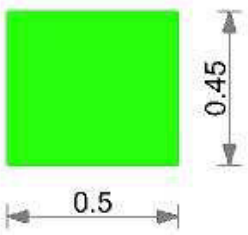
Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 18	0.19	0	318	305	SLE RA 18	0.19	0	318	SLE RA 1	0.1	0	318	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	318	305	SLE RA 1	0.19	0	318	SLE RA 1	0.1	0	318	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	318	305	SLE RA 1	0.19	0	318	SLE RA 1	0.1	0	318	SLE RA 1	Si

CORDOLO 3

Geometria





Caratteristiche dei materiali

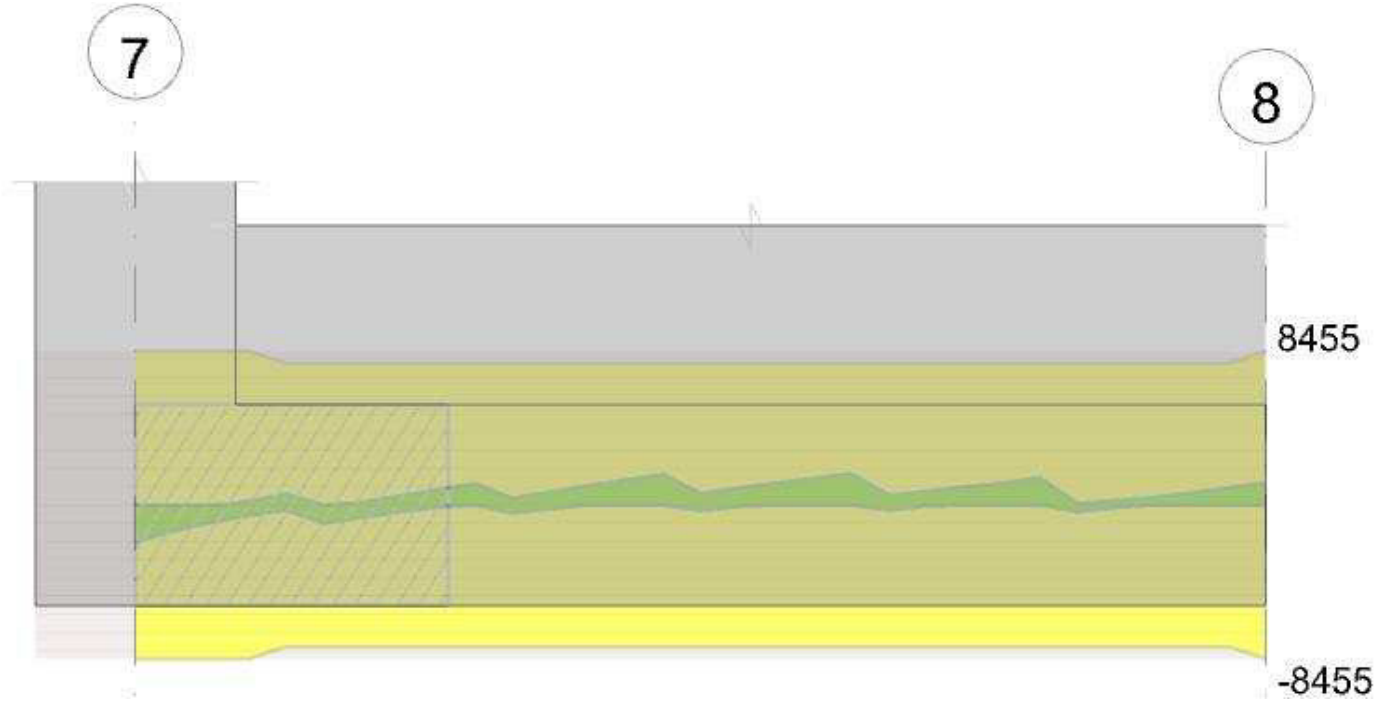
Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 7 - 8, sezione R 50x45, aste 192, 191, 190, 189, 188, 187

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	928	SLU 81	0.018	2908	3228	SLU 81	15877	Si
0.23	0.41	0.0002	842	SLU 81	0.018	2908	2928	SLU 81	15877	Si
1.27	0.41	0.0002	556	SLU 81	0.018	2908	1933	SLU 81	15877	Si
2.54	0.41	0.0002	348	SLU 82	0.018	2908	1211	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000182	677	SLE RA 18	19561	1494000	242562	36000000	595	SLE QP 2	17215	1120500	Si
0.23	0.41	0.00000182	613	SLE RA 18	17729	1494000	219838	36000000	539	SLE QP 2	15578	1120500	Si
1.27	0.41	0.00000182	404	SLE RA 18	11668	1494000	144685	36000000	352	SLE QP 2	10181	1120500	Si
2.54	0.41	0.00000182	252	SLE RA 19	7277	1494000	90235	36000000	216	SLE QP 2	6257	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	21	8	159	SLV 4	0.36	1618	1.653	5.95	2.41	28.26	SLV 4	0.36	1618	1.653	Si
0.23	19	7	159	SLV 4	0.36	1618	1.653	5.39	2.06	28.26	SLV 4	0.36	1618	1.653	Si
1.27	12	2	159	SLV 4	0.36	1618	1.653	3.52	0.67	28.26	SLV 4	0.36	1618	1.653	Si
2.54	8	4	159	SLV 15	0.36	1618	1.653	2.16	1.1	28.26	SLV 15	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
192,191,190,189,188,187	2.76	1.1	SLU 81	ST	BT	2.3	100712	16867	5.97	Si
192,191,190,189,188,187	2.76	1.1	SLV 1	SIS	BT	2.3	89294	12521	7.13	Si
192,191,190,189,188,187	2.76	1.1	SLD 1	SIS	BT	2.3	96505	12036	8.02	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
609	540	-16867	1685.69	-1708.45	2	2	-0.1	0.1	0.9	2.56	1496	2060	0	14430	
-893	-13	-12521	1363.34	-2855.73	-4	0	-0.23	0.11	0.88	2.3	1496	2060	0	14430	0.07
-180	195	-12036	1224.46	-1883.7	-1	1	-0.16	0.1	0.9	2.45	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.07	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.08	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.07	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

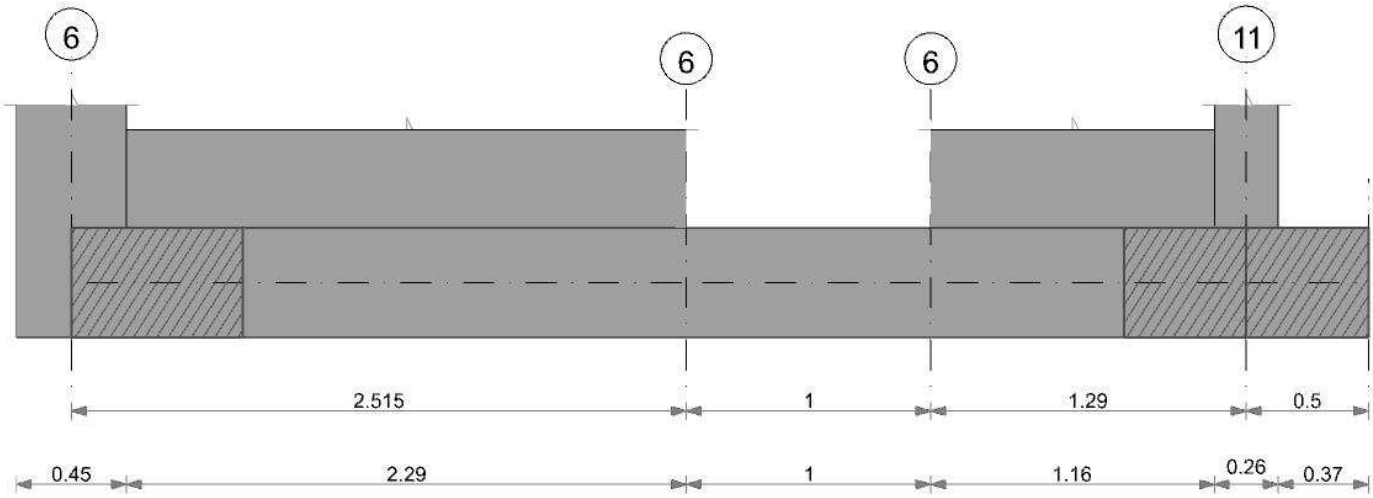
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	231	SLE RA 18	0.05	0	231	225	SLE RA 19	0.05	0	231	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	231	SLE RA 1	0.05	0	231	231	SLE RA 1	0.05	0	231	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	231	SLE RA 1	0.05	0	231	231	SLE RA 1	0.05	0	231	SLE RA 1	0.0033	0	SLE RA 1	Si

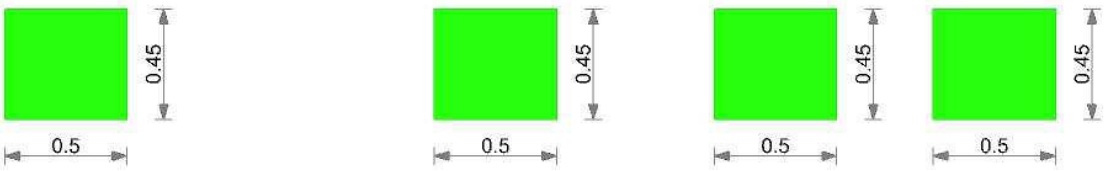
Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0.01	SLE RA 19	0.19	0.01	231	225	SLE RA 19	0.19	0	231	SLE RA 1	0.1	0	231	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	231	225	SLE RA 1	0.19	0	231	SLE RA 1	0.1	0	231	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	231	225	SLE RA 1	0.19	0	231	SLE RA 1	0.1	0	231	SLE RA 1	Si

CORDOLO 4

Geometria





Caratteristiche dei materiali

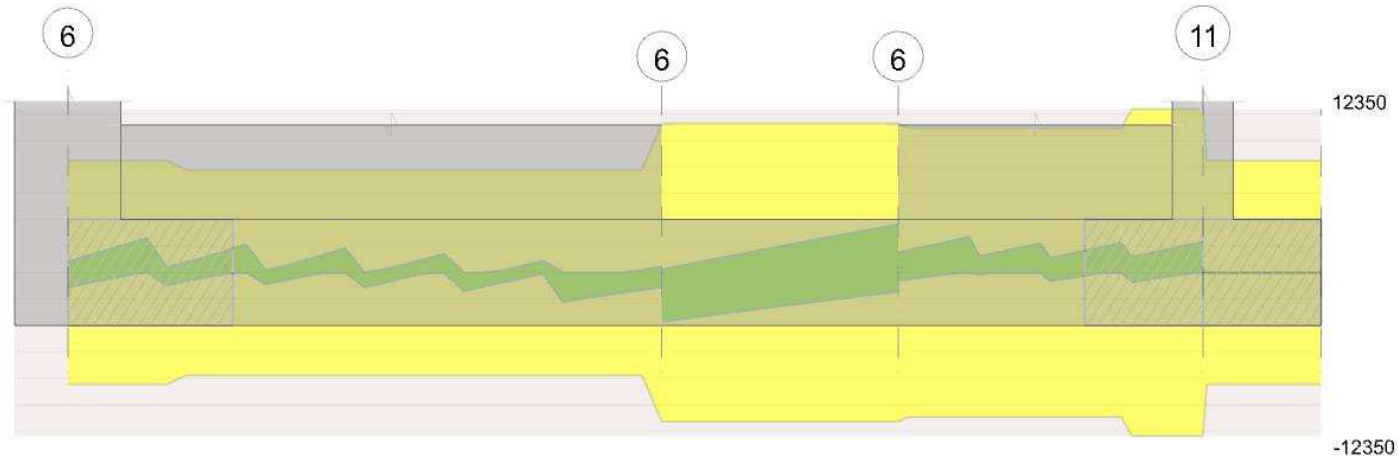
Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

Diagramma verifica stato limite ultimo taglio



Output campate

Campata 2 tra i fili 6 - 6, sezione R 50x45, asta 175

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000509	0.052							-1188.07	SLU 39	-1440.82	-7755.45	0.113	5.38	Si
0.27	0.000509	0.052	0.000509	0.052							-1514.17	SLU 81	-1557.58	-7755.45	0.113	4.98	Si
0.5	0.000509	0.052	0.000509	0.052							-1537.33	SLU 81	-1557.58	-7755.45	0.113	4.98	Si
1	0.000509	0.052	0.000509	0.052							-1189.38	SLU 44	-1247.22	-7755.45	0.113	6.22	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

La struttura oppure parte di essa, è stata dichiarata come non dissipativa pertanto la verifica a pressoflessione, per tutte o solo alcune sezioni, viene eseguita calcolando i momenti resistenti in campo sostanzialmente elastico secondo D.M. 17-01-2018 §7.4.1

Le dilatazioni ultime utilizzate sono le seguenti: εc2= 0.002, εyd= 0.0019

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000509	0.052	820.09	SLV 15	820.09	7266.79	0.197	8.86	-1784.11	SLV 2	-1784.11	-7266.79	0.197	4.07	Si
0.5	0.000509	0.052	0.000509	0.052							-1239.54	SLV 1	-1531.51	-7266.79	0.197	4.74	Si
1	0.000509	0.052	0.000509	0.052	167.79	SLV 2	167.79	7266.79	0.197	43.31	-1728.9	SLV 15	-1728.9	-7266.79	0.197	4.2	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.000008	0.000509	0	-2560	SLU 44	-2560	-7764	-63178	-11273	-11273	1	4.4	Si
0.5	0.000008	0.000509	0	722	SLU 39	722	7764	63178	11273	11273	1	15.62	Si
0.5	0.000008	0.000509	0	-938	SLU 44	-938	-7764	-63178	-11273	-11273	1	12.02	Si
1	0.000008	0.000509	0	2637	SLU 39	2637	7764	63178	11273	11273	1	4.27	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.000008	0.000509	0	215	SLV 2	215	7764	63178	11273	11273	1	52.48	Si
0	0.000008	0.000509	0	-3716	SLV 15	-3716	-7764	-63178	-11273	-11273	1	3.03	Si
0.5	0.000008	0.000509	0	1966	SLV 2	1966	7764	63178	11273	11273	1	5.73	Si
0.5	0.000008	0.000509	0	-2537	SLV 15	-2537	-7764	-63178	-11273	-11273	1	4.44	Si
1	0.000008	0.000509	0	3629	SLV 2	3629	7764	63178	11273	11273	1	3.11	Si
1	0.000008	0.000509	0	-1427	SLV 15	-1427	-7764	-63178	-11273	-11273	1	7.9	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-785.14	18	-1001.65	52981	1494000	794708	36000000	-482.01	2	-746.98	39510	1120500			Si
0.5	-1122.04	18	-1125.37	59525	1494000	892872	36000000	-987.04	2	-1001.42	52969	1120500			Si
1	-859.76	2	-957.02	50620	1494000	759298	36000000	-839.47	1	-945.49	50010	1120500			Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	-1751	-1966	-11273	SLV 15	0.36	1618	1.653	-482.01	-1302.1	-7266.79	SLV 2	0.36	1618	1.653	Si
0.5	-285	-2252	-11273	SLV 15	0.36	1618	1.653	-889.69	-641.81	-7266.79	SLV 2	0.36	1618	1.653	Si
1	1101	2528	11273	SLV 2	0.36	1618	1.653	-780.55	-948.35	-7266.79	SLV 15	0.36	1618	1.653	Si

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 6 - 6, sezione R 50x45, aste 181, 180, 179, 178, 177, 176

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1172	SLU 81	0.018	2929	3605	SLU 81	15877	Si
0.23	0.41	0.0002	1113	SLU 81	0.018	2929	3425	SLU 81	15877	Si
1.26	0.41	0.0002	908	SLU 81	0.018	2929	2793	SLU 81	15877	Si
2.52	0.41	0.0004	738	SLU 81	0.034	6379	2270	SLU 81	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000183	854	SLE RA 18	24689	1494000	306138	36000000	751	SLE QP 2	21718	1120500	Si
0.23	0.41	0.00000183	811	SLE RA 18	23438	1494000	290634	36000000	712	SLE QP 2	20589	1120500	Si
1.26	0.41	0.00000183	659	SLE RA 18	19046	1494000	236172	36000000	574	SLE QP 2	16587	1120500	Si
2.52	0.41	0.00000402	531	SLE RA 18	14914	1494000	184936	36000000	452	SLE QP 2	12706	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	23	11	159	SLV 1	0.36	1618	1.653	7.51	3.66	28.46	SLV 1	0.36	1618	1.653	Si
0.23	22	10	159	SLV 1	0.36	1618	1.653	7.12	3.33	28.46	SLV 1	0.36	1618	1.653	Si
1.26	18	6	159	SLV 1	0.36	1618	1.653	5.74	2.05	28.46	SLV 1	0.36	1618	1.653	Si
2.52	14	4	159	SLV 1	0.36	1618	1.653	4.52	1.19	61.33	SLV 1	0.36	1618	1.653	Si

Campata 2 tra i fili 6 - 6, sezione R 50x45, asta 175

Campata 3 tra i fili 6 - 11, sezione R 50x45, aste 174, 173, 172, 171

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	667	SLU 81	0.034	6379	2052	SLU 81	15877	Si
0.65	0.41	0.0004	650	SLU 81	0.033	6184	2001	SLU 81	15877	Si
1.16	0.41	0.0004	640	SLU 81	0.033	6184	1968	SLU 81	15877	Si
1.29	0.41	0.0004	636	SLU 81	0.033	6184	1958	SLU 81	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000402	475	SLE RA 18	13337	1494000	165373	36000000	392	SLE QP 2	11004	1120500	Si
0.65	0.41	0.0000039	461	SLE RA 18	12962	1494000	160734	36000000	374	SLE QP 2	10531	1120500	Si
1.16	0.41	0.0000039	452	SLE RA 18	12717	1494000	157695	36000000	364	SLE QP 2	10253	1120500	Si
1.29	0.41	0.0000039	450	SLE RA 18	12646	1494000	156807	36000000	362	SLE QP 2	10182	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	12	3	159	SLV 5	0.36	1618	1.653	3.92	1.13	61.33	SLV 5	0.36	1618	1.653	Si
0.65	12	3	159	SLV 5	0.36	1618	1.653	3.74	1.12	59.47	SLV 5	0.36	1618	1.653	Si
1.16	11	3	159	SLV 5	0.36	1618	1.653	3.64	1.01	59.47	SLV 5	0.36	1618	1.653	Si
1.29	11	3	159	SLV 5	0.36	1618	1.653	3.62	0.97	59.47	SLV 5	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
181,180,179,178,177,176,175,174,173,172,171	5.03	1.1	SLU 81	ST	BT	2.3	224236	33202	6.75	Si
181,180,179,178,177,176,175,174,173,172,171	5.03	1.1	SLV 5	SIS	BT	2.3	193415	25481	7.59	Si
181,180,179,178,177,176,175,174,173,172,171	5.03	1.1	SLD 5	SIS	BT	2.3	208864	23770	8.79	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	-331	-33202	58.59	-4819.94	0	-1	-0.15	0	1.1	4.74	1496	2060	0	14430	
0	-3422	-25481	1608.73	-4470.96	0	-8	-0.18	0.06	0.97	4.68	1496	2060	0	14430	0.07
0	-1633	-23770	739.25	-3982.09	0	-4	-0.17	0.03	1.04	4.69	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.05	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.04	0	0	0.27	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.04	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

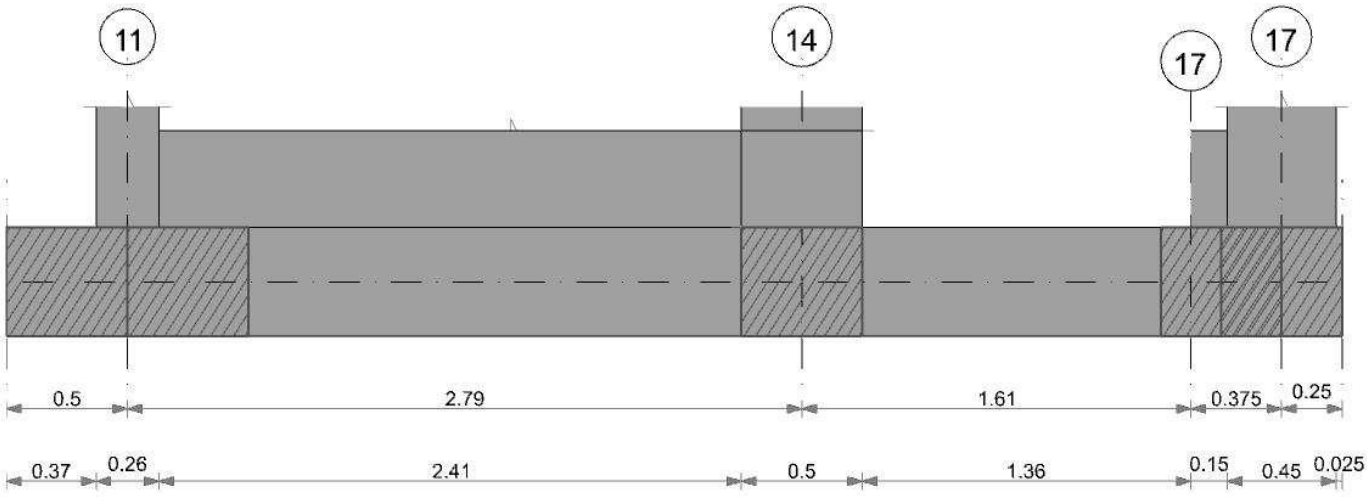
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	178	SLE RA 19	0.05	0	178	167	SLE RA 19	0.05	0	173	SLE RA 18	0.0033	0	SLE RA 1	Si
D	0.05	0	178	SLE RA 1	0.05	0	178	178	SLE RA 1	0.05	0	174	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	178	SLE RA 1	0.05	0	178	178	SLE RA 1	0.05	0	174	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 19	0.19	0.01	173	167	SLE RA 19	0.19	0	173	SLE RA 18	0.1	0	178	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	178	174	SLE RA 1	0.19	0	178	SLE RA 1	0.1	0	174	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	178	174	SLE RA 1	0.19	0	178	SLE RA 1	0.1	0	174	SLE RA 1	Si

CORDOLO 5

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

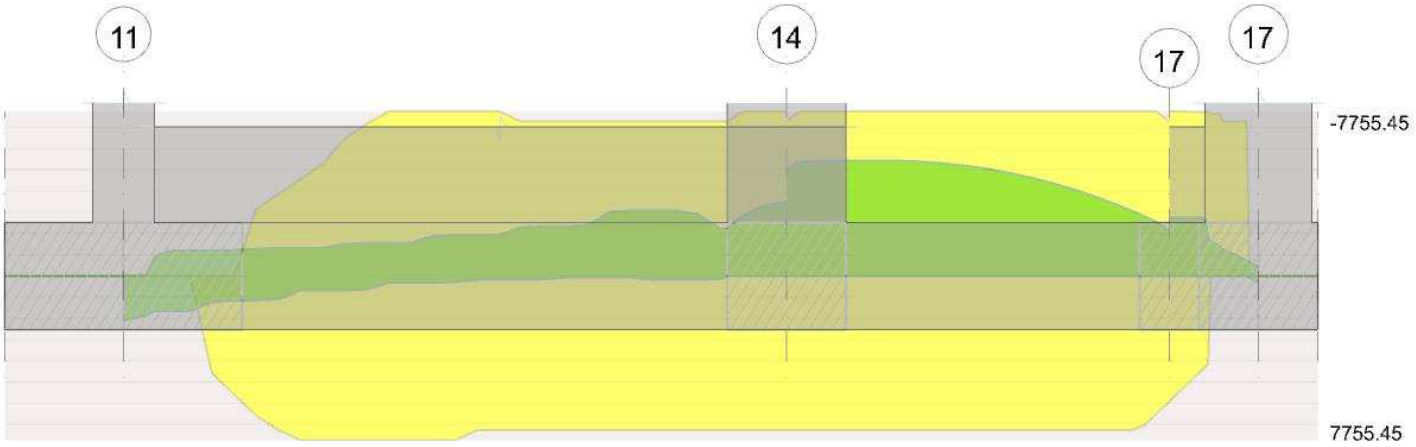
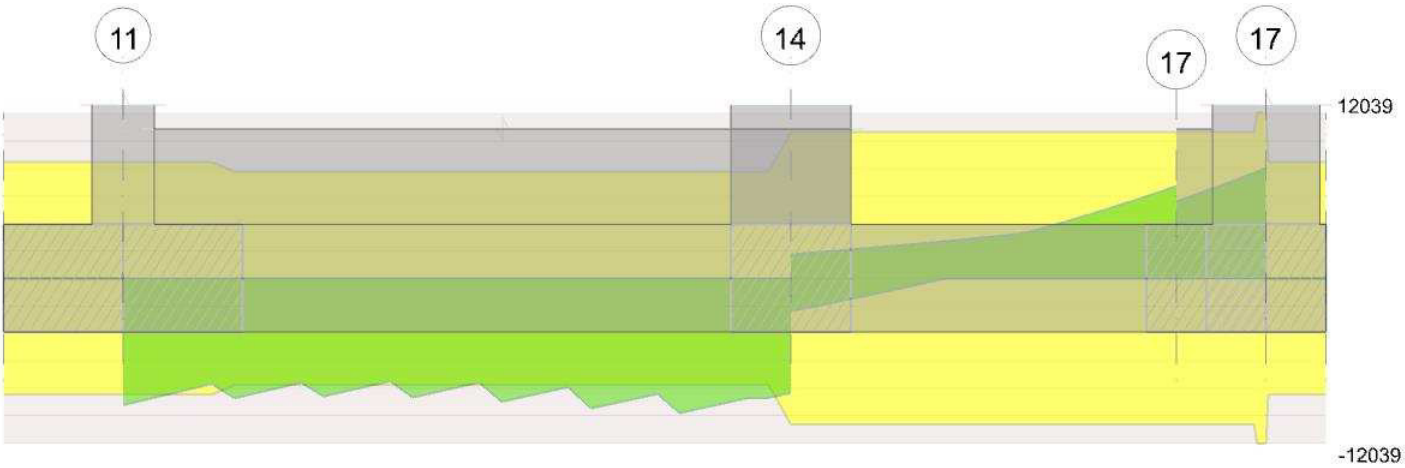


Diagramma verifica stato limite ultimo taglio



Output campate

Campata 3 tra i fili 14 - 17, sezione R 50x45, asta 118

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000509	0.052							-5329.97	SLU 81	-5329.97	-7755.45	0.113	1.46	Si
0.21	0.000509	0.052	0.000509	0.052							-5433.28	SLU 81	-5433.28	-7755.45	0.113	1.43	Si
0.25	0.000509	0.052	0.000509	0.052							-5431.37	SLU 81	-5431.37	-7755.45	0.113	1.43	Si
0.8	0.000509	0.052	0.000509	0.052							-4739.3	SLU 81	-5106.43	-7755.45	0.113	1.52	Si
1.61	0.000509	0.052	0.000411	0.052							-1136.08	SLU 82	-2240.09	-7748.16	0.111	3.46	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

La struttura oppure parte di essa, è stata dichiarata come non dissipativa pertanto la verifica a pressoflessione, per tutte o solo alcune sezioni, viene eseguita calcolando i momenti resistenti in campo sostanzialmente elastico secondo D.M. 17-01-2018 §7.4.1

Le dilatazioni ultime utilizzate sono le seguenti: εc2= 0.002, εyd= 0.0019

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000509	0.052							-5228.23	SLV 2	-5022.88	-7266.79	0.197	1.45	Si
0.25	0.000509	0.052	0.000509	0.052							-4769.48	SLV 6	-4769.48	-7266.79	0.197	1.52	Si
0.8	0.000509	0.052	0.000509	0.052							-3938.38	SLV 10	-4259.7	-7266.79	0.197	1.71	Si
1.61	0.000509	0.052	0.000411	0.052							-1380.2	SLV 14	-2136.21	-7268.32	0.199	3.4	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.0000076	0.000509	0	-993	SLU 40	-993	-7764	-63178	-10648	-10648	1	10.73	Si
0.25	0.0000076	0.000509	0	599	SLU 43	599	7764	63178	10648	10648	1	17.78	Si
0.25	0.0000076	0.000509	0	-123	SLU 40	-123	-7764	-63178	-10648	-10648	1	86.71	Si
0.8	0.0000076	0.000509	0	2462	SLU 81	2462	7764	63178	10648	10648	1	4.33	Si
1.61	0.0000076	0.000509	0	6710	SLU 81	6710	7764	63178	10648	10648	1	1.59	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.0000076	0.000509	0	1733	SLV 2	1733	7764	63178	10648	10648	1	6.15	Si
0	0.0000076	0.000509	0	-2377	SLV 15	-2377	-7764	-63178	-10648	-10648	1	4.48	Si
0.25	0.0000076	0.000509	0	2090	SLV 2	2090	7764	63178	10648	10648	1	5.09	Si
0.25	0.0000076	0.000509	0	-1488	SLV 15	-1488	-7764	-63178	-10648	-10648	1	7.16	Si
0.8	0.0000076	0.000509	0	2970	SLV 2	2970	7764	63178	10648	10648	1	3.59	Si
1.61	0.0000076	0.000509	0	5020	SLV 10	5020	7764	63178	10648	10648	1	2.12	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-3996.6	18	-3996.6	211394	1494000	3170911	36000000	-3781.2	2	-3781.2	200001	1120500			Si
0.25	-4051.2	18	-4051.2	214282	1494000	3214232	36000000	-3783.43	2	-3783.43	200118	1120500			Si
0.8	-3506.68	18	-3786.99	200307	1494000	3004601	36000000	-3209.1	2	-3485.92	184382	1120500			Si
1.61	-819.31	19	-1638.56	87988	1494000	1307448	36000000	-695.9	2	-1451.58	77947	1120500			Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0.25	301	1789	10648	SLV 2	0.36	1618	1.653	-3783.43	-986.05	-7266.79	SLV 6	0.36	1618	1.653	Si
0.8	1809	1160	10648	SLV 2	0.36	1618	1.653	-3485.92	-773.78	-7266.79	SLV 6	0.36	1618	1.653	Si
1.61	4575	445	10648	SLV 10	0.36	1618	1.653	-695.9	-684.29	-7268.32	SLV 14	0.36	1618	1.653	Si

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 11 - 14, sezione R 50x45, aste 126, 125, 124, 123, 122, 121, 120, 119

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	636	SLU 81	0.018	2877	1958	SLU 81	15877	Si
0.13	0.41	0.0002	633	SLU 81	0.018	2877	1947	SLU 81	15877	Si
1.4	0.41	0.0002	581	SLU 82	0.018	2877	1787	SLU 82	15877	Si
2.54	0.41	0.0002	576	SLU 82	0.018	2877	1772	SLU 82	15877	Si
2.79	0.41	0.0004	589	SLU 82	0.032	6031	1814	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.0000018	450	SLE RA 18	12999	1494000	161189	36000000	362	SLE QP 2	10466	1120500	Si
0.13	0.41	0.0000018	447	SLE RA 18	12920	1494000	160212	36000000	359	SLE QP 2	10390	1120500	Si
1.4	0.41	0.0000018	409	SLE RA 19	11831	1494000	146705	36000000	326	SLE QP 2	9439	1120500	Si
2.54	0.41	0.0000018	408	SLE RA 19	11796	1494000	146268	36000000	330	SLE QP 2	9552	1120500	Si
2.79	0.41	0.0000038	419	SLE RA 19	11793	1494000	146234	36000000	342	SLE QP 2	9624	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	11	3	159	SLV 5	0.36	1618	1.653	3.62	0.97	27.96	SLV 5	0.36	1618	1.653	Si
0.13	11	3	159	SLV 5	0.36	1618	1.653	3.59	0.94	27.96	SLV 5	0.36	1618	1.653	Si
1.4	10	4	159	SLV 13	0.36	1618	1.653	3.26	1.2	27.96	SLV 13	0.36	1618	1.653	Si
2.54	10	6	159	SLV 13	0.36	1618	1.653	3.3	1.97	27.96	SLV 13	0.36	1618	1.653	Si
2.79	11	6	159	SLV 13	0.36	1618	1.653	3.42	2.11	58.01	SLV 13	0.36	1618	1.653	Si

Campata 3 tra i fili 14 - 17, sezione R 50x45, asta 118

Campata 4 tra i fili 17 - 17, sezione R 50x45, asta 117

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	1000	SLU 82	0.032	6031	3076	SLU 82	15877	Si
0.15	0.41	0.0004	1062	SLU 82	0.032	6031	3268	SLU 82	15877	Si
0.19	0.41	0.0004	1078	SLU 82	0.032	6031	3317	SLU 82	15877	Si
0.37	0.41	0.0004	1159	SLU 82	0.032	6031	3567	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.0000038	728	SLE RA 19	20497	1494000	254167	36000000	636	SLE QP 2	17927	1120500	Si
0.15	0.41	0.0000038	774	SLE RA 19	21811	1494000	270456	36000000	680	SLE QP 2	19158	1120500	Si
0.19	0.41	0.0000038	786	SLE RA 19	22147	1494000	274627	36000000	691	SLE QP 2	19473	1120500	Si
0.37	0.41	0.0000038	847	SLE RA 19	23852	1494000	295767	36000000	748	SLE QP 2	21068	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	20	9	159	SLV 14	0.36	1618	1.653	6.36	2.9	58.01	SLV 14	0.36	1618	1.653	Si
0.15	21	9	159	SLV 14	0.36	1618	1.653	6.8	3.01	58.01	SLV 14	0.36	1618	1.653	Si
0.19	21	9	159	SLV 14	0.36	1618	1.653	6.91	3.04	58.01	SLV 14	0.36	1618	1.653	Si
0.37	23	10	159	SLV 14	0.36	1618	1.653	7.48	3.18	58.01	SLV 14	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
126,125,124,123,122,121,120,119,118,117	4.77	1.1	SLU 82	ST	BT	2.3	213908	29736	7.19	Si
126,125,124,123,122,121,120,119,118,117	4.77	1.1	SLV 15	SIS	BT	2.3	185240	23405	7.91	Si
126,125,124,123,122,121,120,119,118,117	4.77	1.1	SLD 15	SIS	BT	2.3	199247	21427	9.3	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	-35	-29736	-34.67	4038	0	0	0.14	0	1.1	4.5	1496	2060	0	14430	
0	1487	-23405	-727.94	7358.82	0	4	0.31	-0.03	1.04	4.15	1496	2060	0	14430	0.07
0	647	-21427	-325.25	4957.16	0	2	0.23	-0.02	1.07	4.31	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.05	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.05	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.05	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

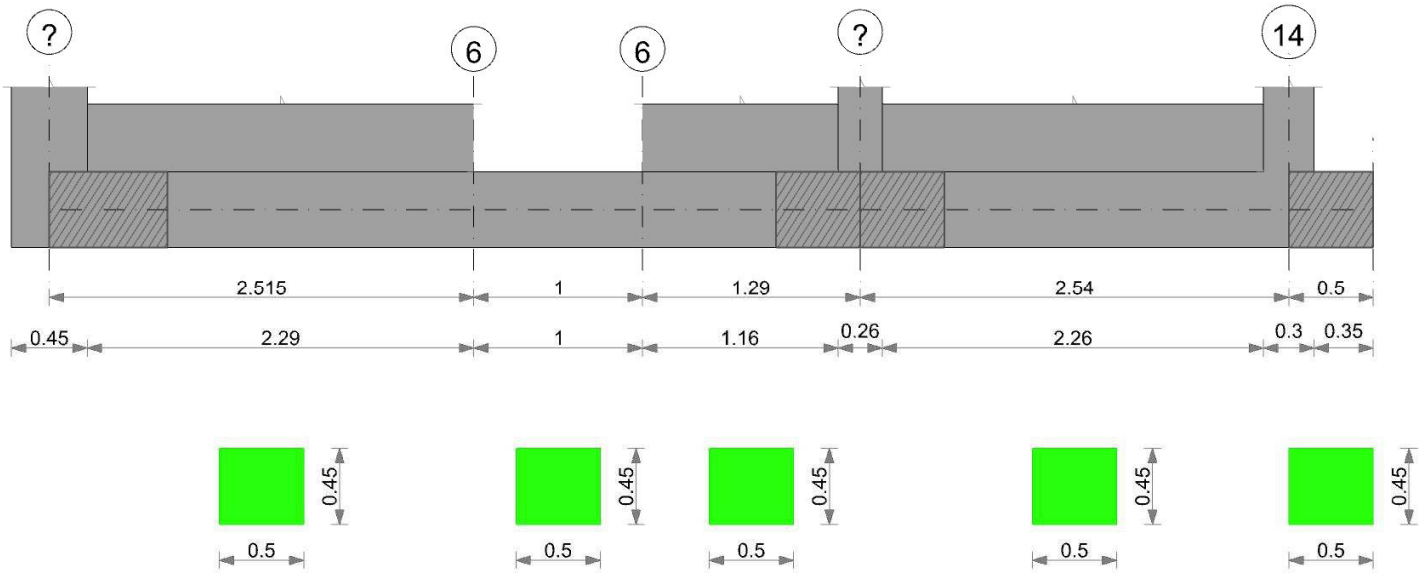
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	178	SLE RA 19	0.05	0	178	188	SLE RA 18	0.05	0	186	SLE RA 19	0.0033	0	SLE RA 1	Si
D	0.05	0	188	SLE RA 1	0.05	0	188	188	SLE RA 1	0.05	0	187	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	188	SLE RA 1	0.05	0	188	188	SLE RA 1	0.05	0	187	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 18	0.19	0.01	188	187	SLE RA 19	0.19	0	187	SLE RA 19	0.1	0	188	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	188	187	SLE RA 1	0.19	0	188	SLE RA 1	0.1	0	187	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	188	187	SLE RA 1	0.19	0	188	SLE RA 1	0.1	0	187	SLE RA 1	Si

CORDOLO 6

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

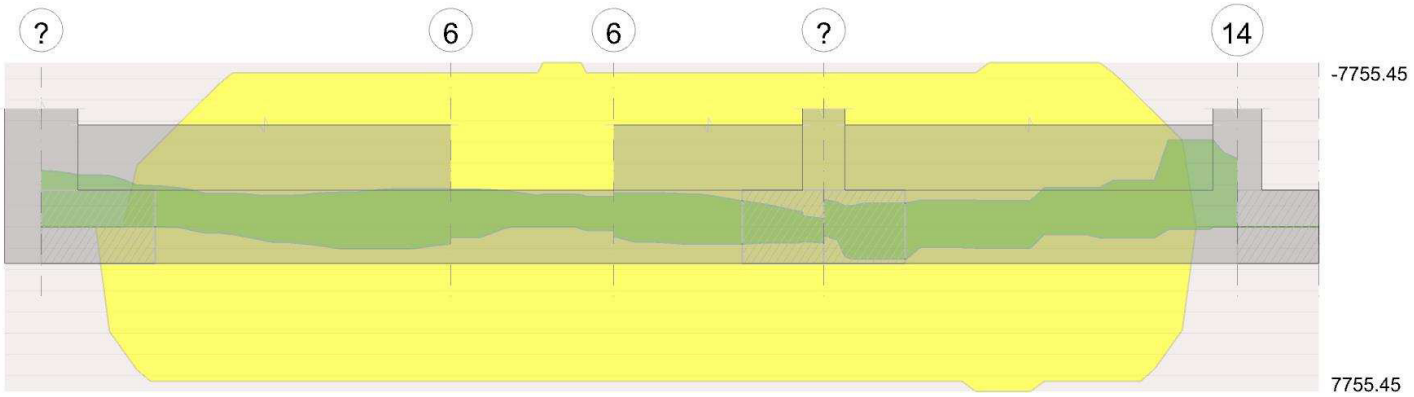


Diagramma verifica stato limite ultimo taglio

Output campate

Campata 2 tra i fili 6 - 6, sezione R 50x45, asta 144

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000509	0.052							-855.64	SLU 81	-1227.11	-7755.45	0.113	6.32	Si
0.5	0.000509	0.052	0.000509	0.052							-1533.02	SLU 81	-1539.4	-7755.45	0.113	5.04	Si
0.67	0.000509	0.052	0.000509	0.052							-1513.85	SLU 82	-1539.4	-7755.45	0.113	5.04	Si

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
1	0.000509	0.052	0.000509	0.052							-1123.65	SLU 82	-1391.72	-7755.45	0.113	5.57	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

La struttura oppure parte di essa, è stata dichiarata come non dissipativa pertanto la verifica a pressoflessione, per tutte o solo alcune sezioni, viene eseguita calcolando i momenti resistenti in campo sostanzialmente elastico secondo D.M. 17-01-2018 §7.4.1

Le dilatazioni ultime utilizzate sono le seguenti: εc2= 0.002, εyd= 0.0019

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000509	0.052	497.2	SLV 15	497.2	7266.79	0.197	14.62	-1770.57	SLV 2	-1770.57	-7266.79	0.197	4.1	Si
0.13	0.000509	0.052	0.000509	0.052	113.35	SLV 15	497.2	7266.79	0.197	14.62	-1713.88	SLV 2	-1770.57	-7266.79	0.197	4.1	Si
0.5	0.000509	0.052	0.000509	0.052							-1240.11	SLV 1	-1526.96	-7266.79	0.197	4.76	Si
1	0.000509	0.052	0.000509	0.052	158.07	SLV 2	158.07	7266.79	0.197	45.97	-1426.44	SLV 15	-1426.44	-7266.79	0.197	5.09	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.000008	0.000509	0	-2510	SLU 82	-2510	-7764	-63178	-11273	-11273	1	4.49	Si
0.5	0.000008	0.000509	0	169	SLU 43	169	7764	63178	11273	11273	1	66.77	Si
0.5	0.000008	0.000509	0	-330	SLU 40	-330	-7764	-63178	-11273	-11273	1	34.11	Si
1	0.000008	0.000509	0	1909	SLU 81	1909	7764	63178	11273	11273	1	5.9	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.000008	0.000509	0	190	SLV 2	190	7764	63178	11273	11273	1	59.19	Si
0	0.000008	0.000509	0	-3039	SLV 15	-3039	-7764	-63178	-11273	-11273	1	3.71	Si
0.5	0.000008	0.000509	0	1943	SLV 2	1943	7764	63178	11273	11273	1	5.8	Si
0.5	0.000008	0.000509	0	-1912	SLV 15	-1912	-7764	-63178	-11273	-11273	1	5.9	Si
1	0.000008	0.000509	0	3610	SLV 2	3610	7764	63178	11273	11273	1	3.12	Si
1	0.000008	0.000509	0	-855	SLV 15	-855	-7764	-63178	-11273	-11273	1	13.18	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-647.39	18	-910.23	48145	1494000	722175	36000000	-636.69	2	-844.01	44643	1120500			Si
0.5	-1119.1	18	-1121.76	59334	1494000	890004	36000000	-984.96	2	-984.96	52098	1120500			Si
1	-799.64	19	-1002.33	53017	1494000	795252	36000000	-634.18	2	-837.58	44302	1120500			Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	-1424	-1615	-11273	SLV 15	0.36	1618	1.653	-636.69	-1133.88	-7266.79	SLV 2	0.36	1618	1.653	Si
0.5	15	1927	11273	SLV 2	0.36	1618	1.653	-942.28	-584.68	-7266.79	SLV 2	0.36	1618	1.653	Si
1	1378	2233	11273	SLV 2	0.36	1618	1.653	-634.18	-792.26	-7266.79	SLV 15	0.36	1618	1.653	Si

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili ? - 6, sezione R 50x45, aste 150, 149, 148, 147, 146, 145

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1154	SLU 81	0.018	2929	3550	SLU 81	15877	Si
0.23	0.41	0.0002	1095	SLU 81	0.018	2929	3370	SLU 81	15877	Si
1.26	0.41	0.0002	890	SLU 81	0.018	2929	2738	SLU 81	15877	Si
2.52	0.41	0.0004	719	SLU 81	0.034	6379	2213	SLU 81	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000183	841	SLE RA 18	24316	1494000	301513	36000000	740	SLE QP 2	21396	1120500	Si
0.23	0.41	0.00000183	798	SLE RA 18	23065	1494000	286010	36000000	701	SLE QP 2	20267	1120500	Si
1.26	0.41	0.00000183	646	SLE RA 18	18675	1494000	231572	36000000	563	SLE QP 2	16278	1120500	Si
2.52	0.41	0.00000402	518	SLE RA 18	14551	1494000	180431	36000000	442	SLE QP 2	12418	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	23	12	159	SLV 1	0.36	1618	1.653	7.4	3.81	28.46	SLV 1	0.36	1618	1.653	Si
0.23	22	11	159	SLV 1	0.36	1618	1.653	7.01	3.47	28.46	SLV 1	0.36	1618	1.653	Si
1.26	17	7	159	SLV 1	0.36	1618	1.653	5.63	2.18	28.46	SLV 1	0.36	1618	1.653	Si
2.52	14	4	159	SLV 1	0.36	1618	1.653	4.42	1.32	61.33	SLV 1	0.36	1618	1.653	Si

Campata 2 tra i fili 6 - 6, sezione R 50x45, asta 144

Campata 3 tra i fili 6 - ?, sezione R 50x45, aste 143, 142, 141, 140

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	645	SLU 81	0.034	6379	1986	SLU 81	15877	Si
0.64	0.41	0.0002	629	SLU 81	0.019	3110	1935	SLU 81	15877	Si
1.16	0.41	0.0002	618	SLU 81	0.019	3110	1901	SLU 81	15877	Si
1.29	0.41	0.0002	615	SLU 81	0.019	3110	1891	SLU 81	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000402	461	SLE RA 18	12938	1494000	160426	36000000	383	SLE QP 2	10754	1120500	Si
0.64	0.41	0.00000195	446	SLE RA 18	12885	1494000	159773	36000000	366	SLE QP 2	10549	1120500	Si
1.16	0.41	0.00000195	438	SLE RA 18	12630	1494000	156615	36000000	356	SLE QP 2	10264	1120500	Si
1.29	0.41	0.00000195	435	SLE RA 18	12556	1494000	155700	36000000	353	SLE QP 2	10192	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	12	4	159	SLV 5	0.36	1618	1.653	3.83	1.36	61.33	SLV 5	0.36	1618	1.653	Si
0.64	11	4	159	SLV 5	0.36	1618	1.653	3.66	1.35	30.19	SLV 5	0.36	1618	1.653	Si
1.16	11	4	159	SLV 5	0.36	1618	1.653	3.56	1.25	30.19	SLV 5	0.36	1618	1.653	Si
1.29	11	4	159	SLV 5	0.36	1618	1.653	3.53	1.21	30.19	SLV 5	0.36	1618	1.653	Si

Campata 4 tra i fili ? - 14, sezione R 50x45, aste 139, 138, 137, 136, 135, 134, 133

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	615	SLU 81	0.019	3110	1891	SLU 81	15877	Si
0.13	0.41	0.0002	611	SLU 81	0.018	2844	1880	SLU 81	15877	Si
1.27	0.41	0.0002	574	SLU 82	0.018	2844	1765	SLU 82	15877	Si
2.39	0.41	0.0002	571	SLU 82	0.018	2844	1756	SLU 82	15877	Si
2.54	0.41	0.0002	580	SLU 82	0.018	2844	1784	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000195	435	SLE RA 18	12556	1494000	155700	36000000	353	SLE QP 2	10192	1120500	Si
0.13	0.41	0.00000178	433	SLE RA 18	12510	1494000	155129	36000000	351	SLE QP 2	10142	1120500	Si
1.27	0.41	0.00000178	405	SLE RA 19	11724	1494000	145378	36000000	327	SLE QP 2	9452	1120500	Si
2.39	0.41	0.00000178	405	SLE RA 19	11721	1494000	145345	36000000	331	SLE QP 2	9575	1120500	Si
2.54	0.41	0.00000178	413	SLE RA 19	11933	1494000	147971	36000000	339	SLE QP 2	9794	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	11	4	159	SLV 5	0.36	1618	1.653	3.53	1.21	30.19	SLV 5	0.36	1618	1.653	Si
0.13	11	4	159	SLV 5	0.36	1618	1.653	3.51	1.17	27.65	SLV 5	0.36	1618	1.653	Si
1.27	10	3	159	SLV 9	0.36	1618	1.653	3.27	1.13	27.65	SLV 9	0.36	1618	1.653	Si
2.39	10	6	159	SLV 13	0.36	1618	1.653	3.31	1.88	27.65	SLV 13	0.36	1618	1.653	Si
2.54	10	6	159	SLV 13	0.36	1618	1.653	3.39	1.96	27.65	SLV 13	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
150,149,148,147,146,145,144,143,142,141,140,139,138,137,136,135,134,133	7.57	1.1	SLU 81	ST	BT	2.3	330797	47189	7.01	Si
150,149,148,147,146,145,144,143,142,141,140,139,138,137,136,135,134,133	7.57	1.1	SLV 5	SIS	BT	2.3	280082	36316	7.71	Si
150,149,148,147,146,145,144,143,142,141,140,139,138,137,136,135,134,133	7.57	1.1	SLD 5	SIS	BT	2.3	305495	33795	9.04	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	-528	-47189	118.66	-11473.14	0	-1	-0.24	0	1.09	7.08	1496	2060	0	14430	
0	-5044	-36316	2392.06	-12384.62	0	-8	-0.34	0.07	0.97	6.89	1496	2060	0	14430	0.07
0	-2420	-33795	1114.13	-10149.07	0	-4	-0.3	0.03	1.03	6.97	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.03	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.03	0	0	0.27	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.03	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

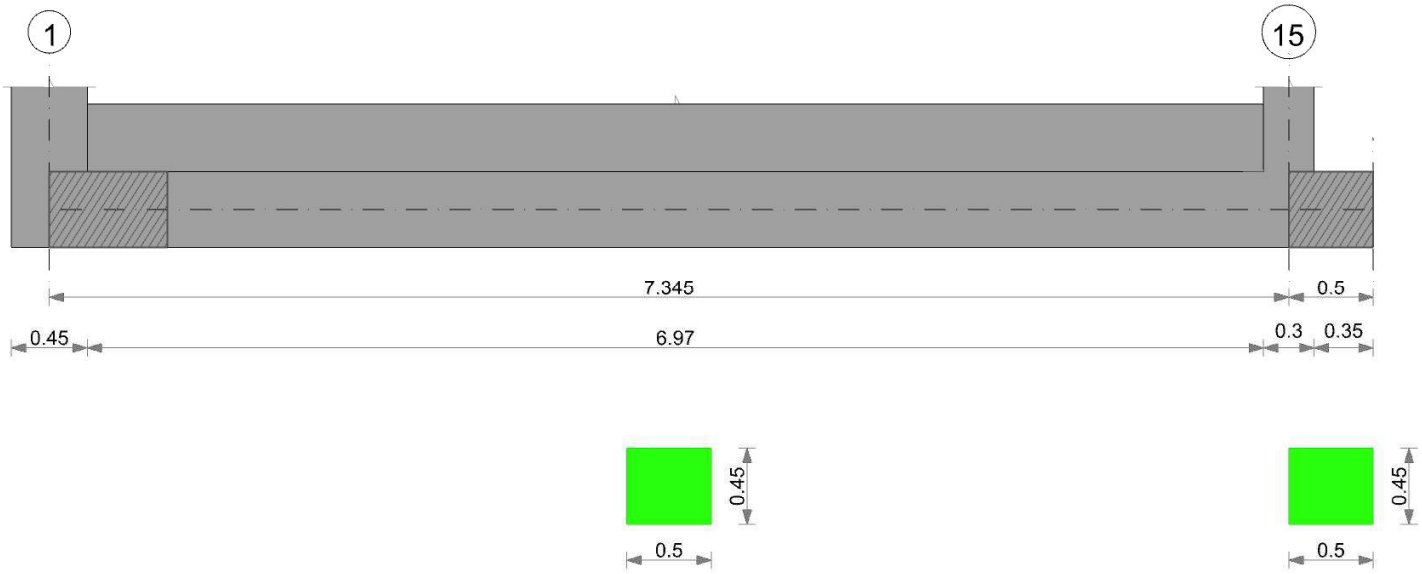
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	129	SLE RA 19	0.05	0	129	118	SLE RA 19	0.05	0	125	SLE RA 18	0.0033	0	SLE RA 1	Si
D	0.05	0	136	SLE RA 1	0.05	0	136	136	SLE RA 1	0.05	0	129	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	136	SLE RA 1	0.05	0	136	136	SLE RA 1	0.05	0	129	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 19	0.19	0.01	124	118	SLE RA 19	0.19	0	129	SLE RA 19	0.1	0	136	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	136	129	SLE RA 1	0.19	0	136	SLE RA 1	0.1	0	129	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	136	129	SLE RA 1	0.19	0	136	SLE RA 1	0.1	0	129	SLE RA 1	Si

CORDOLO 7

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

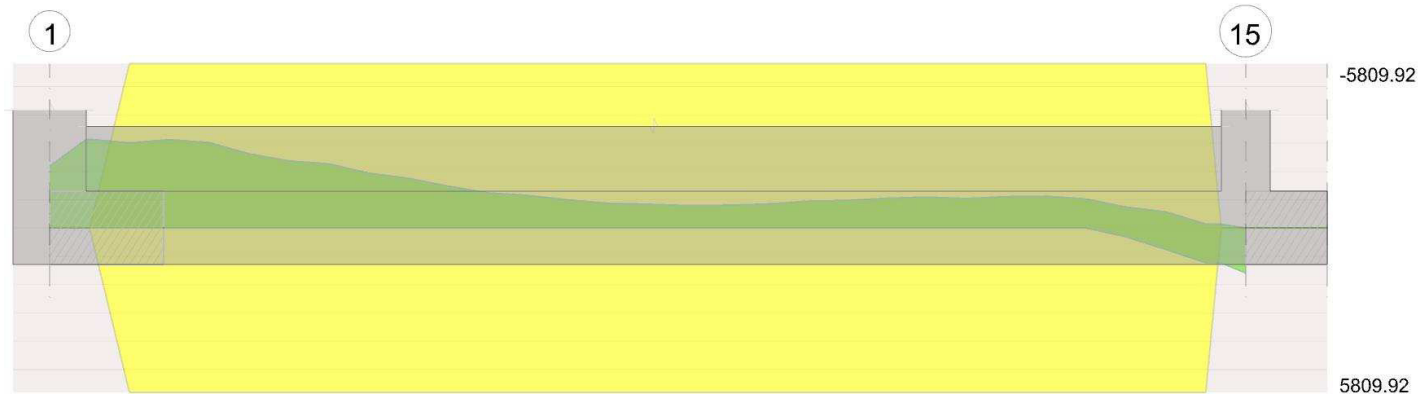
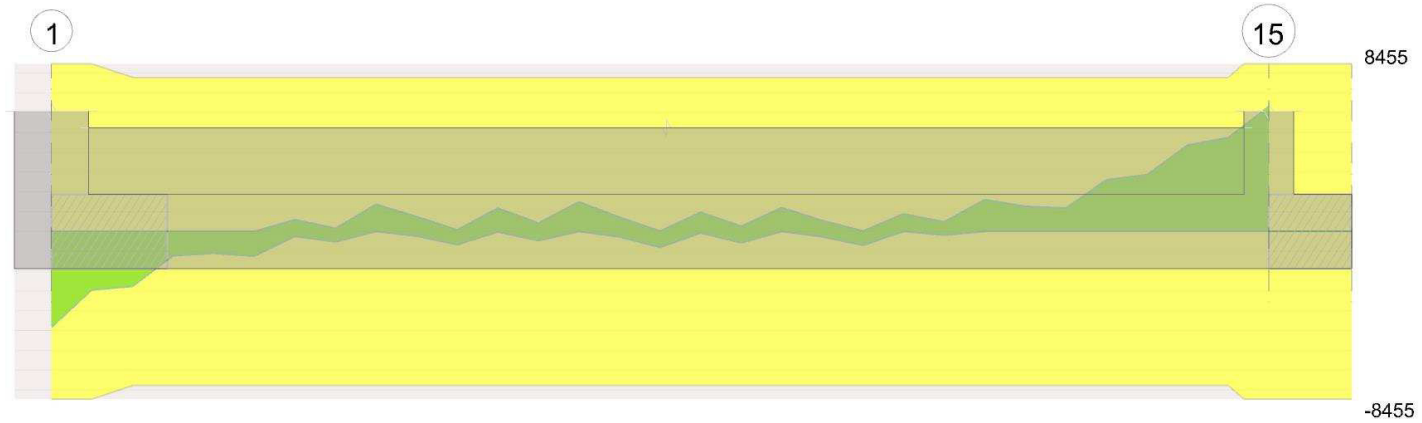


Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 1 - 15, sezione R 50x45, aste 170, 169, 168, 167, 166, 165, 164, 163, 162, 161, 160, 159, 158, 157, 156, 155, 154, 153

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1112	SLV 1	0.086	2681	3868	SLV 1	15877	Si
0.23	0.41	0.0002	1039	SLV 1	0.086	2681	3614	SLV 1	15877	Si
3.67	0.41	0.0002	658	SLU 81	0.017	2757	2287	SLU 81	15877	Si
7.2	0.41	0.0002	826	SLU 82	0.017	2757	2874	SLU 82	15877	Si
7.35	0.41	0.0002	838	SLU 82	0.017	2757	2915	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000173	781	SLE RA 18	22617	1494000	280456	36000000	686	SLE QP 2	19865	1120500	Si
0.23	0.41	0.00000173	736	SLE RA 18	21296	1494000	264069	36000000	645	SLE QP 2	18684	1120500	Si
3.67	0.41	0.00000173	478	SLE RA 18	13824	1494000	171419	36000000	415	SLE QP 2	12002	1120500	Si
7.2	0.41	0.00000173	602	SLE RA 19	17434	1494000	216185	36000000	529	SLE QP 2	15307	1120500	Si
7.35	0.41	0.00000173	611	SLE RA 19	17693	1494000	219393	36000000	537	SLE QP 2	15551	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	24	15	159	SLV 1	0.36	1618	1.653	6.86	4.26	26.81	SLV 1	0.36	1618	1.653	Si
0.23	22	14	159	SLV 1	0.36	1618	1.653	6.45	3.94	26.81	SLV 1	0.36	1618	1.653	Si
3.67	14	5	159	SLV 6	0.36	1618	1.653	4.15	1.5	26.81	SLV 6	0.36	1618	1.653	Si
7.2	18	8	159	SLV 10	0.36	1618	1.653	5.29	2.32	26.81	SLV 10	0.36	1618	1.653	Si
7.35	19	8	159	SLV 10	0.36	1618	1.653	5.37	2.41	26.81	SLV 10	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
170,169,168,167,166,165,164,163,162,161,160,159,158,157,156,155,154,153	7.57	1.1	SLU 81	ST	BT	2.3	271950	56357	4.83	Si
170,169,168,167,166,165,164,163,162,161,160,159,158,157,156,155,154,153	7.57	1.1	SLV 5	SIS	BT	2.3	233516	47293	4.94	Si
170,169,168,167,166,165,164,163,162,161,160,159,158,157,156,155,154,153	7.57	1.1	SLD 5	SIS	BT	2.3	255054	42331	6.03	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	375	-56357	6575.56	-4831.34	0	0	-0.09	0.12	0.87	7.4	1496	2060	0	14430	
0	-3268	-47293	7728.12	-8608.26	0	-4	-0.18	0.16	0.77	7.21	1496	2060	0	14430	0.07
0	-1282	-42331	5805.04	-5519.6	0	-2	-0.13	0.14	0.83	7.31	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.02	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.02	0	0	0.27	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.02	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

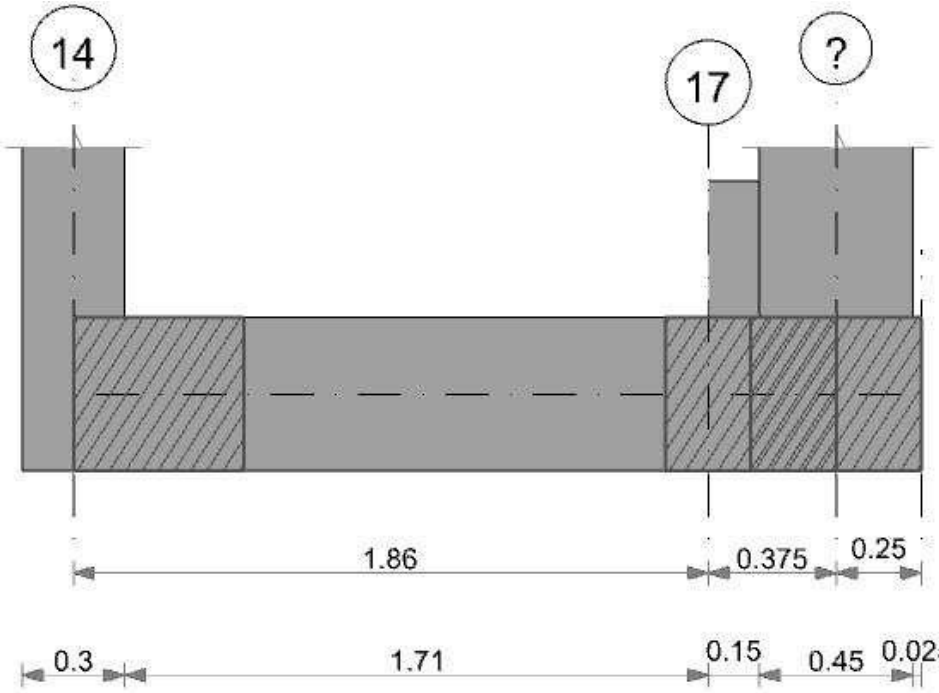
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0	47	SLE RA 19	0.05	0	47	29	SLE RA 19	0.05	0	47	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	47	SLE RA 1	0.05	0	47	47	SLE RA 1	0.05	0	47	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	47	SLE RA 1	0.05	0	47	47	SLE RA 1	0.05	0	47	SLE RA 1	0.0033	0	SLE RA 1	Si

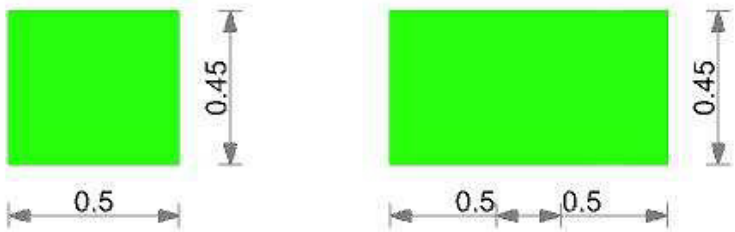
Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 19	0.19	0	47	29	SLE RA 19	0.19	0	47	SLE RA 1	0.1	0	47	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	47	29	SLE RA 1	0.19	0	47	SLE RA 1	0.1	0	47	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	47	29	SLE RA 1	0.19	0	47	SLE RA 1	0.1	0	47	SLE RA 1	Si

CORDOLO 8

Geometria





Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

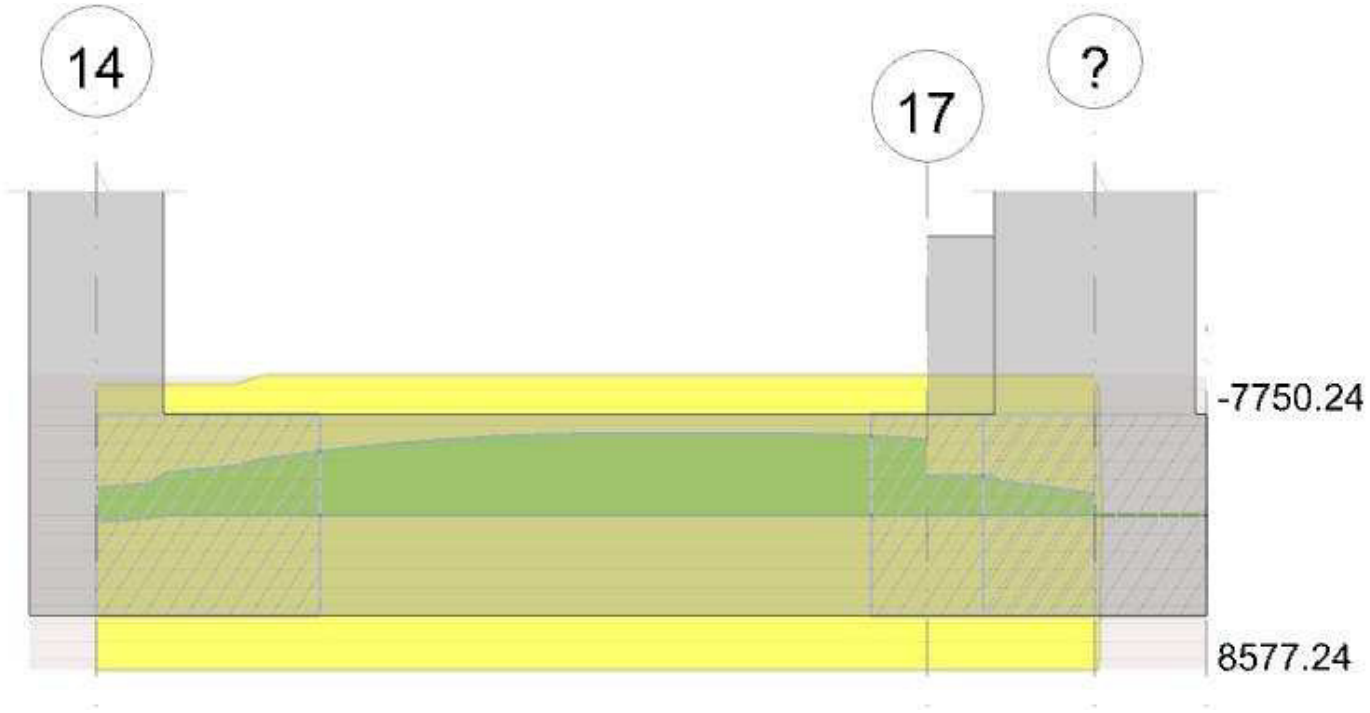
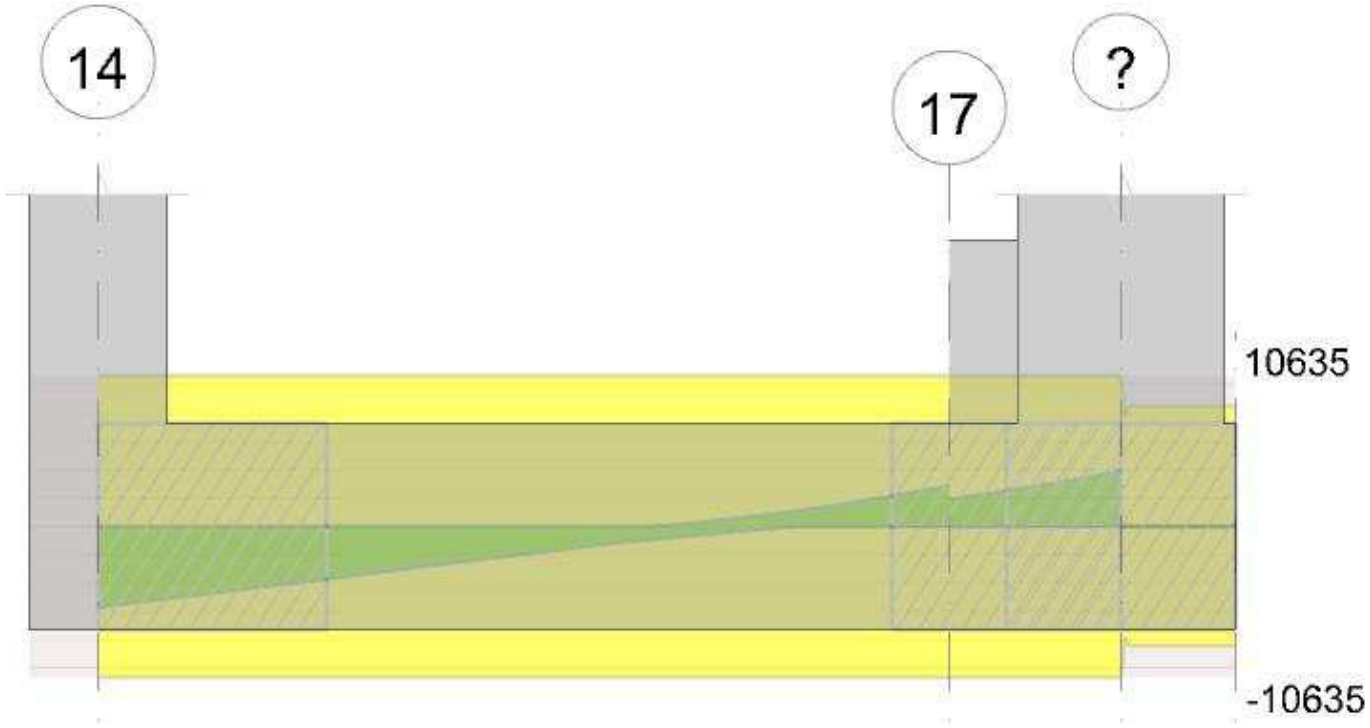


Diagramma verifica stato limite ultimo taglio



Output campate

Campata 1 tra i fili 14 - 17, sezione R 50x45, asta 151

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000603	0.051							-585.94	SLU 81	-585.94	-7750.24	0.114	13.23	Si
0.15	0.000509	0.052	0.000603	0.051							-1391.45	SLU 81	-2239.64	-7750.24	0.114	3.46	Si
0.93	0.000509	0.052	0.000603	0.051							-4130.34	SLU 82	-4392.68	-7750.24	0.114	1.76	Si
1.18	0.000509	0.052	0.000603	0.051							-4455.55	SLU 82	-4510.29	-7750.24	0.114	1.72	Si
1.86	0.000509	0.052	0.000603	0.051							-3779.32	SLU 82	-4196.9	-7750.24	0.114	1.85	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

La struttura oppure parte di essa, è stata dichiarata come non dissipativa pertanto la verifica a pressoflessione, per tutte o solo alcune sezioni, viene eseguita calcolando i momenti resistenti in campo sostanzialmente elastico secondo D.M. 17-01-2018 §7.4.1

Le dilatazioni ultime utilizzate sono le seguenti: εc2= 0.002, εyd= 0.0019

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000603	0.051	709.49	SLV 15	319.23	8577.24	0.213	26.87	-1503.74	SLV 2	-1503.74	-7266.96	0.196	4.83	Si

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0.15	0.000509	0.052	0.000603	0.051	5.05	SLV 11	5.05	8577.24	0.213	1698.29	-1865.8	SLV 6	-2348.25	-7266.96	0.196	3.09	Si
0.93	0.000509	0.052	0.000603	0.051							-3453.21	SLV 10	-3606.71	-7266.96	0.196	2.01	Si
1.18	0.000509	0.052	0.000603	0.051							-3636.66	SLV 10	-3648.05	-7266.96	0.196	1.99	Si
1.86	0.000509	0.052	0.000603	0.051							-2907.02	SLV 10	-3289.53	-7266.96	0.196	2.21	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.0000076	0.000509	0	-5700	SLU 82	-5700	-7764	-63178	-10635	-10635	1	1.87	Si
0.15	0.0000076	0.000509	0	-5111	SLU 82	-5111	-7764	-63178	-10635	-10635	1	2.08	Si
0.93	0.0000076	0.000509	0	-1873	SLU 82	-1873	-7764	-63178	-10635	-10635	1	5.68	Si
1.86	0.0000076	0.000509	0	2855	SLU 82	2855	7764	63178	10635	10635	1	3.72	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.0000076	0.000603	0	-5309	SLV 13	-5309	-8014	-63336	-10661	-10661	1	2.01	Si
0.15	0.0000076	0.000509	0	-4799	SLV 15	-4799	-7764	-63178	-10635	-10635	1	2.22	Si
0.93	0.0000076	0.000509	0	-1971	SLV 15	-1971	-7764	-63178	-10635	-10635	1	5.4	Si
1.86	0.0000076	0.000509	0	2586	SLV 14	2586	7764	63178	10635	10635	1	4.11	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	-435.82	18	-435.82	22703	1494000	343741	36000000	-397.13	2	-397.13	20688	1120500			Si
0.15	-1027.71	18	-1652.01	86059	1494000	1302981	36000000	-930.37	2	-1495.41	77901	1120500			Si
0.93	-3052.11	19	-3249.85	169296	1494000	2563234	36000000	-2783.18	2	-2973.23	154886	1120500			Si
1.86	-2825.89	19	-3125.76	162832	1494000	2465363	36000000	-2660.65	2	-2912	151696	1120500			Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0.15	-3378	-1421	-10635	SLV 15	0.36	1618	1.653	-930.37	-935.42	-7266.96	SLV 6	0.36	1618	1.653	Si
0.93	-1323	-648	-10635	SLV 15	0.36	1618	1.653	-2973.23	-633.47	-7266.96	SLV 10	0.36	1618	1.653	Si
1.86	1747	839	10635	SLV 14	0.36	1618	1.653	-2660.65	-246.37	-7266.96	SLV 10	0.36	1618	1.653	Si

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 14 - 17, sezione R 50x45, asta 151

Campata 2 tra i fili 17 - ?, sezione R 50x45, asta 152

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	965	SLU 82	0.032	6023	2970	SLU 82	15877	Si
0.15	0.41	0.0004	1027	SLU 82	0.032	6023	3161	SLU 82	15877	Si
0.19	0.41	0.0004	1043	SLU 82	0.032	6023	3210	SLU 82	15877	Si
0.37	0.41	0.0004	1124	SLU 82	0.032	6023	3459	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000379	703	SLE RA 19	19794	1494000	245442	36000000	615	SLE QP 2	17319	1120500	Si
0.15	0.41	0.00000379	749	SLE RA 19	21103	1494000	261680	36000000	658	SLE QP 2	18546	1120500	Si
0.19	0.41	0.00000379	761	SLE RA 19	21438	1494000	265835	36000000	670	SLE QP 2	18859	1120500	Si
0.37	0.41	0.00000379	822	SLE RA 19	23142	1494000	286959	36000000	726	SLE QP 2	20454	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	19	9	159	SLV 14	0.36	1618	1.653	6.15	2.96	57.94	SLV 14	0.36	1618	1.653	Si
0.15	20	9	159	SLV 14	0.36	1618	1.653	6.58	3.07	57.94	SLV 14	0.36	1618	1.653	Si
0.19	21	10	159	SLV 14	0.36	1618	1.653	6.7	3.1	57.94	SLV 14	0.36	1618	1.653	Si
0.37	22	10	159	SLV 14	0.36	1618	1.653	7.26	3.24	57.94	SLV 14	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
151,152	2.38	1.1	SLU 82	ST	BT	2.3	108104	15115	7.15	Si
151,152	2.38	1.1	SLV 15	SIS	BT	2.3	96698	12724	7.6	Si
151,152	2.38	1.1	SLD 15	SIS	BT	2.3	102366	11355	9.02	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
196	149	-15115	-94.21	1257.44	1	1	0.08	-0.01	1.09	2.22	1496	2060	0	14430	
1369	975	-12724	-474.06	1641.43	6	4	0.13	-0.04	1.03	2.13	1496	2060	0	14430	0.07
672	489	-11355	-243.47	1219.51	3	2	0.11	-0.02	1.06	2.17	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.1	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.1	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.1	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

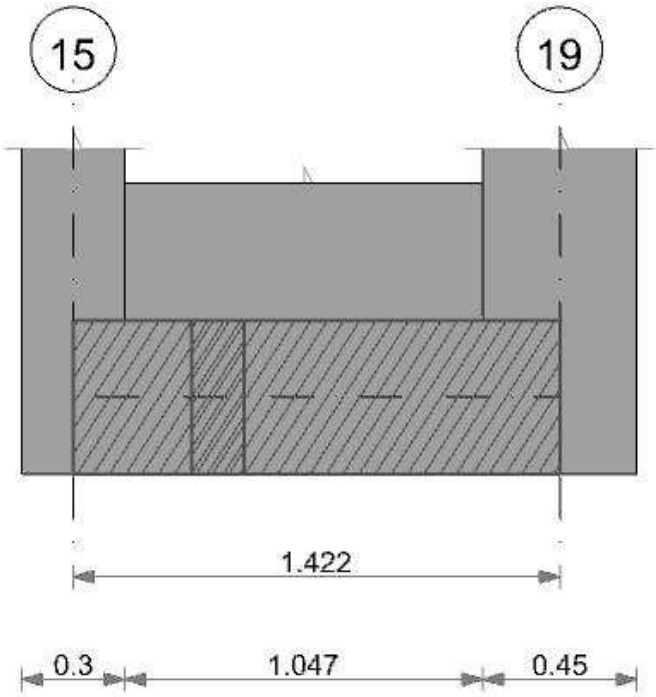
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	136	SLE RA 19	0.05	0	136	138	SLE RA 18	0.05	0	137	SLE RA 19	0.0033	0	SLE RA 1	Si
D	0.05	0	138	SLE RA 1	0.05	0	138	138	SLE RA 1	0.05	0	137	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	138	SLE RA 1	0.05	0	138	138	SLE RA 1	0.05	0	137	SLE RA 1	0.0033	0	SLE RA 1	Si

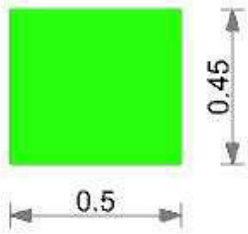
Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0.01	SLE RA 18	0.19	0.01	138	137	SLE RA 19	0.19	0	137	SLE RA 19	0.1	0	138	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	138	137	SLE RA 1	0.19	0	138	SLE RA 1	0.1	0	137	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	138	137	SLE RA 1	0.19	0	138	SLE RA 1	0.1	0	137	SLE RA 1	Si

CORDOLO 9

Geometria





Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

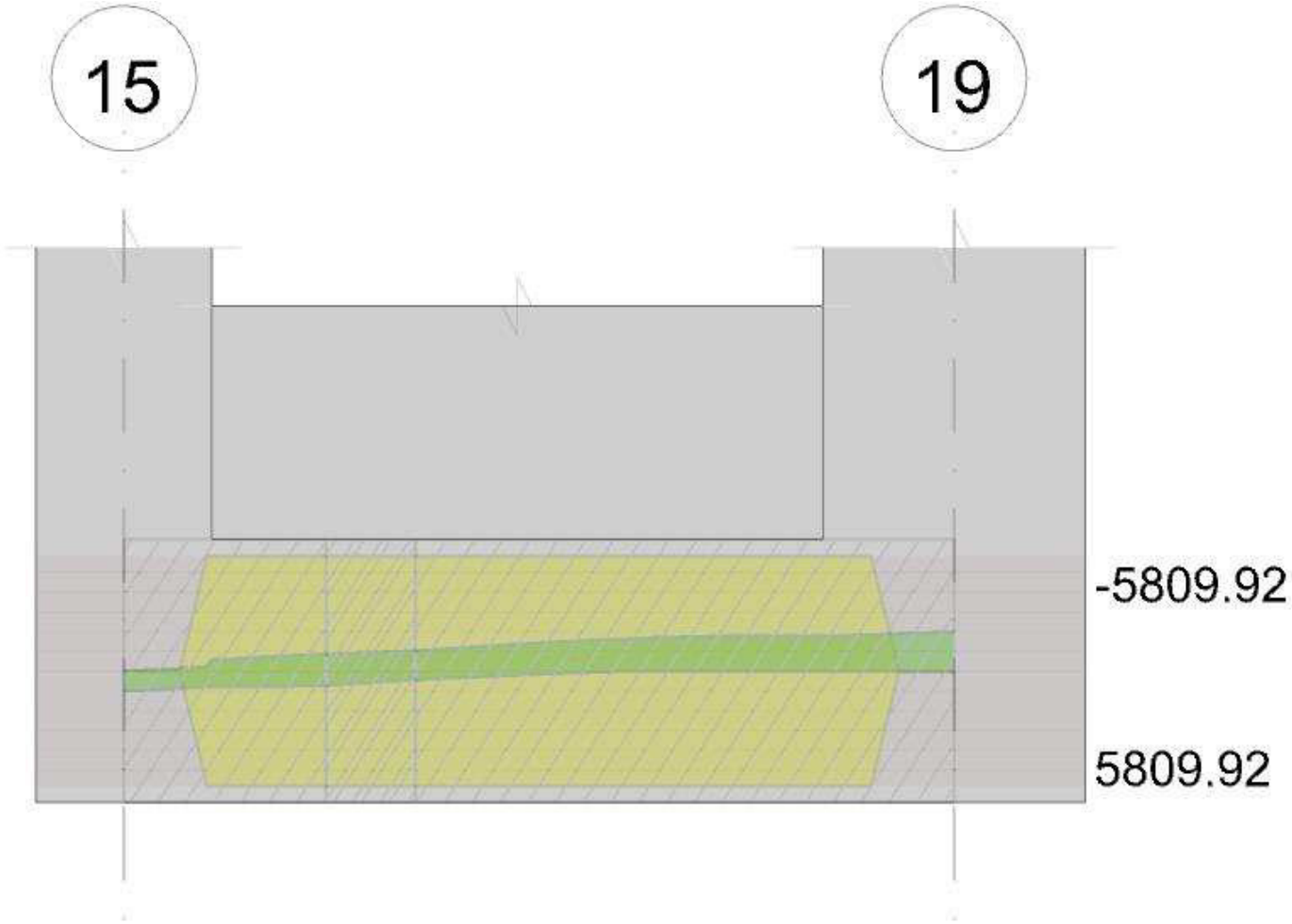
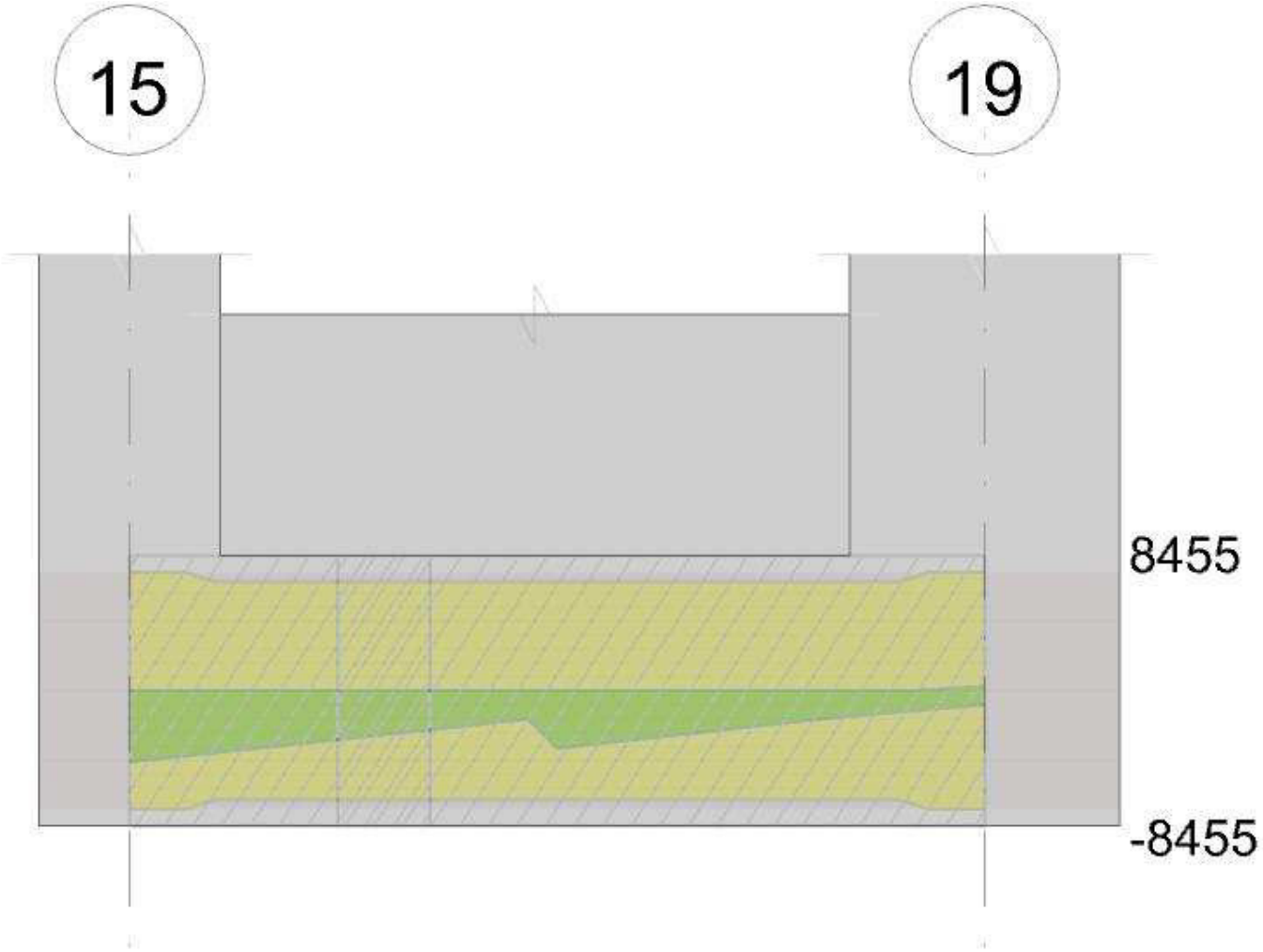


Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 15 - 19, sezione R 50x45, aste 84, 83

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.42	0	611	SLE RA 19	18110	1494000	0	36000000	537	SLE QP 2	15918	1120500	Si
0.15	0.42	0	617	SLE RA 19	18294	1494000	0	36000000	543	SLE QP 2	16092	1120500	Si
0.71	0.42	0	640	SLE RA 19	18975	1494000	0	36000000	565	SLE QP 2	16745	1120500	Si
1.2	0.42	0	663	SLE RA 19	19653	1494000	0	36000000	587	SLE QP 2	17396	1120500	Si
1.42	0.42	0	675	SLE RA 19	20014	1494000	0	36000000	599	SLE QP 2	17742	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
84,83	1.8	1.1	SLU 82	ST	BT	2.3	85195	9380	9.08	Si
84,83	1.8	1.1	SLV 10	SIS	BT	2.3	76982	8284	9.29	Si
84,83	1.8	1.1	SLD 10	SIS	BT	2.3	81286	7278	11.17	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
-71	122	-9380	253.47	14.64	0	1	0	0.03	1.05	1.79	1496	2060	0	14430	
-71	-581	-8284	585.89	35.9	0	-4	0	0.07	0.96	1.79	1496	2060	0	14430	0.07
-67	-209	-7278	352.53	18.36	-1	-2	0	0.05	1	1.79	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.12	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.11	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.11	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

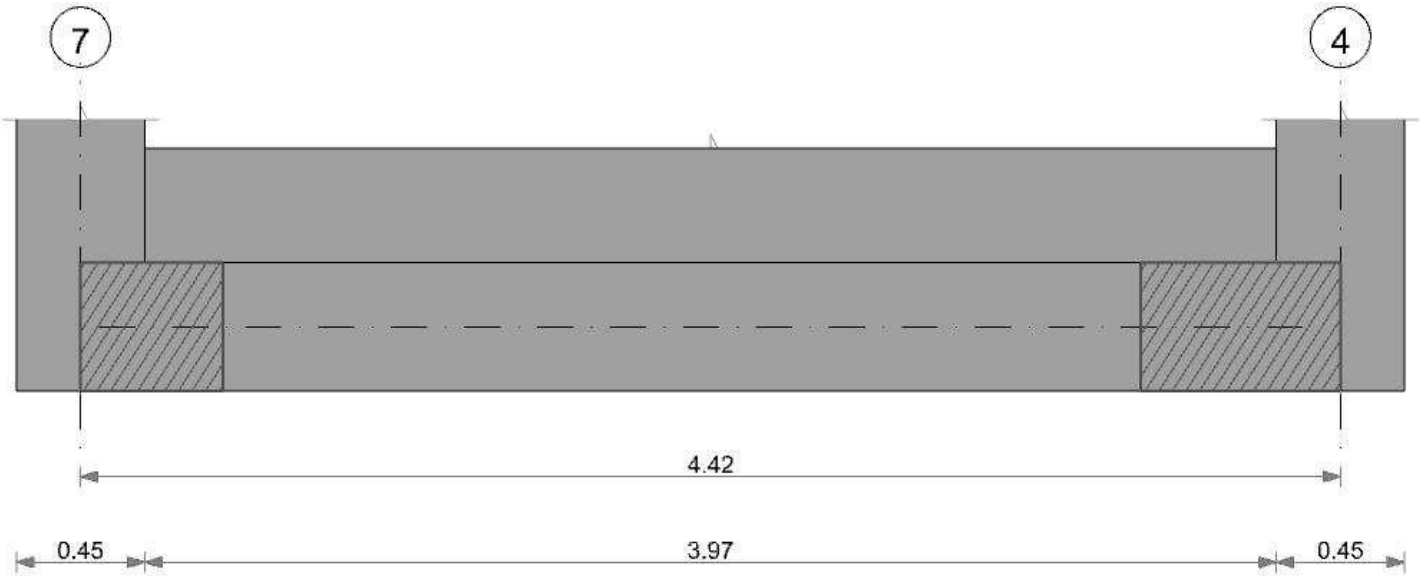
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0	47	SLE RA 19	0.05	0	47	49	SLE RA 18	0.05	0	49	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	49	SLE RA 1	0.05	0	49	49	SLE RA 1	0.05	0	49	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	49	SLE RA 1	0.05	0	49	49	SLE RA 1	0.05	0	49	SLE RA 1	0.0033	0	SLE RA 1	Si

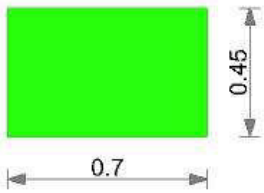
Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 18	0.19	0	49	47	SLE RA 18	0.19	0	49	SLE RA 1	0.1	0	49	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	49	47	SLE RA 1	0.19	0	49	SLE RA 1	0.1	0	49	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	49	47	SLE RA 1	0.19	0	49	SLE RA 1	0.1	0	49	SLE RA 1	Si

CORDOLO 10

Geometria





Caratteristiche dei materiali

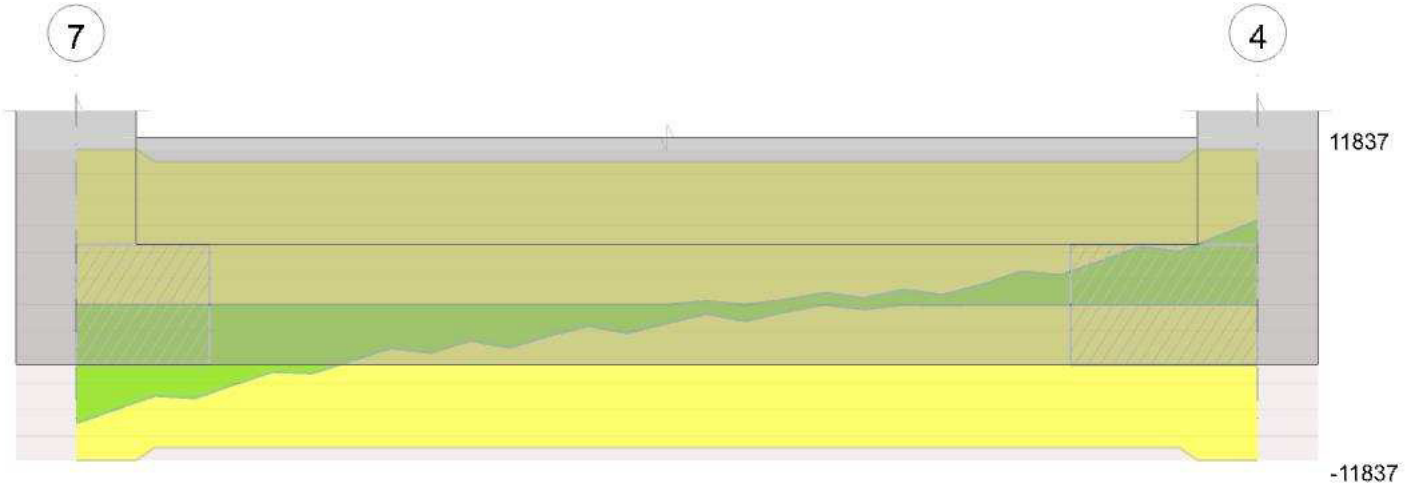
Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x45	Rettangolare	0.7	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 7 - 4, sezione R 70x45, aste 75, 74, 73, 72, 71, 70, 69, 68, 67, 66, 65

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0003	1469	SLU 81	0.023	4275	3791	SLU 81	15877	Si
0.23	0.41	0.0003	1440	SLU 81	0.023	4275	3716	SLU 81	15877	Si
2.21	0.41	0.0003	1202	SLU 81	0.023	4275	3103	SLU 81	15877	Si
4.2	0.41	0.0003	1569	SLV 8	0.106	4132	4189	SLU 81	15877	Si
4.42	0.41	0.0003	1676	SLV 8	0.106	4132	4440	SLU 81	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000268	1070	SLE RA 18	30579	1494000	379175	36000000	939	SLE QP 2	26849	1120500	Si
0.23	0.41	0.00000268	1049	SLE RA 18	29975	1494000	371695	36000000	921	SLE QP 2	26311	1120500	Si
2.21	0.41	0.00000268	874	SLE RA 18	24968	1494000	309603	36000000	761	SLE QP 2	21753	1120500	Si
4.2	0.41	0.00000268	1180	SLE RA 18	33715	1494000	418064	36000000	1027	SLE QP 2	29358	1120500	Si
4.42	0.41	0.00000268	1251	SLE RA 18	35742	1494000	443201	36000000	1089	SLE QP 2	31138	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	24	9	159	SLV 4	0.36	1618	1.653	9.39	3.46	41.32	SLV 4	0.36	1618	1.653	Si
0.23	24	9	159	SLV 4	0.36	1618	1.653	9.21	3.39	41.32	SLV 4	0.36	1618	1.653	Si
2.21	20	8	159	SLV 4	0.36	1618	1.653	7.61	3.19	41.32	SLV 4	0.36	1618	1.653	Si
4.2	27	14	159	SLV 8	0.36	1618	1.653	10.27	5.42	41.32	SLV 8	0.36	1618	1.653	Si
4.42	28	15	159	SLV 8	0.36	1618	1.653	10.89	5.87	41.32	SLV 8	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
75,74,73,72,71,70,69,68,67,66,65	4.87	1.3	SLU 81	ST	BT	2.3	221437	40280	5.5	Si
75,74,73,72,71,70,69,68,67,66,65	4.87	1.3	SLV 3	SIS	BT	2.3	189008	34252	5.52	Si
75,74,73,72,71,70,69,68,67,66,65	4.87	1.3	SLD 3	SIS	BT	2.3	206697	30481	6.78	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	-213	-40280	-3951.87	1431.45	0	0	0.04	-0.1	1.1	4.8	1496	2060	0	14430	
0	3899	-34252	-5562.26	2468.86	0	6	0.07	-0.16	0.98	4.73	1496	2060	0	14430	0.07
0	1648	-30481	-3893.62	1555.75	0	3	0.05	-0.13	1.04	4.77	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.05	0	0	0.23	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.04	0	0	0.23	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.04	0	0	0.23	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

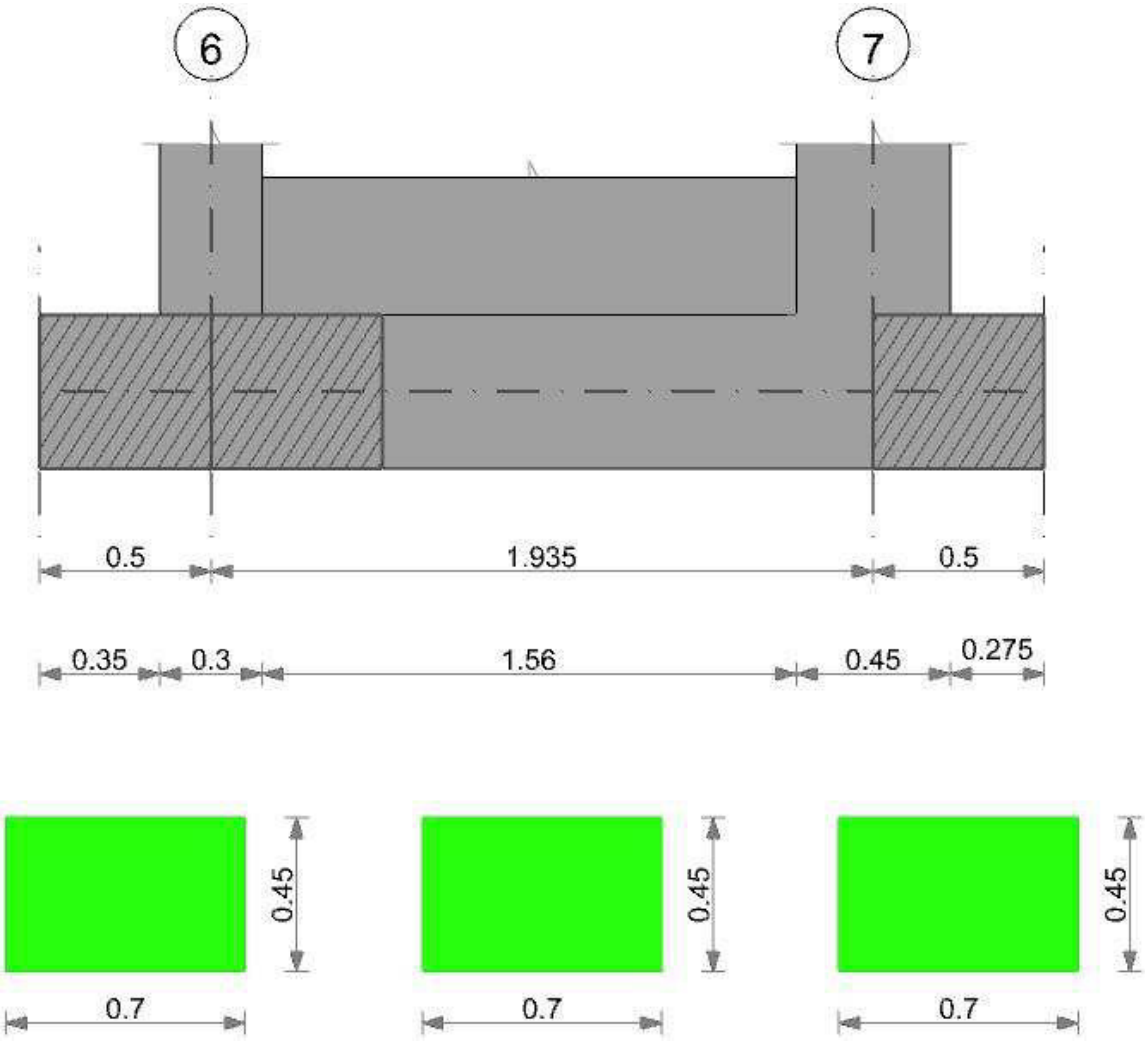
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0	214	SLE RA 18	0.05	0	214	320	SLE RA 18	0.05	0	214	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	214	SLE RA 1	0.05	0	214	214	SLE RA 1	0.05	0	214	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	214	SLE RA 1	0.05	0	214	214	SLE RA 1	0.05	0	214	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 18	0.19	0	214	320	SLE RA 18	0.19	0	214	SLE RA 1	0.1	0	214	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	214	320	SLE RA 1	0.19	0	214	SLE RA 1	0.1	0	214	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	214	320	SLE RA 1	0.19	0	214	SLE RA 1	0.1	0	214	SLE RA 1	Si

CORDOLO 11

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x45	Rettangolare	0.7	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

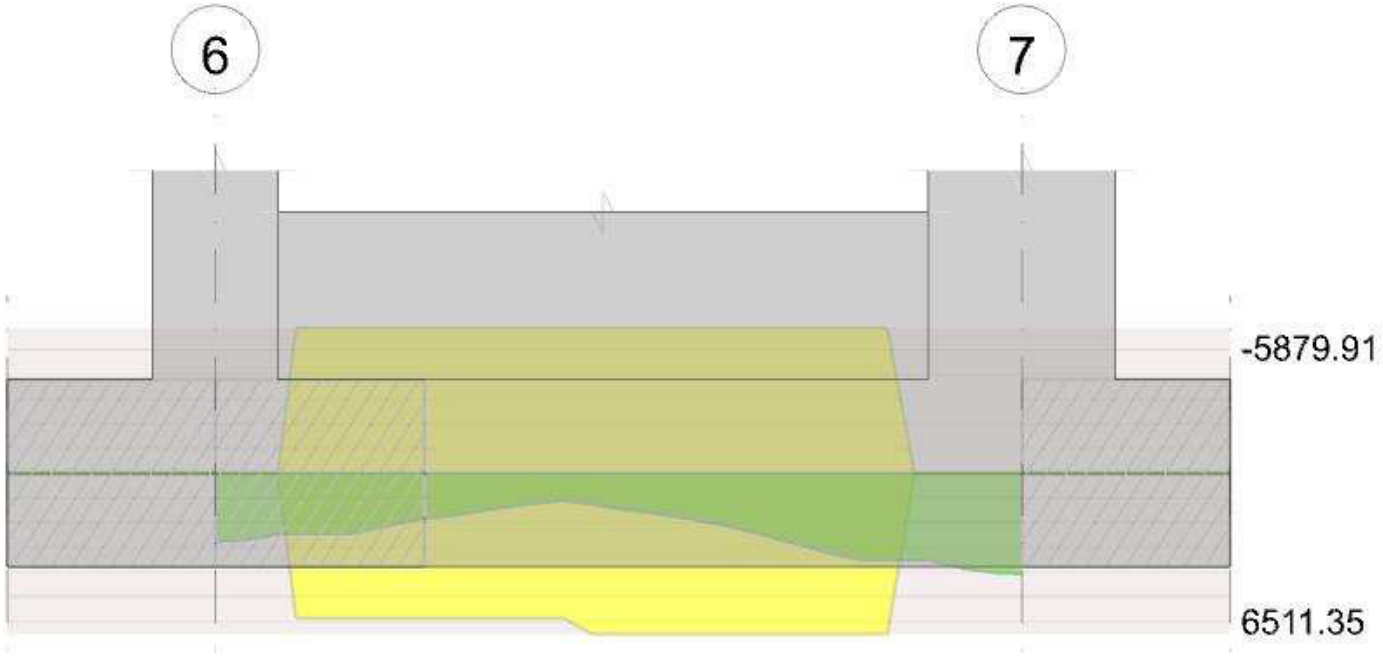
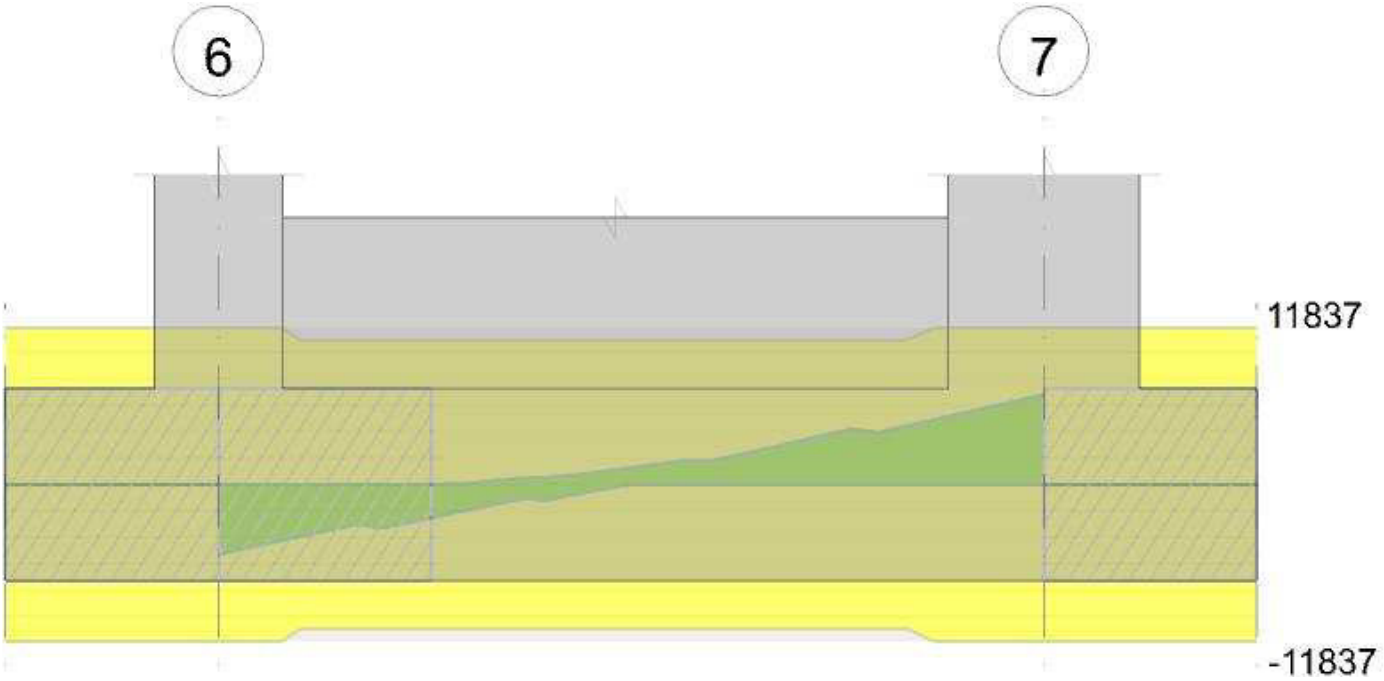


Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 6 - 7, sezione R 70x45, aste 186, 185, 184, 183, 182

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1521	SLU 81	0.018	2903	3926	SLU 81	15877	Si
0.15	0.41	0.0002	1529	SLU 81	0.018	2903	3945	SLU 81	15877	Si
0.97	0.41	0.0002	1534	SLU 81	0.018	2903	3959	SLU 81	15877	Si
1.71	0.41	0.0002	1495	SLU 81	0.018	2903	3859	SLU 81	15877	Si
1.94	0.41	0.0002	1469	SLU 81	0.018	2903	3791	SLU 81	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000182	1108	SLE RA 18	32034	1494000	397218	36000000	973	SLE QP 2	28119	1120500	Si
0.15	0.41	0.00000182	1113	SLE RA 18	32185	1494000	399093	36000000	977	SLE QP 2	28250	1120500	Si
0.97	0.41	0.00000182	1117	SLE RA 18	32300	1494000	400523	36000000	981	SLE QP 2	28360	1120500	Si
1.71	0.41	0.00000182	1089	SLE RA 18	31491	1494000	390493	36000000	957	SLE QP 2	27656	1120500	Si
1.94	0.41	0.00000182	1070	SLE RA 18	30931	1494000	383550	36000000	939	SLE QP 2	27159	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	25	12	159	SLV 1	0.36	1618	1.653	9.73	4.56	28.22	SLV 1	0.36	1618	1.653	Si
0.15	25	12	159	SLV 1	0.36	1618	1.653	9.77	4.5	28.22	SLV 1	0.36	1618	1.653	Si
0.97	25	10	159	SLV 1	0.36	1618	1.653	9.81	4.01	28.22	SLV 1	0.36	1618	1.653	Si
1.71	25	9	159	SLV 3	0.36	1618	1.653	9.57	3.55	28.22	SLV 3	0.36	1618	1.653	Si
1.94	24	9	159	SLV 4	0.36	1618	1.653	9.39	3.46	28.22	SLV 4	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
186,185,184,183,182	1.94	1.3	SLU 81	ST	BT	2.3	106297	18883	5.63	Si
186,185,184,183,182	1.94	1.3	SLV 4	SIS	BT	2.3	95124	15902	5.98	Si
186,185,184,183,182	1.94	1.3	SLD 4	SIS	BT	2.3	101057	14204	7.11	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
372	-515	-18883	-512.84	104.22	1	-2	0.01	-0.03	1.25	1.92	1496	2060	0	14430	
1213	811	-15902	-1151.32	471.16	4	3	0.03	-0.07	1.16	1.88	1496	2060	0	14430	0.07
672	168	-14204	-696.54	247.49	3	1	0.02	-0.05	1.2	1.9	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.13	0	0	0.23	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.12	0	0	0.23	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.13	0	0	0.23	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

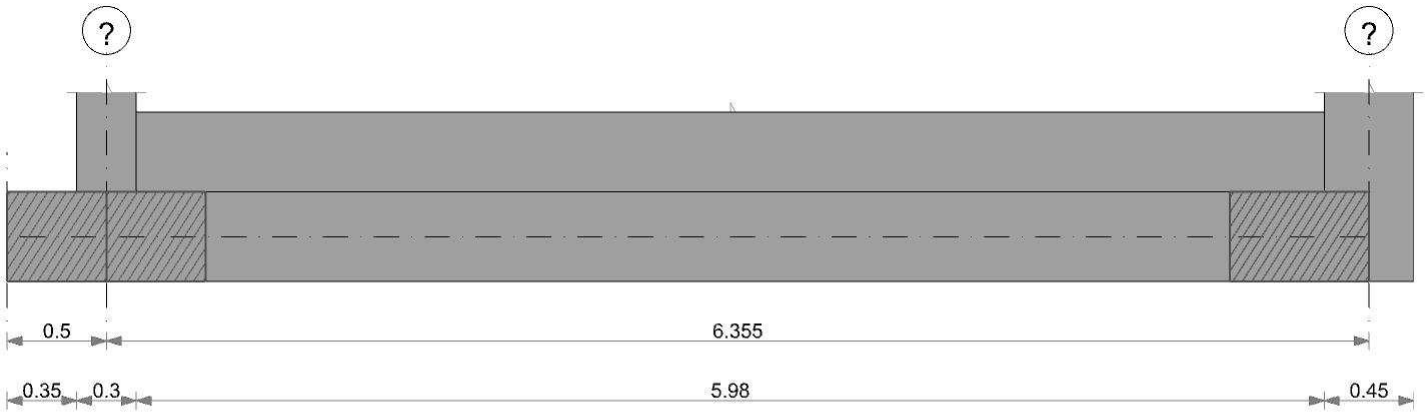
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	140	SLE RA 18	0.05	0	140	214	SLE RA 18	0.05	0	140	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	140	SLE RA 1	0.05	0	140	140	SLE RA 1	0.05	0	140	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	140	SLE RA 1	0.05	0	140	140	SLE RA 1	0.05	0	140	SLE RA 1	0.0033	0	SLE RA 1	Si

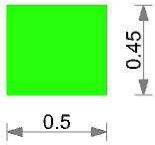
Verifiche geotecniche - Rotazioni assolute e differenziali

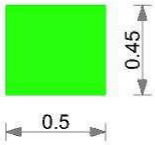
Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 18	0.19	0	140	214	SLE RA 18	0.19	0	140	SLE RA 1	0.1	0	140	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	140	214	SLE RA 1	0.19	0	140	SLE RA 1	0.1	0	140	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	140	214	SLE RA 1	0.19	0	140	SLE RA 1	0.1	0	140	SLE RA 1	Si

CORDOLO 12

Geometria







Caratteristiche dei materiali

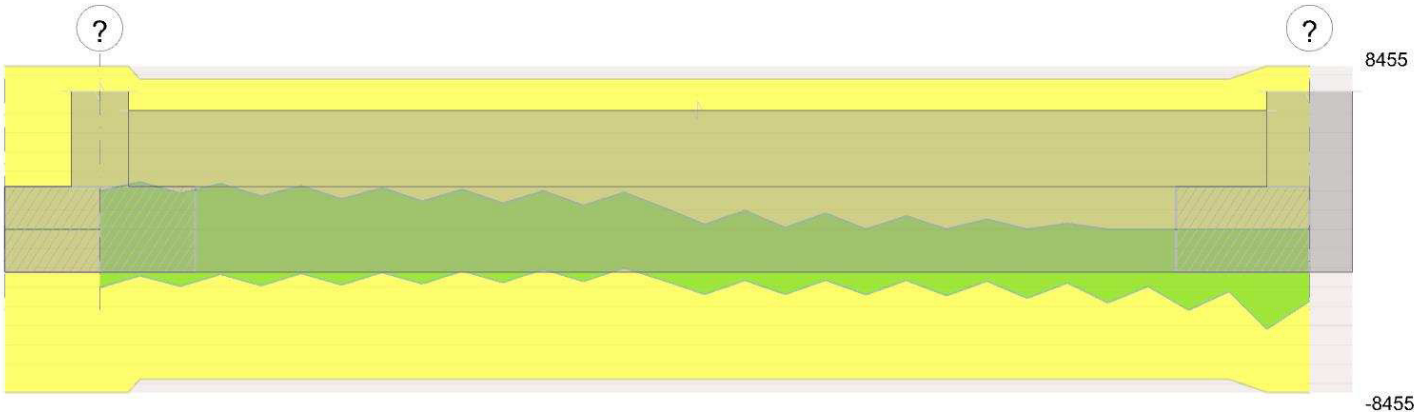
Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili ? - ?, sezione R 50x45, aste 51, 50, 49, 48, 47, 46, 45, 44, 43, 42, 41, 40, 39, 38, 37, 36

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	671	SLU 81	0.017	2684	2004	SLU 81	15877	Si
0.15	0.41	0.0002	679	SLU 81	0.017	2684	2026	SLU 81	15877	Si
3.18	0.41	0.0002	981	SLU 81	0.017	2684	2928	SLU 81	15877	Si
6.13	0.41	0.0002	1152	SLU 81	0.017	2684	3439	SLU 81	15877	Si
6.36	0.41	0.0002	1192	SLU 81	0.017	2684	3560	SLU 81	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000168	475	SLE RA 18	13764	1494000	170676	36000000	385	SLE QP 2	11152	1120500	Si
0.15	0.41	0.00000168	480	SLE RA 18	13903	1494000	172401	36000000	388	SLE QP 2	11238	1120500	Si
3.18	0.41	0.00000168	694	SLE RA 18	20088	1494000	249096	36000000	555	SLE QP 2	16070	1120500	Si
6.13	0.41	0.00000168	832	SLE RA 18	24086	1494000	298663	36000000	709	SLE QP 2	20530	1120500	Si
6.36	0.41	0.00000168	862	SLE RA 18	24974	1494000	309679	36000000	739	SLE QP 2	21406	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	11	4	159	SLV 5	0.36	1618	1.653	3.85	1.24	26.11	SLV 5	0.36	1618	1.653	Si
0.15	12	3	159	SLV 5	0.36	1618	1.653	3.88	1.16	26.11	SLV 5	0.36	1618	1.653	Si
3.18	17	2	159	SLV 8	0.36	1618	1.653	5.55	0.74	26.11	SLV 8	0.36	1618	1.653	Si
6.13	21	9	159	SLV 8	0.36	1618	1.653	7.09	3.02	26.11	SLV 8	0.36	1618	1.653	Si
6.36	22	10	159	SLV 8	0.36	1618	1.653	7.39	3.28	26.11	SLV 8	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
51,50,49,48,47,46,45,44,43,42,41,40,39,38,37,36	6.58	1.1	SLU 81	ST	BT	2.3	292675	46585	6.28	Si
51,50,49,48,47,46,45,44,43,42,41,40,39,38,37,36	6.58	1.1	SLV 3	SIS	LT	2.3	232818	31697	7.35	Si
51,50,49,48,47,46,45,44,43,42,41,40,39,38,37,36	6.58	1.1	SLD 3	SIS	BT	2.3	269540	30883	8.73	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	315	-46585	-195.08	7330.16	0	0	0.16	0	1.09	6.27	1496	2060	0	14430	
0	5143	-31697	-2511.63	7072.53	0	9	0.22	-0.08	0.94	6.13	1496	2060	37	0	0.07
0	2371	-30883	-1175.31	5889.77	0	4	0.19	-0.04	1.02	6.2	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.03	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
43	56	66	1.12	1.12	0.94	1.16	1.27	1	0.72	0.71	0.6	1	1	1	1	1	1	1	1	1	0.96	0.98	0.96
1	5	0	0	0.03	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

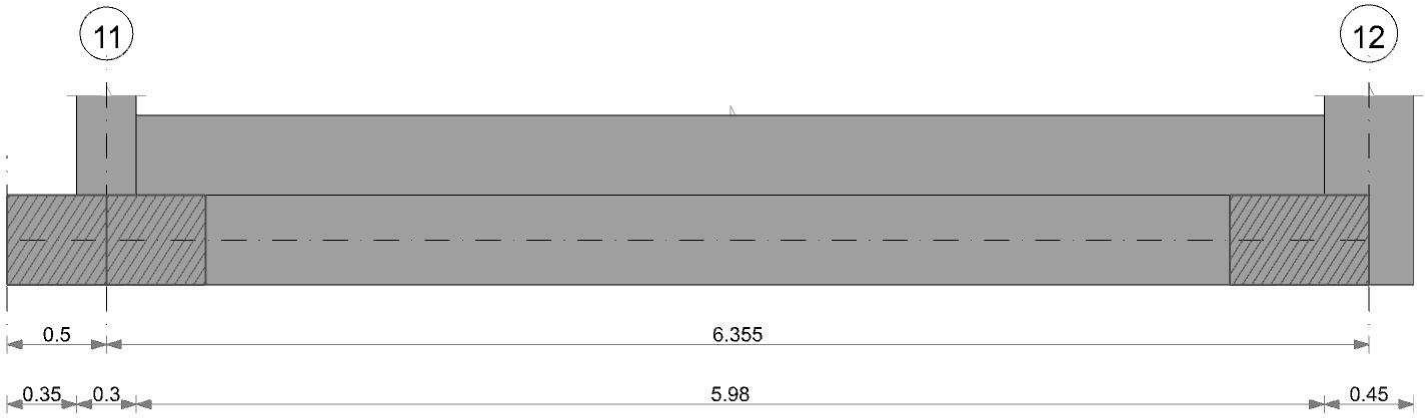
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	151	SLE RA 18	0.05	0	151	333	SLE RA 18	0.05	0	151	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	151	SLE RA 1	0.05	0	151	151	SLE RA 1	0.05	0	151	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	151	SLE RA 1	0.05	0	151	151	SLE RA 1	0.05	0	151	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 18	0.19	0	151	333	SLE RA 18	0.19	0	151	SLE RA 1	0.1	0	151	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	151	333	SLE RA 1	0.19	0	151	SLE RA 1	0.1	0	151	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	151	333	SLE RA 1	0.19	0	151	SLE RA 1	0.1	0	151	SLE RA 1	Si

CORDOLO 13

Geometria



Caratteristiche dei materiali

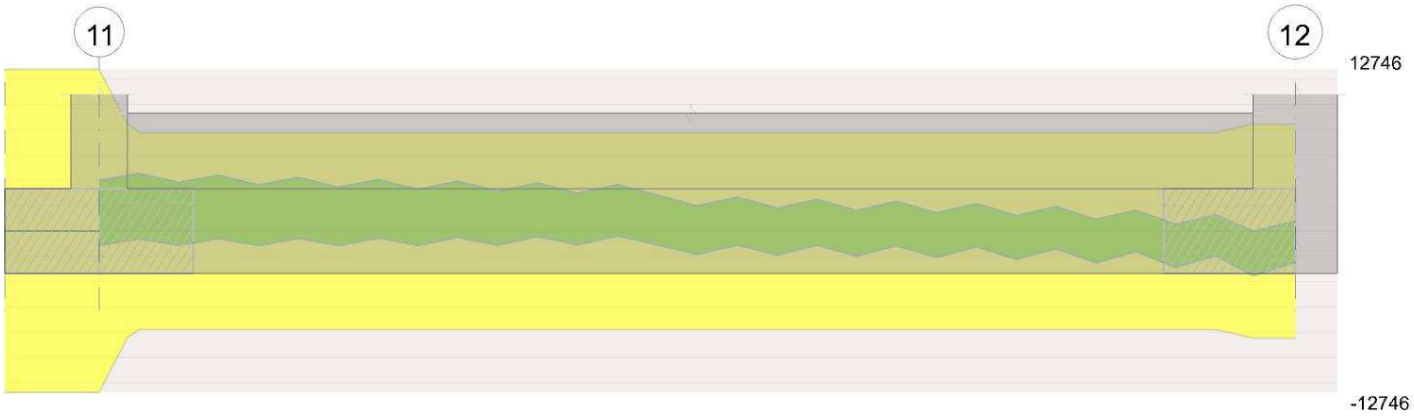
Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 11 - 12, sezione R 50x45, aste 35, 34, 33, 32, 31, 30, 29, 28, 27, 26, 25, 24, 23, 22, 21, 20

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	658	SLU 81	0.034	6379	1963	SLU 81	15877	Si
0.15	0.41	0.0002	665	SLU 81	0.017	2684	1985	SLU 81	15877	Si
3.18	0.41	0.0002	972	SLU 82	0.017	2684	2902	SLU 82	15877	Si
6.13	0.41	0.0002	1148	SLU 82	0.017	2684	3427	SLU 82	15877	Si
6.36	0.41	0.0002	1188	SLU 82	0.017	2684	3547	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000402	465	SLE RA 18	13050	1494000	161822	36000000	375	SLE QP 2	10524	1120500	Si
0.15	0.41	0.00000168	469	SLE RA 18	13599	1494000	168624	36000000	378	SLE QP 2	10940	1120500	Si
3.18	0.41	0.00000168	687	SLE RA 19	19898	1494000	246736	36000000	548	SLE QP 2	15885	1120500	Si
6.13	0.41	0.00000168	828	SLE RA 19	23992	1494000	297503	36000000	706	SLE QP 2	20440	1120500	Si
6.36	0.41	0.00000168	859	SLE RA 19	24882	1494000	308542	36000000	736	SLE QP 2	21317	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	11	3	159	SLV 9	0.36	1618	1.653	3.75	1.09	61.33	SLV 9	0.36	1618	1.653	Si
0.15	11	3	159	SLV 9	0.36	1618	1.653	3.78	1.02	26.11	SLV 9	0.36	1618	1.653	Si
3.18	16	2	159	SLV 11	0.36	1618	1.653	5.48	0.74	26.11	SLV 11	0.36	1618	1.653	Si
6.13	21	9	159	SLV 12	0.36	1618	1.653	7.06	3.03	26.11	SLV 12	0.36	1618	1.653	Si
6.36	22	10	159	SLV 12	0.36	1618	1.653	7.36	3.3	26.11	SLV 12	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
35,34,33,32,31,30,29,28,27,26,25,24,23,22,21,20	6.58	1.1	SLU 81	ST	BT	2.3	292149	46309	6.31	Si
35,34,33,32,31,30,29,28,27,26,25,24,23,22,21,20	6.58	1.1	SLV 3	SIS	LT	2.3	224965	30468	7.38	Si
35,34,33,32,31,30,29,28,27,26,25,24,23,22,21,20	6.58	1.1	SLD 7	SIS	BT	2.3	273659	31106	8.8	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	315	-46309	-195.08	7547.28	0	0	0.16	0	1.09	6.25	1496	2060	0	14430	
0	5143	-30468	-2511.63	7485.64	0	10	0.25	-0.08	0.94	6.09	1496	2060	37	0	0.07
0	1075	-31106	-533.15	8840.18	0	2	0.28	-0.02	1.07	6.01	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.03	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
43	56	66	1.12	1.12	0.94	1.16	1.27	1	0.71	0.7	0.59	1	1	1	1	1	1	1	1	1	0.96	0.98	0.96
1	5	0	0	0.04	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

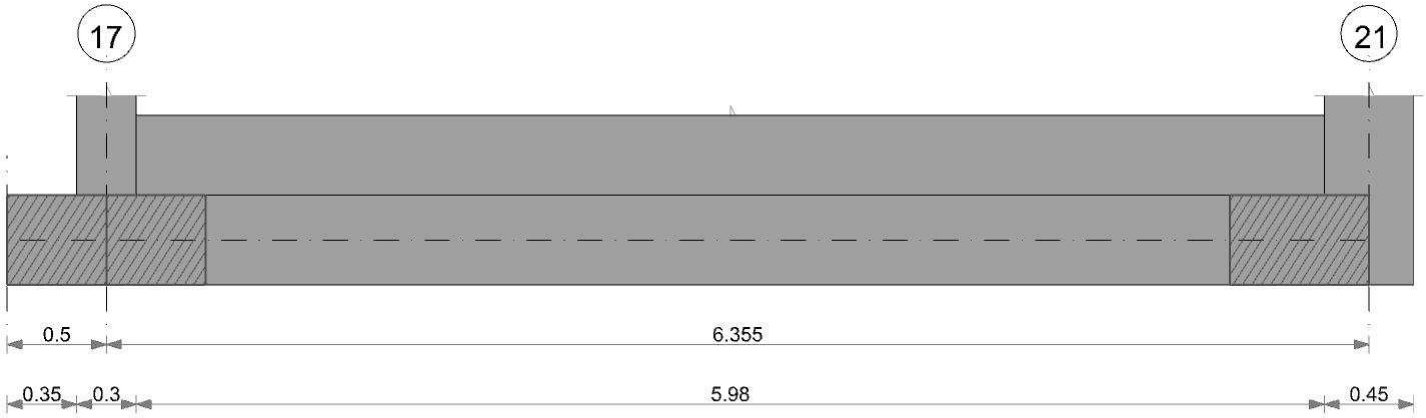
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	153	SLE RA 19	0.05	0	153	335	SLE RA 19	0.05	0	153	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	153	SLE RA 1	0.05	0	153	153	SLE RA 1	0.05	0	153	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	153	SLE RA 1	0.05	0	153	153	SLE RA 1	0.05	0	153	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 19	0.19	0	153	335	SLE RA 19	0.19	0	153	SLE RA 1	0.1	0	153	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	153	335	SLE RA 1	0.19	0	153	SLE RA 1	0.1	0	153	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	153	335	SLE RA 1	0.19	0	153	SLE RA 1	0.1	0	153	SLE RA 1	Si

CORDOLO 14

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

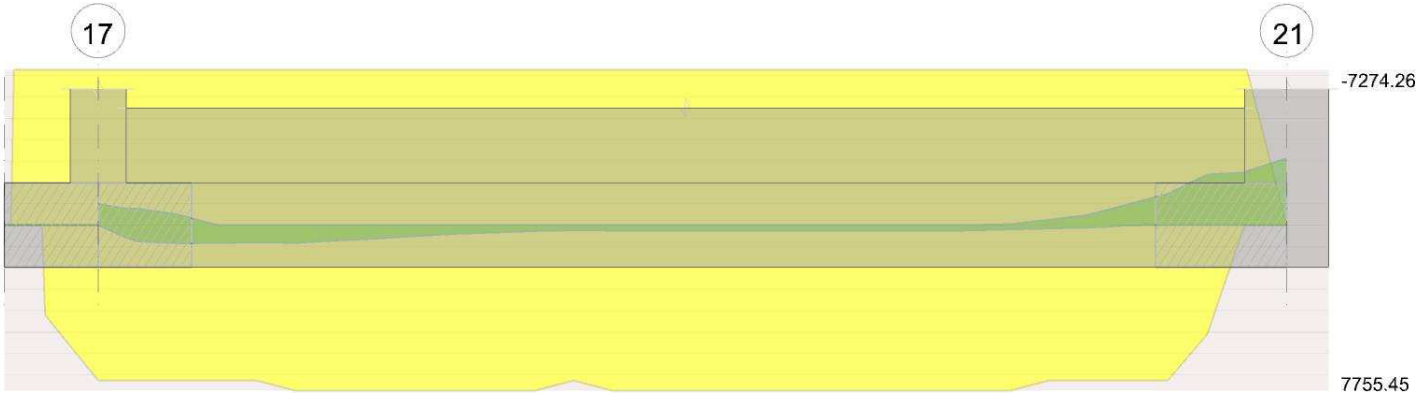
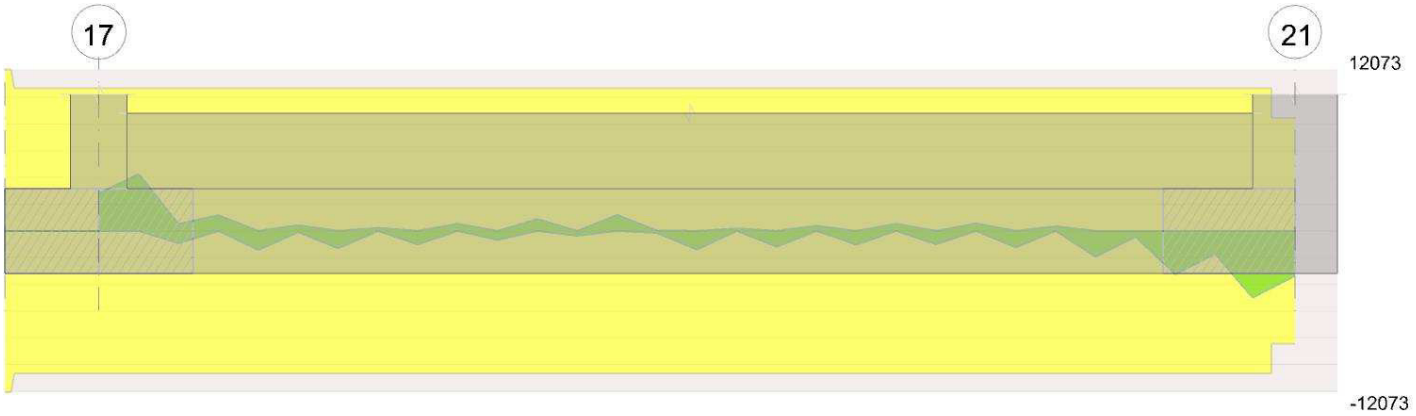


Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 17 - 21, sezione R 50x45, aste 19, 18, 17, 16, 15, 14, 13, 12, 11, 10, 9, 8, 7, 6, 5, 4

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	285	SLU 82	0.032	6047	1756	SLU 82	22531	Si
0.15	0.41	0.0004	288	SLU 82	0.032	6047	1773	SLU 82	22531	Si
3.18	0.41	0.0004	311	SLU 82	0.032	6047	1912	SLU 82	22531	Si
6.13	0.41	0.0004	305	SLV 11	0.126	5817	1880	SLV 11	22531	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000381	209	SLE RA 19	5873	1494000	72828	36000000	184	SLE QP 2	5189	1120500	Si
0.15	0.41	0.00000381	210	SLE RA 19	5927	1494000	73496	36000000	186	SLE QP 2	5236	1120500	Si
3.18	0.41	0.00000381	227	SLE RA 19	6385	1494000	79177	36000000	200	SLE QP 2	5624	1120500	Si
6.13	0.41	0.00000381	222	SLE RA 19	6254	1494000	77551	36000000	194	SLE QP 2	5466	1120500	Si
6.36	0.42	0	224	SLE RA 19	6629	1494000	0	36000000	195	SLE QP 2	5791	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	11	5	225	SLV 14	0.36	1618	1.653	1.84	0.8	58.17	SLV 14	0.36	1618	1.653	Si
0.15	11	5	225	SLV 14	0.36	1618	1.653	1.86	0.8	58.17	SLV 14	0.36	1618	1.653	Si
3.18	12	5	225	SLV 15	0.36	1618	1.653	2	0.79	58.17	SLV 15	0.36	1618	1.653	Si
6.13	12	7	226	SLV 11	0.36	1618	1.653	1.94	1.11	58.17	SLV 11	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
19,18,17,16,15,14,13,12,11,10,9,8,7,6,5,4	6.58	1.1	SLU 82	ST	BT	2.3	306346	57722	5.31	Si
19,18,17,16,15,14,13,12,11,10,9,8,7,6,5,4	6.58	1.1	SLV 16	SIS	BT	2.3	281786	49831	5.65	Si
19,18,17,16,15,14,13,12,11,10,9,8,7,6,5,4	6.58	1.1	SLD 16	SIS	BT	2.3	294483	43912	6.71	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	-38	-57722	199.76	821.84	0	0	0.01	0	1.09	6.55	1496	2060	0	14430	
0	-4347	-49831	1645.63	3081.21	0	-5	0.06	0.03	1.03	6.46	1496	2060	0	14430	0.07
0	-1911	-43912	802.18	1538.79	0	-2	0.04	0.02	1.06	6.51	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.03	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.03	0	0	0.27	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.03	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

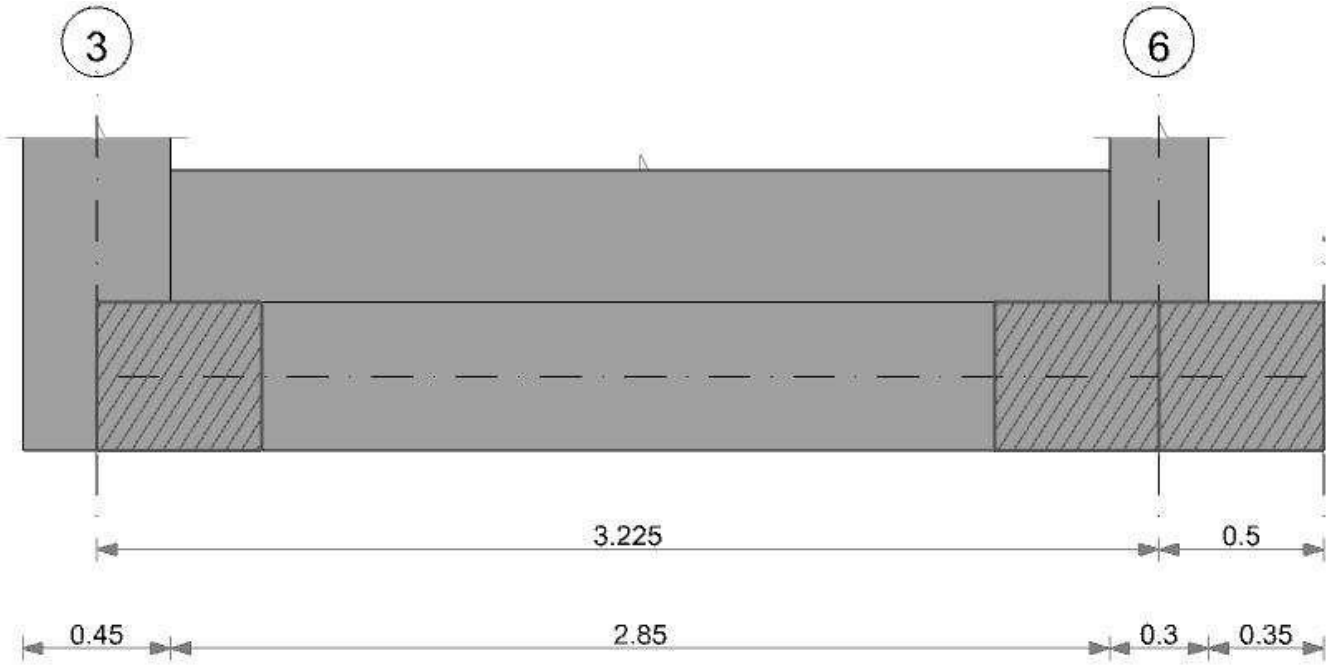
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0	166	SLE RA 19	0.05	0	166	348	SLE RA 19	0.05	0	166	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	166	SLE RA 1	0.05	0	166	166	SLE RA 1	0.05	0	166	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	166	SLE RA 1	0.05	0	166	166	SLE RA 1	0.05	0	166	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 19	0.19	0	166	348	SLE RA 19	0.19	0	166	SLE RA 1	0.1	0	166	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	166	348	SLE RA 1	0.19	0	166	SLE RA 1	0.1	0	166	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	166	348	SLE RA 1	0.19	0	166	SLE RA 1	0.1	0	166	SLE RA 1	Si

CORDOLO 15

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 70x45	Rettangolare	0.7	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

Diagramma verifica stato limite ultimo taglio

Output campate

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 3 - 6, sezione R 70x45, aste 103, 102, 101, 100, 99, 98, 97, 96, 95

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1911	SLV 1	0.086	2715	4933	SLV 1	15877	Si
0.23	0.41	0.0002	1823	SLV 1	0.086	2715	4704	SLV 1	15877	Si
1.61	0.41	0.0002	1463	SLV 1	0.086	2715	3796	SLU 81	15877	Si
3.08	0.41	0.0002	1513	SLU 81	0.018	2792	3905	SLU 81	15877	Si
3.23	0.41	0.0002	1521	SLU 81	0.018	2792	3926	SLU 81	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000175	1356	SLE RA 18	39229	1494000	486437	36000000	1189	SLE QP 2	34404	1120500	Si
0.23	0.41	0.00000175	1296	SLE RA 18	37506	1494000	465075	36000000	1136	SLE QP 2	32884	1120500	Si
1.61	0.41	0.00000175	1071	SLE RA 18	31001	1494000	384412	36000000	939	SLE QP 2	27174	1120500	Si
3.08	0.41	0.00000175	1102	SLE RA 18	31897	1494000	395522	36000000	968	SLE QP 2	28001	1120500	Si
3.23	0.41	0.00000175	1108	SLE RA 18	32064	1494000	397590	36000000	973	SLE QP 2	28146	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	31	19	159	SLV 1	0.36	1618	1.653	11.89	7.23	27.15	SLV 1	0.36	1618	1.653	Si
0.23	29	18	159	SLV 1	0.36	1618	1.653	11.36	6.86	27.15	SLV 1	0.36	1618	1.653	Si
1.61	24	14	159	SLV 1	0.36	1618	1.653	9.39	5.24	27.15	SLV 1	0.36	1618	1.653	Si
3.08	25	12	159	SLV 1	0.36	1618	1.653	9.68	4.62	27.15	SLV 1	0.36	1618	1.653	Si
3.23	25	12	159	SLV 1	0.36	1618	1.653	9.73	4.56	27.15	SLV 1	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
103,102,101,100,99,98,97,96,95	3.45	1.3	SLU 81	ST	BT	2.3	169102	32156	5.26	Si
103,102,101,100,99,98,97,96,95	3.45	1.3	SLV 2	SIS	BT	2.3	150195	29490	5.09	Si
103,102,101,100,99,98,97,96,95	3.45	1.3	SLD 2	SIS	BT	2.3	160064	25246	6.34	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
746	142	-32156	-2077.08	-788.04	1	0	-0.02	-0.06	1.17	3.4	1496	2060	0	14430	
483	2820	-29490	-3366.44	-1446.49	1	5	-0.05	-0.11	1.07	3.35	1496	2060	0	14430	0.07
484	1293	-25246	-2243.95	-914.32	1	3	-0.04	-0.09	1.12	3.38	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.07	0	0	0.23	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.06	0	0	0.23	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.07	0	0	0.23	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

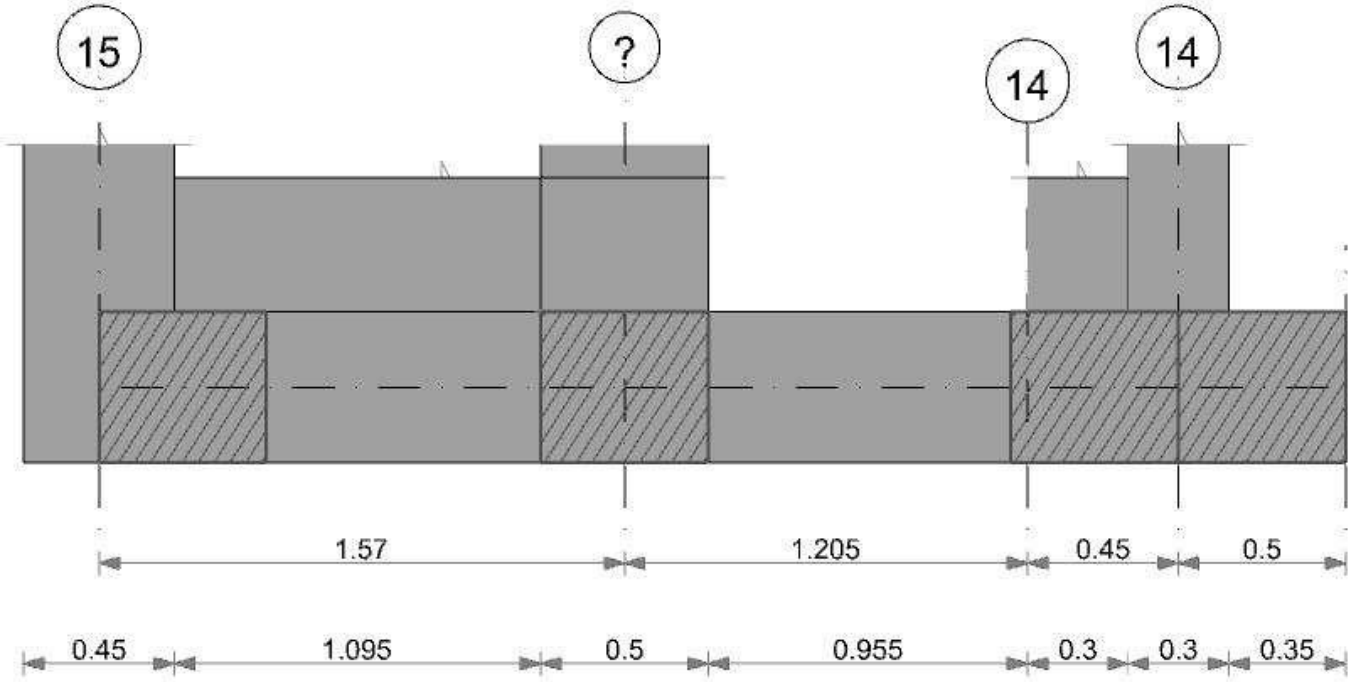
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	140	SLE RA 18	0.05	0	140	5	SLE RA 18	0.05	0	140	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	140	SLE RA 1	0.05	0	140	140	SLE RA 1	0.05	0	140	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	140	SLE RA 1	0.05	0	140	140	SLE RA 1	0.05	0	140	SLE RA 1	0.0033	0	SLE RA 1	Si

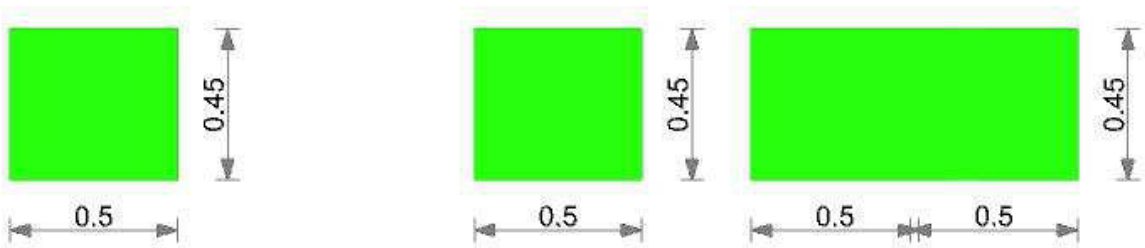
Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0.01	SLE RA 18	0.19	0.01	140	5	SLE RA 18	0.19	0	140	SLE RA 1	0.1	0	140	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	140	5	SLE RA 1	0.19	0	140	SLE RA 1	0.1	0	140	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	140	5	SLE RA 1	0.19	0	140	SLE RA 1	0.1	0	140	SLE RA 1	Si

CORDOLO 16

Geometria





Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

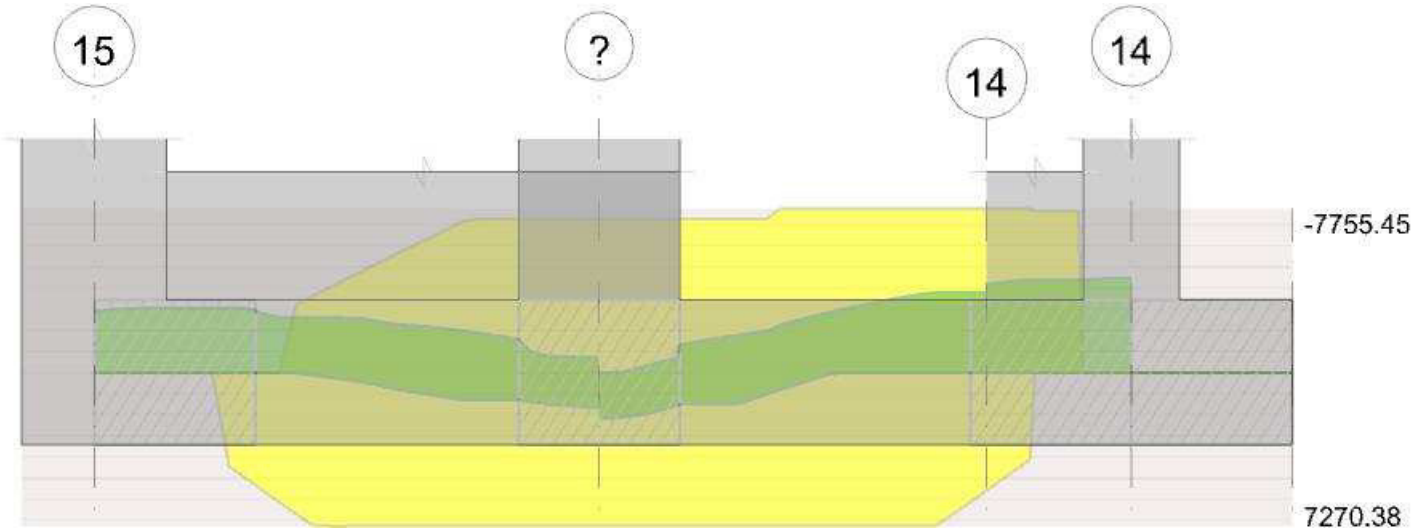
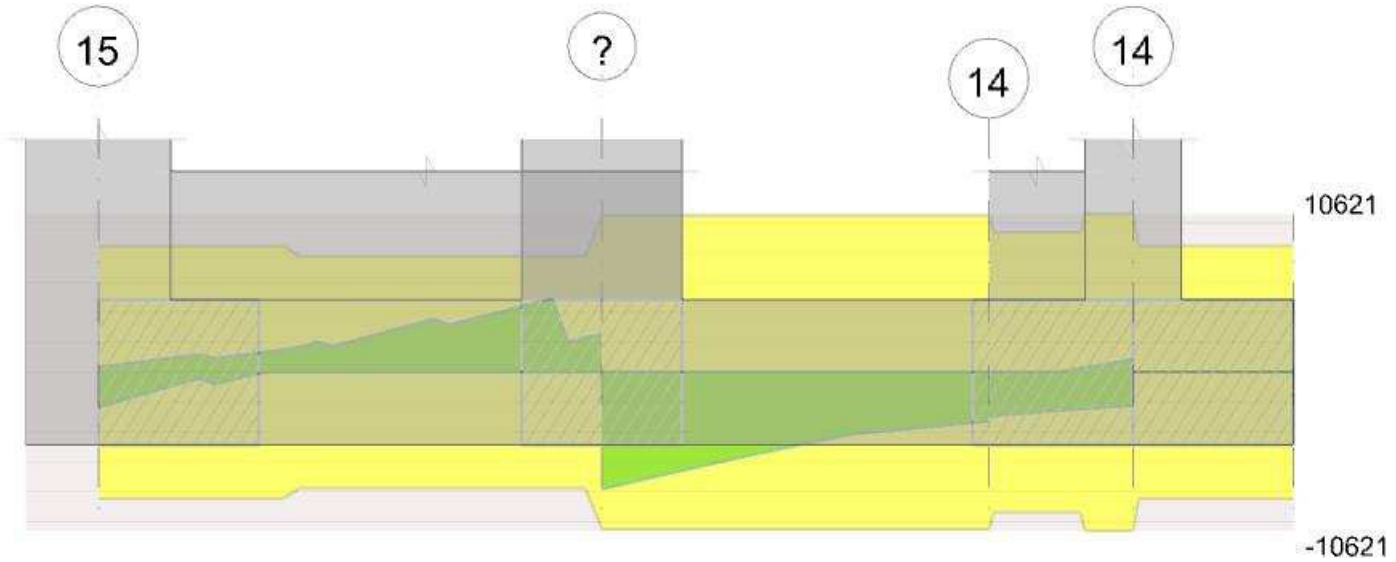


Diagramma verifica stato limite ultimo taglio



Output campate

Campata 2 tra i fili ? - 14, sezione R 50x45, asta 77

Verifiche a flessione in famiglia SLU

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000509	0.052	2224.42	SLU 81	1256.51	7755.45	0.113	6.17							Si
0.25	0.000509	0.052	0.000509	0.052	585.2	SLU 43	585.2	7755.45	0.113	13.25	273.03	SLU 40	-674.08	-7755.45	0.113	11.51	Si
0.6	0.000509	0.052	0.000509	0.052							-1593.24	SLU 82	-2397.59	-7755.45	0.113	3.23	Si
1.21	0.000509	0.052	0.000387	0.052							-3755.15	SLU 81	-3755.15	-7745.99	0.111	2.06	Si

Verifiche a flessione in famiglia SLV (domini sostanzialmente elastici)

La struttura oppure parte di essa, è stata dichiarata come non dissipativa pertanto la verifica a pressoflessione, per tutte o solo alcune sezioni, viene eseguita calcolando i momenti resistenti in campo sostanzialmente elastico secondo D.M. 17-01-2018 §7.4.1

Le dilatazioni ultime utilizzate sono le seguenti: εc2= 0.002, εyd= 0.0019

x	A sup.	C.b. sup.	A inf.	C.b. inf.	M+ela	Comb.	M+des	M+ult	x/d	coeff	M-ela	Comb.	M-des	M-ult	x/d	coeff	Verifica
0	0.000509	0.052	0.000509	0.052	2919.87	SLV 7	2179.98	7266.79	0.197	3.33							Si
0.25	0.000509	0.052	0.000509	0.052	1511.7	SLV 7	1511.7	7266.79	0.197	4.81	-713.83	SLV 10	-1293.99	-7266.79	0.197	5.62	Si
0.6	0.000509	0.052	0.000509	0.052	-221.52	SLV 7	623.21	7266.79	0.197	11.66	-1741.08	SLV 10	-2089.07	-7266.79	0.197	3.48	Si
1.04	0.000509	0.052	0.000509	0.052							-2431.84	SLV 6	-2740.2	-7266.79	0.197	2.65	Si
1.21	0.000509	0.052	0.000387	0.052							-2740.2	SLV 2	-2740.2	-7268.72	0.199	2.65	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.0000075	0.000509	0	-7817	SLU 82	-7817	-7764	-63178	-10524	-10524	1	1.35	Si
0.25	0.0000075	0.000509	0	-6563	SLU 81	-6563	-7764	-63178	-10524	-10524	1	1.6	Si
0.6	0.0000075	0.000509	0	-4905	SLU 81	-4905	-7764	-63178	-10524	-10524	1	2.15	Si
1.21	0.0000075	0.000509	0	-2332	SLU 81	-2332	-7764	-63178	-10524	-10524	1	4.51	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcd	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.0000075	0.000509	0	-6012	SLV 11	-6012	-7764	-63178	-10524	-10524	1	1.75	Si
0.25	0.0000075	0.000509	0	-5346	SLV 7	-5346	-7764	-63178	-10524	-10524	1	1.97	Si
0.6	0.0000075	0.000509	0	-4527	SLV 7	-4527	-7764	-63178	-10524	-10524	1	2.32	Si
1.21	0.0000075	0.000509	0	-3265	SLV 7	-3265	-7764	-63178	-10524	-10524	1	3.22	Si

Verifiche delle tensioni in esercizio

x	Rara							Quasi permanente							Verifica
	Mela	Comb.	Mdes	σ c	σ c lim.	σ f.	σ f lim.	Mela	Comb.	Mdes	σ c	σ c lim.	σ FRP	σ FRP lim.	
0	1683.52	18	961.56	50860	1494000	762901	36000000	1614.81	2	956.44	50589	1120500			Si
0.25	418.7	1	418.7	22147	1494000	332198	36000000	418.7	1	418.7	22147	1120500			Si
0.6	-1150.65	19	-1751.68	92653	1494000	1389788	36000000	-981.3	2	-1540.5	81482	1120500			Si
1.21	-2775.89	18	-2775.89	149623	1494000	2218117	36000000	-2512.36	2	-2512.36	135419	1120500			Si

Verifica di apertura delle fessure

La campata non presenta apertura delle fessure

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0.25	-4460	-886	-10524	SLV 7	0.36	1618	1.653	398.93	1112.76	7266.79	SLV 7	0.36	1618	1.653	Si
0.6	-3384	-1144	-10524	SLV 7	0.36	1618	1.653	-327.05	-950.27	-7266.79	SLV 10	0.36	1618	1.653	Si
1.21	-1733	-1532	-10524	SLV 7	0.36	1618	1.653	-2512.36	-227.84	-7268.72	SLV 2	0.36	1618	1.653	Si

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 15 - ?, sezione R 50x45, aste 82, 81, 80, 79, 78

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1172	SLU 82	0.017	2684	3605	SLU 82	15877	Si
0.23	0.41	0.0002	1105	SLU 82	0.017	2684	3399	SLU 82	15877	Si
0.78	0.41	0.0002	968	SLU 82	0.017	2684	2979	SLU 82	15877	Si
1.32	0.41	0.0002	866	SLU 82	0.017	2684	2665	SLU 82	15877	Si
1.57	0.41	0.0004	820	SLU 82	0.032	5961	2524	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000168	856	SLE RA 19	24784	1494000	307317	36000000	755	SLE QP 2	21863	1120500	Si
0.23	0.41	0.00000168	806	SLE RA 19	23351	1494000	289547	36000000	710	SLE QP 2	20565	1120500	Si
0.78	0.41	0.00000168	705	SLE RA 19	20424	1494000	253253	36000000	618	SLE QP 2	17898	1120500	Si
1.32	0.41	0.00000168	629	SLE RA 19	18222	1494000	225954	36000000	548	SLE QP 2	15859	1120500	Si
1.57	0.41	0.00000375	595	SLE RA 19	16767	1494000	207906	36000000	515	SLE QP 2	14526	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	23	11	159	SLV 10	0.36	1618	1.653	7.55	3.64	26.11	SLV 10	0.36	1618	1.653	Si
0.23	22	10	159	SLV 10	0.36	1618	1.653	7.1	3.29	26.11	SLV 10	0.36	1618	1.653	Si
0.78	19	8	159	SLV 10	0.36	1618	1.653	6.18	2.51	26.11	SLV 10	0.36	1618	1.653	Si
1.32	17	6	159	SLV 13	0.36	1618	1.653	5.48	2.07	26.11	SLV 13	0.36	1618	1.653	Si
1.57	16	6	159	SLV 13	0.36	1618	1.653	5.15	2.03	57.36	SLV 13	0.36	1618	1.653	Si

Campata 2 tra i fili ? - 14, sezione R 50x45, asta 77

Campata 3 tra i fili 14 - 14, sezione R 50x45, asta 76

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	615	SLU 82	0.032	5961	1892	SLU 82	15877	Si
0.23	0.41	0.0003	599	SLU 82	0.028	5328	1842	SLU 82	15877	Si
0.3	0.41	0.0003	596	SLU 82	0.028	5328	1832	SLU 82	15877	Si
0.45	0.41	0.0003	593	SLU 82	0.028	5328	1824	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000375	440	SLE RA 19	12397	1494000	153721	36000000	367	SLE QP 2	10333	1120500	Si
0.23	0.41	0.00000335	427	SLE RA 19	12097	1494000	150007	36000000	353	SLE QP 2	10004	1120500	Si
0.3	0.41	0.00000335	425	SLE RA 19	12028	1494000	149143	36000000	350	SLE QP 2	9924	1120500	Si
0.45	0.41	0.00000335	422	SLE RA 19	11957	1494000	148265	36000000	347	SLE QP 2	9825	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	11	6	159	SLV 13	0.36	1618	1.653	3.67	2.06	57.36	SLV 13	0.36	1618	1.653	Si
0.23	11	6	159	SLV 13	0.36	1618	1.653	3.53	2.08	51.34	SLV 13	0.36	1618	1.653	Si
0.3	11	6	159	SLV 13	0.36	1618	1.653	3.5	2.09	51.34	SLV 13	0.36	1618	1.653	Si
0.45	11	6	159	SLV 13	0.36	1618	1.653	3.47	2.1	51.34	SLV 13	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
82,81,80,79,78,77,76	3.45	1.1	SLU 82	ST	BT	2.3	152888	22734	6.73	Si
82,81,80,79,78,77,76	3.45	1.1	SLV 13	SIS	BT	2.3	141759	19138	7.41	Si
82,81,80,79,78,77,76	3.45	1.1	SLD 13	SIS	BT	2.3	150293	17100	8.79	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	-112	-22734	-228.52	-2506.49	0	0	-0.11	-0.01	1.08	3.23	1496	2060	0	14430	
0	-2170	-19138	811.28	-2102.71	0	-6	-0.11	0.04	1.02	3.23	1496	2060	0	14430	0.07
0	-980	-17100	273.83	-1916.51	0	-3	-0.11	0.02	1.07	3.23	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.07	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.06	0	0	0.27	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.07	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

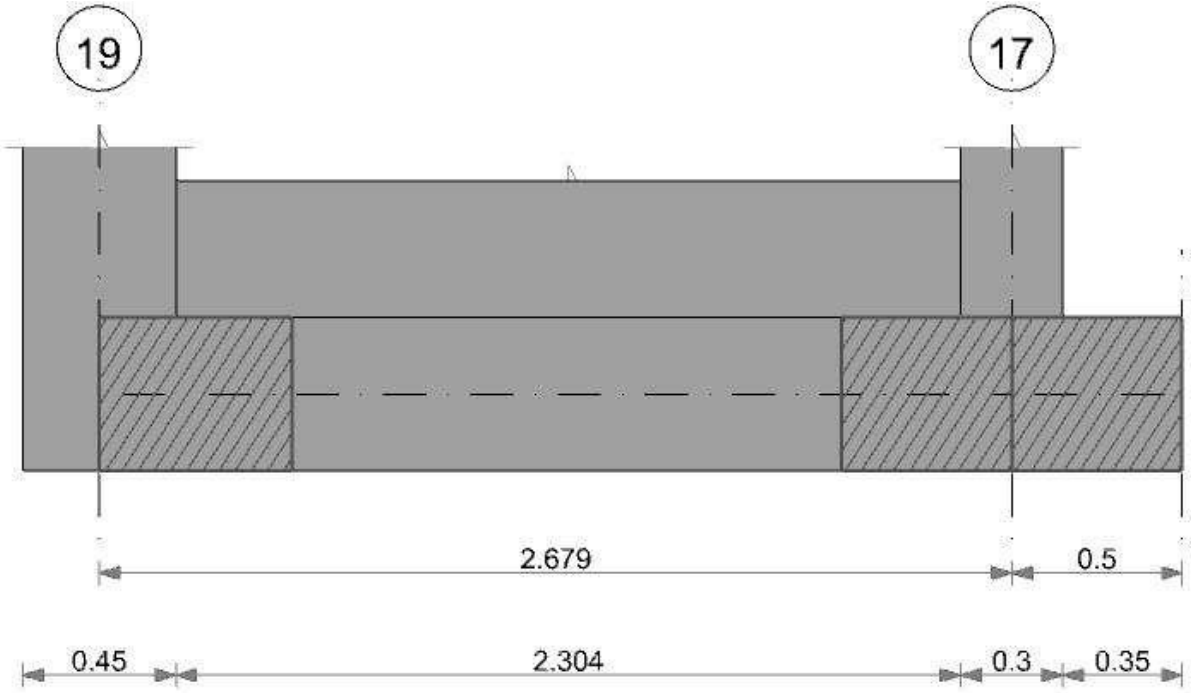
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	162	SLE RA 19	0.05	0	162	24	SLE RA 19	0.05	0	100	SLE RA 19	0.0033	0	SLE RA 1	Si
D	0.05	0	162	SLE RA 1	0.05	0	162	162	SLE RA 1	0.05	0	113	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	162	SLE RA 1	0.05	0	162	162	SLE RA 1	0.05	0	113	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0.01	SLE RA 19	0.19	0.01	100	24	SLE RA 19	0.19	0.01	100	SLE RA 19	0.1	0	162	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	162	113	SLE RA 1	0.19	0	162	SLE RA 1	0.1	0	113	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	162	113	SLE RA 1	0.19	0	162	SLE RA 1	0.1	0	113	SLE RA 1	Si

CORDOLO 17

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

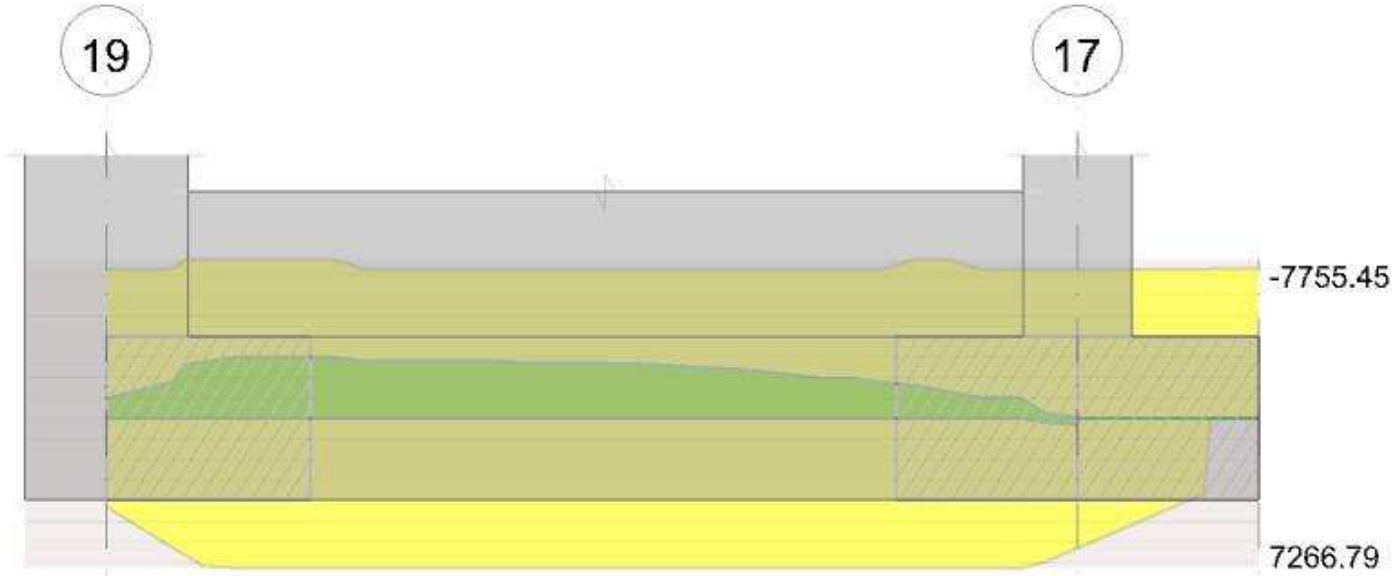
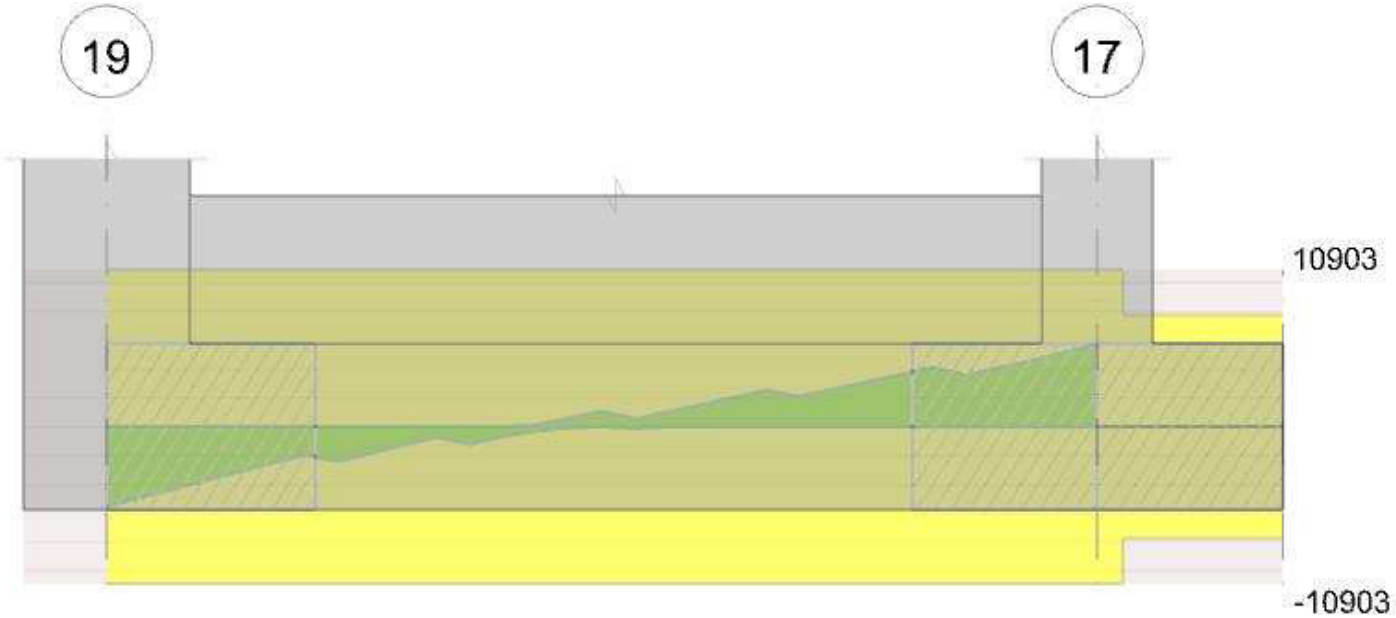


Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 19 - 17, sezione R 50x45, aste 132, 131, 130, 129, 128, 127

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	929	SLV 14	0.127	5937	3231	SLV 14	15877	Si
0.23	0.41	0.0004	888	SLV 14	0.127	5937	3089	SLV 14	15877	Si
1.34	0.41	0.0004	757	SLV 14	0.127	5937	2698	SLU 82	15877	Si
2.53	0.41	0.0004	801	SLU 82	0.033	6173	2784	SLU 82	15877	Si
2.68	0.41	0.0004	809	SLU 82	0.033	6173	2813	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000389	674	SLE RA 19	18968	1494000	235201	36000000	599	SLE QP 2	16847	1120500	Si
0.23	0.41	0.00000389	647	SLE RA 19	18195	1494000	225618	36000000	574	SLE QP 2	16139	1120500	Si
1.34	0.41	0.00000389	566	SLE RA 19	15929	1494000	197523	36000000	499	SLE QP 2	14040	1120500	Si
2.53	0.41	0.00000389	584	SLE RA 19	16418	1494000	203579	36000000	512	SLE QP 2	14416	1120500	Si
2.68	0.41	0.00000389	589	SLE RA 19	16585	1494000	205649	36000000	518	SLE QP 2	14560	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	21	11	159	SLV 14	0.36	1618	1.653	5.99	3.3	59.37	SLV 14	0.36	1618	1.653	Si

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0.23	20	11	159	SLV 14	0.36	1618	1.653	5.74	3.14	59.37	SLV 14	0.36	1618	1.653	Si
1.34	17	9	159	SLV 14	0.36	1618	1.653	4.99	2.58	59.37	SLV 14	0.36	1618	1.653	Si
2.53	18	8	159	SLV 14	0.36	1618	1.653	5.12	2.38	59.37	SLV 14	0.36	1618	1.653	Si
2.68	18	8	159	SLV 14	0.36	1618	1.653	5.18	2.36	59.37	SLV 14	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
132,131,130,129,128,127	2.9	1.1	SLU 82	ST	BT	2.3	126877	21813	5.82	Si
132,131,130,129,128,127	2.9	1.1	SLV 13	SIS	BT	2.3	112864	19628	5.75	Si
132,131,130,129,128,127	2.9	1.1	SLD 13	SIS	BT	2.3	119978	17025	7.05	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
92	-76	-21813	1026.94	-365.97	0	0	-0.02	0.05	1.01	2.87	1496	2060	0	14430	
22	-1806	-19628	1783.06	-622.28	0	-5	-0.03	0.09	0.92	2.84	1496	2060	0	14430	0.07
50	-809	-17025	1168.78	-422.44	0	-3	-0.02	0.07	0.96	2.85	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.07	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.06	0	0	0.27	0	0	0.02	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.07	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

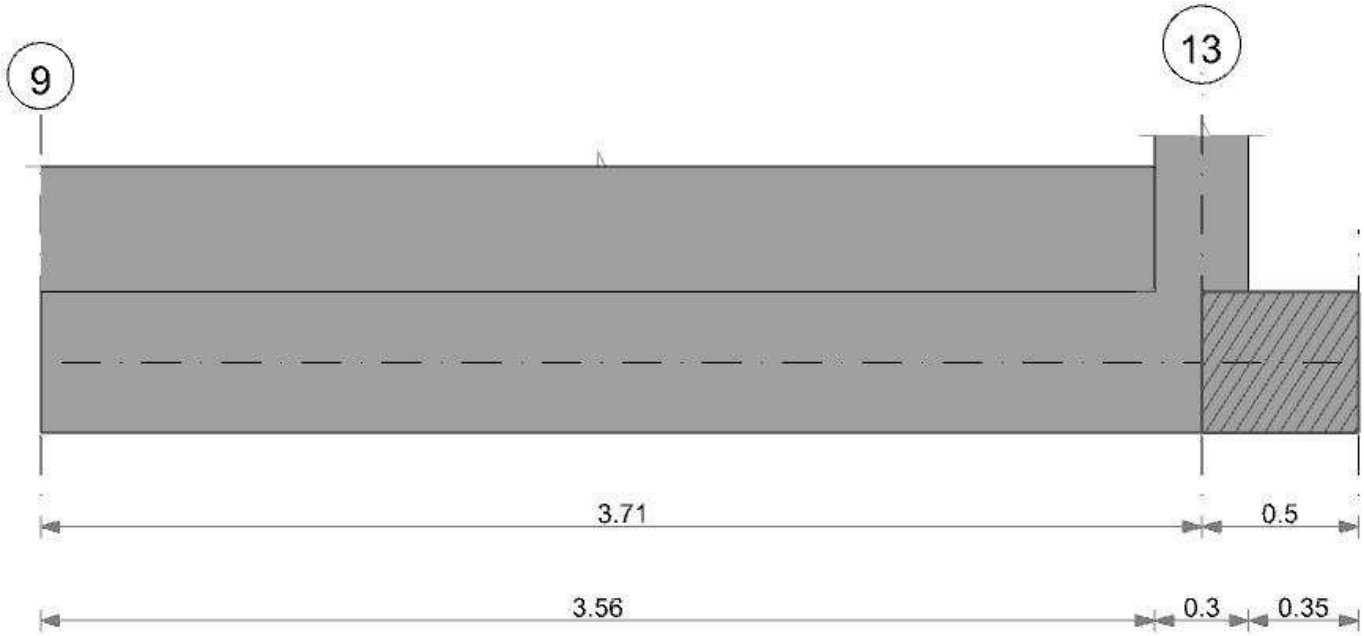
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0	165	SLE RA 19	0.05	0	165	57	SLE RA 19	0.05	0	165	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	165	SLE RA 1	0.05	0	165	165	SLE RA 1	0.05	0	165	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	165	SLE RA 1	0.05	0	165	165	SLE RA 1	0.05	0	165	SLE RA 1	0.0033	0	SLE RA 1	Si

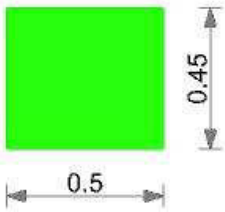
Verifiche geotecniche - Rotazioni assolute e differenziali

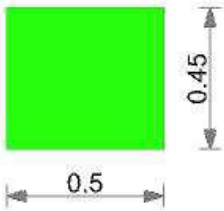
Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 19	0.19	0	165	57	SLE RA 19	0.19	0	165	SLE RA 1	0.1	0	165	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	165	57	SLE RA 1	0.19	0	165	SLE RA 1	0.1	0	165	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	165	57	SLE RA 1	0.19	0	165	SLE RA 1	0.1	0	165	SLE RA 1	Si

CORDOLO 18

Geometria







Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000
Calcestruzzo: C25/30 Rck 3000000

Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copriferro sup.	Copriferro inf.	Copriferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

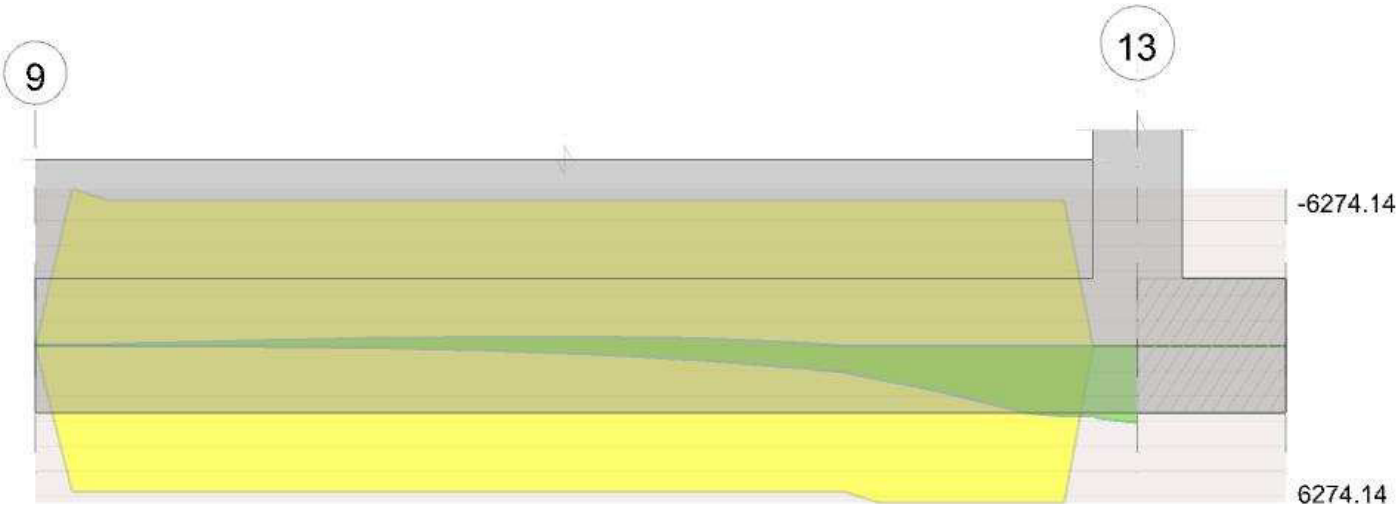
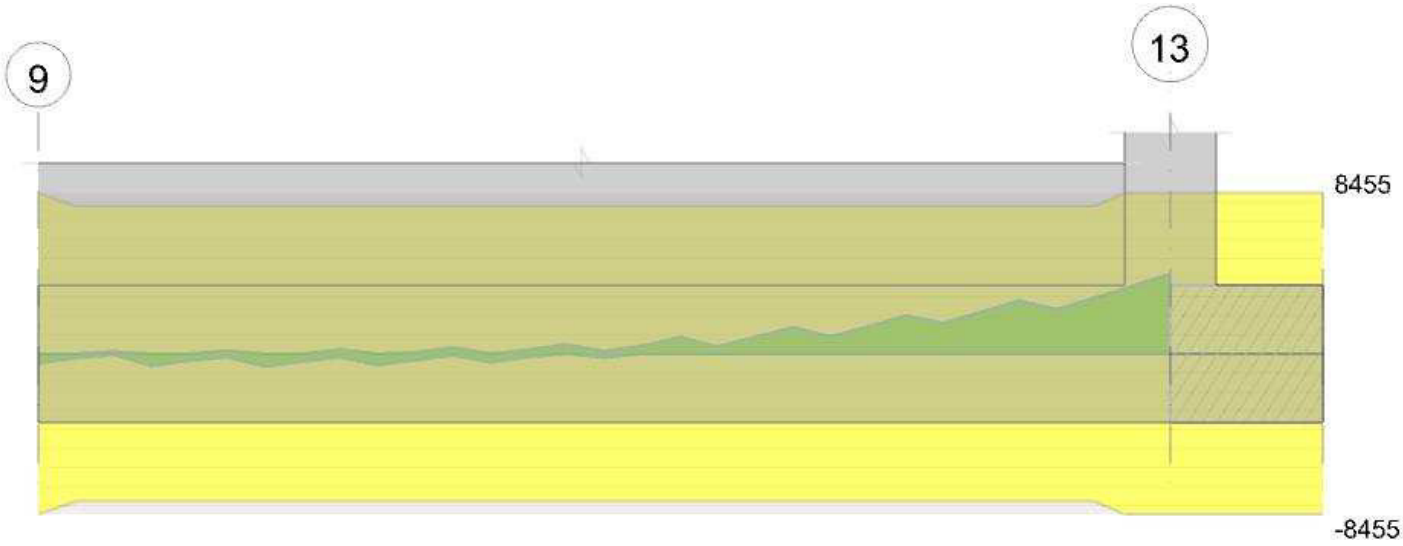


Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 9 - 13, sezione R 50x45, aste 85, 86, 87, 88, 89, 90, 91, 92, 93, 94

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	311	SLU 81	0.018	2812	851	SLU 81	15877	Si
1.86	0.41	0.0002	685	SLU 82	0.018	2812	1876	SLU 82	15877	Si
3.56	0.41	0.0002	999	SLU 82	0.018	2812	2736	SLU 82	15877	Si
3.71	0.41	0.0002	1013	SLU 82	0.018	2812	2774	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σ c	σ c limite	σ f	σ f limite	M	Comb	σ c	σ c limite	
0	0.41	0.00000176	209	SLE RA 18	6053	1494000	75052	36000000	164	SLE QP 2	4749	1120500	Si
1.86	0.41	0.00000176	488	SLE RA 19	14118	1494000	175063	36000000	416	SLE QP 2	12025	1120500	Si
3.56	0.41	0.00000176	723	SLE RA 19	20919	1494000	259393	36000000	626	SLE QP 2	18114	1120500	Si
3.71	0.41	0.00000176	734	SLE RA 19	21223	1494000	263167	36000000	635	SLE QP 2	18381	1120500	Si

Verifiche di apertura delle fessure

La campata non presenta apertura delle fessure nella suola

Indicatori di rischio sismico

x	T gravità	T sisma	T ultimo	Comb.	Pga	Tr	Ind. taglio	M gravità	M sisma	M ultimo	Comb.	Pga	Tr	Ind. momento	Ver
0	4	2	159	SLV 4	0.36	1618	1.653	1.64	0.81	27.34	SLV 4	0.36	1618	1.653	Si
1.86	11	1	106	SLV 16	0.36	1618	1.653	4.16	0.49	27.34	SLV 13	0.36	1618	1.653	Si
3.56	17	6	159	SLV 13	0.36	1618	1.653	6.26	2.14	27.34	SLV 13	0.36	1618	1.653	Si
3.71	17	6	159	SLV 13	0.36	1618	1.653	6.35	2.3	27.34	SLV 13	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	γR	Rd	Ed	Rd/Ed	Verifica
85,86,87,88,89,90,91,92,93,94	3.71	1.1	SLU 82	ST	BT	2.3	133694	20385	6.56	Si
85,86,87,88,89,90,91,92,93,94	3.71	1.1	SLV 9	SIS	BT	2.3	116971	14674	7.97	Si
85,86,87,88,89,90,91,92,93,94	3.71	1.1	SLD 9	SIS	BT	2.3	128092	14287	8.97	Si

Verifiche geotecniche di capacità portante - parametri utilizzati nel calcolo di Rd

Fx	Fy	Fz	Mx	My	Inc.x	Inc.y	Ecc.x	Ecc.y	B'	L'	qd	γs	Fi	Coes	Amax
0	658	-20385	1845.04	3578.07	0	2	0.18	0.09	0.92	3.36	1496	2060	0	14430	
0	-744	-14674	1817.12	3929.15	0	-3	0.27	0.12	0.85	3.17	1496	2060	0	14430	0.07
0	-64	-14287	1441.13	3064.33	0	0	0.21	0.1	0.9	3.28	1496	2060	0	14430	0.03

Verifiche geotecniche di capacità portante - fattori utilizzati nel calcolo di Rd

N			S			D			I			B			G			P			E		
Nq	Nc	Ng	Sq	Sc	Sg	Dq	Dc	Dg	Iq	Ic	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.05	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.05	0	0	0.27	0	0	0.01	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.05	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	RI adm	RI	Comb.	
E	0.05	0.001	99	SLE RA 19	0.05	0	99	89	SLE RA 2	0.05	0	99	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	99	SLE RA 1	0.05	0	99	99	SLE RA 1	0.05	0	99	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	99	SLE RA 1	0.05	0	99	99	SLE RA 1	0.05	0	99	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Tipo	Rotazione rigida			Rotazione assoluta					Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	Comb.	R Adm	R Max	Nodo I	Nodo J	Comb.	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 2	0.19	0	99	89	SLE RA 2	0.19	0	99	SLE RA 1	0.1	0	99	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	99	89	SLE RA 1	0.19	0	99	SLE RA 1	0.1	0	99	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	99	89	SLE RA 1	0.19	0	99	SLE RA 1	0.1	0	99	SLE RA 1	Si

1.3 Verifica sismica globale

Le unità di misura elencate nel capitolo sono in [m] ove non espressamente specificato.

Desc.: *descrizione.*
Stato limite: *(muratura) V=Taglio; PF=Pressoflessione; PFFP=Pressoflessione fuori piano; R=Ribaltamento.*
Molt.: *moltiplicatore minimo della azione sismica che produce lo stato limite.*
Comb.: *combinazione.*
PGA: *accelerazione al suolo.*
iPGA (ζE): *indicatore di rischio sismico in termini di PGA ovvero rapporto tra l'azione sismica massima sopportabile dall'elemento e l'azione sismica massima che si utilizzerebbe nel progetto nuovo (§C8.3).*
TR: *tempo di ritorno.*
(TR/TRrif)^.41: *indicatore di rischio sismico in termini di periodo di ritorno.*
fa: *fattore di accelerazione.*
Stato limite: *(muratura) V=Taglio; PF=Presso flessione; PFFP=Pressoflessione fuori piano; R=Ribaltamento.*
Coeff.s.: *coefficiente minimo prodotto dallo stato limite.*
Verifica: *stato di verifica.*
Stato limite: *(C.A.) tipologia di verifica analizzata.*
Trave: *titolo della trave.*
Pressoflessione: *dati della verifica a pressoflessione.*
Coeff.s.: *coefficiente di sicurezza a flessione.*
iTR: *indicatore di rischio sismico in termini di tempo di ritorno.*
campata: *campata di riferimento.*
dist.: *ascissa relativa all'inizio della campata. [m]*
Taglio: *dati della verifica a taglio.*
Coeff.s.: *coefficiente di sicurezza a taglio.*
Maschio: *maschio.*
Stato limite: *(maschio muratura) V=Taglio; PF=Presso flessione; PFFP=Presso flessione fuori piano; R=Ribaltamento.*
Trave: *trave di collegamento in muratura.*
Stato limite: *(trave muratura) V=Taglio; F=Flessione.*
S. L.: *stato limite di riferimento.*
TR,C: *periodo di ritorno di capacità.*
PGA,C: *accelerazione di aggancio di capacità.*
TR,Rif: *periodo di ritorno di riferimento.*
PGA,Rif: *accelerazione di aggancio di riferimento.*
Tipo rottura: *tipo di rottura che fornisce il valore minimo degli elementi considerati.*
PAM: *perdita media annua attesa.*
Classe PAM: *classe di rischio PAM.*
IS-V: *indice di sicurezza.*
Classe IS-V: *classe di rischio IS-V.*
λ,SLR: *frequenza media annua di superamento in Stato Limite di Ricostruzione.*
λ,SLC: *frequenza media annua di superamento in Stato Limite di Collasso.*
λ,SLV: *frequenza media annua di superamento in Stato Limite di salvaguardia della Vita.*
λ,SLD: *frequenza media annua di superamento in Stato Limite di Danno.*
λ,SLO: *frequenza media annua di superamento in Stato Limite di Operatività.*
λ,SLID: *frequenza media annua di superamento in Stato Limite di Inizio Danno.*

Verifica di elementi dotati di indicatori di rischio sismico mediante analisi con fattore q

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.) § C8.7.1

Accelerazioni e tempi di ritorno

Accelerazione di aggancio SLO (ag/g_SLO*S*ST) PGA,SLOrif = 0.081
Accelerazione di aggancio SLD (ag/g_SLD*S*ST) PGA,SLDrif = 0.101
Accelerazione di aggancio SLV (ag/g_SLV*S*ST) PGA,SLVrif = 0.244
Tr,SLOrif = 30 anni
Tr,SLDrif = 50 anni
Tr,SLVrif = 475 anni

Indicatori minimi riferiti al solo materiale muratura

Desc.	Stato limite	Molt.	Comb.	PGA	iPGA (ζE)	TR	(TR/TRrif)^.41	fa
Maschio 25	PF	0.273	SLV 16	0.0608	0.2487	16	0.249	0.2486
Maschio 9	V	2.986	SLV 1	0.3624	1.4833	1618	1.6529	1.4831
Maschio 30	PFFP	0.601	SLV 7	0.1402	0.5737	118	0.565	0.5732
Maschio 33	R	1.39	SLV 3	0.3355	1.3732	1255	1.4894	1.3731
Trave di accoppiamento 10	PF	0.305	SLV 2	0.0686	0.2806	21	0.2784	0.2787
Trave di accoppiamento 5	V	0.224	SLV 3	0.049	0.2007	9	0.1967	0.1953

Coefficienti di sicurezza riferiti al solo materiale muratura

Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 1	PF SLU	1.784	SLU 39	Si
Maschio 1	V SLU	2.277	SLU 39	Si

Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 1	PF	1.311	SLV 8	Si
Maschio 1	V	1.92	SLV 8	Si
Maschio 1	PFFP	8.763	SLV 15	Si
Maschio 1	R	4.3	SLV 4	Si
Maschio 2	PF SLU	7.114	SLU 81	Si
Maschio 2	V SLU	4.64	SLU 82	Si
Maschio 2	PF	3.991	SLV 9	Si
Maschio 2	V	3.746	SLV 9	Si
Maschio 2	PFFP	11.374	SLV 16	Si
Maschio 2	R	3.556	SLV 1	Si
Maschio 3	PF SLU	4.319	SLU 82	Si
Maschio 3	V SLU	18.984	SLU 81	Si
Maschio 3	PF	3.167	SLV 12	Si
Maschio 3	V	9.602	SLV 1	Si
Maschio 3	PFFP	9.978	SLV 14	Si
Maschio 3	R	3.848	SLV 3	Si
Maschio 4	PF SLU	1.271	SLU 81	Si
Maschio 4	V SLU	14.822	SLU 82	Si
Maschio 4	PF	1.276	SLV 3	Si
Maschio 4	V	22.219	SLV 16	Si
Maschio 4	PFFP	8.82	SLV 13	Si
Maschio 4	R	14.83	SLV 7	Si
Maschio 5	PF SLU	7.843	SLU 81	Si
Maschio 5	V SLU	8.918	SLU 81	Si
Maschio 5	PF	5.343	SLV 4	Si
Maschio 5	V	8.432	SLV 4	Si
Maschio 5	PFFP	9.882	SLV 16	Si
Maschio 5	R	4.479	SLV 2	Si
Maschio 8	PF SLU	1.427	SLU 43	Si
Maschio 8	V SLU	20830.723	SLU 81	Si
Maschio 8	PFFP	6.71	SLV 3	Si
Maschio 8	R	5.764	SLV 13	Si
Maschio 9	PF SLU	9.832	SLU 39	Si
Maschio 9	V SLU	10.234	SLU 44	Si
Maschio 9	PF	2.868	SLV 5	Si
Maschio 9	V	2.895	SLV 16	Si
Maschio 9	PFFP	8.037	SLV 5	Si
Maschio 9	R	5.603	SLV 12	Si
Maschio 11	PF SLU	3.087	SLU 82	Si
Maschio 11	V SLU	7.835	SLU 81	Si
Maschio 11	PF	0	SLV 14	No
Maschio 11	V	4.922	SLV 3	Si
Maschio 11	PFFP	4.579	SLV 10	Si
Maschio 11	R	3.801	SLV 3	Si
Maschio 12	PF SLU	2.35	SLU 44	Si
Maschio 12	V SLU	3.052	SLU 82	Si
Maschio 12	PF	1.788	SLV 13	Si
Maschio 12	V	3.687	SLV 15	Si
Maschio 12	PFFP	14.309	SLV 16	Si
Maschio 12	R	8.39	SLV 9	Si
Maschio 13	PF SLU	3.846	SLU 81	Si
Maschio 13	V SLU	5.373	SLU 81	Si
Maschio 13	PF	1.111	SLV 4	Si
Maschio 13	V	4.003	SLV 4	Si
Maschio 13	PFFP	11.726	SLV 8	Si
Maschio 13	R	9.644	SLV 2	Si
Maschio 15	PF SLU	7.429	SLU 44	Si
Maschio 15	V SLU	6.303	SLU 81	Si
Maschio 15	PF	4.182	SLV 11	Si
Maschio 15	V	3.997	SLV 6	Si
Maschio 15	PFFP	21.564	SLV 9	Si
Maschio 15	R	2.914	SLV 16	Si
Maschio 18	PF SLU	1.454	SLU 43	Si
Maschio 18	V SLU	2.471	SLU 82	Si
Maschio 18	PF	1.26	SLV 8	Si
Maschio 18	V	4.17	SLV 11	Si
Maschio 18	PFFP	15.592	SLV 7	Si
Maschio 18	R	5.253	SLV 14	Si
Maschio 20	PF SLU	5.193	SLU 82	Si
Maschio 20	V SLU	46.963	SLU 40	Si
Maschio 20	PF	0.927	SLV 2	No
Maschio 20	V	18.808	SLV 15	Si
Maschio 20	PFFP	5.292	SLV 4	Si
Maschio 20	R	4.558	SLV 15	Si
Maschio 21	PF SLU	14.149	SLU 39	Si
Maschio 21	V SLU	29.77	SLU 81	Si
Maschio 21	PF	6.723	SLV 7	Si
Maschio 21	V	6.58	SLV 6	Si
Maschio 21	PFFP	13.81	SLV 1	Si
Maschio 21	R	4.337	SLV 16	Si
Maschio 23	PF SLU	1.405	SLU 39	Si
Maschio 23	V SLU	986.106	SLU 81	Si
Maschio 23	PFFP	0	SLV 4	No
Maschio 23	R	4.842	SLV 4	Si
Maschio 24	PF SLU	1.495	SLU 82	Si
Maschio 24	V SLU	8.823	SLU 81	Si
Maschio 24	PF	1.749	SLV 5	Si
Maschio 24	V	5.876	SLV 5	Si
Maschio 24	PFFP	1.645	SLV 16	Si

Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 24	R	2.739	SLV 1	Si
Maschio 25	PF SLU	2.655	SLU 44	Si
Maschio 25	V SLU	17.783	SLU 82	Si
Maschio 25	PF	0	SLV 5	No
Maschio 25	V	7.78	SLV 12	Si
Maschio 25	PFFP	1.01	SLV 9	Si
Maschio 25	R	4.749	SLV 11	Si
Maschio 26	PF SLU	17.163	SLU 44	Si
Maschio 26	V SLU	95.902	SLU 81	Si
Maschio 26	PF	4.86	SLV 14	Si
Maschio 26	V	7.773	SLV 4	Si
Maschio 26	PFFP	2.351	SLV 15	Si
Maschio 26	R	2.532	SLV 4	Si
Maschio 27	PF SLU	3.715	SLU 39	Si
Maschio 27	V SLU	21.857	SLU 39	Si
Maschio 27	PF	0	SLV 1	No
Maschio 27	V	4.882	SLV 1	Si
Maschio 27	PFFP	1.51	SLV 5	Si
Maschio 27	R	2.875	SLV 16	Si
Maschio 28	PF SLU	13.608	SLU 44	Si
Maschio 28	V SLU	78.7	SLU 44	Si
Maschio 28	PF	1.042	SLV 16	Si
Maschio 28	V	4.903	SLV 1	Si
Maschio 28	PFFP	2.745	SLV 9	Si
Maschio 28	R	3.414	SLV 16	Si
Maschio 29	PF SLU	4.367	SLU 40	Si
Maschio 29	V SLU	22.371	SLU 40	Si
Maschio 29	PF	0	SLV 14	No
Maschio 29	V	4.683	SLV 14	Si
Maschio 29	PFFP	1.415	SLV 10	Si
Maschio 29	R	2.916	SLV 3	Si
Maschio 30	PF SLU	2.016	SLU 81	Si
Maschio 30	V SLU	9.433	SLU 81	Si
Maschio 30	PF	0.764	SLV 7	No
Maschio 30	V	8.52	SLV 12	Si
Maschio 30	PFFP	0.198	SLV 7	No
Maschio 30	R	6.025	SLV 14	Si
Maschio 31	PF SLU	5.233	SLU 43	Si
Maschio 31	V SLU	1336.79	SLU 82	Si
Maschio 31	PFFP	0.761	SLV 7	No
Maschio 31	R	7.3	SLV 2	Si
Maschio 32	PF SLU	2.386	SLU 81	Si
Maschio 32	V SLU	1529.858	SLU 82	Si
Maschio 32	PFFP	0.561	SLV 4	No
Maschio 32	R	2.27	SLV 4	Si
Maschio 33	PF SLU	2.625	SLU 81	Si
Maschio 33	V SLU	211.665	SLU 81	Si
Maschio 33	PFFP	0	SLV 13	No
Maschio 33	R	1.634	SLV 3	Si
Maschio 34	PF SLU	5.236	SLU 43	Si
Maschio 34	V SLU	29.034	SLU 40	Si
Maschio 34	PF	0	SLV 1	No
Maschio 34	V	7.673	SLV 2	Si
Maschio 34	PFFP	0.505	SLV 2	No
Maschio 34	R	3.773	SLV 15	Si
Maschio 35	PF SLU	4.945	SLU 82	Si
Maschio 35	V SLU	805.291	SLU 31	Si
Maschio 35	PF	4.473	SLV 6	Si
Maschio 35	V	8.977	SLV 7	Si
Maschio 35	PFFP	0.859	SLV 1	No
Maschio 35	R	4.066	SLV 14	Si

Verifica maschi in muratura

Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ζE)	TR	(TR/TRrif)^.41	Verifica
1	PF	1.618	SLV 13	0.362	1.483	1618	1.653	Si
	V	3.247	SLV 8	0.362	1.483	1618	1.653	Si
	PFFP	2.132	SLV 15	0.362	1.483	1618	1.653	Si
	R	2.913	SLV 4	0.362	1.483	1618	1.653	Si
2	PF	2.457	SLV 16	0.362	1.483	1618	1.653	Si
	V	3.332	SLV 9	0.362	1.483	1618	1.653	Si
	PFFP	2.953	SLV 16	0.362	1.483	1618	1.653	Si
	R	2.523	SLV 1	0.362	1.483	1618	1.653	Si
3	PF	2.269	SLV 14	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	2.444	SLV 14	0.362	1.483	1618	1.653	Si
	R	2.69	SLV 3	0.362	1.483	1618	1.653	Si
4	PF	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	3.609	SLV 13	0.362	1.483	1618	1.653	Si
	R	1000	SLV 1	0.362	1.483	1618	1.653	Si
5	PF	2.63	SLV 15	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	2.331	SLV 16	0.362	1.483	1618	1.653	Si
	R	3.083	SLV 2	0.362	1.483	1618	1.653	Si
8	PFFP	1.983	SLV 3	0.362	1.483	1618	1.653	Si
	R	3.46	SLV 13	0.362	1.483	1618	1.653	Si
9	PF	1.786	SLV 5	0.362	1.483	1618	1.653	Si
	V	2.986	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	2.458	SLV 5	0.362	1.483	1618	1.653	Si

Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ζE)	TR	(TR/TRrif)^.41	Verifica
	R	3.277	SLV 12	0.362	1.483	1618	1.653	Si
11	PF	0.577	SLV 14	0.134	0.548	106	0.541	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.498	SLV 10	0.361	1.477	1596	1.644	Si
	R	2.396	SLV 3	0.362	1.483	1618	1.653	Si
12	PF	2.322	SLV 16	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	2.967	SLV 16	0.362	1.483	1618	1.653	Si
	R	1000	SLV 1	0.362	1.483	1618	1.653	Si
13	PF	1.12	SLV 4	0.272	1.114	656	1.142	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	3.386	SLV 8	0.362	1.483	1618	1.653	Si
	R	1000	SLV 1	0.362	1.483	1618	1.653	Si
15	PF	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	2.776	SLV 16	0.362	1.483	1618	1.653	Si
18	PF	1.943	SLV 8	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	3.301	SLV 7	0.362	1.483	1618	1.653	Si
	R	3.951	SLV 14	0.362	1.483	1618	1.653	Si
20	PF	0.981	SLV 2	0.239	0.978	447	0.975	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.465	SLV 4	0.353	1.446	1487	1.597	Si
	R	2.701	SLV 15	0.362	1.483	1618	1.653	Si
21	PF	2.977	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	2.827	SLV 1	0.362	1.483	1618	1.653	Si
	R	2.92	SLV 16	0.362	1.483	1618	1.653	Si
23	PFFP	0.755	SLV 12	0.18	0.735	210	0.716	No
	R	3.486	SLV 8	0.362	1.483	1618	1.653	Si
24	PF	2.206	SLV 12	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.405	SLV 16	0.339	1.388	1299	1.511	Si
	R	2.348	SLV 1	0.362	1.483	1618	1.653	Si
25	PF	0.273	SLV 16	0.061	0.249	16	0.249	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.006	SLV 9	0.246	1.006	483	1.007	Si
	R	3.341	SLV 11	0.362	1.483	1618	1.653	Si
26	PF	3.273	SLV 7	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.693	SLV 15	0.362	1.483	1618	1.653	Si
	R	2.468	SLV 2	0.362	1.483	1618	1.653	Si
27	PF	0.548	SLV 1	0.127	0.518	93	0.512	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.239	SLV 5	0.3	1.227	875	1.285	Si
	R	2.316	SLV 16	0.362	1.483	1618	1.653	Si
28	PF	1.042	SLV 16	0.254	1.04	534	1.049	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	2.503	SLV 9	0.362	1.483	1618	1.653	Si
	R	3.375	SLV 16	0.362	1.483	1618	1.653	Si
29	PF	0.554	SLV 14	0.128	0.525	96	0.519	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.22	SLV 10	0.295	1.208	836	1.261	Si
	R	2.349	SLV 3	0.362	1.483	1618	1.653	Si
30	PF	0.92	SLV 7	0.223	0.912	372	0.905	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	0.601	SLV 7	0.14	0.574	118	0.565	No
	R	4.043	SLV 14	0.362	1.483	1618	1.653	Si
31	PFFP	0.792	SLV 7	0.189	0.774	240	0.756	No
	R	1000	SLV 1	0.362	1.483	1618	1.653	Si
32	PFFP	0.81	SLV 3	0.194	0.794	258	0.779	No
	R	2.103	SLV 4	0.362	1.483	1618	1.653	Si
33	PFFP	0.675	SLV 15	0.159	0.65	157	0.635	No
	R	1.39	SLV 3	0.336	1.373	1255	1.489	Si
34	PF	0.734	SLV 2	0.174	0.711	193	0.691	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	0.651	SLV 2	0.153	0.625	143	0.611	No
	R	3.408	SLV 15	0.362	1.483	1618	1.653	Si
35	PF	2.055	SLV 3	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	0.891	SLV 1	0.215	0.881	339	0.871	No
	R	3.304	SLV 14	0.362	1.483	1618	1.653	Si

Verifica travi di collegamento in muratura

Trave	Stato limite	Molt.	Comb.	PGA	iPGA (ζE)	TR	(TR/TRrif)^.41	Verifica
3	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.962	SLV 5	0.362	1.483	1618	1.653	Si
5	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.224	SLV 3	0.049	0.201	9	0.197	No
7	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.236	SLV 3	0.051	0.21	10	0.205	No
9	F	1.922	SLV 15	0.362	1.483	1618	1.653	Si
	V	1.654	SLV 15	0.362	1.483	1618	1.653	Si
10	F	0.305	SLV 2	0.069	0.281	21	0.278	No
	V	2.926	SLV 2	0.362	1.483	1618	1.653	Si
11	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
12	F	1000	SLV 1	0.362	1.483	1618	1.653	Si

Trave	Stato limite	Molt.	Comb.	PGA	iPGA (ζE)	TR	(TR/TRrif)^.41	Verifica
	V	0.772	SLV 8	0.184	0.753	223	0.733	No
13	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
14	F	4.03	SLV 8	0.362	1.483	1618	1.653	Si
	V	3.078	SLV 8	0.362	1.483	1618	1.653	Si
15	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
16	F	3.322	SLV 5	0.362	1.483	1618	1.653	Si
	V	2.459	SLV 5	0.362	1.483	1618	1.653	Si
17	F	3.56	SLV 12	0.362	1.483	1618	1.653	Si
	V	2.173	SLV 12	0.362	1.483	1618	1.653	Si
18	F	1.538	SLV 16	0.362	1.483	1618	1.653	Si
	V	3.289	SLV 16	0.362	1.483	1618	1.653	Si
19	F	1.517	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.141	SLV 3	0.362	1.483	1618	1.653	Si
20	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
21	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.642	SLV 13	0.362	1.483	1618	1.653	Si

Periodi di ritorno e accelerazioni di aggancio per gli Stati Limite

S. L.	TR,C	PGA,C	TR,Rif	PGA,Rif	Tipo rottura
Stato limite di salvaguardia della vita	9	0.049	475	0.244	taglio trave connessione in muratura

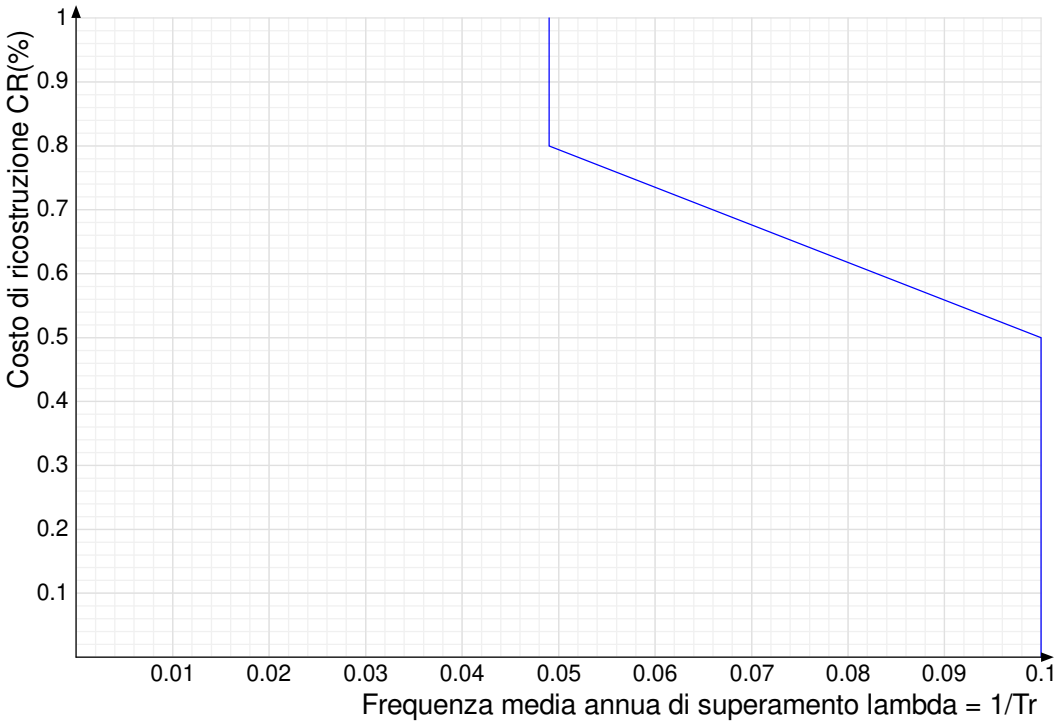
Coefficienti relativi alle Linee guida per la classificazione del rischio sismico delle costruzioni secondo il D.M. 24 09/01/2020

TR,C	TR,Rif	PAM	Classe PAM	IS-V	Classe IS-V	Tipo rottura
9	475	8.215	G	20.074	E	taglio trave connessione in muratura

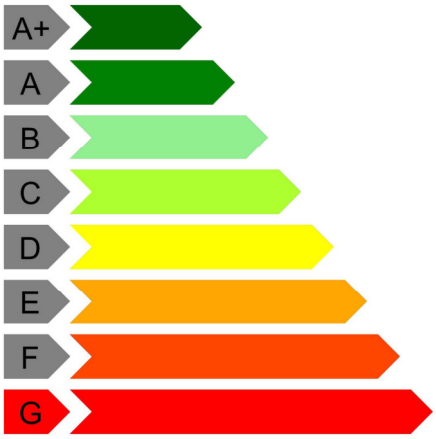
Coefficienti λ relativi alle Linee guida per la classificazione del rischio sismico delle costruzioni secondo il D.M. 24 09/01/2020

λ,SLR	λ,SLC	λ,SLV	λ,SLD	λ,SLO	λ,SLID
0.049	0.049	0.1	0.1	0.1	0.1

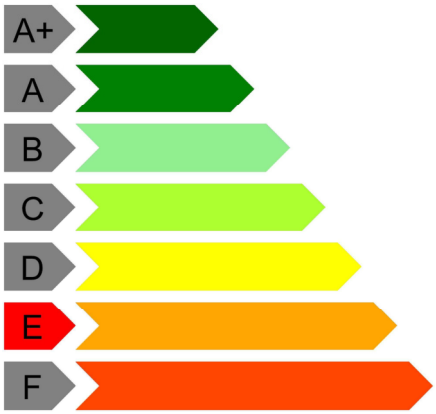
Andamento della curva che individua il PAM (Perdita Annuale Media Attesa)



Classe PAM



Classe IS-V



1.4 Verifiche maschi in muratura

Le unità di misura elencate nel capitolo sono in [m, daN, s] ove non espressamente specificato.

X ini.: *coordinate del punto iniziale del maschio. [m]*
Y ini.: *coordinate del punto iniziale del maschio. [m]*
X fin.: *coordinate del punto finale del maschio. [m]*
Y fin.: *coordinate del punto finale del maschio. [m]*
Quota i.: *livello o falda inferiore.*
Quota.s: *livello o falda superiore.*
l: *lunghezza del maschio. [m]*
Sp.: *spessore. [m]*
h netta: *altezza netta (a filo solai). [m]*
h ini.: *altezza nel modello al punto iniziale. [m]*
h fin.: *altezza nel modello al punto finale. [m]*
a: *distanza tra irrigidimenti laterali. [m]*
a.s.,sx: *lunghezza di appoggio del solaio di sinistra. [m]*
a.s.,dx: *lunghezza di appoggio del solaio di destra. [m]*
fb: *resistenza normalizzata a compressione verticale dei blocchi. [daN/m²]*
fk: *resistenza caratteristica a compressione della muratura utilizzata. [daN/m²]*
fvk0: *resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m²]*
fmedio: *resistenza media a compressione della muratura utilizzata. [daN/m²]*
τ0: *resistenza media a taglio in assenza di azioni normali [C8.7.1.16]. [daN/m²]*
fv0: *resistenza media a taglio in assenza di azioni normali [C8.7.1.17]. [daN/m²]*
μ: *coefficiente di attrito [C8.7.1.17].*
φ: *coefficiente di ammorsamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.*
fv,lim: *valore massimo della resistenza a taglio che può essere impiegata nel calcolo. [daN/m²]*
E: *modulo di elasticità longitudinale della muratura utilizzato. [daN/m²]*
G: *modulo di elasticità tangenziale della muratura utilizzato. [daN/m²]*
FC: *fattore di confidenza della muratura.*
Materiale: *descrizione del materiale.*
Fu Verticale: *carico di rottura a trazione per unità di lunghezza della maglia verticale. [daN/m]*
Fu Orizzontale: *carico di rottura a trazione per unità di lunghezza della maglia verticale. [daN/m]*
tfv: *spessore di calcolo equivalente verticale di uno strato di rinforzo.*

tfo: *spessore di calcolo equivalente orizzontale di uno strato di rinforzo.*
E: *modulo di elasticità longitudinale. [daN/m²]*
εu: *dilatazione a rottura.*
Tipo fibra: *natura della fibra.*
materiale: *materiale fibra del rinforzo.*
lato applicazione: *lato di applicazione del rinforzo.*
esposizione: *condizione di esposizione secondo CNR-DT 215 §3.2.*
ancoraggio verticale iniziale: *grado di ancoraggio iniziale dei rinforzi verticali.*
ancoraggio verticale finale: *grado di ancoraggio finale dei rinforzi verticali.*
ancoraggio orizzontale iniziale: *grado di ancoraggio iniziale dei rinforzi orizzontali.*
ancoraggio orizzontale finale: *grado di ancoraggio finale dei rinforzi orizzontali.*
strati: *numero strati del rinforzo.*
verifica taglio: *tipo di verifica a taglio.*
εlim,conv / ε,CNR DT-200: *dati relativi ai parametri per il calcolo della deformazione di progetto.*
αt: *coefficiente che tiene conto della ridotta capacità estensionale delle fibre sollecitate a tagliosecondo CNR-DT 215 §4.1.1.*
α: *coeffiicente amplificativo tensione di distacco secondo CNR-DT 215 §3.1 ovvero secondo CNR-DT 200 R1/2013 §5.3.3.*
εlim,conv: *deformazione limite convenzionale del rinforzo FRCM.*
ε,fd: *deformazione di progetto del rinforzo FRCM ovvero CRM.*
γF,d: *fattore parziali di sicurezza per stato limite di distacco secondo CNR-DT 200 R1/2013 §3.4.1.*
connettori: *presenza di connettori per la prevenzione del distacco del rinforzo.*
tipo di muratura: *tipo di muratura per stato limite di distacco di estremità secondo CNR-DT 200 R1/2013 §5.3.2.*
CRM / Fibrenet?: *dati relativi ai parametri per il calcolo secondo metodo Fibrenet? ovvero se il materiale è di tipo CRM.*
CRM: *stabilisce se il rinforzo è di tipo CRM secondo le Linee Guida del C.S.L.P. Ottobre 2019.*
intonaco: *materiale intonaco FRCM ovvero CRM.*
spessore intonaco: *spessore intonaco. [m]*
tipo blocco fibrenet: *tipo blocco muratura per verifica a tglio tipo Fibrenet.*
Comb.: *combinazione.*
Quota: *quota della sezione di verifica. [m]*
M: *momento flettente nel piano. [daN*m]*
N: *sforzo normale. [daN]*
εm: *deformazione della muratura.*
εm_: *deformazione elastica della muratura.*
εmu: *deformazione ultima della muratura.*
df: *distanza tra il lembo compresso e la fibra tesa più lontana. [m]*
M0d: *momento resistente della sezione non rinforzata. [daN*m]*
M1d: *momento resistente della sezione rinforzata. [daN*m]*
MRd: *momento resistente della sezione. [daN*m]*
c.s.: *coefficiente di sicurezza.*
incremento > 50%: *incremento resistenza superiore al 50% della resistenza non rinforzata in condizioni non sismiche.*
Verifica: *stato di verifica.*
Nmur: *aliquota di sforzo normale recepito dalla sola muratura. [daN]*
V: *taglio nel piano. [daN]*
df: *distanza tra lembo compresso e baricentro dell'armatura tesa. [m]*
l': *lunghezza della parte compressa della parete. [m]*
σN: *tensione media nella zona compressa. [daN/m²]*
fvd: *resistenza a taglio di calcolo. [daN/m²]*
Vt: *resistenza a taglio della muratura non rinforzata. [daN]*
Vt,f: *resistenza a taglio del rinforzo (CNR DT215 4.1a). [daN]*
Vt,c: *resistenza a taglio per schiacciamento delle bielle (CNR DT215 4.1b). [daN]*
Vt,c int.: *contributo di resistenza a taglio delle bielle dell'intonaco se considerato. [daN]*
Vt,R: *resistenza a taglio della sezione rinforzata. [daN]*
res. > 50%: *incremento resistenza superiore al 50% della resistenza non rinforzata in condizioni non sismiche.*
Sa: *accelerazione massima adimensionalizzata rispetto a quella di gravità.*
M: *momento flettente fuori piano. [daN*m]*
Coeff.s.: *coefficiente di sicurezza.*
N top: *sforzo normale in sommità. [daN]*
N base: *sforzo normale al piede. [daN]*
V orto: *taglio fuori piano. [daN]*
α0: *moltiplicatore secondo [C8.7.1.1].*
M*: *massa partecipante al cinematismo. [daN/(m/s²)]*
e*: *frazione di massa partecipante della muratura [C8.7.1.5].*
a0*: *accelerazione spettrale di attivazione del meccanismo [C8.7.1.8]. [m/s²]*
aLim: *accelerazione limite [C7.2.11]. [m/s²]*
Stato limite: *pF_SLU=Presso flessione per azioni non sismiche; V_SLU=Taglio per azioni non sismiche; PF_SLV=Presso flessione per azioni sismiche; V_SLV=Taglio per azioni sismiche; PFFP_SLV=Presso flessione fuori piano per azioni sismiche; R_SLV=Ribaltamento per azioni sismiche.*
fd: *resistenza a compressione di calcolo. [daN/m²]*
Sa: *accelerazione massima, adimensionalizzata rispetto a g, che l'elemento strutturale subisce durante il sisma.*
σ0: *tensione media di compressione. [daN/m²]*
Mc: *momento di collasso per azioni perpendicolari al piano. [daN*m]*

Maschio 1

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.183	-3.854	-34.183	-1.829	L1	L2	2.025	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 42	-1.3	-900.11	-10047	-0.0000215	0.0004492	0.0035	2.025	9254.88	10505.13	10505.13	11.67	No	Si
SLU 42	0.05	-464.69	-11182	-0.0000212	0.0004492	0.0035	2.025	10184.82	11481.06	11481.06	24.71	No	Si
SLU 42	1.39	-5757.01	-9797	-0.0000538	0.0004492	0.0035	1.62	9046.94	10291.63	10291.63	1.79	No	Si
SLU 84	-1.3	-1100.99	-11851	-0.0000256	0.0004492	0.0035	2.025	10722.12	12061.37	12061.37	10.96	No	Si
SLU 84	0.05	-431.76	-13069	-0.0000243	0.0004492	0.0035	2.025	11679.36	13072.39	13072.39	30.28	No	Si
SLU 84	1.39	-6357.41	-11281	-0.000059	0.0004492	0.0035	2.025	10265.08	11566.96	11566.96	1.82	No	Si
SLU 41	-1.3	-902.2	-10114	-0.0000216	0.0004492	0.0035	2.025	9310.06	10562.08	10562.08	11.71	No	Si
SLU 41	0.05	-469.49	-11247	-0.0000214	0.0004492	0.0035	2.025	10237.22	11537.11	11537.11	24.57	No	Si
SLU 41	1.39	-5789.88	-9844	-0.0000542	0.0004492	0.0035	1.62	9086.23	10331.84	10331.84	1.78	No	Si
SLU 82	-1.3	-1100.99	-11851	-0.0000256	0.0004492	0.0035	2.025	10722.12	12061.37	12061.37	10.96	No	Si
SLU 82	0.05	-431.76	-13069	-0.0000243	0.0004492	0.0035	2.025	11679.36	13072.39	13072.39	30.28	No	Si
SLU 82	1.39	-6357.41	-11281	-0.000059	0.0004492	0.0035	2.025	10265.08	11566.96	11566.96	1.82	No	Si
SLU 32	-1.3	-882.83	-9507	-0.0000204	0.0004492	0.0035	2.025	8803.58	10036.22	10036.22	11.37	No	Si
SLU 32	0.05	-375.76	-10488	-0.0000196	0.0004492	0.0035	2.025	9618.77	10882.85	10882.85	28.96	No	Si
SLU 32	1.39	-5164.02	-9077	-0.0000475	0.0004492	0.0035	2.025	8440.87	9653.2	9653.2	1.87	No	Si
SLU 83	-1.3	-1103.09	-11918	-0.0000257	0.0004492	0.0035	2.025	10775.13	12119.29	12119.29	10.99	No	Si
SLU 83	0.05	-436.56	-13134	-0.0000245	0.0004492	0.0035	2.025	11729.53	13125.63	13125.63	30.07	No	Si
SLU 83	1.39	-6390.28	-11329	-0.0000593	0.0004492	0.0035	2.025	10303.1	11607.74	11607.74	1.82	No	Si
SLU 40	-1.3	-900.11	-10047	-0.0000215	0.0004492	0.0035	2.025	9254.88	10505.13	10505.13	11.67	No	Si
SLU 40	0.05	-464.69	-11182	-0.0000212	0.0004492	0.0035	2.025	10184.82	11481.06	11481.06	24.71	No	Si
SLU 40	1.39	-5757.01	-9797	-0.0000538	0.0004492	0.0035	1.62	9046.94	10291.63	10291.63	1.79	No	Si
SLU 39	-1.3	-902.2	-10114	-0.0000216	0.0004492	0.0035	2.025	9310.06	10562.08	10562.08	11.71	No	Si
SLU 39	0.05	-469.49	-11247	-0.0000214	0.0004492	0.0035	2.025	10237.22	11537.11	11537.11	24.57	No	Si
SLU 39	1.39	-5789.88	-9844	-0.0000542	0.0004492	0.0035	1.62	9086.23	10331.84	10331.84	1.78	No	Si
SLU 81	-1.3	-1103.09	-11918	-0.0000257	0.0004492	0.0035	2.025	10775.13	12119.29	12119.29	10.99	No	Si
SLU 81	0.05	-436.56	-13134	-0.0000245	0.0004492	0.0035	2.025	11729.53	13125.63	13125.63	30.07	No	Si
SLU 81	1.39	-6390.28	-11329	-0.0000593	0.0004492	0.0035	2.025	10303.1	11607.74	11607.74	1.82	No	Si
SLU 35	-1.3	-882.83	-9507	-0.0000204	0.0004492	0.0035	2.025	8803.58	10036.22	10036.22	11.37	No	Si
SLU 35	0.05	-375.76	-10488	-0.0000196	0.0004492	0.0035	2.025	9618.77	10882.85	10882.85	28.96	No	Si
SLU 35	1.39	-5164.02	-9077	-0.0000475	0.0004492	0.0035	2.025	8440.87	9653.2	9653.2	1.87	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 15	-1.3	130.18	-4099	-0.0000074	0.0006738	0.0035	2.025		4269.92	4269.92	32.8		Si
SLV 15	0.05	254.24	-5031	-0.0000096	0.0006738	0.0035	2.025		5172.43	5172.43	20.34		Si
SLV 15	1.39	-1859.4	-4360	-0.0000167	0.0006738	0.0035	2.025		5365.34	5365.34	2.89		Si
SLV 11	-1.3	829.1	-5190	-0.0000127	0.0006738	0.0035	2.025		5324.59	5324.59	6.42		Si
SLV 11	0.05	-51.83	-7191	-0.0000122	0.0006738	0.0035	2.025		8055.51	8055.51	155.42		Si
SLV 11	1.39	-5424.87	-7063	-0.0000664	0.0006738	0.0035	1.62		7934.7	7934.7	1.46		Si
SLV 16	-1.3	299.64	-4101	-0.0000083	0.0006738	0.0035	2.025		4271.95	4271.95	14.26		Si
SLV 16	0.05	222.08	-5156	-0.0000097	0.0006738	0.0035	2.025		5291.73	5291.73	23.83		Si
SLV 16	1.39	-2487.7	-4541	-0.000022	0.0006738	0.0035	2.025		5539.39	5539.39	2.23		Si
SLV 8	-1.3	672.14	-7116	-0.0000152	0.0006738	0.0035	2.025		7156.34	7156.34	10.65		Si
SLV 8	0.05	-314.97	-9277	-0.0000171	0.0006738	0.0035	2.025		9990.67	9990.67	31.72		Si
SLV 8	1.39	-7399.87	-8964	-0.0001123	0.0006738	0.0035	1.62		9704.05	9704.05	1.31		Si
SLV 3	-1.3	-961.62	-10514	-0.0000224	0.0006738	0.0035	2.025		11111.25	11111.25	11.55		Si
SLV 3	0.05	-514.97	-11565	-0.0000219	0.0006738	0.0035	2.025		12067.92	12067.92	23.43		Si
SLV 3	1.39	-6334.59	-10091	-0.0000604	0.0006738	0.0035	1.62		10727.75	10727.75	1.69		Si
SLV 1	-1.3	-1888.72	-11503	-0.0000287	0.0006738	0.0035	2.025		12011.89	12011.89	6.36		Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 1	0.05	-483.3	-11673	-0.000022	0.0006738	0.0035	2.025		12166.32	12166.32	25.17		Si
SLV 1	1.39	-4619.25	-9494	-0.0000411	0.0006738	0.0035	2.025		10186.27	10186.27	2.21		Si
SLV 7	-1.3	501.56	-7114	-0.0000143	0.0006738	0.0035	2.025		7154.36	7154.36	14.26		Si
SLV 7	0.05	-282.59	-9152	-0.0000167	0.0006738	0.0035	2.025		9876.99	9876.99	34.95		Si
SLV 7	1.39	-6767.43	-8782	-0.0000844	0.0006738	0.0035	1.62		9535.52	9535.52	1.41		Si
SLV 12	-1.3	999.68	-5192	-0.0000135	0.0006738	0.0035	2.025		5326.6	5326.6	5.33		Si
SLV 12	0.05	-84.2	-7317	-0.0000126	0.0006738	0.0035	2.025		8173.83	8173.83	97.07		Si
SLV 12	1.39	-6057.32	-7245	-0.0000948	0.0006738	0.0035	1.62		8106.13	8106.13	1.34		Si
SLV 4	-1.3	-792.16	-10516	-0.0000215	0.0006738	0.0035	2.025		11113.15	11113.15	14.03		Si
SLV 4	0.05	-547.13	-11690	-0.0000223	0.0006738	0.0035	2.025		12181.95	12181.95	22.27		Si
SLV 4	1.39	-6962.89	-10272	-0.0000711	0.0006738	0.0035	1.62		10891.95	10891.95	1.56		Si
SLV 2	-1.3	-1719.26	-11505	-0.0000279	0.0006738	0.0035	2.025		12013.8	12013.8	6.99		Si
SLV 2	0.05	-515.46	-11798	-0.0000223	0.0006738	0.0035	2.025		12279.73	12279.73	23.82		Si
SLV 2	1.39	-5247.55	-9675	-0.000047	0.0006738	0.0035	2.025		10350.08	10350.08	1.97		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 18	-1.3	-823.79	-9145	-8129	6012	2.025	2.025	-8920	9523	6410	28547	32748	5164	34957	No	5.81	Si
SLU 18	0.05	-344.96	-10114	-8991	8370	2.025	2.025	-9866	9649	6670	28547	32748	5164	35216	No	4.21	Si
SLU 18	1.39	-4995.46	-8753	-7781	11147	1.62	1.3254	0	0	0	28547	26198	4131	28547	No	2.56	Si
SLU 82	-1.3	-1100.99	-11851	-10534	7673	2.025	2.025	-11560	9875	7135	28547	32748	5164	35681	No	4.65	Si
SLU 82	0.05	-431.76	-13069	-11617	10717	2.025	2.025	-12748	10033	7461	28547	32748	5164	36007	No	3.36	Si
SLU 82	1.39	-6357.41	-11281	-10028	14301	2.025	1.3469	-16716	10562	6982	28547	32748	5164	35529	No	2.48	Si
SLU 39	-1.3	-902.2	-10114	-8990	6794	2.025	2.025	-9866	9649	6670	28547	32748	5164	35216	No	5.18	Si
SLU 39	0.05	-469.49	-11247	-9997	9442	2.025	2.025	-10971	9796	6973	28547	32748	5164	35519	No	3.76	Si
SLU 39	1.39	-5789.88	-9844	-8751	12539	1.62	1.2731	0	0	0	28547	26198	4131	28547	No	2.28	Si
SLU 20	-1.3	-823.79	-9145	-8129	6012	2.025	2.025	-8920	9523	6410	28547	32748	5164	34957	No	5.81	Si
SLU 20	0.05	-344.96	-10114	-8991	8370	2.025	2.025	-9866	9649	6670	28547	32748	5164	35216	No	4.21	Si
SLU 20	1.39	-4995.46	-8753	-7781	11147	1.62	1.3254	0	0	0	28547	26198	4131	28547	No	2.56	Si
SLU 41	-1.3	-902.2	-10114	-8990	6794	2.025	2.025	-9866	9649	6670	28547	32748	5164	35216	No	5.18	Si
SLU 41	0.05	-469.49	-11247	-9997	9442	2.025	2.025	-10971	9796	6973	28547	32748	5164	35519	No	3.76	Si
SLU 41	1.39	-5789.88	-9844	-8751	12539	1.62	1.2731	0	0	0	28547	26198	4131	28547	No	2.28	Si
SLU 40	-1.3	-900.11	-10047	-8931	6760	2.025	2.025	-9801	9640	6652	28547	32748	5164	35198	No	5.21	Si
SLU 40	0.05	-464.69	-11182	-9940	9387	2.025	2.025	-10908	9788	6956	28547	32748	5164	35502	No	3.78	Si
SLU 40	1.39	-5757.01	-9797	-8709	12470	1.62	1.2747	0	0	0	28547	26198	4131	28547	No	2.29	Si
SLU 83	-1.3	-1103.09	-11918	-10594	7707	2.025	2.025	-11625	9883	7152	28547	32748	5164	35699	No	4.63	Si
SLU 83	0.05	-436.56	-13134	-11675	10772	2.025	2.025	-12812	10042	7478	28547	32748	5164	36025	No	3.34	Si
SLU 83	1.39	-6390.28	-11329	-10070	14370	2.025	1.3452	-16808	10575	6995	28547	32748	5164	35541	No	2.47	Si
SLU 84	-1.3	-1100.99	-11851	-10534	7673	2.025	2.025	-11560	9875	7135	28547	32748	5164	35681	No	4.65	Si
SLU 84	0.05	-431.76	-13069	-11617	10717	2.025	2.025	-12748	10033	7461	28547	32748	5164	36007	No	3.36	Si
SLU 84	1.39	-6357.41	-11281	-10028	14301	2.025	1.3469	-16716	10562	6982	28547	32748	5164	35529	No	2.48	Si
SLU 42	-1.3	-900.11	-10047	-8931	6760	2.025	2.025	-9801	9640	6652	28547	32748	5164	35198	No	5.21	Si
SLU 42	0.05	-464.69	-11182	-9940	9387	2.025	2.025	-10908	9788	6956	28547	32748	5164	35502	No	3.78	Si
SLU 42	1.39	-5757.01	-9797	-8709	12470	1.62	1.2747	0	0	0	28547	26198	4131	28547	No	2.29	Si
SLU 81	-1.3	-1103.09	-11918	-10594	7707	2.025	2.025	-11625	9883	7152	28547	32748	5164	35699	No	4.63	Si
SLU 81	0.05	-436.56	-13134	-11675	10772	2.025	2.025	-12812	10042	7478	28547	32748	5164	36025	No	3.34	Si
SLU 81	1.39	-6390.28	-11329	-10070	14370	2.025	1.3452	-16808	10575	6995	28547	32748	5164	35541	No	2.47	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 3	-1.3	-961.62	-10514	-9346	7517	2.025	2.025	-10256	14551	8758	28547	49122	5164	37305		4.96	Si
SLV 3	0.05	-514.97	-11565	-10280	10343	2.025	2.025	-11281	14756	9039	28547	49122	5164	37586		3.63	Si
SLV 3	1.39	-6334.59	-10091	-8970	13441	1.62	1.1543	0	0	0	28547	39298	4131	28547		2.12	Si
SLV 6	-1.3	-2418.19	-10415	-9258	1002	2.025	2.025	-10159	14532	8732	28547	49122	5164	37278		37.19	Si
SLV 6	0.05	-209.39	-9637	-8566	3733	2.025	2.025	-9400	14380	8523	28547	49122	5164	37070		9.93	Si
SLV 6	1.39	-1682.08	-6972	-6197	6188	2.025	2.025	-6801	13860	7810	28547	49122	5164	36357		5.88	Si
SLV 2	-1.3	-1719.26	-11505	-10227	5577	2.025	2.025	-11223	14745	9024	28547	49122	5164	37570		6.74	Si
SLV 2	0.05	-515.46	-11798	-10487	8808	2.025	2.025	-11508	14802	9102	28547	49122	5164	37648		4.27	Si
SLV 2	1.39	-5247.55	-9675	-8600	11968	2.025	1.4103	-13623	15225	8534	28547	49122	5164	37080		3.1	Si
SLV 1	-1.3	-1888.72	-11503	-10225	4776	2.025	2.025	-11221	14744	9023	28547	49122	5164	37570		7.87	Si
SLV 1	0.05	-483.3	-11673	-10376	7832	2.025	2.025	-11386	14777	9068	28547	49122	5164	37615		4.8	Si
SLV 1	1.39	-4619.25	-9494	-8439	10837	2.025	1.5778	-11938	14888	8485	28547	49122	5164	37032		3.42	Si
SLV 8	-1.3	672.14	-7116	-6326	10137	2.025	2.025	-6942	13888	7849	28547	49122	5164	36395		3.59	Si
SLV 8	0.05	-314.97	-9277	-8247	12105	2.025	2.025	-9050	14310	8427	28547	49122	5164	36974		3.05	Si
SLV 8	1.39	-7399.87	-8964	-7968	14869	1.62	0.5611	0	0	0	28547	39298	4131	28547		1.92	Si
SLV 16	-1.3	299.64	-4101	-3646	4374	2.025	2.025	-4001	13300	7042	28547	49122	5164	35588		8.14	Si
SLV 16	0.05	222.08	-5156	-4583	5182	2.025	2.025	-5029	13506	7324	28547	49122	5164	35871		6.92	Si
SLV 16	1.39	-2487.7	-4541	-4037	6728	2.025	1.3941	-6449	13790	7160	28547	49122	5164	35706		5.31	Si
SLV 12	-1.3	999.68	-5192	-4615	8954	2.025	2.025	-5065	13513	7334	28547	49122	5164	35880		4.01	Si
SLV 12	0.05	-84.2	-7317	-6504	10264	2.025	2.025	-7138	13928	7903	28547	49122	5164	36449		3.55	Si
SLV 12	1.39	-6057.32	-7245	-6440	12516	1.62	0.5293	0	0	0	28547	39298	4131	28547		2.28	Si
SLV 7	-1.3	501.56	-7114	-6324	9331	2.025	2.025	-6940	13888	7848	28547	49122	5164	36395		3.9	Si
SLV 7	0.05	-282.59	-9152	-8135	11122	2.025	2.025	-8927	14285	8394	28547	49122	5164	36940		3.32	Si
SLV 7	1.39	-6767.43	-8782	-7806	13730	1.62	0.7258	0	0	0	28547	39298	4131	28547		2.08	Si
SLV 11	-1.3	829.1	-5190	-4613	8148	2.025	2.025	-5063	13513	7333	28547	49122	5164	35880		4.4	Si
SLV 11	0.05	-51.83	-7191	-6392	9281	2.025	2.025	-7015	13903	7869	28547	49122	5164	36415		3.92	Si
SLV 11	1.39	-5424.87	-7063	-6278	11377	1.62	0.7333	0	0	0	28547	39298	4131	28547		2.51	Si
SLV 4	-1.3	-792.16	-10516	-9348	8317	2.025	2.025	-10258	14552	8759	28547	49122	5164	37305		4.49	Si
SLV 4	0.05	-547.13	-11690	-10391	11319	2.025	2.025	-11403	14781	9073	28547	49122	5164	37619		3.32	Si
SLV 4	1.39	-6962.89	-10272	-9131	14573	1.62	1.004	0	0	0	28547	39298	4131	28547		1.96	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.045 Wa 0.08 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 15	215625	0.25	5520	-5031	125.28	1097.78	8.76	Si
SLV 13	215625	0.25	5639	-5138	125.28	1120.57	8.94	Si
SLV 16	215625	0.25	5658	-5156	125.28	1124.18	8.97	Si

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 14	215625	0.25	5776	-5263	125.28	1146.93	9.16	Si
SLV 11	215625	0.25	7892	-7191	125.28	1548.37	12.36	Si
SLV 12	215625	0.25	8030	-7317	125.28	1574.22	12.57	Si
SLV 9	215625	0.25	8286	-7551	125.28	1622.12	12.95	Si
SLV 10	215625	0.25	8424	-7677	125.28	1647.84	13.15	Si
SLV 7	215625	0.25	10043	-9152	125.28	1946.28	15.54	Si
SLV 8	215625	0.25	10181	-9277	125.28	1971.46	15.74	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 4	-10272	-10516	-31	1.007	1395.4	0.932	15.7076	3.65332	Si
SLV 3	-10091	-10514	-31	1.021	1377.1	0.931	15.93114	3.65332	Si
SLV 2	-9675	-11505	11	1.056	1335	0.93	16.50117	3.65332	Si
SLV 1	-9494	-11503	11	1.071	1316.8	0.929	16.7511	3.65332	Si
SLV 8	-8964	-7116	-69	1.112	1263.5	0.927	17.44592	3.59812	Si
SLV 7	-8782	-7114	-69	1.129	1245.1	0.926	17.72859	3.59812	Si
SLV 12	-7245	-5192	-59	1.3	1090.7	0.918	20.59029	3.59812	Si
SLV 11	-7063	-5190	-60	1.324	1072.5	0.917	20.99111	3.59812	Si
SLV 6	-6972	-10415	72	1.335	1063.4	0.916	21.17684	3.59812	Si
SLV 5	-6790	-10413	71	1.361	1045.2	0.915	21.60479	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.784	SLU 39	Si
V_SLU	2.277	SLU 39	Si
PF_SLV	1.311	SLV 8	Si
V_SLV	1.92	SLV 8	Si
PFFP_SLV	8.763	SLV 15	Si
R_SLV	4.3	SLV 4	Si

Maschio 2

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.183	-0.829	-34.183	2.931	L1	L2	3.76	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	εfd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 83	-1.3	-6583.5	-25190	-0.0000328	0.0004492	0.0035	3.76	41587.4	46833.85	46833.85	7.11	No	Si
SLU 83	0.05	-974.37	-26587	-0.0000258	0.0004492	0.0035	3.76	43555.65	48949.2	48949.2	50.24	No	Si
SLU 83	1.39	457.36	-28738	-0.000027	0.0004492	0.0035	3.76	46517.87	47960.24	47960.24	104.86	No	Si
SLU 82	-1.3	-6560.58	-25094	-0.0000327	0.0004492	0.0035	3.76	41450.67	46688.97	46688.97	7.12	No	Si
SLU 82	0.05	-970.57	-26489	-0.0000257	0.0004492	0.0035	3.76	43418.38	48799.75	48799.75	50.28	No	Si
SLU 82	1.39	522.39	-28609	-0.000027	0.0004492	0.0035	3.76	46342.44	47781.24	47781.24	91.47	No	Si
SLU 77	-1.3	-6228.62	-23922	-0.000031	0.0004492	0.0035	3.76	39769.4	44920.82	44920.82	7.21	No	Si
SLU 77	0.05	-1100	-25036	-0.0000245	0.0004492	0.0035	3.76	41367.24	46600.7	46600.7	42.36	No	Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 77	1.39	20.15	-26725	-0.0000245	0.0004492	0.0035	3.76	43747.57	45178.44	45178.44	2241.97	No	Si
SLU 84	-1.3	-6560.58	-25094	-0.0000327	0.0004492	0.0035	3.76	41450.67	46688.97	46688.97	7.12	No	Si
SLU 84	0.05	-970.57	-26489	-0.0000257	0.0004492	0.0035	3.76	43418.38	48799.75	48799.75	50.28	No	Si
SLU 84	1.39	522.39	-28609	-0.000027	0.0004492	0.0035	3.76	46342.44	47781.24	47781.24	91.47	No	Si
SLU 80	-1.3	-6205.7	-23826	-0.0000309	0.0004492	0.0035	3.76	39630.46	44772.51	44772.51	7.21	No	Si
SLU 80	0.05	-1096.19	-24937	-0.0000244	0.0004492	0.0035	3.76	41227.2	46452.72	46452.72	42.38	No	Si
SLU 80	1.39	85.18	-26595	-0.0000245	0.0004492	0.0035	3.76	43567.41	45000.7	45000.7	528.28	No	Si
SLU 78	-1.3	-6205.7	-23826	-0.0000309	0.0004492	0.0035	3.76	39630.46	44772.51	44772.51	7.21	No	Si
SLU 78	0.05	-1096.19	-24937	-0.0000244	0.0004492	0.0035	3.76	41227.2	46452.72	46452.72	42.38	No	Si
SLU 78	1.39	85.18	-26595	-0.0000245	0.0004492	0.0035	3.76	43567.41	45000.7	45000.7	528.28	No	Si
SLU 79	-1.3	-6228.62	-23922	-0.000031	0.0004492	0.0035	3.76	39769.4	44920.82	44920.82	7.21	No	Si
SLU 79	0.05	-1100	-25036	-0.0000245	0.0004492	0.0035	3.76	41367.24	46600.7	46600.7	42.36	No	Si
SLU 79	1.39	20.15	-26725	-0.0000245	0.0004492	0.0035	3.76	43747.57	45178.44	45178.44	2241.97	No	Si
SLU 75	-1.3	-6205.7	-23826	-0.0000309	0.0004492	0.0035	3.76	39630.46	44772.51	44772.51	7.21	No	Si
SLU 75	0.05	-1096.19	-24937	-0.0000244	0.0004492	0.0035	3.76	41227.2	46452.72	46452.72	42.38	No	Si
SLU 75	1.39	85.18	-26595	-0.0000245	0.0004492	0.0035	3.76	43567.41	45000.7	45000.7	528.28	No	Si
SLU 81	-1.3	-6583.5	-25190	-0.0000328	0.0004492	0.0035	3.76	41587.4	46833.85	46833.85	7.11	No	Si
SLU 81	0.05	-974.37	-26587	-0.0000258	0.0004492	0.0035	3.76	43555.65	48949.2	48949.2	50.24	No	Si
SLU 81	1.39	457.36	-28738	-0.000027	0.0004492	0.0035	3.76	46517.87	47960.24	47960.24	104.86	No	Si
SLU 74	-1.3	-6228.62	-23922	-0.000031	0.0004492	0.0035	3.76	39769.4	44920.82	44920.82	7.21	No	Si
SLU 74	0.05	-1100	-25036	-0.0000245	0.0004492	0.0035	3.76	41367.24	46600.7	46600.7	42.36	No	Si
SLU 74	1.39	20.15	-26725	-0.0000245	0.0004492	0.0035	3.76	43747.57	45178.44	45178.44	2241.97	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 13	-1.3	-3430.1	-10658	-0.0000144	0.0006738	0.0035	3.76		23405.82	23405.82	6.82		Si
SLV 13	0.05	-2683.21	-12996	-0.0000155	0.0006738	0.0035	3.76		27506.67	27506.67	10.25		Si
SLV 13	1.39	-1728.53	-14682	-0.0000157	0.0006738	0.0035	3.76		30444.51	30444.51	17.61		Si
SLV 9	-1.3	-7691.7	-14828	-0.0000244	0.0006738	0.0035	3.76		30696.63	30696.63	3.99		Si
SLV 9	0.05	-6721.41	-16552	-0.0000246	0.0006738	0.0035	3.76		33654.69	33654.69	5.01		Si
SLV 9	1.39	-5893.7	-18253	-0.0000249	0.0006738	0.0035	3.76		36530.31	36530.31	6.2		Si
SLV 12	-1.3	474.02	-14650	-0.0000138	0.0006738	0.0035	3.76		27128.49	27128.49	57.23		Si
SLV 12	0.05	4909.29	-14722	-0.0000203	0.0006738	0.0035	3.76		27253.24	27253.24	5.55		Si
SLV 12	1.39	5252.71	-14692	-0.0000207	0.0006738	0.0035	3.76		27201.18	27201.18	5.18		Si
SLV 11	-1.3	119.17	-14665	-0.0000133	0.0006738	0.0035	3.76		27154.45	27154.45	227.86		Si
SLV 11	0.05	4095.64	-15017	-0.0000194	0.0006738	0.0035	3.76		27766.64	27766.64	6.78		Si
SLV 11	1.39	4156.96	-15216	-0.0000196	0.0006738	0.0035	3.76		28110.92	28110.92	6.76		Si
SLV 10	-1.3	-7336.85	-14813	-0.0000239	0.0006738	0.0035	3.76		30670.95	30670.95	4.18		Si
SLV 10	0.05	-5907.76	-16257	-0.0000231	0.0006738	0.0035	3.76		33150	33150	5.61		Si
SLV 10	1.39	-4797.94	-17729	-0.0000229	0.0006738	0.0035	3.76		35655.44	35655.44	7.43		Si
SLV 1	-1.3	-7791.91	-22408	-0.0000316	0.0006738	0.0035	3.76		43504.46	43504.46	5.58		Si
SLV 1	0.05	-3396.25	-21618	-0.0000244	0.0006738	0.0035	3.76		42173.01	42173.01	12.42		Si
SLV 1	1.39	-3568.09	-21844	-0.0000249	0.0006738	0.0035	3.76		42553.48	42553.48	11.93		Si
SLV 5	-1.3	-9000.25	-18353	-0.0000295	0.0006738	0.0035	3.76		36696.91	36696.91	4.08		Si
SLV 5	0.05	-6935.32	-19139	-0.0000273	0.0006738	0.0035	3.76		38010.64	38010.64	5.48		Si
SLV 5	1.39	-6445.57	-20402	-0.0000277	0.0006738	0.0035	3.76		40128.9	40128.9	6.23		Si
SLV 6	-1.3	-8645.4	-18338	-0.000029	0.0006738	0.0035	3.76		36671.98	36671.98	4.24		Si
SLV 6	0.05	-6121.67	-18843	-0.0000258	0.0006738	0.0035	3.76		37516.44	37516.44	6.13		Si
SLV 6	1.39	-5349.81	-19878	-0.0000257	0.0006738	0.0035	3.76		39249.81	39249.81	7.34		Si
SLV 2	-1.3	-7439.39	-22394	-0.000031	0.0006738	0.0035	3.76		43479.46	43479.46	5.84		Si
SLV 2	0.05	-2587.94	-21325	-0.000023	0.0006738	0.0035	3.76		41679.34	41679.34	16.11		Si
SLV 2	1.39	-2479.53	-21324	-0.0000228	0.0006738	0.0035	3.76		41677.35	41677.35	16.81		Si
SLV 8	-1.3	-834.52	-18175	-0.0000176	0.0006738	0.0035	3.76		36399.26	36399.26	43.62		Si
SLV 8	0.05	4695.38	-17308	-0.0000223	0.0006738	0.0035	3.76		31717.16	31717.16	6.75		Si
SLV 8	1.39	4700.84	-16840	-0.0000219	0.0006738	0.0035	3.76		30917.41	30917.41	6.58		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 83	-1.3	-6583.5	-25190	-22391	-9505	3.76	3.76	-13234	10098	18730	28547	60806	9588	47277	No	4.97	Si
SLU 83	0.05	-974.37	-26587	-23633	-10275	3.76	3.76	-13967	10196	19227	28547	60806	9588	47774	No	4.65	Si
SLU 83	1.39	457.36	-28738	-25545	-8965	3.76	3.76	-15098	10346	19992	28547	60806	9588	48539	No	5.41	Si
SLU 78	-1.3	-6205.7	-23826	-21179	-8850	3.76	3.76	-12517	10002	18245	28547	60806	9588	46792	No	5.29	Si
SLU 78	0.05	-1096.19	-24937	-22167	-9655	3.76	3.76	-13101	10080	18641	28547	60806	9588	47187	No	4.89	Si
SLU 78	1.39	85.18	-26595	-23640	-8423	3.76	3.76	-13972	10196	19230	28547	60806	9588	47777	No	5.67	Si
SLU 76	-1.3	-6190.42	-23762	-21122	-8840	3.76	3.76	-12483	9998	18223	28547	60806	9588	46769	No	5.29	Si
SLU 76	0.05	-1093.66	-24872	-22108	-9664	3.76	3.76	-13066	10076	18617	28547	60806	9588	47164	No	4.88	Si
SLU 76	1.39	128.54	-26509	-23564	-8436	3.76	3.76	-13927	10190	19199	28547	60806	9588	47746	No	5.66	Si
SLU 73	-1.3	-6190.42	-23762	-21122	-8840	3.76	3.76	-12483	9998	18223	28547	60806	9588	46769	No	5.29	Si
SLU 73	0.05	-1093.66	-24872	-22108	-9664	3.76	3.76	-13066	10076	18617	28547	60806	9588	47164	No	4.88	Si
SLU 73	1.39	128.54	-26509	-23564	-8436	3.76	3.76	-13927	10190	19199	28547	60806	9588	47746	No	5.66	Si
SLU 81	-1.3	-6583.5	-25190	-22391	-9505	3.76	3.76	-13234	10098	18730	28547	60806	9588	47277	No	4.97	Si
SLU 81	0.05	-974.37	-26587	-23633	-10275	3.76	3.76	-13967	10196	19227	28547	60806	9588	47774	No	4.65	Si
SLU 81	1.39	457.36	-28738	-25545	-8965	3.76	3.76	-15098	10346	19992	28547	60806	9588	48539	No	5.41	Si
SLU 75	-1.3	-6205.7	-23826	-21179	-8850	3.76	3.76	-12517	10002	18245	28547	60806	9588	46792	No	5.29	Si
SLU 75	0.05	-1096.19	-24937	-22167	-9655	3.76	3.76	-13101	10080	18641	28547	60806	9588	47187	No	4.89	Si
SLU 75	1.39	85.18	-26595	-23640	-8423	3.76	3.76	-13972	10196	19230	28547	60806	9588	47777	No	5.67	Si
SLU 80	-1.3	-6205.7	-23826	-21179	-8850	3.76	3.76	-12517	10002	18245	28547	60806	9588	46792	No	5.29	Si
SLU 80	0.05	-1096.19	-24937	-22167	-9655	3.76	3.76	-13101	10080	18641	28547	60806	9588	47187	No	4.89	Si
SLU 80	1.39	85.18	-26595	-23640	-8423	3.76	3.76	-13972	10196	19230	28547	60806	9588	47777	No	5.67	Si
SLU 84	-1.3	-6560.58	-25094	-22306	-9489	3.76	3.76	-13183	10091	18696	28547	60806	9588	47243	No	4.98	Si
SLU 84	0.05	-970.57	-26489	-23546	-10289	3.76	3.76	-13916	10189	19192	28547	60806	9588	47739	No	4.64	Si
SLU 84	1.39	522.39	-28609	-25430	-8985	3.76	3.76	-15030	10337	19946	28547	60806	9588	48493	No	5.4	Si
SLU 79	-1.3	-6228.62	-23922	-21264	-8866	3.76	3.76	-12567	10009	18280	28547	60806	9588	46826	No	5.28	Si
SLU 79	0.05	-1100	-25036	-22254	-9641	3.76	3.76	-13152	10087	18675	28547	60806	9588	47222	No	4.9	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 79	1.39	20.15	-26725	-23755	-8402	3.76	3.76	-14040	10205	19276	28547	60806	9588	47823	No	5.69	Si
SLU 82	-1.3	-6560.58	-25094	-22306	-9489	3.76	3.76	-13183	10091	18696	28547	60806	9588	47243	No	4.98	Si
SLU 82	0.05	-970.57	-26489	-23546	-10289	3.76	3.76	-13916	10189	19192	28547	60806	9588	47739	No	4.64	Si
SLU 82	1.39	522.39	-28609	-25430	-8985	3.76	3.76	-15030	10337	19946	28547	60806	9588	48493	No	5.4	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 14	-1.3	-3077.58	-10644	-9461	-6111	3.76	3.76	-5592	13618	18446	28547	91209	9588	46992		7.69	Si
SLV 14	0.05	-1874.89	-12703	-11291	-7923	3.76	3.76	-6673	13835	19178	28547	91209	9588	47724		6.02	Si
SLV 14	1.39	-639.96	-14161	-12588	-7405	3.76	3.76	-7440	13988	19696	28547	91209	9588	48243		6.52	Si
SLV 10	-1.3	-7336.85	-14813	-13167	-10889	3.76	3.76	-7782	14056	19928	28547	91209	9588	48475		4.45	Si
SLV 10	0.05	-5907.76	-16257	-14450	-12256	3.76	3.76	-8540	14208	20441	28547	91209	9588	48988		4	Si
SLV 10	1.39	-4797.94	-17729	-15759	-11534	3.76	3.76	-9314	14363	20965	28547	91209	9588	49512		4.29	Si
SLV 9	-1.3	-7691.7	-14828	-13181	-12028	3.76	3.76	-7790	14058	19933	28547	91209	9588	48480		4.03	Si
SLV 9	0.05	-6721.41	-16552	-14713	-13106	3.76	3.76	-8696	14239	20546	28547	91209	9588	49093		3.75	Si
SLV 9	1.39	-5893.7	-18253	-16225	-12505	3.76	3.76	-9589	14418	21151	28547	91209	9588	49698		3.97	Si
SLV 15	-1.3	-1086.84	-10610	-9431	-3724	3.76	3.76	-5574	13615	18434	28547	91209	9588	46980		12.62	Si
SLV 15	0.05	561.91	-12535	-11143	-5052	3.76	3.76	-6585	13817	19118	28547	91209	9588	47665		9.43	Si
SLV 15	1.39	1286.67	-13770	-12240	-4606	3.76	3.76	-7234	13947	19557	28547	91209	9588	48104		10.44	Si
SLV 2	-1.3	-7439.39	-22394	-19905	-8047	3.76	3.76	-11764	14853	22623	28547	91209	9588	51170		6.36	Si
SLV 2	0.05	-2587.94	-21325	-18955	-7923	3.76	3.76	-11203	14741	22243	28547	91209	9588	50790		6.41	Si
SLV 2	1.39	-2479.53	-21324	-18954	-6668	3.76	3.76	-11202	14740	22243	28547	91209	9588	50789		7.62	Si
SLV 5	-1.3	-9000.25	-18353	-16314	-12609	3.76	3.76	-9642	14428	21187	28547	91209	9588	49733		3.94	Si
SLV 5	0.05	-6935.32	-19139	-17012	-13106	3.76	3.76	-10054	14511	21466	28547	91209	9588	50013		3.82	Si
SLV 5	1.39	-6445.57	-20402	-18135	-12284	3.76	3.76	-10718	14644	21915	28547	91209	9588	50462		4.11	Si
SLV 1	-1.3	-7791.91	-22408	-19919	-9178	3.76	3.76	-11772	14854	22629	28547	91209	9588	51175		5.58	Si
SLV 1	0.05	-3396.25	-21618	-19216	-8768	3.76	3.76	-11357	14771	22348	28547	91209	9588	50894		5.8	Si
SLV 1	1.39	-3568.09	-21844	-19417	-7632	3.76	3.76	-11476	14795	22428	28547	91209	9588	50974		6.68	Si
SLV 6	-1.3	-8645.4	-18338	-16301	-11470	3.76	3.76	-9634	14427	21181	28547	91209	9588	49728		4.34	Si
SLV 6	0.05	-6121.67	-18843	-16750	-12256	3.76	3.76	-9899	14480	21361	28547	91209	9588	49908		4.07	Si
SLV 6	1.39	-5349.81	-19878	-17669	-11313	3.76	3.76	-10443	14589	21729	28547	91209	9588	50276		4.44	Si
SLV 13	-1.3	-3430.1	-10658	-9474	-7242	3.76	3.76	-5599	13620	18451	28547	91209	9588	46998		6.49	Si
SLV 13	0.05	-2683.21	-12996	-11552	-8768	3.76	3.76	-6827	13865	19282	28547	91209	9588	47829		5.45	Si
SLV 13	1.39	-1728.53	-14682	-13050	-8369	3.76	3.76	-7713	14043	19881	28547	91209	9588	48428		5.79	Si
SLV 3	-1.3	-5448.65	-22359	-19875	-5660	3.76	3.76	-11746	14849	22611	28547	91209	9588	51158		9.04	Si
SLV 3	0.05	-151.14	-21158	-18807	-5052	3.76	3.76	-11115	14723	22184	28547	91209	9588	50730		10.04	Si
SLV 3	1.39	-552.9	-20933	-18607	-3869	3.76	3.76	-10997	14699	22104	28547	91209	9588	50650		13.09	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.045 Wa 0.08 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 16	215625	0.25	7235	-12242	232.62	2645.74	11.37	Si
SLV 15	215625	0.25	7409	-12535	232.62	2706.47	11.63	Si
SLV 14	215625	0.25	7507	-12703	232.62	2741.01	11.78	Si
SLV 13	215625	0.25	7681	-12996	232.62	2801.55	12.04	Si
SLV 12	215625	0.25	8701	-14722	232.62	3155.13	13.56	Si
SLV 11	215625	0.25	8875	-15017	232.62	3215.2	13.82	Si
SLV 10	215625	0.25	9608	-16257	232.62	3465.99	14.9	Si
SLV 9	215625	0.25	9782	-16552	232.62	3525.4	15.16	Si
SLV 8	215625	0.25	10229	-17308	232.62	3677.01	15.81	Si
SLV 7	215625	0.25	10404	-17604	232.62	3735.97	16.06	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 1	-21844	-22408	-1888	0.838	2871	0.938	12.99235	3.65332	Si
SLV 2	-21324	-22394	-1885	0.854	2818.3	0.937	13.24732	3.65332	Si
SLV 3	-20933	-22359	-1867	0.867	2778.8	0.936	13.45582	3.65332	Si
SLV 4	-20412	-22345	-1864	0.883	2726.1	0.935	13.73083	3.65332	Si
SLV 5	-20402	-18353	-651	0.933	2725.1	0.935	14.50582	3.59812	Si
SLV 6	-19878	-18338	-648	0.952	2672.2	0.934	14.81309	3.59812	Si
SLV 9	-18253	-14828	430	1.025	2508.1	0.93	16.00709	3.59812	Si
SLV 10	-17729	-14813	433	1.047	2455.3	0.929	16.37891	3.59812	Si
SLV 7	-17364	-18190	-581	1.057	2418.5	0.928	16.54259	3.59812	Si
SLV 8	-16840	-18175	-578	1.081	2365.7	0.927	16.94907	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.114	SLU 81	Si
V_SLU	4.64	SLU 82	Si
PF_SLV	3.991	SLV 9	Si
V_SLV	3.746	SLV 9	Si
PFFP_SLV	11.374	SLV 16	Si
R_SLV	3.556	SLV 1	Si

Maschio 3

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.183	3.931	-34.183	5.726	L1	L2	1.795	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 83	-1.3	2309.23	-12327	-0.0000387	0.0004492	0.0035	1.795	9681.91	10009.25	10009.25	4.33	No	Si
SLU 83	0.05	573.36	-12546	-0.0000278	0.0004492	0.0035	1.795	9828.63	10153.14	10153.14	17.71	No	Si
SLU 83	1.39	901.68	-12240	-0.0000293	0.0004492	0.0035	1.795	9623.15	9951.93	9951.93	11.04	No	Si
SLU 73	-1.3	2198.4	-11584	-0.0000365	0.0004492	0.0035	1.795	9176.45	9521.8	9521.8	4.33	No	Si
SLU 73	0.05	558.87	-11642	-0.0000259	0.0004492	0.0035	1.795	9216.32	9559.8	9559.8	17.11	No	Si
SLU 73	1.39	747.38	-11168	-0.0000262	0.0004492	0.0035	1.795	8889.44	9250.51	9250.51	12.38	No	Si
SLU 84	-1.3	2310.01	-12280	-0.0000386	0.0004492	0.0035	1.795	9649.8	9977.91	9977.91	4.32	No	Si
SLU 84	0.05	578.37	-12500	-0.0000277	0.0004492	0.0035	1.795	9797.89	10122.89	10122.89	17.5	No	Si
SLU 84	1.39	884.07	-12188	-0.0000291	0.0004492	0.0035	1.795	9588.1	9917.82	9917.82	11.22	No	Si
SLU 76	-1.3	2198.4	-11584	-0.0000365	0.0004492	0.0035	1.795	9176.45	9521.8	9521.8	4.33	No	Si
SLU 76	0.05	558.87	-11642	-0.0000259	0.0004492	0.0035	1.795	9216.32	9559.8	9559.8	17.11	No	Si
SLU 76	1.39	747.38	-11168	-0.0000262	0.0004492	0.0035	1.795	8889.44	9250.51	9250.51	12.38	No	Si
SLU 79	-1.3	2197.1	-11664	-0.0000366	0.0004492	0.0035	1.795	9230.94	9573.75	9573.75	4.36	No	Si
SLU 79	0.05	550.53	-11719	-0.000026	0.0004492	0.0035	1.795	9268.73	9609.86	9609.86	17.46	No	Si
SLU 79	1.39	776.74	-11255	-0.0000265	0.0004492	0.0035	1.795	8949.44	9306.9	9306.9	11.98	No	Si
SLU 80	-1.3	2197.88	-11616	-0.0000365	0.0004492	0.0035	1.795	9198.26	9542.58	9542.58	4.34	No	Si
SLU 80	0.05	555.54	-11673	-0.0000259	0.0004492	0.0035	1.795	9237.29	9579.82	9579.82	17.24	No	Si
SLU 80	1.39	759.12	-11203	-0.0000263	0.0004492	0.0035	1.795	8913.46	9273.07	9273.07	12.22	No	Si
SLU 78	-1.3	2197.88	-11616	-0.0000365	0.0004492	0.0035	1.795	9198.26	9542.58	9542.58	4.34	No	Si
SLU 78	0.05	555.54	-11673	-0.0000259	0.0004492	0.0035	1.795	9237.29	9579.82	9579.82	17.24	No	Si
SLU 78	1.39	759.12	-11203	-0.0000263	0.0004492	0.0035	1.795	8913.46	9273.07	9273.07	12.22	No	Si
SLU 75	-1.3	2197.88	-11616	-0.0000365	0.0004492	0.0035	1.795	9198.26	9542.58	9542.58	4.34	No	Si
SLU 75	0.05	555.54	-11673	-0.0000259	0.0004492	0.0035	1.795	9237.29	9579.82	9579.82	17.24	No	Si
SLU 75	1.39	759.12	-11203	-0.0000263	0.0004492	0.0035	1.795	8913.46	9273.07	9273.07	12.22	No	Si
SLU 82	-1.3	2310.01	-12280	-0.0000386	0.0004492	0.0035	1.795	9649.8	9977.91	9977.91	4.32	No	Si
SLU 82	0.05	578.37	-12500	-0.0000277	0.0004492	0.0035	1.795	9797.89	10122.89	10122.89	17.5	No	Si
SLU 82	1.39	884.07	-12188	-0.0000291	0.0004492	0.0035	1.795	9588.1	9917.82	9917.82	11.22	No	Si
SLU 81	-1.3	2309.23	-12327	-0.0000387	0.0004492	0.0035	1.795	9681.91	10009.25	10009.25	4.33	No	Si
SLU 81	0.05	573.36	-12546	-0.0000278	0.0004492	0.0035	1.795	9828.63	10153.14	10153.14	17.71	No	Si
SLU 81	1.39	901.68	-12240	-0.0000293	0.0004492	0.0035	1.795	9623.15	9951.93	9951.93	11.04	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 16	-1.3	1685.28	-6396	-0.0000226	0.0006738	0.0035	1.795		5700.47	5700.47	3.38		Si
SLV 16	0.05	862.48	-5978	-0.0000166	0.0006738	0.0035	1.795		5351.39	5351.39	6.2		Si
SLV 16	1.39	10.89	-4782	-0.000009	0.0006738	0.0035	1.795		4341.66	4341.66	398.53		Si
SLV 8	-1.3	2753.05	-10946	-0.0000383	0.0006738	0.0035	1.795		9405.83	9405.83	3.42		Si
SLV 8	0.05	1139.6	-9911	-0.000026	0.0006738	0.0035	1.795		8580.05	8580.05	7.53		Si
SLV 8	1.39	944.38	-9097	-0.0000231	0.0006738	0.0035	1.795		7922.21	7922.21	8.39		Si
SLV 4	-1.3	2120.73	-10982	-0.0000343	0.0006738	0.0035	1.795		9434.74	9434.74	4.45		Si
SLV 4	0.05	499.35	-10453	-0.0000229	0.0006738	0.0035	1.795		9012.24	9012.24	18.05		Si
SLV 4	1.39	1081.89	-10164	-0.0000261	0.0006738	0.0035	1.795		8781.87	8781.87	8.12		Si
SLV 14	-1.3	1012.94	-5051	-0.0000158	0.0006738	0.0035	1.795		4570.13	4570.13	4.51		Si
SLV 14	0.05	423.03	-5100	-0.0000122	0.0006738	0.0035	1.795		4612.18	4612.18	10.9		Si
SLV 14	1.39	-192.46	-4081	-0.0000088	0.0006738	0.0035	1.795		4406.97	4406.97	22.9		Si
SLV 12	-1.3	2622.41	-9570	-0.0000348	0.0006738	0.0035	1.795		8305.63	8305.63	3.17		Si
SLV 12	0.05	1248.54	-8569	-0.0000241	0.0006738	0.0035	1.795		7493.52	7493.52	6		Si
SLV 12	1.39	623.08	-7483	-0.000018	0.0006738	0.0035	1.795		6602.19	6602.19	10.6		Si
SLV 11	-1.3	2525.43	-9502	-0.000034	0.0006738	0.0035	1.795		8250.7	8250.7	3.27		Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 11	0.05	1106.86	-8594	-0.0000232	0.0006738	0.0035	1.795		7513.92	7513.92	6.79		Si
SLV 11	1.39	596.21	-7634	-0.0000181	0.0006738	0.0035	1.795		6726.68	6726.68	11.28		Si
SLV 15	-1.3	1588.94	-6328	-0.0000219	0.0006738	0.0035	1.795		5644.18	5644.18	3.55		Si
SLV 15	0.05	721.73	-6003	-0.0000158	0.0006738	0.0035	1.795		5372.3	5372.3	7.44		Si
SLV 15	1.39	-15.8	-4932	-0.0000093	0.0006738	0.0035	1.795		5127.16	5127.16	324.6		Si
SLV 13	-1.3	916.59	-4984	-0.0000151	0.0006738	0.0035	1.795		4512.99	4512.99	4.92		Si
SLV 13	0.05	282.28	-5125	-0.0000114	0.0006738	0.0035	1.795		4633.41	4633.41	16.41		Si
SLV 13	1.39	-219.15	-4231	-0.0000093	0.0006738	0.0035	1.795		4534.84	4534.84	20.69		Si
SLV 3	-1.3	2024.39	-10915	-0.0000336	0.0006738	0.0035	1.795		9381.07	9381.07	4.63		Si
SLV 3	0.05	358.6	-10478	-0.0000221	0.0006738	0.0035	1.795		9032.18	9032.18	25.19		Si
SLV 3	1.39	1055.21	-10314	-0.0000262	0.0006738	0.0035	1.795		8901.63	8901.63	8.44		Si
SLV 7	-1.3	2656.06	-10879	-0.0000376	0.0006738	0.0035	1.795		9351.8	9351.8	3.52		Si
SLV 7	0.05	997.92	-9936	-0.0000251	0.0006738	0.0035	1.795		8600.12	8600.12	8.62		Si
SLV 7	1.39	917.51	-9249	-0.0000233	0.0006738	0.0035	1.795		8044.76	8044.76	8.77		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 84	-1.3	2310.01	-12280	-10915	1061	1.795	1.795	-13513	10135	6027	28547	29029	4577	33606	No	31.66	Si
SLU 84	0.05	578.37	-12500	-11111	176	1.795	1.795	-13756	10167	6079	28547	29029	4577	33606	No	191.25	Si
SLU 84	1.39	884.07	-12188	-10834	-1721	1.795	1.795	-13413	10122	6005	28547	29029	4577	33606	No	19.53	Si
SLU 83	-1.3	2309.23	-12327	-10958	1054	1.795	1.795	-13566	10142	6038	28547	29029	4577	33606	No	31.89	Si
SLU 83	0.05	573.36	-12546	-11152	143	1.795	1.795	-13806	10174	6090	28547	29029	4577	33606	No	234.92	Si
SLU 83	1.39	901.68	-12240	-10880	-1770	1.795	1.795	-13470	10129	6018	28547	29029	4577	33606	No	18.98	Si
SLU 62	-1.3	2104.88	-11236	-9987	979	1.795	1.795	-12364	9982	5779	28547	29029	4577	33606	No	34.34	Si
SLU 62	0.05	541.89	-11217	-9971	184	1.795	1.795	-12344	9979	5775	28547	29029	4577	33606	No	182.23	Si
SLU 62	1.39	787.23	-10654	-9470	-1510	1.795	1.795	-11724	9897	5641	28547	29029	4577	33606	No	22.26	Si
SLU 39	-1.3	1963.63	-10533	-9363	831	1.795	1.795	-11591	9879	5613	28547	29029	4577	33606	No	40.43	Si
SLU 39	0.05	474.17	-10944	-9728	5	1.795	1.795	-12043	9939	5710	28547	29029	4577	33606	No	7294.34	Si
SLU 39	1.39	846.31	-10958	-9740	-1691	1.795	1.795	-12058	9941	5713	28547	29029	4577	33606	No	19.87	Si
SLU 42	-1.3	1964.41	-10485	-9320	839	1.795	1.795	-11539	9872	5601	28547	29029	4577	33606	No	40.06	Si
SLU 42	0.05	479.17	-10898	-9687	37	1.795	1.795	-11993	9932	5699	28547	29029	4577	33606	No	901.66	Si
SLU 42	1.39	828.7	-10906	-9694	-1642	1.795	1.795	-12001	9933	5701	28547	29029	4577	33606	No	20.47	Si
SLU 41	-1.3	1963.63	-10533	-9363	831	1.795	1.795	-11591	9879	5613	28547	29029	4577	33606	No	40.43	Si
SLU 41	0.05	474.17	-10944	-9728	5	1.795	1.795	-12043	9939	5710	28547	29029	4577	33606	No	7294.34	Si
SLU 41	1.39	846.31	-10958	-9740	-1691	1.795	1.795	-12058	9941	5713	28547	29029	4577	33606	No	19.87	Si
SLU 60	-1.3	2104.88	-11236	-9987	979	1.795	1.795	-12364	9982	5779	28547	29029	4577	33606	No	34.34	Si
SLU 60	0.05	541.89	-11217	-9971	184	1.795	1.795	-12344	9979	5775	28547	29029	4577	33606	No	182.23	Si
SLU 60	1.39	787.23	-10654	-9470	-1510	1.795	1.795	-11724	9897	5641	28547	29029	4577	33606	No	22.26	Si
SLU 82	-1.3	2310.01	-12280	-10915	1061	1.795	1.795	-13513	10135	6027	28547	29029	4577	33606	No	31.66	Si
SLU 82	0.05	578.37	-12500	-11111	176	1.795	1.795	-13756	10167	6079	28547	29029	4577	33606	No	191.25	Si
SLU 82	1.39	884.07	-12188	-10834	-1721	1.795	1.795	-13413	10122	6005	28547	29029	4577	33606	No	19.53	Si
SLU 81	-1.3	2309.23	-12327	-10958	1054	1.795	1.795	-13566	10142	6038	28547	29029	4577	33606	No	31.89	Si
SLU 81	0.05	573.36	-12546	-11152	143	1.795	1.795	-13806	10174	6090	28547	29029	4577	33606	No	234.92	Si
SLU 81	1.39	901.68	-12240	-10880	-1770	1.795	1.795	-13470	10129	6018	28547	29029	4577	33606	No	18.98	Si
SLU 40	-1.3	1964.41	-10485	-9320	839	1.795	1.795	-11539	9872	5601	28547	29029	4577	33606	No	40.06	Si
SLU 40	0.05	479.17	-10898	-9687	37	1.795	1.795	-11993	9932	5699	28547	29029	4577	33606	No	901.66	Si
SLU 40	1.39	828.7	-10906	-9694	-1642	1.795	1.795	-12001	9933	5701	28547	29029	4577	33606	No	20.47	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 8	-1.3	2753.05	-10946	-9730	3011	1.795	1.795	-12046	14909	7267	28547	43543	4577	35814		11.89	Si
SLV 8	0.05	1139.6	-9911	-8810	1985	1.795	1.795	-10907	14681	7022	28547	43543	4577	35568		17.92	Si
SLV 8	1.39	944.38	-9097	-8087	392	1.795	1.795	-10011	14502	6829	28547	43543	4577	35375		90.26	Si
SLV 5	-1.3	414.91	-6396	-5685	-1682	1.795	1.795	-7038	13908	6188	28547	43543	4577	34734		20.65	Si
SLV 5	0.05	-466.91	-7009	-6231	-2256	1.795	1.795	-7714	14043	6333	28547	43543	4577	34880		15.46	Si
SLV 5	1.39	239.66	-6912	-6144	-3327	1.795	1.795	-7607	14021	6310	28547	43543	4577	34857		10.48	Si
SLV 11	-1.3	2525.43	-9502	-8447	3037	1.795	1.795	-10457	14591	6925	28547	43543	4577	35472		11.68	Si
SLV 11	0.05	1106.86	-8594	-7639	2569	1.795	1.795	-9457	14391	6709	28547	43543	4577	35256		13.72	Si
SLV 11	1.39	596.21	-7634	-6786	1318	1.795	1.795	-8401	14180	6482	28547	43543	4577	35028		26.58	Si
SLV 6	-1.3	511.89	-6464	-5745	-1366	1.795	1.795	-7113	13923	6204	28547	43543	4577	34751		25.44	Si
SLV 6	0.05	-325.24	-6984	-6208	-1912	1.795	1.795	-7686	14037	6328	28547	43543	4577	34874		18.24	Si
SLV 6	1.39	266.53	-6761	-6010	-2937	1.795	1.795	-7441	13988	6275	28547	43543	4577	34821		11.86	Si
SLV 1	-1.3	1352.04	-9570	-8507	-547	1.795	1.795	-10532	14606	6941	28547	43543	4577	35488		64.89	Si
SLV 1	0.05	-80.85	-9600	-8533	-1973	1.795	1.795	-10564	14613	6948	28547	43543	4577	35495		17.99	Si
SLV 1	1.39	851.85	-9613	-8545	-3697	1.795	1.795	-10579	14616	6951	28547	43543	4577	35498		9.6	Si
SLV 16	-1.3	1685.28	-6396	-5685	2217	1.795	1.795	-7038	13908	6188	28547	43543	4577	34734		15.66	Si
SLV 16	0.05	862.48	-5978	-5314	2631	1.795	1.795	-6579	13816	6089	28547	43543	4577	34635		13.16	Si
SLV 16	1.39	10.89	-4782	-4250	2078	1.795	1.795	-5262	13552	5805	28547	43543	4577	34352		16.53	Si
SLV 7	-1.3	2656.06	-10879	-9670	2695	1.795	1.795	-11971	14894	7251	28547	43543	4577	35798		13.28	Si
SLV 7	0.05	997.92	-9936	-8832	1641	1.795	1.795	-10934	14687	7028	28547	43543	4577	35574		21.68	Si
SLV 7	1.39	917.51	-9249	-8221	1	1.795	1.795	-10178	14536	6865	28547	43543	4577	35411		25579.25	Si
SLV 3	-1.3	2024.39	-10915	-9702	766	1.795	1.795	-12012	14902	7260	28547	43543	4577	35807		46.73	Si
SLV 3	0.05	358.6	-10478	-9314	-804	1.795	1.795	-11530	14806	7156	28547	43543	4577	35703		44.38	Si
SLV 3	1.39	1055.21	-10314	-9168	-2698	1.795	1.795	-11350	14770	7118	28547	43543	4577	35664		13.22	Si
SLV 2	-1.3	1448.38	-9638	-8567	-233	1.795	1.795	-10606	14621	6957	28547	43543	4577	35504		152.21	Si
SLV 2	0.05	59.89	-9575	-8511	-1632	1.795	1.795	-10537	14607	6942	28547	43543	4577	35489		21.75	Si
SLV 2	1.39	878.54	-9463	-8412	-3309	1.795	1.795	-10414	14583	6916	28547	43543	4577	35462		10.72	Si
SLV 12	-1.3	2622.41	-9570	-8507	3352	1.795	1.795	-10532	14606	6941	28547	43543	4577	35488		10.59	Si
SLV 12	0.05	1248.54	-8569	-7617	2913	1.795	1.795	-9430	14386	6703	28547	43543	4577	35250		12.1	Si
SLV 12	1.39	623.08	-7483	-6651	1709	1.795	1.795	-8234	14147	6446	28547	43543	4577	34992		20.48	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.045 Wa 0.08 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 14	215625	0.25	6314	-5100	111.05	1108.04	9.98	Si
SLV 13	215625	0.25	6345	-5125	111.05	1113.28	10.02	Si
SLV 10	215625	0.25	6985	-5642	111.05	1221.06	11	Si

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 9	215625	0.25	7016	-5667	111.05	1226.29	11.04	Si
SLV 16	215625	0.25	7401	-5978	111.05	1290.82	11.62	Si
SLV 15	215625	0.25	7432	-6003	111.05	1295.99	11.67	Si
SLV 6	215625	0.25	8647	-6984	111.05	1497.33	13.48	Si
SLV 5	215625	0.25	8678	-7009	111.05	1502.46	13.53	Si
SLV 12	215625	0.25	10608	-8569	111.05	1816.39	16.36	Si
SLV 11	215625	0.25	10639	-8594	111.05	1821.39	16.4	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 3	-10314	-10915	150	0.906	1359	0.937	14.0566	3.65332	Si
SLV 4	-10164	-10982	150	0.917	1343.9	0.937	14.22377	3.65332	Si
SLV 1	-9613	-9570	155	0.956	1288.2	0.934	14.86764	3.65332	Si
SLV 2	-9463	-9638	155	0.967	1273	0.934	15.0565	3.65332	Si
SLV 7	-9249	-10879	35	0.995	1251.3	0.933	15.50298	3.59812	Si
SLV 8	-9097	-10946	35	1.008	1236.1	0.932	15.70865	3.59812	Si
SLV 11	-7634	-9502	-59	1.146	1088.5	0.925	18.00655	3.59812	Si
SLV 12	-7483	-9570	-59	1.163	1073.3	0.924	18.2898	3.59812	Si
SLV 5	-6912	-6396	52	1.233	1016	0.921	19.46248	3.59812	Si
SLV 6	-6761	-6464	52	1.253	1000.8	0.92	19.79658	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.319	SLU 82	Si
V_SLU	18.984	SLU 81	Si
PF_SLV	3.167	SLV 12	Si
V_SLV	9.602	SLV 1	Si
PFFP_SLV	9.978	SLV 14	Si
R_SLV	3.848	SLV 3	Si

Maschio 4

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-31.648	1.306	-34.183	1.306	L1	L2	2.535	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	εfd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 79	-1.3	2437.45	-16106	-0.0000282	0.0004492	0.0035	2.535	18055.43	19427.75	19427.75	7.97	No	Si
SLU 79	0.05	2661.45	-8760	-0.0000192	0.0004492	0.0035	2.535	10404.99	11214.7	11214.7	4.21	No	Si
SLU 79	1.39	2190.22	-1753	-0.0001017	0.0004492	0.0035	2.535	2194.18	2842.27	2842.27	1.3	No	Si
SLU 82	-1.3	2523.64	-16882	-0.0000295	0.0004492	0.0035	2.535	18806.38	20264.28	20264.28	8.03	No	Si
SLU 82	0.05	2816.39	-9278	-0.0000203	0.0004492	0.0035	2.535	10977.36	11813.93	11813.93	4.19	No	Si
SLU 82	1.39	2414.96	-1940	-0.0001072	0.0004492	0.0035	2.535	2425.07	3071.66	3071.66	1.27	No	Si
SLU 74	-1.3	2437.45	-16106	-0.0000282	0.0004492	0.0035	2.535	18055.43	19427.75	19427.75	7.97	No	Si
SLU 74	0.05	2661.45	-8760	-0.0000192	0.0004492	0.0035	2.535	10404.99	11214.7	11214.7	4.21	No	Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 74	1.39	2190.22	-1753	-0.0001017	0.0004492	0.0035	2.535	2194.18	2842.27	2842.27	1.3	No	Si
SLU 78	-1.3	2432.67	-16103	-0.0000281	0.0004492	0.0035	2.535	18052.72	19424.73	19424.73	7.98	No	Si
SLU 78	0.05	2627.18	-8773	-0.0000191	0.0004492	0.0035	2.535	10420.16	11230.65	11230.65	4.27	No	Si
SLU 78	1.39	2223.64	-1790	-0.0000958	0.0004492	0.0035	2.535	2239.11	2886.85	2886.85	1.3	No	Si
SLU 84	-1.3	2523.64	-16882	-0.0000295	0.0004492	0.0035	2.535	18806.38	20264.28	20264.28	8.03	No	Si
SLU 84	0.05	2816.39	-9278	-0.0000203	0.0004492	0.0035	2.535	10977.36	11813.93	11813.93	4.19	No	Si
SLU 84	1.39	2414.96	-1940	-0.0001072	0.0004492	0.0035	2.535	2425.07	3071.66	3071.66	1.27	No	Si
SLU 80	-1.3	2432.67	-16103	-0.0000281	0.0004492	0.0035	2.535	18052.72	19424.73	19424.73	7.98	No	Si
SLU 80	0.05	2627.18	-8773	-0.0000191	0.0004492	0.0035	2.535	10420.16	11230.65	11230.65	4.27	No	Si
SLU 80	1.39	2223.64	-1790	-0.0000958	0.0004492	0.0035	2.535	2239.11	2886.85	2886.85	1.3	No	Si
SLU 83	-1.3	2528.43	-16885	-0.0000295	0.0004492	0.0035	2.535	18809.05	20267.24	20267.24	8.02	No	Si
SLU 83	0.05	2850.67	-9265	-0.0000204	0.0004492	0.0035	2.535	10962.31	11798.26	11798.26	4.14	No	Si
SLU 83	1.39	2381.54	-1904	-0.0001133	0.0004492	0.0035	2.535	2380.25	3027.08	3027.08	1.27	No	Si
SLU 75	-1.3	2432.67	-16103	-0.0000281	0.0004492	0.0035	2.535	18052.72	19424.73	19424.73	7.98	No	Si
SLU 75	0.05	2627.18	-8773	-0.0000191	0.0004492	0.0035	2.535	10420.16	11230.65	11230.65	4.27	No	Si
SLU 75	1.39	2223.64	-1790	-0.0000958	0.0004492	0.0035	2.535	2239.11	2886.85	2886.85	1.3	No	Si
SLU 81	-1.3	2528.43	-16885	-0.0000295	0.0004492	0.0035	2.535	18809.05	20267.24	20267.24	8.02	No	Si
SLU 81	0.05	2850.67	-9265	-0.0000204	0.0004492	0.0035	2.535	10962.31	11798.26	11798.26	4.14	No	Si
SLU 81	1.39	2381.54	-1904	-0.0001133	0.0004492	0.0035	2.535	2380.25	3027.08	3027.08	1.27	No	Si
SLU 77	-1.3	2437.45	-16106	-0.0000282	0.0004492	0.0035	2.535	18055.43	19427.75	19427.75	7.97	No	Si
SLU 77	0.05	2661.45	-8760	-0.0000192	0.0004492	0.0035	2.535	10404.99	11214.7	11214.7	4.21	No	Si
SLU 77	1.39	2190.22	-1753	-0.0001017	0.0004492	0.0035	2.535	2194.18	2842.27	2842.27	1.3	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 6	-1.3	2540.12	-9983	-0.0000203	0.0006738	0.0035	2.535		12792.55	12792.55	5.04		Si
SLV 6	0.05	1806.17	-5522	-0.0000124	0.0006738	0.0035	2.535		7466.54	7466.54	4.13		Si
SLV 6	1.39	1440.95	-1121	-0.0000902	0.0006738	0.0035	2.535		2065.43	2065.43	1.43		Si
SLV 7	-1.3	1564.3	-13401	-0.0000217	0.0006738	0.0035	2.535		16770.15	16770.15	10.72		Si
SLV 7	0.05	2271.45	-6876	-0.0000155	0.0006738	0.0035	2.535		9101.16	9101.16	4.01		Si
SLV 7	1.39	1731.18	-1373	-0.0000877	0.0006738	0.0035	2.535		2379.12	2379.12	1.37		Si
SLV 3	-1.3	2634.47	-13303	-0.0000249	0.0006738	0.0035	2.535		16659.18	16659.18	6.32		Si
SLV 3	0.05	2738.15	-6907	-0.0000169	0.0006738	0.0035	2.535		9137.11	9137.11	3.34		Si
SLV 3	1.39	2057.33	-1572	-0.0001526	0.0006738	0.0035	2.535		2625.66	2625.66	1.28		Si
SLV 8	-1.3	1592.9	-13440	-0.0000219	0.0006738	0.0035	2.535		16814.85	16814.85	10.56		Si
SLV 8	0.05	2287.76	-6898	-0.0000156	0.0006738	0.0035	2.535		9126.59	9126.59	3.99		Si
SLV 8	1.39	1731.28	-1373	-0.0000876	0.0006738	0.0035	2.535		2379.27	2379.27	1.37		Si
SLV 1	-1.3	2918.64	-12266	-0.0000244	0.0006738	0.0035	2.535		15457.26	15457.26	5.3		Si
SLV 1	0.05	2593.67	-6494	-0.000016	0.0006738	0.0035	2.535		8643.19	8643.19	3.33		Si
SLV 1	1.39	1970.23	-1496	-0.0001528	0.0006738	0.0035	2.535		2531.51	2531.51	1.28		Si
SLV 12	-1.3	959.86	-12486	-0.0000187	0.0006738	0.0035	2.535		15712.26	15712.26	16.37		Si
SLV 12	0.05	1743.3	-6459	-0.0000134	0.0006738	0.0035	2.535		8601.93	8601.93	4.93		Si
SLV 12	1.39	1364.62	-1127	-0.0000385	0.0006738	0.0035	2.535		2073.8	2073.8	1.52		Si
SLV 5	-1.3	2511.53	-9944	-0.0000201	0.0006738	0.0035	2.535		12746.39	12746.39	5.08		Si
SLV 5	0.05	1789.87	-5500	-0.0000123	0.0006738	0.0035	2.535		7440.71	7440.71	4.16		Si
SLV 5	1.39	1440.85	-1120	-0.0000902	0.0006738	0.0035	2.535		2065.29	2065.29	1.43		Si
SLV 4	-1.3	2662.88	-13342	-0.000025	0.0006738	0.0035	2.535		16703.59	16703.59	6.27		Si
SLV 4	0.05	2754.35	-6928	-0.000017	0.0006738	0.0035	2.535		9162.38	9162.38	3.33		Si
SLV 4	1.39	2057.44	-1572	-0.0001525	0.0006738	0.0035	2.535		2625.8	2625.8	1.28		Si
SLV 2	-1.3	2947.04	-12305	-0.0000245	0.0006738	0.0035	2.535		15502.39	15502.39	5.26		Si
SLV 2	0.05	2609.87	-6515	-0.000016	0.0006738	0.0035	2.535		8668.45	8668.45	3.32		Si
SLV 2	1.39	1970.34	-1496	-0.0001528	0.0006738	0.0035	2.535		2531.65	2531.65	1.28		Si
SLV 11	-1.3	931.27	-12447	-0.0000186	0.0006738	0.0035	2.535		15666.83	15666.83	16.82		Si
SLV 11	0.05	1727	-6438	-0.0000133	0.0006738	0.0035	2.535		8576.5	8576.5	4.97		Si
SLV 11	1.39	1364.52	-1127	-0.0000385	0.0006738	0.0035	2.535		2073.65	2073.65	1.52		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 40	-1.3	2092.56	-14249	-11399	-2902	2.535	2.535	-9993	9666	10507	81562	40996	12929	53924	No	18.58	Si
SLU 40	0.05	2455.32	-7953	-6362	-3208	2.535	2.535	-5577	9077	8608	81562	40996	12929	53924	No	16.81	Si
SLU 40	1.39	2161.49	-1740	-1392	-3328	2.535	0.0756	-23499	10833	6735	81562	40996	12929	53924	No	16.2	Si
SLU 82	-1.3	2523.64	-16882	-13506	-3157	2.535	2.535	-11839	9912	11301	81562	40996	12929	53924	No	17.08	Si
SLU 82	0.05	2816.39	-9278	-7423	-3517	2.535	2.535	-6507	9201	9008	81562	40996	12929	53924	No	15.33	Si
SLU 82	1.39	2414.96	-1940	-1552	-3638	2.535	0.0686	-26847	10833	6795	81562	40996	12929	53924	No	14.82	Si
SLU 81	-1.3	2528.43	-16885	-13508	-3193	2.535	2.535	-11841	9912	11302	81562	40996	12929	53924	No	16.89	Si
SLU 81	0.05	2850.67	-9265	-7412	-3552	2.535	2.535	-6497	9200	9004	81562	40996	12929	53924	No	15.18	Si
SLU 81	1.39	2381.54	-1904	-1523	-3514	2.535	0.0499	-28072	10833	6784	81562	40996	12929	53924	No	15.34	Si
SLU 80	-1.3	2432.67	-16103	-12883	-2838	2.535	2.535	-11293	9839	11066	81562	40996	12929	53924	No	19	Si
SLU 80	0.05	2627.18	-8773	-7019	-3179	2.535	2.535	-6153	9154	8856	81562	40996	12929	53924	No	16.96	Si
SLU 80	1.39	2223.64	-1790	-1432	-3309	2.535	0.0747	-24239	10833	6750	81562	40996	12929	53924	No	16.3	Si
SLU 76	-1.3	2429.47	-16101	-12881	-2814	2.535	2.535	-11292	9839	11065	81562	40996	12929	53924	No	19.16	Si
SLU 76	0.05	2604.33	-8782	-7026	-3156	2.535	2.535	-6159	9155	8858	81562	40996	12929	53924	No	17.09	Si
SLU 76	1.39	2245.92	-1814	-1451	-3391	2.535	0.0877	-23428	10833	6757	81562	40996	12929	53924	No	15.9	Si
SLU 78	-1.3	2432.67	-16103	-12883	-2838	2.535	2.535	-11293	9839	11066	81562	40996	12929	53924	No	19	Si
SLU 78	0.05	2627.18	-8773	-7019	-3179	2.535	2.535	-6153	9154	8856	81562	40996	12929	53924	No	16.96	Si
SLU 78	1.39	2223.64	-1790	-1432	-3309	2.535	0.0747	-24239	10833	6750	81562	40996	12929	53924	No	16.3	Si
SLU 84	-1.3	2523.64	-16882	-13506	-3157	2.535	2.535	-11839	9912	11301	81562	40996	12929	53924	No	17.08	Si
SLU 84	0.05	2816.39	-9278	-7423	-3517	2.535	2.535	-6507	9201	9008	81562	40996	12929	53924	No	15.33	Si
SLU 84	1.39	2414.96	-1940	-1552	-3638	2.535	0.0686	-26847	10833	6795	81562	40996	12929	53924	No	14.82	Si
SLU 42	-1.3	2092.56	-14249	-11399	-2902	2.535	2.535	-9993	9666	10507	81562	40996	12929	53924	No	18.58	Si
SLU 42	0.05	2455.32	-7953	-6362	-3208	2.535	2.535	-5577	9077	8608	81562	40996	12929	53924	No	16.81	Si
SLU 42	1.39	2161.49	-1740	-1392	-3328	2.535	0.0756	-23499	10833	6735	81562	40996	12929	53924	No	16.2	Si
SLU 73	-1.3	2429.47	-16101	-12881	-2814	2.535	2.535	-11292	9839	11065	81562	40996	12929	53924	No	19.16	Si
SLU 73	0.05	2604.33	-8782	-7026	-3156	2.535	2.535	-6159	9155	8858	81562	40996	12929	53924	No	17.09	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 73	1.39	2245.92	-1814	-1451	-3391	2.535	0.0877	-23428	10833	6757	81562	40996	12929	53924	No	15.9	Si
SLU 83	-1.3	2528.43	-16885	-13508	-3193	2.535	2.535	-11841	9912	11302	81562	40996	12929	53924	No	16.89	Si
SLU 83	0.05	2850.67	-9265	-7412	-3552	2.535	2.535	-6497	9200	9004	81562	40996	12929	53924	No	15.18	Si
SLU 83	1.39	2381.54	-1904	-1523	-3514	2.535	0.0499	-28072	10833	6784	81562	40996	12929	53924	No	15.34	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 16	-1.3	552.75	-10164	-8131	-1330	2.535	2.535	-7128	13926	12380	81562	61494	12929	74422		55.97	Si
SLV 16	0.05	939.5	-5466	-4373	-1700	2.535	2.535	-3833	13267	10963	81562	61494	12929	74422		43.77	Si
SLV 16	1.39	835.24	-752	-601	-3349	2.535	0.4691	-2844	13069	9542	81562	61494	12929	74422		22.22	Si
SLV 8	-1.3	1592.9	-13440	-10752	-2080	2.535	2.535	-9425	14385	13368	81562	61494	12929	74422		35.79	Si
SLV 8	0.05	2287.76	-6898	-5518	-2655	2.535	2.535	-4837	13467	11395	81562	61494	12929	74422		28.03	Si
SLV 8	1.39	1731.28	-1373	-1099	-2224	2.535	0.0205	-22401	16250	9729	81562	61494	12929	74422		33.46	Si
SLV 4	-1.3	2662.88	-13342	-10674	-2282	2.535	2.535	-9357	14371	13339	81562	61494	12929	74422		32.61	Si
SLV 4	0.05	2754.35	-6928	-5542	-2590	2.535	2.535	-4858	13472	11404	81562	61494	12929	74422		28.74	Si
SLV 4	1.39	2057.44	-1572	-1258	-961	2.535	0	-35561	16250	9789	81562	61494	12929	74422		77.47	Si
SLV 15	-1.3	524.35	-10125	-8100	-1321	2.535	2.535	-7101	13920	12368	81562	61494	12929	74422		56.35	Si
SLV 15	0.05	923.3	-5445	-4356	-1693	2.535	2.535	-3818	13264	10957	81562	61494	12929	74422		43.96	Si
SLV 15	1.39	835.13	-752	-601	-3341	2.535	0.469	-2845	13069	9542	81562	61494	12929	74422		22.27	Si
SLV 14	-1.3	836.92	-9127	-7302	-1217	2.535	2.535	-6401	13780	12067	81562	61494	12929	74422		61.14	Si
SLV 14	0.05	795.02	-5053	-4043	-1378	2.535	2.535	-3544	13209	10839	81562	61494	12929	74422		54.02	Si
SLV 14	1.39	748.14	-676	-541	-2983	2.535	0.4817	-2491	12999	9519	81562	61494	12929	74422		24.95	Si
SLV 13	-1.3	808.52	-9088	-7270	-1208	2.535	2.535	-6373	13775	12056	81562	61494	12929	74422		61.59	Si
SLV 13	0.05	778.82	-5032	-4026	-1370	2.535	2.535	-3529	13206	10833	81562	61494	12929	74422		54.31	Si
SLV 13	1.39	748.03	-676	-541	-2975	2.535	0.4816	-2491	12999	9519	81562	61494	12929	74422		25.01	Si
SLV 11	-1.3	931.27	-12447	-9958	-1785	2.535	2.535	-8729	14246	13069	81562	61494	12929	74422		41.69	Si
SLV 11	0.05	1727	-6438	-5150	-2380	2.535	2.535	-4515	13403	11257	81562	61494	12929	74422		31.27	Si
SLV 11	1.39	1364.52	-1127	-902	-2933	2.535	0.1707	-10462	14618	9655	81562	61494	12929	74422		25.38	Si
SLV 3	-1.3	2634.47	-13303	-10643	-2273	2.535	2.535	-9330	14366	13327	81562	61494	12929	74422		32.74	Si
SLV 3	0.05	2738.15	-6907	-5525	-2582	2.535	2.535	-4843	13469	11398	81562	61494	12929	74422		28.82	Si
SLV 3	1.39	2057.33	-1572	-1257	-953	2.535	0	-35564	16250	9789	81562	61494	12929	74422		78.13	Si
SLV 12	-1.3	959.86	-12486	-9989	-1794	2.535	2.535	-8757	14251	13080	81562	61494	12929	74422		41.49	Si
SLV 12	0.05	1743.3	-6459	-5167	-2388	2.535	2.535	-4530	13406	11263	81562	61494	12929	74422		31.17	Si
SLV 12	1.39	1364.62	-1127	-902	-2941	2.535	0.1708	-10458	14618	9655	81562	61494	12929	74422		25.31	Si
SLV 7	-1.3	1564.3	-13401	-10721	-2071	2.535	2.535	-9398	14380	13356	81562	61494	12929	74422		35.94	Si
SLV 7	0.05	2271.45	-6876	-5501	-2647	2.535	2.535	-4822	13464	11389	81562	61494	12929	74422		28.11	Si
SLV 7	1.39	1731.18	-1373	-1099	-2216	2.535	0.0204	-22406	16250	9729	81562	61494	12929	74422		33.59	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 0.045 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 13	-5032	0.25	159.48	1104.97	1708.33	1406.65	8.82	Si
SLV 14	-5053	0.25	159.48	1109.49	1713.38	1411.43	8.85	Si
SLV 9	-5062	0.25	159.48	1111.38	1715.48	1413.43	8.86	Si
SLV 10	-5083	0.25	159.48	1115.93	1720.56	1418.24	8.89	Si
SLV 15	-5445	0.25	159.48	1193.2	1806.97	1500.08	9.41	Si
SLV 16	-5466	0.25	159.48	1197.7	1812.02	1504.86	9.44	Si
SLV 5	-5500	0.25	159.48	1205.05	1820.26	1512.65	9.48	Si
SLV 6	-5522	0.25	159.48	1209.58	1825.34	1517.46	9.52	Si
SLV 11	-6438	0.25	159.48	1403.94	2044.26	1724.1	10.81	Si
SLV 12	-6459	0.25	159.48	1408.43	2049.3	1728.87	10.84	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 7	-1373	-13401	1149	3.305	632.8	0.9	53.36188	3.59812	Si
SLV 8	-1373	-13440	1149	3.305	632.9	0.9	53.36255	3.59812	Si
SLV 2	-1496	-12305	-499	3.365	642.4	0.898	54.47476	3.65332	Si
SLV 1	-1496	-12266	-499	3.365	642.3	0.898	54.47802	3.65332	Si
SLV 3	-1572	-13303	219	3.372	648.3	0.896	54.67467	3.65332	Si
SLV 4	-1572	-13342	218	3.372	648.3	0.896	54.67524	3.65332	Si
SLV 11	-1127	-12447	1229	3.488	614.7	0.907	55.91537	3.59812	Si
SLV 12	-1127	-12486	1229	3.488	614.7	0.907	55.91605	3.59812	Si
SLV 6	-1121	-9983	-1243	3.491	614.2	0.907	55.93824	3.59812	Si
SLV 5	-1120	-9944	-1243	3.491	614.2	0.907	55.94177	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.271	SLU 81	Si
V_SLU	14.822	SLU 82	Si
PF_SLV	1.276	SLV 3	Si
V_SLV	22.219	SLV 16	Si
PFFP_SLV	8.82	SLV 13	Si
R_SLV	14.83	SLV 7	Si

Maschio 5

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-30.548	-3.854	-34.183	-3.854	L1	L2	3.635	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 83	-1.3	5296.84	-24122	-0.0000296	0.0004492	0.0035	3.6345	38544.09	41544.8	41544.8	7.84	No	Si
SLU 83	0.05	2631.97	-21853	-0.0000234	0.0004492	0.0035	3.6345	35369.78	38032.14	38032.14	14.45	No	Si
SLU 83	1.39	1701.08	-22367	-0.0000225	0.0004492	0.0035	3.6345	36096.59	38832.45	38832.45	22.83	No	Si
SLU 84	-1.3	5246.29	-24057	-0.0000294	0.0004492	0.0035	3.6345	38455.57	41446.62	41446.62	7.9	No	Si
SLU 84	0.05	2594.22	-21796	-0.0000233	0.0004492	0.0035	3.6345	35288.66	37943.14	37943.14	14.63	No	Si
SLU 84	1.39	1676.56	-22308	-0.0000224	0.0004492	0.0035	3.6345	36014.02	38741.27	38741.27	23.11	No	Si
SLU 62	-1.3	4828.24	-22084	-0.000027	0.0004492	0.0035	3.6345	35697.4	38392.23	38392.23	7.95	No	Si
SLU 62	0.05	2372.26	-19398	-0.0000208	0.0004492	0.0035	3.6345	31829.73	34171.17	34171.17	14.4	No	Si
SLU 62	1.39	1495.06	-19390	-0.0000195	0.0004492	0.0035	3.6345	31818.1	34158.57	34158.57	22.85	No	Si
SLU 82	-1.3	5246.29	-24057	-0.0000294	0.0004492	0.0035	3.6345	38455.57	41446.62	41446.62	7.9	No	Si
SLU 82	0.05	2594.22	-21796	-0.0000233	0.0004492	0.0035	3.6345	35288.66	37943.14	37943.14	14.63	No	Si
SLU 82	1.39	1676.56	-22308	-0.0000224	0.0004492	0.0035	3.6345	36014.02	38741.27	38741.27	23.11	No	Si
SLU 79	-1.3	4995.51	-22847	-0.0000279	0.0004492	0.0035	3.6345	36771.97	39580.93	39580.93	7.92	No	Si
SLU 79	0.05	2441.06	-20220	-0.0000216	0.0004492	0.0035	3.6345	33026.34	35474.48	35474.48	14.53	No	Si
SLU 79	1.39	1536.65	-20321	-0.0000204	0.0004492	0.0035	3.6345	33173.51	35635.7	35635.7	23.19	No	Si
SLU 41	-1.3	4538.01	-20543	-0.0000251	0.0004492	0.0035	3.6345	33494.73	35988.31	35988.31	7.93	No	Si
SLU 41	0.05	2299.88	-19280	-0.0000206	0.0004492	0.0035	3.6345	31656.95	33984.08	33984.08	14.78	No	Si
SLU 41	1.39	1536.89	-20250	-0.0000203	0.0004492	0.0035	3.6345	33070.83	35523.2	35523.2	23.11	No	Si
SLU 81	-1.3	5296.84	-24122	-0.0000296	0.0004492	0.0035	3.6345	38544.09	41544.8	41544.8	7.84	No	Si
SLU 81	0.05	2631.97	-21853	-0.0000234	0.0004492	0.0035	3.6345	35369.78	38032.14	38032.14	14.45	No	Si
SLU 81	1.39	1701.08	-22367	-0.0000225	0.0004492	0.0035	3.6345	36096.59	38832.45	38832.45	22.83	No	Si
SLU 77	-1.3	4995.51	-22847	-0.0000279	0.0004492	0.0035	3.6345	36771.97	39580.93	39580.93	7.92	No	Si
SLU 77	0.05	2441.06	-20220	-0.0000216	0.0004492	0.0035	3.6345	33026.34	35474.48	35474.48	14.53	No	Si
SLU 77	1.39	1536.65	-20321	-0.0000204	0.0004492	0.0035	3.6345	33173.51	35635.7	35635.7	23.19	No	Si
SLU 74	-1.3	4995.51	-22847	-0.0000279	0.0004492	0.0035	3.6345	36771.97	39580.93	39580.93	7.92	No	Si
SLU 74	0.05	2441.06	-20220	-0.0000216	0.0004492	0.0035	3.6345	33026.34	35474.48	35474.48	14.53	No	Si
SLU 74	1.39	1536.65	-20321	-0.0000204	0.0004492	0.0035	3.6345	33173.51	35635.7	35635.7	23.19	No	Si
SLU 39	-1.3	4538.01	-20543	-0.0000251	0.0004492	0.0035	3.6345	33494.73	35988.31	35988.31	7.93	No	Si
SLU 39	0.05	2299.88	-19280	-0.0000206	0.0004492	0.0035	3.6345	31656.95	33984.08	33984.08	14.78	No	Si
SLU 39	1.39	1536.89	-20250	-0.0000203	0.0004492	0.0035	3.6345	33070.83	35523.2	35523.2	23.11	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 11	-1.3	1433.82	-9467	-0.0000104	0.0006738	0.0035	3.6345		18063.81	18063.81	12.6		Si
SLV 11	0.05	2025.95	-9805	-0.0000116	0.0006738	0.0035	3.6345		18644.75	18644.75	9.2		Si
SLV 11	1.39	1497.37	-10429	-0.0000113	0.0006738	0.0035	3.6345		19715.21	19715.21	13.17		Si
SLV 6	-1.3	5365.67	-21910	-0.0000274	0.0006738	0.0035	3.6345		38913.41	38913.41	7.25		Si
SLV 6	0.05	1184.61	-16537	-0.0000163	0.0006738	0.0035	3.6345		30054.62	30054.62	25.37		Si
SLV 6	1.39	405.12	-14911	-0.0000137	0.0006738	0.0035	3.6345		27337.71	27337.71	67.48		Si
SLV 4	-1.3	6435.02	-19145	-0.0000264	0.0006738	0.0035	3.6345		34383.28	34383.28	5.34		Si
SLV 4	0.05	4335.09	-16954	-0.0000213	0.0006738	0.0035	3.6345		30748.36	30748.36	7.09		Si
SLV 4	1.39	3300.93	-16846	-0.0000197	0.0006738	0.0035	3.6345		30569.57	30569.57	9.26		Si
SLV 2	-1.3	6973.72	-22002	-0.0000298	0.0006738	0.0035	3.6345		39061.98	39061.98	5.6		Si
SLV 2	0.05	3632.3	-18184	-0.0000214	0.0006738	0.0035	3.6345		32796.85	32796.85	9.03		Si
SLV 2	1.39	2641.55	-17383	-0.0000192	0.0006738	0.0035	3.6345		31463.52	31463.52	11.91		Si
SLV 5	-1.3	5147.14	-21925	-0.000027	0.0006738	0.0035	3.6345		38937.46	38937.46	7.56		Si
SLV 5	0.05	1078.82	-16547	-0.0000162	0.0006738	0.0035	3.6345		30072.23	30072.23	27.88		Si
SLV 5	1.39	556.61	-14874	-0.0000139	0.0006738	0.0035	3.6345		27274.49	27274.49	49		Si
SLV 8	-1.3	3570	-12388	-0.0000161	0.0006738	0.0035	3.6345		23069.69	23069.69	6.46		Si
SLV 8	0.05	3527.26	-12436	-0.0000161	0.0006738	0.0035	3.6345		23151.97	23151.97	6.56		Si
SLV 8	1.39	2603.03	-13122	-0.0000154	0.0006738	0.0035	3.6345		24311.01	24311.01	9.34		Si
SLV 1	-1.3	6756.62	-22017	-0.0000295	0.0006738	0.0035	3.6345		39085.87	39085.87	5.78		Si
SLV 1	0.05	3527.2	-18194	-0.0000213	0.0006738	0.0035	3.6345		32814.34	32814.34	9.3		Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 1	1.39	2792.04	-17346	-0.0000194	0.0006738	0.0035	3.6345		31401.69	31401.69	11.25		Si
SLV 3	-1.3	6217.92	-19160	-0.0000261	0.0006738	0.0035	3.6345		34407.56	34407.56	5.53		Si
SLV 3	0.05	4230	-16964	-0.0000212	0.0006738	0.0035	3.6345		30765.85	30765.85	7.27		Si
SLV 3	1.39	3451.42	-16809	-0.0000199	0.0006738	0.0035	3.6345		30507.73	30507.73	8.84		Si
SLV 12	-1.3	1652.36	-9452	-0.0000107	0.0006738	0.0035	3.6345		18038.19	18038.19	10.92		Si
SLV 12	0.05	2131.73	-9795	-0.0000117	0.0006738	0.0035	3.6345		18626.58	18626.58	8.74		Si
SLV 12	1.39	1345.89	-10466	-0.0000112	0.0006738	0.0035	3.6345		19779.41	19779.41	14.7		Si
SLV 7	-1.3	3351.46	-12403	-0.0000158	0.0006738	0.0035	3.6345		23094.92	23094.92	6.89		Si
SLV 7	0.05	3421.47	-12447	-0.000016	0.0006738	0.0035	3.6345		23169.86	23169.86	6.77		Si
SLV 7	1.39	2754.51	-13084	-0.0000156	0.0006738	0.0035	3.6345		24247.79	24247.79	8.8		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 80	-1.3	4944.96	-22783	-18226	7629	3.6345	3.6345	-11144	9819	16738	81562	58777	18536	77313	No	10.13	Si
SLU 80	0.05	2403.31	-20162	-16130	8026	3.6345	3.6345	-9862	9648	15900	81562	58777	18536	77313	No	9.63	Si
SLU 80	1.39	1512.13	-20263	-16210	7124	3.6345	3.6345	-9911	9655	15932	81562	58777	18536	77313	No	10.85	Si
SLU 81	-1.3	5296.84	-24122	-19297	8228	3.6345	3.6345	-11799	9907	17167	81562	58777	18536	77313	No	9.4	Si
SLU 81	0.05	2631.97	-21853	-17482	8669	3.6345	3.6345	-10689	9759	16441	81562	58777	18536	77313	No	8.92	Si
SLU 81	1.39	1701.08	-22367	-17893	7715	3.6345	3.6345	-10940	9792	16605	81562	58777	18536	77313	No	10.02	Si
SLU 74	-1.3	4995.51	-22847	-18278	7723	3.6345	3.6345	-11175	9823	16759	81562	58777	18536	77313	No	10.01	Si
SLU 74	0.05	2441.06	-20220	-16176	8123	3.6345	3.6345	-9890	9652	15918	81562	58777	18536	77313	No	9.52	Si
SLU 74	1.39	1536.65	-20321	-16257	7247	3.6345	3.6345	-9940	9659	15951	81562	58777	18536	77313	No	10.67	Si
SLU 77	-1.3	4995.51	-22847	-18278	7723	3.6345	3.6345	-11175	9823	16759	81562	58777	18536	77313	No	10.01	Si
SLU 77	0.05	2441.06	-20220	-16176	8123	3.6345	3.6345	-9890	9652	15918	81562	58777	18536	77313	No	9.52	Si
SLU 77	1.39	1536.65	-20321	-16257	7247	3.6345	3.6345	-9940	9659	15951	81562	58777	18536	77313	No	10.67	Si
SLU 84	-1.3	5246.29	-24057	-19246	8134	3.6345	3.6345	-11767	9902	17146	81562	58777	18536	77313	No	9.51	Si
SLU 84	0.05	2594.22	-21796	-17437	8572	3.6345	3.6345	-10661	9755	16422	81562	58777	18536	77313	No	9.02	Si
SLU 84	1.39	1676.56	-22308	-17846	7592	3.6345	3.6345	-10912	9788	16586	81562	58777	18536	77313	No	10.18	Si
SLU 78	-1.3	4944.96	-22783	-18226	7629	3.6345	3.6345	-11144	9819	16738	81562	58777	18536	77313	No	10.13	Si
SLU 78	0.05	2403.31	-20162	-16130	8026	3.6345	3.6345	-9862	9648	15900	81562	58777	18536	77313	No	9.63	Si
SLU 78	1.39	1512.13	-20263	-16210	7124	3.6345	3.6345	-9911	9655	15932	81562	58777	18536	77313	No	10.85	Si
SLU 83	-1.3	5296.84	-24122	-19297	8228	3.6345	3.6345	-11799	9907	17167	81562	58777	18536	77313	No	9.4	Si
SLU 83	0.05	2631.97	-21853	-17482	8669	3.6345	3.6345	-10689	9759	16441	81562	58777	18536	77313	No	8.92	Si
SLU 83	1.39	1701.08	-22367	-17893	7715	3.6345	3.6345	-10940	9792	16605	81562	58777	18536	77313	No	10.02	Si
SLU 75	-1.3	4944.96	-22783	-18226	7629	3.6345	3.6345	-11144	9819	16738	81562	58777	18536	77313	No	10.13	Si
SLU 75	0.05	2403.31	-20162	-16130	8026	3.6345	3.6345	-9862	9648	15900	81562	58777	18536	77313	No	9.63	Si
SLU 75	1.39	1512.13	-20263	-16210	7124	3.6345	3.6345	-9911	9655	15932	81562	58777	18536	77313	No	10.85	Si
SLU 79	-1.3	4995.51	-22847	-18278	7723	3.6345	3.6345	-11175	9823	16759	81562	58777	18536	77313	No	10.01	Si
SLU 79	0.05	2441.06	-20220	-16176	8123	3.6345	3.6345	-9890	9652	15918	81562	58777	18536	77313	No	9.52	Si
SLU 79	1.39	1536.65	-20321	-16257	7247	3.6345	3.6345	-9940	9659	15951	81562	58777	18536	77313	No	10.67	Si
SLU 82	-1.3	5246.29	-24057	-19246	8134	3.6345	3.6345	-11767	9902	17146	81562	58777	18536	77313	No	9.51	Si
SLU 82	0.05	2594.22	-21796	-17437	8572	3.6345	3.6345	-10661	9755	16422	81562	58777	18536	77313	No	9.02	Si
SLU 82	1.39	1676.56	-22308	-17846	7592	3.6345	3.6345	-10912	9788	16586	81562	58777	18536	77313	No	10.18	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 3	-1.3	6217.92	-19160	-15328	10059	3.6345	3.6345	-9372	14374	20303	81562	88165	18536	101865		10.13	Si
SLV 3	0.05	4230	-16964	-13571	10724	3.6345	3.6345	-8298	14160	19600	81562	88165	18536	101162		9.43	Si
SLV 3	1.39	3451.42	-16809	-13447	9615	3.6345	3.6345	-8222	14144	19551	81562	88165	18536	101112		10.52	Si
SLV 10	-1.3	3448.03	-18974	-15179	4743	3.6345	3.6345	-9281	14356	20244	81562	88165	18536	101805		21.47	Si
SLV 10	0.05	-210.92	-13895	-11116	3546	3.6345	3.6345	-6797	13859	18618	81562	88165	18536	100180		28.25	Si
SLV 10	1.39	-852.02	-12255	-9804	2592	3.6345	3.6345	-5995	13699	18094	81562	88165	18536	99655		38.44	Si
SLV 4	-1.3	6435.02	-19145	-15316	11215	3.6345	3.6345	-9365	14373	20298	81562	88165	18536	101860		9.08	Si
SLV 4	0.05	4335.09	-16954	-13563	11997	3.6345	3.6345	-8293	14159	19597	81562	88165	18536	101159		8.43	Si
SLV 4	1.39	3300.93	-16846	-13477	10916	3.6345	3.6345	-8240	14148	19563	81562	88165	18536	101124		9.26	Si
SLV 12	-1.3	1652.36	-9452	-7562	3459	3.6345	3.6345	-4623	13425	17197	81562	88165	18536	98758		28.55	Si
SLV 12	0.05	2131.73	-9795	-7836	5267	3.6345	3.6345	-4791	13458	17306	81562	88165	18536	98868		18.77	Si
SLV 12	1.39	1345.89	-10466	-8373	5560	3.6345	3.6345	-5119	13524	17521	81562	88165	18536	99083		17.82	Si
SLV 2	-1.3	6973.72	-22002	-17602	11600	3.6345	3.6345	-10762	14652	21212	81562	88165	18536	102774		8.86	Si
SLV 2	0.05	3632.3	-18184	-14547	11481	3.6345	3.6345	-8894	14279	19991	81562	88165	18536	101552		8.85	Si
SLV 2	1.39	2641.55	-17383	-13906	10026	3.6345	3.6345	-8503	14201	19734	81562	88165	18536	101296		10.1	Si
SLV 7	-1.3	3351.46	-12403	-9922	5670	3.6345	3.6345	-6067	13713	18141	81562	88165	18536	99702		17.59	Si
SLV 7	0.05	3421.47	-12447	-9958	7371	3.6345	3.6345	-6088	13718	18155	81562	88165	18536	99717		13.53	Si
SLV 7	1.39	2754.51	-13084	-10467	7204	3.6345	3.6345	-6400	13780	18359	81562	88165	18536	99921		13.87	Si
SLV 5	-1.3	5147.14	-21925	-17540	6953	3.6345	3.6345	-10724	14645	21188	81562	88165	18536	102749		14.78	Si
SLV 5	0.05	1078.82	-16547	-13238	5650	3.6345	3.6345	-8094	14119	19467	81562	88165	18536	101029		17.88	Si
SLV 5	1.39	556.61	-14874	-11899	4236	3.6345	3.6345	-7275	13955	18932	81562	88165	18536	100493		23.72	Si
SLV 6	-1.3	5365.67	-21910	-17528	8117	3.6345	3.6345	-10717	14643	21183	81562	88165	18536	102745		12.66	Si
SLV 6	0.05	1184.61	-16537	-13230	6932	3.6345	3.6345	-8089	14118	19464	81562	88165	18536	101025		14.57	Si
SLV 6	1.39	405.12	-14911	-11929	5546	3.6345	3.6345	-7294	13959	18943	81562	88165	18536	100505		18.12	Si
SLV 8	-1.3	3570	-12388	-9910	6833	3.6345	3.6345	-6059	13712	18136	81562	88165	18536	99698		14.59	Si
SLV 8	0.05	3527.26	-12436	-9949	8653	3.6345	3.6345	-6083	13717	18152	81562	88165	18536	99713		11.52	Si
SLV 8	1.39	2603.03	-13122	-10497	8513	3.6345	3.6345	-6418	13784	18371	81562	88165	18536	99932		11.74	Si
SLV 1	-1.3	6756.62	-22017	-17613	10444	3.6345	3.6345	-10769	14654	21217	81562	88165	18536	102779		9.84	Si
SLV 1	0.05	3527.2	-18194	-14555	10207	3.6345	3.6345	-8899	14280	19994	81562	88165	18536	101556		9.95	Si
SLV 1	1.39	2792.04	-17346	-13877	8725	3.6345	3.6345	-8485	14197	19723	81562	88165	18536	101284		11.61	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 0.045 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 16	-8148	0.25	224.85	1783.49	2660.58	2222.04	9.88	Si
SLV 15	-8159	0.25	224.85	1785.73	2663.09	2224.41	9.89	Si
SLV 14	-9378	0.25	224.85	2044.09	2954.01	2499.05	11.11	Si
SLV 13	-9389	0.25	224.85	2046.31	2956.5	2501.4	11.12	Si
SLV 12	-9795	0.25	224.85	2131.82	3052.74	2592.28	11.53	Si
SLV 11	-9805	0.25	224.85	2134.04	3055.25	2594.64	11.54	Si

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 8	-12436	0.25	224.85	2682.1	3677.84	3179.97	14.14	Si
SLV 7	-12447	0.25	224.85	2684.28	3680.34	3182.31	14.15	Si
SLV 10	-13895	0.25	224.85	2981.52	4023.05	3502.28	15.58	Si
SLV 9	-13906	0.25	224.85	2983.68	4025.55	3504.61	15.59	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 2	-17383	-22002	-192	1.047	2398	0.93	16.36153	3.65332	Si
SLV 1	-17346	-22017	-191	1.048	2394.3	0.93	16.39017	3.65332	Si
SLV 4	-16846	-19145	186	1.072	2343.9	0.928	16.77786	3.65332	Si
SLV 3	-16809	-19160	187	1.074	2340.2	0.928	16.80629	3.65332	Si
SLV 6	-14911	-21910	-672	1.147	2149.1	0.923	18.05847	3.59812	Si
SLV 5	-14874	-21925	-671	1.15	2145.3	0.923	18.09469	3.59812	Si
SLV 8	-13122	-12388	587	1.264	1969.5	0.918	20.00345	3.59812	Si
SLV 7	-13084	-12403	588	1.266	1965.7	0.918	20.04583	3.59812	Si
SLV 10	-12255	-18974	-706	1.32	1882.8	0.916	20.94759	3.59812	Si
SLV 9	-12218	-18989	-704	1.323	1879.1	0.915	20.99684	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.843	SLU 81	Si
V_SLU	8.918	SLU 81	Si
PF_SLV	5.343	SLV 4	Si
V_SLV	8.432	SLV 4	Si
PFFP_SLV	9.882	SLV 16	Si
R_SLV	4.479	SLV 2	Si

Maschio 8

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)
Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-25.893	-3.854	-26.838	-3.854	L1	L2	0.945	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 50	-1.3	595.85	-5271	-0.0000313	0.0004492	0.0035	0.9452	2238.35	2426.84	2426.84	4.07	No	Si
SLU 50	0.05	387.71	-2625	-0.0000173	0.0004492	0.0035	0.9452	1177.86	1305.84	1305.84	3.37	No	Si
SLU 50	1.39	762.66	-2132	-0.0000407	0.0004492	0.0035	0.9452	966.21	1088.6	1088.6	1.43	No	Si
SLU 44	-1.3	604.07	-5302	-0.0000316	0.0004492	0.0035	0.9452	2250.15	2439.65	2439.65	4.04	No	Si
SLU 44	0.05	385.03	-2645	-0.0000173	0.0004492	0.0035	0.9452	1186.33	1314.63	1314.63	3.41	No	Si
SLU 44	1.39	752.21	-2154	-0.0000382	0.0004492	0.0035	0.9452	975.57	1098.11	1098.11	1.46	No	Si
SLU 46	-1.3	600.78	-5290	-0.0000315	0.0004492	0.0035	0.9452	2245.43	2434.52	2434.52	4.05	No	Si
SLU 46	0.05	386.1	-2637	-0.0000173	0.0004492	0.0035	0.9452	1182.94	1311.11	1311.11	3.4	No	Si
SLU 46	1.39	756.39	-2145	-0.0000391	0.0004492	0.0035	0.9452	971.83	1094.31	1094.31	1.45	No	Si
SLU 45	-1.3	595.85	-5271	-0.0000313	0.0004492	0.0035	0.9452	2238.35	2426.84	2426.84	4.07	No	Si
SLU 45	0.05	387.71	-2625	-0.0000173	0.0004492	0.0035	0.9452	1177.86	1305.84	1305.84	3.37	No	Si
SLU 45	1.39	762.66	-2132	-0.0000407	0.0004492	0.0035	0.9452	966.21	1088.6	1088.6	1.43	No	Si
SLU 47	-1.3	604.07	-5302	-0.0000316	0.0004492	0.0035	0.9452	2250.15	2439.65	2439.65	4.04	No	Si
SLU 47	0.05	385.03	-2645	-0.0000173	0.0004492	0.0035	0.9452	1186.33	1314.63	1314.63	3.41	No	Si
SLU 47	1.39	752.21	-2154	-0.0000382	0.0004492	0.0035	0.9452	975.57	1098.11	1098.11	1.46	No	Si
SLU 43	-1.3	595.85	-5271	-0.0000313	0.0004492	0.0035	0.9452	2238.35	2426.84	2426.84	4.07	No	Si
SLU 43	0.05	387.71	-2625	-0.0000173	0.0004492	0.0035	0.9452	1177.86	1305.84	1305.84	3.37	No	Si
SLU 43	1.39	762.66	-2132	-0.0000407	0.0004492	0.0035	0.9452	966.21	1088.6	1088.6	1.43	No	Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 48	-1.3	595.85	-5271	-0.0000313	0.0004492	0.0035	0.9452	2238.35	2426.84	2426.84	4.07	No	Si
SLU 48	0.05	387.71	-2625	-0.0000173	0.0004492	0.0035	0.9452	1177.86	1305.84	1305.84	3.37	No	Si
SLU 48	1.39	762.66	-2132	-0.0000407	0.0004492	0.0035	0.9452	966.21	1088.6	1088.6	1.43	No	Si
SLU 51	-1.3	600.78	-5290	-0.0000315	0.0004492	0.0035	0.9452	2245.43	2434.52	2434.52	4.05	No	Si
SLU 51	0.05	386.1	-2637	-0.0000173	0.0004492	0.0035	0.9452	1182.94	1311.11	1311.11	3.4	No	Si
SLU 51	1.39	756.39	-2145	-0.0000391	0.0004492	0.0035	0.9452	971.83	1094.31	1094.31	1.45	No	Si
SLU 49	-1.3	600.78	-5290	-0.0000315	0.0004492	0.0035	0.9452	2245.43	2434.52	2434.52	4.05	No	Si
SLU 49	0.05	386.1	-2637	-0.0000173	0.0004492	0.0035	0.9452	1182.94	1311.11	1311.11	3.4	No	Si
SLU 49	1.39	756.39	-2145	-0.0000391	0.0004492	0.0035	0.9452	971.83	1094.31	1094.31	1.45	No	Si
SLU 1	-1.3	486	-4208	-0.0000251	0.0004492	0.0035	0.9452	1827.46	1985.16	1985.16	4.08	No	Si
SLU 1	0.05	306.03	-2129	-0.0000138	0.0004492	0.0035	0.9452	965.13	1087.51	1087.51	3.55	No	Si
SLU 1	1.39	596.33	-1765	-0.0000284	0.0004492	0.0035	0.9452	805.59	924.72	924.72	1.55	No	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 77	-1.3	851.2	-6653	-5323	1	0.9452	0.9452	-12514	10002	3057	81562	15285	4820	20106	No	23180.06	Si
SLU 77	0.05	458.51	-3649	-2919	1	0.9452	0.9452	-6864	9249	2417	81562	15285	4820	20106	No	21202.47	Si
SLU 77	1.39	840.86	-3306	-2645	1	0.9452	0.6548	-6219	9163	2343	81562	15285	4820	20106	No	27342.3	Si
SLU 75	-1.3	856.13	-6672	-5338	1	0.9452	0.9452	-12550	10007	3061	81562	15285	4820	20106	No	23373.37	Si
SLU 75	0.05	456.9	-3661	-2929	1	0.9452	0.9452	-6887	9252	2419	81562	15285	4820	20106	No	21372.01	Si
SLU 75	1.39	834.59	-3319	-2656	1	0.9452	0.6635	-6243	9166	2346	81562	15285	4820	20106	No	27564.92	Si
SLU 74	-1.3	851.2	-6653	-5323	1	0.9452	0.9452	-12514	10002	3057	81562	15285	4820	20106	No	23180.06	Si
SLU 74	0.05	458.51	-3649	-2919	1	0.9452	0.9452	-6864	9249	2417	81562	15285	4820	20106	No	21202.47	Si
SLU 74	1.39	840.86	-3306	-2645	1	0.9452	0.6548	-6219	9163	2343	81562	15285	4820	20106	No	27342.3	Si
SLU 80	-1.3	856.13	-6672	-5338	1	0.9452	0.9452	-12550	10007	3061	81562	15285	4820	20106	No	23373.37	Si
SLU 80	0.05	456.9	-3661	-2929	1	0.9452	0.9452	-6887	9252	2419	81562	15285	4820	20106	No	21372.01	Si
SLU 80	1.39	834.59	-3319	-2656	1	0.9452	0.6635	-6243	9166	2346	81562	15285	4820	20106	No	27564.92	Si
SLU 84	-1.3	920.63	-7016	-5613	1	0.9452	0.9452	-13197	10093	3135	81562	15285	4820	20106	No	22913.24	Si
SLU 84	0.05	474.58	-3921	-3137	1	0.9452	0.9452	-7375	9317	2474	81562	15285	4820	20106	No	20994.34	Si
SLU 84	1.39	852.4	-3620	-2896	1	0.9452	0.7114	-6809	9241	2410	81562	15285	4820	20106	No	26968.51	Si
SLU 82	-1.3	920.63	-7016	-5613	1	0.9452	0.9452	-13197	10093	3135	81562	15285	4820	20106	No	22913.24	Si
SLU 82	0.05	474.58	-3921	-3137	1	0.9452	0.9452	-7375	9317	2474	81562	15285	4820	20106	No	20994.34	Si
SLU 82	1.39	852.4	-3620	-2896	1	0.9452	0.7114	-6809	9241	2410	81562	15285	4820	20106	No	26968.51	Si
SLU 83	-1.3	915.69	-6997	-5598	1	0.9452	0.9452	-13161	10088	3131	81562	15285	4820	20106	No	22727.44	Si
SLU 83	0.05	476.19	-3909	-3127	1	0.9452	0.9452	-7353	9314	2472	81562	15285	4820	20106	No	20830.72	Si
SLU 83	1.39	858.67	-3607	-2886	1	0.9452	0.7037	-6785	9238	2408	81562	15285	4820	20106	No	26755.38	Si
SLU 79	-1.3	851.2	-6653	-5323	1	0.9452	0.9452	-12514	10002	3057	81562	15285	4820	20106	No	23180.06	Si
SLU 79	0.05	458.51	-3649	-2919	1	0.9452	0.9452	-6864	9249	2417	81562	15285	4820	20106	No	21202.47	Si
SLU 79	1.39	840.86	-3306	-2645	1	0.9452	0.6548	-6219	9163	2343	81562	15285	4820	20106	No	27342.3	Si
SLU 81	-1.3	915.69	-6997	-5598	1	0.9452	0.9452	-13161	10088	3131	81562	15285	4820	20106	No	22727.44	Si
SLU 81	0.05	476.19	-3909	-3127	1	0.9452	0.9452	-7353	9314	2472	81562	15285	4820	20106	No	20830.72	Si
SLU 81	1.39	858.67	-3607	-2886	1	0.9452	0.7037	-6785	9238	2408	81562	15285	4820	20106	No	26755.38	Si
SLU 78	-1.3	856.13	-6672	-5338	1	0.9452	0.9452	-12550	10007	3061	81562	15285	4820	20106	No	23373.37	Si
SLU 78	0.05	456.9	-3661	-2929	1	0.9452	0.9452	-6887	9252	2419	81562	15285	4820	20106	No	21372.01	Si
SLU 78	1.39	834.59	-3319	-2656	1	0.9452	0.6635	-6243	9166	2346	81562	15285	4820	20106	No	27564.92	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 0.045 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 3	-1333	0.25	58.47	294.87	489.81	392.34	6.71	Si
SLV 4	-1341	0.25	58.47	296.5	491.6	394.05	6.74	Si
SLV 7	-1405	0.25	58.47	310.39	506.91	408.65	6.99	Si
SLV 8	-1412	0.25	58.47	312.03	508.71	410.37	7.02	Si
SLV 1	-1787	0.25	58.47	392.85	598.2	495.53	8.47	Si
SLV 2	-1794	0.25	58.47	394.46	599.99	497.22	8.5	Si
SLV 11	-1920	0.25	58.47	421.32	629.92	525.62	8.99	Si
SLV 12	-1927	0.25	58.47	422.93	631.72	527.33	9.02	Si
SLV 5	-2917	0.25	58.47	631.77	867.09	749.43	12.82	Si
SLV 6	-2925	0.25	58.47	633.34	868.87	751.1	12.85	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 13	-3271	-6313	-44	1.328	498	0.917	21.0559	3.65332	Si
SLV 14	-3265	-6338	-44	1.329	497.5	0.916	21.08127	3.65332	Si
SLV 9	-3205	-6520	-49	1.346	491.5	0.916	21.36082	3.59812	Si
SLV 10	-3200	-6545	-50	1.347	490.9	0.916	21.38718	3.59812	Si
SLV 15	-2775	-5381	-28	1.494	448.6	0.91	23.86011	3.65332	Si
SLV 16	-2770	-5406	-28	1.496	448	0.91	23.8931	3.65332	Si
SLV 5	-2653	-5766	-38	1.538	436.4	0.909	24.60853	3.59812	Si
SLV 6	-2648	-5791	-38	1.54	435.9	0.908	24.64402	3.59812	Si
SLV 11	-1553	-3414	4	2.171	328.8	0.893	35.33717	3.59812	Si
SLV 12	-1547	-3439	4	2.176	328.2	0.893	35.41759	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.427	SLU 43	Si
V_SLU	20830.723	SLU 81	Si
PFFP_SLV	6.71	SLV 3	Si
R_SLV	5.764	SLV 13	Si

Maschio 9

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.183	5.726	-27.948	5.726	L1	L2	6.235	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 19	-1.3	-1009.99	-28230	-0.000016	0.0003743	0.0035	6.235	79308.5	92313.34	92313.34	91.4	No	Si
SLU 19	0.05	4864.95	-25551	-0.0000166	0.0003743	0.0035	6.235	72531	75990.74	75990.74	15.62	No	Si
SLU 19	1.39	5908.02	-19687	-0.0000138	0.0003743	0.0035	6.235	57143.77	59898.94	59898.94	10.14	No	Si
SLU 21	-1.3	-1009.99	-28230	-0.000016	0.0003743	0.0035	6.235	79308.5	92313.34	92313.34	91.4	No	Si
SLU 21	0.05	4864.95	-25551	-0.0000166	0.0003743	0.0035	6.235	72531	75990.74	75990.74	15.62	No	Si
SLU 21	1.39	5908.02	-19687	-0.0000138	0.0003743	0.0035	6.235	57143.77	59898.94	59898.94	10.14	No	Si
SLU 81	-1.3	-1476.37	-36852	-0.0000211	0.0003743	0.0035	6.235	100065.93	114584.43	114584.43	77.61	No	Si
SLU 81	0.05	6216.85	-33210	-0.0000216	0.0003743	0.0035	6.235	91495.62	95435.71	95435.71	15.35	No	Si
SLU 81	1.39	7535.82	-25331	-0.0000179	0.0003743	0.0035	6.235	71965.4	75396.43	75396.43	10.01	No	Si
SLU 42	-1.3	-1181.62	-31426	-0.0000179	0.0003743	0.0035	6.235	87191.64	100848.31	100848.31	85.35	No	Si
SLU 42	0.05	5535.96	-28607	-0.0000186	0.0003743	0.0035	6.235	80250.27	84162.45	84162.45	15.2	No	Si
SLU 42	1.39	6735.42	-22362	-0.0000158	0.0003743	0.0035	6.235	64255.96	67309.22	67309.22	9.99	No	Si
SLU 83	-1.3	-1476.37	-36852	-0.0000211	0.0003743	0.0035	6.235	100065.93	114584.43	114584.43	77.61	No	Si
SLU 83	0.05	6216.85	-33210	-0.0000216	0.0003743	0.0035	6.235	91495.62	95435.71	95435.71	15.35	No	Si
SLU 83	1.39	7535.82	-25331	-0.0000179	0.0003743	0.0035	6.235	71965.4	75396.43	75396.43	10.01	No	Si
SLU 41	-1.3	-1295.48	-31451	-0.000018	0.0003743	0.0035	6.235	87253.32	100911.74	100911.74	77.9	No	Si
SLU 41	0.05	5511.87	-28585	-0.0000186	0.0003743	0.0035	6.235	80197.24	84106.51	84106.51	15.26	No	Si
SLU 41	1.39	6826.57	-22293	-0.0000158	0.0003743	0.0035	6.235	64075.55	67121.7	67121.7	9.83	No	Si
SLU 40	-1.3	-1181.62	-31426	-0.0000179	0.0003743	0.0035	6.235	87191.64	100848.31	100848.31	85.35	No	Si
SLU 40	0.05	5535.96	-28607	-0.0000186	0.0003743	0.0035	6.235	80250.27	84162.45	84162.45	15.2	No	Si
SLU 40	1.39	6735.42	-22362	-0.0000158	0.0003743	0.0035	6.235	64255.96	67309.22	67309.22	9.99	No	Si
SLU 18	-1.3	-1123.85	-28255	-0.0000161	0.0003743	0.0035	6.235	79371.95	92381.13	92381.13	82.2	No	Si
SLU 18	0.05	4840.86	-25530	-0.0000165	0.0003743	0.0035	6.235	72476.55	75933.52	75933.52	15.69	No	Si
SLU 18	1.39	5999.17	-19618	-0.0000138	0.0003743	0.0035	6.235	56959.35	59709.08	59709.08	9.95	No	Si
SLU 39	-1.3	-1295.48	-31451	-0.000018	0.0003743	0.0035	6.235	87253.32	100911.74	100911.74	77.9	No	Si
SLU 39	0.05	5511.87	-28585	-0.0000186	0.0003743	0.0035	6.235	80197.24	84106.51	84106.51	15.26	No	Si
SLU 39	1.39	6826.57	-22293	-0.0000158	0.0003743	0.0035	6.235	64075.55	67121.7	67121.7	9.83	No	Si
SLU 20	-1.3	-1123.85	-28255	-0.0000161	0.0003743	0.0035	6.235	79371.95	92381.13	92381.13	82.2	No	Si
SLU 20	0.05	4840.86	-25530	-0.0000165	0.0003743	0.0035	6.235	72476.55	75933.52	75933.52	15.69	No	Si
SLU 20	1.39	5999.17	-19618	-0.0000138	0.0003743	0.0035	6.235	56959.35	59709.08	59709.08	9.95	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 16	-1.3	7083.92	-23817	-0.0000166	0.0005615	0.0035	6.235		72721.76	72721.76	10.27		Si
SLV 16	0.05	6143.27	-23712	-0.0000161	0.0005615	0.0035	6.235		72421.95	72421.95	11.79		Si
SLV 16	1.39	609.02	-20591	-0.0000115	0.0005615	0.0035	6.235		63489.82	63489.82	104.25		Si
SLV 13	-1.3	7099.94	-18750	-0.0000138	0.0005615	0.0035	6.235		58181.39	58181.39	8.19		Si
SLV 13	0.05	7894.19	-19252	-0.0000145	0.0005615	0.0035	6.235		59628.72	59628.72	7.55		Si
SLV 13	1.39	5200.67	-16835	-0.0000118	0.0005615	0.0035	6.235		52595.15	52595.15	10.11		Si
SLV 6	-1.3	-2778.96	-16651	-0.0000104	0.0005615	0.0035	6.235		61341.61	61341.61	22.07		Si
SLV 6	0.05	4413.41	-14854	-0.0000103	0.0005615	0.0035	6.235		46796.21	46796.21	10.6		Si
SLV 6	1.39	8946.09	-10208	-0.0000101	0.0005615	0.0035	6.235		33013.92	33013.92	3.69		Si
SLV 3	-1.3	-9160.66	-28835	-0.0000205	0.0005615	0.0035	6.235		95958.75	95958.75	10.48		Si
SLV 3	0.05	-58.25	-22360	-0.0000122	0.0005615	0.0035	6.235		77651.18	77651.18	1332.97		Si
SLV 3	1.39	4416.52	-12581	-0.0000091	0.0005615	0.0035	6.235		40076.29	40076.29	9.07		Si
SLV 14	-1.3	7334.48	-18945	-0.0000141	0.0005615	0.0035	6.235		58745.54	58745.54	8.01		Si
SLV 14	0.05	7364.92	-19849	-0.0000146	0.0005615	0.0035	6.235		61349.08	61349.08	8.33		Si
SLV 14	1.39	3751.58	-17885	-0.0000116	0.0005615	0.0035	6.235		55667.33	55667.33	14.84		Si
SLV 5	-1.3	-3015.05	-16454	-0.0000105	0.0005615	0.0035	6.235		60764.93	60764.93	20.15		Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 5	0.05	4946.18	-14253	-0.0000103	0.0005615	0.0035	6.235		45029.58	45029.58	9.1		Si
SLV 5	1.39	10404.74	-9150	-0.0000103	0.0005615	0.0035	6.235		29838.29	29838.29	2.87		Si
SLV 2	-1.3	-8675.57	-24159	-0.0000177	0.0005615	0.0035	6.235		82709.14	82709.14	9.53		Si
SLV 2	0.05	634.12	-19094	-0.0000107	0.0005615	0.0035	6.235		59174.06	59174.06	93.32		Si
SLV 2	1.39	6109.99	-10925	-0.000009	0.0005615	0.0035	6.235		35171.39	35171.39	5.76		Si
SLV 1	-1.3	-8910.11	-23963	-0.0000177	0.0005615	0.0035	6.235		82157.09	82157.09	9.22		Si
SLV 1	0.05	1163.4	-18497	-0.0000106	0.0005615	0.0035	6.235		57454.64	57454.64	49.39		Si
SLV 1	1.39	7559.08	-9875	-0.0000092	0.0005615	0.0035	6.235		32015.1	32015.1	4.24		Si
SLV 9	-1.3	1787.96	-14890	-0.000009	0.0005615	0.0035	6.235		46902.1	46902.1	26.23		Si
SLV 9	0.05	6965.42	-14479	-0.0000114	0.0005615	0.0035	6.235		45695.75	45695.75	6.56		Si
SLV 9	1.39	9697.22	-11238	-0.0000111	0.0005615	0.0035	6.235		36100.85	36100.85	3.72		Si
SLV 10	-1.3	2024.05	-15087	-0.0000092	0.0005615	0.0035	6.235		47481.31	47481.31	23.46		Si
SLV 10	0.05	6432.65	-15080	-0.0000115	0.0005615	0.0035	6.235		47461.06	47461.06	7.38		Si
SLV 10	1.39	8238.57	-12295	-0.0000109	0.0005615	0.0035	6.235		39229.59	39229.59	4.76		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 72	-1.3	-1037.77	-30230	-26871	709	6.235	6.235	-9577	8221	24255	28547	84017	15899	52801	No	74.45	Si
SLU 72	0.05	4516.88	-26608	-23652	3146	6.235	6.235	-8430	8068	22967	28547	84017	15899	51514	No	16.37	Si
SLU 72	1.39	4755.27	-18962	-16855	4401	6.235	6.235	-6007	7745	20249	28547	84017	15899	48795	No	11.09	Si
SLU 51	-1.3	-866.14	-27034	-24030	1129	6.235	6.235	-8565	8086	23118	28547	84017	15899	51665	No	45.77	Si
SLU 51	0.05	3845.87	-23553	-20936	3373	6.235	6.235	-7462	7939	21881	28547	84017	15899	50427	No	14.95	Si
SLU 51	1.39	3927.87	-16287	-14477	4485	6.235	6.235	-5160	7632	19298	28547	84017	15899	47844	No	10.67	Si
SLU 47	-1.3	-790.23	-27017	-24015	1302	6.235	6.235	-8559	8086	23112	28547	84017	15899	51659	No	39.68	Si
SLU 47	0.05	3861.93	-23567	-20949	3547	6.235	6.235	-7466	7940	21886	28547	84017	15899	50433	No	14.22	Si
SLU 47	1.39	3867.1	-16333	-14518	4676	6.235	6.235	-5174	7634	19314	28547	84017	15899	47860	No	10.23	Si
SLU 44	-1.3	-790.23	-27017	-24015	1302	6.235	6.235	-8559	8086	23112	28547	84017	15899	51659	No	39.68	Si
SLU 44	0.05	3861.93	-23567	-20949	3547	6.235	6.235	-7466	7940	21886	28547	84017	15899	50433	No	14.22	Si
SLU 44	1.39	3867.1	-16333	-14518	4676	6.235	6.235	-5174	7634	19314	28547	84017	15899	47860	No	10.23	Si
SLU 68	-1.3	-961.86	-30213	-26856	882	6.235	6.235	-9572	8221	24249	28547	84017	15899	52795	No	59.83	Si
SLU 68	0.05	4532.94	-26623	-23665	3320	6.235	6.235	-8434	8069	22972	28547	84017	15899	51519	No	15.52	Si
SLU 68	1.39	4694.5	-19008	-16896	4593	6.235	6.235	-6022	7747	20265	28547	84017	15899	48811	No	10.63	Si
SLU 70	-1.3	-1037.77	-30230	-26871	709	6.235	6.235	-9577	8221	24255	28547	84017	15899	52801	No	74.45	Si
SLU 70	0.05	4516.88	-26608	-23652	3146	6.235	6.235	-8430	8068	22967	28547	84017	15899	51514	No	16.37	Si
SLU 70	1.39	4755.27	-18962	-16855	4401	6.235	6.235	-6007	7745	20249	28547	84017	15899	48795	No	11.09	Si
SLU 49	-1.3	-866.14	-27034	-24030	1129	6.235	6.235	-8565	8086	23118	28547	84017	15899	51665	No	45.77	Si
SLU 49	0.05	3845.87	-23553	-20936	3373	6.235	6.235	-7462	7939	21881	28547	84017	15899	50427	No	14.95	Si
SLU 49	1.39	3927.87	-16287	-14477	4485	6.235	6.235	-5160	7632	19298	28547	84017	15899	47844	No	10.67	Si
SLU 67	-1.3	-1037.77	-30230	-26871	709	6.235	6.235	-9577	8221	24255	28547	84017	15899	52801	No	74.45	Si
SLU 67	0.05	4516.88	-26608	-23652	3146	6.235	6.235	-8430	8068	22967	28547	84017	15899	51514	No	16.37	Si
SLU 67	1.39	4755.27	-18962	-16855	4401	6.235	6.235	-6007	7745	20249	28547	84017	15899	48795	No	11.09	Si
SLU 46	-1.3	-866.14	-27034	-24030	1129	6.235	6.235	-8565	8086	23118	28547	84017	15899	51665	No	45.77	Si
SLU 46	0.05	3845.87	-23553	-20936	3373	6.235	6.235	-7462	7939	21881	28547	84017	15899	50427	No	14.95	Si
SLU 46	1.39	3927.87	-16287	-14477	4485	6.235	6.235	-5160	7632	19298	28547	84017	15899	47844	No	10.67	Si
SLU 65	-1.3	-961.86	-30213	-26856	882	6.235	6.235	-9572	8221	24249	28547	84017	15899	52795	No	59.83	Si
SLU 65	0.05	4532.94	-26623	-23665	3320	6.235	6.235	-8434	8069	22972	28547	84017	15899	51519	No	15.52	Si
SLU 65	1.39	4694.5	-19008	-16896	4593	6.235	6.235	-6022	7747	20265	28547	84017	15899	48811	No	10.63	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 4	-1.3	-8926.12	-29031	-25805	-13441	6.235	6.235	-9197	12256	30582	28547	126025	15899	59128		4.4	Si
SLV 4	0.05	-587.53	-22957	-20407	-11416	6.235	6.235	-7273	11871	28422	28547	126025	15899	56969		4.99	Si
SLV 4	1.39	2967.43	-13631	-12117	-8935	6.235	6.235	-4319	11280	25107	28547	126025	15899	53653		6.01	Si
SLV 12	-1.3	1188.86	-31327	-27846	7201	6.235	6.235	-9925	12402	31398	28547	126025	15899	59945		8.32	Si
SLV 12	0.05	2360.48	-27957	-24850	10352	6.235	6.235	-8857	12188	30200	28547	126025	15899	58747		5.67	Si
SLV 12	1.39	-2236.65	-21316	-18947	11632	6.235	6.235	-6753	11767	27839	28547	126025	15899	56385		4.85	Si
SLV 15	-1.3	6849.38	-23621	-20997	14503	6.235	6.235	-7484	11913	28659	28547	126025	15899	57205		3.94	Si
SLV 15	0.05	6672.54	-23115	-20547	17013	6.235	6.235	-7323	11881	28479	28547	126025	15899	57025		3.35	Si
SLV 15	1.39	2058.1	-19541	-17369	16891	6.235	6.235	-6191	11655	27208	28547	126025	15899	55754		3.3	Si
SLV 16	-1.3	7083.92	-23817	-21171	17031	6.235	6.235	-7546	11926	28728	28547	126025	15899	57275		3.36	Si
SLV 16	0.05	6143.27	-23712	-21077	19486	6.235	6.235	-7512	11919	28691	28547	126025	15899	57237		2.94	Si
SLV 16	1.39	609.02	-20591	-18303	19389	6.235	6.235	-6523	11721	27581	28547	126025	15899	56128		2.89	Si
SLV 3	-1.3	-9160.66	-28835	-25631	-15969	6.235	6.235	-9135	12244	30512	28547	126025	15899	59059		3.7	Si
SLV 3	0.05	-58.25	-22360	-19876	-13890	6.235	6.235	-7084	11833	28210	28547	126025	15899	56757		4.09	Si
SLV 3	1.39	4416.52	-12581	-11183	-11432	6.235	6.235	-3986	11214	24733	28547	126025	15899	53280		4.66	Si
SLV 2	-1.3	-8675.57	-24159	-21475	-14150	6.235	6.235	-7654	11947	28850	28547	126025	15899	57396		4.06	Si
SLV 2	0.05	634.12	-19094	-16973	-12851	6.235	6.235	-6049	11627	27049	28547	126025	15899	55596		4.33	Si
SLV 2	1.39	6109.99	-10925	-9711	-10776	6.235	6.235	-3461	11109	24145	28547	126025	15899	52691		4.89	Si
SLV 1	-1.3	-8910.11	-23963	-21300	-16678	6.235	6.235	-7592	11935	28780	28547	126025	15899	57327		3.44	Si
SLV 1	0.05	1163.4	-18497	-16442	-15324	6.235	6.235	-5860	11589	26837	28547	126025	15899	55383		3.61	Si
SLV 1	1.39	7559.08	-9875	-8778	-13274	6.235	6.235	-3129	11042	23771	28547	126025	15899	52318		3.94	Si
SLV 13	-1.3	7099.94	-18750	-16666	13794	6.235	6.235	-5940	11605	26926	28547	126025	15899	55473		4.02	Si
SLV 13	0.05	7894.19	-19252	-17113	15579	6.235	6.235	-6099	11637	27105	28547	126025	15899	55652		3.57	Si
SLV 13	1.39	5200.67	-16835	-14964	15050	6.235	6.235	-5333	11483	26246	28547	126025	15899	54792		3.64	Si
SLV 14	-1.3	7334.48	-18945	-16840	16322	6.235	6.235	-6002	11617	26996	28547	126025	15899	55543		3.4	Si
SLV 14	0.05	7364.92	-19849	-17644	18052	6.235	6.235	-6288	11674	27317	28547	126025	15899	55864		3.09	Si
SLV 14	1.39	3751.58	-17885	-15898	17547	6.235	6.235	-5666	11550	26619	28547	126025	15899	55166		3.14	Si
SLV 11	-1.3	952.77	-31130	-27671	4656	6.235	6.235	-9862	12389	31328	28547	126025	15899	59875		12.86	Si
SLV 11	0.05	2893.25	-27356	-24316	7862	6.235	6.235	-8667	12150	29986	28547	126025	15899	58533		7.44	Si
SLV 11	1.39	-778	-20258	-18007	9118	6.235	6.235	-6418	11700	27463	28547	126025	15899	56009		6.14	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.045 Wa 0.08 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 5	179667	0.25	5080	-14253	385.74	3100.19	8.04	Si
SLV 9	179667	0.25	5161	-14479	385.74	3147.72	8.16	Si
SLV 6	179667	0.25	5294	-14854	385.74	3226.19	8.36	Si

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 10	179667	0.25	5375	-15080	385.74	3273.58	8.49	Si
SLV 1	179667	0.25	6593	-18497	385.74	3982.25	10.32	Si
SLV 2	179667	0.25	6805	-19094	385.74	4104.77	10.64	Si
SLV 13	179667	0.25	6862	-19252	385.74	4137.11	10.73	Si
SLV 14	179667	0.25	7074	-19849	385.74	4259.15	11.04	Si
SLV 3	179667	0.25	7970	-22360	385.74	4768.56	12.36	Si
SLV 4	179667	0.25	8182	-22957	385.74	4888.65	12.67	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 12	-21316	-31327	-2222	1.271	3259.1	0.916	20.16096	3.59812	Si
SLV 11	-20258	-31130	-2222	1.317	3153.4	0.914	20.94299	3.59812	Si
SLV 16	-20591	-23817	-790	1.354	3186.6	0.915	21.52119	3.65332	Si
SLV 8	-19228	-32891	-2157	1.369	3050.6	0.912	21.80773	3.59812	Si
SLV 15	-19541	-23621	-790	1.405	3081.8	0.913	22.37655	3.65332	Si
SLV 7	-18171	-32694	-2157	1.423	2945.4	0.91	22.72834	3.59812	Si
SLV 14	-17885	-18945	503	1.505	2917	0.909	24.06203	3.65332	Si
SLV 13	-16835	-18750	503	1.569	2812.8	0.907	25.13295	3.65332	Si
SLV 4	-13631	-29031	-573	1.798	2497.2	0.9	29.03356	3.65332	Si
SLV 10	-12295	-15087	2087	1.839	2366.9	0.897	29.78755	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	9.832	SLU 39	Si
V_SLU	10.234	SLU 44	Si
PF_SLV	2.868	SLV 5	Si
V_SLV	2.895	SLV 16	Si
PFFP_SLV	8.037	SLV 5	Si
R_SLV	5.603	SLV 12	Si

Maschio 11

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.628	5.726	-24.603	5.726	L1	L2	2.025	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	εfd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 84	-1.3	-180.18	-8565	-0.0000153	0.0003743	0.0035	2.025	7871.57	9106.18	9106.18	50.54	No	Si
SLU 84	0.05	990.64	-9397	-0.0000209	0.0003743	0.0035	2.025	8551.1	8984.72	8984.72	9.07	No	Si
SLU 84	1.39	2764.51	-8875	-0.000029	0.0003743	0.0035	2.025	8126.35	8534.18	8534.18	3.09	No	Si
SLU 82	-1.3	-180.18	-8565	-0.0000153	0.0003743	0.0035	2.025	7871.57	9106.18	9106.18	50.54	No	Si
SLU 82	0.05	990.64	-9397	-0.0000209	0.0003743	0.0035	2.025	8551.1	8984.72	8984.72	9.07	No	Si
SLU 82	1.39	2764.51	-8875	-0.000029	0.0003743	0.0035	2.025	8126.35	8534.18	8534.18	3.09	No	Si
SLU 34	-1.3	-118.39	-6852	-0.0000121	0.0003743	0.0035	2.025	6424.94	7595.79	7595.79	64.16	No	Si
SLU 34	0.05	823.2	-7486	-0.0000167	0.0003743	0.0035	2.025	6967.86	7313.9	7313.9	8.88	No	Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 34	1.39	2227.62	-7054	-0.000023	0.0003743	0.0035	2.025	6598.71	6929.72	6929.72	3.11	No	Si
SLU 75	-1.3	-204.77	-8132	-0.0000147	0.0003743	0.0035	2.025	7511.56	8730.35	8730.35	42.64	No	Si
SLU 75	0.05	896.96	-8899	-0.0000195	0.0003743	0.0035	2.025	8146.15	8555.08	8555.08	9.54	No	Si
SLU 75	1.39	2591.32	-8327	-0.0000271	0.0003743	0.0035	2.025	7674.21	8059.04	8059.04	3.11	No	Si
SLU 78	-1.3	-204.77	-8132	-0.0000147	0.0003743	0.0035	2.025	7511.56	8730.35	8730.35	42.64	No	Si
SLU 78	0.05	896.96	-8899	-0.0000195	0.0003743	0.0035	2.025	8146.15	8555.08	8555.08	9.54	No	Si
SLU 78	1.39	2591.32	-8327	-0.0000271	0.0003743	0.0035	2.025	7674.21	8059.04	8059.04	3.11	No	Si
SLU 76	-1.3	-192.53	-8140	-0.0000147	0.0003743	0.0035	2.025	7518.54	8737.57	8737.57	45.38	No	Si
SLU 76	0.05	907.84	-8881	-0.0000196	0.0003743	0.0035	2.025	8131.4	8539.51	8539.51	9.41	No	Si
SLU 76	1.39	2596.09	-8281	-0.0000271	0.0003743	0.0035	2.025	7636.17	8018.49	8018.49	3.09	No	Si
SLU 80	-1.3	-204.77	-8132	-0.0000147	0.0003743	0.0035	2.025	7511.56	8730.35	8730.35	42.64	No	Si
SLU 80	0.05	896.96	-8899	-0.0000195	0.0003743	0.0035	2.025	8146.15	8555.08	8555.08	9.54	No	Si
SLU 80	1.39	2591.32	-8327	-0.0000271	0.0003743	0.0035	2.025	7674.21	8059.04	8059.04	3.11	No	Si
SLU 73	-1.3	-192.53	-8140	-0.0000147	0.0003743	0.0035	2.025	7518.54	8737.57	8737.57	45.38	No	Si
SLU 73	0.05	907.84	-8881	-0.0000196	0.0003743	0.0035	2.025	8131.4	8539.51	8539.51	9.41	No	Si
SLU 73	1.39	2596.09	-8281	-0.0000271	0.0003743	0.0035	2.025	7636.17	8018.49	8018.49	3.09	No	Si
SLU 31	-1.3	-118.39	-6852	-0.0000121	0.0003743	0.0035	2.025	6424.94	7595.79	7595.79	64.16	No	Si
SLU 31	0.05	823.2	-7486	-0.0000167	0.0003743	0.0035	2.025	6967.86	7313.9	7313.9	8.88	No	Si
SLU 31	1.39	2227.62	-7054	-0.000023	0.0003743	0.0035	2.025	6598.71	6929.72	6929.72	3.11	No	Si
SLU 40	-1.3	-106.04	-7277	-0.0000127	0.0003743	0.0035	2.025	6789.93	7978.61	7978.61	75.24	No	Si
SLU 40	0.05	906	-8002	-0.000018	0.0003743	0.0035	2.025	7403.29	7771.54	7771.54	8.58	No	Si
SLU 40	1.39	2396.04	-7647	-0.0000249	0.0003743	0.0035	2.025	7104.8	7457.24	7457.24	3.11	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 14	-1.3	1025.55	-5533	-0.0000143	0.0005615	0.0035	2.025		5626.7	5626.7	5.49		Si
SLV 14	0.05	1763.22	-2763	-0.0000166	0.0005615	0.0035	2.025		2959.8	2959.8	1.68		Si
SLV 14	1.39	2747.6	486	0.0011798	0.0005615	0.0035	1.62		0	0	0		No
SLV 1	-1.3	-1301.12	-4224	-0.0000134	0.0005615	0.0035	2.025		5229.48	5229.48	4.02		Si
SLV 1	0.05	-749.05	-7954	-0.000017	0.0005615	0.0035	2.025		8715.81	8715.81	11.64		Si
SLV 1	1.39	132.76	-10137	-0.0000177	0.0005615	0.0035	2.025		9877.21	9877.21	74.4		Si
SLV 15	-1.3	774.76	-7101	-0.0000157	0.0005615	0.0035	2.025		7099.31	7099.31	9.16		Si
SLV 15	0.05	1669.18	-4827	-0.0000163	0.0005615	0.0035	2.025		4955.2	4955.2	2.97		Si
SLV 15	1.39	3190.73	-2143	-0.0058723	0.0005615	0.0035	1.62		2354.36	2354.36	0.74		No
SLV 10	-1.3	406.81	-3347	-0.0000075	0.0005615	0.0035	2.025		3530.19	3530.19	8.68		Si
SLV 10	0.05	861.25	-2598	-0.0000085	0.0005615	0.0035	2.025		2799.23	2799.23	3.25		Si
SLV 10	1.39	1200.15	-953	-0.0006429	0.0005615	0.0035	1.62		1176	1176	0.98		No
SLV 9	-1.3	286.77	-3473	-0.0000072	0.0005615	0.0035	2.025		3653.23	3653.23	12.74		Si
SLV 9	0.05	697.4	-3127	-0.0000086	0.0005615	0.0035	2.025		3315.27	3315.27	4.75		Si
SLV 9	1.39	1057.49	-1929	-0.0000093	0.0005615	0.0035	2.025		2142.63	2142.63	2.03		Si
SLV 13	-1.3	906.3	-5658	-0.0000139	0.0005615	0.0035	2.025		5744.67	5744.67	6.34		Si
SLV 13	0.05	1600.45	-3288	-0.000014	0.0005615	0.0035	2.025		3472.45	3472.45	2.17		Si
SLV 13	1.39	2605.88	-483	-0.0131132	0.0005615	0.0035	1.62		708.02	708.02	0.27		No
SLV 12	-1.3	-31.64	-8157	-0.0000138	0.0005615	0.0035	2.025		8903.01	8903.01	281.36		Si
SLV 12	0.05	1090.34	-7730	-0.0000183	0.0005615	0.0035	2.025		7681.26	7681.26	7.04		Si
SLV 12	1.39	3149.66	-6486	-0.0000279	0.0005615	0.0035	2.025		6524.8	6524.8	2.07		Si
SLV 8	-1.3	-693.87	-7727	-0.0000164	0.0005615	0.0035	2.025		8506.17	8506.17	12.26		Si
SLV 8	0.05	385.49	-9130	-0.0000172	0.0005615	0.0035	2.025		8964.65	8964.65	23.26		Si
SLV 8	1.39	2407.72	-9382	-0.0000278	0.0005615	0.0035	2.025		9194	9194	3.82		Si
SLV 16	-1.3	894.02	-6976	-0.0000161	0.0005615	0.0035	2.025		6983.4	6983.4	7.81		Si
SLV 16	0.05	1831.94	-4302	-0.0000165	0.0005615	0.0035	2.025		4451.93	4451.93	2.43		Si
SLV 16	1.39	3332.45	-1174	-0.0128412	0.0005615	0.0035	1.62		1395.1	1395.1	0.42		No
SLV 11	-1.3	-151.68	-8283	-0.0000146	0.0005615	0.0035	2.025		9019.41	9019.41	59.46		Si
SLV 11	0.05	926.5	-8258	-0.0000184	0.0005615	0.0035	2.025		8170.52	8170.52	8.82		Si
SLV 11	1.39	3007	-7461	-0.0000277	0.0005615	0.0035	2.025		7433	7433	2.47		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 84	-1.3	-180.18	-8565	-7613	-1442	2.025	2.025	-8355	8058	5595	28547	27287	5164	32451	No	22.51	Si
SLU 84	0.05	990.64	-9397	-8353	-2623	2.025	2.025	-9167	8167	5817	28547	27287	5164	32451	No	12.37	Si
SLU 84	1.39	2764.51	-8875	-7889	-4075	2.025	2.025	-8657	8099	5678	28547	27287	5164	32451	No	7.96	Si
SLU 78	-1.3	-204.77	-8132	-7228	-1493	2.025	2.025	-7932	8002	5479	28547	27287	5164	32451	No	21.74	Si
SLU 78	0.05	896.96	-8899	-7910	-2619	2.025	2.025	-8681	8102	5684	28547	27287	5164	32451	No	12.39	Si
SLU 78	1.39	2591.32	-8327	-7402	-3995	2.025	2.025	-8122	8027	5531	28547	27287	5164	32451	No	8.12	Si
SLU 75	-1.3	-204.77	-8132	-7228	-1493	2.025	2.025	-7932	8002	5479	28547	27287	5164	32451	No	21.74	Si
SLU 75	0.05	896.96	-8899	-7910	-2619	2.025	2.025	-8681	8102	5684	28547	27287	5164	32451	No	12.39	Si
SLU 75	1.39	2591.32	-8327	-7402	-3995	2.025	2.025	-8122	8027	5531	28547	27287	5164	32451	No	8.12	Si
SLU 77	-1.3	-223.12	-8119	-7217	-1562	2.025	2.025	-7920	8000	5475	28547	27287	5164	32451	No	20.78	Si
SLU 77	0.05	880.64	-8926	-7934	-2684	2.025	2.025	-8707	8105	5691	28547	27287	5164	32451	No	12.09	Si
SLU 77	1.39	2584.17	-8395	-7463	-4063	2.025	2.025	-8189	8036	5549	28547	27287	5164	32451	No	7.99	Si
SLU 80	-1.3	-204.77	-8132	-7228	-1493	2.025	2.025	-7932	8002	5479	28547	27287	5164	32451	No	21.74	Si
SLU 80	0.05	896.96	-8899	-7910	-2619	2.025	2.025	-8681	8102	5684	28547	27287	5164	32451	No	12.39	Si
SLU 80	1.39	2591.32	-8327	-7402	-3995	2.025	2.025	-8122	8027	5531	28547	27287	5164	32451	No	8.12	Si
SLU 74	-1.3	-223.12	-8119	-7217	-1562	2.025	2.025	-7920	8000	5475	28547	27287	5164	32451	No	20.78	Si
SLU 74	0.05	880.64	-8926	-7934	-2684	2.025	2.025	-8707	8105	5691	28547	27287	5164	32451	No	12.09	Si
SLU 74	1.39	2584.17	-8395	-7463	-4063	2.025	2.025	-8189	8036	5549	28547	27287	5164	32451	No	7.99	Si
SLU 81	-1.3	-198.53	-8553	-7602	-1511	2.025	2.025	-8343	8057	5591	28547	27287	5164	32451	No	21.48	Si
SLU 81	0.05	974.32	-9424	-8377	-2688	2.025	2.025	-9193	8170	5825	28547	27287	5164	32451	No	12.07	Si
SLU 81	1.39	2757.36	-8944	-7950	-4142	2.025	2.025	-8724	8108	5696	28547	27287	5164	32451	No	7.83	Si
SLU 82	-1.3	-180.18	-8565	-7613	-1442	2.025	2.025	-8355	8058	5595	28547	27287	5164	32451	No	22.51	Si
SLU 82	0.05	990.64	-9397	-8353	-2623	2.025	2.025	-9167	8167	5817	28547	27287	5164	32451	No	12.37	Si
SLU 82	1.39	2764.51	-8875	-7889	-4075	2.025	2.025	-8657	8099	5678	28547	27287	5164	32451	No	7.96	Si
SLU 83	-1.3	-198.53	-8553	-7602	-1511	2.025	2.025	-8343	8057	5591	28547	27287	5164	32451	No	21.48	Si
SLU 83	0.05	974.32	-9424	-8377	-2688	2.025	2.025	-9193	8170	5825	28547	27287	5164	32451	No	12.07	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 83	1.39	2757.36	-8944	-7950	-4142	2.025	2.025	-8724	8108	5696	28547	27287	5164	32451	No	7.83	Si
SLU 79	-1.3	-223.12	-8119	-7217	-1562	2.025	2.025	-7920	8000	5475	28547	27287	5164	32451	No	20.78	Si
SLU 79	0.05	880.64	-8926	-7934	-2684	2.025	2.025	-8707	8105	5691	28547	27287	5164	32451	No	12.09	Si
SLU 79	1.39	2584.17	-8395	-7463	-4063	2.025	2.025	-8189	8036	5549	28547	27287	5164	32451	No	7.99	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 14	-1.3	1025.55	-5533	-4918	3529	2.025	2.025	-5397	11496	6434	28547	40930	5164	34981		9.91	Si
SLV 14	0.05	1763.22	-2763	-2456	2710	2.025	1.1228	-2695	10956	5693	28547	40930	5164	34239		12.63	Si
SLV 14	1.39	2747.6	486	432	1477	1.62	0	0	0	0	28547	32744	4131	28547		19.33	Si
SLV 12	-1.3	-31.64	-8157	-7251	-1009	2.025	2.025	-7957	12008	7137	28547	40930	5164	35683		35.38	Si
SLV 12	0.05	1090.34	-7730	-6871	-2866	2.025	2.025	-7540	11925	7022	28547	40930	5164	35569		12.41	Si
SLV 12	1.39	3149.66	-6486	-5765	-4390	2.025	1.5806	-6327	11682	6689	28547	40930	5164	35236		8.03	Si
SLV 7	-1.3	-813.91	-7853	-6980	-4028	2.025	2.025	-7660	11949	7055	28547	40930	5164	35602		8.84	Si
SLV 7	0.05	221.65	-9658	-8585	-5707	2.025	2.025	-9421	12301	7538	28547	40930	5164	36085		6.32	Si
SLV 7	1.39	2265.06	-10357	-9207	-7007	2.025	2.025	-10103	12437	7726	28547	40930	5164	36272		5.18	Si
SLV 1	-1.3	-1301.12	-4224	-3754	-5283	2.025	2.025	-4120	11241	6084	28547	40930	5164	34630		6.55	Si
SLV 1	0.05	-749.05	-7954	-7070	-5431	2.025	2.025	-7759	11968	7082	28547	40930	5164	35629		6.56	Si
SLV 1	1.39	132.76	-10137	-9010	-5820	2.025	2.025	-9888	12394	7666	28547	40930	5164	36213		6.22	Si
SLV 3	-1.3	-1432.65	-5667	-5037	-6041	2.025	2.025	-5528	11522	6470	28547	40930	5164	35017		5.8	Si
SLV 3	0.05	-680.32	-9494	-8439	-6781	2.025	2.025	-9261	12269	7494	28547	40930	5164	36041		5.31	Si
SLV 3	1.39	717.61	-11797	-10486	-7448	2.025	2.025	-11507	12718	8111	28547	40930	5164	36657		4.92	Si
SLV 2	-1.3	-1181.86	-4099	-3643	-4751	2.025	2.025	-3998	11216	6050	28547	40930	5164	34597		7.28	Si
SLV 2	0.05	-586.28	-7429	-6604	-4867	2.025	2.025	-7247	11866	6942	28547	40930	5164	35488		7.29	Si
SLV 2	1.39	274.48	-9167	-8149	-5215	2.025	2.025	-8942	12205	7407	28547	40930	5164	35954		6.89	Si
SLV 13	-1.3	906.3	-5658	-5029	2997	2.025	2.025	-5519	11520	6468	28547	40930	5164	35014		11.68	Si
SLV 13	0.05	1600.45	-3288	-2922	2146	2.025	1.5771	-3207	11058	5833	28547	40930	5164	34380		16.02	Si
SLV 13	1.39	2605.88	-483	-430	871	1.62	0	0	0	0	28547	32744	4131	28547		32.76	Si
SLV 11	-1.3	-151.68	-8283	-7363	-1544	2.025	2.025	-8080	12033	7170	28547	40930	5164	35717		23.13	Si
SLV 11	0.05	926.5	-8258	-7341	-3434	2.025	2.025	-8055	12028	7164	28547	40930	5164	35710		10.4	Si
SLV 11	1.39	3007	-7461	-6632	-5000	2.025	1.8285	-7278	11872	6950	28547	40930	5164	35497		7.1	Si
SLV 8	-1.3	-693.87	-7727	-6868	-3493	2.025	2.025	-7537	11924	7021	28547	40930	5164	35568		10.18	Si
SLV 8	0.05	385.49	-9130	-8115	-5139	2.025	2.025	-8905	12198	7397	28547	40930	5164	35943		6.99	Si
SLV 8	1.39	2407.72	-9382	-8339	-6398	2.025	2.025	-9152	12247	7464	28547	40930	5164	36011		5.63	Si
SLV 4	-1.3	-1313.4	-5542	-4926	-5509	2.025	2.025	-5406	11498	6437	28547	40930	5164	34983		6.35	Si
SLV 4	0.05	-517.56	-8969	-7972	-6217	2.025	2.025	-8748	12166	7354	28547	40930	5164	35900		5.77	Si
SLV 4	1.39	859.33	-10827	-9624	-6843	2.025	2.025	-10562	12529	7851	28547	40930	5164	36398		5.32	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.045 Wa 0.08 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 10	179667	0.25	2851	-2598	125.28	573.69	4.58	Si
SLV 14	179667	0.25	3032	-2763	125.28	609.27	4.86	Si
SLV 9	179667	0.25	3431	-3127	125.28	687.71	5.49	Si
SLV 13	179667	0.25	3608	-3288	125.28	722.27	5.77	Si
SLV 6	179667	0.25	4388	-3998	125.28	873.75	6.97	Si
SLV 16	179667	0.25	4721	-4302	125.28	938.05	7.49	Si
SLV 5	179667	0.25	4968	-4527	125.28	985.38	7.87	Si
SLV 15	179667	0.25	5297	-4827	125.28	1048.43	8.37	Si
SLV 2	179667	0.25	8153	-7429	125.28	1582.32	12.63	Si
SLV 12	179667	0.25	8482	-7730	125.28	1642.56	13.11	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 3	-11797	-5667	-182	0.896	1549.4	0.938	13.88806	3.65332	Si
SLV 4	-10827	-5542	-182	0.957	1451.4	0.934	14.87906	3.65332	Si
SLV 7	-10357	-7853	-296	0.98	1404	0.933	15.27569	3.59812	Si
SLV 1	-10137	-4224	-28	1.018	1381.7	0.932	15.87922	3.65332	Si
SLV 8	-9382	-7727	-296	1.056	1305.5	0.928	16.5237	3.59812	Si
SLV 2	-9167	-4099	-28	1.097	1283.9	0.927	17.19717	3.65332	Si
SLV 11	-7461	-8283	-239	1.255	1112.4	0.919	19.83876	3.59812	Si
SLV 12	-6486	-8157	-239	1.386	1014.8	0.913	22.05038	3.59812	Si
SLV 5	-4825	-3043	219	1.697	850.1	0.903	27.3114	3.59812	Si
SLV 6	-3849	-2917	219	1.956	754.7	0.896	31.7266	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.087	SLU 82	Si
V_SLU	7.835	SLU 81	Si
PF_SLV	0	SLV 14	No
V_SLV	4.922	SLV 3	Si
PFFP_SLV	4.579	SLV 10	Si
R_SLV	3.801	SLV 3	Si

Maschio 12

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-31.668	-0.629	-34.183	-0.629	L1	L2	2.515	0.3	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 48	-1.3	-3875.6	-26645	-0.0000698	0.0004492	0.0035	2.515	23822.07	31377.56	31377.56	8.1	No	Si
SLU 48	0.05	-1891.86	-14130	-0.000035	0.0004492	0.0035	2.515	15045.36	19632.12	19632.12	10.38	No	Si
SLU 48	1.39	2070.98	-3643	-0.0000163	0.0004492	0.0035	2.515	4399.66	5061.83	5061.83	2.44	No	Si
SLU 44	-1.3	-4084.93	-26589	-0.0000707	0.0004492	0.0035	2.515	23792.58	31330.05	31330.05	7.67	No	Si
SLU 44	0.05	-1936.62	-14089	-0.0000351	0.0004492	0.0035	2.515	15009.41	19589.67	19589.67	10.12	No	Si
SLU 44	1.39	2196.97	-3727	-0.0000172	0.0004492	0.0035	2.515	4497.63	5162.5	5162.5	2.35	No	Si
SLU 47	-1.3	-4084.93	-26589	-0.0000707	0.0004492	0.0035	2.515	23792.58	31330.05	31330.05	7.67	No	Si
SLU 47	0.05	-1936.62	-14089	-0.0000351	0.0004492	0.0035	2.515	15009.41	19589.67	19589.67	10.12	No	Si
SLU 47	1.39	2196.97	-3727	-0.0000172	0.0004492	0.0035	2.515	4497.63	5162.5	5162.5	2.35	No	Si
SLU 49	-1.3	-4001.2	-26612	-0.0000703	0.0004492	0.0035	2.515	23804.39	31349.05	31349.05	7.83	No	Si
SLU 49	0.05	-1918.72	-14106	-0.0000351	0.0004492	0.0035	2.515	15023.8	19606.65	19606.65	10.22	No	Si
SLU 49	1.39	2146.58	-3693	-0.0000168	0.0004492	0.0035	2.515	4458.47	5122.55	5122.55	2.39	No	Si
SLU 45	-1.3	-3875.6	-26645	-0.0000698	0.0004492	0.0035	2.515	23822.07	31377.56	31377.56	8.1	No	Si
SLU 45	0.05	-1891.86	-14130	-0.000035	0.0004492	0.0035	2.515	15045.36	19632.12	19632.12	10.38	No	Si
SLU 45	1.39	2070.98	-3643	-0.0000163	0.0004492	0.0035	2.515	4399.66	5061.83	5061.83	2.44	No	Si
SLU 46	-1.3	-4001.2	-26612	-0.0000703	0.0004492	0.0035	2.515	23804.39	31349.05	31349.05	7.83	No	Si
SLU 46	0.05	-1918.72	-14106	-0.0000351	0.0004492	0.0035	2.515	15023.8	19606.65	19606.65	10.22	No	Si
SLU 46	1.39	2146.58	-3693	-0.0000168	0.0004492	0.0035	2.515	4458.47	5122.55	5122.55	2.39	No	Si
SLU 2	-1.3	-3175.73	-21211	-0.0000551	0.0004492	0.0035	2.515	20536.33	26555.92	26555.92	8.36	No	Si
SLU 2	0.05	-1576.56	-11336	-0.0000281	0.0004492	0.0035	2.515	12502.61	16722.62	16722.62	10.61	No	Si
SLU 2	1.39	1744.44	-3137	-0.0000138	0.0004492	0.0035	2.515	3810.56	4457.56	4457.56	2.56	No	Si
SLU 43	-1.3	-3875.6	-26645	-0.0000698	0.0004492	0.0035	2.515	23822.07	31377.56	31377.56	8.1	No	Si
SLU 43	0.05	-1891.86	-14130	-0.000035	0.0004492	0.0035	2.515	15045.36	19632.12	19632.12	10.38	No	Si
SLU 43	1.39	2070.98	-3643	-0.0000163	0.0004492	0.0035	2.515	4399.66	5061.83	5061.83	2.44	No	Si
SLU 50	-1.3	-3875.6	-26645	-0.0000698	0.0004492	0.0035	2.515	23822.07	31377.56	31377.56	8.1	No	Si
SLU 50	0.05	-1891.86	-14130	-0.000035	0.0004492	0.0035	2.515	15045.36	19632.12	19632.12	10.38	No	Si
SLU 50	1.39	2070.98	-3643	-0.0000163	0.0004492	0.0035	2.515	4399.66	5061.83	5061.83	2.44	No	Si
SLU 51	-1.3	-4001.2	-26612	-0.0000703	0.0004492	0.0035	2.515	23804.39	31349.05	31349.05	7.83	No	Si
SLU 51	0.05	-1918.72	-14106	-0.0000351	0.0004492	0.0035	2.515	15023.8	19606.65	19606.65	10.22	No	Si
SLU 51	1.39	2146.58	-3693	-0.0000168	0.0004492	0.0035	2.515	4458.47	5122.55	5122.55	2.39	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 11	-1.3	-6849.41	-19937	-0.0000686	0.0006738	0.0035	2.515		26117.67	26117.67	3.81		Si
SLV 11	0.05	-2441.11	-9745	-0.0000288	0.0006738	0.0035	2.515		15176.2	15176.2	6.22		Si
SLV 11	1.39	1691.35	-3128	-0.0000134	0.0006738	0.0035	2.515		4473.46	4473.46	2.64		Si
SLV 10	-1.3	-3341.55	-24859	-0.0000621	0.0006738	0.0035	2.515		30998.77	30998.77	9.28		Si
SLV 10	0.05	-1362.28	-13770	-0.0000315	0.0006738	0.0035	2.515		19651.38	19651.38	14.43		Si
SLV 10	1.39	2339.39	-4132	-0.0000184	0.0006738	0.0035	2.515		5682.52	5682.52	2.43		Si
SLV 6	-1.3	1044.34	-26460	-0.0000545	0.0006738	0.0035	2.515		29227.86	29227.86	27.99		Si
SLV 6	0.05	-996.84	-15501	-0.0000332	0.0006738	0.0035	2.515		21487.86	21487.86	21.56		Si
SLV 6	1.39	1687.86	-4130	-0.0000149	0.0006738	0.0035	2.515		5680.55	5680.55	3.37		Si
SLV 15	-1.3	-10850.54	-19932	-0.0000895	0.0006738	0.0035	2.515		26112.18	26112.18	2.41		Si
SLV 15	0.05	-2452.59	-9216	-0.0000278	0.0006738	0.0035	2.515		14587.43	14587.43	5.95		Si
SLV 15	1.39	2736.17	-3512	-0.0000226	0.0006738	0.0035	2.515		4935.03	4935.03	1.8		Si
SLV 16	-1.3	-10529.63	-19533	-0.000087	0.0006738	0.0035	2.515		25709.81	25709.81	2.44		Si
SLV 16	0.05	-2559.38	-8983	-0.0000278	0.0006738	0.0035	2.515		14327.19	14327.19	5.6		Si
SLV 16	1.39	2570.31	-3426	-0.0000208	0.0006738	0.0035	2.515		4831.58	4831.58	1.88		Si
SLV 13	-1.3	-9895.09	-21529	-0.0000863	0.0006738	0.0035	2.515		27722.44	27722.44	2.8		Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 13	0.05	-2096.7	-10495	-0.0000286	0.0006738	0.0035	2.515		16011.77	16011.77	7.64		Si
SLV 13	1.39	2980.67	-3839	-0.0000246	0.0006738	0.0035	2.515		5328.99	5328.99	1.79		Si
SLV 12	-1.3	-6526.38	-19536	-0.0000663	0.0006738	0.0035	2.515		25712.65	25712.65	3.94		Si
SLV 12	0.05	-2548.6	-9510	-0.0000288	0.0006738	0.0035	2.515		14914.25	14914.25	5.85		Si
SLV 12	1.39	1524.4	-3042	-0.0000123	0.0006738	0.0035	2.515		4369.33	4369.33	2.87		Si
SLV 14	-1.3	-9574.18	-21130	-0.0000839	0.0006738	0.0035	2.515		27320.07	27320.07	2.85		Si
SLV 14	0.05	-2203.48	-10261	-0.0000287	0.0006738	0.0035	2.515		15751.54	15751.54	7.15		Si
SLV 14	1.39	2814.81	-3753	-0.0000228	0.0006738	0.0035	2.515		5225.54	5225.54	1.86		Si
SLV 9	-1.3	-3664.58	-25261	-0.0000644	0.0006738	0.0035	2.515		31382.48	31382.48	8.56		Si
SLV 9	0.05	-1254.79	-14005	-0.0000315	0.0006738	0.0035	2.515		19900.87	19900.87	15.86		Si
SLV 9	1.39	2506.35	-4218	-0.0000196	0.0006738	0.0035	2.515		5786.65	5786.65	2.31		Si
SLV 5	-1.3	721.32	-26862	-0.0000538	0.0006738	0.0035	2.515		29595.58	29595.58	41.03		Si
SLV 5	0.05	-889.35	-15736	-0.0000331	0.0006738	0.0035	2.515		21737.35	21737.35	24.44		Si
SLV 5	1.39	1854.82	-4217	-0.0000158	0.0006738	0.0035	2.515		5784.69	5784.69	3.12		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 81	-1.3	-3580.4	-35050	-25491	-12824	2.515	2.515	-33786	10833	13608	81562	27115	12827	39941	No	3.11	Si
SLU 81	0.05	-2703.43	-19530	-14203	-13021	2.515	2.515	-18825	10833	9387	81562	27115	12827	39941	No	3.07	Si
SLU 81	1.39	2385.48	-6121	-4452	-12866	2.515	2.515	-5900	9120	5740	81562	27115	12827	39941	No	3.1	Si
SLU 76	-1.3	-3861.41	-33350	-24255	-12547	2.515	2.515	-32147	10833	13145	81562	27115	12827	39941	No	3.18	Si
SLU 76	0.05	-2591.76	-18447	-13416	-12735	2.515	2.515	-17781	10704	9092	81562	27115	12827	39941	No	3.14	Si
SLU 76	1.39	2446	-5747	-4180	-12697	2.515	2.4957	-5540	9072	5638	81562	27115	12827	39941	No	3.15	Si
SLU 83	-1.3	-3580.4	-35050	-25491	-12824	2.515	2.515	-33786	10833	13608	81562	27115	12827	39941	No	3.11	Si
SLU 83	0.05	-2703.43	-19530	-14203	-13021	2.515	2.515	-18825	10833	9387	81562	27115	12827	39941	No	3.07	Si
SLU 83	1.39	2385.48	-6121	-4452	-12866	2.515	2.515	-5900	9120	5740	81562	27115	12827	39941	No	3.1	Si
SLU 84	-1.3	-3706	-35017	-25467	-12890	2.515	2.515	-33754	10833	13599	81562	27115	12827	39941	No	3.1	Si
SLU 84	0.05	-2730.29	-19505	-14185	-13088	2.515	2.515	-18801	10833	9380	81562	27115	12827	39941	No	3.05	Si
SLU 84	1.39	2461.07	-6172	-4489	-13075	2.515	2.515	-5949	9127	5754	81562	27115	12827	39941	No	3.05	Si
SLU 73	-1.3	-3861.41	-33350	-24255	-12547	2.515	2.515	-32147	10833	13145	81562	27115	12827	39941	No	3.18	Si
SLU 73	0.05	-2591.76	-18447	-13416	-12735	2.515	2.515	-17781	10704	9092	81562	27115	12827	39941	No	3.14	Si
SLU 73	1.39	2446	-5747	-4180	-12697	2.515	2.4957	-5540	9072	5638	81562	27115	12827	39941	No	3.15	Si
SLU 82	-1.3	-3706	-35017	-25467	-12890	2.515	2.515	-33754	10833	13599	81562	27115	12827	39941	No	3.1	Si
SLU 82	0.05	-2730.29	-19505	-14185	-13088	2.515	2.515	-18801	10833	9380	81562	27115	12827	39941	No	3.05	Si
SLU 82	1.39	2461.07	-6172	-4489	-13075	2.515	2.515	-5949	9127	5754	81562	27115	12827	39941	No	3.05	Si
SLU 80	-1.3	-3777.68	-33372	-24271	-12503	2.515	2.515	-32168	10833	13151	81562	27115	12827	39941	No	3.19	Si
SLU 80	0.05	-2573.85	-18463	-13428	-12691	2.515	2.515	-17797	10706	9097	81562	27115	12827	39941	No	3.15	Si
SLU 80	1.39	2395.6	-5713	-4155	-12558	2.515	2.5146	-5507	9068	5629	81562	27115	12827	39941	No	3.18	Si
SLU 79	-1.3	-3652.08	-33406	-24295	-12436	2.515	2.515	-32200	10833	13160	81562	27115	12827	39941	No	3.21	Si
SLU 79	0.05	-2547	-18488	-13446	-12624	2.515	2.515	-17821	10709	9103	81562	27115	12827	39941	No	3.16	Si
SLU 79	1.39	2320.01	-5662	-4118	-12349	2.515	2.515	-5458	9061	5615	81562	27115	12827	39941	No	3.23	Si
SLU 75	-1.3	-3777.68	-33372	-24271	-12503	2.515	2.515	-32168	10833	13151	81562	27115	12827	39941	No	3.19	Si
SLU 75	0.05	-2573.85	-18463	-13428	-12691	2.515	2.515	-17797	10706	9097	81562	27115	12827	39941	No	3.15	Si
SLU 75	1.39	2395.6	-5713	-4155	-12558	2.515	2.5146	-5507	9068	5629	81562	27115	12827	39941	No	3.18	Si
SLU 78	-1.3	-3777.68	-33372	-24271	-12503	2.515	2.515	-32168	10833	13151	81562	27115	12827	39941	No	3.19	Si
SLU 78	0.05	-2573.85	-18463	-13428	-12691	2.515	2.515	-17797	10706	9097	81562	27115	12827	39941	No	3.15	Si
SLU 78	1.39	2395.6	-5713	-4155	-12558	2.515	2.5146	-5507	9068	5629	81562	27115	12827	39941	No	3.18	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 15	-1.3	-10850.54	-19932	-14496	-14406	2.515	2.1394	-22823	16250	11533	81562	40672	12827	53499		3.71	Si
SLV 15	0.05	-2452.59	-9216	-6703	-14512	2.515	2.515	-8884	14277	8619	81562	40672	12827	53499		3.69	Si
SLV 15	1.39	2736.17	-3512	-2554	-11098	2.515	1.4349	-3385	13177	7068	81562	40672	12827	53499		4.82	Si
SLV 16	-1.3	-10529.63	-19533	-14206	-13934	2.515	2.1553	-22194	16250	11425	81562	40672	12827	53499		3.84	Si
SLV 16	0.05	-2559.38	-8983	-6533	-14039	2.515	2.515	-8659	14232	8556	81562	40672	12827	53499		3.81	Si
SLV 16	1.39	2570.31	-3426	-2491	-10765	2.515	1.5216	-3302	13160	7044	81562	40672	12827	53499		4.97	Si
SLV 11	-1.3	-6849.41	-19937	-14500	-10995	2.515	2.515	-19218	16250	11535	81562	40672	12827	53499		4.87	Si
SLV 11	0.05	-2441.11	-9745	-7087	-11046	2.515	2.515	-9393	14379	8763	81562	40672	12827	53499		4.84	Si
SLV 11	1.39	1691.35	-3128	-2275	-8938	2.515	2.1506	-3016	13103	6963	81562	40672	12827	53499		5.99	Si
SLV 5	-1.3	721.32	-26862	-19536	-7475	2.515	2.515	-25892	16250	13418	81562	40672	12827	53499		7.16	Si
SLV 5	0.05	-889.35	-15736	-11444	-7687	2.515	2.515	-15168	15534	10392	81562	40672	12827	53499		6.96	Si
SLV 5	1.39	1854.82	-4217	-3067	-8881	2.515	2.4529	-4065	13313	7259	81562	40672	12827	53499		6.02	Si
SLV 6	-1.3	1044.34	-26460	-19244	-7001	2.515	2.515	-25505	16250	13309	81562	40672	12827	53499		7.64	Si
SLV 6	0.05	-996.84	-15501	-11273	-7211	2.515	2.515	-14941	15488	10328	81562	40672	12827	53499		7.42	Si
SLV 6	1.39	1687.86	-4130	-3004	-8547	2.515	2.515	-3981	13296	7236	81562	40672	12827	53499		6.26	Si
SLV 14	-1.3	-9574.18	-21130	-15367	-13797	2.515	2.4132	-21429	16250	11859	81562	40672	12827	53499		3.88	Si
SLV 14	0.05	-2203.48	-10261	-7463	-13950	2.515	2.515	-9891	14478	8903	81562	40672	12827	53499		3.84	Si
SLV 14	1.39	2814.81	-3753	-2729	-11180	2.515	1.5223	-3617	13223	7133	81562	40672	12827	53499		4.79	Si
SLV 10	-1.3	-3341.55	-24859	-18079	-10063	2.515	2.515	-23962	16250	12874	81562	40672	12827	53499		5.32	Si
SLV 10	0.05	-1362.28	-13770	-10015	-10272	2.515	2.515	-13273	15155	9858	81562	40672	12827	53499		5.21	Si
SLV 10	1.39	2339.39	-4132	-3005	-9985	2.515	2.074	-3983	13297	7236	81562	40672	12827	53499		5.36	Si
SLV 13	-1.3	-9895.09	-21529	-15657	-14268	2.515	2.3937	-22017	16250	11968	81562	40672	12827	53499		3.75	Si
SLV 13	0.05	-2096.7	-10495	-7632	-14423	2.515	2.515	-10116	14523	8967	81562	40672	12827	53499		3.71	Si
SLV 13	1.39	2980.67	-3839	-2792	-11512	2.515	1.443	-3700	13240	7157	81562	40672	12827	53499		4.65	Si
SLV 9	-1.3	-3664.58	-25261	-18372	-10537	2.515	2.515	-24349	16250	12983	81562	40672	12827	53499		5.08	Si
SLV 9	0.05	-1254.79	-14005	-10186	-10748	2.515	2.515	-13500	15200	9922	81562	40672	12827	53499		4.98	Si
SLV 9	1.39	2506.35	-4218	-3068	-10319	2.515	1.9901	-4066	13313	7260	81562	40672	12827	53499		5.18	Si
SLV 12	-1.3	-6526.38	-19536	-14208	-10521	2.515	2.515	-18831	16250	11426	81562	40672	12827	53499		5.09	Si
SLV 12	0.05	-2548.6	-9510	-6916	-10570	2.515	2.515	-9167	14333	8699	81562	40672	12827	53499		5.06	Si
SLV 12	1.39	1524.4	-3042	-2212	-8603	2.515	2.2691	-2932	13086	6940	81562	40672	12827	53499		6.22	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 0.045 Ta 0.04 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 16	-8983	0.25	107.55	1259.91	1817.88	1538.89	14.31	Si
SLV 15	-9216	0.25	107.55	1290.33	1855.9	1573.12	14.63	Si

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 12	-9510	0.25	107.55	1328.36	1903.66	1616.01	15.03	Si
SLV 11	-9745	0.25	107.55	1358.71	1941.79	1650.25	15.34	Si
SLV 14	-10261	0.25	107.55	1424.95	2025.04	1725	16.04	Si
SLV 13	-10495	0.25	107.55	1454.72	2062.69	1758.71	16.35	Si
SLV 8	-11240	0.25	107.55	1548.97	2182.9	1865.94	17.35	Si
SLV 7	-11475	0.25	107.55	1578.44	2220.82	1899.63	17.66	Si
SLV 10	-13770	0.25	107.55	1859.85	2589.53	2224.69	20.69	Si
SLV 9	-14005	0.25	107.55	1888.03	2627.06	2257.54	20.99	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 9	-4218	-25261	-437	2.337	725.9	0.905	37.54981	4.47577	Si
SLV 5	-4217	-26862	-426	2.34	725.7	0.905	37.58792	4.47577	Si
SLV 10	-4132	-24859	-437	2.37	717.4	0.904	38.11049	4.47577	Si
SLV 6	-4130	-26460	-427	2.373	717.2	0.904	38.14933	4.47577	Si
SLV 13	-3839	-21529	-146	2.542	688.5	0.902	40.97306	4.58505	Si
SLV 1	-3833	-26864	-111	2.55	688	0.901	41.11242	4.58505	Si
SLV 14	-3753	-21130	-146	2.58	680.1	0.901	41.6218	4.58505	Si
SLV 2	-3747	-26465	-111	2.589	679.5	0.901	41.76402	4.58505	Si
SLV 3	-3506	-25267	149	2.696	655.9	0.899	43.5947	4.58505	Si
SLV 15	-3512	-19932	114	2.7	656.5	0.899	43.65407	4.58505	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.35	SLU 44	Si
V_SLU	3.052	SLU 82	Si
PF_SLV	1.788	SLV 13	Si
V_SLV	3.687	SLV 15	Si
PFFP_SLV	14.309	SLV 16	Si
R_SLV	8.39	SLV 9	Si

Maschio 13

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.388	-0.629	-30.668	-0.629	L1	L2	4.28	0.3	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 74	-1.3	13223.15	-31720	-0.0000565	0.0004492	0.0035	4.28	54156.86	60698.92	60698.92	4.59	No	Si
SLU 74	0.05	-2946.18	-23802	-0.0000307	0.0004492	0.0035	4.28	43208.01	56166.02	56166.02	19.06	No	Si
SLU 74	1.39	-7212.4	-9022	-0.0000208	0.0004492	0.0035	4.28	18196.54	28711.86	28711.86	3.98	No	Si
SLU 63	-1.3	12414.35	-29961	-0.000053	0.0004492	0.0035	4.28	51872.71	57980.19	57980.19	4.67	No	Si
SLU 63	0.05	-2856.13	-22421	-0.000029	0.0004492	0.0035	4.28	41124.3	53739.8	53739.8	18.82	No	Si
SLU 63	1.39	-6920.99	-8300	-0.0000196	0.0004492	0.0035	4.28	16821.55	27300.86	27300.86	3.94	No	Si
SLU 60	-1.3	12848.72	-29934	-0.0000537	0.0004492	0.0035	4.28	51836.33	57937.69	57937.69	4.51	No	Si
SLU 60	0.05	-2756.35	-22387	-0.0000288	0.0004492	0.0035	4.28	41071.26	53678.82	53678.82	19.47	No	Si
SLU 60	1.39	-6954.25	-8302	-0.0000197	0.0004492	0.0035	4.28	16825.79	27305.19	27305.19	3.93	No	Si
SLU 84	-1.3	13473.13	-34139	-0.0000598	0.0004492	0.0035	4.28	57159.96	64437.43	64437.43	4.78	No	Si
SLU 84	0.05	-3779.42	-25681	-0.0000342	0.0004492	0.0035	4.28	45961.11	59468.95	59468.95	15.73	No	Si
SLU 84	1.39	-7868.85	-9878	-0.0000228	0.0004492	0.0035	4.28	19807.79	30384.21	30384.21	3.86	No	Si
SLU 81	-1.3	13907.49	-34111	-0.0000605	0.0004492	0.0035	4.28	57126.71	64394.93	64394.93	4.63	No	Si
SLU 81	0.05	-3679.64	-25646	-0.000034	0.0004492	0.0035	4.28	45911.15	59407.98	59407.98	16.15	No	Si
SLU 81	1.39	-7902.12	-9880	-0.0000229	0.0004492	0.0035	4.28	19811.93	30388.54	30388.54	3.85	No	Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 62	-1.3	12848.72	-29934	-0.0000537	0.0004492	0.0035	4.28	51836.33	57937.69	57937.69	4.51	No	Si
SLU 62	0.05	-2756.35	-22387	-0.0000288	0.0004492	0.0035	4.28	41071.26	53678.82	53678.82	19.47	No	Si
SLU 62	1.39	-6954.25	-8302	-0.0000197	0.0004492	0.0035	4.28	16825.79	27305.19	27305.19	3.93	No	Si
SLU 83	-1.3	13907.49	-34111	-0.0000605	0.0004492	0.0035	4.28	57126.71	64394.93	64394.93	4.63	No	Si
SLU 83	0.05	-3679.64	-25646	-0.000034	0.0004492	0.0035	4.28	45911.15	59407.98	59407.98	16.15	No	Si
SLU 83	1.39	-7902.12	-9880	-0.0000229	0.0004492	0.0035	4.28	19811.93	30388.54	30388.54	3.85	No	Si
SLU 82	-1.3	13473.13	-34139	-0.0000598	0.0004492	0.0035	4.28	57159.96	64437.43	64437.43	4.78	No	Si
SLU 82	0.05	-3779.42	-25681	-0.0000342	0.0004492	0.0035	4.28	45961.11	59468.95	59468.95	15.73	No	Si
SLU 82	1.39	-7868.85	-9878	-0.0000228	0.0004492	0.0035	4.28	19807.79	30384.21	30384.21	3.86	No	Si
SLU 77	-1.3	13223.15	-31720	-0.0000565	0.0004492	0.0035	4.28	54156.86	60698.92	60698.92	4.59	No	Si
SLU 77	0.05	-2946.18	-23802	-0.0000307	0.0004492	0.0035	4.28	43208.01	56166.02	56166.02	19.06	No	Si
SLU 77	1.39	-7212.4	-9022	-0.0000208	0.0004492	0.0035	4.28	18196.54	28711.86	28711.86	3.98	No	Si
SLU 61	-1.3	12414.35	-29961	-0.000053	0.0004492	0.0035	4.28	51872.71	57980.19	57980.19	4.67	No	Si
SLU 61	0.05	-2856.13	-22421	-0.000029	0.0004492	0.0035	4.28	41124.3	53739.8	53739.8	18.82	No	Si
SLU 61	1.39	-6920.99	-8300	-0.0000196	0.0004492	0.0035	4.28	16821.55	27300.86	27300.86	3.94	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 7	-1.3	12426.08	-14619	-0.0000352	0.0006738	0.0035	4.28		31645.63	31645.63	2.55		Si
SLV 7	0.05	-16.95	-12206	-0.0000132	0.0006738	0.0035	4.28		35221.93	35221.93	2077.87		Si
SLV 7	1.39	-5469.64	-5358	-0.0000147	0.0006738	0.0035	4.28		21527.05	21527.05	3.94		Si
SLV 6	-1.3	20861.73	-25987	-0.0000612	0.0006738	0.0035	4.28		53187.72	53187.72	2.55		Si
SLV 6	0.05	1468.36	-17552	-0.0000212	0.0006738	0.0035	4.28		37335.09	37335.09	25.43		Si
SLV 6	1.39	-4769.71	-5990	-0.0000137	0.0006738	0.0035	4.28		22808.55	22808.55	4.78		Si
SLV 2	-1.3	35688.93	-20873	-0.0001625	0.0006738	0.0035	4.28		43670.48	43670.48	1.22		Si
SLV 2	0.05	5580.05	-14184	-0.0000238	0.0006738	0.0035	4.28		30793.99	30793.99	5.52		Si
SLV 2	1.39	-6338.96	-5884	-0.000017	0.0006738	0.0035	4.28		22592.88	22592.88	3.56		Si
SLV 1	-1.3	34733.99	-20906	-0.0001447	0.0006738	0.0035	4.28		43733.6	43733.6	1.26		Si
SLV 1	0.05	5423.77	-14243	-0.0000236	0.0006738	0.0035	4.28		30908.34	30908.34	5.7		Si
SLV 1	1.39	-6276.06	-5884	-0.0000168	0.0006738	0.0035	4.28		22592.86	22592.86	3.6		Si
SLV 5	-1.3	19900.49	-26020	-0.0000596	0.0006738	0.0035	4.28		53249.2	53249.2	2.68		Si
SLV 5	0.05	1311.04	-17610	-0.000021	0.0006738	0.0035	4.28		37448.38	37448.38	28.56		Si
SLV 5	1.39	-4706.4	-5990	-0.0000136	0.0006738	0.0035	4.28		22808.52	22808.52	4.85		Si
SLV 16	-1.3	-16400.24	-20662	-0.000048	0.0006738	0.0035	4.28		51424.35	51424.35	3.14		Si
SLV 16	0.05	-7895.51	-16780	-0.0000302	0.0006738	0.0035	4.28		44052.44	44052.44	5.58		Si
SLV 16	1.39	-2847.03	-5366	-0.00001	0.0006738	0.0035	4.28		21543.16	21543.16	7.57		Si
SLV 15	-1.3	-17355.17	-20696	-0.0000497	0.0006738	0.0035	4.28		51487.55	51487.55	2.97		Si
SLV 15	0.05	-8051.8	-16839	-0.0000305	0.0006738	0.0035	4.28		44163.31	44163.31	5.48		Si
SLV 15	1.39	-2784.12	-5366	-0.0000099	0.0006738	0.0035	4.28		21543.13	21543.13	7.74		Si
SLV 8	-1.3	13387.32	-14586	-0.0000371	0.0006738	0.0035	4.28		31580.01	31580.01	2.36		Si
SLV 8	0.05	140.37	-12148	-0.0000133	0.0006738	0.0035	4.28		26781.06	26781.06	190.79		Si
SLV 8	1.39	-5532.96	-5358	-0.0000148	0.0006738	0.0035	4.28		21527.08	21527.08	3.89		Si
SLV 3	-1.3	32491.67	-17486	-0.0002141	0.0006738	0.0035	4.28		37208.62	37208.62	1.15		Si
SLV 3	0.05	5025.37	-12622	-0.0000212	0.0006738	0.0035	4.28		27724.04	27724.04	5.52		Si
SLV 3	1.39	-6505.03	-5694	-0.0000175	0.0006738	0.0035	4.28		22208.42	22208.42	3.41		Si
SLV 4	-1.3	33446.61	-17453	-0.0002795	0.0006738	0.0035	4.28		37144.46	37144.46	1.11		Si
SLV 4	0.05	5181.66	-12563	-0.0000214	0.0006738	0.0035	4.28		27607.89	27607.89	5.33		Si
SLV 4	1.39	-6567.93	-5694	-0.0000177	0.0006738	0.0035	4.28		22208.44	22208.44	3.38		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 80	-1.3	12788.79	-31748	-23089	11688	4.28	4.28	-17982	10731	16653	81562	46144	21828	67972	No	5.82	Si
SLU 80	0.05	-3045.96	-23836	-17335	11696	4.28	4.28	-13501	10133	14351	81562	46144	21828	67972	No	5.81	Si
SLU 80	1.39	-7179.14	-9020	-6560	5224	4.28	4.0322	-5441	9059	10041	81562	46144	21828	67972	No	13.01	Si
SLU 81	-1.3	13907.49	-34111	-24808	12642	4.28	4.28	-19321	10833	17340	81562	46144	21828	67972	No	5.38	Si
SLU 81	0.05	-3679.64	-25646	-18652	12651	4.28	4.28	-14526	10270	14878	81562	46144	21828	67972	No	5.37	Si
SLU 81	1.39	-7902.12	-9880	-7186	5552	4.28	4.0206	-5979	9131	10291	81562	46144	21828	67972	No	12.24	Si
SLU 79	-1.3	13223.15	-31720	-23069	11940	4.28	4.28	-17967	10729	16645	81562	46144	21828	67972	No	5.69	Si
SLU 79	0.05	-2946.18	-23802	-17310	11949	4.28	4.28	-13482	10131	14341	81562	46144	21828	67972	No	5.69	Si
SLU 79	1.39	-7212.4	-9022	-6561	5379	4.28	4.0217	-5456	9061	10042	81562	46144	21828	67972	No	12.64	Si
SLU 75	-1.3	12788.79	-31748	-23089	11688	4.28	4.28	-17982	10731	16653	81562	46144	21828	67972	No	5.82	Si
SLU 75	0.05	-3045.96	-23836	-17335	11696	4.28	4.28	-13501	10133	14351	81562	46144	21828	67972	No	5.81	Si
SLU 75	1.39	-7179.14	-9020	-6560	5224	4.28	4.0322	-5441	9059	10041	81562	46144	21828	67972	No	13.01	Si
SLU 74	-1.3	13223.15	-31720	-23069	11940	4.28	4.28	-17967	10729	16645	81562	46144	21828	67972	No	5.69	Si
SLU 74	0.05	-2946.18	-23802	-17310	11949	4.28	4.28	-13482	10131	14341	81562	46144	21828	67972	No	5.69	Si
SLU 74	1.39	-7212.4	-9022	-6561	5379	4.28	4.0217	-5456	9061	10042	81562	46144	21828	67972	No	12.64	Si
SLU 84	-1.3	13473.13	-34139	-24828	12390	4.28	4.28	-19337	10833	17348	81562	46144	21828	67972	No	5.49	Si
SLU 84	0.05	-3779.42	-25681	-18677	12398	4.28	4.28	-14546	10273	14888	81562	46144	21828	67972	No	5.48	Si
SLU 84	1.39	-7868.85	-9878	-7184	5397	4.28	4.0302	-5964	9128	10291	81562	46144	21828	67972	No	12.59	Si
SLU 82	-1.3	13473.13	-34139	-24828	12390	4.28	4.28	-19337	10833	17348	81562	46144	21828	67972	No	5.49	Si
SLU 82	0.05	-3779.42	-25681	-18677	12398	4.28	4.28	-14546	10273	14888	81562	46144	21828	67972	No	5.48	Si
SLU 82	1.39	-7868.85	-9878	-7184	5397	4.28	4.0302	-5964	9128	10291	81562	46144	21828	67972	No	12.59	Si
SLU 78	-1.3	12788.79	-31748	-23089	11688	4.28	4.28	-17982	10731	16653	81562	46144	21828	67972	No	5.82	Si
SLU 78	0.05	-3045.96	-23836	-17335	11696	4.28	4.28	-13501	10133	14351	81562	46144	21828	67972	No	5.81	Si
SLU 78	1.39	-7179.14	-9020	-6560	5224	4.28	4.0322	-5441	9059	10041	81562	46144	21828	67972	No	13.01	Si
SLU 83	-1.3	13907.49	-34111	-24808	12642	4.28	4.28	-19321	10833	17340	81562	46144	21828	67972	No	5.38	Si
SLU 83	0.05	-3679.64	-25646	-18652	12651	4.28	4.28	-14526	10270	14878	81562	46144	21828	67972	No	5.37	Si
SLU 83	1.39	-7902.12	-9880	-7186	5552	4.28	4.0206	-5979	9131	10291	81562	46144	21828	67972	No	12.24	Si
SLU 77	-1.3	13223.15	-31720	-23069	11940	4.28	4.28	-17967	10729	16645	81562	46144	21828	67972	No	5.69	Si
SLU 77	0.05	-2946.18	-23802	-17310	11949	4.28	4.28	-13482	10131	14341	81562	46144	21828	67972	No	5.69	Si
SLU 77	1.39	-7212.4	-9022	-6561	5379	4.28	4.0217	-5456	9061	10042	81562	46144	21828	67972	No	12.64	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 1	-1.3	34733.99	-20906	-15205	21952	4.28	1.4358	-35920	16250	17208	81562	69216	21828	91044		4.15	Si
SLV 1	0.05	5423.77	-14243	-10358	21925	4.28	4.28	-8067	14113	15269	81562	69216	21828	91044		4.15	Si
SLV 1	1.39	-6276.06	-5884	-4279	10861	4.28	3.22	-4434	13387	12838	81562	69216	21828	91044		8.38	Si
SLV 2	-1.3	35688.93	-20873	-15180	22489	4.28	1.2906	-39985	16250	17198	81562	69216	21828	91044		4.05	Si
SLV 2	0.05	5580.05	-14184	-10316	22463	4.28	4.28	-8034	14107	15252	81562	69216	21828	91044		4.05	Si
SLV 2	1.39	-6338.96	-5884	-4279	11076	4.28	3.1879	-4482	13396	12838	81562	69216	21828	91044		8.22	Si
SLV 13	-1.3	-15112.85	-24116	-17539	-6390	4.28	4.28	-13660	15232	18141	81562	69216	21828	91044		14.25	Si
SLV 13	0.05	-7653.4	-18460	-13425	-6371	4.28	4.28	-10456	14591	16496	81562	69216	21828	91044		14.29	Si
SLV 13	1.39	-2555.15	-5555	-4040	-4228	4.28	4.28	-3147	13129	12742	81562	69216	21828	91044		21.53	Si
SLV 6	-1.3	20861.73	-25987	-18899	12278	4.28	4.0116	-14719	15444	18686	81562	69216	21828	91044		7.42	Si
SLV 6	0.05	1468.36	-17552	-12765	12240	4.28	4.28	-9941	14488	16232	81562	69216	21828	91044		7.44	Si
SLV 6	1.39	-4769.71	-5990	-4357	4700	4.28	4.0312	-3607	13221	12869	81562	69216	21828	91044		19.37	Si
SLV 4	-1.3	33446.61	-17453	-12693	22741	4.28	0.6708	-64670	16250	16203	81562	69216	21828	91044		4	Si
SLV 4	0.05	5181.66	-12563	-9137	22737	4.28	4.28	-7116	13923	14781	81562	69216	21828	91044		4	Si
SLV 4	1.39	-6567.93	-5694	-4141	12016	4.28	2.9596	-4671	13434	12782	81562	69216	21828	91044		7.58	Si
SLV 7	-1.3	12426.08	-14619	-10632	12576	4.28	3.87	-8280	14156	15379	81562	69216	21828	91044		7.24	Si
SLV 7	0.05	-16.95	-12206	-8877	12614	4.28	4.28	-6914	13883	14677	81562	69216	21828	91044		7.22	Si
SLV 7	1.39	-5469.64	-5358	-3897	7614	4.28	3.3574	-3874	13275	12685	81562	69216	21828	91044		11.96	Si
SLV 3	-1.3	32491.67	-17486	-12717	22204	4.28	0.8456	-51317	16250	16213	81562	69216	21828	91044		4.1	Si
SLV 3	0.05	5025.37	-12622	-9179	22200	4.28	4.28	-7149	13930	14798	81562	69216	21828	91044		4.1	Si
SLV 3	1.39	-6505.03	-5694	-4141	11801	4.28	2.9927	-4619	13424	12782	81562	69216	21828	91044		7.72	Si
SLV 8	-1.3	13387.32	-14586	-10608	13117	4.28	3.6665	-8262	14152	15369	81562	69216	21828	91044		6.94	Si
SLV 8	0.05	140.37	-12148	-8835	13156	4.28	4.28	-6880	13876	14660	81562	69216	21828	91044		6.92	Si
SLV 8	1.39	-5532.96	-5358	-3897	7831	4.28	3.3219	-3915	13283	12685	81562	69216	21828	91044		11.63	Si
SLV 15	-1.3	-17355.17	-20696	-15051	-6138	4.28	3.9042	-12915	15083	17146	81562	69216	21828	91044		14.83	Si
SLV 15	0.05	-8051.8	-16839	-12246	-6097	4.28	4.28	-9538	14408	16024	81562	69216	21828	91044		14.93	Si
SLV 15	1.39	-2784.12	-5366	-3902	-3289	4.28	4.28	-3039	13108	12687	81562	69216	21828	91044		27.68	Si
SLV 5	-1.3	19900.49	-26020	-18924	11737	4.28	4.1256	-14738	15448	18695	81562	69216	21828	91044		7.76	Si
SLV 5	0.05	1311.04	-17610	-12808	11699	4.28	4.28	-9975	14495	16249	81562	69216	21828	91044		7.78	Si
SLV 5	1.39	-4706.4	-5990	-4356	4484	4.28	4.0629	-3579	13216	12869	81562	69216	21828	91044		20.31	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 0.045 Ta 0.04 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 8	-12148	0.25	183.02	1728.07	2564.09	2146.08	11.73	Si
SLV 7	-12206	0.25	183.02	1735.98	2573.65	2154.81	11.77	Si
SLV 4	-12563	0.25	183.02	1783.87	2631.71	2207.79	12.06	Si
SLV 3	-12622	0.25	183.02	1791.69	2641.22	2216.45	12.11	Si
SLV 12	-13413	0.25	183.02	1897.24	2769.98	2333.61	12.75	Si
SLV 11	-13471	0.25	183.02	1905.04	2779.55	2342.3	12.8	Si
SLV 2	-14184	0.25	183.02	1999.41	2895.6	2447.51	13.37	Si
SLV 1	-14243	0.25	183.02	2007.11	2905.09	2456.1	13.42	Si
SLV 16	-16780	0.25	183.02	2337.58	3316.98	2827.28	15.45	Si
SLV 15	-16839	0.25	183.02	2345.09	3326.4	2835.74	15.49	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 2	-5884	-20873	-135	2.733	1108.2	0.898	44.21957	4.58505	Si
SLV 1	-5884	-20906	-135	2.733	1108.2	0.898	44.2196	4.58505	Si
SLV 6	-5990	-25987	-419	2.671	1118.6	0.899	43.18385	4.47577	Si
SLV 5	-5990	-26020	-419	2.671	1118.6	0.899	43.18389	4.47577	Si
SLV 10	-5892	-26950	-409	2.701	1109	0.898	43.68707	4.47577	Si
SLV 9	-5892	-26983	-409	2.701	1109	0.898	43.68711	4.47577	Si
SLV 4	-5694	-17453	118	2.793	1089.7	0.897	45.23052	4.58505	Si
SLV 3	-5694	-17486	118	2.793	1089.7	0.897	45.23062	4.58505	Si
SLV 14	-5555	-24083	-103	2.839	1076.3	0.897	46.00167	4.58505	Si
SLV 13	-5555	-24116	-103	2.839	1076.3	0.897	46.00171	4.58505	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.846	SLU 81	Si
V_SLU	5.373	SLU 81	Si
PF_SLV	1.111	SLV 4	Si
V_SLV	4.003	SLV 4	Si
PFFP_SLV	11.726	SLV 8	Si
R_SLV	9.644	SLV 2	Si

Maschio 15

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-29.378	-0.629	-29.378	5.726	L1	L2	6.355	0.26	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 49	-1.3	19259.21	-52109	-0.0000606	0.0004492	0.0035	6.355	122840.62	143189.33	143189.33	7.43	No	Si
SLU 49	0.05	9019.27	-39012	-0.0000402	0.0004492	0.0035	6.355	100007.08	112954.79	112954.79	12.52	No	Si
SLU 49	1.39	5280.6	-28941	-0.0000284	0.0004492	0.0035	6.355	78776.73	88064.51	88064.51	16.68	No	Si
SLU 43	-1.3	19242.36	-52123	-0.0000606	0.0004492	0.0035	6.355	122861.7	143221	143221	7.44	No	Si
SLU 43	0.05	9000.17	-39027	-0.0000402	0.0004492	0.0035	6.355	100036.06	112989.12	112989.12	12.55	No	Si
SLU 43	1.39	5278.02	-28953	-0.0000284	0.0004492	0.0035	6.355	78805.34	88098.39	88098.39	16.69	No	Si
SLU 68	-1.3	21403.36	-61765	-0.0000715	0.0004492	0.0035	6.355	136216.83	165479.93	165479.93	7.73	No	Si
SLU 68	0.05	9995.05	-49372	-0.0000503	0.0004492	0.0035	6.355	118515.05	136870.74	136870.74	13.69	No	Si
SLU 68	1.39	5914.59	-40268	-0.0000387	0.0004492	0.0035	6.355	102431.21	115854.66	115854.66	19.59	No	Si
SLU 48	-1.3	19242.36	-52123	-0.0000606	0.0004492	0.0035	6.355	122861.7	143221	143221	7.44	No	Si
SLU 48	0.05	9000.17	-39027	-0.0000402	0.0004492	0.0035	6.355	100036.06	112989.12	112989.12	12.55	No	Si
SLU 48	1.39	5278.02	-28953	-0.0000284	0.0004492	0.0035	6.355	78805.34	88098.39	88098.39	16.69	No	Si
SLU 46	-1.3	19259.21	-52109	-0.0000606	0.0004492	0.0035	6.355	122840.62	143189.33	143189.33	7.43	No	Si
SLU 46	0.05	9019.27	-39012	-0.0000402	0.0004492	0.0035	6.355	100007.08	112954.79	112954.79	12.52	No	Si
SLU 46	1.39	5280.6	-28941	-0.0000284	0.0004492	0.0035	6.355	78776.73	88064.51	88064.51	16.68	No	Si
SLU 51	-1.3	19259.21	-52109	-0.0000606	0.0004492	0.0035	6.355	122840.62	143189.33	143189.33	7.43	No	Si
SLU 51	0.05	9019.27	-39012	-0.0000402	0.0004492	0.0035	6.355	100007.08	112954.79	112954.79	12.52	No	Si
SLU 51	1.39	5280.6	-28941	-0.0000284	0.0004492	0.0035	6.355	78776.73	88064.51	88064.51	16.68	No	Si
SLU 44	-1.3	19270.45	-52100	-0.0000606	0.0004492	0.0035	6.355	122826.57	143168.22	143168.22	7.43	No	Si
SLU 44	0.05	9032.01	-39002	-0.0000402	0.0004492	0.0035	6.355	99987.75	112931.9	112931.9	12.5	No	Si
SLU 44	1.39	5282.33	-28932	-0.0000284	0.0004492	0.0035	6.355	78757.65	88041.93	88041.93	16.67	No	Si
SLU 45	-1.3	19242.36	-52123	-0.0000606	0.0004492	0.0035	6.355	122861.7	143221	143221	7.44	No	Si
SLU 45	0.05	9000.17	-39027	-0.0000402	0.0004492	0.0035	6.355	100036.06	112989.12	112989.12	12.55	No	Si
SLU 45	1.39	5278.02	-28953	-0.0000284	0.0004492	0.0035	6.355	78805.34	88098.39	88098.39	16.69	No	Si
SLU 50	-1.3	19242.36	-52123	-0.0000606	0.0004492	0.0035	6.355	122861.7	143221	143221	7.44	No	Si
SLU 50	0.05	9000.17	-39027	-0.0000402	0.0004492	0.0035	6.355	100036.06	112989.12	112989.12	12.55	No	Si
SLU 50	1.39	5278.02	-28953	-0.0000284	0.0004492	0.0035	6.355	78805.34	88098.39	88098.39	16.69	No	Si
SLU 47	-1.3	19270.45	-52100	-0.0000606	0.0004492	0.0035	6.355	122826.57	143168.22	143168.22	7.43	No	Si
SLU 47	0.05	9032.01	-39002	-0.0000402	0.0004492	0.0035	6.355	99987.75	112931.9	112931.9	12.5	No	Si
SLU 47	1.39	5282.33	-28932	-0.0000284	0.0004492	0.0035	6.355	78757.65	88041.93	88041.93	16.67	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 16	-1.3	24485.36	-50958	-0.0000627	0.0006738	0.0035	6.355		146514.8	146514.8	5.98		Si
SLV 16	0.05	12317.43	-40778	-0.0000438	0.0006738	0.0035	6.355		122038.16	122038.16	9.91		Si
SLV 16	1.39	4583.65	-33575	-0.0000315	0.0006738	0.0035	6.355		102627.13	102627.13	22.39		Si
SLV 8	-1.3	36818.03	-56083	-0.0000775	0.0006738	0.0035	6.355		158468.96	158468.96	4.3		Si
SLV 8	0.05	15233.18	-43581	-0.0000486	0.0006738	0.0035	6.355		129310.37	129310.37	8.49		Si
SLV 8	1.39	2119.73	-33735	-0.0000296	0.0006738	0.0035	6.355		103063.81	103063.81	48.62		Si
SLV 12	-1.3	37710.2	-55782	-0.0000779	0.0006738	0.0035	6.355		157766.65	157766.65	4.18		Si
SLV 12	0.05	16420.71	-43301	-0.0000494	0.0006738	0.0035	6.355		128658.24	128658.24	7.84		Si
SLV 12	1.39	2434.75	-33719	-0.0000299	0.0006738	0.0035	6.355		103019.1	103019.1	42.31		Si
SLV 7	-1.3	36817.35	-56055	-0.0000774	0.0006738	0.0035	6.355		158404.57	158404.57	4.3		Si
SLV 7	0.05	15181.5	-43544	-0.0000486	0.0006738	0.0035	6.355		129223.81	129223.81	8.51		Si
SLV 7	1.39	2032.7	-33714	-0.0000295	0.0006738	0.0035	6.355		103004.93	103004.93	50.67		Si
SLV 3	-1.3	21510.81	-51934	-0.0000611	0.0006738	0.0035	6.355		148791.87	148791.87	6.92		Si
SLV 3	0.05	8307.63	-41673	-0.0000414	0.0006738	0.0035	6.355		124408.07	124408.07	14.98		Si
SLV 3	1.39	3447.14	-33609	-0.0000306	0.0006738	0.0035	6.355		102717.66	102717.66	29.8		Si
SLV 13	-1.3	12256.95	-47096	-0.0000493	0.0006738	0.0035	6.355		137508.88	137508.88	11.22		Si
SLV 13	0.05	7561.6	-38858	-0.0000384	0.0006738	0.0035	6.355		116933.9	116933.9	15.46		Si
SLV 13	1.39	6024.34	-33448	-0.0000325	0.0006738	0.0035	6.355		102277.54	102277.54	16.98		Si
SLV 14	-1.3	12257.63	-47124	-0.0000493	0.0006738	0.0035	6.355		137572.85	137572.85	11.22		Si
SLV 14	0.05	7612.94	-38894	-0.0000384	0.0006738	0.0035	6.355		117033.15	117033.15	15.37		Si
SLV 14	1.39	6110.8	-33469	-0.0000326	0.0006738	0.0035	6.355		102336.03	102336.03	16.75		Si
SLV 11	-1.3	37709.51	-55754	-0.0000779	0.0006738	0.0035	6.355		157702.26	157702.26	4.18		Si
SLV 11	0.05	16369.03	-43264	-0.0000493	0.0006738	0.0035	6.355		128571.68	128571.68	7.85		Si
SLV 11	1.39	2347.71	-33697	-0.0000298	0.0006738	0.0035	6.355		102960.22	102960.22	43.86		Si
SLV 4	-1.3	21511.49	-51961	-0.0000611	0.0006738	0.0035	6.355		148855.84	148855.84	6.92		Si
SLV 4	0.05	8358.98	-41710	-0.0000415	0.0006738	0.0035	6.355		124505.68	124505.68	14.89		Si
SLV 4	1.39	3533.61	-33630	-0.0000307	0.0006738	0.0035	6.355		102776.15	102776.15	29.09		Si
SLV 15	-1.3	24484.68	-50930	-0.0000626	0.0006738	0.0035	6.355		146450.83	146450.83	5.98		Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 15	0.05	12266.09	-40741	-0.0000438	0.0006738	0.0035	6.355		121940.55	121940.55	9.94		Si
SLV 15	1.39	4497.19	-33554	-0.0000314	0.0006738	0.0035	6.355		102568.64	102568.64	22.81		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 80	-1.3	24578.8	-76207	-53191	-13723	6.355	6.355	-32192	10833	30821	81562	59380	32410	91790	No	6.69	Si
SLU 80	0.05	11760.08	-65360	-45620	-13927	6.355	6.355	-27610	10833	27792	81562	59380	32410	91790	No	6.59	Si
SLU 80	1.39	7213.33	-57912	-40421	-13960	6.355	6.355	-24464	10833	25713	81562	59380	32410	91790	No	6.58	Si
SLU 83	-1.3	25927.67	-82406	-57518	-14313	6.355	6.355	-34811	10833	32551	81562	59380	32410	91790	No	6.41	Si
SLU 83	0.05	12502.87	-72223	-50410	-14525	6.355	6.355	-30509	10833	29708	81562	59380	32410	91790	No	6.32	Si
SLU 83	1.39	7768.08	-65482	-45706	-14563	6.355	6.355	-27662	10833	27826	81562	59380	32410	91790	No	6.3	Si
SLU 74	-1.3	24561.95	-76220	-53201	-13732	6.355	6.355	-32198	10833	30824	81562	59380	32410	91790	No	6.68	Si
SLU 74	0.05	11740.98	-65375	-45631	-13936	6.355	6.355	-27617	10833	27797	81562	59380	32410	91790	No	6.59	Si
SLU 74	1.39	7210.74	-57924	-40430	-13974	6.355	6.355	-24469	10833	25716	81562	59380	32410	91790	No	6.57	Si
SLU 75	-1.3	24578.8	-76207	-53191	-13723	6.355	6.355	-32192	10833	30821	81562	59380	32410	91790	No	6.69	Si
SLU 75	0.05	11760.08	-65360	-45620	-13927	6.355	6.355	-27610	10833	27792	81562	59380	32410	91790	No	6.59	Si
SLU 75	1.39	7213.33	-57912	-40421	-13960	6.355	6.355	-24464	10833	25713	81562	59380	32410	91790	No	6.58	Si
SLU 82	-1.3	25944.52	-82392	-57509	-14304	6.355	6.355	-34805	10833	32547	81562	59380	32410	91790	No	6.42	Si
SLU 82	0.05	12521.97	-72208	-50400	-14515	6.355	6.355	-30503	10833	29704	81562	59380	32410	91790	No	6.32	Si
SLU 82	1.39	7770.67	-65469	-45697	-14549	6.355	6.355	-27656	10833	27823	81562	59380	32410	91790	No	6.31	Si
SLU 78	-1.3	24578.8	-76207	-53191	-13723	6.355	6.355	-32192	10833	30821	81562	59380	32410	91790	No	6.69	Si
SLU 78	0.05	11760.08	-65360	-45620	-13927	6.355	6.355	-27610	10833	27792	81562	59380	32410	91790	No	6.59	Si
SLU 78	1.39	7213.33	-57912	-40421	-13960	6.355	6.355	-24464	10833	25713	81562	59380	32410	91790	No	6.58	Si
SLU 84	-1.3	25944.52	-82392	-57509	-14304	6.355	6.355	-34805	10833	32547	81562	59380	32410	91790	No	6.42	Si
SLU 84	0.05	12521.97	-72208	-50400	-14515	6.355	6.355	-30503	10833	29704	81562	59380	32410	91790	No	6.32	Si
SLU 84	1.39	7770.67	-65469	-45697	-14549	6.355	6.355	-27656	10833	27823	81562	59380	32410	91790	No	6.31	Si
SLU 79	-1.3	24561.95	-76220	-53201	-13732	6.355	6.355	-32198	10833	30824	81562	59380	32410	91790	No	6.68	Si
SLU 79	0.05	11740.98	-65375	-45631	-13936	6.355	6.355	-27617	10833	27797	81562	59380	32410	91790	No	6.59	Si
SLU 79	1.39	7210.74	-57924	-40430	-13974	6.355	6.355	-24469	10833	25716	81562	59380	32410	91790	No	6.57	Si
SLU 81	-1.3	25927.67	-82406	-57518	-14313	6.355	6.355	-34811	10833	32551	81562	59380	32410	91790	No	6.41	Si
SLU 81	0.05	12502.87	-72223	-50410	-14525	6.355	6.355	-30509	10833	29708	81562	59380	32410	91790	No	6.32	Si
SLU 81	1.39	7768.08	-65482	-45706	-14563	6.355	6.355	-27662	10833	27826	81562	59380	32410	91790	No	6.3	Si
SLU 77	-1.3	24561.95	-76220	-53201	-13732	6.355	6.355	-32198	10833	30824	81562	59380	32410	91790	No	6.68	Si
SLU 77	0.05	11740.98	-65375	-45631	-13936	6.355	6.355	-27617	10833	27797	81562	59380	32410	91790	No	6.59	Si
SLU 77	1.39	7210.74	-57924	-40430	-13974	6.355	6.355	-24469	10833	25716	81562	59380	32410	91790	No	6.57	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 9	-1.3	-3049.59	-42974	-29996	-26177	6.355	6.355	-18154	16131	26315	81562	89069	32410	107877		4.12	Si
SLV 9	0.05	687.4	-36986	-25816	-24544	6.355	6.355	-15624	15625	24643	81562	89069	32410	106205		4.33	Si
SLV 9	1.39	7438.21	-33343	-23273	-25255	6.355	6.355	-14085	15317	23626	81562	89069	32410	105188		4.17	Si
SLV 5	-1.3	-3941.75	-43275	-30206	-26778	6.355	6.355	-18281	16156	26399	81562	89069	32410	107961		4.03	Si
SLV 5	0.05	-500.14	-37266	-26011	-25150	6.355	6.355	-15742	15648	24721	81562	89069	32410	106283		4.23	Si
SLV 5	1.39	7123.19	-33359	-23284	-25795	6.355	6.355	-14092	15318	23631	81562	89069	32410	105192		4.08	Si
SLV 12	-1.3	37710.2	-55782	-38935	7310	6.355	6.355	-23564	16250	29891	81562	89069	32410	111452		15.25	Si
SLV 12	0.05	16420.71	-43301	-30224	5390	6.355	6.355	-18292	16158	26406	81562	89069	32410	107968		20.03	Si
SLV 12	1.39	2434.75	-33719	-23535	5982	6.355	6.355	-14244	15349	23731	81562	89069	32410	105293		17.6	Si
SLV 11	-1.3	37709.51	-55754	-38916	7545	6.355	6.355	-23552	16250	29883	81562	89069	32410	111445		14.77	Si
SLV 11	0.05	16369.03	-43264	-30198	5626	6.355	6.355	-18276	16155	26396	81562	89069	32410	107958		19.19	Si
SLV 11	1.39	2347.71	-33697	-23520	6218	6.355	6.355	-14235	15347	23725	81562	89069	32410	105287		16.93	Si
SLV 10	-1.3	-3048.91	-43002	-30015	-26413	6.355	6.355	-18165	16133	26323	81562	89069	32410	107884		4.08	Si
SLV 10	0.05	739.08	-37023	-25842	-24780	6.355	6.355	-15640	15628	24654	81562	89069	32410	106215		4.29	Si
SLV 10	1.39	7525.25	-33364	-23288	-25490	6.355	6.355	-14094	15319	23632	81562	89069	32410	105194		4.13	Si
SLV 14	-1.3	12257.63	-47124	-32892	-13908	6.355	6.355	-19907	16250	27474	81562	89069	32410	109035		7.84	Si
SLV 14	0.05	7612.94	-38894	-27148	-13513	6.355	6.355	-16430	15786	25176	81562	89069	32410	106738		7.9	Si
SLV 14	1.39	6110.8	-33469	-23361	-13843	6.355	6.355	-14138	15328	23661	81562	89069	32410	105223		7.6	Si
SLV 6	-1.3	-3941.07	-43303	-30225	-27013	6.355	6.355	-18293	16159	26407	81562	89069	32410	107969		4	Si
SLV 6	0.05	-448.46	-37303	-26037	-25386	6.355	6.355	-15758	15652	24732	81562	89069	32410	106293		4.19	Si
SLV 6	1.39	7210.23	-33380	-23299	-26031	6.355	6.355	-14101	15320	23637	81562	89069	32410	105198		4.04	Si
SLV 13	-1.3	12256.95	-47096	-32872	-13675	6.355	6.355	-19895	16250	27466	81562	89069	32410	109027		7.97	Si
SLV 13	0.05	7561.6	-38858	-27122	-13278	6.355	6.355	-16415	15783	25166	81562	89069	32410	106727		8.04	Si
SLV 13	1.39	6024.34	-33448	-23346	-13609	6.355	6.355	-14129	15326	23655	81562	89069	32410	105217		7.73	Si
SLV 2	-1.3	9283.76	-48127	-33592	-15910	6.355	6.355	-20331	16250	27754	81562	89069	32410	109315		6.87	Si
SLV 2	0.05	3654.49	-39826	-27798	-15533	6.355	6.355	-16824	15865	25436	81562	89069	32410	106998		6.89	Si
SLV 2	1.39	5060.76	-33524	-23399	-15646	6.355	6.355	-14161	15332	23677	81562	89069	32410	105238		6.73	Si
SLV 1	-1.3	9283.08	-48100	-33573	-15676	6.355	6.355	-20319	16250	27746	81562	89069	32410	109308		6.97	Si
SLV 1	0.05	3603.14	-39790	-27773	-15298	6.355	6.355	-16808	15862	25426	81562	89069	32410	106988		6.99	Si
SLV 1	1.39	4974.29	-33502	-23384	-15412	6.355	6.355	-14152	15330	23671	81562	89069	32410	105232		6.83	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 0.045 Ta 0.05 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 9	-36986	0.25	237.6	4220.98	6026.29	5123.64	21.56	Si
SLV 10	-37023	0.25	237.6	4224.63	6031.41	5128.02	21.58	Si
SLV 5	-37266	0.25	237.6	4248.42	6064.89	5156.65	21.7	Si
SLV 6	-37303	0.25	237.6	4252.06	6070.01	5161.03	21.72	Si
SLV 13	-38858	0.25	237.6	4403.31	6284.7	5344.01	22.49	Si
SLV 14	-38894	0.25	237.6	4406.87	6289.8	5348.33	22.51	Si
SLV 1	-39790	0.25	237.6	4493.01	6413.51	5453.26	22.95	Si
SLV 2	-39826	0.25	237.6	4496.54	6418.61	5457.57	22.97	Si
SLV 15	-40741	0.25	237.6	4583.79	6545.04	5564.42	23.42	Si
SLV 16	-40778	0.25	237.6	4587.29	6550.14	5568.72	23.44	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.05 Ta = 0.0465

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 16	-33575	-50958	941	0.978	4045.7	0.955	14.89579	5.1112	Si
SLV 4	-33630	-51961	-884	0.979	4051.2	0.955	14.89756	5.1112	Si
SLV 15	-33554	-50930	941	0.979	4043.5	0.955	14.90419	5.1112	Si
SLV 3	-33609	-51934	-884	0.979	4049.1	0.955	14.90594	5.1112	Si
SLV 2	-33524	-48127	-940	0.98	4040.4	0.955	14.91665	5.1112	Si
SLV 1	-33502	-48100	-940	0.98	4038.2	0.955	14.92507	5.1112	Si
SLV 14	-33469	-47124	885	0.983	4034.9	0.954	14.96047	5.1112	Si
SLV 13	-33448	-47096	885	0.983	4032.7	0.954	14.96893	5.1112	Si
SLV 12	-33719	-55782	368	0.99	4060.2	0.955	15.07114	4.96833	Si
SLV 11	-33697	-55754	368	0.991	4058.1	0.955	15.07967	4.96833	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	7.429	SLU 44	Si
V_SLU	6.303	SLU 81	Si
PF_SLV	4.182	SLV 11	Si
V_SLV	3.997	SLV 6	Si
PFFP_SLV	21.564	SLV 9	Si
R_SLV	2.914	SLV 16	Si

Maschio 18

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.838	-3.854	-26.838	-2.079	L1	L2	1.775	0.3	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 60	-1.3	9909.67	-19333	-0.0001855	0.0004492	0.0035	1.775	12059.82	14410.46	14410.46	1.45	No	Si
SLU 60	0.05	854.6	-13116	-0.0000429	0.0004492	0.0035	1.775	9294.09	10414.86	10414.86	12.19	No	Si
SLU 60	1.39	-3369.44	-6888	-0.0000551	0.0004492	0.0035	1.42	5466.14	7361.05	7361.05	2.18	No	Si
SLU 45	-1.3	8497.68	-16136	-0.0001564	0.0004492	0.0035	1.775	10769.19	12355.67	12355.67	1.45	No	Si
SLU 45	0.05	738.16	-10800	-0.0000354	0.0004492	0.0035	1.775	7994.09	8926.22	8926.22	12.09	No	Si
SLU 45	1.39	-2650.23	-5566	-0.0000427	0.0004492	0.0035	1.775	4517.37	6340.77	6340.77	2.39	No	Si
SLU 58	-1.3	9486.07	-18374	-0.0001765	0.0004492	0.0035	1.775	11701.91	13794.02	13794.02	1.45	No	Si
SLU 58	0.05	819.67	-12421	-0.0000407	0.0004492	0.0035	1.775	8919.46	9968.27	9968.27	12.16	No	Si
SLU 58	1.39	-3153.67	-6492	-0.0000513	0.0004492	0.0035	1.775	5186.52	7054.97	7054.97	2.24	No	Si
SLU 50	-1.3	8497.68	-16136	-0.0001564	0.0004492	0.0035	1.775	10769.19	12355.67	12355.67	1.45	No	Si
SLU 50	0.05	738.16	-10800	-0.0000354	0.0004492	0.0035	1.775	7994.09	8926.22	8926.22	12.09	No	Si
SLU 50	1.39	-2650.23	-5566	-0.0000427	0.0004492	0.0035	1.775	4517.37	6340.77	6340.77	2.39	No	Si
SLU 48	-1.3	8497.68	-16136	-0.0001564	0.0004492	0.0035	1.775	10769.19	12355.67	12355.67	1.45	No	Si
SLU 48	0.05	738.16	-10800	-0.0000354	0.0004492	0.0035	1.775	7994.09	8926.22	8926.22	12.09	No	Si
SLU 48	1.39	-2650.23	-5566	-0.0000427	0.0004492	0.0035	1.775	4517.37	6340.77	6340.77	2.39	No	Si
SLU 62	-1.3	9909.67	-19333	-0.0001855	0.0004492	0.0035	1.775	12059.82	14410.46	14410.46	1.45	No	Si
SLU 62	0.05	854.6	-13116	-0.0000429	0.0004492	0.0035	1.775	9294.09	10414.86	10414.86	12.19	No	Si
SLU 62	1.39	-3369.44	-6888	-0.0000551	0.0004492	0.0035	1.42	5466.14	7361.05	7361.05	2.18	No	Si
SLU 53	-1.3	9486.07	-18374	-0.0001765	0.0004492	0.0035	1.775	11701.91	13794.02	13794.02	1.45	No	Si
SLU 53	0.05	819.67	-12421	-0.0000407	0.0004492	0.0035	1.775	8919.46	9968.27	9968.27	12.16	No	Si
SLU 53	1.39	-3153.67	-6492	-0.0000513	0.0004492	0.0035	1.775	5186.52	7054.97	7054.97	2.24	No	Si
SLU 63	-1.3	9914.92	-19368	-0.0001855	0.0004492	0.0035	1.775	12072.41	14432.96	14432.96	1.46	No	Si
SLU 63	0.05	858.24	-13137	-0.000043	0.0004492	0.0035	1.775	9305.23	10428.38	10428.38	12.15	No	Si
SLU 63	1.39	-3370.07	-6886	-0.0000551	0.0004492	0.0035	1.42	5464.48	7359.22	7359.22	2.18	No	Si
SLU 56	-1.3	9486.07	-18374	-0.0001765	0.0004492	0.0035	1.775	11701.91	13794.02	13794.02	1.45	No	Si
SLU 56	0.05	819.67	-12421	-0.0000407	0.0004492	0.0035	1.775	8919.46	9968.27	9968.27	12.16	No	Si
SLU 56	1.39	-3153.67	-6492	-0.0000513	0.0004492	0.0035	1.775	5186.52	7054.97	7054.97	2.24	No	Si
SLU 43	-1.3	8497.68	-16136	-0.0001564	0.0004492	0.0035	1.775	10769.19	12355.67	12355.67	1.45	No	Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 43	0.05	738.16	-10800	-0.0000354	0.0004492	0.0035	1.775	7994.09	8926.22	8926.22	12.09	No	Si
SLU 43	1.39	-2650.23	-5566	-0.0000427	0.0004492	0.0035	1.775	4517.37	6340.77	6340.77	2.39	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 7	-1.3	8201.31	-12353	-0.000188	0.0006738	0.0035	1.775		10350.55	10350.55	1.26		Si
SLV 7	0.05	443.67	-7044	-0.0000223	0.0006738	0.0035	1.775		6250.76	6250.76	14.09		Si
SLV 7	1.39	-2260.71	-4298	-0.0000369	0.0006738	0.0035	1.42		5360.27	5360.27	2.37		Si
SLV 2	-1.3	6412.7	-11894	-0.0001108	0.0006738	0.0035	1.775		10007.27	10007.27	1.56		Si
SLV 2	0.05	422.88	-8664	-0.0000264	0.0006738	0.0035	1.775		7535.29	7535.29	17.82		Si
SLV 2	1.39	-2196.69	-5103	-0.0000346	0.0006738	0.0035	1.775		6020.87	6020.87	2.74		Si
SLV 15	-1.3	7901.91	-15873	-0.0001341	0.0006738	0.0035	1.775		12736.27	12736.27	1.61		Si
SLV 15	0.05	823.98	-10108	-0.0000339	0.0006738	0.0035	1.775		8654.41	8654.41	10.5		Si
SLV 15	1.39	-2484.92	-4669	-0.0000409	0.0006738	0.0035	1.42		5665.6	5665.6	2.28		Si
SLV 11	-1.3	8426.08	-13674	-0.0001695	0.0006738	0.0035	1.775		11307.86	11307.86	1.34		Si
SLV 11	0.05	580.11	-7839	-0.0000256	0.0006738	0.0035	1.775		6884.49	6884.49	11.87		Si
SLV 11	1.39	-2364.33	-4312	-0.0000395	0.0006738	0.0035	1.42		5371.67	5371.67	2.27		Si
SLV 8	-1.3	8134.77	-12213	-0.0001876	0.0006738	0.0035	1.775		10246.27	10246.27	1.26		Si
SLV 8	0.05	424.61	-7101	-0.0000223	0.0006738	0.0035	1.775		6296.71	6296.71	14.83		Si
SLV 8	1.39	-2318.69	-4488	-0.0000376	0.0006738	0.0035	1.42		5516.72	5516.72	2.38		Si
SLV 4	-1.3	7086.57	-11330	-0.0001431	0.0006738	0.0035	1.775		9583.92	9583.92	1.35		Si
SLV 4	0.05	350.24	-7515	-0.0000227	0.0006738	0.0035	1.775		6627.95	6627.95	18.92		Si
SLV 4	1.39	-2197.11	-4811	-0.0000346	0.0006738	0.0035	1.775		5783.01	5783.01	2.63		Si
SLV 12	-1.3	8359.54	-13534	-0.0001686	0.0006738	0.0035	1.775		11216.97	11216.97	1.34		Si
SLV 12	0.05	561.05	-7896	-0.0000256	0.0006738	0.0035	1.775		6929.72	6929.72	12.35		Si
SLV 12	1.39	-2422.32	-4502	-0.00004	0.0006738	0.0035	1.42		5528.13	5528.13	2.28		Si
SLV 1	-1.3	6478.8	-12033	-0.0001119	0.0006738	0.0035	1.775		10111.58	10111.58	1.56		Si
SLV 1	0.05	441.82	-8607	-0.0000264	0.0006738	0.0035	1.775		7490.36	7490.36	16.95		Si
SLV 1	1.39	-2139.08	-4914	-0.0000337	0.0006738	0.0035	1.775		5867.4	5867.4	2.74		Si
SLV 16	-1.3	7835.81	-15734	-0.0001328	0.0006738	0.0035	1.775		12645.98	12645.98	1.61		Si
SLV 16	0.05	805.04	-10165	-0.0000339	0.0006738	0.0035	1.775		8697.9	8697.9	10.8		Si
SLV 16	1.39	-2542.53	-4857	-0.0000415	0.0006738	0.0035	1.42		5821.03	5821.03	2.29		Si
SLV 3	-1.3	7152.67	-11469	-0.0001439	0.0006738	0.0035	1.775		9688.23	9688.23	1.35		Si
SLV 3	0.05	369.18	-7458	-0.0000227	0.0006738	0.0035	1.775		6582.31	6582.31	17.83		Si
SLV 3	1.39	-2139.5	-4622	-0.0000337	0.0006738	0.0035	1.775		5627.58	5627.58	2.63		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 84	-1.3	10530.5	-20882	-15187	11051	1.775	1.1497	-28520	10833	6100	81562	19137	9052	28189	No	2.55	Si
SLU 84	0.05	917.07	-14257	-10369	11406	1.775	1.775	-19472	10833	4816	81562	19137	9052	28189	No	2.47	Si
SLU 84	1.39	-3658.22	-7504	-5457	6427	1.775	1.1999	-15307	10375	3506	81562	19137	9052	28189	No	4.39	Si
SLU 75	-1.3	10106.9	-19923	-14489	10556	1.775	1.1406	-27210	10833	5914	81562	19137	9052	28189	No	2.67	Si
SLU 75	0.05	882.14	-13563	-9864	10894	1.775	1.775	-18523	10803	4681	81562	19137	9052	28189	No	2.59	Si
SLU 75	1.39	-3442.46	-7107	-5169	5985	1.775	1.2094	-14376	10251	3429	81562	19137	9052	28189	No	4.71	Si
SLU 81	-1.3	10525.24	-20847	-15162	11039	1.775	1.1479	-28472	10833	6094	81562	19137	9052	28189	No	2.55	Si
SLU 81	0.05	913.43	-14236	-10354	11394	1.775	1.775	-19444	10833	4812	81562	19137	9052	28189	No	2.47	Si
SLU 81	1.39	-3657.59	-7506	-5459	6405	1.775	1.2006	-15303	10374	3506	81562	19137	9052	28189	No	4.4	Si
SLU 76	-1.3	10110.41	-19946	-14506	10564	1.775	1.1419	-27242	10833	5919	81562	19137	9052	28189	No	2.67	Si
SLU 76	0.05	884.57	-13577	-9874	10903	1.775	1.775	-18542	10806	4684	81562	19137	9052	28189	No	2.59	Si
SLU 76	1.39	-3442.88	-7105	-5168	5999	1.775	1.2089	-14379	10251	3429	81562	19137	9052	28189	No	4.7	Si
SLU 83	-1.3	10525.24	-20847	-15162	11039	1.775	1.1479	-28472	10833	6094	81562	19137	9052	28189	No	2.55	Si
SLU 83	0.05	913.43	-14236	-10354	11394	1.775	1.775	-19444	10833	4812	81562	19137	9052	28189	No	2.47	Si
SLU 83	1.39	-3657.59	-7506	-5459	6405	1.775	1.2006	-15303	10374	3506	81562	19137	9052	28189	No	4.4	Si
SLU 77	-1.3	10101.65	-19888	-14464	10543	1.775	1.1387	-27162	10833	5908	81562	19137	9052	28189	No	2.67	Si
SLU 77	0.05	878.5	-13542	-9848	10882	1.775	1.775	-18495	10799	4677	81562	19137	9052	28189	No	2.59	Si
SLU 77	1.39	-3441.83	-7109	-5170	5964	1.775	1.2101	-14372	10250	3429	81562	19137	9052	28189	No	4.73	Si
SLU 73	-1.3	10110.41	-19946	-14506	10564	1.775	1.1419	-27242	10833	5919	81562	19137	9052	28189	No	2.67	Si
SLU 73	0.05	884.57	-13577	-9874	10903	1.775	1.775	-18542	10806	4684	81562	19137	9052	28189	No	2.59	Si
SLU 73	1.39	-3442.88	-7105	-5168	5999	1.775	1.2089	-14379	10251	3429	81562	19137	9052	28189	No	4.7	Si
SLU 80	-1.3	10106.9	-19923	-14489	10556	1.775	1.1406	-27210	10833	5914	81562	19137	9052	28189	No	2.67	Si
SLU 80	0.05	882.14	-13563	-9864	10894	1.775	1.775	-18523	10803	4681	81562	19137	9052	28189	No	2.59	Si
SLU 80	1.39	-3442.46	-7107	-5169	5985	1.775	1.2094	-14376	10251	3429	81562	19137	9052	28189	No	4.71	Si
SLU 78	-1.3	10106.9	-19923	-14489	10556	1.775	1.1406	-27210	10833	5914	81562	19137	9052	28189	No	2.67	Si
SLU 78	0.05	882.14	-13563	-9864	10894	1.775	1.775	-18523	10803	4681	81562	19137	9052	28189	No	2.59	Si
SLU 78	1.39	-3442.46	-7107	-5169	5985	1.775	1.2094	-14376	10251	3429	81562	19137	9052	28189	No	4.71	Si
SLU 82	-1.3	10530.5	-20882	-15187	11051	1.775	1.1497	-28520	10833	6100	81562	19137	9052	28189	No	2.55	Si
SLU 82	0.05	917.07	-14257	-10369	11406	1.775	1.775	-19472	10833	4816	81562	19137	9052	28189	No	2.47	Si
SLU 82	1.39	-3658.22	-7504	-5457	6427	1.775	1.1999	-15307	10375	3506	81562	19137	9052	28189	No	4.39	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 14	-1.3	7161.94	-16298	-11853	7729	1.775	1.3442	-22259	16250	6237	81562	28705	9052	37758		4.89	Si
SLV 14	0.05	877.68	-11315	-8229	8027	1.775	1.775	-15454	15591	5271	81562	28705	9052	37758		4.7	Si
SLV 14	1.39	-2542.11	-5149	-3744	5425	1.42	1.1813	0	0	0	81562	22964	7242	30206		5.57	Si
SLV 3	-1.3	7152.67	-11469	-8341	7073	1.775	0.7916	-15664	15633	5300	81562	28705	9052	37758		5.34	Si
SLV 3	0.05	369.18	-7458	-5424	7246	1.775	1.775	-10185	14537	4522	81562	28705	9052	37758		5.21	Si
SLV 3	1.39	-2139.5	-4622	-3362	2497	1.775	1.2739	-8827	14266	3973	81562	28705	9052	37758		15.12	Si
SLV 8	-1.3	8134.77	-12213	-8882	8339	1.775	0.6642	-16680	15836	5445	81562	28705	9052	37758		4.53	Si
SLV 8	0.05	424.61	-7101	-5164	8403	1.775	1.775	-9698	14440	4453	81562	28705	9052	37758		4.49	Si
SLV 8	1.39	-2318.69	-4488	-3264	2741	1.42	1.1125	0	0	0	81562	22964	7242	30206		11.02	Si
SLV 11	-1.3	8426.08	-13674	-9945	8988	1.775	0.8138	-18675	16235	5728	81562	28705	9052	37758		4.2	Si
SLV 11	0.05	580.11	-7839	-5701	9054	1.775	1.775	-10706	14641	4596	81562	28705	9052	37758		4.17	Si
SLV 11	1.39	-2364.33	-4312	-3136	3575	1.42	1.0174	0	0	0	81562	22964	7242	30206		8.45	Si
SLV 4	-1.3	7086.57	-11330	-8240	6901	1.775	0.7861	-15474	15595	5273	81562	28705	9052	37758		5.47	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 4	0.05	350.24	-7515	-5465	7077	1.775	1.775	-10263	14553	4533	81562	28705	9052	37758		5.34	Si
SLV 4	1.39	-2197.11	-4811	-3499	2420	1.775	1.2925	-9057	14312	4009	81562	28705	9052	37758		15.6	Si
SLV 7	-1.3	8201.31	-12353	-8984	8512	1.775	0.6707	-16871	15874	5472	81562	28705	9052	37758		4.44	Si
SLV 7	0.05	443.67	-7044	-5123	8573	1.775	1.775	-9620	14424	4442	81562	28705	9052	37758		4.4	Si
SLV 7	1.39	-2260.71	-4298	-3126	2818	1.42	1.0845	0	0	0	81562	22964	7242	30206		10.72	Si
SLV 16	-1.3	7835.81	-15734	-11443	8486	1.775	1.1684	-21489	16250	6127	81562	28705	9052	37758		4.45	Si
SLV 16	0.05	805.04	-10165	-7393	8683	1.775	1.775	-13884	15277	5048	81562	28705	9052	37758		4.35	Si
SLV 16	1.39	-2542.53	-4857	-3533	4943	1.42	1.0921	0	0	0	81562	22964	7242	30206		6.11	Si
SLV 13	-1.3	7228.04	-16437	-11954	7901	1.775	1.3433	-22449	16250	6264	81562	28705	9052	37758		4.78	Si
SLV 13	0.05	896.62	-11258	-8188	8196	1.775	1.775	-15376	15575	5259	81562	28705	9052	37758		4.61	Si
SLV 13	1.39	-2484.5	-4960	-3607	5502	1.42	1.1598	0	0	0	81562	22964	7242	30206		5.49	Si
SLV 15	-1.3	7901.91	-15873	-11544	8659	1.775	1.169	-21679	16250	6154	81562	28705	9052	37758		4.36	Si
SLV 15	0.05	823.98	-10108	-7352	8851	1.775	1.775	-13806	15261	5036	81562	28705	9052	37758		4.27	Si
SLV 15	1.39	-2484.92	-4669	-3395	5020	1.42	1.0657	0	0	0	81562	22964	7242	30206		6.02	Si
SLV 12	-1.3	8359.54	-13534	-9843	8814	1.775	0.8095	-18484	16197	5701	81562	28705	9052	37758		4.28	Si
SLV 12	0.05	561.05	-7896	-5743	8885	1.775	1.775	-10784	14657	4607	81562	28705	9052	37758		4.25	Si
SLV 12	1.39	-2422.32	-4502	-3274	3498	1.42	1.0482	0	0	0	81562	22964	7242	30206		8.64	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 0.045 Ta 0.04 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 7	-7044	0.25	75.9	980.29	1386.62	1183.45	15.59	Si
SLV 8	-7101	0.25	75.9	987.65	1395.89	1191.77	15.7	Si
SLV 3	-7458	0.25	75.9	1033.15	1453.42	1243.29	16.38	Si
SLV 4	-7515	0.25	75.9	1040.39	1462.62	1251.5	16.49	Si
SLV 11	-7839	0.25	75.9	1081.39	1514.95	1298.17	17.1	Si
SLV 12	-7896	0.25	75.9	1088.61	1524.21	1306.41	17.21	Si
SLV 1	-8607	0.25	75.9	1177.25	1638.98	1408.11	18.55	Si
SLV 2	-8664	0.25	75.9	1184.28	1648.18	1416.23	18.66	Si
SLV 15	-10108	0.25	75.9	1359.22	1879.73	1619.48	21.34	Si
SLV 16	-10165	0.25	75.9	1366	1888.83	1627.41	21.44	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.05 Ta = 0.0403

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 14	-5149	-16298	523	1.534	729.3	0.926	24.0862	4.58505	Si
SLV 2	-5103	-11894	-528	1.544	724.6	0.925	24.24969	4.58505	Si
SLV 6	-5459	-14093	-169	1.519	760.6	0.928	23.77898	4.47577	Si
SLV 10	-5473	-15414	147	1.519	762	0.928	23.78051	4.47577	Si
SLV 13	-4960	-16437	522	1.579	710.3	0.924	24.82875	4.58505	Si
SLV 1	-4914	-12033	-528	1.589	705.6	0.924	25.00203	4.58505	Si
SLV 5	-5269	-14233	-169	1.561	741.4	0.927	24.48028	4.47577	Si
SLV 9	-5283	-15554	146	1.561	742.8	0.927	24.48135	4.47577	Si
SLV 16	-4857	-15734	530	1.603	699.9	0.923	25.23418	4.58505	Si
SLV 4	-4811	-11330	-521	1.617	695.3	0.923	25.45108	4.58505	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.454	SLU 43	Si
V_SLU	2.471	SLU 82	Si
PF_SLV	1.26	SLV 8	Si
V_SLV	4.17	SLV 11	Si
PFFP_SLV	15.592	SLV 7	Si
R_SLV	5.253	SLV 14	Si

Maschio 20

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-24.603	-3.177	-25.893	-3.854	L1	L2	1.457	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 81	-1.3	-1336.22	-9013	-0.0000328	0.0003743	0.0035	1.4567	5677.72	6979.18	6979.18	5.22	No	Si
SLU 81	0.05	-401.62	-7273	-0.0000199	0.0003743	0.0035	1.4567	4720.04	5917.24	5917.24	14.73	No	Si
SLU 81	1.39	-167.02	-5617	-0.000014	0.0003743	0.0035	1.4567	3746.54	4854.45	4854.45	29.07	No	Si
SLU 73	-1.3	-1272.57	-8675	-0.0000314	0.0003743	0.0035	1.4567	5496.97	6773.02	6773.02	5.32	No	Si
SLU 73	0.05	-402.37	-6919	-0.0000191	0.0003743	0.0035	1.4567	4516.78	5691.6	5691.6	14.15	No	Si
SLU 73	1.39	-194.13	-5220	-0.0000133	0.0003743	0.0035	1.4567	3504.57	4599.46	4599.46	23.69	No	Si
SLU 42	-1.3	-1168.4	-7591	-0.0000279	0.0003743	0.0035	1.4567	4899.79	6111.09	6111.09	5.23	No	Si
SLU 42	0.05	-305.89	-6304	-0.0000168	0.0003743	0.0035	1.4567	4157.47	5296.07	5296.07	17.31	No	Si
SLU 42	1.39	-59.85	-5131	-0.0000119	0.0003743	0.0035	1.4567	3449.99	4542.44	4542.44	75.9	No	Si
SLU 84	-1.3	-1347.27	-9042	-0.000033	0.0003743	0.0035	1.4567	5693.21	6996.98	6996.98	5.19	No	Si
SLU 84	0.05	-400.24	-7313	-0.00002	0.0003743	0.0035	1.4567	4742.91	5941.77	5941.77	14.85	No	Si
SLU 84	1.39	-157.75	-5670	-0.000014	0.0003743	0.0035	1.4567	3778.92	4888.86	4888.86	30.99	No	Si
SLU 41	-1.3	-1157.35	-7562	-0.0000277	0.0003743	0.0035	1.4567	4883.38	6093.29	6093.29	5.26	No	Si
SLU 41	0.05	-307.27	-6263	-0.0000167	0.0003743	0.0035	1.4567	4133.72	5270.24	5270.24	17.15	No	Si
SLU 41	1.39	-69.11	-5078	-0.0000119	0.0003743	0.0035	1.4567	3416.98	4508.04	4508.04	65.23	No	Si
SLU 83	-1.3	-1336.22	-9013	-0.0000328	0.0003743	0.0035	1.4567	5677.72	6979.18	6979.18	5.22	No	Si
SLU 83	0.05	-401.62	-7273	-0.0000199	0.0003743	0.0035	1.4567	4720.04	5917.24	5917.24	14.73	No	Si
SLU 83	1.39	-167.02	-5617	-0.000014	0.0003743	0.0035	1.4567	3746.54	4854.45	4854.45	29.07	No	Si
SLU 82	-1.3	-1347.27	-9042	-0.000033	0.0003743	0.0035	1.4567	5693.21	6996.98	6996.98	5.19	No	Si
SLU 82	0.05	-400.24	-7313	-0.00002	0.0003743	0.0035	1.4567	4742.91	5941.77	5941.77	14.85	No	Si
SLU 82	1.39	-157.75	-5670	-0.000014	0.0003743	0.0035	1.4567	3778.92	4888.86	4888.86	30.99	No	Si
SLU 76	-1.3	-1272.57	-8675	-0.0000314	0.0003743	0.0035	1.4567	5496.97	6773.02	6773.02	5.32	No	Si
SLU 76	0.05	-402.37	-6919	-0.0000191	0.0003743	0.0035	1.4567	4516.78	5691.6	5691.6	14.15	No	Si
SLU 76	1.39	-194.13	-5220	-0.0000133	0.0003743	0.0035	1.4567	3504.57	4599.46	4599.46	23.69	No	Si
SLU 40	-1.3	-1168.4	-7591	-0.0000279	0.0003743	0.0035	1.4567	4899.79	6111.09	6111.09	5.23	No	Si
SLU 40	0.05	-305.89	-6304	-0.0000168	0.0003743	0.0035	1.4567	4157.47	5296.07	5296.07	17.31	No	Si
SLU 40	1.39	-59.85	-5131	-0.0000119	0.0003743	0.0035	1.4567	3449.99	4542.44	4542.44	75.9	No	Si
SLU 39	-1.3	-1157.35	-7562	-0.0000277	0.0003743	0.0035	1.4567	4883.38	6093.29	6093.29	5.26	No	Si
SLU 39	0.05	-307.27	-6263	-0.0000167	0.0003743	0.0035	1.4567	4133.72	5270.24	5270.24	17.15	No	Si
SLU 39	1.39	-69.11	-5078	-0.0000119	0.0003743	0.0035	1.4567	3416.98	4508.04	4508.04	65.23	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 15	-1.3	-1591.71	-7284	-0.0000308	0.0005615	0.0035	1.4567		6010.43	6010.43	3.78		Si
SLV 15	0.05	-67.48	-6936	-0.0000159	0.0005615	0.0035	1.4567		5780.83	5780.83	85.67		Si
SLV 15	1.39	370.81	-6863	-0.0000186	0.0005615	0.0035	1.4567		4976.36	4976.36	13.42		Si
SLV 7	-1.3	-829.76	-3298	-0.0000148	0.0005615	0.0035	1.4567		3348.08	3348.08	4.03		Si
SLV 7	0.05	-112.39	-2474	-0.0000064	0.0005615	0.0035	1.4567		2780.07	2780.07	24.74		Si
SLV 7	1.39	167.1	-2447	-0.0000069	0.0005615	0.0035	1.4567		1981.74	1981.74	11.86		Si
SLV 6	-1.3	-458.38	-7645	-0.0000211	0.0005615	0.0035	1.4567		6249.27	6249.27	13.63		Si
SLV 6	0.05	-610.89	-5199	-0.000017	0.0005615	0.0035	1.4567		4634.15	4634.15	7.59		Si
SLV 6	1.39	-836.67	-1931	-0.000014	0.0005615	0.0035	1.1653		2402.65	2402.65	2.87		Si
SLV 2	-1.3	-93.6	-4821	-0.0000114	0.0005615	0.0035	1.4567		4384.58	4384.58	46.84		Si
SLV 2	0.05	-561.37	-2348	-0.0000102	0.0005615	0.0035	1.4567		2692.88	2692.88	4.8		Si
SLV 2	1.39	-812.93	407	-0.0001706	0.0005615	0.0035	1.1653		753.42	753.42	0.93		No
SLV 12	-1.3	-1136.34	-4614	-0.0000205	0.0005615	0.0035	1.4567		4246.22	4246.22	3.74		Si
SLV 12	0.05	-60.62	-4033	-0.0000094	0.0005615	0.0035	1.4567		3851.03	3851.03	63.53		Si
SLV 12	1.39	215.05	-4254	-0.0000113	0.0005615	0.0035	1.4567		3229.78	3229.78	15.02		Si
SLV 3	-1.3	-267.83	-3410	-0.0000099	0.0005615	0.0035	1.4567		3425.06	3425.06	12.79		Si
SLV 3	0.05	-382.25	-1567	-0.0000069	0.0005615	0.0035	1.4567		2148.64	2148.64	5.62		Si
SLV 3	1.39	-387.33	64	-0.0000778	0.0005615	0.0035	1.1653		997.61	997.61	2.58		Si
SLV 4	-1.3	-177.83	-3563	-0.0000094	0.0005615	0.0035	1.4567		3530.53	3530.53	19.85		Si
SLV 4	0.05	-424.62	-1515	-0.0000072	0.0005615	0.0035	1.4567		2112.31	2112.31	4.97		Si
SLV 4	1.39	-565.65	333	-0.0001164	0.0005615	0.0035	1.1653		805.98	805.98	1.42		Si
SLV 11	-1.3	-1226.92	-4460	-0.0000211	0.0005615	0.0035	1.4567		4141.13	4141.13	3.38		Si
SLV 11	0.05	-17.96	-4085	-0.0000091	0.0005615	0.0035	1.4567		3886.63	3886.63	216.38		Si
SLV 11	1.39	394.55	-4525	-0.0000135	0.0005615	0.0035	1.4567		3412.85	3412.85	8.65		Si
SLV 1	-1.3	-183.59	-4668	-0.0000119	0.0005615	0.0035	1.4567		4282.37	4282.37	23.33		Si
SLV 1	0.05	-519	-2400	-0.00001	0.0005615	0.0035	1.4567		2728.92	2728.92	5.26		Si
SLV 1	1.39	-634.61	138	-0.0001301	0.0005615	0.0035	1.1653		945.32	945.32	1.49		Si
SLV 5	-1.3	-548.97	-7491	-0.0000216	0.0005615	0.0035	1.4567		6147.09	6147.09	11.2		Si
SLV 5	0.05	-568.23	-5252	-0.0000168	0.0005615	0.0035	1.4567		4668.76	4668.76	8.22		Si
SLV 5	1.39	-657.18	-2202	-0.0000109	0.0005615	0.0035	1.4567		2591.55	2591.55	3.94		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 40	-1.3	-1168.4	-7591	-6073	-484	1.4567	1.4567	-9264	8180	3723	81562	19629	7429	27058	No	55.91	Si
SLU 40	0.05	-305.89	-6304	-5043	-576	1.4567	1.4567	-7693	7970	3448	81562	19629	7429	27058	No	46.96	Si
SLU 40	1.39	-59.85	-5131	-4105	-475	1.4567	1.4567	-6263	7779	3198	81562	19629	7429	27058	No	56.93	Si
SLU 83	-1.3	-1336.22	-9013	-7210	-437	1.4567	1.4567	-10999	8411	4026	81562	19629	7429	27058	No	61.95	Si
SLU 83	0.05	-401.62	-7273	-5819	-551	1.4567	1.4567	-8877	8128	3655	81562	19629	7429	27058	No	49.13	Si
SLU 83	1.39	-167.02	-5617	-4493	-431	1.4567	1.4567	-6855	7858	3302	81562	19629	7429	27058	No	62.83	Si
SLU 42	-1.3	-1168.4	-7591	-6073	-484	1.4567	1.4567	-9264	8180	3723	81562	19629	7429	27058	No	55.91	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 42	0.05	-305.89	-6304	-5043	-576	1.4567	1.4567	-7693	7970	3448	81562	19629	7429	27058	No	46.96	Si
SLU 42	1.39	-59.85	-5131	-4105	-475	1.4567	1.4567	-6263	7779	3198	81562	19629	7429	27058	No	56.93	Si
SLU 31	-1.3	-1093.69	-7224	-5779	-410	1.4567	1.4567	-8816	8120	3645	81562	19629	7429	27058	No	66.01	Si
SLU 31	0.05	-308.02	-5909	-4727	-499	1.4567	1.4567	-7212	7906	3364	81562	19629	7429	27058	No	54.22	Si
SLU 31	1.39	-96.23	-4681	-3745	-404	1.4567	1.4567	-5713	7706	3102	81562	19629	7429	27058	No	67	Si
SLU 84	-1.3	-1347.27	-9042	-7233	-456	1.4567	1.4567	-11035	8416	4033	81562	19629	7429	27058	No	59.29	Si
SLU 84	0.05	-400.24	-7313	-5851	-570	1.4567	1.4567	-8926	8135	3664	81562	19629	7429	27058	No	47.5	Si
SLU 84	1.39	-157.75	-5670	-4536	-450	1.4567	1.4567	-6920	7867	3313	81562	19629	7429	27058	No	60.16	Si
SLU 81	-1.3	-1336.22	-9013	-7210	-437	1.4567	1.4567	-10999	8411	4026	81562	19629	7429	27058	No	61.95	Si
SLU 81	0.05	-401.62	-7273	-5819	-551	1.4567	1.4567	-8877	8128	3655	81562	19629	7429	27058	No	49.13	Si
SLU 81	1.39	-167.02	-5617	-4493	-431	1.4567	1.4567	-6855	7858	3302	81562	19629	7429	27058	No	62.83	Si
SLU 41	-1.3	-1157.35	-7562	-6049	-464	1.4567	1.4567	-9229	8175	3717	81562	19629	7429	27058	No	58.27	Si
SLU 41	0.05	-307.27	-6263	-5011	-557	1.4567	1.4567	-7644	7964	3440	81562	19629	7429	27058	No	48.55	Si
SLU 41	1.39	-69.11	-5078	-4062	-456	1.4567	1.4567	-6197	7771	3187	81562	19629	7429	27058	No	59.31	Si
SLU 34	-1.3	-1093.69	-7224	-5779	-410	1.4567	1.4567	-8816	8120	3645	81562	19629	7429	27058	No	66.01	Si
SLU 34	0.05	-308.02	-5909	-4727	-499	1.4567	1.4567	-7212	7906	3364	81562	19629	7429	27058	No	54.22	Si
SLU 34	1.39	-96.23	-4681	-3745	-404	1.4567	1.4567	-5713	7706	3102	81562	19629	7429	27058	No	67	Si
SLU 82	-1.3	-1347.27	-9042	-7233	-456	1.4567	1.4567	-11035	8416	4033	81562	19629	7429	27058	No	59.29	Si
SLU 82	0.05	-400.24	-7313	-5851	-570	1.4567	1.4567	-8926	8135	3664	81562	19629	7429	27058	No	47.5	Si
SLU 82	1.39	-157.75	-5670	-4536	-450	1.4567	1.4567	-6920	7867	3313	81562	19629	7429	27058	No	60.16	Si
SLU 39	-1.3	-1157.35	-7562	-6049	-464	1.4567	1.4567	-9229	8175	3717	81562	19629	7429	27058	No	58.27	Si
SLU 39	0.05	-307.27	-6263	-5011	-557	1.4567	1.4567	-7644	7964	3440	81562	19629	7429	27058	No	48.55	Si
SLU 39	1.39	-69.11	-5078	-4062	-456	1.4567	1.4567	-6197	7771	3187	81562	19629	7429	27058	No	59.31	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 1	-1.3	-183.59	-4668	-3734	1301	1.4567	1.4567	-5697	11556	4151	81562	29443	7429	36872		28.34	Si
SLV 1	0.05	-519	-2400	-1920	1212	1.4567	1.4567	-2930	11003	3668	81562	29443	7429	36872		30.43	Si
SLV 1	1.39	-634.61	138	110	1018	1.1653	0	0	0	0	81562	23554	5943	29497		28.96	Si
SLV 11	-1.3	-1226.92	-4460	-3568	-1862	1.4567	1.3597	-5443	11505	4107	81562	29443	7429	36872		19.8	Si
SLV 11	0.05	-17.96	-4085	-3268	-1958	1.4567	1.4567	-4985	11414	4027	81562	29443	7429	36872		18.83	Si
SLV 11	1.39	394.55	-4525	-3620	-1589	1.4567	1.4567	-5523	11521	4121	81562	29443	7429	36872		23.2	Si
SLV 12	-1.3	-1136.34	-4614	-3692	-1554	1.4567	1.4462	-5632	11543	4140	81562	29443	7429	36872		23.72	Si
SLV 12	0.05	-60.62	-4033	-3226	-1657	1.4567	1.4567	-4921	11401	4016	81562	29443	7429	36872		22.25	Si
SLV 12	1.39	215.05	-4254	-3404	-1282	1.4567	1.4567	-5192	11455	4063	81562	29443	7429	36872		28.76	Si
SLV 6	-1.3	-458.38	-7645	-6116	1576	1.4567	1.4567	-9331	12283	4786	81562	29443	7429	36872		23.4	Si
SLV 6	0.05	-610.89	-5199	-4159	1509	1.4567	1.4567	-6345	11686	4265	81562	29443	7429	36872		24.43	Si
SLV 6	1.39	-836.67	-1931	-1545	1300	1.1653	0.8854	0	0	0	81562	23554	5943	29497		22.69	Si
SLV 15	-1.3	-1591.71	-7284	-5827	-1894	1.4567	1.4567	-8889	12195	4709	81562	29443	7429	36872		19.47	Si
SLV 15	0.05	-67.48	-6936	-5549	-1960	1.4567	1.4567	-8465	12110	4635	81562	29443	7429	36872		18.81	Si
SLV 15	1.39	370.81	-6863	-5490	-1613	1.4567	1.4567	-8376	12092	4620	81562	29443	7429	36872		22.86	Si
SLV 2	-1.3	-93.6	-4821	-3857	1607	1.4567	1.4567	-5884	11594	4184	81562	29443	7429	36872		22.94	Si
SLV 2	0.05	-561.37	-2348	-1879	1511	1.4567	1.4567	-2866	10990	3657	81562	29443	7429	36872		24.4	Si
SLV 2	1.39	-812.93	407	325	1324	1.1653	0	0	0	0	81562	23554	5943	29497		22.29	Si
SLV 7	-1.3	-829.76	-3298	-2638	-1119	1.4567	1.4301	-4024	11222	3859	81562	29443	7429	36872		32.96	Si
SLV 7	0.05	-112.39	-2474	-1980	-1226	1.4567	1.4567	-3020	11021	3683	81562	29443	7429	36872		30.08	Si
SLV 7	1.39	167.1	-2447	-1958	-977	1.4567	1.4567	-2986	11014	3678	81562	29443	7429	36872		37.73	Si
SLV 13	-1.3	-1507.47	-8541	-6833	-1178	1.4567	1.4567	-10424	12502	4978	81562	29443	7429	36872		31.3	Si
SLV 13	0.05	-204.23	-7769	-6215	-1230	1.4567	1.4567	-9482	12313	4813	81562	29443	7429	36872		29.97	Si
SLV 13	1.39	123.52	-6790	-5432	-1022	1.4567	1.4567	-8286	12074	4604	81562	29443	7429	36872		36.07	Si
SLV 16	-1.3	-1501.71	-7437	-5950	-1588	1.4567	1.4567	-9077	12232	4742	81562	29443	7429	36872		23.22	Si
SLV 16	0.05	-109.85	-6884	-5507	-1661	1.4567	1.4567	-8401	12097	4624	81562	29443	7429	36872		22.2	Si
SLV 16	1.39	192.49	-6594	-5275	-1308	1.4567	1.4567	-8048	12026	4562	81562	29443	7429	36872		28.19	Si
SLV 5	-1.3	-548.97	-7491	-5992	1268	1.4567	1.4567	-9142	12245	4753	81562	29443	7429	36872		29.09	Si
SLV 5	0.05	-568.23	-5252	-4201	1208	1.4567	1.4567	-6409	11699	4276	81562	29443	7429	36872		30.53	Si
SLV 5	1.39	-657.18	-2202	-1762	993	1.4567	1.2897	-3036	11024	3625	81562	29443	7429	36872		37.14	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 0.045 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 4	-1515	0.25	90.12	335.76	618	476.88	5.29	Si
SLV 3	-1567	0.25	90.12	347.12	630.56	488.84	5.42	Si
SLV 2	-2348	0.25	90.12	516	818.06	667.03	7.4	Si
SLV 1	-2400	0.25	90.12	527.16	830.55	678.86	7.53	Si
SLV 8	-2422	0.25	90.12	531.76	835.71	683.73	7.59	Si
SLV 7	-2474	0.25	90.12	542.97	848.28	695.63	7.72	Si
SLV 12	-4033	0.25	90.12	870.77	1220.54	1045.66	11.6	Si
SLV 11	-4085	0.25	90.12	881.61	1233.02	1057.31	11.73	Si
SLV 6	-5199	0.25	90.12	1109.09	1498.04	1303.56	14.46	Si
SLV 5	-5252	0.25	90.12	1119.65	1510.44	1315.05	14.59	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 15	-6863	-7284	-27	1.064	950.6	0.929	16.65056	3.65332	Si
SLV 13	-6790	-8541	-45	1.071	943.2	0.929	16.75939	3.65332	Si
SLV 16	-6594	-7437	-28	1.097	923.5	0.927	17.18361	3.65332	Si
SLV 14	-6521	-8695	-46	1.104	916.1	0.927	17.30116	3.65332	Si
SLV 11	-4525	-4460	12	1.442	716	0.912	22.97144	3.59812	Si
SLV 9	-4280	-8653	-48	1.493	691.6	0.91	23.83367	3.59812	Si
SLV 12	-4254	-4614	11	1.505	689	0.91	24.03862	3.59812	Si
SLV 10	-4009	-8807	-49	1.561	664.7	0.908	24.98559	3.59812	Si
SLV 7	-2447	-3298	28	2.138	511.9	0.893	34.77898	3.59812	Si
SLV 5	-2202	-7491	-32	2.27	488.6	0.891	36.99776	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.193	SLU 82	Si
V_SLU	46.963	SLU 40	Si
PF_SLV	0.927	SLV 2	No
V_SLV	18.808	SLV 15	Si
PFFP_SLV	5.292	SLV 4	Si
R_SLV	4.558	SLV 15	Si

Maschio 21

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-24.603	5.726	-24.603	-3.177	L1	L2	8.903	0.45	2.69	2.69	2.69			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 35	-1.3	-8920.77	-61077	-0.0000245	0.0004492	0.0035	8.9031	237962.9	295133.35	295133.35	33.08	No	Si
SLU 35	0.05	-8312.32	-52262	-0.0000211	0.0004492	0.0035	8.9031	207808.01	261934.09	261934.09	31.51	No	Si
SLU 35	1.39	-14704.46	-41374	-0.0000186	0.0004492	0.0035	8.9031	168613.32	220057.51	220057.51	14.97	No	Si
SLU 39	-1.3	-10235.22	-64512	-0.0000262	0.0004492	0.0035	8.9031	249331.97	307627.36	307627.36	30.06	No	Si
SLU 39	0.05	-9731.18	-55609	-0.0000227	0.0004492	0.0035	8.9031	219426.41	274810.47	274810.47	28.24	No	Si
SLU 39	1.39	-16470.53	-44752	-0.0000203	0.0004492	0.0035	8.9031	181001.93	233047.39	233047.39	14.15	No	Si
SLU 41	-1.3	-10235.22	-64512	-0.0000262	0.0004492	0.0035	8.9031	249331.97	307627.36	307627.36	30.06	No	Si
SLU 41	0.05	-9731.18	-55609	-0.0000227	0.0004492	0.0035	8.9031	219426.41	274810.47	274810.47	28.24	No	Si
SLU 41	1.39	-16470.53	-44752	-0.0000203	0.0004492	0.0035	8.9031	181001.93	233047.39	233047.39	14.15	No	Si
SLU 42	-1.3	-10268.03	-64738	-0.0000262	0.0004492	0.0035	8.9031	250071.81	308448.67	308448.67	30.04	No	Si
SLU 42	0.05	-9710.41	-55800	-0.0000227	0.0004492	0.0035	8.9031	220083.09	275545.05	275545.05	28.38	No	Si
SLU 42	1.39	-16415.46	-44911	-0.0000204	0.0004492	0.0035	8.9031	181582.16	233661.16	233661.16	14.23	No	Si
SLU 84	-1.3	-10783.31	-76847	-0.000031	0.0004492	0.0035	8.9031	288385.49	352489.06	352489.06	32.69	No	Si
SLU 84	0.05	-9816.48	-65459	-0.0000264	0.0004492	0.0035	8.9031	252430.09	311073.53	311073.53	31.69	No	Si
SLU 84	1.39	-17679.17	-51303	-0.0000231	0.0004492	0.0035	8.9031	204442.1	258245.37	258245.37	14.61	No	Si
SLU 82	-1.3	-10783.31	-76847	-0.000031	0.0004492	0.0035	8.9031	288385.49	352489.06	352489.06	32.69	No	Si
SLU 82	0.05	-9816.48	-65459	-0.0000264	0.0004492	0.0035	8.9031	252430.09	311073.53	311073.53	31.69	No	Si
SLU 82	1.39	-17679.17	-51303	-0.0000231	0.0004492	0.0035	8.9031	204442.1	258245.37	258245.37	14.61	No	Si
SLU 37	-1.3	-8920.77	-61077	-0.0000245	0.0004492	0.0035	8.9031	237962.9	295133.35	295133.35	33.08	No	Si
SLU 37	0.05	-8312.32	-52262	-0.0000211	0.0004492	0.0035	8.9031	207808.01	261934.09	261934.09	31.51	No	Si
SLU 37	1.39	-14704.46	-41374	-0.0000186	0.0004492	0.0035	8.9031	168613.32	220057.51	220057.51	14.97	No	Si
SLU 83	-1.3	-10750.5	-76621	-0.0000309	0.0004492	0.0035	8.9031	287695.38	351667.75	351667.75	32.71	No	Si
SLU 83	0.05	-9837.26	-65268	-0.0000263	0.0004492	0.0035	8.9031	251806.96	310378.94	310378.94	31.55	No	Si
SLU 83	1.39	-17734.24	-51143	-0.000023	0.0004492	0.0035	8.9031	203880.42	257631.6	257631.6	14.53	No	Si
SLU 81	-1.3	-10750.5	-76621	-0.0000309	0.0004492	0.0035	8.9031	287695.38	351667.75	351667.75	32.71	No	Si
SLU 81	0.05	-9837.26	-65268	-0.0000263	0.0004492	0.0035	8.9031	251806.96	310378.94	310378.94	31.55	No	Si
SLU 81	1.39	-17734.24	-51143	-0.000023	0.0004492	0.0035	8.9031	203880.42	257631.6	257631.6	14.53	No	Si
SLU 40	-1.3	-10268.03	-64738	-0.0000262	0.0004492	0.0035	8.9031	250071.81	308448.67	308448.67	30.04	No	Si
SLU 40	0.05	-9710.41	-55800	-0.0000227	0.0004492	0.0035	8.9031	220083.09	275545.05	275545.05	28.38	No	Si
SLU 40	1.39	-16415.46	-44911	-0.0000204	0.0004492	0.0035	8.9031	181582.16	233661.16	233661.16	14.23	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 3	-1.3	-14265.17	-37358	-0.0000169	0.0006738	0.0035	8.9031		206372.98	206372.98	14.47		Si
SLV 3	0.05	-12166.35	-30324	-0.0000139	0.0006738	0.0035	8.9031		177439.56	177439.56	14.58		Si
SLV 3	1.39	-14160.18	-21239	-0.000011	0.0006738	0.0035	8.9031		139616.19	139616.19	9.86		Si
SLV 6	-1.3	27552.75	-45042	-0.000023	0.0006738	0.0035	8.9031		198367.42	198367.42	7.2		Si
SLV 6	0.05	17221.84	-37714	-0.0000178	0.0006738	0.0035	8.9031		168445.01	168445.01	9.78		Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 6	1.39	2824.39	-27424	-0.0000105	0.0006738	0.0035	8.9031		125702.37	125702.37	44.51		Si
SLV 12	-1.3	-36814.4	-57413	-0.0000299	0.0006738	0.0035	8.9031		286264.44	286264.44	7.78		Si
SLV 12	0.05	-25685.17	-47815	-0.0000236	0.0006738	0.0035	8.9031		248458.15	248458.15	9.67		Si
SLV 12	1.39	-22951.79	-36355	-0.0000187	0.0006738	0.0035	8.9031		202280.45	202280.45	8.81		Si
SLV 8	-1.3	-36012.4	-48877	-0.0000265	0.0006738	0.0035	8.9031		252641.17	252641.17	7.02		Si
SLV 8	0.05	-26327.38	-40316	-0.000021	0.0006738	0.0035	8.9031		218395.5	218395.5	8.3		Si
SLV 8	1.39	-23546.36	-29982	-0.0000165	0.0006738	0.0035	8.9031		176028.81	176028.81	7.48		Si
SLV 9	-1.3	25309.78	-53360	-0.0000255	0.0006738	0.0035	8.9031		231797.54	231797.54	9.16		Si
SLV 9	0.05	17531	-44880	-0.0000205	0.0006738	0.0035	8.9031		197703.58	197703.58	11.28		Si
SLV 9	1.39	4271.83	-33383	-0.000013	0.0006738	0.0035	8.9031		150525.07	150525.07	35.24		Si
SLV 5	-1.3	26111.78	-44824	-0.0000226	0.0006738	0.0035	8.9031		197475.96	197475.96	7.56		Si
SLV 5	0.05	16888.79	-37381	-0.0000176	0.0006738	0.0035	8.9031		167085.72	167085.72	9.89		Si
SLV 5	1.39	3677.26	-27010	-0.0000106	0.0006738	0.0035	8.9031		123961.6	123961.6	33.71		Si
SLV 7	-1.3	-37453.37	-48658	-0.0000268	0.0006738	0.0035	8.9031		251781.19	251781.19	6.72		Si
SLV 7	0.05	-26660.43	-39983	-0.0000209	0.0006738	0.0035	8.9031		217042.43	217042.43	8.14		Si
SLV 7	1.39	-22693.49	-29568	-0.0000162	0.0006738	0.0035	8.9031		174325.56	174325.56	7.68		Si
SLV 11	-1.3	-38255.37	-57195	-0.0000302	0.0006738	0.0035	8.9031		285404.46	285404.46	7.46		Si
SLV 11	0.05	-26018.23	-47482	-0.0000235	0.0006738	0.0035	8.9031		247146.87	247146.87	9.5		Si
SLV 11	1.39	-22098.92	-35942	-0.0000183	0.0006738	0.0035	8.9031		200577.2	200577.2	9.08		Si
SLV 10	-1.3	26750.74	-53579	-0.000026	0.0006738	0.0035	8.9031		232661.31	232661.31	8.7		Si
SLV 10	0.05	17864.05	-45213	-0.0000207	0.0006738	0.0035	8.9031		199059.79	199059.79	11.14		Si
SLV 10	1.39	3418.96	-33797	-0.000013	0.0006738	0.0035	8.9031		152239.61	152239.61	44.53		Si
SLV 4	-1.3	-12833.66	-37575	-0.0000167	0.0006738	0.0035	8.9031		207254.54	207254.54	16.15		Si
SLV 4	0.05	-11835.48	-30655	-0.0000139	0.0006738	0.0035	8.9031		178801.88	178801.88	15.11		Si
SLV 4	1.39	-15007.46	-21650	-0.0000114	0.0006738	0.0035	8.9031		141346.14	141346.14	9.42		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 82	-1.3	-10783.31	-76847	-61477	4299	8.9031	8.9031	-15345	10379	47734	81562	143980	45406	129296	No	30.08	Si
SLU 82	0.05	-9816.48	-65459	-52367	4102	8.9031	8.9031	-13071	10076	44090	81562	143980	45406	125652	No	30.63	Si
SLU 82	1.39	-17679.17	-51303	-41042	4062	8.9031	8.9031	-10244	9699	39560	81562	143980	45406	121122	No	29.82	Si
SLU 75	-1.3	-9468.86	-73411	-58729	4009	8.9031	8.9031	-14659	10288	46635	81562	143980	45406	128196	No	31.98	Si
SLU 75	0.05	-8397.62	-62112	-49689	3820	8.9031	8.9031	-12403	9987	43019	81562	143980	45406	124581	No	32.61	Si
SLU 75	1.39	-15913.11	-47925	-38340	3785	8.9031	8.9031	-9570	9609	38480	81562	143980	45406	120041	No	31.71	Si
SLU 74	-1.3	-9436.05	-73186	-58548	4013	8.9031	8.9031	-14614	10282	46562	81562	143980	45406	128124	No	31.92	Si
SLU 74	0.05	-8418.39	-61921	-49537	3825	8.9031	8.9031	-12364	9982	42958	81562	143980	45406	124519	No	32.55	Si
SLU 74	1.39	-15968.17	-47766	-38213	3790	8.9031	8.9031	-9538	9605	38428	81562	143980	45406	119990	No	31.66	Si
SLU 78	-1.3	-9468.86	-73411	-58729	4009	8.9031	8.9031	-14659	10288	46635	81562	143980	45406	128196	No	31.98	Si
SLU 78	0.05	-8397.62	-62112	-49689	3820	8.9031	8.9031	-12403	9987	43019	81562	143980	45406	124581	No	32.61	Si
SLU 78	1.39	-15913.11	-47925	-38340	3785	8.9031	8.9031	-9570	9609	38480	81562	143980	45406	120041	No	31.71	Si
SLU 83	-1.3	-10750.5	-76621	-61297	4303	8.9031	8.9031	-15300	10373	47662	81562	143980	45406	129223	No	30.03	Si
SLU 83	0.05	-9837.26	-65268	-52215	4107	8.9031	8.9031	-13033	10071	44029	81562	143980	45406	125591	No	30.58	Si
SLU 83	1.39	-17734.24	-51143	-40914	4067	8.9031	8.9031	-10212	9695	39509	81562	143980	45406	121071	No	29.77	Si
SLU 79	-1.3	-9436.05	-73186	-58548	4013	8.9031	8.9031	-14614	10282	46562	81562	143980	45406	128124	No	31.92	Si
SLU 79	0.05	-8418.39	-61921	-49537	3825	8.9031	8.9031	-12364	9982	42958	81562	143980	45406	124519	No	32.55	Si
SLU 79	1.39	-15968.17	-47766	-38213	3790	8.9031	8.9031	-9538	9605	38428	81562	143980	45406	119990	No	31.66	Si
SLU 77	-1.3	-9436.05	-73186	-58548	4013	8.9031	8.9031	-14614	10282	46562	81562	143980	45406	128124	No	31.92	Si
SLU 77	0.05	-8418.39	-61921	-49537	3825	8.9031	8.9031	-12364	9982	42958	81562	143980	45406	124519	No	32.55	Si
SLU 77	1.39	-15968.17	-47766	-38213	3790	8.9031	8.9031	-9538	9605	38428	81562	143980	45406	119990	No	31.66	Si
SLU 80	-1.3	-9468.86	-73411	-58729	4009	8.9031	8.9031	-14659	10288	46635	81562	143980	45406	128196	No	31.98	Si
SLU 80	0.05	-8397.62	-62112	-49689	3820	8.9031	8.9031	-12403	9987	43019	81562	143980	45406	124581	No	32.61	Si
SLU 80	1.39	-15913.11	-47925	-38340	3785	8.9031	8.9031	-9570	9609	38480	81562	143980	45406	120041	No	31.71	Si
SLU 81	-1.3	-10750.5	-76621	-61297	4303	8.9031	8.9031	-15300	10373	47662	81562	143980	45406	129223	No	30.03	Si
SLU 81	0.05	-9837.26	-65268	-52215	4107	8.9031	8.9031	-13033	10071	44029	81562	143980	45406	125591	No	30.58	Si
SLU 81	1.39	-17734.24	-51143	-40914	4067	8.9031	8.9031	-10212	9695	39509	81562	143980	45406	121071	No	29.77	Si
SLU 84	-1.3	-10783.31	-76847	-61477	4299	8.9031	8.9031	-15345	10379	47734	81562	143980	45406	129296	No	30.08	Si
SLU 84	0.05	-9816.48	-65459	-52367	4102	8.9031	8.9031	-13071	10076	44090	81562	143980	45406	125652	No	30.63	Si
SLU 84	1.39	-17679.17	-51303	-41042	4062	8.9031	8.9031	-10244	9699	39560	81562	143980	45406	121122	No	29.82	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 12	-1.3	-36814.4	-57413	-45931	-11937	8.9031	8.9031	-11464	14793	53088	81562	215969	45406	134649		11.28	Si
SLV 12	0.05	-25685.17	-47815	-38252	-12005	8.9031	8.9031	-9548	14410	50016	81562	215969	45406	131578		10.96	Si
SLV 12	1.39	-22951.79	-36355	-29084	-10089	8.9031	8.9031	-7259	13952	46349	81562	215969	45406	127911		12.68	Si
SLV 9	-1.3	25309.78	-53360	-42688	17143	8.9031	8.9031	-10655	14631	51791	81562	215969	45406	133352		7.78	Si
SLV 9	0.05	17531	-44880	-35904	16875	8.9031	8.9031	-8962	14292	49077	81562	215969	45406	130638		7.74	Si
SLV 9	1.39	4271.83	-33383	-26707	14877	8.9031	8.9031	-6666	13833	45398	81562	215969	45406	126960		8.53	Si
SLV 2	-1.3	6235.89	-36424	-29139	8837	8.9031	8.9031	-7273	13955	46371	81562	215969	45406	127933		14.48	Si
SLV 2	0.05	1229.28	-29874	-23900	8783	8.9031	8.9031	-5965	13693	44275	81562	215969	45406	125837		14.33	Si
SLV 2	1.39	-7096.24	-20882	-16706	8253	8.9031	8.9031	-4170	13334	41398	81562	215969	45406	122960		14.9	Si
SLV 6	-1.3	27552.75	-45042	-36034	19709	8.9031	8.9031	-8994	14299	49129	81562	215969	45406	130690		6.63	Si
SLV 6	0.05	17221.84	-37714	-30171	19504	8.9031	8.9031	-7531	14006	46784	81562	215969	45406	128345		6.58	Si
SLV 6	1.39	2824.39	-27424	-21939	17551	8.9031	8.9031	-5476	13595	43491	81562	215969	45406	125053		7.13	Si
SLV 14	-1.3	3562.55	-64880	-51904	8372	8.9031	8.9031	-12955	15091	55477	81562	215969	45406	137038		16.37	Si
SLV 14	0.05	3369.97	-54871	-43897	8092	8.9031	8.9031	-10957	14691	52274	81562	215969	45406	133836		16.54	Si
SLV 14	1.39	-5114.34	-42126	-33701	7409	8.9031	8.9031	-8412	14182	48196	81562	215969	45406	129757		17.51	Si
SLV 5	-1.3	26111.78	-44824	-35859	17282	8.9031	8.9031	-8950	14290	49059	81562	215969	45406	130621		7.56	Si
SLV 5	0.05	16888.79	-37381	-29905	17083	8.9031	8.9031	-7464	13993	46677	81562	215969	45406	128239		7.51	Si
SLV 5	1.39	3677.26	-27010	-21608	15130	8.9031	8.9031	-5393	13579	43359	81562	215969	45406	124920		8.26	Si
SLV 10	-1.3	26750.74	-53579	-42863	19570	8.9031	8.9031	-10699	14640	51860	81562	215969	45406	133422		6.82	Si
SLV 10	0.05	17864.05	-45213	-36170	19297	8.9031	8.9031	-9028	14306	49183	81562	215969	45406	130745		6.78	Si
SLV 10	1.39	3418.96	-33797	-27038	17298	8.9031	8.9031	-6749	13850	45531	81562	215969	45406	127092		7.35	Si
SLV 7	-1.3	-37453.37	-48658	-38927	-14224	8.9031	8.9031	-9716	14443	50286	81562	215969	45406	131848		9.27	Si
SLV 7	0.05	-26660.43	-39983	-31986	-14220	8.9031	8.9031	-7984	14097	47510	81562	215969	45406	129072		9.08	Si
SLV 7	1.39	-22693.49	-29568	-23655	-12257	8.9031	8.9031	-5904	13681	44177	81562	215969	45406	125739		10.26	Si
SLV 8	-1.3	-36012.4	-48877	-39101	-11797	8.9031	8.9031	-9760	14452	50356	81562	215969	45406	131918		11.18	Si
SLV 8	0.05	-26327.38	-40316	-32253	-11798	8.9031	8.9031	-8050	14110	47617	81562	215969	45406	129178		10.95	Si
SLV 8	1.39	-23546.36	-29982	-23986	-9836	8.9031	8.9031	-5987	13697	44310	81562	215969	45406	125871		12.8	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 11	-1.3	-38255.37	-57195	-45756	-14363	8.9031	8.9031	-11421	14784	53018	81562	215969	45406	134579		9.37	Si
SLV 11	0.05	-26018.23	-47482	-37986	-14427	8.9031	8.9031	-9481	14396	49910	81562	215969	45406	131471		9.11	Si
SLV 11	1.39	-22098.92	-35942	-28753	-12510	8.9031	8.9031	-7177	13935	46217	81562	215969	45406	127778		10.21	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 0.045 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 1	-29544	0.25	550.8	6379.89	8832.94	7606.42	13.81	Si
SLV 2	-29874	0.25	550.8	6448.28	8911.1	7679.69	13.94	Si
SLV 3	-30324	0.25	550.8	6541.22	9017.44	7779.33	14.12	Si
SLV 4	-30655	0.25	550.8	6609.46	9095.61	7852.53	14.26	Si
SLV 5	-37381	0.25	550.8	7982.49	10679.73	9331.11	16.94	Si
SLV 6	-37714	0.25	550.8	8049.73	10757.69	9403.71	17.07	Si
SLV 7	-39983	0.25	550.8	8506.31	11288.25	9897.28	17.97	Si
SLV 8	-40316	0.25	550.8	8573.03	11366.06	9969.54	18.1	Si
SLV 9	-44880	0.25	550.8	9480.74	12433.22	10956.98	19.89	Si
SLV 10	-45213	0.25	550.8	9546.45	12511.1	11028.78	20.02	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.045 Wa = 0.08 Ta = 0.0269

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 16	-42894	-66030	-1891	1.014	5905.8	0.93	15.84466	3.65332	Si
SLV 15	-42483	-65813	-1887	1.021	5864.3	0.93	15.96693	3.65332	Si
SLV 14	-42126	-64880	-1907	1.027	5828.4	0.929	16.06778	3.65332	Si
SLV 13	-41716	-64663	-1904	1.035	5786.9	0.929	16.19378	3.65332	Si
SLV 12	-36355	-57413	-542	1.175	5247.2	0.923	18.50174	3.59812	Si
SLV 11	-35942	-57195	-538	1.185	5205.6	0.923	18.66812	3.59812	Si
SLV 10	-33797	-53579	-597	1.238	4990.3	0.92	19.55569	3.59812	Si
SLV 9	-33383	-53360	-593	1.249	4948.8	0.92	19.74272	3.59812	Si
SLV 8	-29982	-48877	598	1.349	4608.2	0.915	21.42008	3.59812	Si
SLV 7	-29568	-48658	602	1.363	4566.9	0.915	21.6432	3.59812	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	14.149	SLU 39	Si
V_SLU	29.77	SLU 81	Si
PF_SLV	6.723	SLV 7	Si
V_SLV	6.58	SLV 6	Si
PFFP_SLV	13.81	SLV 1	Si
R_SLV	4.337	SLV 16	Si

Maschio 23

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)
Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.183	-1.829	-34.183	-2.979	L2	L3	1.15	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 39	1.39	919.37	-2353	-0.0000434	0.0004492	0.0035	1.1498	1277.23	1365.93	1365.93	1.49	No	Si
SLU 39	3.27	589.72	-1350	-0.0000329	0.0004492	0.0035	1.1498	751.16	828.54	828.54	1.4	No	Si
SLU 39	5.15	-122.13	-190	-0.0000335	0.0004492	0.0035	0.9199	0	458.36	458.36	3.75	No	Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 37	1.39	832.63	-2318	-0.0000362	0.0004492	0.0035	1.1498	1259.58	1347.81	1347.81	1.62	No	Si
SLU 37	3.27	515.16	-1331	-0.0000236	0.0004492	0.0035	1.1498	740.78	818	818	1.59	No	Si
SLU 37	5.15	-109.01	-169	-0.0000301	0.0004492	0.0035	0.9199	0	446.6	446.6	4.1	No	Si
SLU 20	1.39	810.48	-2254	-0.0000353	0.0004492	0.0035	1.1498	1226.42	1313.62	1313.62	1.62	No	Si
SLU 20	3.27	501.97	-1287	-0.0000232	0.0004492	0.0035	1.1498	717.48	794.37	794.37	1.58	No	Si
SLU 20	5.15	-106.41	-164	-0.0000302	0.0004492	0.0035	0.9199	0	443.44	443.44	4.17	No	Si
SLU 35	1.39	832.63	-2318	-0.0000362	0.0004492	0.0035	1.1498	1259.58	1347.81	1347.81	1.62	No	Si
SLU 35	3.27	515.16	-1331	-0.0000236	0.0004492	0.0035	1.1498	740.78	818	818	1.59	No	Si
SLU 35	5.15	-109.01	-169	-0.0000301	0.0004492	0.0035	0.9199	0	446.6	446.6	4.1	No	Si
SLU 32	1.39	832.63	-2318	-0.0000362	0.0004492	0.0035	1.1498	1259.58	1347.81	1347.81	1.62	No	Si
SLU 32	3.27	515.16	-1331	-0.0000236	0.0004492	0.0035	1.1498	740.78	818	818	1.59	No	Si
SLU 32	5.15	-109.01	-169	-0.0000301	0.0004492	0.0035	0.9199	0	446.6	446.6	4.1	No	Si
SLU 21	1.39	808.12	-2250	-0.0000351	0.0004492	0.0035	1.1498	1224.66	1311.79	1311.79	1.62	No	Si
SLU 21	3.27	498.66	-1287	-0.0000229	0.0004492	0.0035	1.1498	717.07	793.95	793.95	1.59	No	Si
SLU 21	5.15	-105.83	-163	-0.00003	0.0004492	0.0035	0.9199	0	442.99	442.99	4.19	No	Si
SLU 42	1.39	917.01	-2350	-0.0000432	0.0004492	0.0035	1.1498	1275.48	1364.14	1364.14	1.49	No	Si
SLU 42	3.27	586.41	-1349	-0.0000323	0.0004492	0.0035	1.1498	750.75	828.12	828.12	1.41	No	Si
SLU 42	5.15	-121.55	-189	-0.0000333	0.0004492	0.0035	0.9199	0	457.91	457.91	3.77	No	Si
SLU 41	1.39	919.37	-2353	-0.0000434	0.0004492	0.0035	1.1498	1277.23	1365.93	1365.93	1.49	No	Si
SLU 41	3.27	589.72	-1350	-0.0000329	0.0004492	0.0035	1.1498	751.16	828.54	828.54	1.4	No	Si
SLU 41	5.15	-122.13	-190	-0.0000335	0.0004492	0.0035	0.9199	0	458.36	458.36	3.75	No	Si
SLU 40	1.39	917.01	-2350	-0.0000432	0.0004492	0.0035	1.1498	1275.48	1364.14	1364.14	1.49	No	Si
SLU 40	3.27	586.41	-1349	-0.0000323	0.0004492	0.0035	1.1498	750.75	828.12	828.12	1.41	No	Si
SLU 40	5.15	-121.55	-189	-0.0000333	0.0004492	0.0035	0.9199	0	457.91	457.91	3.77	No	Si
SLU 18	1.39	810.48	-2254	-0.0000353	0.0004492	0.0035	1.1498	1226.42	1313.62	1313.62	1.62	No	Si
SLU 18	3.27	501.97	-1287	-0.0000232	0.0004492	0.0035	1.1498	717.48	794.37	794.37	1.58	No	Si
SLU 18	5.15	-106.41	-164	-0.0000302	0.0004492	0.0035	0.9199	0	443.44	443.44	4.17	No	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 74	1.39	951.7	-2926	-2464	-10	1.1498	0.749	-7143	9286	1985	42820	12397	2932	15329	No	1613.13	Si
SLU 74	3.27	561.1	-1676	-1411	-3	1.1498	0.7204	-4092	8879	1705	42820	12397	2932	15329	No	4741.58	Si
SLU 74	5.15	-122.43	-188	-159	12	0.9199	0	0	0	0	42820	9917	2346	12263	No	1057.68	Si
SLU 80	1.39	949.34	-2923	-2461	-10	1.1498	0.7503	-7135	9285	1985	42820	12397	2932	15329	No	1594.16	Si
SLU 80	3.27	557.79	-1675	-1411	-3	1.1498	0.7258	-4090	8879	1705	42820	12397	2932	15329	No	4441.32	Si
SLU 80	5.15	-121.85	-187	-158	11	0.9199	0	0	0	0	42820	9917	2346	12263	No	1075.51	Si
SLU 79	1.39	951.7	-2926	-2464	-10	1.1498	0.749	-7143	9286	1985	42820	12397	2932	15329	No	1613.13	Si
SLU 79	3.27	561.1	-1676	-1411	-3	1.1498	0.7204	-4092	8879	1705	42820	12397	2932	15329	No	4741.58	Si
SLU 79	5.15	-122.43	-188	-159	12	0.9199	0	0	0	0	42820	9917	2346	12263	No	1057.68	Si
SLU 83	1.39	1038.44	-2961	-2493	-10	1.1498	0.6725	-7227	9297	1993	42820	12397	2932	15329	No	1513.33	Si
SLU 83	3.27	635.66	-1695	-1428	-4	1.1498	0.5999	-4139	8885	1709	42820	12397	2932	15329	No	4169.71	Si
SLU 83	5.15	-135.54	-209	-176	12	0.9199	0	0	0	0	42820	9917	2346	12263	No	986.11	Si
SLU 82	1.39	1036.08	-2957	-2490	-10	1.1498	0.6736	-7219	9296	1992	42820	12397	2932	15329	No	1496.63	Si
SLU 82	3.27	632.35	-1695	-1427	-4	1.1498	0.6052	-4137	8885	1709	42820	12397	2932	15329	No	3935.73	Si
SLU 82	5.15	-134.97	-208	-175	12	0.9199	0	0	0	0	42820	9917	2346	12263	No	1001.58	Si
SLU 81	1.39	1038.44	-2961	-2493	-10	1.1498	0.6725	-7227	9297	1993	42820	12397	2932	15329	No	1513.33	Si
SLU 81	3.27	635.66	-1695	-1428	-4	1.1498	0.5999	-4139	8885	1709	42820	12397	2932	15329	No	4169.71	Si
SLU 81	5.15	-135.54	-209	-176	12	0.9199	0	0	0	0	42820	9917	2346	12263	No	986.11	Si
SLU 78	1.39	949.34	-2923	-2461	-10	1.1498	0.7503	-7135	9285	1985	42820	12397	2932	15329	No	1594.16	Si
SLU 78	3.27	557.79	-1675	-1411	-3	1.1498	0.7258	-4090	8879	1705	42820	12397	2932	15329	No	4441.32	Si
SLU 78	5.15	-121.85	-187	-158	11	0.9199	0	0	0	0	42820	9917	2346	12263	No	1075.51	Si
SLU 75	1.39	949.34	-2923	-2461	-10	1.1498	0.7503	-7135	9285	1985	42820	12397	2932	15329	No	1594.16	Si
SLU 75	3.27	557.79	-1675	-1411	-3	1.1498	0.7258	-4090	8879	1705	42820	12397	2932	15329	No	4441.32	Si
SLU 75	5.15	-121.85	-187	-158	11	0.9199	0	0	0	0	42820	9917	2346	12263	No	1075.51	Si
SLU 77	1.39	951.7	-2926	-2464	-10	1.1498	0.749	-7143	9286	1985	42820	12397	2932	15329	No	1613.13	Si
SLU 77	3.27	561.1	-1676	-1411	-3	1.1498	0.7204	-4092	8879	1705	42820	12397	2932	15329	No	4741.58	Si
SLU 77	5.15	-122.43	-188	-159	12	0.9199	0	0	0	0	42820	9917	2346	12263	No	1057.68	Si
SLU 84	1.39	1036.08	-2957	-2490	-10	1.1498	0.6736	-7219	9296	1992	42820	12397	2932	15329	No	1496.63	Si
SLU 84	3.27	632.35	-1695	-1427	-4	1.1498	0.6052	-4137	8885	1709	42820	12397	2932	15329	No	3935.73	Si
SLU 84	5.15	-134.97	-208	-175	12	0.9199	0	0	0	0	42820	9917	2346	12263	No	1001.58	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.27 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 7	215625	0.48	0	-978	180.61	0	0	No, e>t/2
SLV 12	215625	0.48	0	-815	180.61	0	0	No, e>t/2
SLV 11	215625	0.48	0	-935	180.61	0	0	No, e>t/2
SLV 15	215625	0.48	0	-1135	180.61	0	0	No, e>t/2
SLV 4	215625	0.48	0	-1158	180.61	0	0	No, e>t/2
SLV 8	215625	0.48	0	-858	180.61	0	0	No, e>t/2
SLV 16	215625	0.48	0	-1016	180.61	0	0	No, e>t/2
SLV 14	215625	0.48	3568	-1231	180.61	181.01	1	Si
SLV 3	215625	0.48	3701	-1277	180.61	187.65	1.04	Si
SLV 13	215625	0.48	3913	-1350	180.61	198.14	1.1	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 4	-248	-2064	178	4.509	245.5	0.933	70.26585	14.51032	Si

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 8	-355	-1733	89	4.255	251.7	0.918	67.36555	13.89303	Si
SLV 12	-327	-1702	-10	4.385	250	0.921	69.18448	13.89303	Si
SLV 3	-193	-2169	178	4.692	242.9	0.943	72.33406	14.51032	Si
SLV 7	-299	-1839	89	4.416	248.3	0.925	69.3897	13.89303	Si
SLV 16	-157	-1960	-154	4.837	241.4	0.95	73.96215	14.51032	Si
SLV 11	-271	-1807	-10	4.555	246.8	0.929	71.26153	13.89303	Si
SLV 2	-130	-2316	155	4.935	240.4	0.957	74.95304	14.51032	Si
SLV 15	-101	-2064	-154	5.048	239.5	0.965	76.04654	14.51032	Si
SLV 1	-74	-2420	155	5.155	238.8	0.973	77.02033	14.51032	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.405	SLU 39	Si
V_SLU	986.106	SLU 81	Si
PFFP_SLV	0	SLV 4	No
R_SLV	4.842	SLV 4	Si

Maschio 24

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.183	2.931	-34.183	-0.829	L2	L3	3.76	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 81	1.39	3594.62	-20945	-0.0000363	0.0004492	0.0035	3.76	33392.08	34752.47	34752.47	9.67	No	Si
SLU 81	3.27	-5135.62	-15673	-0.0000322	0.0004492	0.0035	3.76	26114.89	30978.05	30978.05	6.03	No	Si
SLU 81	5.15	-13814.86	-9338	-0.0000807	0.0004492	0.0035	3.008	16365.67	20665.28	20665.28	1.5	No	Si
SLU 73	1.39	3811.91	-19592	-0.0000348	0.0004492	0.0035	3.76	31597.67	32870.33	32870.33	8.62	No	Si
SLU 73	3.27	-4055.72	-14303	-0.0000279	0.0004492	0.0035	3.76	24099.58	28774.27	28774.27	7.09	No	Si
SLU 73	5.15	-11676.27	-7939	-0.0000663	0.0004492	0.0035	3.008	14065.96	18292.73	18292.73	1.57	No	Si
SLU 76	1.39	3811.91	-19592	-0.0000348	0.0004492	0.0035	3.76	31597.67	32870.33	32870.33	8.62	No	Si
SLU 76	3.27	-4055.72	-14303	-0.0000279	0.0004492	0.0035	3.76	24099.58	28774.27	28774.27	7.09	No	Si
SLU 76	5.15	-11676.27	-7939	-0.0000663	0.0004492	0.0035	3.008	14065.96	18292.73	18292.73	1.57	No	Si
SLU 42	1.39	2583.81	-17930	-0.0000298	0.0004492	0.0035	3.76	29323.73	30581.84	30581.84	11.84	No	Si
SLU 42	3.27	-5316.05	-13869	-0.00003	0.0004492	0.0035	3.76	23449.66	28077.45	28077.45	5.28	No	Si
SLU 42	5.15	-13505.91	-9069	-0.0000802	0.0004492	0.0035	3.008	15927.07	20222.82	20222.82	1.5	No	Si
SLU 84	1.39	3607.95	-20915	-0.0000363	0.0004492	0.0035	3.76	33353.24	34710.97	34710.97	9.62	No	Si
SLU 84	3.27	-5128.49	-15652	-0.0000321	0.0004492	0.0035	3.76	26083.79	30945.08	30945.08	6.03	No	Si
SLU 84	5.15	-13822.73	-9342	-0.0000808	0.0004492	0.0035	3.008	16372.14	20671.83	20671.83	1.5	No	Si
SLU 39	1.39	2570.49	-17960	-0.0000298	0.0004492	0.0035	3.76	29364.98	30622.44	30622.44	11.91	No	Si
SLU 39	3.27	-5323.18	-13890	-0.0000301	0.0004492	0.0035	3.76	23481.8	28111.65	28111.65	5.28	No	Si
SLU 39	5.15	-13498.03	-9065	-0.0000801	0.0004492	0.0035	3.008	15920.58	20216.29	20216.29	1.5	No	Si
SLU 41	1.39	2570.49	-17960	-0.0000298	0.0004492	0.0035	3.76	29364.98	30622.44	30622.44	11.91	No	Si
SLU 41	3.27	-5323.18	-13890	-0.0000301	0.0004492	0.0035	3.76	23481.8	28111.65	28111.65	5.28	No	Si
SLU 41	5.15	-13498.03	-9065	-0.0000801	0.0004492	0.0035	3.008	15920.58	20216.29	20216.29	1.5	No	Si
SLU 83	1.39	3594.62	-20945	-0.0000363	0.0004492	0.0035	3.76	33392.08	34752.47	34752.47	9.67	No	Si
SLU 83	3.27	-5135.62	-15673	-0.0000322	0.0004492	0.0035	3.76	26114.89	30978.05	30978.05	6.03	No	Si
SLU 83	5.15	-13814.86	-9338	-0.0000807	0.0004492	0.0035	3.008	16365.67	20665.28	20665.28	1.5	No	Si
SLU 82	1.39	3607.95	-20915	-0.0000363	0.0004492	0.0035	3.76	33353.24	34710.97	34710.97	9.62	No	Si
SLU 82	3.27	-5128.49	-15652	-0.0000321	0.0004492	0.0035	3.76	26083.79	30945.08	30945.08	6.03	No	Si
SLU 82	5.15	-13822.73	-9342	-0.0000808	0.0004492	0.0035	3.008	16372.14	20671.83	20671.83	1.5	No	Si
SLU 40	1.39	2583.81	-17930	-0.0000298	0.0004492	0.0035	3.76	29323.73	30581.84	30581.84	11.84	No	Si
SLU 40	3.27	-5316.05	-13869	-0.00003	0.0004492	0.0035	3.76	23449.66	28077.45	28077.45	5.28	No	Si
SLU 40	5.15	-13505.91	-9069	-0.0000802	0.0004492	0.0035	3.008	15927.07	20222.82	20222.82	1.5	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 3	1.39	3372.93	-16007	-0.0000285	0.0006738	0.0035	3.76		28935.13	28935.13	8.58		Si
SLV 3	3.27	-2062.49	-10737	-0.0000186	0.0006738	0.0035	3.76		23309.85	23309.85	11.3		Si
SLV 3	5.15	-6312.93	-4399	-0.0000325	0.0006738	0.0035	3.008		12171.47	12171.47	1.93		Si
SLV 10	1.39	9002.93	-13840	-0.0000376	0.0006738	0.0035	3.76		25306.69	25306.69	2.81		Si
SLV 10	3.27	1704.8	-9902	-0.0000167	0.0006738	0.0035	3.76		18559.78	18559.78	10.89		Si
SLV 10	5.15	-6537.13	-4263	-0.0000401	0.0006738	0.0035	3.008		11926.21	11926.21	1.82		Si
SLV 5	1.39	11538.59	-16194	-0.0000466	0.0006738	0.0035	3.76		29245.08	29245.08	2.53		Si
SLV 5	3.27	2868.93	-11440	-0.0000212	0.0006738	0.0035	3.76		21220.81	21220.81	7.4		Si
SLV 5	5.15	-7050.98	-4488	-0.0000469	0.0006738	0.0035	3.008		12331.07	12331.07	1.75		Si
SLV 9	1.39	10604.29	-14398	-0.0000421	0.0006738	0.0035	3.76		26250.54	26250.54	2.48		Si
SLV 9	3.27	2673.99	-10365	-0.0000193	0.0006738	0.0035	3.76		19363.52	19363.52	7.24		Si
SLV 9	5.15	-6802.08	-4325	-0.0000454	0.0006738	0.0035	3.008		12038.47	12038.47	1.77		Si
SLV 14	1.39	2937.15	-10519	-0.0000201	0.0006738	0.0035	3.76		19631.35	19631.35	6.68		Si
SLV 14	3.27	-1295.58	-7595	-0.0000127	0.0006738	0.0035	3.76		17841.69	17841.69	13.77		Si
SLV 14	5.15	-5694.31	-3922	-0.00003	0.0006738	0.0035	3.008		11314.94	11314.94	1.99		Si
SLV 2	1.39	6051.51	-16504	-0.0000349	0.0006738	0.0035	3.76		29760.86	29760.86	4.92		Si
SLV 2	3.27	-645.78	-11180	-0.0000162	0.0006738	0.0035	3.76		24070.32	24070.32	37.27		Si
SLV 2	5.15	-6523.97	-4466	-0.000035	0.0006738	0.0035	3.008		12291.04	12291.04	1.88		Si
SLV 13	1.39	4528	-11074	-0.0000242	0.0006738	0.0035	3.76		20591.2	20591.2	4.55		Si
SLV 13	3.27	-332.75	-8055	-0.0000113	0.0006738	0.0035	3.76		18650.49	18650.49	56.05		Si
SLV 13	5.15	-5957.53	-3984	-0.0000338	0.0006738	0.0035	3.008		11426.6	11426.6	1.92		Si
SLV 6	1.39	9937.24	-15635	-0.0000421	0.0006738	0.0035	3.76		28315.8	28315.8	2.85		Si
SLV 6	3.27	1899.74	-10977	-0.0000185	0.0006738	0.0035	3.76		20425.02	20425.02	10.75		Si
SLV 6	5.15	-6786.03	-4426	-0.0000416	0.0006738	0.0035	3.008		12218.88	12218.88	1.8		Si
SLV 4	1.39	1782.08	-15452	-0.0000243	0.0006738	0.0035	3.76		28011.54	28011.54	15.72		Si
SLV 4	3.27	-3025.32	-10276	-0.00002	0.0006738	0.0035	3.76		22516.59	22516.59	7.44		Si
SLV 4	5.15	-6049.71	-4337	-0.0000295	0.0006738	0.0035	3.008		12059.98	12059.98	1.99		Si
SLV 1	1.39	7642.36	-17059	-0.0000391	0.0006738	0.0035	3.76		30674.52	30674.52	4.01		Si
SLV 1	3.27	317.05	-11640	-0.0000161	0.0006738	0.0035	3.76		21562.79	21562.79	68.01		Si
SLV 1	5.15	-6787.19	-4528	-0.0000389	0.0006738	0.0035	3.008		12402.48	12402.48	1.83		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 84	1.39	3607.95	-20915	-17612	4966	3.76	3.76	-15614	10415	13561	42820	40537	9588	50125	No	10.09	Si
SLU 84	3.27	-5128.49	-15652	-13180	2624	3.76	3.76	-11685	9891	11788	42820	40537	9588	50125	No	19.1	Si
SLU 84	5.15	-13822.73	-9342	-7867	4545	3.008	1.201	0	0	0	42820	32430	7670	40100	No	8.82	Si
SLU 41	1.39	2570.49	-17960	-15124	4415	3.76	3.76	-13408	10121	12566	42820	40537	9588	50125	No	11.35	Si
SLU 41	3.27	-5323.18	-13890	-11697	2442	3.76	3.76	-10370	9716	11195	42820	40537	9588	50125	No	20.53	Si
SLU 41	5.15	-13498.03	-9065	-7633	4323	3.008	1.1727	0	0	0	42820	32430	7670	40100	No	9.28	Si
SLU 40	1.39	2583.81	-17930	-15099	4407	3.76	3.76	-13386	10118	12556	42820	40537	9588	50125	No	11.38	Si
SLU 40	3.27	-5316.05	-13869	-11679	2421	3.76	3.76	-10354	9714	11188	42820	40537	9588	50125	No	20.7	Si
SLU 40	5.15	-13505.91	-9069	-7637	4322	3.008	1.172	0	0	0	42820	32430	7670	40100	No	9.28	Si
SLU 39	1.39	2570.49	-17960	-15124	4415	3.76	3.76	-13408	10121	12566	42820	40537	9588	50125	No	11.35	Si
SLU 39	3.27	-5323.18	-13890	-11697	2442	3.76	3.76	-10370	9716	11195	42820	40537	9588	50125	No	20.53	Si
SLU 39	5.15	-13498.03	-9065	-7633	4323	3.008	1.1727	0	0	0	42820	32430	7670	40100	No	9.28	Si
SLU 74	1.39	3789.7	-19642	-16540	4567	3.76	3.76	-14664	10288	13132	42820	40537	9588	50125	No	10.98	Si
SLU 74	3.27	-4067.61	-14339	-12075	2362	3.76	3.76	-10705	9761	11346	42820	40537	9588	50125	No	21.22	Si
SLU 74	5.15	-11663.15	-7933	-6680	3942	3.008	1.2291	0	0	0	42820	32430	7670	40100	No	10.17	Si
SLU 77	1.39	3789.7	-19642	-16540	4567	3.76	3.76	-14664	10288	13132	42820	40537	9588	50125	No	10.98	Si
SLU 77	3.27	-4067.61	-14339	-12075	2362	3.76	3.76	-10705	9761	11346	42820	40537	9588	50125	No	21.22	Si
SLU 77	5.15	-11663.15	-7933	-6680	3942	3.008	1.2291	0	0	0	42820	32430	7670	40100	No	10.17	Si
SLU 82	1.39	3607.95	-20915	-17612	4966	3.76	3.76	-15614	10415	13561	42820	40537	9588	50125	No	10.09	Si
SLU 82	3.27	-5128.49	-15652	-13180	2624	3.76	3.76	-11685	9891	11788	42820	40537	9588	50125	No	19.1	Si
SLU 82	5.15	-13822.73	-9342	-7867	4545	3.008	1.201	0	0	0	42820	32430	7670	40100	No	8.82	Si
SLU 81	1.39	3594.62	-20945	-17637	4974	3.76	3.76	-15636	10418	13571	42820	40537	9588	50125	No	10.08	Si
SLU 81	3.27	-5135.62	-15673	-13198	2644	3.76	3.76	-11701	9893	11795	42820	40537	9588	50125	No	18.96	Si
SLU 81	5.15	-13814.86	-9338	-7863	4545	3.008	1.2016	0	0	0	42820	32430	7670	40100	No	8.82	Si
SLU 83	1.39	3594.62	-20945	-17637	4974	3.76	3.76	-15636	10418	13571	42820	40537	9588	50125	No	10.08	Si
SLU 83	3.27	-5135.62	-15673	-13198	2644	3.76	3.76	-11701	9893	11795	42820	40537	9588	50125	No	18.96	Si
SLU 83	5.15	-13814.86	-9338	-7863	4545	3.008	1.2016	0	0	0	42820	32430	7670	40100	No	8.82	Si
SLU 42	1.39	2583.81	-17930	-15099	4407	3.76	3.76	-13386	10118	12556	42820	40537	9588	50125	No	11.38	Si
SLU 42	3.27	-5316.05	-13869	-11679	2421	3.76	3.76	-10354	9714	11188	42820	40537	9588	50125	No	20.7	Si
SLU 42	5.15	-13505.91	-9069	-7637	4322	3.008	1.172	0	0	0	42820	32430	7670	40100	No	9.28	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 11	1.39	-3627.16	-10891	-9171	-1558	3.76	3.76	-8131	14126	13443	42820	60806	9588	56262		36.11	Si
SLV 11	3.27	-5257.81	-7354	-6193	-5125	3.76	3.4953	-5917	13683	12251	42820	60806	9588	55071		10.75	Si
SLV 11	5.15	-5221.21	-3896	-3281	-326	3.008	1.6195	0	0	0	42820	48645	7670	42820		131.51	Si
SLV 9	1.39	10604.29	-14398	-12125	7277	3.76	3.4304	-10749	14650	14624	42820	60806	9588	57444		7.89	Si
SLV 9	3.27	2673.99	-10365	-8728	8138	3.76	3.76	-7738	14048	13265	42820	60806	9588	56085		6.89	Si
SLV 9	5.15	-6802.08	-4325	-3642	5137	3.008	0.9219	0	0	0	42820	48645	7670	42820		8.34	Si
SLV 6	1.39	9937.24	-15635	-13166	7419	3.76	3.7333	-11672	14834	15041	42820	60806	9588	57861		7.8	Si
SLV 6	3.27	1899.74	-10977	-9244	7952	3.76	3.76	-8195	14139	13472	42820	60806	9588	56292		7.08	Si
SLV 6	5.15	-6786.03	-4426	-3727	4708	3.008	1.04	0	0	0	42820	48645	7670	42820		9.1	Si
SLV 8	1.39	-4294.21	-12128	-10213	-1416	3.76	3.76	-9054	14311	13859	42820	60806	9588	56679		40.02	Si
SLV 8	3.27	-6032.06	-7967	-6709	-5310	3.76	3.3685	-6648	13830	12458	42820	60806	9588	55278		10.41	Si
SLV 8	5.15	-5205.16	-3996	-3365	-755	3.008	1.7326	0	0	0	42820	48645	7670	42820		56.72	Si
SLV 5	1.39	11538.59	-16194	-13637	8291	3.76	3.5024	-12089	14918	15229	42820	60806	9588	58049		7	Si
SLV 5	3.27	2868.93	-11440	-9634	9606	3.76	3.76	-8541	14208	13628	42820	60806	9588	56448		5.88	Si
SLV 5	5.15	-7050.98	-4488	-3780	5653	3.008	0.927	0	0	0	42820	48645	7670	42820		7.58	Si
SLV 12	1.39	-5228.52	-10333	-8701	-2430	3.76	3.76	-7714	14043	13255	42820	60806	9588	56074		23.08	Si
SLV 12	3.27	-6226.99	-6891	-5803	-6779	3.76	2.9292	-6617	13823	12095	42820	60806	9588	54915		8.1	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 12	5.15	-4956.26	-3833	-3228	-1270	3.008	1.7612	0	0	0	42820	48645	7670	42820		33.71	Si
SLV 1	1.39	7642.36	-17059	-14366	6378	3.76	3.76	-12735	15047	15520	42820	60806	9588	58340		9.15	Si
SLV 1	3.27	317.05	-11640	-9802	6673	3.76	3.76	-8690	14238	13695	42820	60806	9588	56515		8.47	Si
SLV 1	5.15	-6787.19	-4528	-3813	4339	3.008	1.1432	0	0	0	42820	48645	7670	42820		9.87	Si
SLV 2	1.39	6051.51	-16504	-13898	5512	3.76	3.76	-12321	14964	15333	42820	60806	9588	58153		10.55	Si
SLV 2	3.27	-645.78	-11180	-9414	5030	3.76	3.76	-8346	14169	13540	42820	60806	9588	56360		11.21	Si
SLV 2	5.15	-6523.97	-4466	-3761	3400	3.008	1.2574	0	0	0	42820	48645	7670	42820		12.59	Si
SLV 16	1.39	-1332.29	-9467	-7972	-517	3.76	3.76	-7068	13914	12963	42820	60806	9588	55783		107.99	Si
SLV 16	3.27	-3675.12	-6692	-5635	-3845	3.76	3.76	-4996	13499	12028	42820	60806	9588	54848		14.26	Si
SLV 16	5.15	-5220.05	-3794	-3195	44	3.008	1.5119	0	0	0	42820	48645	7670	42820		978.05	Si
SLV 10	1.39	9002.93	-13840	-11654	6406	3.76	3.6884	-10332	14566	14436	42820	60806	9588	57256		8.94	Si
SLV 10	3.27	1704.8	-9902	-8338	6483	3.76	3.76	-7392	13978	13109	42820	60806	9588	55929		8.63	Si
SLV 10	5.15	-6537.13	-4263	-3590	4193	3.008	1.0392	0	0	0	42820	48645	7670	42820		10.21	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.27 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 16	215625	0.48	5932	-6692	590.6	971.28	1.64	Si
SLV 12	215625	0.48	6109	-6891	590.6	999.23	1.69	Si
SLV 15	215625	0.48	6340	-7152	590.6	1035.68	1.75	Si
SLV 11	215625	0.48	6520	-7354	590.6	1063.92	1.8	Si
SLV 14	215625	0.48	6733	-7595	590.6	1097.39	1.86	Si
SLV 8	215625	0.48	7063	-7967	590.6	1148.95	1.95	Si
SLV 13	215625	0.48	7141	-8055	590.6	1161.19	1.97	Si
SLV 7	215625	0.48	7473	-8430	590.6	1212.92	2.05	Si
SLV 10	215625	0.48	8778	-9902	590.6	1414.12	2.39	Si
SLV 4	215625	0.48	9110	-10276	590.6	1464.85	2.48	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 1	-4528	-17059	1300	2.433	1102.9	0.89	39.74981	14.51032	Si
SLV 2	-4466	-16504	1301	2.451	1097.1	0.889	40.04719	14.51032	Si
SLV 3	-4399	-16007	1281	2.473	1091	0.889	40.41173	14.51032	Si
SLV 4	-4337	-15452	1281	2.492	1085.2	0.889	40.71808	14.51032	Si
SLV 13	-3984	-11074	-1444	2.581	1052.8	0.889	42.20398	14.51032	Si
SLV 14	-3922	-10519	-1444	2.602	1047.2	0.889	42.53976	14.51032	Si
SLV 15	-3856	-10022	-1464	2.622	1041.1	0.889	42.86143	14.51032	Si
SLV 16	-3794	-9467	-1464	2.643	1035.5	0.889	43.20702	14.51032	Si
SLV 5	-4488	-16194	363	2.558	1099.2	0.89	41.78491	13.89303	Si
SLV 6	-4426	-15635	363	2.577	1093.4	0.889	42.10114	13.89303	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	1.495	SLU 82	Si
V_SLU	8.823	SLU 81	Si
PF_SLV	1.749	SLV 5	Si
V_SLV	5.876	SLV 5	Si
PFFP_SLV	1.645	SLV 16	Si
R_SLV	2.739	SLV 1	Si

Maschio 25

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.183	5.726	-34.183	3.931	L2	L3	1.795	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 47	1.39	-795.74	-4689	-0.0000205	0.0004492	0.0035	1.795	3908.41	4816.63	4816.63	6.05	No	Si
SLU 47	3.27	68.14	-2993	-0.0000089	0.0004492	0.0035	1.795	2564.28	2760	2760	40.51	No	Si
SLU 47	5.15	92.93	-76	-0.0000819	0.0004492	0.0035	1.436	0	246.77	246.77	2.66	No	Si
SLU 49	1.39	-796.68	-4718	-0.0000206	0.0004492	0.0035	1.795	3931.13	4840.19	4840.19	6.08	No	Si
SLU 49	3.27	85.13	-2983	-0.000009	0.0004492	0.0035	1.795	2555.9	2751.38	2751.38	32.32	No	Si
SLU 49	5.15	86.32	-73	-0.0000706	0.0004492	0.0035	1.436	0	243.85	243.85	2.82	No	Si
SLU 45	1.39	-798.08	-4763	-0.0000207	0.0004492	0.0035	1.795	3965.16	4875.55	4875.55	6.11	No	Si
SLU 45	3.27	110.61	-2968	-0.0000092	0.0004492	0.0035	1.795	2543.32	2738.45	2738.45	24.76	No	Si
SLU 45	5.15	76.41	-68	-0.000054	0.0004492	0.0035	1.436	0	239.47	239.47	3.13	No	Si
SLU 51	1.39	-796.68	-4718	-0.0000206	0.0004492	0.0035	1.795	3931.13	4840.19	4840.19	6.08	No	Si
SLU 51	3.27	85.13	-2983	-0.000009	0.0004492	0.0035	1.795	2555.9	2751.38	2751.38	32.32	No	Si
SLU 51	5.15	86.32	-73	-0.0000706	0.0004492	0.0035	1.436	0	243.85	243.85	2.82	No	Si
SLU 44	1.39	-795.74	-4689	-0.0000205	0.0004492	0.0035	1.795	3908.41	4816.63	4816.63	6.05	No	Si
SLU 44	3.27	68.14	-2993	-0.0000089	0.0004492	0.0035	1.795	2564.28	2760	2760	40.51	No	Si
SLU 44	5.15	92.93	-76	-0.0000819	0.0004492	0.0035	1.436	0	246.77	246.77	2.66	No	Si
SLU 50	1.39	-798.08	-4763	-0.0000207	0.0004492	0.0035	1.795	3965.16	4875.55	4875.55	6.11	No	Si
SLU 50	3.27	110.61	-2968	-0.0000092	0.0004492	0.0035	1.795	2543.32	2738.45	2738.45	24.76	No	Si
SLU 50	5.15	76.41	-68	-0.000054	0.0004492	0.0035	1.436	0	239.47	239.47	3.13	No	Si
SLU 65	1.39	-1001.9	-5314	-0.0000242	0.0004492	0.0035	1.795	4384.01	5318.09	5318.09	5.31	No	Si
SLU 65	3.27	133.04	-3437	-0.0000108	0.0004492	0.0035	1.795	2923.2	3127.88	3127.88	23.51	No	Si
SLU 65	5.15	117.83	-197	-0.0000021	0.0004492	0.0035	1.795	176.64	354.61	354.61	3.01	No	Si
SLU 68	1.39	-1001.9	-5314	-0.0000242	0.0004492	0.0035	1.795	4384.01	5318.09	5318.09	5.31	No	Si
SLU 68	3.27	133.04	-3437	-0.0000108	0.0004492	0.0035	1.795	2923.2	3127.88	3127.88	23.51	No	Si
SLU 68	5.15	117.83	-197	-0.0000021	0.0004492	0.0035	1.795	176.64	354.61	354.61	3.01	No	Si
SLU 48	1.39	-798.08	-4763	-0.0000207	0.0004492	0.0035	1.795	3965.16	4875.55	4875.55	6.11	No	Si
SLU 48	3.27	110.61	-2968	-0.0000092	0.0004492	0.0035	1.795	2543.32	2738.45	2738.45	24.76	No	Si
SLU 48	5.15	76.41	-68	-0.000054	0.0004492	0.0035	1.436	0	239.47	239.47	3.13	No	Si
SLU 46	1.39	-796.68	-4718	-0.0000206	0.0004492	0.0035	1.795	3931.13	4840.19	4840.19	6.08	No	Si
SLU 46	3.27	85.13	-2983	-0.000009	0.0004492	0.0035	1.795	2555.9	2751.38	2751.38	32.32	No	Si
SLU 46	5.15	86.32	-73	-0.0000706	0.0004492	0.0035	1.436	0	243.85	243.85	2.82	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 6	1.39	256.63	-4300	-0.0000143	0.0006738	0.0035	1.795		3889.76	3889.76	15.16		Si
SLV 6	3.27	498.9	-2176	-0.0000106	0.0006738	0.0035	1.795		2085.67	2085.67	4.18		Si
SLV 6	5.15	-689.71	212	0.0216204	0.0006738	0.0035	1.436		0	0	0		No
SLV 5	1.39	498.19	-4513	-0.0000171	0.0006738	0.0035	1.795		4067.93	4067.93	8.17		Si
SLV 5	3.27	595.41	-2166	-0.0000114	0.0006738	0.0035	1.795		2076.55	2076.55	3.49		Si
SLV 5	5.15	-1007.84	211	0.0213946	0.0006738	0.0035	1.436		0	0	0		No
SLV 15	1.39	-1267.92	-2105	-0.0000235	0.0006738	0.0035	1.436		2701.23	2701.23	2.13		Si
SLV 15	3.27	-483.34	-2614	-0.0000116	0.0006738	0.0035	1.795		3135.46	3135.46	6.49		Si
SLV 15	5.15	886.45	-359	-0.0034046	0.0006738	0.0035	1.436		497.78	497.78	0.56		No
SLV 10	1.39	127.64	-2754	-0.0000088	0.0006738	0.0035	1.795		2584.16	2584.16	20.25		Si
SLV 10	3.27	109.68	-1947	-0.0000064	0.0006738	0.0035	1.795		1887.84	1887.84	17.21		Si
SLV 10	5.15	-239.91	181	0.0181219	0.0006738	0.0035	1.436		0	0	0		No
SLV 12	1.39	-2158.27	-4203	-0.0000365	0.0006738	0.0035	1.436		4473.46	4473.46	2.07		Si
SLV 12	3.27	-252.06	-3402	-0.0000117	0.0006738	0.0035	1.795		3802.02	3802.02	15.08		Si
SLV 12	5.15	1173.44	-591	-0.0042686	0.0006738	0.0035	1.436		703.25	703.25	0.6		No
SLV 14	1.39	-822.12	-1458	-0.0000144	0.0006738	0.0035	1.436		2145.48	2145.48	2.61		Si
SLV 14	3.27	-470.69	-2188	-0.0000103	0.0006738	0.0035	1.795		2772.39	2772.39	5.89		Si
SLV 14	5.15	778.49	-126	-0.0047067	0.0006738	0.0035	1.436		291.08	291.08	0.37		No
SLV 13	1.39	-582.15	-1670	-0.00001	0.0006738	0.0035	1.795		2327.86	2327.86	4		Si
SLV 13	3.27	-374.81	-2178	-0.0000094	0.0006738	0.0035	1.795		2763.45	2763.45	7.37		Si
SLV 13	5.15	462.45	-127	-0.0015733	0.0006738	0.0035	1.436		292.16	292.16	0.63		No
SLV 16	1.39	-1507.89	-1893	-0.0000575	0.0006738	0.0035	1.436		2519.29	2519.29	1.67		Si
SLV 16	3.27	-579.21	-2625	-0.0000125	0.0006738	0.0035	1.795		3144.41	3144.41	5.43		Si
SLV 16	5.15	1202.49	-357	-0.0066791	0.0006738	0.0035	1.436		496.7	496.7	0.41		No
SLV 9	1.39	369.2	-2967	-0.0000116	0.0006738	0.0035	1.795		2765.6	2765.6	7.49		Si
SLV 9	3.27	206.2	-1936	-0.0000072	0.0006738	0.0035	1.795		1878.73	1878.73	9.11		Si
SLV 9	5.15	-558.04	179	0.0182831	0.0006738	0.0035	1.436		0	0	0		No
SLV 11	1.39	-1916.71	-4416	-0.0000317	0.0006738	0.0035	1.795		4651.41	4651.41	2.43		Si
SLV 11	3.27	-155.55	-3391	-0.0000108	0.0006738	0.0035	1.795		3793.1	3793.1	24.39		Si
SLV 11	5.15	855.32	-593	-0.0014056	0.0006738	0.0035	1.436		704.33	704.33	0.82		No

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 82	1.39	-1517.14	-7098	-5978	-1346	1.795	1.795	-11101	9813	3668	42820	19352	4577	23930	No	17.78	Si
SLU 82	3.27	404.69	-4714	-3969	-786	1.795	1.795	-7371	9316	3132	42820	19352	4577	23930	No	30.45	Si
SLU 82	5.15	162.96	-552	-465	-18	1.795	1.795	-863	8448	2198	42820	19352	4577	23930	No	1303.41	Si
SLU 83	1.39	-1518.54	-7143	-6015	-1322	1.795	1.795	-11170	9823	3678	42820	19352	4577	23930	No	18.09	Si
SLU 83	3.27	430.17	-4698	-3956	-746	1.795	1.795	-7347	9313	3129	42820	19352	4577	23930	No	32.08	Si
SLU 83	5.15	153.04	-547	-461	5	1.795	1.795	-855	8447	2197	42820	19352	4577	23930	No	4604.87	Si
SLU 79	1.39	-1364.25	-6616	-5572	-1244	1.795	1.795	-10346	9713	3560	42820	19352	4577	23930	No	19.24	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 79	3.27	353.77	-4312	-3631	-652	1.795	1.795	-6743	9232	3042	42820	19352	4577	23930	No	36.73	Si
SLU 79	5.15	137.52	-440	-370	-29	1.795	1.7541	-688	8425	2173	42820	19352	4577	23930	No	821.47	Si
SLU 78	1.39	-1362.85	-6572	-5534	-1267	1.795	1.795	-10277	9704	3550	42820	19352	4577	23930	No	18.89	Si
SLU 78	3.27	328.29	-4327	-3644	-692	1.795	1.795	-6767	9236	3046	42820	19352	4577	23930	No	34.6	Si
SLU 78	5.15	147.44	-445	-374	-53	1.795	1.6975	-695	8426	2174	42820	19352	4577	23930	No	454.19	Si
SLU 76	1.39	-1361.91	-6542	-5509	-1282	1.795	1.795	-10231	9697	3543	42820	19352	4577	23930	No	18.66	Si
SLU 76	3.27	311.3	-4338	-3653	-718	1.795	1.795	-6783	9238	3048	42820	19352	4577	23930	No	33.32	Si
SLU 76	5.15	154.05	-448	-377	-68	1.795	1.6606	-700	8427	2174	42820	19352	4577	23930	No	349.9	Si
SLU 81	1.39	-1518.54	-7143	-6015	-1322	1.795	1.795	-11170	9823	3678	42820	19352	4577	23930	No	18.09	Si
SLU 81	3.27	430.17	-4698	-3956	-746	1.795	1.795	-7347	9313	3129	42820	19352	4577	23930	No	32.08	Si
SLU 81	5.15	153.04	-547	-461	5	1.795	1.795	-855	8447	2197	42820	19352	4577	23930	No	4604.87	Si
SLU 73	1.39	-1361.91	-6542	-5509	-1282	1.795	1.795	-10231	9697	3543	42820	19352	4577	23930	No	18.66	Si
SLU 73	3.27	311.3	-4338	-3653	-718	1.795	1.795	-6783	9238	3048	42820	19352	4577	23930	No	33.32	Si
SLU 73	5.15	154.05	-448	-377	-68	1.795	1.6606	-700	8427	2174	42820	19352	4577	23930	No	349.9	Si
SLU 75	1.39	-1362.85	-6572	-5534	-1267	1.795	1.795	-10277	9704	3550	42820	19352	4577	23930	No	18.89	Si
SLU 75	3.27	328.29	-4327	-3644	-692	1.795	1.795	-6767	9236	3046	42820	19352	4577	23930	No	34.6	Si
SLU 75	5.15	147.44	-445	-374	-53	1.795	1.6975	-695	8426	2174	42820	19352	4577	23930	No	454.19	Si
SLU 80	1.39	-1362.85	-6572	-5534	-1267	1.795	1.795	-10277	9704	3550	42820	19352	4577	23930	No	18.89	Si
SLU 80	3.27	328.29	-4327	-3644	-692	1.795	1.795	-6767	9236	3046	42820	19352	4577	23930	No	34.6	Si
SLU 80	5.15	147.44	-445	-374	-53	1.795	1.6975	-695	8426	2174	42820	19352	4577	23930	No	454.19	Si
SLU 84	1.39	-1517.14	-7098	-5978	-1346	1.795	1.795	-11101	9813	3668	42820	19352	4577	23930	No	17.78	Si
SLU 84	3.27	404.69	-4714	-3969	-786	1.795	1.795	-7371	9316	3132	42820	19352	4577	23930	No	30.45	Si
SLU 84	5.15	162.96	-552	-465	-18	1.795	1.795	-863	8448	2198	42820	19352	4577	23930	No	1303.41	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 14	1.39	-822.12	-1458	-1228	-2279	1.436	1.0012	0	0	0	42820	23223	3662	26885		11.8	Si
SLV 14	3.27	-470.69	-2188	-1843	-2602	1.795	1.795	-3422	13184	3602	42820	29029	4577	33606		12.92	Si
SLV 14	5.15	778.49	-126	-106	-1694	1.436	0	0	0	0	42820	23223	3662	26885		15.87	Si
SLV 16	1.39	-1507.89	-1893	-1594	-3332	1.436	0.3027	0	0	0	42820	23223	3662	26885		8.07	Si
SLV 16	3.27	-579.21	-2625	-2211	-4245	1.795	1.795	-4105	13321	3700	42820	29029	4577	33606		7.92	Si
SLV 16	5.15	1202.49	-357	-301	-2205	1.436	0	0	0	0	42820	23223	3662	26885		12.19	Si
SLV 12	1.39	-2158.27	-4203	-3539	-3349	1.436	1.1519	0	0	0	42820	23223	3662	26885		8.03	Si
SLV 12	3.27	-252.06	-3402	-2865	-4319	1.795	1.795	-5320	13564	3875	42820	29029	4577	33606		7.78	Si
SLV 12	5.15	1173.44	-591	-498	-1672	1.436	0	0	0	0	42820	23223	3662	26885		16.08	Si
SLV 11	1.39	-1916.71	-4416	-3719	-2870	1.795	1.3905	-8941	14288	4102	42820	29029	4577	33606		11.71	Si
SLV 11	3.27	-155.55	-3391	-2856	-3466	1.795	1.795	-5303	13561	3872	42820	29029	4577	33606		9.7	Si
SLV 11	5.15	855.32	-593	-499	-1127	1.436	0	0	0	0	42820	23223	3662	26885		23.86	Si
SLV 2	1.39	-392.16	-6611	-5567	1187	1.795	1.795	-10339	14568	4595	42820	29029	4577	33606		28.3	Si
SLV 2	3.27	826.69	-2953	-2487	2673	1.795	1.795	-4618	13424	3774	42820	29029	4577	33606		12.57	Si
SLV 2	5.15	-720.84	-22	-19	1537	1.436	0	0	0	0	42820	23223	3662	26885		17.49	Si
SLV 8	1.39	-2029.28	-5749	-4841	-2309	1.795	1.6335	-9909	14482	4402	42820	29029	4577	33606		14.56	Si
SLV 8	3.27	137.15	-3631	-3058	-2737	1.795	1.795	-5679	13636	3926	42820	29029	4577	33606		12.28	Si
SLV 8	5.15	723.65	-560	-472	-703	1.436	0	0	0	0	42820	23223	3662	26885		38.26	Si
SLV 5	1.39	498.19	-4513	-3801	1680	1.795	1.795	-7058	13912	4124	42820	29029	4577	33606		20.01	Si
SLV 5	3.27	595.41	-2166	-1824	3595	1.795	1.795	-3387	13177	3597	42820	29029	4577	33606		9.35	Si
SLV 5	5.15	-1007.84	211	177	1546	1.436	0	0	0	0	42820	23223	3662	26885		17.39	Si
SLV 1	1.39	-152.19	-6823	-5746	1663	1.795	1.795	-10670	14634	4643	42820	29029	4577	33606		20.21	Si
SLV 1	3.27	922.56	-2943	-2478	3521	1.795	1.752	-4602	13420	3772	42820	29029	4577	33606		9.54	Si
SLV 1	5.15	-1036.88	-24	-20	2079	1.436	0	0	0	0	42820	23223	3662	26885		12.93	Si
SLV 15	1.39	-1267.92	-2105	-1773	-2857	1.436	0.8854	0	0	0	42820	23223	3662	26885		9.41	Si
SLV 15	3.27	-483.34	-2614	-2202	-3398	1.795	1.795	-4089	13318	3698	42820	29029	4577	33606		9.89	Si
SLV 15	5.15	886.45	-359	-302	-1663	1.436	0	0	0	0	42820	23223	3662	26885		16.16	Si
SLV 6	1.39	256.63	-4300	-3621	1201	1.795	1.795	-6724	13845	4076	42820	29029	4577	33606		27.98	Si
SLV 6	3.27	498.9	-2176	-1833	2742	1.795	1.795	-3403	13181	3599	42820	29029	4577	33606		12.26	Si
SLV 6	5.15	-689.71	212	178	1001	1.436	0	0	0	0	42820	23223	3662	26885		26.87	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.27 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 9	215625	0.48	3596	-1936	281.95	284.74	1.01	Si
SLV 10	215625	0.48	3615	-1947	281.95	286.27	1.02	Si
SLV 5	215625	0.48	4022	-2166	281.95	317.72	1.13	Si
SLV 6	215625	0.48	4041	-2176	281.95	319.24	1.13	Si
SLV 13	215625	0.48	4044	-2178	281.95	319.48	1.13	Si
SLV 14	215625	0.48	4064	-2188	281.95	320.99	1.14	Si
SLV 15	215625	0.48	4855	-2614	281.95	381.78	1.35	Si
SLV 16	215625	0.48	4875	-2625	281.95	383.27	1.36	Si
SLV 1	215625	0.48	5465	-2943	281.95	428.24	1.52	Si
SLV 2	215625	0.48	5484	-2953	281.95	429.72	1.52	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 11	-593	-4416	-218	4.155	395.3	0.915	65.97292	13.89303	Si
SLV 12	-591	-4203	-216	4.158	395.2	0.915	66.01244	13.89303	Si
SLV 7	-562	-5962	-176	4.226	393.3	0.917	66.95112	13.89303	Si
SLV 8	-560	-5749	-174	4.229	393.3	0.917	66.99121	13.89303	Si
SLV 15	-359	-2105	-125	4.639	381.8	0.936	72.04975	14.51032	Si
SLV 16	-357	-1893	-123	4.642	381.8	0.936	72.09224	14.51032	Si

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 3	-255	-7258	17	4.92	377.2	0.949	75.35804	14.51032	Si
SLV 4	-254	-7046	19	4.922	377.2	0.949	75.37436	14.51032	Si
SLV 13	-127	-1670	-3	5.248	373.1	0.97	78.59461	14.51032	Si
SLV 14	-126	-1458	-1	5.252	373.1	0.971	78.63816	14.51032	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.655	SLU 44	Si
V_SLU	17.783	SLU 82	Si
PF_SLV	0	SLV 5	No
V_SLV	7.78	SLV 12	Si
PFFP_SLV	1.01	SLV 9	Si
R_SLV	4.749	SLV 11	Si

Maschio 26

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-25.893	-3.854	-34.183	-3.854	L2	L3	8.29	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 43	1.39	-7943.49	-26732	-0.0000182	0.0004492	0.0035	8.2902	101059.06	144082.77	144082.77	18.14	No	Si
SLU 43	3.27	-4544.65	-17040	-0.0000113	0.0004492	0.0035	8.2902	66670.35	107661.34	107661.34	23.69	No	Si
SLU 43	5.15	1196.24	-8259	-0.000005	0.0004492	0.0035	8.2902	33302.87	40221.45	40221.45	33.62	No	Si
SLU 2	1.39	-6355.61	-21566	-0.0000146	0.0004492	0.0035	8.2902	83048.23	124760.83	124760.83	19.63	No	Si
SLU 2	3.27	-3505.48	-14330	-0.0000094	0.0004492	0.0035	8.2902	56597.22	97423.64	97423.64	27.79	No	Si
SLU 2	5.15	1212.52	-7749	-0.0000048	0.0004492	0.0035	8.2902	31302.27	38211.7	38211.7	31.51	No	Si
SLU 47	1.39	-8374.6	-26635	-0.0000183	0.0004492	0.0035	8.2902	100726.89	143734.27	143734.27	17.16	No	Si
SLU 47	3.27	-4660.25	-16995	-0.0000113	0.0004492	0.0035	8.2902	66505.29	107491.92	107491.92	23.07	No	Si
SLU 47	5.15	1238.97	-8252	-0.0000051	0.0004492	0.0035	8.2902	33274.95	40193.35	40193.35	32.44	No	Si
SLU 50	1.39	-7943.49	-26732	-0.0000182	0.0004492	0.0035	8.2902	101059.06	144082.77	144082.77	18.14	No	Si
SLU 50	3.27	-4544.65	-17040	-0.0000113	0.0004492	0.0035	8.2902	66670.35	107661.34	107661.34	23.69	No	Si
SLU 50	5.15	1196.24	-8259	-0.000005	0.0004492	0.0035	8.2902	33302.87	40221.45	40221.45	33.62	No	Si
SLU 46	1.39	-8202.15	-26674	-0.0000183	0.0004492	0.0035	8.2902	100859.79	143873.67	143873.67	17.54	No	Si
SLU 46	3.27	-4614.01	-17013	-0.0000113	0.0004492	0.0035	8.2902	66571.32	107559.69	107559.69	23.31	No	Si
SLU 46	5.15	1221.87	-8254	-0.0000051	0.0004492	0.0035	8.2902	33286.12	40204.59	40204.59	32.9	No	Si
SLU 48	1.39	-7943.49	-26732	-0.0000182	0.0004492	0.0035	8.2902	101059.06	144082.77	144082.77	18.14	No	Si
SLU 48	3.27	-4544.65	-17040	-0.0000113	0.0004492	0.0035	8.2902	66670.35	107661.34	107661.34	23.69	No	Si
SLU 48	5.15	1196.24	-8259	-0.000005	0.0004492	0.0035	8.2902	33302.87	40221.45	40221.45	33.62	No	Si
SLU 44	1.39	-8374.6	-26635	-0.0000183	0.0004492	0.0035	8.2902	100726.89	143734.27	143734.27	17.16	No	Si
SLU 44	3.27	-4660.25	-16995	-0.0000113	0.0004492	0.0035	8.2902	66505.29	107491.92	107491.92	23.07	No	Si
SLU 44	5.15	1238.97	-8252	-0.0000051	0.0004492	0.0035	8.2902	33274.95	40193.35	40193.35	32.44	No	Si
SLU 49	1.39	-8202.15	-26674	-0.0000183	0.0004492	0.0035	8.2902	100859.79	143873.67	143873.67	17.54	No	Si
SLU 49	3.27	-4614.01	-17013	-0.0000113	0.0004492	0.0035	8.2902	66571.32	107559.69	107559.69	23.31	No	Si
SLU 49	5.15	1221.87	-8254	-0.0000051	0.0004492	0.0035	8.2902	33286.12	40204.59	40204.59	32.9	No	Si
SLU 45	1.39	-7943.49	-26732	-0.0000182	0.0004492	0.0035	8.2902	101059.06	144082.77	144082.77	18.14	No	Si
SLU 45	3.27	-4544.65	-17040	-0.0000113	0.0004492	0.0035	8.2902	66670.35	107661.34	107661.34	23.69	No	Si
SLU 45	5.15	1196.24	-8259	-0.000005	0.0004492	0.0035	8.2902	33302.87	40221.45	40221.45	33.62	No	Si
SLU 51	1.39	-8202.15	-26674	-0.0000183	0.0004492	0.0035	8.2902	100859.79	143873.67	143873.67	17.54	No	Si
SLU 51	3.27	-4614.01	-17013	-0.0000113	0.0004492	0.0035	8.2902	66571.32	107559.69	107559.69	23.31	No	Si
SLU 51	5.15	1221.87	-8254	-0.0000051	0.0004492	0.0035	8.2902	33286.12	40204.59	40204.59	32.9	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 13	1.39	-26885.22	-22844	-0.0000236	0.0006738	0.0035	8.2902		130671.85	130671.85	4.86		Si
SLV 13	3.27	-10005.68	-17192	-0.0000136	0.0006738	0.0035	8.2902		108939.15	108939.15	10.89		Si
SLV 13	5.15	3856.45	-12168	-0.0000083	0.0006738	0.0035	8.2902		55983.66	55983.66	14.52		Si
SLV 16	1.39	-20988.45	-19976	-0.0000196	0.0006738	0.0035	8.2902		119666.11	119666.11	5.7		Si
SLV 16	3.27	-8949.78	-16420	-0.0000127	0.0006738	0.0035	8.2902		105944.28	105944.28	11.84		Si
SLV 16	5.15	3734.42	-12178	-0.0000082	0.0006738	0.0035	8.2902		56025.08	56025.08	15		Si
SLV 14	1.39	-27210.1	-23256	-0.000024	0.0006738	0.0035	8.2902		132250.14	132250.14	4.86		Si
SLV 14	3.27	-10278.41	-17379	-0.0000138	0.0006738	0.0035	8.2902		109663.89	109663.89	10.67		Si
SLV 14	5.15	3609.49	-12208	-0.0000082	0.0006738	0.0035	8.2902		56144.78	56144.78	15.55		Si
SLV 3	1.39	17011.52	-26928	-0.0000219	0.0006738	0.0035	8.2902		113284.67	113284.67	6.66		Si
SLV 3	3.27	4364.79	-19500	-0.0000126	0.0006738	0.0035	8.2902		84761.72	84761.72	19.42		Si
SLV 3	5.15	391.17	-12523	-0.0000071	0.0006738	0.0035	8.2902		57395.12	57395.12	146.73		Si
SLV 7	1.39	11084.89	-20523	-0.0000159	0.0006738	0.0035	8.2902		88708.08	88708.08	8		Si
SLV 7	3.27	1351.11	-17238	-0.0000101	0.0006738	0.0035	8.2902		75925.45	75925.45	56.2		Si
SLV 7	5.15	1794.31	-12353	-0.0000076	0.0006738	0.0035	8.2902		56719.03	56719.03	31.61		Si
SLV 8	1.39	10757.88	-20937	-0.000016	0.0006738	0.0035	8.2902		90305.75	90305.75	8.39		Si
SLV 8	3.27	1076.58	-17426	-0.0000101	0.0006738	0.0035	8.2902		76661.74	76661.74	71.21		Si
SLV 8	5.15	1545.72	-12394	-0.0000075	0.0006738	0.0035	8.2902		56881.21	56881.21	36.8		Si
SLV 10	1.39	-21283.47	-29661	-0.0000252	0.0006738	0.0035	8.2902		156409.8	156409.8	7.35		Si
SLV 10	3.27	-7264.72	-19641	-0.0000138	0.0006738	0.0035	8.2902		118380.47	118380.47	16.3		Si
SLV 10	5.15	2206.35	-12379	-0.0000077	0.0006738	0.0035	8.2902		56820.86	56820.86	25.75		Si
SLV 9	1.39	-20956.45	-29247	-0.0000248	0.0006738	0.0035	8.2902		154889.8	154889.8	7.39		Si
SLV 9	3.27	-6990.2	-19453	-0.0000136	0.0006738	0.0035	8.2902		117659.31	117659.31	16.83		Si
SLV 9	5.15	2454.94	-12338	-0.0000078	0.0006738	0.0035	8.2902		56658.69	56658.69	23.08		Si
SLV 4	1.39	16686.65	-27340	-0.000022	0.0006738	0.0035	8.2902		114847.62	114847.62	6.88		Si
SLV 4	3.27	4092.07	-19687	-0.0000126	0.0006738	0.0035	8.2902		85482.19	85482.19	20.89		Si
SLV 4	5.15	144.21	-12563	-0.000007	0.0006738	0.0035	8.2902		57556.23	57556.23	399.11		Si
SLV 15	1.39	-20663.58	-19564	-0.0000192	0.0006738	0.0035	8.2902		118087.82	118087.82	5.71		Si
SLV 15	3.27	-8677.06	-16233	-0.0000125	0.0006738	0.0035	8.2902		105219.55	105219.55	12.13		Si
SLV 15	5.15	3981.38	-12138	-0.0000083	0.0006738	0.0035	8.2902		55863.96	55863.96	14.03		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 83	1.39	-4119.47	-42090	-30611	1373	8.2902	8.2902	-12308	9974	26611	122342	89378	42280	131658	No	95.9	Si
SLU 83	3.27	-2551.52	-35304	-25675	1350	8.2902	8.2902	-10324	9710	24637	122342	89378	42280	131658	No	97.5	Si
SLU 83	5.15	4943.29	-29025	-21109	1345	8.2902	8.2902	-8487	9465	22810	122342	89378	42280	131658	No	97.87	Si
SLU 42	1.39	-2359.16	-36962	-26882	1107	8.2902	8.2902	-10809	9774	25119	122342	89378	42280	131658	No	118.9	Si
SLU 42	3.27	-1466.11	-32612	-23718	1122	8.2902	8.2902	-9536	9605	23854	122342	89378	42280	131658	No	117.3	Si
SLU 42	5.15	4942.48	-28518	-20740	1167	8.2902	8.2902	-8339	9445	22663	122342	89378	42280	131658	No	112.79	Si
SLU 41	1.39	-2100.49	-37021	-26924	1362	8.2902	8.2902	-10826	9777	25136	122342	89378	42280	131658	No	96.67	Si
SLU 41	3.27	-1396.75	-32639	-23737	1342	8.2902	8.2902	-9544	9606	23862	122342	89378	42280	131658	No	98.09	Si
SLU 41	5.15	4916.85	-28522	-20743	1336	8.2902	8.2902	-8341	9445	22664	122342	89378	42280	131658	No	98.55	Si
SLU 74	1.39	-5055.25	-38734	-28170	1150	8.2902	8.2902	-11327	9844	25635	122342	89378	42280	131658	No	114.52	Si
SLU 74	3.27	-3028.88	-31266	-22739	1129	8.2902	8.2902	-9143	9552	23462	122342	89378	42280	131658	No	116.63	Si
SLU 74	5.15	4103.11	-24391	-17739	1126	8.2902	8.2902	-7133	9284	21462	122342	89378	42280	131658	No	116.95	Si
SLU 39	1.39	-2100.49	-37021	-26924	1362	8.2902	8.2902	-10826	9777	25136	122342	89378	42280	131658	No	96.67	Si
SLU 39	3.27	-1396.75	-32639	-23737	1342	8.2902	8.2902	-9544	9606	23862	122342	89378	42280	131658	No	98.09	Si
SLU 39	5.15	4916.85	-28522	-20743	1336	8.2902	8.2902	-8341	9445	22664	122342	89378	42280	131658	No	98.55	Si
SLU 82	1.39	-4378.14	-42031	-30568	1118	8.2902	8.2902	-12291	9972	26594	122342	89378	42280	131658	No	117.74	Si
SLU 82	3.27	-2620.88	-35277	-25656	1131	8.2902	8.2902	-10316	9709	24629	122342	89378	42280	131658	No	116.46	Si
SLU 82	5.15	4968.93	-29020	-21106	1177	8.2902	8.2902	-8486	9465	22809	122342	89378	42280	131658	No	111.89	Si
SLU 77	1.39	-5055.25	-38734	-28170	1150	8.2902	8.2902	-11327	9844	25635	122342	89378	42280	131658	No	114.52	Si
SLU 77	3.27	-3028.88	-31266	-22739	1129	8.2902	8.2902	-9143	9552	23462	122342	89378	42280	131658	No	116.63	Si
SLU 77	5.15	4103.11	-24391	-17739	1126	8.2902	8.2902	-7133	9284	21462	122342	89378	42280	131658	No	116.95	Si
SLU 81	1.39	-4119.47	-42090	-30611	1373	8.2902	8.2902	-12308	9974	26611	122342	89378	42280	131658	No	95.9	Si
SLU 81	3.27	-2551.52	-35304	-25675	1350	8.2902	8.2902	-10324	9710	24637	122342	89378	42280	131658	No	97.5	Si
SLU 81	5.15	4943.29	-29025	-21109	1345	8.2902	8.2902	-8487	9465	22810	122342	89378	42280	131658	No	97.87	Si
SLU 40	1.39	-2359.16	-36962	-26882	1107	8.2902	8.2902	-10809	9774	25119	122342	89378	42280	131658	No	118.9	Si
SLU 40	3.27	-1466.11	-32612	-23718	1122	8.2902	8.2902	-9536	9605	23854	122342	89378	42280	131658	No	117.3	Si
SLU 40	5.15	4942.48	-28518	-20740	1167	8.2902	8.2902	-8339	9445	22663	122342	89378	42280	131658	No	112.79	Si
SLU 84	1.39	-4378.14	-42031	-30568	1118	8.2902	8.2902	-12291	9972	26594	122342	89378	42280	131658	No	117.74	Si
SLU 84	3.27	-2620.88	-35277	-25656	1131	8.2902	8.2902	-10316	9709	24629	122342	89378	42280	131658	No	116.46	Si
SLU 84	5.15	4968.93	-29020	-21106	1177	8.2902	8.2902	-8486	9465	22809	122342	89378	42280	131658	No	111.89	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 13	1.39	-26885.22	-22844	-16614	-18390	8.2902	8.2902	-6680	13836	28196	122342	134068	42280	150538		8.19	Si
SLV 13	3.27	-10005.68	-17192	-12503	-15927	8.2902	8.2902	-5027	13505	26552	122342	134068	42280	148894		9.35	Si
SLV 13	5.15	3856.45	-12168	-8849	-12520	8.2902	8.2902	-3558	13212	25090	122342	134068	42280	147433		11.78	Si
SLV 8	1.39	10757.88	-20937	-15227	8921	8.2902	8.2902	-6122	13724	27641	122342	134068	42280	149984		16.81	Si
SLV 8	3.27	1076.58	-17426	-12673	7670	8.2902	8.2902	-5096	13519	26620	122342	134068	42280	148962		19.42	Si
SLV 8	5.15	1545.72	-12394	-9014	6222	8.2902	8.2902	-3624	13225	25156	122342	134068	42280	147498		23.71	Si
SLV 3	1.39	17011.52	-26928	-19584	18062	8.2902	8.2902	-7874	14075	29384	122342	134068	42280	151726		8.4	Si
SLV 3	3.27	4364.79	-19500	-14182	15575	8.2902	8.2902	-5702	13640	27223	122342	134068	42280	149566		9.6	Si
SLV 3	5.15	391.17	-12523	-9108	12169	8.2902	8.2902	-3662	13232	25194	122342	134068	42280	147536		12.12	Si
SLV 14	1.39	-27210.1	-23256	-16913	-16917	8.2902	8.2902	-6801	13860	28316	122342	134068	42280	150658		8.91	Si
SLV 14	3.27	-10278.41	-17379	-12639	-14456	8.2902	8.2902	-5082	13516	26606	122342	134068	42280	148948		10.3	Si
SLV 14	5.15	3609.49	-12208	-8879	-11050	8.2902	8.2902	-3570	13214	25102	122342	134068	42280	147444		13.34	Si
SLV 16	1.39	-20988.45	-19976	-14528	-15507	8.2902	8.2902	-5841	13668	27362	122342	134068	42280	149704		9.65	Si
SLV 16	3.27	-8949.78	-16420	-11942	-13372	8.2902	8.2902	-4802	13460	26327	122342	134068	42280	148670		11.12	Si
SLV 16	5.15	3734.42	-12178	-8857	-10245	8.2902	8.2902	-3561	13212	25093	122342	134068	42280	147436		14.39	Si
SLV 9	1.39	-20956.45	-29247	-21271	-7775	8.2902	8.2902	-8553	14211	30059	122342	134068	42280	152401		19.6	Si
SLV 9	3.27	-6990.2	-19453	-14147	-6552	8.2902	8.2902	-5688	13638	27209	122342	134068	42280	149552		22.83	Si
SLV 9	5.15	2454.94	-12338	-8973	-5103	8.2902	8.2902	-3608	13222	25140	122342	134068	42280	147482		28.9	Si
SLV 4	1.39	16686.65	-27340	-19883	19536	8.2902	8.2902	-7995	14099	29504	122342	134068	42280	151846		7.77	Si
SLV 4	3.27	4092.07	-19687	-14318	17046	8.2902	8.2902	-5757	13651	27277	122342	134068	42280	149620		8.78	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 4	5.15	144.21	-12563	-9137	13639	8.2902	8.2902	-3674	13235	25205	122342	134068	42280	147548		10.82	Si
SLV 15	1.39	-20663.58	-19564	-14229	-16980	8.2902	8.2902	-5721	13644	27242	122342	134068	42280	149584		8.81	Si
SLV 15	3.27	-8677.06	-16233	-11806	-14842	8.2902	8.2902	-4747	13449	26273	122342	134068	42280	148615		10.01	Si
SLV 15	5.15	3981.38	-12138	-8828	-11715	8.2902	8.2902	-3549	13210	25082	122342	134068	42280	147424		12.58	Si
SLV 1	1.39	10789.87	-30208	-21970	16652	8.2902	8.2902	-8834	14267	30338	122342	134068	42280	152681		9.17	Si
SLV 1	3.27	3036.17	-20458	-14879	14490	8.2902	8.2902	-5982	13696	27502	122342	134068	42280	149844		10.34	Si
SLV 1	5.15	266.24	-12553	-9129	11365	8.2902	8.2902	-3671	13234	25202	122342	134068	42280	147545		12.98	Si
SLV 2	1.39	10465	-30620	-22269	18125	8.2902	8.2902	-8954	14291	30458	122342	134068	42280	152800		8.43	Si
SLV 2	3.27	2763.45	-20645	-15015	15961	8.2902	8.2902	-6037	13707	27556	122342	134068	42280	149899		9.39	Si
SLV 2	5.15	19.28	-12594	-9159	12834	8.2902	8.2902	-3683	13237	25214	122342	134068	42280	147557		11.5	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 3.27 Ta 0.08 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 15	-16233	0.48	1302.17	2348.3	3774.54	3061.42	2.35	Si
SLV 11	-16258	0.48	1302.17	2351.71	3778.56	3065.14	2.35	Si
SLV 16	-16420	0.48	1302.17	2374.3	3805.21	3089.76	2.37	Si
SLV 12	-16446	0.48	1302.17	2377.88	3809.44	3093.66	2.38	Si
SLV 13	-17192	0.48	1302.17	2481.52	3931.97	3206.75	2.46	Si
SLV 7	-17238	0.48	1302.17	2487.9	3939.53	3213.71	2.47	Si
SLV 14	-17379	0.48	1302.17	2507.41	3962.65	3235.03	2.48	Si
SLV 8	-17426	0.48	1302.17	2513.95	3970.4	3242.18	2.49	Si
SLV 9	-19453	0.48	1302.17	2793.38	4303.14	3548.26	2.72	Si
SLV 3	-19500	0.48	1302.17	2799.85	4310.87	3555.36	2.73	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 4	-12563	-27340	381	2.257	2675.2	0.893	36.74678	14.51032	Si
SLV 2	-12594	-30620	-304	2.258	2678.1	0.893	36.75296	14.51032	Si
SLV 3	-12523	-26928	381	2.262	2671.3	0.893	36.81924	14.51032	Si
SLV 1	-12553	-30208	-304	2.262	2674.2	0.893	36.82516	14.51032	Si
SLV 14	-12208	-23256	-377	2.296	2641.3	0.892	37.39288	14.51032	Si
SLV 13	-12168	-22844	-378	2.3	2637.5	0.892	37.46758	14.51032	Si
SLV 16	-12178	-19976	307	2.302	2638.5	0.892	37.50383	14.51032	Si
SLV 15	-12138	-19564	307	2.307	2634.6	0.892	37.57903	14.51032	Si
SLV 6	-12494	-31870	-1129	2.229	2668.6	0.893	36.28879	13.89303	Si
SLV 5	-12453	-31456	-1129	2.233	2664.7	0.893	36.36084	13.89303	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	17.163	SLU 44	Si
V_SLU	95.902	SLU 81	Si
PF_SLV	4.86	SLV 14	Si
V_SLV	7.773	SLV 4	Si
PFFP_SLV	2.351	SLV 15	Si
R_SLV	2.532	SLV 4	Si

Maschio 27

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-34.183	5.726	-33.043	5.726	L2	L3	1.14	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 39	1.39	-239.4	-6267	-0.000034	0.0003743	0.0035	1.1401	2929.26	3441.37	3441.37	14.37	No	Si
SLU 39	3.27	725.47	-5346	-0.0000414	0.0003743	0.0035	1.1401	2579.5	2695.39	2695.39	3.72	No	Si
SLU 39	5.15	191.4	-2071	-0.0000135	0.0003743	0.0035	1.1401	1110.46	1197.27	1197.27	6.26	No	Si
SLU 83	1.39	-183.78	-7250	-0.0000373	0.0003743	0.0035	1.1401	3272.41	3848.57	3848.57	20.94	No	Si
SLU 83	3.27	770.12	-5916	-0.0000452	0.0003743	0.0035	1.1401	2799.19	2941.56	2941.56	3.82	No	Si
SLU 83	5.15	187.24	-2131	-0.0000136	0.0003743	0.0035	1.1401	1140.16	1227.92	1227.92	6.56	No	Si
SLU 32	1.39	-158.85	-5809	-0.0000299	0.0003743	0.0035	1.1401	2758.9	3243.56	3243.56	20.42	No	Si
SLU 32	3.27	628.18	-4778	-0.0000363	0.0003743	0.0035	1.1401	2349.99	2454.76	2454.76	3.91	No	Si
SLU 32	5.15	154.37	-1751	-0.0000112	0.0003743	0.0035	1.1401	948.02	1029.77	1029.77	6.67	No	Si
SLU 82	1.39	-136.9	-7325	-0.0000365	0.0003743	0.0035	1.1401	3297.11	3879.03	3879.03	28.33	No	Si
SLU 82	3.27	752.22	-5912	-0.0000448	0.0003743	0.0035	1.1401	2797.98	2940.16	2940.16	3.91	No	Si
SLU 82	5.15	185.36	-2133	-0.0000136	0.0003743	0.0035	1.1401	1141.29	1229.09	1229.09	6.63	No	Si
SLU 42	1.39	-192.52	-6341	-0.0000332	0.0003743	0.0035	1.1401	2956.36	3473.36	3473.36	18.04	No	Si
SLU 42	3.27	707.56	-5343	-0.0000409	0.0003743	0.0035	1.1401	2578.23	2694.02	2694.02	3.81	No	Si
SLU 42	5.15	189.53	-2074	-0.0000134	0.0003743	0.0035	1.1401	1111.59	1198.43	1198.43	6.32	No	Si
SLU 40	1.39	-192.52	-6341	-0.0000332	0.0003743	0.0035	1.1401	2956.36	3473.36	3473.36	18.04	No	Si
SLU 40	3.27	707.56	-5343	-0.0000409	0.0003743	0.0035	1.1401	2578.23	2694.02	2694.02	3.81	No	Si
SLU 40	5.15	189.53	-2074	-0.0000134	0.0003743	0.0035	1.1401	1111.59	1198.43	1198.43	6.32	No	Si
SLU 37	1.39	-158.85	-5809	-0.0000299	0.0003743	0.0035	1.1401	2758.9	3243.56	3243.56	20.42	No	Si
SLU 37	3.27	628.18	-4778	-0.0000363	0.0003743	0.0035	1.1401	2349.99	2454.76	2454.76	3.91	No	Si
SLU 37	5.15	154.37	-1751	-0.0000112	0.0003743	0.0035	1.1401	948.02	1029.77	1029.77	6.67	No	Si
SLU 41	1.39	-239.4	-6267	-0.000034	0.0003743	0.0035	1.1401	2929.26	3441.37	3441.37	14.37	No	Si
SLU 41	3.27	725.47	-5346	-0.0000414	0.0003743	0.0035	1.1401	2579.5	2695.39	2695.39	3.72	No	Si
SLU 41	5.15	191.4	-2071	-0.0000135	0.0003743	0.0035	1.1401	1110.46	1197.27	1197.27	6.26	No	Si
SLU 81	1.39	-183.78	-7250	-0.0000373	0.0003743	0.0035	1.1401	3272.41	3848.57	3848.57	20.94	No	Si
SLU 81	3.27	770.12	-5916	-0.0000452	0.0003743	0.0035	1.1401	2799.19	2941.56	2941.56	3.82	No	Si
SLU 81	5.15	187.24	-2131	-0.0000136	0.0003743	0.0035	1.1401	1140.16	1227.92	1227.92	6.56	No	Si
SLU 35	1.39	-158.85	-5809	-0.0000299	0.0003743	0.0035	1.1401	2758.9	3243.56	3243.56	20.42	No	Si
SLU 35	3.27	628.18	-4778	-0.0000363	0.0003743	0.0035	1.1401	2349.99	2454.76	2454.76	3.91	No	Si
SLU 35	5.15	154.37	-1751	-0.0000112	0.0003743	0.0035	1.1401	948.02	1029.77	1029.77	6.67	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 6	1.39	-823.12	-900	-0.0004703	0.0005615	0.0035	0.912		847.25	847.25	1.03		Si
SLV 6	3.27	414.43	-2216	-0.0000191	0.0005615	0.0035	1.1401		1290.33	1290.33	3.11		Si
SLV 6	5.15	205.76	-762	-0.0000083	0.0005615	0.0035	1.1401		500.6	500.6	2.43		Si
SLV 5	1.39	-1138.41	182	0.0168719	0.0005615	0.0035	0.912		0	0	0		No
SLV 5	3.27	393.1	-1870	-0.0000172	0.0005615	0.0035	1.1401		1105.23	1105.23	2.81		Si
SLV 5	5.15	312.55	-594	-0.0000446	0.0005615	0.0035	1.1401		407.4	407.4	1.3		Si
SLV 14	1.39	2090.86	-8119	-0.0000908	0.0005615	0.0035	1.1401		4057.36	4057.36	1.94		Si
SLV 14	3.27	164.67	-3474	-0.000019	0.0005615	0.0035	1.1401		1947.38	1947.38	11.83		Si
SLV 14	5.15	-219.22	-1298	-0.0000106	0.0005615	0.0035	1.1401		1064.02	1064.02	4.85		Si
SLV 15	1.39	2017.78	-8856	-0.0000904	0.0005615	0.0035	1.1401		4377.31	4377.31	2.17		Si
SLV 15	3.27	169.08	-3831	-0.0000207	0.0005615	0.0035	1.1401		2129.23	2129.23	12.59		Si
SLV 15	5.15	-181.57	-1236	-0.0000095	0.0005615	0.0035	1.1401		1030.37	1030.37	5.67		Si
SLV 4	1.39	-1722.64	-2075	-0.0011177	0.0005615	0.0035	0.912		1482.28	1482.28	0.86		No
SLV 4	3.27	620.37	-3498	-0.0000297	0.0005615	0.0035	1.1401		1960.09	1960.09	3.16		Si
SLV 4	5.15	243.88	-767	-0.00001	0.0005615	0.0035	1.1401		502.99	502.99	2.06		Si
SLV 16	1.39	2331	-9932	-0.0001047	0.0005615	0.0035	1.1401		4850.12	4850.12	2.08		Si
SLV 16	3.27	190.27	-4175	-0.0000227	0.0005615	0.0035	1.1401		2302.8	2302.8	12.1		Si
SLV 16	5.15	-287.65	-1403	-0.0000127	0.0005615	0.0035	1.1401		1120.92	1120.92	3.9		Si
SLV 3	1.39	-2035.86	-1000	-0.0032814	0.0005615	0.0035	0.912		901.74	901.74	0.44		No
SLV 3	3.27	599.17	-3154	-0.0000276	0.0005615	0.0035	1.1401		1782.21	1782.21	2.97		Si
SLV 3	5.15	349.97	-600	-0.0002238	0.0005615	0.0035	0.912		410.42	410.42	1.17		Si
SLV 1	1.39	-2275.99	813	0.1357386	0.0005615	0.0035	0.912		0	0	0		No
SLV 1	3.27	573.57	-2452	-0.0000242	0.0005615	0.0035	1.1401		1415.44	1415.44	2.47		Si
SLV 1	5.15	418.4	-495	-0.0016776	0.0005615	0.0035	0.912		351.82	351.82	0.84		No
SLV 13	1.39	1777.64	-7043	-0.0000766	0.0005615	0.0035	1.1401		3597.39	3597.39	2.02		Si
SLV 13	3.27	143.47	-3129	-0.000017	0.0005615	0.0035	1.1401		1769.31	1769.31	12.33		Si
SLV 13	5.15	-113.14	-1131	-0.0000075	0.0005615	0.0035	1.1401		973.18	973.18	8.6		Si
SLV 2	1.39	-1962.77	-262	-0.0046004	0.0005615	0.0035	0.912		495.25	495.25	0.25		No
SLV 2	3.27	594.77	-2797	-0.000026	0.0005615	0.0035	1.1401		1596.66	1596.66	2.68		Si
SLV 2	5.15	312.31	-662	-0.0000224	0.0005615	0.0035	1.1401		444.85	444.85	1.42		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 83	1.39	-183.78	-7250	-6106	-567	1.1401	1.1401	-17852	9325	2726	42820	10242	2907	13149	No	23.18	Si
SLU 83	3.27	770.12	-5916	-4982	-576	1.1401	1.1401	-14565	8886	2426	42820	10242	2907	13149	No	22.84	Si
SLU 83	5.15	187.24	-2131	-1794	-292	1.1401	1.1401	-5246	7644	1576	42820	10242	2907	13149	No	44.97	Si
SLU 41	1.39	-239.4	-6267	-5277	-594	1.1401	1.1401	-15429	9002	2505	42820	10242	2907	13149	No	22.13	Si
SLU 41	3.27	725.47	-5346	-4502	-602	1.1401	1.1401	-13163	8699	2298	42820	10242	2907	13149	No	21.86	Si
SLU 41	5.15	191.4	-2071	-1744	-317	1.1401	1.1401	-5100	7624	1563	42820	10242	2907	13149	No	41.48	Si
SLU 39	1.39	-239.4	-6267	-5277	-594	1.1401	1.1401	-15429	9002	2505	42820	10242	2907	13149	No	22.13	Si
SLU 39	3.27	725.47	-5346	-4502	-602	1.1401	1.1401	-13163	8699	2298	42820	10242	2907	13149	No	21.86	Si
SLU 39	5.15	191.4	-2071	-1744	-317	1.1401	1.1401	-5100	7624	1563	42820	10242	2907	13149	No	41.48	Si
SLU 81	1.39	-183.78	-7250	-6106	-567	1.1401	1.1401	-17852	9325	2726	42820	10242	2907	13149	No	23.18	Si
SLU 81	3.27	770.12	-5916	-4982	-576	1.1401	1.1401	-14565	8886	2426	42820	10242	2907	13149	No	22.84	Si
SLU 81	5.15	187.24	-2131	-1794	-292	1.1401	1.1401	-5246	7644	1576	42820	10242	2907	13149	No	44.97	Si
SLU 18	1.39	-166.47	-5584	-4703	-473	1.1401	1.1401	-13750	8778	2352	42820	10242	2907	13149	No	27.8	Si
SLU 18	3.27	607.72	-4620	-3891	-479	1.1401	1.1401	-11376	8461	2135	42820	10242	2907	13149	No	27.42	Si
SLU 18	5.15	153.2	-1695	-1427	-247	1.1401	1.1401	-4173	7501	1478	42820	10242	2907	13149	No	53.18	Si
SLU 82	1.39	-136.9	-7325	-6168	-497	1.1401	1.1401	-18035	9349	2742	42820	10242	2907	13149	No	26.44	Si
SLU 82	3.27	752.22	-5912	-4979	-546	1.1401	1.1401	-14557	8885	2425	42820	10242	2907	13149	No	24.06	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 82	5.15	185.36	-2133	-1796	-282	1.1401	1.1401	-5251	7645	1577	42820	10242	2907	13149	No	46.6	Si
SLU 42	1.39	-192.52	-6341	-5340	-524	1.1401	1.1401	-15613	9026	2522	42820	10242	2907	13149	No	25.08	Si
SLU 42	3.27	707.56	-5343	-4499	-572	1.1401	1.1401	-13155	8698	2297	42820	10242	2907	13149	No	22.97	Si
SLU 42	5.15	189.53	-2074	-1746	-307	1.1401	1.1401	-5105	7625	1563	42820	10242	2907	13149	No	42.86	Si
SLU 20	1.39	-166.47	-5584	-4703	-473	1.1401	1.1401	-13750	8778	2352	42820	10242	2907	13149	No	27.8	Si
SLU 20	3.27	607.72	-4620	-3891	-479	1.1401	1.1401	-11376	8461	2135	42820	10242	2907	13149	No	27.42	Si
SLU 20	5.15	153.2	-1695	-1427	-247	1.1401	1.1401	-4173	7501	1478	42820	10242	2907	13149	No	53.18	Si
SLU 40	1.39	-192.52	-6341	-5340	-524	1.1401	1.1401	-15613	9026	2522	42820	10242	2907	13149	No	25.08	Si
SLU 40	3.27	707.56	-5343	-4499	-572	1.1401	1.1401	-13155	8698	2297	42820	10242	2907	13149	No	22.97	Si
SLU 40	5.15	189.53	-2074	-1746	-307	1.1401	1.1401	-5105	7625	1563	42820	10242	2907	13149	No	42.86	Si
SLU 84	1.39	-136.9	-7325	-6168	-497	1.1401	1.1401	-18035	9349	2742	42820	10242	2907	13149	No	26.44	Si
SLU 84	3.27	752.22	-5912	-4979	-546	1.1401	1.1401	-14557	8885	2425	42820	10242	2907	13149	No	24.06	Si
SLU 84	5.15	185.36	-2133	-1796	-282	1.1401	1.1401	-5251	7645	1577	42820	10242	2907	13149	No	46.6	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 13	1.39	1777.64	-7043	-5931	1894	1.1401	0.9529	-17342	13885	3228	42820	15362	2907	18269		9.64	Si
SLV 13	3.27	143.47	-3129	-2635	1409	1.1401	1.1401	-7704	11958	2349	42820	15362	2907	18269		12.96	Si
SLV 13	5.15	-113.14	-1131	-952	728	1.1401	1.1401	-2784	10974	1900	42820	15362	2907	18269		25.08	Si
SLV 2	1.39	-1962.77	-262	-221	-2617	0.912	0	0	0	0	42820	12290	2326	14616		5.58	Si
SLV 2	3.27	594.77	-2797	-2355	-2234	1.1401	1.0721	-6887	11794	2275	42820	15362	2907	18269		8.18	Si
SLV 2	5.15	312.31	-662	-557	-1238	1.1401	0.2941	-6332	11683	1795	42820	15362	2907	18269		14.76	Si
SLV 1	1.39	-2275.99	813	685	-2994	0.912	0	0	0	0	42820	12290	2326	14616		4.88	Si
SLV 1	3.27	573.57	-2452	-2065	-2611	1.1401	1.0085	-6038	11624	2197	42820	15362	2907	18269		7	Si
SLV 1	5.15	418.4	-495	-417	-1796	0.912	0	0	0	0	42820	12290	2326	14616		8.14	Si
SLV 15	1.39	2017.78	-8856	-7458	2281	1.1401	1.0266	-21806	14778	3635	42820	15362	2907	18269		8.01	Si
SLV 15	3.27	169.08	-3831	-3226	1887	1.1401	1.1401	-9432	12303	2507	42820	15362	2907	18269		9.68	Si
SLV 15	5.15	-181.57	-1236	-1041	1103	1.1401	1.1401	-3043	11025	1924	42820	15362	2907	18269		16.56	Si
SLV 6	1.39	-823.12	-900	-758	-1356	0.912	0	0	0	0	42820	12290	2326	14616		10.78	Si
SLV 6	3.27	414.43	-2216	-1866	-1384	1.1401	1.1401	-5457	11508	2144	42820	15362	2907	18269		13.2	Si
SLV 6	5.15	205.76	-762	-642	-789	1.1401	0.9004	-1877	10792	1818	42820	15362	2907	18269		23.14	Si
SLV 14	1.39	2090.86	-8119	-6837	2271	1.1401	0.9375	-19989	14415	3469	42820	15362	2907	18269		8.04	Si
SLV 14	3.27	164.67	-3474	-2925	1786	1.1401	1.1401	-8553	12127	2426	42820	15362	2907	18269		10.23	Si
SLV 14	5.15	-219.22	-1298	-1093	1287	1.1401	1.1401	-3196	11056	1938	42820	15362	2907	18269		14.2	Si
SLV 3	1.39	-2035.86	-1000	-842	-2607	0.912	0	0	0	0	42820	12290	2326	14616		5.61	Si
SLV 3	3.27	599.17	-3154	-2656	-2133	1.1401	1.1401	-7766	11970	2355	42820	15362	2907	18269		8.57	Si
SLV 3	5.15	349.97	-600	-505	-1422	0.912	0	0	0	0	42820	12290	2326	14616		10.28	Si
SLV 4	1.39	-1722.64	-2075	-1747	-2231	0.912	0	0	0	0	42820	12290	2326	14616		6.55	Si
SLV 4	3.27	620.37	-3498	-2946	-1756	1.1401	1.1401	-8614	12139	2432	42820	15362	2907	18269		10.4	Si
SLV 4	5.15	243.88	-767	-646	-863	1.1401	0.7558	-1888	10794	1819	42820	15362	2907	18269		21.17	Si
SLV 16	1.39	2331	-9932	-8363	2658	1.1401	1.006	-24453	15307	3877	42820	15362	2907	18269		6.87	Si
SLV 16	3.27	190.27	-4175	-3516	2264	1.1401	1.1401	-10280	12473	2584	42820	15362	2907	18269		8.07	Si
SLV 16	5.15	-287.65	-1403	-1181	1661	1.1401	1.095	-3454	11108	1961	42820	15362	2907	18269		11	Si
SLV 5	1.39	-1138.41	182	153	-1735	0.912	0	0	0	0	42820	12290	2326	14616		8.42	Si
SLV 5	3.27	393.1	-1870	-1574	-1763	1.1401	1.0793	-4603	11337	2066	42820	15362	2907	18269		10.36	Si
SLV 5	5.15	312.55	-594	-500	-1352	1.1401	0.1322	-12466	12918	1780	42820	15362	2907	18269		13.52	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.27 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 5	179667	0.48	5467	-1870	179.07	270.41	1.51	Si
SLV 9	179667	0.48	6060	-2073	179.07	298.56	1.67	Si
SLV 6	179667	0.48	6480	-2216	179.07	318.35	1.78	Si
SLV 10	179667	0.48	7074	-2419	179.07	346.1	1.93	Si
SLV 1	179667	0.48	7171	-2452	179.07	350.6	1.96	Si
SLV 2	179667	0.48	8178	-2797	179.07	397.07	2.22	Si
SLV 13	179667	0.48	9149	-3129	179.07	441.25	2.46	Si
SLV 3	179667	0.48	9222	-3154	179.07	444.54	2.48	Si
SLV 14	179667	0.48	10156	-3474	179.07	486.39	2.72	Si
SLV 4	179667	0.48	10229	-3498	179.07	489.62	2.73	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 16	-1403	-9932	13	2.554	337.2	0.89	41.71431	14.51032	Si
SLV 14	-1298	-8119	0	2.667	327.5	0.889	43.58671	14.51032	Si
SLV 15	-1236	-8856	13	2.729	321.8	0.889	44.61986	14.51032	Si
SLV 12	-1303	-9300	24	2.651	328	0.889	43.33151	13.89303	Si
SLV 13	-1131	-7043	0	2.859	312.2	0.889	46.73644	14.51032	Si
SLV 11	-1135	-8218	24	2.843	312.6	0.889	46.47862	13.89303	Si
SLV 8	-1112	-6944	20	2.873	310.6	0.889	46.96397	13.89303	Si
SLV 10	-953	-3257	-20	3.087	296.4	0.89	50.41216	13.89303	Si
SLV 7	-944	-5861	20	3.099	295.6	0.89	50.61247	13.89303	Si
SLV 4	-767	-2075	0	3.392	280.5	0.893	55.20215	14.51032	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	3.715	SLU 39	Si
V_SLU	21.857	SLU 39	Si
PF_SLV	0	SLV 1	No
V_SLV	4.882	SLV 1	Si
PFFP_SLV	1.51	SLV 5	Si
R_SLV	2.875	SLV 16	Si

Maschio 28

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-30.833	5.726	-28.373	5.726	L2	L3	2.46	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 46	1.39	825.41	-11470	-0.000028	0.0003743	0.0035	2.46	11954.07	12496.5	12496.5	15.14	No	Si
SLU 46	3.27	236.08	-7957	-0.0000175	0.0003743	0.0035	2.46	8750.53	9333.85	9333.85	39.54	No	Si
SLU 46	5.15	-14.64	-1457	-0.000003	0.0003743	0.0035	2.46	1757.45	3388.97	3388.97	231.53	No	Si
SLU 51	1.39	825.41	-11470	-0.000028	0.0003743	0.0035	2.46	11954.07	12496.5	12496.5	15.14	No	Si
SLU 51	3.27	236.08	-7957	-0.0000175	0.0003743	0.0035	2.46	8750.53	9333.85	9333.85	39.54	No	Si
SLU 51	5.15	-14.64	-1457	-0.000003	0.0003743	0.0035	2.46	1757.45	3388.97	3388.97	231.53	No	Si
SLU 9	1.39	640.31	-9299	-0.0000224	0.0003743	0.0035	2.46	10022.47	10549.15	10549.15	16.48	No	Si
SLU 9	3.27	175.15	-6583	-0.0000143	0.0003743	0.0035	2.46	7388.07	7882.18	7882.18	45	No	Si
SLU 9	5.15	-12.66	-1357	-0.0000028	0.0003743	0.0035	2.46	1638.88	3270.42	3270.42	258.4	No	Si
SLU 4	1.39	640.31	-9299	-0.0000224	0.0003743	0.0035	2.46	10022.47	10549.15	10549.15	16.48	No	Si
SLU 4	3.27	175.15	-6583	-0.0000143	0.0003743	0.0035	2.46	7388.07	7882.18	7882.18	45	No	Si
SLU 4	5.15	-12.66	-1357	-0.0000028	0.0003743	0.0035	2.46	1638.88	3270.42	3270.42	258.4	No	Si
SLU 47	1.39	918.02	-11465	-0.0000285	0.0003743	0.0035	2.46	11949.84	12491.98	12491.98	13.61	No	Si
SLU 47	3.27	237.94	-7952	-0.0000175	0.0003743	0.0035	2.46	8745.73	9328.66	9328.66	39.21	No	Si
SLU 47	5.15	-15.16	-1457	-0.000003	0.0003743	0.0035	2.46	1757.16	3388.68	3388.68	223.57	No	Si
SLU 44	1.39	918.02	-11465	-0.0000285	0.0003743	0.0035	2.46	11949.84	12491.98	12491.98	13.61	No	Si
SLU 44	3.27	237.94	-7952	-0.0000175	0.0003743	0.0035	2.46	8745.73	9328.66	9328.66	39.21	No	Si
SLU 44	5.15	-15.16	-1457	-0.000003	0.0003743	0.0035	2.46	1757.16	3388.68	3388.68	223.57	No	Si
SLU 2	1.39	732.92	-9294	-0.0000228	0.0003743	0.0035	2.46	10017.89	10544.79	10544.79	14.39	No	Si
SLU 2	3.27	177.01	-6578	-0.0000143	0.0003743	0.0035	2.46	7383.05	7876.9	7876.9	44.5	No	Si
SLU 2	5.15	-13.18	-1357	-0.0000028	0.0003743	0.0035	2.46	1638.59	3270.13	3270.13	248.18	No	Si
SLU 49	1.39	825.41	-11470	-0.000028	0.0003743	0.0035	2.46	11954.07	12496.5	12496.5	15.14	No	Si
SLU 49	3.27	236.08	-7957	-0.0000175	0.0003743	0.0035	2.46	8750.53	9333.85	9333.85	39.54	No	Si
SLU 49	5.15	-14.64	-1457	-0.000003	0.0003743	0.0035	2.46	1757.45	3388.97	3388.97	231.53	No	Si
SLU 7	1.39	640.31	-9299	-0.0000224	0.0003743	0.0035	2.46	10022.47	10549.15	10549.15	16.48	No	Si
SLU 7	3.27	175.15	-6583	-0.0000143	0.0003743	0.0035	2.46	7388.07	7882.18	7882.18	45	No	Si
SLU 7	5.15	-12.66	-1357	-0.0000028	0.0003743	0.0035	2.46	1638.88	3270.42	3270.42	258.4	No	Si
SLU 5	1.39	732.92	-9294	-0.0000228	0.0003743	0.0035	2.46	10017.89	10544.79	10544.79	14.39	No	Si
SLU 5	3.27	177.01	-6578	-0.0000143	0.0003743	0.0035	2.46	7383.05	7876.9	7876.9	44.5	No	Si
SLU 5	5.15	-13.18	-1357	-0.0000028	0.0003743	0.0035	2.46	1638.59	3270.13	3270.13	248.18	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 5	1.39	-4553.38	-10573	-0.0000446	0.0005615	0.0035	2.46		13632.94	13632.94	2.99		Si
SLV 5	3.27	316.12	-7674	-0.0000171	0.0005615	0.0035	2.46		9250.95	9250.95	29.26		Si
SLV 5	5.15	43.84	-2111	-0.0000044	0.0005615	0.0035	2.46		2872.78	2872.78	65.53		Si
SLV 3	1.39	-10613.11	-11014	-0.0001492	0.0005615	0.0035	1.968		14089.7	14089.7	1.33		Si
SLV 3	3.27	489.57	-8331	-0.0000194	0.0005615	0.0035	2.46		9970.79	9970.79	20.37		Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 3	5.15	169.18	-2133	-0.0000051	0.0005615	0.0035	2.46		2899.96	2899.96	17.14		Si
SLV 16	1.39	12027.78	-10711	-0.0004955	0.0005615	0.0035	2.46		12529.13	12529.13	1.04		Si
SLV 16	3.27	-197.92	-8033	-0.0000173	0.0005615	0.0035	2.46		10902.3	10902.3	55.08		Si
SLV 16	5.15	-199.73	-2142	-0.0000053	0.0005615	0.0035	2.46		4200.47	4200.47	21.03		Si
SLV 15	1.39	10444.72	-10699	-0.0001552	0.0005615	0.0035	2.46		12516.61	12516.61	1.2		Si
SLV 15	3.27	-81.27	-8021	-0.0000167	0.0005615	0.0035	2.46		10889.64	10889.64	134		Si
SLV 15	5.15	-184.03	-2141	-0.0000052	0.0005615	0.0035	2.46		4199.4	4199.4	22.82		Si
SLV 4	1.39	-9030.05	-11026	-0.0000937	0.0005615	0.0035	1.968		14101.9	14101.9	1.56		Si
SLV 4	3.27	372.91	-8343	-0.0000188	0.0005615	0.0035	2.46		9983.76	9983.76	26.77		Si
SLV 4	5.15	153.48	-2134	-0.000005	0.0005615	0.0035	2.46		2901.05	2901.05	18.9		Si
SLV 13	1.39	9842.28	-10547	-0.0001279	0.0005615	0.0035	2.46		12355.1	12355.1	1.26		Si
SLV 13	3.27	-69.28	-7768	-0.0000161	0.0005615	0.0035	2.46		10611.93	10611.93	153.16		Si
SLV 13	5.15	-184.84	-2129	-0.0000052	0.0005615	0.0035	2.46		4185.5	4185.5	22.64		Si
SLV 12	1.39	5365.61	-10999	-0.0000502	0.0005615	0.0035	2.46		12832.72	12832.72	2.39		Si
SLV 12	3.27	-12.49	-8437	-0.0000172	0.0005615	0.0035	2.46		11334.18	11334.18	907.15		Si
SLV 12	5.15	-75.21	-2153	-0.0000047	0.0005615	0.0035	2.46		4213.47	4213.47	56.02		Si
SLV 14	1.39	11425.34	-10559	-0.0002954	0.0005615	0.0035	2.46		12367.68	12367.68	1.08		Si
SLV 14	3.27	-185.94	-7780	-0.0000167	0.0005615	0.0035	2.46		10625.01	10625.01	57.14		Si
SLV 14	5.15	-200.55	-2130	-0.0000052	0.0005615	0.0035	2.46		4186.57	4186.57	20.88		Si
SLV 2	1.39	-9632.49	-10873	-0.0001117	0.0005615	0.0035	1.968		13945.18	13945.18	1.45		Si
SLV 2	3.27	384.9	-8090	-0.0000183	0.0005615	0.0035	2.46		9707.39	9707.39	25.22		Si
SLV 2	5.15	152.66	-2122	-0.000005	0.0005615	0.0035	2.46		2887.01	2887.01	18.91		Si
SLV 1	1.39	-11215.55	-10861	-0.0002018	0.0005615	0.0035	1.968		13932.99	13932.99	1.24		Si
SLV 1	3.27	501.55	-8078	-0.0000189	0.0005615	0.0035	2.46		9694.45	9694.45	19.33		Si
SLV 1	5.15	168.37	-2122	-0.0000051	0.0005615	0.0035	2.46		2885.92	2885.92	17.14		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 65	1.39	816.86	-13278	-11181	321	2.46	2.46	-15151	8965	5350	42820	22099	6273	28372	No	88.4	Si
SLU 65	3.27	211.06	-9713	-8179	321	2.46	2.46	-11083	8422	4550	42820	22099	6273	28372	No	88.4	Si
SLU 65	5.15	-19.77	-2352	-1981	-4	2.46	2.46	-2684	7302	2897	42820	22099	6273	28372	No	7928.06	Si
SLU 47	1.39	918.02	-11465	-9654	361	2.46	2.46	-13082	8689	4943	42820	22099	6273	28372	No	78.7	Si
SLU 47	3.27	237.94	-7952	-6696	361	2.46	2.46	-9074	8154	4154	42820	22099	6273	28372	No	78.7	Si
SLU 47	5.15	-15.16	-1457	-1227	-9	2.46	2.46	-1662	7166	2696	42820	22099	6273	28372	No	3190.19	Si
SLU 46	1.39	825.41	-11470	-9659	312	2.46	2.46	-13088	8689	4944	42820	22099	6273	28372	No	90.87	Si
SLU 46	3.27	236.08	-7957	-6701	312	2.46	2.46	-9079	8155	4155	42820	22099	6273	28372	No	90.87	Si
SLU 46	5.15	-14.64	-1457	-1227	1	2.46	2.46	-1663	7166	2696	42820	22099	6273	28372	No	24234.41	Si
SLU 49	1.39	825.41	-11470	-9659	312	2.46	2.46	-13088	8689	4944	42820	22099	6273	28372	No	90.87	Si
SLU 49	3.27	236.08	-7957	-6701	312	2.46	2.46	-9079	8155	4155	42820	22099	6273	28372	No	90.87	Si
SLU 49	5.15	-14.64	-1457	-1227	1	2.46	2.46	-1663	7166	2696	42820	22099	6273	28372	No	24234.41	Si
SLU 70	1.39	724.24	-13283	-11186	273	2.46	2.46	-15157	8965	5351	42820	22099	6273	28372	No	104.04	Si
SLU 70	3.27	209.2	-9718	-8183	273	2.46	2.46	-11089	8423	4551	42820	22099	6273	28372	No	104.04	Si
SLU 70	5.15	-19.25	-2353	-1981	6	2.46	2.46	-2684	7302	2897	42820	22099	6273	28372	No	4374.64	Si
SLU 68	1.39	816.86	-13278	-11181	321	2.46	2.46	-15151	8965	5350	42820	22099	6273	28372	No	88.4	Si
SLU 68	3.27	211.06	-9713	-8179	321	2.46	2.46	-11083	8422	4550	42820	22099	6273	28372	No	88.4	Si
SLU 68	5.15	-19.77	-2352	-1981	-4	2.46	2.46	-2684	7302	2897	42820	22099	6273	28372	No	7928.06	Si
SLU 44	1.39	918.02	-11465	-9654	361	2.46	2.46	-13082	8689	4943	42820	22099	6273	28372	No	78.7	Si
SLU 44	3.27	237.94	-7952	-6696	361	2.46	2.46	-9074	8154	4154	42820	22099	6273	28372	No	78.7	Si
SLU 44	5.15	-15.16	-1457	-1227	-9	2.46	2.46	-1662	7166	2696	42820	22099	6273	28372	No	3190.19	Si
SLU 51	1.39	825.41	-11470	-9659	312	2.46	2.46	-13088	8689	4944	42820	22099	6273	28372	No	90.87	Si
SLU 51	3.27	236.08	-7957	-6701	312	2.46	2.46	-9079	8155	4155	42820	22099	6273	28372	No	90.87	Si
SLU 51	5.15	-14.64	-1457	-1227	1	2.46	2.46	-1663	7166	2696	42820	22099	6273	28372	No	24234.41	Si
SLU 5	1.39	732.92	-9294	-7827	295	2.46	2.46	-10605	8358	4456	42820	22099	6273	28372	No	96.26	Si
SLU 5	3.27	177.01	-6578	-5540	295	2.46	2.46	-7506	7945	3846	42820	22099	6273	28372	No	96.26	Si
SLU 5	5.15	-13.18	-1357	-1142	-11	2.46	2.46	-1548	7151	2673	42820	22099	6273	28372	No	2522.91	Si
SLU 2	1.39	732.92	-9294	-7827	295	2.46	2.46	-10605	8358	4456	42820	22099	6273	28372	No	96.26	Si
SLU 2	3.27	177.01	-6578	-5540	295	2.46	2.46	-7506	7945	3846	42820	22099	6273	28372	No	96.26	Si
SLU 2	5.15	-13.18	-1357	-1142	-11	2.46	2.46	-1548	7151	2673	42820	22099	6273	28372	No	2522.91	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 5	1.39	-4553.38	-10573	-8904	-2566	2.46	2.3981	-12065	12830	5927	42820	33149	6273	39422		15.36	Si
SLV 5	3.27	316.12	-7674	-6462	-2555	2.46	2.46	-8757	12168	5276	42820	33149	6273	39422		15.43	Si
SLV 5	5.15	43.84	-2111	-1777	355	2.46	2.46	-2408	10898	4027	42820	33149	6273	39422		110.99	Si
SLV 2	1.39	-9632.49	-10873	-9156	-5528	1.968	1.0323	0	0	0	42820	26519	5018	31537		5.71	Si
SLV 2	3.27	384.9	-8090	-6812	-5059	2.46	2.46	-9231	12263	5369	42820	33149	6273	39422		7.79	Si
SLV 2	5.15	152.66	-2122	-1787	424	2.46	2.46	-2422	10901	4029	42820	33149	6273	39422		93.04	Si
SLV 13	1.39	9842.28	-10547	-8882	5525	2.46	0.8904	-12035	12824	5921	42820	33149	6273	39422		7.13	Si
SLV 13	3.27	-69.28	-7768	-6542	4971	2.46	2.46	-8864	12189	5297	42820	33149	6273	39422		7.93	Si
SLV 13	5.15	-184.84	-2129	-1793	-329	2.46	2.46	-2430	10903	4031	42820	33149	6273	39422		119.71	Si
SLV 3	1.39	-10613.11	-11014	-9275	-6161	1.968	0.7991	0	0	0	42820	26519	5018	31537		5.12	Si
SLV 3	3.27	489.57	-8331	-7015	-5607	2.46	2.46	-9506	12318	5423	42820	33149	6273	39422		7.03	Si
SLV 3	5.15	169.18	-2133	-1797	572	2.46	2.46	-2434	10904	4032	42820	33149	6273	39422		68.89	Si
SLV 12	1.39	5365.61	-10999	-9262	2835	2.46	2.2265	-12551	12927	6023	42820	33149	6273	39422		13.91	Si
SLV 12	3.27	-12.49	-8437	-7105	2824	2.46	2.46	-9627	12342	5447	42820	33149	6273	39422		13.96	Si
SLV 12	5.15	-75.21	-2153	-1813	-315	2.46	2.46	-2457	10908	4036	42820	33149	6273	39422		125.3	Si
SLV 4	1.39	-9030.05	-11026	-9285	-5257	1.968	1.233	0	0	0	42820	26519	5018	31537		6	Si
SLV 4	3.27	372.91	-8343	-7025	-4703	2.46	2.46	-9519	12321	5426	42820	33149	6273	39422		8.38	Si
SLV 4	5.15	153.48	-2134	-1797	370	2.46	2.46	-2435	10904	4032	42820	33149	6273	39422		106.58	Si
SLV 1	1.39	-11215.55	-10861	-9146	-6432	1.968	0.5922	0	0	0	42820	26519	5018	31537		4.9	Si
SLV 1	3.27	501.55	-8078	-6802	-5963	2.46	2.46	-9217	12260	5367	42820	33149	6273	39422		6.61	Si
SLV 1	5.15	168.37	-2122	-1787	626	2.46	2.46	-2421	10901	4029	42820	33149	6273	39422		62.97	Si
SLV 14	1.39	11425.34	-10559	-8892	6429	2.46	0.4438	-69735	16250	5924	42820	33149	6273	39422		6.13	Si
SLV 14	3.27	-185.94	-7780	-6552	5875	2.46	2.46	-8877	12192	5300	42820	33149	6273	39422		6.71	Si
SLV 14	5.15	-200.55	-2130	-1794	-532	2.46	2.46	-2431	10903	4031	42820	33149	6273	39422		74.15	Si
SLV 15	1.39	10444.72	-10699	-9010	5796	2.46	0.7614	-40351	16250	5955	42820	33149	6273	39422		6.8	Si
SLV 15	3.27	-81.27	-8021	-6755	5328	2.46	2.46	-9153	12247	5354	42820	33149	6273	39422		7.4	Si
SLV 15	5.15	-184.03	-2141	-1803	-383	2.46	2.46	-2443	10905	4034	42820	33149	6273	39422		102.89	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 16	1.39	12027.78	-10711	-9020	6700	2.46	0.3212	-100262	16250	5958	42820	33149	6273	39422		5.88	Si
SLV 16	3.27	-197.92	-8033	-6765	6232	2.46	2.46	-9166	12250	5357	42820	33149	6273	39422		6.33	Si
SLV 16	5.15	-199.73	-2142	-1804	-586	2.46	2.46	-2444	10906	4034	42820	33149	6273	39422		67.33	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.27 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 9	179667	0.48	10273	-7581	386.4	1060.69	2.75	Si
SLV 10	179667	0.48	10289	-7593	386.4	1062.24	2.75	Si
SLV 5	179667	0.48	10398	-7674	386.4	1072.73	2.78	Si
SLV 6	179667	0.48	10415	-7686	386.4	1074.28	2.78	Si
SLV 13	179667	0.48	10526	-7768	386.4	1084.91	2.81	Si
SLV 14	179667	0.48	10542	-7780	386.4	1086.44	2.81	Si
SLV 15	179667	0.48	10869	-8021	386.4	1117.55	2.89	Si
SLV 16	179667	0.48	10885	-8033	386.4	1119.08	2.9	Si
SLV 1	179667	0.48	10945	-8078	386.4	1124.81	2.91	Si
SLV 2	179667	0.48	10961	-8090	386.4	1126.33	2.91	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 16	-2142	-10711	-36	3.032	647.1	0.889	49.54072	14.51032	Si
SLV 15	-2141	-10699	-36	3.033	647	0.889	49.55011	14.51032	Si
SLV 4	-2134	-11026	24	3.04	646.4	0.889	49.66393	14.51032	Si
SLV 3	-2133	-11014	24	3.04	646.3	0.889	49.6734	14.51032	Si
SLV 14	-2130	-10559	-23	3.042	646.1	0.89	49.70888	14.51032	Si
SLV 13	-2129	-10547	-23	3.043	646	0.89	49.71832	14.51032	Si
SLV 2	-2122	-10873	37	3.044	645.4	0.89	49.74078	14.51032	Si
SLV 1	-2122	-10861	37	3.045	645.3	0.89	49.75029	14.51032	Si
SLV 12	-2153	-10999	-30	3.026	648.1	0.889	49.44652	13.89303	Si
SLV 11	-2152	-10987	-30	3.027	648	0.889	49.45593	13.89303	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	13.608	SLU 44	Si
V_SLU	78.7	SLU 44	Si
PF_SLV	1.042	SLV 16	Si
V_SLV	4.903	SLV 1	Si
PFFP_SLV	2.745	SLV 9	Si
R_SLV	3.414	SLV 16	Si

Maschio 29

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.163	5.726	-24.603	5.726	L2	L3	1.56	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 42	1.39	107.66	-7778	-0.0000268	0.0003743	0.0035	1.5599	5076.32	5319.18	5319.18	49.41	No	Si
SLU 42	3.27	-1163.86	-6306	-0.0000353	0.0003743	0.0035	1.5599	4267.49	5082.61	5082.61	4.37	No	Si
SLU 42	5.15	-298.25	-2858	-0.0000128	0.0003743	0.0035	1.5599	2095.42	2774.74	2774.74	9.3	No	Si
SLU 81	1.39	0.21	-9131	-0.0000301	0.0003743	0.0035	1.5599	5757.14	6146.9	6146.9	28650.93	No	Si
SLU 81	3.27	-1243.65	-7008	-0.0000388	0.0003743	0.0035	1.5599	4662.11	5516.78	5516.78	4.44	No	Si
SLU 81	5.15	-293.56	-2932	-0.000013	0.0003743	0.0035	1.5599	2145.82	2825.81	2825.81	9.63	No	Si
SLU 82	1.39	42.21	-9062	-0.0000304	0.0003743	0.0035	1.5599	5723.67	6103.75	6103.75	144.61	No	Si
SLU 82	3.27	-1240.67	-6986	-0.0000387	0.0003743	0.0035	1.5599	4649.88	5503	5503	4.44	No	Si
SLU 82	5.15	-302.68	-2921	-0.0000131	0.0003743	0.0035	1.5599	2138.55	2818.43	2818.43	9.31	No	Si
SLU 31	1.39	82.87	-7182	-0.0000245	0.0003743	0.0035	1.5599	4757.13	4963.52	4963.52	59.89	No	Si
SLU 31	3.27	-1008.01	-5623	-0.000031	0.0003743	0.0035	1.5599	3868.1	4643.25	4643.25	4.61	No	Si
SLU 31	5.15	-255.58	-2395	-0.0000108	0.0003743	0.0035	1.5599	1773.87	2444.87	2444.87	9.57	No	Si
SLU 83	1.39	0.21	-9131	-0.0000301	0.0003743	0.0035	1.5599	5757.14	6146.9	6146.9	28650.93	No	Si
SLU 83	3.27	-1243.65	-7008	-0.0000388	0.0003743	0.0035	1.5599	4662.11	5516.78	5516.78	4.44	No	Si
SLU 83	5.15	-293.56	-2932	-0.000013	0.0003743	0.0035	1.5599	2145.82	2825.81	2825.81	9.63	No	Si
SLU 40	1.39	107.66	-7778	-0.0000268	0.0003743	0.0035	1.5599	5076.32	5319.18	5319.18	49.41	No	Si
SLU 40	3.27	-1163.86	-6306	-0.0000353	0.0003743	0.0035	1.5599	4267.49	5082.61	5082.61	4.37	No	Si
SLU 40	5.15	-298.25	-2858	-0.0000128	0.0003743	0.0035	1.5599	2095.42	2774.74	2774.74	9.3	No	Si
SLU 34	1.39	82.87	-7182	-0.0000245	0.0003743	0.0035	1.5599	4757.13	4963.52	4963.52	59.89	No	Si
SLU 34	3.27	-1008.01	-5623	-0.000031	0.0003743	0.0035	1.5599	3868.1	4643.25	4643.25	4.61	No	Si
SLU 34	5.15	-255.58	-2395	-0.0000108	0.0003743	0.0035	1.5599	1773.87	2444.87	2444.87	9.57	No	Si
SLU 41	1.39	65.67	-7848	-0.0000265	0.0003743	0.0035	1.5599	5112.71	5360.92	5360.92	81.64	No	Si
SLU 41	3.27	-1166.83	-6328	-0.0000354	0.0003743	0.0035	1.5599	4280.21	5096.48	5096.48	4.37	No	Si
SLU 41	5.15	-289.13	-2869	-0.0000127	0.0003743	0.0035	1.5599	2102.72	2782.16	2782.16	9.62	No	Si
SLU 84	1.39	42.21	-9062	-0.0000304	0.0003743	0.0035	1.5599	5723.67	6103.75	6103.75	144.61	No	Si
SLU 84	3.27	-1240.67	-6986	-0.0000387	0.0003743	0.0035	1.5599	4649.88	5503	5503	4.44	No	Si
SLU 84	5.15	-302.68	-2921	-0.0000131	0.0003743	0.0035	1.5599	2138.55	2818.43	2818.43	9.31	No	Si
SLU 39	1.39	65.67	-7848	-0.0000265	0.0003743	0.0035	1.5599	5112.71	5360.92	5360.92	81.64	No	Si
SLU 39	3.27	-1166.83	-6328	-0.0000354	0.0003743	0.0035	1.5599	4280.21	5096.48	5096.48	4.37	No	Si
SLU 39	5.15	-289.13	-2869	-0.0000127	0.0003743	0.0035	1.5599	2102.72	2782.16	2782.16	9.62	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 10	1.39	1403.42	-1369	-0.0032686	0.0005615	0.0035	1.248		1189.61	1189.61	0.85		No
SLV 10	3.27	-577.75	-2392	-0.0000146	0.0005615	0.0035	1.5599		2461.21	2461.21	4.26		Si
SLV 10	5.15	-422.85	-911	-0.0000095	0.0005615	0.0035	1.248		1359.42	1359.42	3.21		Si
SLV 16	1.39	3545.85	-1220	-0.0297245	0.0005615	0.0035	1.248		1076.7	1076.7	0.3		No
SLV 16	3.27	-708.35	-3071	-0.0000184	0.0005615	0.0035	1.5599		2956.32	2956.32	4.17		Si
SLV 16	5.15	-642.68	-762	-0.000086	0.0005615	0.0035	1.248		1247.31	1247.31	1.94		Si
SLV 3	1.39	-3890.69	-11881	-0.0000916	0.0005615	0.0035	1.5599		8743.13	8743.13	2.25		Si
SLV 3	3.27	-564.36	-5433	-0.0000244	0.0005615	0.0035	1.5599		4620.48	4620.48	8.19		Si
SLV 3	5.15	450.01	-1864	-0.0000114	0.0005615	0.0035	1.5599		1560.69	1560.69	3.47		Si
SLV 9	1.39	849.3	-2336	-0.0000185	0.0005615	0.0035	1.5599		1912.12	1912.12	2.25		Si
SLV 9	3.27	-652.38	-2762	-0.0000167	0.0005615	0.0035	1.5599		2733.06	2733.06	4.19		Si
SLV 9	5.15	-274.49	-1086	-0.0000067	0.0005615	0.0035	1.5599		1491.21	1491.21	5.43		Si
SLV 13	1.39	3118.08	-684	-0.0297888	0.0005615	0.0035	1.248		670.35	670.35	0.21		No
SLV 13	3.27	-757.57	-2804	-0.0000182	0.0005615	0.0035	1.5599		2763.48	2763.48	3.65		Si
SLV 13	5.15	-546.32	-855	-0.0000195	0.0005615	0.0035	1.248		1317.51	1317.51	2.41		Si
SLV 4	1.39	-3340.2	-10920	-0.0000797	0.0005615	0.0035	1.5599		8165.57	8165.57	2.44		Si
SLV 4	3.27	-490.22	-5065	-0.0000223	0.0005615	0.0035	1.5599		4369.47	4369.47	8.91		Si
SLV 4	5.15	302.63	-1690	-0.000009	0.0005615	0.0035	1.5599		1431.07	1431.07	4.73		Si
SLV 15	1.39	2995.36	-2181	-0.0153687	0.0005615	0.0035	1.248		1796.41	1796.41	0.6		No
SLV 15	3.27	-782.49	-3439	-0.0000205	0.0005615	0.0035	1.5599		3220.32	3220.32	4.12		Si
SLV 15	5.15	-495.3	-936	-0.0000122	0.0005615	0.0035	1.248		1378.74	1378.74	2.78		Si
SLV 14	1.39	3668.56	277	-0.0458224	0.0005615	0.0035	1.248		0	0	0		No
SLV 14	3.27	-683.43	-2436	-0.0000161	0.0005615	0.0035	1.5599		2493.55	2493.55	3.65		Si
SLV 14	5.15	-693.7	-681	-0.0001458	0.0005615	0.0035	1.248		1186.07	1186.07	1.71		Si
SLV 2	1.39	-3217.49	-9423	-0.0000741	0.0005615	0.0035	1.5599		7245.33	7245.33	2.25		Si
SLV 2	3.27	-465.29	-4430	-0.0000199	0.0005615	0.0035	1.5599		3923.16	3923.16	8.43		Si
SLV 2	5.15	251.61	-1609	-0.0000081	0.0005615	0.0035	1.5599		1370.61	1370.61	5.45		Si
SLV 1	1.39	-3767.98	-10384	-0.0000867	0.0005615	0.0035	1.5599		7844.52	7844.52	2.08		Si
SLV 1	3.27	-539.43	-4798	-0.000022	0.0005615	0.0035	1.5599		4185.85	4185.85	7.76		Si
SLV 1	5.15	398.99	-1783	-0.0000105	0.0005615	0.0035	1.5599		1500.29	1500.29	3.76		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 83	1.39	0.21	-9131	-7689	730	1.5599	1.5599	-16431	9135	3552	42820	14013	3978	17991	No	24.66	Si
SLU 83	3.27	-1243.65	-7008	-5902	733	1.5599	1.5599	-12611	8626	3076	42820	14013	3978	17991	No	24.56	Si
SLU 83	5.15	-293.56	-2932	-2469	443	1.5599	1.5599	-5275	7648	2160	42820	14013	3978	17991	No	40.61	Si
SLU 39	1.39	65.67	-7848	-6608	761	1.5599	1.5599	-14121	8827	3264	42820	14013	3978	17991	No	23.63	Si
SLU 39	3.27	-1166.83	-6328	-5329	764	1.5599	1.5599	-11387	8463	2923	42820	14013	3978	17991	No	23.55	Si
SLU 39	5.15	-289.13	-2869	-2416	430	1.5599	1.5599	-5162	7633	2146	42820	14013	3978	17991	No	41.81	Si
SLU 84	1.39	42.21	-9062	-7631	770	1.5599	1.5599	-16306	9119	3537	42820	14013	3978	17991	No	23.37	Si
SLU 84	3.27	-1240.67	-6986	-5883	773	1.5599	1.5599	-12571	8621	3071	42820	14013	3978	17991	No	23.28	Si
SLU 84	5.15	-302.68	-2921	-2460	483	1.5599	1.5599	-5256	7645	2158	42820	14013	3978	17991	No	37.25	Si
SLU 34	1.39	82.87	-7182	-6048	670	1.5599	1.5599	-12923	8667	3115	42820	14013	3978	17991	No	26.85	Si
SLU 34	3.27	-1008.01	-5623	-4735	673	1.5599	1.5599	-10118	8294	2765	42820	14013	3978	17991	No	26.75	Si
SLU 34	5.15	-255.58	-2395	-2017	425	1.5599	1.5599	-4309	7519	2040	42820	14013	3978	17991	No	42.31	Si
SLU 42	1.39	107.66	-7778	-6550	802	1.5599	1.5599	-13996	8811	3248	42820	14013	3978	17991	No	22.44	Si
SLU 42	3.27	-1163.86	-6306	-5310	804	1.5599	1.5599	-11347	8457	2918	42820	14013	3978	17991	No	22.37	Si
SLU 42	5.15	-298.25	-2858	-2407	470	1.5599	1.5599	-5143	7630	2144	42820	14013	3978	17991	No	38.26	Si
SLU 41	1.39	65.67	-7848	-6608	761	1.5599	1.5599	-14121	8827	3264	42820	14013	3978	17991	No	23.63	Si
SLU 41	3.27	-1166.83	-6328	-5329	764	1.5599	1.5599	-11387	8463	2923	42820	14013	3978	17991	No	23.55	Si
SLU 41	5.15	-289.13	-2869	-2416	430	1.5599	1.5599	-5162	7633	2146	42820	14013	3978	17991	No	41.81	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 81	1.39	0.21	-9131	-7689	730	1.5599	1.5599	-16431	9135	3552	42820	14013	3978	17991	No	24.66	Si
SLU 81	3.27	-1243.65	-7008	-5902	733	1.5599	1.5599	-12611	8626	3076	42820	14013	3978	17991	No	24.56	Si
SLU 81	5.15	-293.56	-2932	-2469	443	1.5599	1.5599	-5275	7648	2160	42820	14013	3978	17991	No	40.61	Si
SLU 40	1.39	107.66	-7778	-6550	802	1.5599	1.5599	-13996	8811	3248	42820	14013	3978	17991	No	22.44	Si
SLU 40	3.27	-1163.86	-6306	-5310	804	1.5599	1.5599	-11347	8457	2918	42820	14013	3978	17991	No	22.37	Si
SLU 40	5.15	-298.25	-2858	-2407	470	1.5599	1.5599	-5143	7630	2144	42820	14013	3978	17991	No	38.26	Si
SLU 82	1.39	42.21	-9062	-7631	770	1.5599	1.5599	-16306	9119	3537	42820	14013	3978	17991	No	23.37	Si
SLU 82	3.27	-1240.67	-6986	-5883	773	1.5599	1.5599	-12571	8621	3071	42820	14013	3978	17991	No	23.28	Si
SLU 82	5.15	-302.68	-2921	-2460	483	1.5599	1.5599	-5256	7645	2158	42820	14013	3978	17991	No	37.25	Si
SLU 31	1.39	82.87	-7182	-6048	670	1.5599	1.5599	-12923	8667	3115	42820	14013	3978	17991	No	26.85	Si
SLU 31	3.27	-1008.01	-5623	-4735	673	1.5599	1.5599	-10118	8294	2765	42820	14013	3978	17991	No	26.75	Si
SLU 31	5.15	-255.58	-2395	-2017	425	1.5599	1.5599	-4309	7519	2040	42820	14013	3978	17991	No	42.31	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 1	1.39	-3767.98	-10384	-8745	-3464	1.5599	1.2513	-23571	15131	4585	42820	21020	3978	24998		7.22	Si
SLV 1	3.27	-539.43	-4798	-4041	-2977	1.5599	1.5599	-8634	12144	3330	42820	21020	3978	24998		8.4	Si
SLV 1	5.15	398.99	-1783	-1501	-1963	1.5599	1.5599	-3208	11058	2653	42820	21020	3978	24998		12.74	Si
SLV 13	1.39	3118.08	-684	-576	3771	1.248	0	0	0	0	42820	16816	3182	19998		5.3	Si
SLV 13	3.27	-757.57	-2804	-2361	3368	1.5599	1.5294	-5046	11426	2883	42820	21020	3978	24998		7.42	Si
SLV 13	5.15	-546.32	-855	-720	1891	1.248	0.4235	0	0	0	42820	16816	3182	19998		10.57	Si
SLV 15	1.39	2995.36	-2181	-1836	3416	1.248	0	0	0	0	42820	16816	3182	19998		5.85	Si
SLV 15	3.27	-782.49	-3439	-2896	2934	1.5599	1.5599	-6188	11654	3025	42820	21020	3978	24998		8.52	Si
SLV 15	5.15	-495.3	-936	-788	1648	1.248	0.7529	0	0	0	42820	16816	3182	19998		12.13	Si
SLV 3	1.39	-3890.69	-11881	-10005	-3819	1.5599	1.3575	-24795	15376	4921	42820	21020	3978	24998		6.55	Si
SLV 3	3.27	-564.36	-5433	-4575	-3411	1.5599	1.5599	-9777	12372	3473	42820	21020	3978	24998		7.33	Si
SLV 3	5.15	450.01	-1864	-1570	-2206	1.5599	1.5599	-3354	11087	2671	42820	21020	3978	24998		11.33	Si
SLV 16	1.39	3545.85	-1220	-1027	3915	1.248	0	0	0	0	42820	16816	3182	19998		5.11	Si
SLV 16	3.27	-708.35	-3071	-2586	3433	1.5599	1.5599	-5526	11522	2942	42820	21020	3978	24998		7.28	Si
SLV 16	5.15	-642.68	-762	-642	2342	1.248	0	0	0	0	42820	16816	3182	19998		8.54	Si
SLV 4	1.39	-3340.2	-10920	-9196	-3320	1.5599	1.4223	-21763	14769	4705	42820	21020	3978	24998		7.53	Si
SLV 4	3.27	-490.22	-5065	-4265	-2912	1.5599	1.5599	-9115	12240	3390	42820	21020	3978	24998		8.58	Si
SLV 4	5.15	302.63	-1690	-1423	-1512	1.5599	1.5599	-3041	11025	2632	42820	21020	3978	24998		16.53	Si
SLV 14	1.39	3668.56	277	233	4270	1.248	0	0	0	0	42820	16816	3182	19998		4.68	Si
SLV 14	3.27	-683.43	-2436	-2051	3867	1.5599	1.4983	-4384	11293	2800	42820	21020	3978	24998		6.46	Si
SLV 14	5.15	-693.7	-681	-574	2584	1.248	0	0	0	0	42820	16816	3182	19998		7.74	Si
SLV 10	1.39	1403.42	-1369	-1153	2154	1.248	0	0	0	0	42820	16816	3182	19998		9.28	Si
SLV 10	3.27	-577.75	-2392	-2014	2154	1.5599	1.5599	-4304	11278	2790	42820	21020	3978	24998		11.61	Si
SLV 10	5.15	-422.85	-911	-767	1521	1.248	0.947	0	0	0	42820	16816	3182	19998		13.15	Si
SLV 7	1.39	-1625.55	-10235	-8619	-1703	1.5599	1.5599	-18417	14100	4551	42820	21020	3978	24998		14.68	Si
SLV 7	3.27	-670.03	-5477	-4612	-1698	1.5599	1.5599	-9856	12388	3483	42820	21020	3978	24998		14.72	Si
SLV 7	5.15	179.16	-1634	-1376	-1142	1.5599	1.5599	-2941	11005	2620	42820	21020	3978	24998		21.89	Si
SLV 2	1.39	-3217.49	-9423	-7935	-2965	1.5599	1.3156	-20312	14479	4369	42820	21020	3978	24998		8.43	Si
SLV 2	3.27	-465.29	-4430	-3731	-2478	1.5599	1.5599	-7972	12011	3248	42820	21020	3978	24998		10.09	Si
SLV 2	5.15	251.61	-1609	-1355	-1269	1.5599	1.5599	-2895	10996	2614	42820	21020	3978	24998		19.69	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.27 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 10	179667	0.48	5112	-2392	245.03	346.81	1.42	Si
SLV 14	179667	0.48	5206	-2436	245.03	352.97	1.44	Si
SLV 9	179667	0.48	5903	-2762	245.03	398.36	1.63	Si
SLV 13	179667	0.48	5992	-2804	245.03	404.11	1.65	Si
SLV 6	179667	0.48	6390	-2990	245.03	429.78	1.75	Si
SLV 16	179667	0.48	6562	-3071	245.03	440.87	1.8	Si
SLV 5	179667	0.48	7181	-3361	245.03	480.41	1.96	Si
SLV 15	179667	0.48	7349	-3439	245.03	491.04	2	Si
SLV 2	179667	0.48	9467	-4430	245.03	623.35	2.54	Si
SLV 12	179667	0.48	9634	-4509	245.03	633.63	2.59	Si

Per la verifica della tabella precedente non é stato considerato il rinforzo predisposto.
Le motivazioni per cui la sezione di verifica nonostante abbia un rinforzo non venga condotta come sezione rinforzata possono essere:
- Il rinforzo predisposto non è atto ad essere utilizzato per queste tipologie di verifiche.
- Non sono stati predisposti rinforzi di tipo rete e betoncino oppure FRP sia orizzontali che verticali.
- Non sono stati predisposti rinforzi di tipo rete e betoncino, FRP oppure FRCM su entrambi i lati.
- Si sono predisposti solamente FRP Diagonali che sono validi solo per la resistenza a taglio.

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 3	-1864	-11881	33	2.59	456.2	0.89	42.31807	14.51032	Si
SLV 1	-1783	-10384	19	2.656	448.7	0.889	43.40629	14.51032	Si
SLV 4	-1690	-10920	33	2.726	440.2	0.889	44.5604	14.51032	Si
SLV 2	-1609	-9423	19	2.798	432.8	0.889	45.75415	14.51032	Si
SLV 7	-1634	-10235	32	2.772	435.1	0.889	45.32659	13.89303	Si
SLV 8	-1459	-9268	32	2.93	419.3	0.889	47.89062	13.89303	Si
SLV 5	-1364	-5246	-16	3.028	410.9	0.889	49.48319	13.89303	Si
SLV 11	-1356	-7325	17	3.036	410.1	0.889	49.60852	13.89303	Si
SLV 6	-1189	-4279	-16	3.217	395.6	0.891	52.48219	13.89303	Si
SLV 12	-1181	-6358	17	3.226	394.9	0.891	52.62108	13.89303	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.367	SLU 40	Si

Stato limite	Coeff.s.	Comb.	Verifica
V_SLU	22.371	SLU 40	Si
PF_SLV	0	SLV 14	No
V_SLV	4.683	SLV 14	Si
PFFP_SLV	1.415	SLV 10	Si
R_SLV	2.916	SLV 3	Si

Maschio 30

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.838	-3.854	-26.838	-3.254	L2	L3	0.6	0.14	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 83	1.39	287.58	-4784	-0.0001214	0.0004492	0.0035	0.6	766.24	1195.85	1195.85	4.16	No	Si
SLU 83	3.27	-43.47	-1507	-0.0000284	0.0004492	0.0035	0.6	385.67	562.94	562.94	12.95	No	Si
SLU 83	5.15	-107.83	-245	-0.0001783	0.0004492	0.0035	0.48	0	217.35	217.35	2.02	No	Si
SLU 82	1.39	287.51	-4780	-0.0001213	0.0004492	0.0035	0.6	766.16	1195	1195	4.16	No	Si
SLU 82	3.27	-43.43	-1507	-0.0000284	0.0004492	0.0035	0.6	385.72	562.99	562.99	12.96	No	Si
SLU 82	5.15	-107.8	-245	-0.0001782	0.0004492	0.0035	0.48	0	217.38	217.38	2.02	No	Si
SLU 39	1.39	252.67	-4075	-0.0001028	0.0004492	0.0035	0.6	737.15	1044.02	1044.02	4.13	No	Si
SLU 39	3.27	-44.55	-1287	-0.0000253	0.0004492	0.0035	0.6	337.78	504.62	504.62	11.33	No	Si
SLU 39	5.15	-100.36	-240	-0.0001583	0.0004492	0.0035	0.48	0	215.94	215.94	2.15	No	Si
SLU 74	1.39	263.72	-4514	-0.0001124	0.0004492	0.0035	0.6	758.61	1137.91	1137.91	4.31	No	Si
SLU 74	3.27	-33.46	-1427	-0.0000257	0.0004492	0.0035	0.6	368.66	541.82	541.82	16.2	No	Si
SLU 74	5.15	-94.47	-207	-0.0001589	0.0004492	0.0035	0.48	0	206.45	206.45	2.19	No	Si
SLU 84	1.39	287.51	-4780	-0.0001213	0.0004492	0.0035	0.6	766.16	1195	1195	4.16	No	Si
SLU 84	3.27	-43.43	-1507	-0.0000284	0.0004492	0.0035	0.6	385.72	562.99	562.99	12.96	No	Si
SLU 84	5.15	-107.8	-245	-0.0001782	0.0004492	0.0035	0.48	0	217.38	217.38	2.02	No	Si
SLU 42	1.39	252.6	-4071	-0.0001028	0.0004492	0.0035	0.6	736.9	1043.17	1043.17	4.13	No	Si
SLU 42	3.27	-44.5	-1288	-0.0000253	0.0004492	0.0035	0.6	337.82	504.67	504.67	11.34	No	Si
SLU 42	5.15	-100.33	-240	-0.0001582	0.0004492	0.0035	0.48	0	215.96	215.96	2.15	No	Si
SLU 81	1.39	287.58	-4784	-0.0001214	0.0004492	0.0035	0.6	766.24	1195.85	1195.85	4.16	No	Si
SLU 81	3.27	-43.47	-1507	-0.0000284	0.0004492	0.0035	0.6	385.67	562.94	562.94	12.95	No	Si
SLU 81	5.15	-107.83	-245	-0.0001783	0.0004492	0.0035	0.48	0	217.35	217.35	2.02	No	Si
SLU 41	1.39	252.67	-4075	-0.0001028	0.0004492	0.0035	0.6	737.15	1044.02	1044.02	4.13	No	Si
SLU 41	3.27	-44.55	-1287	-0.0000253	0.0004492	0.0035	0.6	337.78	504.62	504.62	11.33	No	Si
SLU 41	5.15	-100.36	-240	-0.0001583	0.0004492	0.0035	0.48	0	215.94	215.94	2.15	No	Si
SLU 40	1.39	252.6	-4071	-0.0001028	0.0004492	0.0035	0.6	736.9	1043.17	1043.17	4.13	No	Si
SLU 40	3.27	-44.5	-1288	-0.0000253	0.0004492	0.0035	0.6	337.82	504.67	504.67	11.34	No	Si
SLU 40	5.15	-100.33	-240	-0.0001582	0.0004492	0.0035	0.48	0	215.96	215.96	2.15	No	Si
SLU 77	1.39	263.72	-4514	-0.0001124	0.0004492	0.0035	0.6	758.61	1137.91	1137.91	4.31	No	Si
SLU 77	3.27	-33.46	-1427	-0.0000257	0.0004492	0.0035	0.6	368.66	541.82	541.82	16.2	No	Si
SLU 77	5.15	-94.47	-207	-0.0001589	0.0004492	0.0035	0.48	0	206.45	206.45	2.19	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 11	1.39	402.21	-3134	-0.0001106	0.0006738	0.0035	0.6		872.68	872.68	2.17		Si
SLV 11	3.27	-140.12	-24	-0.0003296	0.0006738	0.0035	0.48		153.41	153.41	1.09		Si
SLV 11	5.15	48.14	-104	-0.0002842	0.0006738	0.0035	0.48		74.37	74.37	1.54		Si
SLV 1	1.39	56.59	-2915	-0.0000513	0.0006738	0.0035	0.6		825.39	825.39	14.59		Si
SLV 1	3.27	6.83	-1061	-0.0000163	0.0006738	0.0035	0.6		346.59	346.59	50.77		Si
SLV 1	5.15	-82.28	-45	-0.0001811	0.0006738	0.0035	0.48		159.43	159.43	1.94		Si
SLV 12	1.39	410.32	-3287	-0.0001139	0.0006738	0.0035	0.6		905.85	905.85	2.21		Si
SLV 12	3.27	-142.68	-48	-0.0003317	0.0006738	0.0035	0.48		160.36	160.36	1.12		Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 12	5.15	45.62	-104	-0.00025	0.0006738	0.0035	0.48		74.56	74.56	1.63		Si
SLV 5	1.39	-70.1	-2880	-0.0000528	0.0006738	0.0035	0.6		919.49	919.49	13.12		Si
SLV 5	3.27	116.84	-1909	-0.0000451	0.0006738	0.0035	0.6		574.7	574.7	4.92		Si
SLV 5	5.15	-154.46	-109	-0.0003489	0.0006738	0.0035	0.48		177.89	177.89	1.15		Si
SLV 6	1.39	-61.99	-3033	-0.0000539	0.0006738	0.0035	0.6		956.02	956.02	15.42		Si
SLV 6	3.27	114.28	-1933	-0.000045	0.0006738	0.0035	0.6		580.96	580.96	5.08		Si
SLV 6	5.15	-156.99	-109	-0.0003555	0.0006738	0.0035	0.48		178.08	178.08	1.13		Si
SLV 7	1.39	376.73	-3098	-0.0001049	0.0006738	0.0035	0.6		864.96	864.96	2.3		Si
SLV 7	3.27	-153.35	100	-0.0003822	0.0006738	0.0035	0.48		117.18	117.18	0.76		No
SLV 7	5.15	48.98	-63	-0.0004154	0.0006738	0.0035	0.48		62.4	62.4	1.27		Si
SLV 8	1.39	384.84	-3251	-0.0001083	0.0006738	0.0035	0.6		898.13	898.13	2.33		Si
SLV 8	3.27	-155.91	76	-0.0003869	0.0006738	0.0035	0.48		124.17	124.17	0.8		No
SLV 8	5.15	46.46	-63	-0.0003802	0.0006738	0.0035	0.48		62.59	62.59	1.35		Si
SLV 9	1.39	-44.62	-2916	-0.0000495	0.0006738	0.0035	0.6		928	928	20.8		Si
SLV 9	3.27	130.07	-2033	-0.0000489	0.0006738	0.0035	0.6		607.22	607.22	4.67		Si
SLV 9	5.15	-155.3	-149	-0.00034	0.0006738	0.0035	0.48		189.68	189.68	1.22		Si
SLV 2	1.39	64.65	-3068	-0.0000548	0.0006738	0.0035	0.6		858.34	858.34	13.28		Si
SLV 2	3.27	4.28	-1084	-0.0000163	0.0006738	0.0035	0.6		353.12	353.12	82.42		Si
SLV 2	5.15	-84.79	-46	-0.000187	0.0006738	0.0035	0.48		159.62	159.62	1.88		Si
SLV 10	1.39	-36.51	-3069	-0.0000506	0.0006738	0.0035	0.6		964.53	964.53	26.42		Si
SLV 10	3.27	127.51	-2057	-0.0000489	0.0006738	0.0035	0.6		613.38	613.38	4.81		Si
SLV 10	5.15	-157.83	-150	-0.0003466	0.0006738	0.0035	0.48		189.87	189.87	1.2		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 77	1.39	263.72	-4514	-2503	595	0.6	0.6	-29792	10833	991	122342	3019	3060	6079	No	10.21	Si
SLU 77	3.27	-33.46	-1427	-791	566	0.6	0.6	-9422	9590	535	122342	3019	3060	6079	No	10.74	Si
SLU 77	5.15	-94.47	-207	-115	286	0.48	0	0	0	0	122342	2415	2448	4863	No	16.99	Si
SLU 75	1.39	263.65	-4510	-2500	595	0.6	0.6	-29766	10833	990	122342	3019	3060	6079	No	10.22	Si
SLU 75	3.27	-33.41	-1428	-792	566	0.6	0.6	-9423	9590	535	122342	3019	3060	6079	No	10.75	Si
SLU 75	5.15	-94.44	-207	-115	286	0.48	0	0	0	0	122342	2415	2448	4863	No	16.99	Si
SLU 82	1.39	287.51	-4780	-2650	644	0.6	0.6	-31551	10833	1030	122342	3019	3060	6079	No	9.44	Si
SLU 82	3.27	-43.43	-1507	-836	613	0.6	0.6	-9947	9660	546	122342	3019	3060	6079	No	9.91	Si
SLU 82	5.15	-107.8	-245	-136	321	0.48	0	0	0	0	122342	2415	2448	4863	No	15.14	Si
SLU 74	1.39	263.72	-4514	-2503	595	0.6	0.6	-29792	10833	991	122342	3019	3060	6079	No	10.21	Si
SLU 74	3.27	-33.46	-1427	-791	566	0.6	0.6	-9422	9590	535	122342	3019	3060	6079	No	10.74	Si
SLU 74	5.15	-94.47	-207	-115	286	0.48	0	0	0	0	122342	2415	2448	4863	No	16.99	Si
SLU 78	1.39	263.65	-4510	-2500	595	0.6	0.6	-29766	10833	990	122342	3019	3060	6079	No	10.22	Si
SLU 78	3.27	-33.41	-1428	-792	566	0.6	0.6	-9423	9590	535	122342	3019	3060	6079	No	10.75	Si
SLU 78	5.15	-94.44	-207	-115	286	0.48	0	0	0	0	122342	2415	2448	4863	No	16.99	Si
SLU 83	1.39	287.58	-4784	-2653	644	0.6	0.6	-31578	10833	1031	122342	3019	3060	6079	No	9.43	Si
SLU 83	3.27	-43.47	-1507	-835	614	0.6	0.6	-9946	9659	546	122342	3019	3060	6079	No	9.9	Si
SLU 83	5.15	-107.83	-245	-136	321	0.48	0	0	0	0	122342	2415	2448	4863	No	15.14	Si
SLU 79	1.39	263.72	-4514	-2503	595	0.6	0.6	-29792	10833	991	122342	3019	3060	6079	No	10.21	Si
SLU 79	3.27	-33.46	-1427	-791	566	0.6	0.6	-9422	9590	535	122342	3019	3060	6079	No	10.74	Si
SLU 79	5.15	-94.47	-207	-115	286	0.48	0	0	0	0	122342	2415	2448	4863	No	16.99	Si
SLU 81	1.39	287.58	-4784	-2653	644	0.6	0.6	-31578	10833	1031	122342	3019	3060	6079	No	9.43	Si
SLU 81	3.27	-43.47	-1507	-835	614	0.6	0.6	-9946	9659	546	122342	3019	3060	6079	No	9.9	Si
SLU 81	5.15	-107.83	-245	-136	321	0.48	0	0	0	0	122342	2415	2448	4863	No	15.14	Si
SLU 84	1.39	287.51	-4780	-2650	644	0.6	0.6	-31551	10833	1030	122342	3019	3060	6079	No	9.44	Si
SLU 84	3.27	-43.43	-1507	-836	613	0.6	0.6	-9947	9660	546	122342	3019	3060	6079	No	9.91	Si
SLU 84	5.15	-107.8	-245	-136	321	0.48	0	0	0	0	122342	2415	2448	4863	No	15.14	Si
SLU 80	1.39	263.65	-4510	-2500	595	0.6	0.6	-29766	10833	990	122342	3019	3060	6079	No	10.22	Si
SLU 80	3.27	-33.41	-1428	-792	566	0.6	0.6	-9423	9590	535	122342	3019	3060	6079	No	10.75	Si
SLU 80	5.15	-94.44	-207	-115	286	0.48	0	0	0	0	122342	2415	2448	4863	No	16.99	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 5	1.39	-70.1	-2880	-1597	-109	0.6	0.6	-19013	16250	911	122342	4528	3060	7588		69.32	Si
SLV 5	3.27	116.84	-1909	-1058	246	0.6	0.6	-12600	15020	767	122342	4528	3060	7588		30.84	Si
SLV 5	5.15	-154.46	-109	-60	666	0.48	0	0	0	0	122342	3623	2448	6071		9.12	Si
SLV 7	1.39	376.73	-3098	-1718	852	0.6	0.5352	-20449	16250	943	122342	4528	3060	7588		8.91	Si
SLV 7	3.27	-153.35	100	56	493	0.48	0	0	0	0	122342	3623	2448	6071		12.31	Si
SLV 7	5.15	48.98	-63	-35	-311	0.48	0	0	0	0	122342	3623	2448	6071		19.5	Si
SLV 16	1.39	283.64	-3252	-1803	569	0.6	0.6	-21464	16250	966	122342	4528	3060	7588		13.33	Si
SLV 16	3.27	-32.67	-896	-497	378	0.6	0.6	-5916	13683	618	122342	4528	3060	7588		20.07	Si
SLV 16	5.15	-26.56	-168	-93	-2	0.6	0.4257	-1563	12813	510	122342	4528	3060	7588		3883.9	Si
SLV 11	1.39	402.21	-3134	-1738	865	0.6	0.515	-20685	16250	949	122342	4528	3060	7588		8.78	Si
SLV 11	3.27	-140.12	-24	-13	468	0.48	0	0	0	0	122342	3623	2448	6071		12.98	Si
SLV 11	5.15	48.14	-104	-57	-331	0.48	0	0	0	0	122342	3623	2448	6071		18.31	Si
SLV 9	1.39	-44.62	-2916	-1617	-97	0.6	0.6	-19248	16250	916	122342	4528	3060	7588		78.48	Si
SLV 9	3.27	130.07	-2033	-1127	221	0.6	0.6	-13421	15184	786	122342	4528	3060	7588		34.37	Si
SLV 9	5.15	-155.3	-149	-83	646	0.48	0	0	0	0	122342	3623	2448	6071		9.4	Si
SLV 15	1.39	275.57	-3100	-1719	543	0.6	0.6	-20460	16250	944	122342	4528	3060	7588		13.97	Si
SLV 15	3.27	-30.13	-873	-484	352	0.6	0.6	-5759	13652	614	122342	4528	3060	7588		21.56	Si
SLV 15	5.15	-24.05	-167	-93	-13	0.6	0.4688	-1414	12783	510	122342	4528	3060	7588		583.14	Si
SLV 6	1.39	-61.99	-3033	-1682	-83	0.6	0.6	-20023	16250	934	122342	4528	3060	7588		90.95	Si
SLV 6	3.27	114.28	-1933	-1072	272	0.6	0.6	-12758	15052	771	122342	4528	3060	7588		27.86	Si
SLV 6	5.15	-156.99	-109	-61	677	0.48	0	0	0	0	122342	3623	2448	6071		8.97	Si
SLV 12	1.39	410.32	-3287	-1822	891	0.6	0.5255	-21695	16250	971	122342	4528	3060	7588		8.52	Si
SLV 12	3.27	-142.68	-48	-27	494	0.48	0	0	0	0	122342	3623	2448	6071		12.29	Si
SLV 12	5.15	45.62	-104	-58	-320	0.48	0	0	0	0	122342	3623	2448	6071		18.95	Si
SLV 8	1.39	384.84	-3251	-1803	878	0.6	0.5449	-21460	16250	966	122342	4528	3060	7588		8.64	Si
SLV 8	3.27	-155.91	76	42	519	0.48	0	0	0	0	122342	3623	2448	6071		11.69	Si
SLV 8	5.15	46.46	-63	-35	-300	0.48	0	0	0	0	122342	3623	2448	6071		20.22	Si
SLV 10	1.39	-36.51	-3069	-1702	-71	0.6	0.6	-20258	16250	939	122342	4528	3060	7588		107.42	Si
SLV 10	3.27	127.51	-2057	-1141	247	0.6	0.6	-13579	15216	789	122342	4528	3060	7588		30.71	Si
SLV 10	5.15	-157.83	-150	-83	657	0.48	0	0	0	0	122342	3623	2448	6071		9.24	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 3.27 Ta 0.17 Wa 0.03 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 7	100	0.48	48.05	0	18.99	9.5	0.2	No
SLV 8	76	0.48	48.05	0	21.76	10.88	0.23	No
SLV 11	-24	0.48	48.05	0	30.83	15.42	0.32	No
SLV 12	-48	0.48	48.05	0	32.96	16.48	0.34	No
SLV 3	-458	0.48	48.05	0	69.04	34.52	0.72	No
SLV 4	-482	0.48	48.05	0	71.1	35.55	0.74	No
SLV 15	-873	0.48	48.05	57.62	105.03	81.33	1.69	Si
SLV 16	-896	0.48	48.05	59.09	107.09	83.09	1.73	Si
SLV 1	-1061	0.48	48.05	69.13	121.27	95.2	1.98	Si
SLV 2	-1084	0.48	48.05	70.56	123.32	96.94	2.02	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.03 Ta = 0.1686

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 14	-182	-3186	-2	7.259	68.3	0.894	118.0383	19.59274	Si
SLV 13	-181	-3034	-2	7.269	68.3	0.894	118.19181	19.59274	Si
SLV 16	-168	-3252	-2	7.479	67.2	0.895	121.37896	19.59274	Si
SLV 15	-167	-3100	-2	7.489	67.2	0.896	121.53949	19.59274	Si
SLV 10	-150	-3069	-1	7.788	65.8	0.898	125.98822	19.59274	Si
SLV 9	-149	-2916	-1	7.8	65.8	0.899	126.1594	19.59274	Si
SLV 6	-109	-3033	0	8.595	62.8	0.909	137.44033	19.59274	Si
SLV 5	-109	-2880	0	8.609	62.7	0.909	137.63541	19.59274	Si
SLV 12	-104	-3287	-1	8.705	62.5	0.911	138.93558	19.59274	Si
SLV 11	-104	-3134	-1	8.72	62.4	0.911	139.13189	19.59274	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.016	SLU 81	Si
V_SLU	9.433	SLU 81	Si
PF_SLV	0.764	SLV 7	No
V_SLV	8.52	SLV 12	Si
PFFP_SLV	0.198	SLV 7	No
R_SLV	6.025	SLV 14	Si

Maschio 31

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)
Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-26.838	-2.254	-26.838	-0.614	L2	L3	1.64	0.14	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 64	1.39	-442.28	-3417	-0.0000269	0.0004492	0.0035	1.64	2460.7	3965.96	3965.96	8.97	No	Si
SLU 64	3.27	-547.24	-2062	-0.0000216	0.0004492	0.0035	1.64	1566.76	2966.93	2966.93	5.42	No	Si
SLU 64	5.15	-42.04	-190	-0.0000018	0.0004492	0.0035	1.64	155.07	1533.56	1533.56	36.48	No	Si
SLU 49	1.39	-447.81	-3134	-0.0000255	0.0004492	0.0035	1.64	2282.7	3763.55	3763.55	8.4	No	Si
SLU 49	3.27	-537.43	-1860	-0.0000203	0.0004492	0.0035	1.64	1423.83	2814.82	2814.82	5.24	No	Si
SLU 49	5.15	-59.4	-144	-0.000002	0.0004492	0.0035	1.64	117.59	1497.07	1497.07	25.2	No	Si
SLU 50	1.39	-448.39	-3135	-0.0000255	0.0004492	0.0035	1.64	2283.25	3764.16	3764.16	8.39	No	Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 50	3.27	-538.06	-1860	-0.0000203	0.0004492	0.0035	1.64	1424.4	2815.42	2815.42	5.23	No	Si
SLU 50	5.15	-59.53	-144	-0.000002	0.0004492	0.0035	1.64	117.7	1497.17	1497.17	25.15	No	Si
SLU 48	1.39	-448.39	-3135	-0.0000255	0.0004492	0.0035	1.64	2283.25	3764.16	3764.16	8.39	No	Si
SLU 48	3.27	-538.06	-1860	-0.0000203	0.0004492	0.0035	1.64	1424.4	2815.42	2815.42	5.23	No	Si
SLU 48	5.15	-59.53	-144	-0.000002	0.0004492	0.0035	1.64	117.7	1497.17	1497.17	25.15	No	Si
SLU 45	1.39	-448.39	-3135	-0.0000255	0.0004492	0.0035	1.64	2283.25	3764.16	3764.16	8.39	No	Si
SLU 45	3.27	-538.06	-1860	-0.0000203	0.0004492	0.0035	1.64	1424.4	2815.42	2815.42	5.23	No	Si
SLU 45	5.15	-59.53	-144	-0.000002	0.0004492	0.0035	1.64	117.7	1497.17	1497.17	25.15	No	Si
SLU 46	1.39	-447.81	-3134	-0.0000255	0.0004492	0.0035	1.64	2282.7	3763.55	3763.55	8.4	No	Si
SLU 46	3.27	-537.43	-1860	-0.0000203	0.0004492	0.0035	1.64	1423.83	2814.82	2814.82	5.24	No	Si
SLU 46	5.15	-59.4	-144	-0.000002	0.0004492	0.0035	1.64	117.59	1497.07	1497.07	25.2	No	Si
SLU 51	1.39	-447.81	-3134	-0.0000255	0.0004492	0.0035	1.64	2282.7	3763.55	3763.55	8.4	No	Si
SLU 51	3.27	-537.43	-1860	-0.0000203	0.0004492	0.0035	1.64	1423.83	2814.82	2814.82	5.24	No	Si
SLU 51	5.15	-59.4	-144	-0.000002	0.0004492	0.0035	1.64	117.59	1497.07	1497.07	25.2	No	Si
SLU 44	1.39	-447.43	-3133	-0.0000254	0.0004492	0.0035	1.64	2282.34	3763.15	3763.15	8.41	No	Si
SLU 44	3.27	-537.01	-1859	-0.0000203	0.0004492	0.0035	1.64	1423.45	2814.43	2814.43	5.24	No	Si
SLU 44	5.15	-59.32	-144	-0.000002	0.0004492	0.0035	1.64	117.53	1497	1497	25.23	No	Si
SLU 43	1.39	-448.39	-3135	-0.0000255	0.0004492	0.0035	1.64	2283.25	3764.16	3764.16	8.39	No	Si
SLU 43	3.27	-538.06	-1860	-0.0000203	0.0004492	0.0035	1.64	1424.4	2815.42	2815.42	5.23	No	Si
SLU 43	5.15	-59.53	-144	-0.000002	0.0004492	0.0035	1.64	117.7	1497.17	1497.17	25.15	No	Si
SLU 47	1.39	-447.43	-3133	-0.0000254	0.0004492	0.0035	1.64	2282.34	3763.15	3763.15	8.41	No	Si
SLU 47	3.27	-537.01	-1859	-0.0000203	0.0004492	0.0035	1.64	1423.45	2814.43	2814.43	5.24	No	Si
SLU 47	5.15	-59.32	-144	-0.000002	0.0004492	0.0035	1.64	117.53	1497	1497	25.23	No	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 84	1.39	-394.94	-3780	-2096	6	1.64	1.64	-9128	9550	1443	122342	8251	8364	16615	No	2659.52	Si
SLU 84	3.27	-533.23	-2384	-1322	-12	1.64	1.64	-5757	9101	1237	122342	8251	8364	16615	No	1336.79	Si
SLU 84	5.15	16.17	-297	-165	7	1.64	1.64	-717	8429	928	122342	8251	8364	16615	No	2275.87	Si
SLU 73	1.39	-408.58	-3670	-2035	6	1.64	1.64	-8863	9515	1427	122342	8251	8364	16615	No	2934.49	Si
SLU 73	3.27	-536.83	-2287	-1268	-11	1.64	1.64	-5522	9070	1222	122342	8251	8364	16615	No	1543.66	Si
SLU 73	5.15	-1.17	-265	-147	7	1.64	1.64	-639	8419	923	122342	8251	8364	16615	No	2345.5	Si
SLU 39	1.39	-290.43	-3132	-1736	6	1.64	1.64	-7563	9342	1347	122342	8251	8364	16615	No	2935.95	Si
SLU 39	3.27	-412.11	-2009	-1114	-12	1.64	1.64	-4851	8980	1181	122342	8251	8364	16615	No	1396.95	Si
SLU 39	5.15	34.4	-276	-153	6	1.64	1.64	-666	8422	925	122342	8251	8364	16615	No	2795.79	Si
SLU 40	1.39	-289.85	-3131	-1736	6	1.64	1.64	-7561	9341	1347	122342	8251	8364	16615	No	2935.72	Si
SLU 40	3.27	-411.48	-2008	-1113	-12	1.64	1.64	-4849	8980	1181	122342	8251	8364	16615	No	1396.27	Si
SLU 40	5.15	34.52	-276	-153	6	1.64	1.64	-666	8422	925	122342	8251	8364	16615	No	2801.43	Si
SLU 42	1.39	-289.85	-3131	-1736	6	1.64	1.64	-7561	9341	1347	122342	8251	8364	16615	No	2935.72	Si
SLU 42	3.27	-411.48	-2008	-1113	-12	1.64	1.64	-4849	8980	1181	122342	8251	8364	16615	No	1396.27	Si
SLU 42	5.15	34.52	-276	-153	6	1.64	1.64	-666	8422	925	122342	8251	8364	16615	No	2801.43	Si
SLU 76	1.39	-408.58	-3670	-2035	6	1.64	1.64	-8863	9515	1427	122342	8251	8364	16615	No	2934.49	Si
SLU 76	3.27	-536.83	-2287	-1268	-11	1.64	1.64	-5522	9070	1222	122342	8251	8364	16615	No	1543.66	Si
SLU 76	5.15	-1.17	-265	-147	7	1.64	1.64	-639	8419	923	122342	8251	8364	16615	No	2345.5	Si
SLU 82	1.39	-394.94	-3780	-2096	6	1.64	1.64	-9128	9550	1443	122342	8251	8364	16615	No	2659.52	Si
SLU 82	3.27	-533.23	-2384	-1322	-12	1.64	1.64	-5757	9101	1237	122342	8251	8364	16615	No	1336.79	Si
SLU 82	5.15	16.17	-297	-165	7	1.64	1.64	-717	8429	928	122342	8251	8364	16615	No	2275.87	Si
SLU 81	1.39	-395.51	-3781	-2096	6	1.64	1.64	-9130	9551	1443	122342	8251	8364	16615	No	2659.71	Si
SLU 81	3.27	-533.86	-2385	-1322	-12	1.64	1.64	-5759	9101	1237	122342	8251	8364	16615	No	1337.42	Si
SLU 81	5.15	16.05	-297	-165	7	1.64	1.64	-717	8429	928	122342	8251	8364	16615	No	2272.15	Si
SLU 41	1.39	-290.43	-3132	-1736	6	1.64	1.64	-7563	9342	1347	122342	8251	8364	16615	No	2935.95	Si
SLU 41	3.27	-412.11	-2009	-1114	-12	1.64	1.64	-4851	8980	1181	122342	8251	8364	16615	No	1396.95	Si
SLU 41	5.15	34.4	-276	-153	6	1.64	1.64	-666	8422	925	122342	8251	8364	16615	No	2795.79	Si
SLU 83	1.39	-395.51	-3781	-2096	6	1.64	1.64	-9130	9551	1443	122342	8251	8364	16615	No	2659.71	Si
SLU 83	3.27	-533.86	-2385	-1322	-12	1.64	1.64	-5759	9101	1237	122342	8251	8364	16615	No	1337.42	Si
SLU 83	5.15	16.05	-297	-165	7	1.64	1.64	-717	8429	928	122342	8251	8364	16615	No	2272.15	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 3.27 Ta 0.17 Wa 0.03 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 7	-1161	0.48	131.33	0	200	100	0.76	No
SLV 8	-1190	0.48	131.33	0	202.48	101.24	0.77	No
SLV 11	-1195	0.48	131.33	0	202.99	101.49	0.77	No
SLV 12	-1224	0.48	131.33	0	205.47	102.73	0.78	No
SLV 3	-1411	0.48	131.33	0	221.87	110.93	0.84	No
SLV 4	-1439	0.48	131.33	0	224.33	112.16	0.85	No
SLV 15	-1525	0.48	131.33	0	231.82	115.91	0.88	No
SLV 16	-1553	0.48	131.33	0	234.27	117.14	0.89	No
SLV 1	-1660	0.48	131.33	0	243.54	121.77	0.93	No
SLV 2	-1688	0.48	131.33	0	245.99	122.99	0.94	No

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.03 Ta = 0.1686

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 2	-242	-2928	-51	9.025	167.9	0.917	143.02962	19.59274	Si
SLV 1	-238	-2899	-51	9.058	167.6	0.918	143.45831	19.59274	Si
SLV 6	-237	-1549	-31	9.091	167.5	0.918	143.94579	19.59274	Si
SLV 5	-233	-1521	-31	9.125	167.3	0.919	144.38022	19.59274	Si
SLV 4	-207	-3710	-42	9.351	165.8	0.923	147.19313	19.59274	Si
SLV 3	-203	-3682	-42	9.386	165.5	0.924	147.63443	19.59274	Si
SLV 10	-198	-1150	-3	9.482	165.2	0.925	148.94898	19.59274	Si
SLV 9	-194	-1121	-3	9.519	165	0.926	149.39814	19.59274	Si
SLV 8	-121	-4157	2	10.287	161.3	0.945	158.23785	19.59274	Si
SLV 7	-118	-4128	2	10.33	161.2	0.946	158.7027	19.59274	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita

dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.233	SLU 43	Si
V_SLU	1336.79	SLU 82	Si
PFFP_SLV	0.761	SLV 7	No
R_SLV	7.3	SLV 2	Si

Maschio 32

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)
Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-25.983	-0.614	-26.838	-0.614	L2	L3	0.855	0.14	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 42	1.39	-916.28	-5252	-0.0001316	0.0004492	0.0035	0.855	1438.87	2188.62	2188.62	2.39	No	Si
SLU 42	3.27	-858.96	-4883	-0.0001221	0.0004492	0.0035	0.855	1390.45	2074.81	2074.81	2.42	No	Si
SLU 42	5.15	-24.67	-2777	-0.0000304	0.0004492	0.0035	0.855	961.64	1367.48	1367.48	55.43	No	Si
SLU 74	1.39	-834.17	-4930	-0.0001198	0.0004492	0.0035	0.855	1397.03	2089.24	2089.24	2.5	No	Si
SLU 74	3.27	-774.91	-4434	-0.0001092	0.0004492	0.0035	0.855	1320.89	1931.79	1931.79	2.49	No	Si
SLU 74	5.15	-15.35	-2373	-0.0000254	0.0004492	0.0035	0.855	849.85	1222.08	1222.08	79.6	No	Si
SLU 41	1.39	-916.42	-5252	-0.0001316	0.0004492	0.0035	0.855	1438.89	2188.68	2188.68	2.39	No	Si
SLU 41	3.27	-859.08	-4883	-0.0001221	0.0004492	0.0035	0.855	1390.49	2074.89	2074.89	2.42	No	Si
SLU 41	5.15	-24.68	-2777	-0.0000304	0.0004492	0.0035	0.855	961.65	1367.5	1367.5	55.42	No	Si
SLU 81	1.39	-962.38	-5604	-0.0001399	0.0004492	0.0035	0.855	1477.68	2295.87	2295.87	2.39	No	Si
SLU 81	3.27	-897.93	-5121	-0.0001284	0.0004492	0.0035	0.855	1422.63	2148.32	2148.32	2.39	No	Si
SLU 81	5.15	-21.74	-2825	-0.0000307	0.0004492	0.0035	0.855	974.25	1384.7	1384.7	63.69	No	Si
SLU 83	1.39	-962.38	-5604	-0.0001399	0.0004492	0.0035	0.855	1477.68	2295.87	2295.87	2.39	No	Si
SLU 83	3.27	-897.93	-5121	-0.0001284	0.0004492	0.0035	0.855	1422.63	2148.32	2148.32	2.39	No	Si
SLU 83	5.15	-21.74	-2825	-0.0000307	0.0004492	0.0035	0.855	974.25	1384.7	1384.7	63.69	No	Si
SLU 77	1.39	-834.17	-4930	-0.0001198	0.0004492	0.0035	0.855	1397.03	2089.24	2089.24	2.5	No	Si
SLU 77	3.27	-774.91	-4434	-0.0001092	0.0004492	0.0035	0.855	1320.89	1931.79	1931.79	2.49	No	Si
SLU 77	5.15	-15.35	-2373	-0.0000254	0.0004492	0.0035	0.855	849.85	1222.08	1222.08	79.6	No	Si
SLU 84	1.39	-962.24	-5604	-0.0001398	0.0004492	0.0035	0.855	1477.65	2295.81	2295.81	2.39	No	Si
SLU 84	3.27	-897.8	-5121	-0.0001284	0.0004492	0.0035	0.855	1422.6	2148.23	2148.23	2.39	No	Si
SLU 84	5.15	-21.73	-2824	-0.0000307	0.0004492	0.0035	0.855	974.24	1384.68	1384.68	63.71	No	Si
SLU 39	1.39	-916.42	-5252	-0.0001316	0.0004492	0.0035	0.855	1438.89	2188.68	2188.68	2.39	No	Si
SLU 39	3.27	-859.08	-4883	-0.0001221	0.0004492	0.0035	0.855	1390.49	2074.89	2074.89	2.42	No	Si
SLU 39	5.15	-24.68	-2777	-0.0000304	0.0004492	0.0035	0.855	961.65	1367.5	1367.5	55.42	No	Si
SLU 82	1.39	-962.24	-5604	-0.0001398	0.0004492	0.0035	0.855	1477.65	2295.81	2295.81	2.39	No	Si
SLU 82	3.27	-897.8	-5121	-0.0001284	0.0004492	0.0035	0.855	1422.6	2148.23	2148.23	2.39	No	Si
SLU 82	5.15	-21.73	-2824	-0.0000307	0.0004492	0.0035	0.855	974.24	1384.68	1384.68	63.71	No	Si
SLU 40	1.39	-916.28	-5252	-0.0001316	0.0004492	0.0035	0.855	1438.87	2188.62	2188.62	2.39	No	Si
SLU 40	3.27	-858.96	-4883	-0.0001221	0.0004492	0.0035	0.855	1390.45	2074.81	2074.81	2.42	No	Si
SLU 40	5.15	-24.67	-2777	-0.0000304	0.0004492	0.0035	0.855	961.64	1367.48	1367.48	55.43	No	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 83	1.39	-962.38	-5604	-3107	3	0.855	0.7672	-25959	10833	1290	122342	4302	4360	8662	No	3197.41	Si
SLU 83	3.27	-897.93	-5121	-2839	-6	0.855	0.7564	-23722	10833	1218	122342	4302	4360	8662	No	1532.72	Si
SLU 83	5.15	-21.74	-2825	-1566	3	0.855	0.855	-13084	10078	879	122342	4302	4360	8662	No	3337.2	Si
SLU 41	1.39	-916.42	-5252	-2912	3	0.855	0.759	-24328	10833	1237	122342	4302	4360	8662	No	3444.51	Si
SLU 41	3.27	-859.08	-4883	-2707	-6	0.855	0.7547	-22620	10833	1183	122342	4302	4360	8662	No	1552.81	Si
SLU 41	5.15	-24.68	-2777	-1540	3	0.855	0.855	-12863	10048	872	122342	4302	4360	8662	No	3415.4	Si
SLU 84	1.39	-962.24	-5604	-3107	3	0.855	0.7673	-25958	10833	1289	122342	4302	4360	8662	No	3200.03	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 84	3.27	-897.8	-5121	-2839	-6	0.855	0.7565	-23721	10833	1218	122342	4302	4360	8662	No	1529.86	Si
SLU 84	5.15	-21.73	-2824	-1566	3	0.855	0.855	-13084	10078	879	122342	4302	4360	8662	No	3334.71	Si
SLU 73	1.39	-833.94	-4929	-2733	2	0.855	0.7749	-22834	10833	1190	122342	4302	4360	8662	No	3611.55	Si
SLU 73	3.27	-774.7	-4434	-2458	-5	0.855	0.7583	-20539	10833	1117	122342	4302	4360	8662	No	1816.1	Si
SLU 73	5.15	-15.34	-2373	-1316	2	0.855	0.855	-10992	9799	812	122342	4302	4360	8662	No	3928.06	Si
SLU 42	1.39	-916.28	-5252	-2912	3	0.855	0.759	-24327	10833	1237	122342	4302	4360	8662	No	3447.55	Si
SLU 42	3.27	-858.96	-4883	-2707	-6	0.855	0.7547	-22619	10833	1183	122342	4302	4360	8662	No	1549.88	Si
SLU 42	5.15	-24.67	-2777	-1540	3	0.855	0.855	-12862	10048	872	122342	4302	4360	8662	No	3412.79	Si
SLU 82	1.39	-962.24	-5604	-3107	3	0.855	0.7673	-25958	10833	1289	122342	4302	4360	8662	No	3200.03	Si
SLU 82	3.27	-897.8	-5121	-2839	-6	0.855	0.7565	-23721	10833	1218	122342	4302	4360	8662	No	1529.86	Si
SLU 82	5.15	-21.73	-2824	-1566	3	0.855	0.855	-13084	10078	879	122342	4302	4360	8662	No	3334.71	Si
SLU 76	1.39	-833.94	-4929	-2733	2	0.855	0.7749	-22834	10833	1190	122342	4302	4360	8662	No	3611.55	Si
SLU 76	3.27	-774.7	-4434	-2458	-5	0.855	0.7583	-20539	10833	1117	122342	4302	4360	8662	No	1816.1	Si
SLU 76	5.15	-15.34	-2373	-1316	2	0.855	0.855	-10992	9799	812	122342	4302	4360	8662	No	3928.06	Si
SLU 39	1.39	-916.42	-5252	-2912	3	0.855	0.759	-24328	10833	1237	122342	4302	4360	8662	No	3444.51	Si
SLU 39	3.27	-859.08	-4883	-2707	-6	0.855	0.7547	-22620	10833	1183	122342	4302	4360	8662	No	1552.81	Si
SLU 39	5.15	-24.68	-2777	-1540	3	0.855	0.855	-12863	10048	872	122342	4302	4360	8662	No	3415.4	Si
SLU 40	1.39	-916.28	-5252	-2912	3	0.855	0.759	-24327	10833	1237	122342	4302	4360	8662	No	3447.55	Si
SLU 40	3.27	-858.96	-4883	-2707	-6	0.855	0.7547	-22619	10833	1183	122342	4302	4360	8662	No	1549.88	Si
SLU 40	5.15	-24.67	-2777	-1540	3	0.855	0.855	-12862	10048	872	122342	4302	4360	8662	No	3412.79	Si
SLU 81	1.39	-962.38	-5604	-3107	3	0.855	0.7672	-25959	10833	1290	122342	4302	4360	8662	No	3197.41	Si
SLU 81	3.27	-897.93	-5121	-2839	-6	0.855	0.7564	-23722	10833	1218	122342	4302	4360	8662	No	1532.72	Si
SLU 81	5.15	-21.74	-2825	-1566	3	0.855	0.855	-13084	10078	879	122342	4302	4360	8662	No	3337.2	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 3.27 Ta 0.17 Wa 0.03 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 4	-385	0.48	68.47	0	76.79	38.39	0.56	No
SLV 3	-387	0.48	68.47	0	76.95	38.48	0.56	No
SLV 2	-622	0.48	68.47	0	97.58	48.79	0.71	No
SLV 1	-624	0.48	68.47	0	97.74	48.87	0.71	No
SLV 8	-1471	0.48	68.47	96.1	171.3	133.7	1.95	Si
SLV 7	-1473	0.48	68.47	96.21	171.46	133.84	1.95	Si
SLV 6	-2262	0.48	68.47	141.99	238.92	190.46	2.78	Si
SLV 5	-2263	0.48	68.47	142.1	239.08	190.59	2.78	Si
SLV 12	-2640	0.48	68.47	162.56	271.03	216.8	3.17	Si
SLV 11	-2642	0.48	68.47	162.66	271.19	216.93	3.17	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.03 Ta = 0.1686

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 4	-1317	-705	-8	2.808	198.9	0.917	44.48123	19.59274	Si
SLV 3	-1316	-707	-8	2.809	198.8	0.917	44.49934	19.59274	Si
SLV 2	-1304	-1973	-13	2.825	197.6	0.917	44.76937	19.59274	Si
SLV 1	-1303	-1975	-13	2.826	197.6	0.917	44.78773	19.59274	Si
SLV 8	-1255	-277	6	2.912	192.8	0.916	46.21748	19.59274	Si
SLV 7	-1255	-279	6	2.913	192.7	0.916	46.23715	19.59274	Si
SLV 6	-1214	-4506	-12	2.982	188.6	0.914	47.39828	19.59274	Si
SLV 5	-1213	-4508	-12	2.983	188.6	0.914	47.41893	19.59274	Si
SLV 12	-1191	-1179	12	3.025	186.3	0.913	48.12825	19.59274	Si
SLV 11	-1190	-1181	12	3.026	186.2	0.913	48.14957	19.59274	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.386	SLU 81	Si
V_SLU	1529.858	SLU 82	Si
PFFP_SLV	0.561	SLV 4	No
R_SLV	2.27	SLV 4	Si

Maschio 33

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)
Maschio considerato membratura sismica secondaria

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-24.603	-0.614	-25.183	-0.614	L2	L3	0.58	0.14	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 39	1.39	334.5	-4191	-0.0001252	0.0004492	0.0035	0.58	702.06	1027.86	1027.86	3.07	No	Si
SLU 39	3.27	336.37	-3848	-0.0001191	0.0004492	0.0035	0.58	683.18	956.53	956.53	2.84	No	Si
SLU 39	5.15	168.71	-1514	-0.0000503	0.0004492	0.0035	0.58	372.12	446.35	446.35	2.65	No	Si
SLU 41	1.39	334.5	-4191	-0.0001252	0.0004492	0.0035	0.58	702.06	1027.86	1027.86	3.07	No	Si
SLU 41	3.27	336.37	-3848	-0.0001191	0.0004492	0.0035	0.58	683.18	956.53	956.53	2.84	No	Si
SLU 41	5.15	168.71	-1514	-0.0000503	0.0004492	0.0035	0.58	372.12	446.35	446.35	2.65	No	Si
SLU 77	1.39	296.35	-3997	-0.0001146	0.0004492	0.0035	0.58	692.25	987.59	987.59	3.33	No	Si
SLU 77	3.27	302.56	-3549	-0.0001075	0.0004492	0.0035	0.58	661.14	894.41	894.41	2.96	No	Si
SLU 77	5.15	144.18	-1280	-0.0000426	0.0004492	0.0035	0.58	323.42	386.83	386.83	2.68	No	Si
SLU 74	1.39	296.35	-3997	-0.0001146	0.0004492	0.0035	0.58	692.25	987.59	987.59	3.33	No	Si
SLU 74	3.27	302.56	-3549	-0.0001075	0.0004492	0.0035	0.58	661.14	894.41	894.41	2.96	No	Si
SLU 74	5.15	144.18	-1280	-0.0000426	0.0004492	0.0035	0.58	323.42	386.83	386.83	2.68	No	Si
SLU 82	1.39	345.7	-4516	-0.0001334	0.0004492	0.0035	0.58	713.61	1095.42	1095.42	3.17	No	Si
SLU 82	3.27	350.97	-4072	-0.0001259	0.0004492	0.0035	0.58	696.3	1003.14	1003.14	2.86	No	Si
SLU 82	5.15	171.63	-1531	-0.0000511	0.0004492	0.0035	0.58	375.57	450.71	450.71	2.63	No	Si
SLU 83	1.39	346.02	-4515	-0.0001335	0.0004492	0.0035	0.58	713.58	1095.24	1095.24	3.17	No	Si
SLU 83	3.27	351.18	-4072	-0.0001259	0.0004492	0.0035	0.58	696.27	1003.04	1003.04	2.86	No	Si
SLU 83	5.15	171.65	-1531	-0.0000511	0.0004492	0.0035	0.58	375.51	450.63	450.63	2.63	No	Si
SLU 42	1.39	334.18	-4192	-0.0001251	0.0004492	0.0035	0.58	702.1	1028.04	1028.04	3.08	No	Si
SLU 42	3.27	336.16	-3848	-0.000119	0.0004492	0.0035	0.58	683.22	956.64	956.64	2.85	No	Si
SLU 42	5.15	168.69	-1514	-0.0000503	0.0004492	0.0035	0.58	372.18	446.42	446.42	2.65	No	Si
SLU 84	1.39	345.7	-4516	-0.0001334	0.0004492	0.0035	0.58	713.61	1095.42	1095.42	3.17	No	Si
SLU 84	3.27	350.97	-4072	-0.0001259	0.0004492	0.0035	0.58	696.3	1003.14	1003.14	2.86	No	Si
SLU 84	5.15	171.63	-1531	-0.0000511	0.0004492	0.0035	0.58	375.57	450.71	450.71	2.63	No	Si
SLU 81	1.39	346.02	-4515	-0.0001335	0.0004492	0.0035	0.58	713.58	1095.24	1095.24	3.17	No	Si
SLU 81	3.27	351.18	-4072	-0.0001259	0.0004492	0.0035	0.58	696.27	1003.04	1003.04	2.86	No	Si
SLU 81	5.15	171.65	-1531	-0.0000511	0.0004492	0.0035	0.58	375.51	450.63	450.63	2.63	No	Si
SLU 40	1.39	334.18	-4192	-0.0001251	0.0004492	0.0035	0.58	702.1	1028.04	1028.04	3.08	No	Si
SLU 40	3.27	336.16	-3848	-0.000119	0.0004492	0.0035	0.58	683.22	956.64	956.64	2.85	No	Si
SLU 40	5.15	168.69	-1514	-0.0000503	0.0004492	0.0035	0.58	372.18	446.42	446.42	2.65	No	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 81	1.39	346.02	-4515	-2503	1	0.58	0.58	-30828	10833	980	122342	2918	2958	5876	No	9507.78	Si
SLU 81	3.27	351.18	-4072	-2258	0	0.58	0.58	-27800	10833	915	122342	2918	2958	5876	No	13641.91	Si
SLU 81	5.15	171.65	-1531	-849	28	0.58	0.5337	-10454	9727	539	122342	2918	2958	5876	No	211.66	Si
SLU 42	1.39	334.18	-4192	-2324	0	0.58	0.58	-28621	10833	932	122342	2918	2958	5876	No	12879.07	Si
SLU 42	3.27	336.16	-3848	-2134	-1	0.58	0.58	-26277	10833	882	122342	2918	2958	5876	No	10578.78	Si
SLU 42	5.15	168.69	-1514	-840	25	0.58	0.5359	-10341	9712	537	122342	2918	2958	5876	No	232.35	Si
SLU 41	1.39	334.5	-4191	-2324	0	0.58	0.58	-28615	10833	932	122342	2918	2958	5876	No	12780.57	Si
SLU 41	3.27	336.37	-3848	-2134	-1	0.58	0.58	-26273	10833	882	122342	2918	2958	5876	No	10670.84	Si
SLU 41	5.15	168.71	-1514	-840	25	0.58	0.5358	-10338	9712	537	122342	2918	2958	5876	No	231.87	Si
SLU 84	1.39	345.7	-4516	-2504	1	0.58	0.58	-30833	10833	980	122342	2918	2958	5876	No	9562.19	Si
SLU 84	3.27	350.97	-4072	-2258	0	0.58	0.58	-27804	10833	915	122342	2918	2958	5876	No	13491.8	Si
SLU 84	5.15	171.63	-1531	-849	28	0.58	0.5338	-10456	9727	539	122342	2918	2958	5876	No	212.06	Si
SLU 39	1.39	334.5	-4191	-2324	0	0.58	0.58	-28615	10833	932	122342	2918	2958	5876	No	12780.57	Si
SLU 39	3.27	336.37	-3848	-2134	-1	0.58	0.58	-26273	10833	882	122342	2918	2958	5876	No	10670.84	Si
SLU 39	5.15	168.71	-1514	-840	25	0.58	0.5358	-10338	9712	537	122342	2918	2958	5876	No	231.87	Si
SLU 82	1.39	345.7	-4516	-2504	1	0.58	0.58	-30833	10833	980	122342	2918	2958	5876	No	9562.19	Si
SLU 82	3.27	350.97	-4072	-2258	0	0.58	0.58	-27804	10833	915	122342	2918	2958	5876	No	13491.8	Si
SLU 82	5.15	171.63	-1531	-849	28	0.58	0.5338	-10456	9727	539	122342	2918	2958	5876	No	212.06	Si
SLU 74	1.39	296.35	-3997	-2216	1	0.58	0.58	-27293	10833	904	122342	2918	2958	5876	No	9335.19	Si
SLU 74	3.27	302.56	-3549	-1968	0	0.58	0.58	-24234	10833	837	122342	2918	2958	5876	No	21707.78	Si
SLU 74	5.15	144.18	-1280	-710	25	0.58	0.5322	-8742	9499	502	122342	2918	2958	5876	No	237.08	Si
SLU 40	1.39	334.18	-4192	-2324	0	0.58	0.58	-28621	10833	932	122342	2918	2958	5876	No	12879.07	Si
SLU 40	3.27	336.16	-3848	-2134	-1	0.58	0.58	-26277	10833	882	122342	2918	2958	5876	No	10578.78	Si
SLU 40	5.15	168.69	-1514	-840	25	0.58	0.5359	-10341	9712	537	122342	2918	2958	5876	No	232.35	Si
SLU 83	1.39	346.02	-4515	-2503	1	0.58	0.58	-30828	10833	980	122342	2918	2958	5876	No	9507.78	Si
SLU 83	3.27	351.18	-4072	-2258	0	0.58	0.58	-27800	10833	915	122342	2918	2958	5876	No	13641.91	Si
SLU 83	5.15	171.65	-1531	-849	28	0.58	0.5337	-10454	9727	539	122342	2918	2958	5876	No	211.66	Si
SLU 77	1.39	296.35	-3997	-2216	1	0.58	0.58	-27293	10833	904	122342	2918	2958	5876	No	9335.19	Si
SLU 77	3.27	302.56	-3549	-1968	0	0.58	0.58	-24234	10833	837	122342	2918	2958	5876	No	21707.78	Si
SLU 77	5.15	144.18	-1280	-710	25	0.58	0.5322	-8742	9499	502	122342	2918	2958	5876	No	237.08	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 3.27 Ta 0.17 Wa 0.03 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 15	388	0.48	46.45	0	0	0	0	No
SLV 13	149	0.48	46.45	0	0	0	0	No
SLV 16	381	0.48	46.45	0	0	0	0	No
SLV 14	142	0.48	46.45	0	3.96	1.98	0.04	No
SLV 11	-919	0.48	46.45	60.37	109	84.68	1.82	Si
SLV 12	-927	0.48	46.45	60.84	109.66	85.25	1.84	Si

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 9	-1716	0.48	46.45	106.27	177.1	141.69	3.05	Si
SLV 10	-1724	0.48	46.45	106.68	177.76	142.22	3.06	Si
SLV 7	-2279	0.48	46.45	135.1	224.51	179.8	3.87	Si
SLV 8	-2287	0.48	46.45	135.47	225.15	180.31	3.88	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.03 Ta = 0.1686

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 3	-1324	-4421	-5	2.056	178.3	0.934	32.01335	19.59274	Si
SLV 4	-1323	-4432	-5	2.058	178.2	0.934	32.03935	19.59274	Si
SLV 1	-1252	-4652	-7	2.151	171.1	0.931	33.5699	19.59274	Si
SLV 2	-1251	-4663	-7	2.153	170.9	0.931	33.59848	19.59274	Si
SLV 7	-953	-2616	1	2.675	141	0.92	42.24846	19.59274	Si
SLV 8	-952	-2627	1	2.677	140.8	0.92	42.29316	19.59274	Si
SLV 5	-714	-3387	-4	3.314	117.1	0.909	52.99949	19.59274	Si
SLV 6	-713	-3398	-4	3.318	116.9	0.909	53.06987	19.59274	Si
SLV 11	-564	-1300	5	3.904	102.2	0.901	62.99341	19.59274	Si
SLV 12	-563	-1311	5	3.91	102.1	0.901	63.09088	19.59274	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	2.625	SLU 81	Si
V_SLU	211.665	SLU 81	Si
PFFP_SLV	0	SLV 13	No
R_SLV	1.634	SLV 3	Si

Maschio 34

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-24.603	-3.177	-25.893	-3.854	L2	L3	1.457	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 71	1.39	-522.75	-2481	-0.0000147	0.0003743	0.0035	1.4567	1706.52	2749.33	2749.33	5.26	No	Si
SLU 71	3.27	-97.87	-1811	-0.000007	0.0003743	0.0035	1.4567	1265.53	2297.12	2297.12	23.47	No	Si
SLU 71	5.15	73.68	-962	-0.000004	0.0003743	0.0035	1.4567	685.59	928.54	928.54	12.6	No	Si
SLU 69	1.39	-522.75	-2481	-0.0000147	0.0003743	0.0035	1.4567	1706.52	2749.33	2749.33	5.26	No	Si
SLU 69	3.27	-97.87	-1811	-0.000007	0.0003743	0.0035	1.4567	1265.53	2297.12	2297.12	23.47	No	Si
SLU 69	5.15	73.68	-962	-0.000004	0.0003743	0.0035	1.4567	685.59	928.54	928.54	12.6	No	Si
SLU 50	1.39	-480.31	-2134	-0.0000131	0.0003743	0.0035	1.4567	1479.75	2514.9	2514.9	5.24	No	Si
SLU 50	3.27	-113.06	-1482	-0.0000061	0.0003743	0.0035	1.4567	1043.3	2074.76	2074.76	18.35	No	Si
SLU 50	5.15	15.84	-552	-0.0000019	0.0003743	0.0035	1.4567	397.08	639.48	639.48	40.37	No	Si
SLU 51	1.39	-481.71	-2185	-0.0000132	0.0003743	0.0035	1.4567	1513.09	2549.11	2549.11	5.29	No	Si
SLU 51	3.27	-112.71	-1503	-0.0000062	0.0003743	0.0035	1.4567	1057.49	2088.85	2088.85	18.53	No	Si
SLU 51	5.15	21.95	-554	-0.000002	0.0003743	0.0035	1.4567	398.54	640.93	640.93	29.2	No	Si
SLU 48	1.39	-480.31	-2134	-0.0000131	0.0003743	0.0035	1.4567	1479.75	2514.9	2514.9	5.24	No	Si
SLU 48	3.27	-113.06	-1482	-0.0000061	0.0003743	0.0035	1.4567	1043.3	2074.76	2074.76	18.35	No	Si
SLU 48	5.15	15.84	-552	-0.0000019	0.0003743	0.0035	1.4567	397.08	639.48	639.48	40.37	No	Si
SLU 45	1.39	-480.31	-2134	-0.0000131	0.0003743	0.0035	1.4567	1479.75	2514.9	2514.9	5.24	No	Si
SLU 45	3.27	-113.06	-1482	-0.0000061	0.0003743	0.0035	1.4567	1043.3	2074.76	2074.76	18.35	No	Si
SLU 45	5.15	15.84	-552	-0.0000019	0.0003743	0.0035	1.4567	397.08	639.48	639.48	40.37	No	Si
SLU 66	1.39	-522.75	-2481	-0.0000147	0.0003743	0.0035	1.4567	1706.52	2749.33	2749.33	5.26	No	Si
SLU 66	3.27	-97.87	-1811	-0.000007	0.0003743	0.0035	1.4567	1265.53	2297.12	2297.12	23.47	No	Si
SLU 66	5.15	73.68	-962	-0.000004	0.0003743	0.0035	1.4567	685.59	928.54	928.54	12.6	No	Si

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 64	1.39	-522.75	-2481	-0.0000147	0.0003743	0.0035	1.4567	1706.52	2749.33	2749.33	5.26	No	Si
SLU 64	3.27	-97.87	-1811	-0.000007	0.0003743	0.0035	1.4567	1265.53	2297.12	2297.12	23.47	No	Si
SLU 64	5.15	73.68	-962	-0.000004	0.0003743	0.0035	1.4567	685.59	928.54	928.54	12.6	No	Si
SLU 43	1.39	-480.31	-2134	-0.0000131	0.0003743	0.0035	1.4567	1479.75	2514.9	2514.9	5.24	No	Si
SLU 43	3.27	-113.06	-1482	-0.0000061	0.0003743	0.0035	1.4567	1043.3	2074.76	2074.76	18.35	No	Si
SLU 43	5.15	15.84	-552	-0.0000019	0.0003743	0.0035	1.4567	397.08	639.48	639.48	40.37	No	Si
SLU 49	1.39	-481.71	-2185	-0.0000132	0.0003743	0.0035	1.4567	1513.09	2549.11	2549.11	5.29	No	Si
SLU 49	3.27	-112.71	-1503	-0.0000062	0.0003743	0.0035	1.4567	1057.49	2088.85	2088.85	18.53	No	Si
SLU 49	5.15	21.95	-554	-0.000002	0.0003743	0.0035	1.4567	398.54	640.93	640.93	29.2	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 2	1.39	-136.85	1600	-0.0013466	0.0005615	0.0035	1.1653		0	0	0		No
SLV 2	3.27	-97.92	-368	-0.0000024	0.0005615	0.0035	1.4567		1300.96	1300.96	13.29		Si
SLV 2	5.15	-412.99	-791	-0.0000117	0.0005615	0.0035	1.1653		1598.47	1598.47	3.87		Si
SLV 3	1.39	-234.94	1154	-0.0004778	0.0005615	0.0035	1.1653		0	0	0		No
SLV 3	3.27	64.48	-595	-0.0000027	0.0005615	0.0035	1.4567		672.77	672.77	10.43		Si
SLV 3	5.15	-219.41	-827	-0.0000055	0.0005615	0.0035	1.4567		1623.3	1623.3	7.4		Si
SLV 1	1.39	-99.83	1335	-0.0010634	0.0005615	0.0035	1.1653		0	0	0		No
SLV 1	3.27	-80.54	-439	-0.0000024	0.0005615	0.0035	1.4567		1351.29	1351.29	16.78		Si
SLV 1	5.15	-337.9	-796	-0.000008	0.0005615	0.0035	1.1653		1602.05	1602.05	4.74		Si
SLV 13	1.39	-544.51	-5467	-0.0000246	0.0005615	0.0035	1.4567		4755.73	4755.73	8.73		Si
SLV 13	3.27	-178.51	-2478	-0.0000101	0.0005615	0.0035	1.4567		2766.18	2766.18	15.5		Si
SLV 13	5.15	448.97	-953	-0.0000114	0.0005615	0.0035	1.4567		926.09	926.09	2.06		Si
SLV 14	1.39	-581.54	-5202	-0.0000242	0.0005615	0.0035	1.4567		4580.76	4580.76	7.88		Si
SLV 14	3.27	-195.89	-2406	-0.0000101	0.0005615	0.0035	1.4567		2717.04	2717.04	13.87		Si
SLV 14	5.15	373.88	-948	-0.0000087	0.0005615	0.0035	1.4567		922.49	922.49	2.47		Si
SLV 15	1.39	-679.62	-5648	-0.000027	0.0005615	0.0035	1.4567		4874.97	4874.97	7.17		Si
SLV 15	3.27	-33.49	-2634	-0.0000087	0.0005615	0.0035	1.4567		2873.17	2873.17	85.78		Si
SLV 15	5.15	567.46	-983	-0.00002	0.0005615	0.0035	1.4567		947.49	947.49	1.67		Si
SLV 12	1.39	-718.76	-3212	-0.0000196	0.0005615	0.0035	1.4567		3265.77	3265.77	4.54		Si
SLV 12	3.27	152.54	-2030	-0.0000084	0.0005615	0.0035	1.4567		1679.91	1679.91	11.01		Si
SLV 12	5.15	354.95	-959	-0.0000082	0.0005615	0.0035	1.4567		930.08	930.08	2.62		Si
SLV 11	1.39	-681.49	-3479	-0.00002	0.0005615	0.0035	1.4567		3443.63	3443.63	5.05		Si
SLV 11	3.27	170.04	-2103	-0.0000088	0.0005615	0.0035	1.4567		1729.51	1729.51	10.17		Si
SLV 11	5.15	430.54	-964	-0.0000105	0.0005615	0.0035	1.4567		933.71	933.71	2.17		Si
SLV 4	1.39	-271.96	1419	-0.0006665	0.0005615	0.0035	1.1653		0	0	0		No
SLV 4	3.27	47.09	-524	-0.0000023	0.0005615	0.0035	1.4567		621.91	621.91	13.21		Si
SLV 4	5.15	-294.5	-822	-0.0000068	0.0005615	0.0035	1.4567		1619.72	1619.72	5.5		Si
SLV 16	1.39	-716.65	-5383	-0.0000266	0.0005615	0.0035	1.4567		4700	4700	6.56		Si
SLV 16	3.27	-50.88	-2562	-0.0000087	0.0005615	0.0035	1.4567		2824.03	2824.03	55.51		Si
SLV 16	5.15	492.37	-978	-0.0000133	0.0005615	0.0035	1.4567		943.89	943.89	1.92		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 34	1.39	-479.49	-2835	-2062	-572	1.4567	1.4567	-4718	7574	1952	122342	13086	7429	20515	No	35.84	Si
SLU 34	3.27	-21.98	-2220	-1615	-555	1.4567	1.4567	-3695	7437	1833	122342	13086	7429	20515	No	36.99	Si
SLU 34	5.15	211.91	-1777	-1292	-548	1.4567	1.4567	-2957	7339	1747	122342	13086	7429	20515	No	37.43	Si
SLU 31	1.39	-479.49	-2835	-2062	-572	1.4567	1.4567	-4718	7574	1952	122342	13086	7429	20515	No	35.84	Si
SLU 31	3.27	-21.98	-2220	-1615	-555	1.4567	1.4567	-3695	7437	1833	122342	13086	7429	20515	No	36.99	Si
SLU 31	5.15	211.91	-1777	-1292	-548	1.4567	1.4567	-2957	7339	1747	122342	13086	7429	20515	No	37.43	Si
SLU 41	1.39	-500.34	-3038	-2209	-677	1.4567	1.4567	-5055	7618	1992	122342	13086	7429	20515	No	30.3	Si
SLU 41	3.27	-3.19	-2455	-1785	-658	1.4567	1.4567	-4086	7489	1879	122342	13086	7429	20515	No	31.2	Si
SLU 41	5.15	251.63	-2129	-1549	-648	1.4567	1.4567	-3544	7417	1815	122342	13086	7429	20515	No	31.64	Si
SLU 40	1.39	-501.74	-3088	-2246	-707	1.4567	1.4567	-5140	7630	2001	122342	13086	7429	20515	No	29.03	Si
SLU 40	3.27	-2.83	-2476	-1801	-687	1.4567	1.4567	-4120	7494	1883	122342	13086	7429	20515	No	29.87	Si
SLU 40	5.15	257.74	-2131	-1550	-678	1.4567	1.4567	-3547	7417	1816	122342	13086	7429	20515	No	30.28	Si
SLU 84	1.39	-601.38	-3489	-2538	-639	1.4567	1.4567	-5807	7719	2079	122342	13086	7429	20515	No	32.12	Si
SLU 84	3.27	-32.93	-2731	-1986	-617	1.4567	1.4567	-4545	7550	1932	122342	13086	7429	20515	No	33.27	Si
SLU 84	5.15	246.14	-2151	-1564	-609	1.4567	1.4567	-3579	7422	1820	122342	13086	7429	20515	No	33.67	Si
SLU 83	1.39	-599.99	-3438	-2501	-609	1.4567	1.4567	-5722	7707	2069	122342	13086	7429	20515	No	33.67	Si
SLU 83	3.27	-33.28	-2710	-1971	-587	1.4567	1.4567	-4510	7546	1928	122342	13086	7429	20515	No	34.93	Si
SLU 83	5.15	240.03	-2149	-1563	-580	1.4567	1.4567	-3576	7421	1819	122342	13086	7429	20515	No	35.36	Si
SLU 81	1.39	-599.99	-3438	-2501	-609	1.4567	1.4567	-5722	7707	2069	122342	13086	7429	20515	No	33.67	Si
SLU 81	3.27	-33.28	-2710	-1971	-587	1.4567	1.4567	-4510	7546	1928	122342	13086	7429	20515	No	34.93	Si
SLU 81	5.15	240.03	-2149	-1563	-580	1.4567	1.4567	-3576	7421	1819	122342	13086	7429	20515	No	35.36	Si
SLU 82	1.39	-601.38	-3489	-2538	-639	1.4567	1.4567	-5807	7719	2079	122342	13086	7429	20515	No	32.12	Si
SLU 82	3.27	-32.93	-2731	-1986	-617	1.4567	1.4567	-4545	7550	1932	122342	13086	7429	20515	No	33.27	Si
SLU 82	5.15	246.14	-2151	-1564	-609	1.4567	1.4567	-3579	7422	1820	122342	13086	7429	20515	No	33.67	Si
SLU 39	1.39	-500.34	-3038	-2209	-677	1.4567	1.4567	-5055	7618	1992	122342	13086	7429	20515	No	30.3	Si
SLU 39	3.27	-3.19	-2455	-1785	-658	1.4567	1.4567	-4086	7489	1879	122342	13086	7429	20515	No	31.2	Si
SLU 39	5.15	251.63	-2129	-1549	-648	1.4567	1.4567	-3544	7417	1815	122342	13086	7429	20515	No	31.64	Si
SLU 42	1.39	-501.74	-3088	-2246	-707	1.4567	1.4567	-5140	7630	2001	122342	13086	7429	20515	No	29.03	Si
SLU 42	3.27	-2.83	-2476	-1801	-687	1.4567	1.4567	-4120	7494	1883	122342	13086	7429	20515	No	29.87	Si
SLU 42	5.15	257.74	-2131	-1550	-678	1.4567	1.4567	-3547	7417	1816	122342	13086	7429	20515	No	30.28	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 16	1.39	-716.65	-5383	-3915	-2743	1.4567	1.4567	-8958	12208	3148	122342	19629	7429	27058		9.86	Si
SLV 16	3.27	-50.88	-2562	-1863	-2456	1.4567	1.4567	-4264	11269	2601	122342	19629	7429	27058		11.02	Si
SLV 16	5.15	492.37	-978	-711	-2223	1.4567	0.6749	-1628	10742	2293	122342	19629	7429	27058		12.17	Si
SLV 12	1.39	-718.76	-3212	-2336	-2778	1.4567	1.4567	-5345	11486	2727	122342	19629	7429	27058		9.74	Si
SLV 12	3.27	152.54	-2030	-1477	-2101	1.4567	1.4567	-3379	11092	2497	122342	19629	7429	27058		12.88	Si
SLV 12	5.15	354.95	-959	-697	-1360	1.4567	1.0742	-1595	10736	2290	122342	19629	7429	27058		19.89	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 4	1.39	-271.96	1419	1032	1513	1.1653	1.4567	0	0	0	122342	15703	5943	21646		14.31	Si
SLV 4	3.27	47.09	-524	-381	1637	1.4567	1.4567	-871	10591	2205	122342	19629	7429	27058		16.53	Si
SLV 4	5.15	-294.5	-822	-597	1847	1.4567	1.1095	-1796	10776	2263	122342	19629	7429	27058		14.65	Si
SLV 13	1.39	-544.51	-5467	-3976	-1787	1.4567	1.4567	-9099	12236	3164	122342	19629	7429	27058		15.14	Si
SLV 13	3.27	-178.51	-2478	-1802	-1885	1.4567	1.4567	-4123	11241	2584	122342	19629	7429	27058		14.35	Si
SLV 13	5.15	448.97	-953	-693	-2096	1.4567	0.7717	-1586	10734	2289	122342	19629	7429	27058		12.91	Si
SLV 2	1.39	-136.85	1600	1164	2821	1.1653	1.4567	0	0	0	122342	15703	5943	21646		7.67	Si
SLV 2	3.27	-97.92	-368	-267	2562	1.4567	1.3858	-612	10539	2175	122342	19629	7429	27058		10.56	Si
SLV 2	5.15	-412.99	-791	-575	2329	1.1653	0.6192	0	0	0	122342	15703	5943	21646		9.29	Si
SLV 1	1.39	-99.83	1335	971	2469	1.1653	1.4567	0	0	0	122342	15703	5943	21646		8.77	Si
SLV 1	3.27	-80.54	-439	-319	2207	1.4567	1.4567	-731	10563	2189	122342	19629	7429	27058		12.26	Si
SLV 1	5.15	-337.9	-796	-579	1974	1.1653	0.9121	0	0	0	122342	15703	5943	21646		10.96	Si
SLV 11	1.39	-681.49	-3479	-2530	-3132	1.4567	1.4567	-5789	11575	2778	122342	19629	7429	27058		8.64	Si
SLV 11	3.27	170.04	-2103	-1529	-2458	1.4567	1.4567	-3499	11116	2511	122342	19629	7429	27058		11.01	Si
SLV 11	5.15	430.54	-964	-701	-1718	1.4567	0.8448	-1604	10737	2291	122342	19629	7429	27058		15.75	Si
SLV 6	1.39	-134.98	-569	-414	2858	1.4567	1.4567	-947	10606	2214	122342	19629	7429	27058		9.47	Si
SLV 6	3.27	-301.45	-899	-654	2210	1.4567	1.1787	-1850	10787	2278	122342	19629	7429	27058		12.25	Si
SLV 6	5.15	-276.07	-811	-590	1469	1.4567	1.1635	-1690	10755	2261	122342	19629	7429	27058		18.42	Si
SLV 15	1.39	-679.62	-5648	-4107	-3095	1.4567	1.4567	-9399	12297	3199	122342	19629	7429	27058		8.74	Si
SLV 15	3.27	-33.49	-2634	-1915	-2810	1.4567	1.4567	-4383	11293	2614	122342	19629	7429	27058		9.63	Si
SLV 15	5.15	567.46	-983	-715	-2579	1.4567	0.4537	-5268	11470	2294	122342	19629	7429	27058		10.49	Si
SLV 5	1.39	-97.72	-836	-608	2504	1.4567	1.4567	-1391	10695	2266	122342	19629	7429	27058		10.8	Si
SLV 5	3.27	-283.95	-971	-706	1853	1.4567	1.3076	-1800	10777	2292	122342	19629	7429	27058		14.6	Si
SLV 5	5.15	-200.48	-816	-593	1111	1.4567	1.4478	-1358	10688	2262	122342	19629	7429	27058		24.35	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 3.27 Ta 0.08 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 2	-368	0.48	228.8	0	231.29	115.64	0.51	No
SLV 1	-439	0.48	228.8	0	243.43	121.71	0.53	No
SLV 4	-524	0.48	228.8	0	257.66	128.83	0.56	No
SLV 3	-595	0.48	228.8	0	269.74	134.87	0.59	No
SLV 6	-899	0.48	228.8	0	320.78	160.39	0.7	No
SLV 5	-971	0.48	228.8	0	332.85	166.42	0.73	No
SLV 8	-1419	0.48	228.8	0	407.7	203.85	0.89	No
SLV 7	-1491	0.48	228.8	0	419.75	209.87	0.92	No
SLV 10	-1510	0.48	228.8	0	422.95	211.48	0.92	No
SLV 9	-1582	0.48	228.8	231.73	434.99	333.36	1.46	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 15	-983	-5648	-57	3.364	358.7	0.893	54.75396	14.51032	Si
SLV 16	-978	-5383	-57	3.371	358.3	0.893	54.86004	14.51032	Si
SLV 13	-953	-5467	-60	3.404	356.2	0.894	55.36922	14.51032	Si
SLV 14	-948	-5202	-60	3.411	355.8	0.894	55.4773	14.51032	Si
SLV 11	-964	-3479	-13	3.408	357.1	0.893	55.45235	13.89303	Si
SLV 12	-959	-3212	-13	3.416	356.7	0.893	55.56103	13.89303	Si
SLV 3	-827	1154	58	3.589	346	0.897	58.16358	14.51032	Si, Trazione
SLV 4	-822	1419	58	3.597	345.6	0.897	58.28053	14.51032	Si, Trazione
SLV 1	-796	1335	55	3.638	343.6	0.898	58.88389	14.51032	Si, Trazione
SLV 7	-917	-1438	21	3.471	353.2	0.894	56.40544	13.89303	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	5.236	SLU 43	Si
V_SLU	29.034	SLU 40	Si
PF_SLV	0	SLV 1	No
V_SLV	7.673	SLV 2	Si
PFFP_SLV	0.505	SLV 2	No
R_SLV	3.773	SLV 15	Si

Maschio 35

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	X fin.	Y fin.	Quota i.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-24.603	-3.177	-24.603	5.726	L2	L3	8.903	0.3	3.76	3.76	3.76			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb	fk	fvk0	fmedio	τ0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

											εlim,conv / ε,CNR DT-200						CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Entrambi	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche, γM = 3

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 39	1.39	1447.56	-29155	-0.0000157	0.0004492	0.0035	8.9031	118191.92	129550.83	129550.83	89.5	No	Si
SLU 39	3.27	4473.12	-17622	-0.0000107	0.0004492	0.0035	8.9031	74208.04	82843.21	82843.21	18.52	No	Si
SLU 39	5.15	8370.61	-7833	-0.0000069	0.0004492	0.0035	8.9031	34031.74	41721.24	41721.24	4.98	No	Si
SLU 40	1.39	1384.11	-29298	-0.0000157	0.0004492	0.0035	8.9031	118712.71	130115.03	130115.03	94.01	No	Si
SLU 40	3.27	4426.44	-17695	-0.0000107	0.0004492	0.0035	8.9031	74500.93	83148.33	83148.33	18.78	No	Si
SLU 40	5.15	8406.58	-7847	-0.000007	0.0004492	0.0035	8.9031	34093.38	41782.85	41782.85	4.97	No	Si
SLU 73	1.39	569.05	-33053	-0.0000174	0.0004492	0.0035	8.9031	132234.04	144952.17	144952.17	254.73	No	Si
SLU 73	3.27	3604.19	-18820	-0.000011	0.0004492	0.0035	8.9031	78947.5	87756.8	87756.8	24.35	No	Si
SLU 73	5.15	7315.02	-6830	-0.0000061	0.0004492	0.0035	8.9031	29769.41	37416.6	37416.6	5.12	No	Si
SLU 83	1.39	1243.56	-34590	-0.0000185	0.0004492	0.0035	8.9031	137659.45	150931.96	150931.96	121.37	No	Si
SLU 83	3.27	4515.32	-20191	-0.000012	0.0004492	0.0035	8.9031	84318.43	93371.63	93371.63	20.68	No	Si
SLU 83	5.15	8587.25	-8036	-0.0000071	0.0004492	0.0035	8.9031	34890.65	42580.35	42580.35	4.96	No	Si
SLU 84	1.39	1180.11	-34733	-0.0000186	0.0004492	0.0035	8.9031	138159.12	151486.28	151486.28	128.37	No	Si
SLU 84	3.27	4468.64	-20264	-0.0000121	0.0004492	0.0035	8.9031	84606.15	93673.93	93673.93	20.96	No	Si
SLU 84	5.15	8623.22	-8050	-0.0000071	0.0004492	0.0035	8.9031	34952.2	42641.96	42641.96	4.95	No	Si
SLU 76	1.39	569.05	-33053	-0.0000174	0.0004492	0.0035	8.9031	132234.04	144952.17	144952.17	254.73	No	Si
SLU 76	3.27	3604.19	-18820	-0.000011	0.0004492	0.0035	8.9031	78947.5	87756.8	87756.8	24.35	No	Si
SLU 76	5.15	7315.02	-6830	-0.0000061	0.0004492	0.0035	8.9031	29769.41	37416.6	37416.6	5.12	No	Si
SLU 81	1.39	1243.56	-34590	-0.0000185	0.0004492	0.0035	8.9031	137659.45	150931.96	150931.96	121.37	No	Si
SLU 81	3.27	4515.32	-20191	-0.000012	0.0004492	0.0035	8.9031	84318.43	93371.63	93371.63	20.68	No	Si
SLU 81	5.15	8587.25	-8036	-0.0000071	0.0004492	0.0035	8.9031	34890.65	42580.35	42580.35	4.96	No	Si
SLU 82	1.39	1180.11	-34733	-0.0000186	0.0004492	0.0035	8.9031	138159.12	151486.28	151486.28	128.37	No	Si
SLU 82	3.27	4468.64	-20264	-0.0000121	0.0004492	0.0035	8.9031	84606.15	93673.93	93673.93	20.96	No	Si
SLU 82	5.15	8623.22	-8050	-0.0000071	0.0004492	0.0035	8.9031	34952.2	42641.96	42641.96	4.95	No	Si
SLU 42	1.39	1384.11	-29298	-0.0000157	0.0004492	0.0035	8.9031	118712.71	130115.03	130115.03	94.01	No	Si
SLU 42	3.27	4426.44	-17695	-0.0000107	0.0004492	0.0035	8.9031	74500.93	83148.33	83148.33	18.78	No	Si
SLU 42	5.15	8406.58	-7847	-0.000007	0.0004492	0.0035	8.9031	34093.38	41782.85	41782.85	4.97	No	Si
SLU 41	1.39	1447.56	-29155	-0.0000157	0.0004492	0.0035	8.9031	118191.92	129550.83	129550.83	89.5	No	Si
SLU 41	3.27	4473.12	-17622	-0.0000107	0.0004492	0.0035	8.9031	74208.04	82843.21	82843.21	18.52	No	Si
SLU 41	5.15	8370.61	-7833	-0.0000069	0.0004492	0.0035	8.9031	34031.74	41721.24	41721.24	4.98	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, γM = 2

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 4	1.39	8925.75	-13300	-0.00001	0.0006738	0.0035	8.9031		65277.48	65277.48	7.31		Si
SLV 4	3.27	8634.06	-7775	-0.000007	0.0006738	0.0035	8.9031		41646.47	41646.47	4.82		Si
SLV 4	5.15	3060.54	-2603	-0.0000024	0.0006738	0.0035	8.9031		19234.23	19234.23	6.28		Si
SLV 14	1.39	-9276.92	-32571	-0.0000202	0.0006738	0.0035	8.9031		184669.97	184669.97	19.91		Si
SLV 14	3.27	-4900.59	-17009	-0.0000105	0.0006738	0.0035	8.9031		121044.14	121044.14	24.7		Si
SLV 14	5.15	5457.44	-4598	-0.0000043	0.0006738	0.0035	8.9031		27908.48	27908.48	5.11		Si
SLV 10	1.39	-18376.71	-24802	-0.0000193	0.0006738	0.0035	8.9031		153252.86	153252.86	8.34		Si
SLV 10	3.27	-7101.88	-13566	-0.0000095	0.0006738	0.0035	8.9031		106672.73	106672.73	15.02		Si
SLV 10	5.15	5544.25	-3924	-0.0000039	0.0006738	0.0035	8.9031		24978.86	24978.86	4.51		Si
SLV 8	1.39	18025.15	-21072	-0.0000172	0.0006738	0.0035	8.9031		98032.17	98032.17	5.44		Si
SLV 8	3.27	10837.12	-11219	-0.0000095	0.0006738	0.0035	8.9031		56393.46	56393.46	5.2		Si
SLV 8	5.15	2980.46	-3279	-0.0000027	0.0006738	0.0035	8.9031		22174.13	22174.13	7.44		Si
SLV 5	1.39	-15917.18	-18372	-0.0000151	0.0006738	0.0035	8.9031		126723.56	126723.56	7.96		Si
SLV 5	3.27	-4683.98	-10527	-0.000007	0.0006738	0.0035	8.9031		93887.26	93887.26	20.04		Si
SLV 5	5.15	3980.6	-3197	-0.000003	0.0006738	0.0035	8.9031		21818.43	21818.43	5.48		Si
SLV 6	1.39	-15976.01	-18817	-0.0000153	0.0006738	0.0035	8.9031		128575.8	128575.8	8.05		Si
SLV 6	3.27	-4414.09	-10754	-0.0000071	0.0006738	0.0035	8.9031		94840.42	94840.42	21.49		Si
SLV 6	5.15	5007.63	-3330	-0.0000034	0.0006738	0.0035	8.9031		22398.75	22398.75	4.47		Si
SLV 7	1.39	18083.98	-20627	-0.000017	0.0006738	0.0035	8.9031		96189.04	96189.04	5.32		Si
SLV 7	3.27	10567.24	-10992	-0.0000093	0.0006738	0.0035	8.9031		55426.28	55426.28	5.25		Si
SLV 7	5.15	1953.43	-3145	-0.0000023	0.0006738	0.0035	8.9031		21593.81	21593.81	11.05		Si
SLV 9	1.39	-18317.88	-24357	-0.000019	0.0006738	0.0035	8.9031		151422.13	151422.13	8.27		Si
SLV 9	3.27	-7371.76	-13339	-0.0000094	0.0006738	0.0035	8.9031		105719.57	105719.57	14.34		Si
SLV 9	5.15	4517.22	-3791	-0.0000035	0.0006738	0.0035	8.9031		24398.54	24398.54	5.4		Si
SLV 3	1.39	8984.19	-12858	-0.0000098	0.0006738	0.0035	8.9031		63390.83	63390.83	7.06		Si
SLV 3	3.27	8365.95	-7550	-0.0000068	0.0006738	0.0035	8.9031		40676.28	40676.28	4.86		Si
SLV 3	5.15	2040.24	-2471	-0.000002	0.0006738	0.0035	8.9031		18655.92	18655.92	9.14		Si
SLV 2	1.39	-1274.59	-12623	-0.0000069	0.0006738	0.0035	8.9031		102706.2	102706.2	80.58		Si
SLV 2	3.27	4058.7	-7635	-0.0000053	0.0006738	0.0035	8.9031		41044.92	41044.92	10.11		Si
SLV 2	5.15	3668.69	-2619	-0.0000026	0.0006738	0.0035	8.9031		19301.83	19301.83	5.26		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, γM = 3

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 76	1.39	569.05	-33053	-24038	-81	8.9031	8.9031	-9000	9533	25044	122342	95986	45406	141392	No	1739.56	Si
SLU 76	3.27	3604.19	-18820	-13687	-136	8.9031	8.9031	-5125	9017	20904	122342	95986	45406	141392	No	1035.92	Si
SLU 76	5.15	7315.02	-6830	-4968	-138	8.9031	8.9031	-1860	8581	17416	122342	95986	45406	139759	No	1016.28	Si
SLU 48	1.39	-760.43	-26283	-19115	144	8.9031	8.9031	-7157	9288	23075	122342	95986	45406	141392	No	979.79	Si

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 48	3.27	1012.03	-13308	-9679	115	8.9031	8.9031	-3624	8816	19301	122342	95986	45406	141392	No	1231.75	Si
SLU 48	5.15	2649.65	-2510	-1825	113	8.9031	8.9031	-683	8424	16159	122342	95986	45406	138502	No	1226.19	Si
SLU 40	1.39	1384.11	-29298	-21308	-111	8.9031	8.9031	-7978	9397	23952	122342	95986	45406	141392	No	1277.24	Si
SLU 40	3.27	4426.44	-17695	-12869	-169	8.9031	8.9031	-4818	8976	20577	122342	95986	45406	141392	No	838.21	Si
SLU 40	5.15	8406.58	-7847	-5707	-169	8.9031	8.9031	-2137	8618	17712	122342	95986	45406	140055	No	827.74	Si
SLU 45	1.39	-760.43	-26283	-19115	144	8.9031	8.9031	-7157	9288	23075	122342	95986	45406	141392	No	979.79	Si
SLU 45	3.27	1012.03	-13308	-9679	115	8.9031	8.9031	-3624	8816	19301	122342	95986	45406	141392	No	1231.75	Si
SLU 45	5.15	2649.65	-2510	-1825	113	8.9031	8.9031	-683	8424	16159	122342	95986	45406	138502	No	1226.19	Si
SLU 34	1.39	773.05	-27618	-20086	-122	8.9031	8.9031	-7520	9336	23463	122342	95986	45406	141392	No	1157.52	Si
SLU 34	3.27	3561.99	-16251	-11819	-173	8.9031	8.9031	-4425	8923	20157	122342	95986	45406	141392	No	817.7	Si
SLU 34	5.15	7098.38	-6628	-4820	-173	8.9031	8.9031	-1805	8574	17357	122342	95986	45406	139700	No	805.29	Si
SLU 42	1.39	1384.11	-29298	-21308	-111	8.9031	8.9031	-7978	9397	23952	122342	95986	45406	141392	No	1277.24	Si
SLU 42	3.27	4426.44	-17695	-12869	-169	8.9031	8.9031	-4818	8976	20577	122342	95986	45406	141392	No	838.21	Si
SLU 42	5.15	8406.58	-7847	-5707	-169	8.9031	8.9031	-2137	8618	17712	122342	95986	45406	140055	No	827.74	Si
SLU 50	1.39	-760.43	-26283	-19115	144	8.9031	8.9031	-7157	9288	23075	122342	95986	45406	141392	No	979.79	Si
SLU 50	3.27	1012.03	-13308	-9679	115	8.9031	8.9031	-3624	8816	19301	122342	95986	45406	141392	No	1231.75	Si
SLU 50	5.15	2649.65	-2510	-1825	113	8.9031	8.9031	-683	8424	16159	122342	95986	45406	138502	No	1226.19	Si
SLU 43	1.39	-760.43	-26283	-19115	144	8.9031	8.9031	-7157	9288	23075	122342	95986	45406	141392	No	979.79	Si
SLU 43	3.27	1012.03	-13308	-9679	115	8.9031	8.9031	-3624	8816	19301	122342	95986	45406	141392	No	1231.75	Si
SLU 43	5.15	2649.65	-2510	-1825	113	8.9031	8.9031	-683	8424	16159	122342	95986	45406	138502	No	1226.19	Si
SLU 73	1.39	569.05	-33053	-24038	-81	8.9031	8.9031	-9000	9533	25044	122342	95986	45406	141392	No	1739.56	Si
SLU 73	3.27	3604.19	-18820	-13687	-136	8.9031	8.9031	-5125	9017	20904	122342	95986	45406	141392	No	1035.92	Si
SLU 73	5.15	7315.02	-6830	-4968	-138	8.9031	8.9031	-1860	8581	17416	122342	95986	45406	139759	No	1016.28	Si
SLU 31	1.39	773.05	-27618	-20086	-122	8.9031	8.9031	-7520	9336	23463	122342	95986	45406	141392	No	1157.52	Si
SLU 31	3.27	3561.99	-16251	-11819	-173	8.9031	8.9031	-4425	8923	20157	122342	95986	45406	141392	No	817.7	Si
SLU 31	5.15	7098.38	-6628	-4820	-173	8.9031	8.9031	-1805	8574	17357	122342	95986	45406	139700	No	805.29	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, γM = 2

Comb.	Quota	M	N	Nmur	V	df	l'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 8	1.39	18025.15	-21072	-15325	14396	8.9031	8.9031	-5738	13648	29274	122342	143980	45406	151616		10.53	Si
SLV 8	3.27	10837.12	-11219	-8159	11944	8.9031	8.9031	-3055	13111	26408	122342	143980	45406	148750		12.45	Si
SLV 8	5.15	2980.46	-3279	-2384	8864	8.9031	8.9031	-893	12679	24098	122342	143980	45406	146440		16.52	Si
SLV 11	1.39	15683.28	-26612	-19354	13611	8.9031	8.9031	-7246	13949	30885	122342	143980	45406	153228		11.26	Si
SLV 11	3.27	7879.45	-13804	-10040	11485	8.9031	8.9031	-3759	13252	27160	122342	143980	45406	149502		13.02	Si
SLV 11	5.15	2490.05	-3739	-2719	8603	8.9031	8.9031	-1018	12704	24232	122342	143980	45406	146574		17.04	Si
SLV 10	1.39	-18376.71	-24802	-18038	-16731	8.9031	8.9031	-6753	13851	30359	122342	143980	45406	152701		9.13	Si
SLV 10	3.27	-7101.88	-13566	-9866	-14344	8.9031	8.9031	-3694	13239	27090	122342	143980	45406	149433		10.42	Si
SLV 10	5.15	5544.25	-3924	-2854	-11266	8.9031	8.9031	-1069	12714	24286	122342	143980	45406	146628		13.01	Si
SLV 12	1.39	15624.45	-27057	-19678	11132	8.9031	8.9031	-7367	13973	31015	122342	143980	45406	153357		13.78	Si
SLV 12	3.27	8149.34	-14031	-10204	9006	8.9031	8.9031	-3821	13264	27226	122342	143980	45406	149568		16.61	Si
SLV 12	5.15	3517.08	-3872	-2816	6123	8.9031	8.9031	-1054	12711	24270	122342	143980	45406	146613		23.94	Si
SLV 7	1.39	18083.98	-20627	-15002	16875	8.9031	8.9031	-5617	13623	29144	122342	143980	45406	151487		8.98	Si
SLV 7	3.27	10567.24	-10992	-7994	14423	8.9031	8.9031	-2993	13099	26342	122342	143980	45406	148684		10.31	Si
SLV 7	5.15	1953.43	-3145	-2287	11343	8.9031	8.9031	-856	12671	24059	122342	143980	45406	146401		12.91	Si
SLV 3	1.39	8984.19	-12858	-9351	10923	8.9031	8.9031	-3501	13200	26884	122342	143980	45406	149227		13.66	Si
SLV 3	3.27	8365.95	-7550	-5491	9669	8.9031	8.9031	-2056	12911	25340	122342	143980	45406	147683		15.27	Si
SLV 3	5.15	2040.24	-2471	-1797	8446	8.9031	8.9031	-673	12635	23863	122342	143980	45406	146205		17.31	Si
SLV 6	1.39	-15976.01	-18817	-13685	-13467	8.9031	8.9031	-5124	13525	28618	122342	143980	45406	150960		11.21	Si
SLV 6	3.27	-4414.09	-10754	-7821	-11406	8.9031	8.9031	-2928	13086	26272	122342	143980	45406	148615		13.03	Si
SLV 6	5.15	5007.63	-3330	-2422	-8526	8.9031	8.8437	-907	12681	24113	122342	143980	45406	146455		17.18	Si
SLV 14	1.39	-9276.92	-32571	-23688	-10779	8.9031	8.9031	-8869	14274	32619	122342	143980	45406	154961		14.38	Si
SLV 14	3.27	-4900.59	-17009	-12370	-9590	8.9031	8.9031	-4631	13426	28092	122342	143980	45406	150434		15.69	Si
SLV 14	5.15	5457.44	-4598	-3344	-8369	8.9031	8.9031	-1252	12750	24482	122342	143980	45406	146824		17.54	Si
SLV 5	1.39	-15917.18	-18372	-13362	-10988	8.9031	8.9031	-5003	13501	28488	122342	143980	45406	150831		13.73	Si
SLV 5	3.27	-4683.98	-10527	-7656	-8927	8.9031	8.9031	-2867	13073	26206	122342	143980	45406	148549		16.64	Si
SLV 5	5.15	3980.6	-3197	-2325	-6047	8.9031	8.9031	-870	12674	24074	122342	143980	45406	146416		24.21	Si
SLV 9	1.39	-18317.88	-24357	-17714	-14252	8.9031	8.9031	-6632	13826	30229	122342	143980	45406	152572		10.71	Si
SLV 9	3.27	-7371.76	-13339	-9701	-11864	8.9031	8.9031	-3632	13226	27024	122342	143980	45406	149367		12.59	Si
SLV 9	5.15	4517.22	-3791	-2757	-8787	8.9031	8.9031	-1032	12706	24247	122342	143980	45406	146589		16.68	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCM D.M. 17-01-18 (N.T.C.)

quota 3.27 Ta 0.08 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 1	-7410	0.48	1398.44	0	2402.95	1201.47	0.86	No
SLV 3	-7550	0.48	1398.44	0	2426.67	1213.34	0.87	No
SLV 2	-7635	0.48	1398.44	0	2441.21	1220.6	0.87	No
SLV 4	-7775	0.48	1398.44	0	2464.8	1232.4	0.88	No
SLV 5	-10527	0.48	1398.44	1545.14	2927.66	2236.4	1.6	Si
SLV 6	-10754	0.48	1398.44	1577.64	2965.65	2271.65	1.62	Si
SLV 7	-10992	0.48	1398.44	1611.84	3005.66	2308.75	1.65	Si
SLV 8	-11219	0.48	1398.44	1644.28	3043.62	2343.95	1.68	Si
SLV 9	-13339	0.48	1398.44	1946.38	3396.78	2671.58	1.91	Si
SLV 10	-13566	0.48	1398.44	1978.49	3434.48	2706.48	1.94	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.27 Wa = 0.05 Ta = 0.0787

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 14	-4598	-32571	1112	3.652	2079.1	0.899	59.00605	14.51032	Si
SLV 16	-4583	-33248	985	3.665	2077.9	0.9	59.21624	14.51032	Si
SLV 13	-4466	-32129	1113	3.687	2069	0.9	59.52016	14.51032	Si
SLV 15	-4450	-32806	987	3.701	2067.8	0.9	59.73246	14.51032	Si
SLV 10	-3924	-24802	506	3.887	2028.6	0.905	62.44694	13.89303	Si
SLV 9	-3791	-24357	507	3.927	2019	0.906	63.00573	13.89303	Si
SLV 12	-3872	-27057	84	3.935	2024.9	0.905	63.1883	13.89303	Si
SLV 11	-3739	-26612	85	3.975	2015.3	0.906	63.75454	13.89303	Si
SLV 4	-2603	-13300	-1169	4.266	1939.7	0.92	67.38208	14.51032	Si

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 2	-2619	-12623	-1042	4.271	1940.6	0.92	67.48263	14.51032	Si

Per la verifica della tabella precedente non si considerano i rinforzi predisposti ma qualora la sezione di verifica sia in trazione si ipotizza che tale componente sia assorbita dal rinforzo e la verifica viene effettuata conteggiando la forza di aggancio al piano definita.

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLU	4.945	SLU 82	Si
V_SLU	805.291	SLU 31	Si
PF_SLV	4.473	SLV 6	Si
V_SLV	8.977	SLV 7	Si
PFFP_SLV	0.859	SLV 1	No
R_SLV	4.066	SLV 14	Si

1.5 Verifiche travi di accoppiamento in muratura

Le unità di misura elencate nel capitolo sono in [m, daN] ove non espressamente specificato.

X ini.: *coordinata punto iniziale. [m]*
Y ini.: *coordinata punto iniziale. [m]*
Z ini.inf.: *coordinata punto iniziale. [m]*
Z ini.sup.: *coordinata punto iniziale. [m]*
H ini.: *altezza della sezione iniziale. [m]*
X fin.: *coordinata punto finale. [m]*
Y fin.: *coordinata punto finale. [m]*
Z fin.inf.: *coordinata punto finale. [m]*
Z fin.sup: *coordinata punto finale. [m]*
H fin.: *altezza della sezione finale. [m]*
Luce: *lunghezza della trave. [m]*
Spessore: *spessore. [m]*
R. Trazione: *resistenza a trazione dell'elemento teso disposto orizzontalmente. [daN]*
fb_: *resistenza normalizzata a compressione in direzione orizzontale dei blocchi. [daN/m²]*
fhk: *resistenza caratteristica a compressione della muratura utilizzata in direzione orizzontale. [daN/m²]*
fvk0: *resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m²]*
fhmedio: *resistenza media a compressione della muratura utilizzata in direzione orizzontale. [daN/m²]*
τ0: *resistenza media a taglio in assenza di azioni normali [C8.7.1.16]. [daN/m²]*
fv0: *resistenza media a taglio in assenza di azioni normali [C8.7.1.17]. [daN/m²]*
μ: *coefficiente di attrito [C8.7.1.17].*
φ: *coefficiente di ammorsamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.*
fvk,lim: *valore caratteristico massimo della resistenza a taglio che può essere impiegata nel calcolo (§11.10.3.3). [daN/m²]*
E: *modulo di elasticità longitudinale della muratura utilizzato. [daN/m²]*
G: *modulo di elasticità tangenziale della muratura utilizzato. [daN/m²]*
FC: *fattore di confidenza della muratura.*
Materiale: *descrizione del materiale.*
Fu Verticale: *carico di rottura a trazione per unità di lunghezza della maglia verticale. [daN/m]*
Fu Orizzontale: *carico di rottura a trazione per unità di lunghezza della maglia verticale. [daN/m]*
tfv: *spessore di calcolo equivalente verticale di uno strato di rinforzo.*
tfo: *spessore di calcolo equivalente orizzontale di uno strato di rinforzo.*
E: *modulo di elasticità longitudinale. [daN/m²]*
εu: *dilatazione a rottura.*
Tipo fibra: *natura della fibra.*
materiale: *materiale fibra del rinforzo.*
lato applicazione: *lato di applicazione del rinforzo.*
esposizione: *condizione di esposizione secondo CNR-DT 215 §3.2.*
ancoraggio verticale iniziale: *grado di ancoraggio iniziale dei rinforzi verticali.*
ancoraggio verticale finale: *grado di ancoraggio finale dei rinforzi verticali.*
ancoraggio orizzontale iniziale: *grado di ancoraggio iniziale dei rinforzi orizzontali.*
ancoraggio orizzontale finale: *grado di ancoraggio finale dei rinforzi orizzontali.*
strati: *numero strati del rinforzo.*
verifica taglio: *tipo di verifica a taglio.*
εlim,conv / ε,CNR DT-200: *dati relativi ai parametri per il calcolo della deformazione di progetto.*
αt: *coefficiente che tiene conto della ridotta capacità estensionale delle fibre sollecitate a tagliosecondo CNR-DT 215 §4.1.1.*
α: *coeffiicente amplificativo tensione di distacco secondo CNR-DT 215 §3.1 ovvero secondo CNR-DT 200 R1/2013 §5.3.3.*
εlim,conv: *deformazione limite convenzionale del rinforzo FRCM.*
ε,fd: *deformazione di progetto del rinforzo FRCM ovvero CRM.*
γF,d: *fattore parziali di sicurezza per stato limite di distacco secondo CNR-DT 200 R1/2013 §3.4.1.*
connettori: *presenza di connettori per la prevenzione del distacco del rinforzo.*
tipo di muratura: *tipo di muratura per stato limite di distacco di estremità secondo CNR-DT 200 R1/2013 §5.3.2.*
CRM / Fibrenet?: *dati relativi ai parametri per il calcolo secondo metodo Fibrenet? ovvero se il materiale è di tipo CRM.*
CRM: *stabilisce se il rinforzo è di tipo CRM secondo le Linee Guida del C.S.L.P. Ottobre 2019.*
intonaco: *materiale intonaco FRCM ovvero CRM.*

spessore intonaco: *spessore intonaco. [m]*
tipo blocco fibrenet: *tipo blocco muratura per verifica a tglio tipo Fibrenet.*
Comb.: *combinazione.*
Sez.: *sezione di verifica.*
M: *momento flettente nel piano. [daN*m]*
N: *sforzo normale. [daN]*
εm: *deformazione della muratura.*
εm_: *deformazione elastica della muratura.*
εmu: *deformazione ultima della muratura.*
df: *distanza tra il lembo compresso e la fibra tesa più lontana. [m]*
M0d: *momento resistente della sezione non rinforzata. [daN*m]*
M1d: *momento resistente della sezione rinforzata. [daN*m]*
MRd: *momento resistente della sezione. [daN*m]*
incremento > 50%: *incremento resistenza superiore al 50% della resistenza non rinforzata in condizioni non sismiche.*
c.s.: *coefficiente di sicurezza.*
Verifica: *stato di verifica.*
V: *taglio nel piano. [daN]*
df: *distanza tra lembo compresso e baricentro dell'armatura tesa. [m]*
fvd: *resistenza a taglio di calcolo. [daN/m²]*
Vt: *resistenza a taglio della muratura non rinforzata. [daN]*
Vt,f: *resistenza a taglio del rinforzo (CNR DT215 4.1a). [daN]*
Vt,c: *resistenza a taglio per schiacciamento delle bielle (CNR DT215 4.1b). [daN]*
Vt,c int.: *contributo di resistenza a taglio delle bielle dell'intonaco se considerato. [daN]*
Vt,R: *resistenza a taglio della sezione rinforzata. [daN]*
Stato limite: *pF_SLV=Presso flessione per azioni sismiche; V_SLV=Taglio per azioni sismiche.*
Coeff.s.: *coefficiente di sicurezza.*

Trave di accoppiamento 3

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-34.183	2.931	-1.3	0.7	2	-34.183	3.931	-1.3	0.7	2	1	0.45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 12	ini.	1130.77	-1400	-0.0001152	0.0003369	0.0035	2		10433.18	10433.18		9.23	Si
SLV 12	fin.	220.54	-155	-0.0000219	0.0003369	0.0035	2		10433.18	10433.18		47.31	Si
SLV 5	ini.	-2175.6	-1166	-0.0002285	0.0003369	0.0035	2		10447.73	10447.73		4.8	Si
SLV 5	fin.	2145.66	-2753	-0.0002253	0.0003369	0.0035	2		10433.18	10433.18		4.86	Si
SLV 3	ini.	-1639.64	-3659	-0.0001694	0.0003369	0.0035	2		10447.73	10447.73		6.37	Si
SLV 3	fin.	1533.12	-3487	-0.000158	0.0003369	0.0035	2		10433.18	10433.18		6.81	Si
SLV 9	ini.	-1386.29	118	-0.0001422	0.0003369	0.0035	2		10447.73	10447.73		7.54	Si
SLV 9	fin.	1839.88	-1500	-0.0001914	0.0003369	0.0035	2		10433.18	10433.18		5.67	Si
SLV 4	ini.	-1364.26	-3647	-0.0001398	0.0003369	0.0035	2		10447.73	10447.73		7.66	Si
SLV 4	fin.	1405.18	-3264	-0.0001443	0.0003369	0.0035	2		10433.18	10433.18		7.42	Si
SLV 10	ini.	-1109.1	130	-0.0001129	0.0003369	0.0035	2		10447.73	10447.73		9.42	Si
SLV 10	fin.	1711.1	-1275	-0.0001773	0.0003369	0.0035	2		10433.18	10433.18		6.1	Si
SLV 6	ini.	-1898.41	-1154	-0.0001977	0.0003369	0.0035	2		10447.73	10447.73		5.5	Si
SLV 6	fin.	2016.88	-2529	-0.0002109	0.0003369	0.0035	2		10433.18	10433.18		5.17	Si
SLV 16	ini.	1266.77	633	-0.0001296	0.0003369	0.0035	2		10433.18	10433.18		8.24	Si
SLV 16	fin.	385.91	915	-0.0000386	0.0003369	0.0035	2		10433.18	10433.18		27.04	Si
SLV 1	ini.	-2311.6	-3200	-0.0002438	0.0003369	0.0035	2		10447.73	10447.73		4.52	Si
SLV 1	fin.	1980.29	-3823	-0.0002069	0.0003369	0.0035	2		10433.18	10433.18		5.27	Si
SLV 2	ini.	-2036.22	-3188	-0.0002129	0.0003369	0.0035	2		10447.73	10447.73		5.13	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 2	fin.	1852.35	-3600	-0.0001928	0.0003369	0.0035	2		10433.18	10433.18		5.63	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 13	ini.	319.43	1665	2	0	1957	7930	24258	5100	9886		5.94	Si
SLV 13	fin.	961.02	1295	2	0	1957	7930	24258	5100	9886		7.63	Si
SLV 12	ini.	1130.77	-2094	2	0	1957	7930	24258	5100	9886		4.72	Si
SLV 12	fin.	220.54	-1707	2	0	1957	7930	24258	5100	9886		5.79	Si
SLV 2	ini.	-2036.22	4194	2	0	1957	7930	24258	5100	9886		2.36	Si
SLV 2	fin.	1852.35	4702	2	0	1957	7930	24258	5100	9886		2.1	Si
SLV 3	ini.	-1639.64	2846	2	0	1957	7930	24258	5100	9886		3.47	Si
SLV 3	fin.	1533.12	3540	2	0	1957	7930	24258	5100	9886		2.79	Si
SLV 10	ini.	-1109.1	4437	2	0	1957	7930	24258	5100	9886		2.23	Si
SLV 10	fin.	1711.1	4148	2	0	1957	7930	24258	5100	9886		2.38	Si
SLV 1	ini.	-2311.6	4805	2	0	1957	7930	24258	5100	9886		2.06	Si
SLV 1	fin.	1980.29	5296	2	0	1957	7930	24258	5100	9886		1.87	Si
SLV 6	ini.	-1898.41	5379	2	0	1957	7930	24258	5100	9886		1.84	Si
SLV 6	fin.	2016.88	5348	2	0	1957	7930	24258	5100	9886		1.85	Si
SLV 9	ini.	-1386.29	5052	2	0	1957	7930	24258	5100	9886		1.96	Si
SLV 9	fin.	1839.88	4747	2	0	1957	7930	24258	5100	9886		2.08	Si
SLV 4	ini.	-1364.26	2235	2	0	1957	7930	24258	5100	9886		4.42	Si
SLV 4	fin.	1405.18	2945	2	0	1957	7930	24258	5100	9886		3.36	Si
SLV 5	ini.	-2175.6	5994	2	0	1957	7930	24258	5100	9886		1.65	Si
SLV 5	fin.	2145.66	5947	2	0	1957	7930	24258	5100	9886		1.66	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.52	SLV 1	Si
V_SLV	1.649	SLV 5	Si

Trave di accoppiamento 5

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-27.948	5.726	-1.3	0.7	2	-27.448	5.726	-1.3	0.7	2	0.5	0.45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 8	ini.	-905.06	-3045	-0.0000919	0.0002807	0.0035	2		15648.46	15648.46		17.29	Si
SLV 8	fin.	393.63	-4811	-0.0000394	0.0002807	0.0035	2		15635.95	15635.95		39.72	Si
SLV 9	ini.	342.18	-1157	-0.0000342	0.0002807	0.0035	2		15635.95	15635.95		45.69	Si
SLV 9	fin.	653.19	-717	-0.0000659	0.0002807	0.0035	2		15635.95	15635.95		23.94	Si
SLV 1	ini.	-852.92	383	-0.0000864	0.0002807	0.0035	2		15648.46	15648.46		18.35	Si
SLV 1	fin.	1244.24	-2891	-0.0001278	0.0002807	0.0035	2		15635.95	15635.95		12.57	Si
SLV 3	ini.	-1146.92	-480	-0.0001173	0.0002807	0.0035	2		15648.46	15648.46		13.64	Si
SLV 3	fin.	1066.72	-4076	-0.0001089	0.0002807	0.0035	2		15635.95	15635.95		14.66	Si
SLV 2	ini.	-727.53	198	-0.0000735	0.0002807	0.0035	2		15648.46	15648.46		21.51	Si
SLV 2	fin.	1208.2	-2670	-0.0001239	0.0002807	0.0035	2		15635.95	15635.95		12.94	Si
SLV 4	ini.	-1021.53	-666	-0.0001041	0.0002807	0.0035	2		15648.46	15648.46		15.32	Si
SLV 4	fin.	1030.68	-3855	-0.0001051	0.0002807	0.0035	2		15635.95	15635.95		15.17	Si
SLV 5	ini.	-51.29	19	-0.0000051	0.0002807	0.0035	2		15648.46	15648.46		305.11	Si
SLV 5	fin.	1021.62	-1082	-0.0001042	0.0002807	0.0035	2		15635.95	15635.95		15.31	Si
SLV 7	ini.	-1031.28	-2859	-0.0001051	0.0002807	0.0035	2		15648.46	15648.46		15.17	Si
SLV 7	fin.	429.91	-5033	-0.0000431	0.0002807	0.0035	2		15635.95	15635.95		36.37	Si
SLV 11	ini.	-637.81	-4035	-0.0000642	0.0002807	0.0035	2		15648.46	15648.46		24.53	Si
SLV 11	fin.	61.48	-4668	-0.0000061	0.0002807	0.0035	2		15635.95	15635.95		254.34	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 6	ini.	74.93	-168	-0.0000074	0.0002807	0.0035	2		15635.95	15635.95		208.67	Si
SLV 6	fin.	985.34	-860	-0.0001004	0.0002807	0.0035	2		15635.95	15635.95		15.87	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 7	ini.	-1031.28	7957	2	0	1957	3965	20213	5100	5921		0.74	No
SLV 7	fin.	429.91	8847	2	0	1957	3965	20213	5100	5921		0.67	No
SLV 8	ini.	-905.06	6835	2	0	1957	3965	20213	5100	5921		0.87	No
SLV 8	fin.	393.63	7719	2	0	1957	3965	20213	5100	5921		0.77	No
SLV 5	ini.	-51.29	4415	2	0	1957	3965	20213	5100	5921		1.34	Si
SLV 5	fin.	1021.62	4718	2	0	1957	3965	20213	5100	5921		1.26	Si
SLV 11	ini.	-637.81	3395	2	0	1957	3965	20213	5100	5921		1.74	Si
SLV 11	fin.	61.48	4397	2	0	1957	3965	20213	5100	5921		1.35	Si
SLV 14	ini.	584.04	-5348	2	0	1957	3965	20213	5100	5921		1.11	Si
SLV 14	fin.	-19.9	-4601	2	0	1957	3965	20213	5100	5921		1.29	Si
SLV 4	ini.	-1021.53	10920	2	0	1957	3965	20213	5100	5921		0.54	No
SLV 4	fin.	1030.68	11468	2	0	1957	3965	20213	5100	5921		0.52	No
SLV 1	ini.	-852.92	10972	2	0	1957	3965	20213	5100	5921		0.54	No
SLV 1	fin.	1244.24	11350	2	0	1957	3965	20213	5100	5921		0.52	No
SLV 3	ini.	-1146.92	12035	2	0	1957	3965	20213	5100	5921		0.49	No
SLV 3	fin.	1066.72	12589	2	0	1957	3965	20213	5100	5921		0.47	No
SLV 16	ini.	290.04	-4285	2	0	1957	3965	20213	5100	5921		1.38	Si
SLV 16	fin.	-197.42	-3363	2	0	1957	3965	20213	5100	5921		1.76	Si
SLV 2	ini.	-727.53	9858	2	0	1957	3965	20213	5100	5921		0.6	No
SLV 2	fin.	1208.2	10230	2	0	1957	3965	20213	5100	5921		0.58	No

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	12.567	SLV 1	Si
V_SLV	0.47	SLV 3	No

Trave di accoppiamento 7

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-27.128	5.726	-1.3	0.7	2	-26.628	5.726	-1.3	0.7	2	0.5	0.45	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 8	ini.	-1230.18	-3209	-0.0001262	0.0002807	0.0035	2		15648.46	15648.46		12.72	Si
SLV 8	fin.	1568.64	-4252	-0.0001629	0.0002807	0.0035	2		15635.95	15635.95		9.97	Si
SLV 4	ini.	-1495.9	-1774	-0.0001548	0.0002807	0.0035	2		15648.46	15648.46		10.46	Si
SLV 4	fin.	2425.35	-3434	-0.0002599	0.0002807	0.0035	2		15635.95	15635.95		6.45	Si
SLV 5	ini.	-22.87	-146	-0.0000023	0.0002807	0.0035	2		15648.46	15648.46		684.26	Si
SLV 5	fin.	1496.58	-678	-0.000155	0.0002807	0.0035	2		15635.95	15635.95		10.45	Si
SLV 11	ini.	-796.34	-3563	-0.0000806	0.0002807	0.0035	2		15648.46	15648.46		19.65	Si
SLV 11	fin.	926.68	-4057	-0.0000942	0.0002807	0.0035	2		15635.95	15635.95		16.87	Si
SLV 1	ini.	-1287.74	-898	-0.0001323	0.0002807	0.0035	2		15648.46	15648.46		12.15	Si
SLV 1	fin.	2516.21	-2536	-0.0002706	0.0002807	0.0035	2		15635.95	15635.95		6.21	Si
SLV 2	ini.	-1067.07	-837	-0.0001089	0.0002807	0.0035	2		15648.46	15648.46		14.66	Si
SLV 2	fin.	2355.08	-2287	-0.0002517	0.0002807	0.0035	2		15635.95	15635.95		6.64	Si
SLV 7	ini.	-1452.31	-3270	-0.0001501	0.0002807	0.0035	2		15648.46	15648.46		10.77	Si
SLV 7	fin.	1730.83	-4503	-0.0001807	0.0002807	0.0035	2		15635.95	15635.95		9.03	Si
SLV 6	ini.	199.26	-85	-0.0000198	0.0002807	0.0035	2		15635.95	15635.95		78.47	Si
SLV 6	fin.	1334.39	-427	-0.0001375	0.0002807	0.0035	2		15635.95	15635.95		11.72	Si
SLV 14	ini.	1119.5	-1814	-0.0001145	0.0002807	0.0035	2		15635.95	15635.95		13.97	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 14	fin.	-325.41	-801	-0.0000325	0.0002807	0.0035	2		15648.46	15648.46		48.09	Si
SLV 3	ini.	-1716.58	-1835	-0.000179	0.0002807	0.0035	2		15648.46	15648.46		9.12	Si
SLV 3	fin.	2586.48	-3684	-0.0002789	0.0002807	0.0035	2		15635.95	15635.95		6.05	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 13	ini.	898.82	-3735	2	0	1957	3965	20213	5100	5921		1.59	Si
SLV 13	fin.	-164.28	-3599	2	0	1957	3965	20213	5100	5921		1.65	Si
SLV 1	ini.	-1287.74	11167	2	0	1957	3965	20213	5100	5921		0.53	No
SLV 1	fin.	2516.21	11099	2	0	1957	3965	20213	5100	5921		0.53	No
SLV 14	ini.	1119.5	-4863	2	0	1957	3965	20213	5100	5921		1.22	Si
SLV 14	fin.	-325.41	-4734	2	0	1957	3965	20213	5100	5921		1.25	Si
SLV 7	ini.	-1452.31	8600	2	0	1957	3965	20213	5100	5921		0.69	No
SLV 7	fin.	1730.83	9011	2	0	1957	3965	20213	5100	5921		0.66	No
SLV 2	ini.	-1067.07	10040	2	0	1957	3965	20213	5100	5921		0.59	No
SLV 2	fin.	2355.08	9963	2	0	1957	3965	20213	5100	5921		0.59	No
SLV 5	ini.	-22.87	4531	2	0	1957	3965	20213	5100	5921		1.31	Si
SLV 5	fin.	1496.58	4315	2	0	1957	3965	20213	5100	5921		1.37	Si
SLV 8	ini.	-1230.18	7465	2	0	1957	3965	20213	5100	5921		0.79	No
SLV 8	fin.	1568.64	7868	2	0	1957	3965	20213	5100	5921		0.75	No
SLV 4	ini.	-1495.9	11260	2	0	1957	3965	20213	5100	5921		0.53	No
SLV 4	fin.	2425.35	11372	2	0	1957	3965	20213	5100	5921		0.52	No
SLV 3	ini.	-1716.58	12388	2	0	1957	3965	20213	5100	5921		0.48	No
SLV 3	fin.	2586.48	12508	2	0	1957	3965	20213	5100	5921		0.47	No
SLV 11	ini.	-796.34	4130	2	0	1957	3965	20213	5100	5921		1.43	Si
SLV 11	fin.	926.68	4602	2	0	1957	3965	20213	5100	5921		1.29	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	6.045	SLV 3	Si
V_SLV	0.473	SLV 3	No

Trave di accoppiamento 9

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-30.668	-0.629	0.87	1.39	0.52	-31.668	-0.629	0.87	1.39	0.52	1	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 2	ini.	310.57	843	-0.0005282	0.0003369	0.0035	0.52		998.47	998.47		3.21	Si
SLV 2	fin.	-328.15	-1053	-0.0005621	0.0003369	0.0035	0.52		1001.89	1001.89		3.05	Si
SLV 15	ini.	-587.77	-1475	-0.0011888	0.0003369	0.0035	0.52		1001.89	1001.89		1.7	Si
SLV 15	fin.	393.87	1352	-0.000706	0.0003369	0.0035	0.52		998.47	998.47		2.54	Si
SLV 11	ini.	-366.55	-884	-0.0006433	0.0003369	0.0035	0.52		1001.89	1001.89		2.73	Si
SLV 11	fin.	218.87	789	-0.0003523	0.0003369	0.0035	0.52		998.47	998.47		4.56	Si
SLV 14	ini.	-510.67	-1286	-0.0009819	0.0003369	0.0035	0.52		1001.89	1001.89		1.96	Si
SLV 14	fin.	330.63	1133	-0.0005694	0.0003369	0.0035	0.52		998.47	998.47		3.02	Si
SLV 13	ini.	-531.08	-1343	-0.0010347	0.0003369	0.0035	0.52		1001.89	1001.89		1.89	Si
SLV 13	fin.	346.28	1179	-0.0006023	0.0003369	0.0035	0.52		998.47	998.47		2.88	Si
SLV 16	ini.	-567.36	-1417	-0.001132	0.0003369	0.0035	0.52		1001.89	1001.89		1.77	Si
SLV 16	fin.	378.22	1306	-0.0006713	0.0003369	0.0035	0.52		998.47	998.47		2.64	Si
SLV 4	ini.	253.88	711	-0.000417	0.0003369	0.0035	0.52		998.47	998.47		3.93	Si
SLV 4	fin.	-280.55	-880	-0.0004666	0.0003369	0.0035	0.52		1001.89	1001.89		3.57	Si
SLV 3	ini.	233.47	653	-0.0003789	0.0003369	0.0035	0.52		998.47	998.47		4.28	Si
SLV 3	fin.	-264.9	-834	-0.0004364	0.0003369	0.0035	0.52		1001.89	1001.89		3.78	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 12	ini.	-346	-826	-0.0005994	0.0003369	0.0035	0.52		1001.89	1001.89		2.9	Si
SLV 12	fin.	203.12	743	-0.0003242	0.0003369	0.0035	0.52		998.47	998.47		4.92	Si
SLV 1	ini.	290.16	785	-0.0004873	0.0003369	0.0035	0.52		998.47	998.47		3.44	Si
SLV 1	fin.	-312.49	-1007	-0.0005301	0.0003369	0.0035	0.52		1001.89	1001.89		3.21	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 3	ini.	233.47	-1044	0.52	0	226	4123	4205	1326	4349		4.17	Si
SLV 3	fin.	-264.9	-1428	0.52	0	226	4123	4205	1326	4349		3.05	Si
SLV 12	ini.	-346	1777	0.52	0	226	4123	4205	1326	4349		2.45	Si
SLV 12	fin.	203.12	1086	0.52	0	226	4123	4205	1326	4349		4	Si
SLV 15	ini.	-587.77	2925	0.52	0	226	4123	4205	1326	4349		1.49	Si
SLV 15	fin.	393.87	2130	0.52	0	226	4123	4205	1326	4349		2.04	Si
SLV 2	ini.	310.57	-1428	0.52	0	226	4123	4205	1326	4349		3.05	Si
SLV 2	fin.	-328.15	-1765	0.52	0	226	4123	4205	1326	4349		2.46	Si
SLV 11	ini.	-366.55	1873	0.52	0	226	4123	4205	1326	4349		2.32	Si
SLV 11	fin.	218.87	1176	0.52	0	226	4123	4205	1326	4349		3.7	Si
SLV 16	ini.	-567.36	2829	0.52	0	226	4123	4205	1326	4349		1.54	Si
SLV 16	fin.	378.22	2041	0.52	0	226	4123	4205	1326	4349		2.13	Si
SLV 4	ini.	253.88	-1139	0.52	0	226	4123	4205	1326	4349		3.82	Si
SLV 4	fin.	-280.55	-1516	0.52	0	226	4123	4205	1326	4349		2.87	Si
SLV 1	ini.	290.16	-1333	0.52	0	226	4123	4205	1326	4349		3.26	Si
SLV 1	fin.	-312.49	-1677	0.52	0	226	4123	4205	1326	4349		2.59	Si
SLV 13	ini.	-531.08	2636	0.52	0	226	4123	4205	1326	4349		1.65	Si
SLV 13	fin.	346.28	1881	0.52	0	226	4123	4205	1326	4349		2.31	Si
SLV 14	ini.	-510.67	2540	0.52	0	226	4123	4205	1326	4349		1.71	Si
SLV 14	fin.	330.63	1792	0.52	0	226	4123	4205	1326	4349		2.43	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.705	SLV 15	Si
V_SLV	1.487	SLV 15	Si

Trave di accoppiamento 10

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-24.978	-0.629	0.76	1.39	0.63	-26.388	-0.629	0.76	1.39	0.63	1.41	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 6	ini.	-71.55	337	-0.0000725	0.0003369	0.0035	0.63		1476.84	1476.84		20.64	Si
SLV 6	fin.	-1555.02	-6897	-0.0034779	0.0003369	0.0035	0.63		1476.84	1476.84		0.95	No
SLV 10	ini.	-181.56	-285	-0.0001898	0.0003369	0.0035	0.63		1476.84	1476.84		8.13	Si
SLV 10	fin.	-1342.98	-5126	-0.0025063	0.0003369	0.0035	0.63		1476.84	1476.84		1.1	Si
SLV 4	ini.	72.25	1111	-0.0000734	0.0003369	0.0035	0.63		1472.75	1472.75		20.38	Si
SLV 4	fin.	-1702.83	-8259	-0.0041175	0.0003369	0.0035	0.63		1476.84	1476.84		0.87	No
SLV 5	ini.	-68.44	339	-0.0000693	0.0003369	0.0035	0.63		1476.84	1476.84		21.58	Si
SLV 5	fin.	-1524.44	-6728	-0.0033347	0.0003369	0.0035	0.63		1476.84	1476.84		0.97	No
SLV 3	ini.	75.34	1114	-0.0000766	0.0003369	0.0035	0.63		1472.75	1472.75		19.55	Si
SLV 3	fin.	-1672.46	-8091	-0.0039918	0.0003369	0.0035	0.63		1476.84	1476.84		0.88	No
SLV 2	ini.	65.12	1088	-0.000066	0.0003369	0.0035	0.63		1472.75	1472.75		22.62	Si
SLV 2	fin.	-1748.74	-8584	-0.0043032	0.0003369	0.0035	0.63		1476.84	1476.84		0.84	No
SLV 7	ini.	-44.68	416	-0.000045	0.0003369	0.0035	0.63		1476.84	1476.84		33.05	Si
SLV 7	fin.	-1371.41	-5645	-0.0026228	0.0003369	0.0035	0.63		1476.84	1476.84		1.08	Si
SLV 8	ini.	-47.79	413	-0.0000481	0.0003369	0.0035	0.63		1476.84	1476.84		30.9	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 8	fin.	-1401.98	-5814	-0.0027548	0.0003369	0.0035	0.63		1476.84	1476.84		1.05	Si
SLV 9	ini.	-178.45	-282	-0.0001864	0.0003369	0.0035	0.63		1476.84	1476.84		8.28	Si
SLV 9	fin.	-1312.4	-4956	-0.0023875	0.0003369	0.0035	0.63		1476.84	1476.84		1.13	Si
SLV 1	ini.	68.21	1091	-0.0000692	0.0003369	0.0035	0.63		1472.75	1472.75		21.59	Si
SLV 1	fin.	-1718.37	-8416	-0.0041809	0.0003369	0.0035	0.63		1476.84	1476.84		0.86	No

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 7	ini.	-44.68	403	0.63	0	274	4996	5094	1607	5270		13.09	Si
SLV 7	fin.	-1371.41	-3947	0.63	0	274	4996	5094	1607	5270		1.34	Si
SLV 10	ini.	-181.56	458	0.63	0	274	4996	5094	1607	5270		11.5	Si
SLV 10	fin.	-1342.98	-4175	0.63	0	274	4996	5094	1607	5270		1.26	Si
SLV 5	ini.	-68.44	49	0.63	0	274	4996	5094	1607	5270		108.01	Si
SLV 5	fin.	-1524.44	-4317	0.63	0	274	4996	5094	1607	5270		1.22	Si
SLV 2	ini.	65.12	-420	0.63	0	274	4996	5094	1607	5270		12.55	Si
SLV 2	fin.	-1748.74	-4474	0.63	0	274	4996	5094	1607	5270		1.18	Si
SLV 1	ini.	68.21	-367	0.63	0	274	4996	5094	1607	5270		14.35	Si
SLV 1	fin.	-1718.37	-4418	0.63	0	274	4996	5094	1607	5270		1.19	Si
SLV 8	ini.	-47.79	349	0.63	0	274	4996	5094	1607	5270		15.08	Si
SLV 8	fin.	-1401.98	-4002	0.63	0	274	4996	5094	1607	5270		1.32	Si
SLV 4	ini.	72.25	-314	0.63	0	274	4996	5094	1607	5270		16.79	Si
SLV 4	fin.	-1702.83	-4363	0.63	0	274	4996	5094	1607	5270		1.21	Si
SLV 6	ini.	-71.55	-4	0.63	0	274	4996	5094	1607	5270		1175.58	Si
SLV 6	fin.	-1555.02	-4373	0.63	0	274	4996	5094	1607	5270		1.21	Si
SLV 3	ini.	75.34	-261	0.63	0	274	4996	5094	1607	5270		20.19	Si
SLV 3	fin.	-1672.46	-4307	0.63	0	274	4996	5094	1607	5270		1.22	Si
SLV 9	ini.	-178.45	511	0.63	0	274	4996	5094	1607	5270		10.31	Si
SLV 9	fin.	-1312.4	-4119	0.63	0	274	4996	5094	1607	5270		1.28	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.845	SLV 2	No
V_SLV	1.178	SLV 2	Si

Trave di accoppiamento 11

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-26.838	-2.079	0.8	1.39	0.59	-26.838	-1.079	0.8	1.39	0.59	1	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 4	ini.	311.9	2867	-0.000395	0.0003369	0.0035	0.59		1279.01	1279.01		4.1	Si
SLV 4	fin.	-247.23	2117	-0.0003036	0.0003369	0.0035	0.59		1282.98	1282.98		5.19	Si
SLV 2	ini.	240.94	2237	-0.0002961	0.0003369	0.0035	0.59		1279.01	1279.01		5.31	Si
SLV 2	fin.	-215.58	1692	-0.0002615	0.0003369	0.0035	0.59		1282.98	1282.98		5.95	Si
SLV 8	ini.	370.62	3359	-0.0004825	0.0003369	0.0035	0.59		1279.01	1279.01		3.45	Si
SLV 8	fin.	-287.38	2295	-0.0003589	0.0003369	0.0035	0.59		1282.98	1282.98		4.46	Si
SLV 7	ini.	377.7	3415	-0.0004934	0.0003369	0.0035	0.59		1279.01	1279.01		3.39	Si
SLV 7	fin.	-293.76	2320	-0.0003679	0.0003369	0.0035	0.59		1282.98	1282.98		4.37	Si
SLV 12	ini.	350.02	3152	-0.0004512	0.0003369	0.0035	0.59		1279.01	1279.01		3.65	Si
SLV 12	fin.	-290.17	2023	-0.0003628	0.0003369	0.0035	0.59		1282.98	1282.98		4.42	Si
SLV 11	ini.	357.1	3207	-0.0004619	0.0003369	0.0035	0.59		1279.01	1279.01		3.58	Si
SLV 11	fin.	-296.55	2047	-0.0003718	0.0003369	0.0035	0.59		1282.98	1282.98		4.33	Si
SLV 3	ini.	318.93	2922	-0.0004052	0.0003369	0.0035	0.59		1279.01	1279.01		4.01	Si
SLV 3	fin.	-253.57	2142	-0.0003122	0.0003369	0.0035	0.59		1282.98	1282.98		5.06	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 16	ini.	243.22	2176	-0.0002991	0.0003369	0.0035	0.59		1279.01	1279.01		5.26	Si
SLV 16	fin.	-256.53	1209	-0.0003162	0.0003369	0.0035	0.59		1282.98	1282.98		5	Si
SLV 15	ini.	250.26	2231	-0.0003087	0.0003369	0.0035	0.59		1279.01	1279.01		5.11	Si
SLV 15	fin.	-262.87	1234	-0.0003249	0.0003369	0.0035	0.59		1282.98	1282.98		4.88	Si
SLV 1	ini.	247.98	2292	-0.0003056	0.0003369	0.0035	0.59		1279.01	1279.01		5.16	Si
SLV 1	fin.	-221.93	1717	-0.0002698	0.0003369	0.0035	0.59		1282.98	1282.98		5.78	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 7	ini.	377.7	-1432	0.59	0	257	4678	4771	1505	4935		3.45	Si
SLV 7	fin.	-293.76	-1912	0.59	0	257	4678	4771	1505	4935		2.58	Si
SLV 2	ini.	240.94	-797	0.59	0	257	4678	4771	1505	4935		6.19	Si
SLV 2	fin.	-215.58	-1345	0.59	0	257	4678	4771	1505	4935		3.67	Si
SLV 4	ini.	311.9	-1091	0.59	0	257	4678	4771	1505	4935		4.52	Si
SLV 4	fin.	-247.23	-1634	0.59	0	257	4678	4771	1505	4935		3.02	Si
SLV 11	ini.	357.1	-1399	0.59	0	257	4678	4771	1505	4935		3.53	Si
SLV 11	fin.	-296.55	-1833	0.59	0	257	4678	4771	1505	4935		2.69	Si
SLV 3	ini.	318.93	-1128	0.59	0	257	4678	4771	1505	4935		4.37	Si
SLV 3	fin.	-253.57	-1666	0.59	0	257	4678	4771	1505	4935		2.96	Si
SLV 8	ini.	370.62	-1395	0.59	0	257	4678	4771	1505	4935		3.54	Si
SLV 8	fin.	-287.38	-1879	0.59	0	257	4678	4771	1505	4935		2.63	Si
SLV 1	ini.	247.98	-834	0.59	0	257	4678	4771	1505	4935		5.92	Si
SLV 1	fin.	-221.93	-1378	0.59	0	257	4678	4771	1505	4935		3.58	Si
SLV 15	ini.	250.26	-1017	0.59	0	257	4678	4771	1505	4935		4.85	Si
SLV 15	fin.	-262.87	-1406	0.59	0	257	4678	4771	1505	4935		3.51	Si
SLV 12	ini.	350.02	-1362	0.59	0	257	4678	4771	1505	4935		3.62	Si
SLV 12	fin.	-290.17	-1801	0.59	0	257	4678	4771	1505	4935		2.74	Si
SLV 16	ini.	243.22	-980	0.59	0	257	4678	4771	1505	4935		5.04	Si
SLV 16	fin.	-256.53	-1373	0.59	0	257	4678	4771	1505	4935		3.59	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.386	SLV 7	Si
V_SLV	2.582	SLV 7	Si

Trave di accoppiamento 12

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-34.183	-2.979	1.39	3.39	2	-34.183	-3.479	1.39	3.39	2	0.5	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 12	ini.	-292.07	-734	-0.0000291	0.0003369	0.0035	2		13932.6	13932.6		47.7	Si
SLV 12	fin.	-45.48	-1386	-0.0000045	0.0003369	0.0035	2		13932.6	13932.6		306.36	Si
SLV 6	ini.	218.33	188	-0.0000217	0.0003369	0.0035	2		13919.17	13919.17		63.75	Si
SLV 6	fin.	-20.58	-189	-0.000002	0.0003369	0.0035	2		13932.6	13932.6		676.98	Si
SLV 4	ini.	-130.24	-180	-0.0000129	0.0003369	0.0035	2		13932.6	13932.6		106.98	Si
SLV 4	fin.	-110.38	-1327	-0.0000109	0.0003369	0.0035	2		13932.6	13932.6		126.22	Si
SLV 11	ini.	-292.84	-702	-0.0000292	0.0003369	0.0035	2		13932.6	13932.6		47.58	Si
SLV 11	fin.	-69	-1278	-0.0000068	0.0003369	0.0035	2		13932.6	13932.6		201.93	Si
SLV 3	ini.	-131.01	-148	-0.000013	0.0003369	0.0035	2		13932.6	13932.6		106.35	Si
SLV 3	fin.	-133.75	-1219	-0.0000133	0.0003369	0.0035	2		13932.6	13932.6		104.17	Si
SLV 8	ini.	-301.32	-607	-0.00003	0.0003369	0.0035	2		13932.6	13932.6		46.24	Si
SLV 8	fin.	-85.96	-1584	-0.0000085	0.0003369	0.0035	2		13932.6	13932.6		162.08	Si
SLV 9	ini.	226.81	92	-0.0000226	0.0003369	0.0035	2		13919.17	13919.17		61.37	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 9	fin.	-3.62	118	-0.0000004	0.0003369	0.0035	2		13932.6	13932.6		3851.68	Si
SLV 10	ini.	227.59	61	-0.0000226	0.0003369	0.0035	2		13919.17	13919.17		61.16	Si
SLV 10	fin.	19.9	9	-0.000002	0.0003369	0.0035	2		13919.17	13919.17		699.42	Si
SLV 7	ini.	-302.1	-575	-0.0000301	0.0003369	0.0035	2		13932.6	13932.6		46.12	Si
SLV 7	fin.	-109.48	-1476	-0.0000109	0.0003369	0.0035	2		13932.6	13932.6		127.26	Si
SLV 5	ini.	217.56	220	-0.0000216	0.0003369	0.0035	2		13919.17	13919.17		63.98	Si
SLV 5	fin.	-44.1	-80	-0.0000044	0.0003369	0.0035	2		13932.6	13932.6		315.94	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 1	ini.	24.89	-1213	2	0	1304	3965	16172	5100	5269		4.34	Si
SLV 1	fin.	-114.13	3847	2	0	1304	3965	16172	5100	5269		1.37	Si
SLV 3	ini.	-131.01	-1187	2	0	1304	3965	16172	5100	5269		4.44	Si
SLV 3	fin.	-133.75	5188	2	0	1304	3965	16172	5100	5269		1.02	Si
SLV 2	ini.	25.66	-1253	2	0	1304	3965	16172	5100	5269		4.21	Si
SLV 2	fin.	-90.77	4242	2	0	1304	3965	16172	5100	5269		1.24	Si
SLV 7	ini.	-302.1	-906	2	0	1304	3965	16172	5100	5269		5.81	Si
SLV 7	fin.	-109.48	5544	2	0	1304	3965	16172	5100	5269		0.95	No
SLV 8	ini.	-301.32	-946	2	0	1304	3965	16172	5100	5269		5.57	Si
SLV 8	fin.	-85.96	5941	2	0	1304	3965	16172	5100	5269		0.89	No
SLV 11	ini.	-292.84	-692	2	0	1304	3965	16172	5100	5269		7.62	Si
SLV 11	fin.	-69	4508	2	0	1304	3965	16172	5100	5269		1.17	Si
SLV 4	ini.	-130.24	-1227	2	0	1304	3965	16172	5100	5269		4.3	Si
SLV 4	fin.	-110.38	5583	2	0	1304	3965	16172	5100	5269		0.94	No
SLV 15	ini.	-100.16	-472	2	0	1304	3965	16172	5100	5269		11.17	Si
SLV 15	fin.	1.19	1736	2	0	1304	3965	16172	5100	5269		3.04	Si
SLV 16	ini.	-99.4	-511	2	0	1304	3965	16172	5100	5269		10.3	Si
SLV 16	fin.	24.56	2130	2	0	1304	3965	16172	5100	5269		2.47	Si
SLV 12	ini.	-292.07	-732	2	0	1304	3965	16172	5100	5269		7.2	Si
SLV 12	fin.	-45.48	4905	2	0	1304	3965	16172	5100	5269		1.07	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	46.12	SLV 7	Si
V_SLV	0.887	SLV 8	No

Trave di accoppiamento 13

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-34.183	-2.979	4.19	5.15	0.96	-34.183	-3.479	4.19	5.15	0.96	0.5	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 7	ini.	97.23	874	-0.0000422	0.0003369	0.0035	0.96		3398.15	3398.15		34.95	Si
SLV 7	fin.	488.13	676	-0.0002224	0.0003369	0.0035	0.96		3398.15	3398.15		6.96	Si
SLV 1	ini.	21.96	473	-0.0000095	0.0003369	0.0035	0.96		3398.15	3398.15		154.71	Si
SLV 1	fin.	309.71	664	-0.0001379	0.0003369	0.0035	0.96		3398.15	3398.15		10.97	Si
SLV 4	ini.	68.76	868	-0.0000298	0.0003369	0.0035	0.96		3398.15	3398.15		49.42	Si
SLV 4	fin.	493.42	881	-0.000225	0.0003369	0.0035	0.96		3398.15	3398.15		6.89	Si
SLV 11	ini.	90.44	732	-0.0000392	0.0003369	0.0035	0.96		3398.15	3398.15		37.57	Si
SLV 11	fin.	404.67	475	-0.0001823	0.0003369	0.0035	0.96		3398.15	3398.15		8.4	Si
SLV 15	ini.	37.73	261	-0.0000163	0.0003369	0.0035	0.96		3398.15	3398.15		90.06	Si
SLV 15	fin.	158.9	107	-0.0000695	0.0003369	0.0035	0.96		3398.15	3398.15		21.39	Si
SLV 16	ini.	46.12	394	-0.0000199	0.0003369	0.0035	0.96		3398.15	3398.15		73.69	Si
SLV 16	fin.	215.23	210	-0.0000947	0.0003369	0.0035	0.96		3398.15	3398.15		15.79	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 12	ini.	98.88	866	-0.0000429	0.0003369	0.0035	0.96		3398.15	3398.15		34.37	Si
SLV 12	fin.	461.38	578	-0.0002095	0.0003369	0.0035	0.96		3398.15	3398.15		7.37	Si
SLV 8	ini.	105.67	1008	-0.0000459	0.0003369	0.0035	0.96		3398.15	3398.15		32.16	Si
SLV 8	fin.	544.83	780	-0.0002502	0.0003369	0.0035	0.96		3398.15	3398.15		6.24	Si
SLV 2	ini.	30.35	605	-0.0000131	0.0003369	0.0035	0.96		3398.15	3398.15		111.97	Si
SLV 2	fin.	366.05	767	-0.0001641	0.0003369	0.0035	0.96		3398.15	3398.15		9.28	Si
SLV 3	ini.	60.37	735	-0.0000261	0.0003369	0.0035	0.96		3398.15	3398.15		56.29	Si
SLV 3	fin.	437.08	778	-0.0001978	0.0003369	0.0035	0.96		3398.15	3398.15		7.77	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 1	ini.	21.96	893	0.96	0	626	3965	7763	2448	4591		5.14	Si
SLV 1	fin.	309.71	660	0.96	0	626	3965	7763	2448	4591		6.96	Si
SLV 6	ini.	-22.36	613	0.96	0	626	3965	7763	2448	4591		7.49	Si
SLV 6	fin.	120.27	374	0.96	0	626	3965	7763	2448	4591		12.26	Si
SLV 3	ini.	60.37	959	0.96	0	626	3965	7763	2448	4591		4.79	Si
SLV 3	fin.	437.08	728	0.96	0	626	3965	7763	2448	4591		6.31	Si
SLV 12	ini.	98.88	601	0.96	0	626	3965	7763	2448	4591		7.63	Si
SLV 12	fin.	461.38	366	0.96	0	626	3965	7763	2448	4591		12.56	Si
SLV 5	ini.	-30.8	545	0.96	0	626	3965	7763	2448	4591		8.42	Si
SLV 5	fin.	63.57	307	0.96	0	626	3965	7763	2448	4591		14.97	Si
SLV 8	ini.	105.67	833	0.96	0	626	3965	7763	2448	4591		5.51	Si
SLV 8	fin.	544.83	600	0.96	0	626	3965	7763	2448	4591		7.65	Si
SLV 7	ini.	97.23	765	0.96	0	626	3965	7763	2448	4591		6	Si
SLV 7	fin.	488.13	533	0.96	0	626	3965	7763	2448	4591		8.62	Si
SLV 11	ini.	90.44	534	0.96	0	626	3965	7763	2448	4591		8.6	Si
SLV 11	fin.	404.67	298	0.96	0	626	3965	7763	2448	4591		15.41	Si
SLV 2	ini.	30.35	960	0.96	0	626	3965	7763	2448	4591		4.78	Si
SLV 2	fin.	366.05	727	0.96	0	626	3965	7763	2448	4591		6.32	Si
SLV 4	ini.	68.76	1026	0.96	0	626	3965	7763	2448	4591		4.48	Si
SLV 4	fin.	493.42	795	0.96	0	626	3965	7763	2448	4591		5.78	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	6.237	SLV 8	Si
V_SLV	4.475	SLV 4	Si

Trave di accoppiamento 14

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-34.183	-0.829	1.39	2.39	1	-34.183	-1.829	1.39	2.39	1	1	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 8	ini.	-1392.18	2718	-0.0006666	0.0003369	0.0035	1		3691.87	3691.87		2.65	Si
SLV 8	fin.	707.19	184	-0.0003035	0.0003369	0.0035	1		3685.34	3685.34		5.21	Si
SLV 11	ini.	-1149.83	2085	-0.0005283	0.0003369	0.0035	1		3691.87	3691.87		3.21	Si
SLV 11	fin.	656.13	-105	-0.0002796	0.0003369	0.0035	1		3685.34	3685.34		5.62	Si
SLV 7	ini.	-1238	2319	-0.0005774	0.0003369	0.0035	1		3691.87	3691.87		2.98	Si
SLV 7	fin.	640.38	87	-0.0002723	0.0003369	0.0035	1		3685.34	3685.34		5.75	Si
SLV 4	ini.	-1048.18	2053	-0.0004735	0.0003369	0.0035	1		3691.87	3691.87		3.52	Si
SLV 4	fin.	371.33	492	-0.0001527	0.0003369	0.0035	1		3685.34	3685.34		9.92	Si
SLV 2	ini.	-665.58	1250	-0.0002835	0.0003369	0.0035	1		3691.87	3691.87		5.55	Si
SLV 2	fin.	99.39	563	-0.0000397	0.0003369	0.0035	1		3685.34	3685.34		37.08	Si
SLV 16	ini.	-754.27	1272	-0.0003253	0.0003369	0.0035	1		3691.87	3691.87		4.89	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 16	fin.	423.82	-151	-0.0001754	0.0003369	0.0035	1		3685.34	3685.34		8.7	Si
SLV 1	ini.	-512.41	854	-0.0002139	0.0003369	0.0035	1		3691.87	3691.87		7.2	Si
SLV 1	fin.	33.02	467	-0.0000131	0.0003369	0.0035	1		3685.34	3685.34		111.62	Si
SLV 3	ini.	-895.01	1657	-0.0003943	0.0003369	0.0035	1		3691.87	3691.87		4.12	Si
SLV 3	fin.	304.96	396	-0.0001245	0.0003369	0.0035	1		3685.34	3685.34		12.08	Si
SLV 15	ini.	-601.1	876	-0.0002538	0.0003369	0.0035	1		3691.87	3691.87		6.14	Si
SLV 15	fin.	357.45	-246	-0.0001468	0.0003369	0.0035	1		3685.34	3685.34		10.31	Si
SLV 12	ini.	-1304.01	2484	-0.0006151	0.0003369	0.0035	1		3691.87	3691.87		2.83	Si
SLV 12	fin.	722.94	-9	-0.000311	0.0003369	0.0035	1		3685.34	3685.34		5.1	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 8	ini.	-1392.18	3645	1	0	652	7930	8086	2550	8582		2.35	Si
SLV 8	fin.	707.19	2447	1	0	652	7930	8086	2550	8582		3.51	Si
SLV 4	ini.	-1048.18	2329	1	0	652	7930	8086	2550	8582		3.68	Si
SLV 4	fin.	371.33	1696	1	0	652	7930	8086	2550	8582		5.06	Si
SLV 2	ini.	-665.58	1076	1	0	652	7930	8086	2550	8582		7.98	Si
SLV 2	fin.	99.39	902	1	0	652	7930	8086	2550	8582		9.52	Si
SLV 11	ini.	-1149.83	3071	1	0	652	7930	8086	2550	8582		2.79	Si
SLV 11	fin.	656.13	2043	1	0	652	7930	8086	2550	8582		4.2	Si
SLV 15	ini.	-601.1	1464	1	0	652	7930	8086	2550	8582		5.86	Si
SLV 15	fin.	357.45	941	1	0	652	7930	8086	2550	8582		9.12	Si
SLV 12	ini.	-1304.01	3519	1	0	652	7930	8086	2550	8582		2.44	Si
SLV 12	fin.	722.94	2296	1	0	652	7930	8086	2550	8582		3.74	Si
SLV 3	ini.	-895.01	1884	1	0	652	7930	8086	2550	8582		4.56	Si
SLV 3	fin.	304.96	1445	1	0	652	7930	8086	2550	8582		5.94	Si
SLV 16	ini.	-754.27	1909	1	0	652	7930	8086	2550	8582		4.5	Si
SLV 16	fin.	423.82	1192	1	0	652	7930	8086	2550	8582		7.2	Si
SLV 9	ini.	125.51	-1106	1	0	652	7930	8086	2550	8582		7.76	Si
SLV 9	fin.	-250.36	-604	1	0	652	7930	8086	2550	8582		14.2	Si
SLV 7	ini.	-1238	3197	1	0	652	7930	8086	2550	8582		2.68	Si
SLV 7	fin.	640.38	2194	1	0	652	7930	8086	2550	8582		3.91	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.652	SLV 8	Si
V_SLV	2.354	SLV 8	Si

Trave di accoppiamento 15

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-34.183	-0.829	4.29	5.15	0.86	-34.183	-1.829	4.29	5.15	0.86	1	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 2	ini.	-156.7	-339	-0.0000855	0.0003369	0.0035	0.86		2730.1	2730.1		17.42	Si
SLV 2	fin.	193.83	475	-0.0001065	0.0003369	0.0035	0.86		2724.52	2724.52		14.06	Si
SLV 3	ini.	-284.67	-816	-0.0001583	0.0003369	0.0035	0.86		2730.1	2730.1		9.59	Si
SLV 3	fin.	196.43	166	-0.000108	0.0003369	0.0035	0.86		2724.52	2724.52		13.87	Si
SLV 9	ini.	209.92	794	-0.0001157	0.0003369	0.0035	0.86		2724.52	2724.52		12.98	Si
SLV 9	fin.	-4.96	627	-0.0000027	0.0003369	0.0035	0.86		2730.1	2730.1		550.15	Si
SLV 5	ini.	171.99	738	-0.0000942	0.0003369	0.0035	0.86		2724.52	2724.52		15.84	Si
SLV 5	fin.	32.61	727	-0.0000175	0.0003369	0.0035	0.86		2724.52	2724.52		83.55	Si
SLV 12	ini.	-486.9	-1707	-0.0002803	0.0003369	0.0035	0.86		2730.1	2730.1		5.61	Si
SLV 12	fin.	232.42	-421	-0.0001285	0.0003369	0.0035	0.86		2724.52	2724.52		11.72	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 4	ini.	-346.94	-1026	-0.0001949	0.0003369	0.0035	0.86		2730.1	2730.1		7.87	Si
SLV 4	fin.	249.13	162	-0.0001381	0.0003369	0.0035	0.86		2724.52	2724.52		10.94	Si
SLV 11	ini.	-424.22	-1496	-0.0002415	0.0003369	0.0035	0.86		2730.1	2730.1		6.44	Si
SLV 11	fin.	179.37	-418	-0.0000984	0.0003369	0.0035	0.86		2724.52	2724.52		15.19	Si
SLV 8	ini.	-524.83	-1763	-0.0003043	0.0003369	0.0035	0.86		2730.1	2730.1		5.2	Si
SLV 8	fin.	269.99	-321	-0.0001501	0.0003369	0.0035	0.86		2724.52	2724.52		10.09	Si
SLV 7	ini.	-462.15	-1552	-0.0002649	0.0003369	0.0035	0.86		2730.1	2730.1		5.91	Si
SLV 7	fin.	216.94	-317	-0.0001197	0.0003369	0.0035	0.86		2724.52	2724.52		12.56	Si
SLV 16	ini.	-220.48	-840	-0.0001214	0.0003369	0.0035	0.86		2730.1	2730.1		12.38	Si
SLV 16	fin.	123.9	-173	-0.0000674	0.0003369	0.0035	0.86		2724.52	2724.52		21.99	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 11	ini.	-424.22	1406	0.86	0	482	6819	6954	2193	7302		5.19	Si
SLV 11	fin.	179.37	838	0.86	0	482	6819	6954	2193	7302		8.71	Si
SLV 8	ini.	-524.83	1699	0.86	0	482	6819	6954	2193	7302		4.3	Si
SLV 8	fin.	269.99	1110	0.86	0	482	6819	6954	2193	7302		6.58	Si
SLV 2	ini.	-156.7	888	0.86	0	482	6819	6954	2193	7302		8.23	Si
SLV 2	fin.	193.83	276	0.86	0	482	6819	6954	2193	7302		26.45	Si
SLV 15	ini.	-158.21	811	0.86	0	482	6819	6954	2193	7302		9	Si
SLV 15	fin.	71.19	269	0.86	0	482	6819	6954	2193	7302		27.1	Si
SLV 3	ini.	-284.67	1106	0.86	0	482	6819	6954	2193	7302		6.6	Si
SLV 3	fin.	196.43	493	0.86	0	482	6819	6954	2193	7302		14.81	Si
SLV 1	ini.	-94.43	684	0.86	0	482	6819	6954	2193	7302		10.68	Si
SLV 1	fin.	141.13	72	0.86	0	482	6819	6954	2193	7302		100.98	Si
SLV 7	ini.	-462.15	1494	0.86	0	482	6819	6954	2193	7302		4.89	Si
SLV 7	fin.	216.94	905	0.86	0	482	6819	6954	2193	7302		8.07	Si
SLV 4	ini.	-346.94	1309	0.86	0	482	6819	6954	2193	7302		5.58	Si
SLV 4	fin.	249.13	697	0.86	0	482	6819	6954	2193	7302		10.48	Si
SLV 12	ini.	-486.9	1611	0.86	0	482	6819	6954	2193	7302		4.53	Si
SLV 12	fin.	232.42	1043	0.86	0	482	6819	6954	2193	7302		7	Si
SLV 16	ini.	-220.48	1015	0.86	0	482	6819	6954	2193	7302		7.19	Si
SLV 16	fin.	123.9	473	0.86	0	482	6819	6954	2193	7302		15.43	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	5.202	SLV 8	Si
V_SLV	4.298	SLV 8	Si

Trave di accoppiamento 16

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-34.183	3.931	1.39	2.39	1	-34.183	2.931	1.39	2.39	1	1	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 9	ini.	841.3	-1439	-0.0003683	0.0003369	0.0035	1		3685.34	3685.34		4.38	Si
SLV 9	fin.	-734.13	506	-0.0003157	0.0003369	0.0035	1		3691.87	3691.87		5.03	Si
SLV 11	ini.	-807.45	404	-0.000351	0.0003369	0.0035	1		3691.87	3691.87		4.57	Si
SLV 11	fin.	716.81	-1422	-0.0003081	0.0003369	0.0035	1		3685.34	3685.34		5.14	Si
SLV 6	ini.	946.22	-1560	-0.0004211	0.0003369	0.0035	1		3685.34	3685.34		3.89	Si
SLV 6	fin.	-854.04	685	-0.0003739	0.0003369	0.0035	1		3691.87	3691.87		4.32	Si
SLV 12	ini.	-1018.66	659	-0.0004579	0.0003369	0.0035	1		3691.87	3691.87		3.62	Si
SLV 12	fin.	900.59	-1659	-0.0003979	0.0003369	0.0035	1		3685.34	3685.34		4.09	Si
SLV 2	ini.	738.68	-1355	-0.0003185	0.0003369	0.0035	1		3685.34	3685.34		4.99	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 2	fin.	-701.13	496	-0.0003001	0.0003369	0.0035	1		3691.87	3691.87		5.27	Si
SLV 8	ini.	-702.53	283	-0.0003008	0.0003369	0.0035	1		3691.87	3691.87		5.26	Si
SLV 8	fin.	596.89	-1243	-0.0002524	0.0003369	0.0035	1		3685.34	3685.34		6.17	Si
SLV 16	ini.	-809.73	452	-0.0003521	0.0003369	0.0035	1		3691.87	3691.87		4.56	Si
SLV 16	fin.	746.48	-1468	-0.0003222	0.0003369	0.0035	1		3685.34	3685.34		4.94	Si
SLV 1	ini.	948.51	-1608	-0.0004223	0.0003369	0.0035	1		3685.34	3685.34		3.89	Si
SLV 1	fin.	-883.72	732	-0.0003887	0.0003369	0.0035	1		3691.87	3691.87		4.18	Si
SLV 10	ini.	630.09	-1184	-0.0002676	0.0003369	0.0035	1		3685.34	3685.34		5.85	Si
SLV 10	fin.	-550.34	269	-0.0002309	0.0003369	0.0035	1		3691.87	3691.87		6.71	Si
SLV 5	ini.	1157.44	-1815	-0.0005335	0.0003369	0.0035	1		3685.34	3685.34		3.18	Si
SLV 5	fin.	-1037.83	922	-0.000468	0.0003369	0.0035	1		3691.87	3691.87		3.56	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 6	ini.	946.22	-2527	1	0	652	7930	8086	2550	8582		3.4	Si
SLV 6	fin.	-854.04	-3214	1	0	652	7930	8086	2550	8582		2.67	Si
SLV 15	ini.	-599.9	2276	1	0	652	7930	8086	2550	8582		3.77	Si
SLV 15	fin.	563.9	1449	1	0	652	7930	8086	2550	8582		5.92	Si
SLV 16	ini.	-809.73	2903	1	0	652	7930	8086	2550	8582		2.96	Si
SLV 16	fin.	746.48	2062	1	0	652	7930	8086	2550	8582		4.16	Si
SLV 2	ini.	738.68	-2059	1	0	652	7930	8086	2550	8582		4.17	Si
SLV 2	fin.	-701.13	-2598	1	0	652	7930	8086	2550	8582		3.3	Si
SLV 5	ini.	1157.44	-3158	1	0	652	7930	8086	2550	8582		2.72	Si
SLV 5	fin.	-1037.83	-3830	1	0	652	7930	8086	2550	8582		2.24	Si
SLV 1	ini.	948.51	-2686	1	0	652	7930	8086	2550	8582		3.2	Si
SLV 1	fin.	-883.72	-3210	1	0	652	7930	8086	2550	8582		2.67	Si
SLV 8	ini.	-702.53	2323	1	0	652	7930	8086	2550	8582		3.69	Si
SLV 8	fin.	596.89	1728	1	0	652	7930	8086	2550	8582		4.97	Si
SLV 12	ini.	-1018.66	3375	1	0	652	7930	8086	2550	8582		2.54	Si
SLV 12	fin.	900.59	2681	1	0	652	7930	8086	2550	8582		3.2	Si
SLV 11	ini.	-807.45	2744	1	0	652	7930	8086	2550	8582		3.13	Si
SLV 11	fin.	716.81	2065	1	0	652	7930	8086	2550	8582		4.16	Si
SLV 9	ini.	841.3	-2106	1	0	652	7930	8086	2550	8582		4.08	Si
SLV 9	fin.	-734.13	-2877	1	0	652	7930	8086	2550	8582		2.98	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.184	SLV 5	Si
V_SLV	2.241	SLV 5	Si

Trave di accoppiamento 17

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-34.183	3.931	4.29	5.15	0.86	-34.183	2.931	4.29	5.15	0.86	1	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 6	ini.	465.52	1053	-0.0002675	0.0003369	0.0035	0.86		2724.52	2724.52		5.85	Si
SLV 6	fin.	-350.54	-1689	-0.0001971	0.0003369	0.0035	0.86		2730.1	2730.1		7.79	Si
SLV 5	ini.	623.55	1433	-0.0003695	0.0003369	0.0035	0.86		2724.52	2724.52		4.37	Si
SLV 5	fin.	-450.54	-2260	-0.0002577	0.0003369	0.0035	0.86		2730.1	2730.1		6.06	Si
SLV 16	ini.	-785.16	-2135	-0.0004809	0.0003369	0.0035	0.86		2730.1	2730.1		3.48	Si
SLV 16	fin.	390.37	2434	-0.0002214	0.0003369	0.0035	0.86		2724.52	2724.52		6.98	Si
SLV 11	ini.	-689.08	-1846	-0.0004131	0.0003369	0.0035	0.86		2730.1	2730.1		3.96	Si
SLV 11	fin.	392.67	2364	-0.0002228	0.0003369	0.0035	0.86		2724.52	2724.52		6.94	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 1	ini.	561.6	1342	-0.0003286	0.0003369	0.0035	0.86		2724.52	2724.52		4.85	Si
SLV 1	fin.	-348.24	-1759	-0.0001957	0.0003369	0.0035	0.86		2730.1	2730.1		7.84	Si
SLV 12	ini.	-847.12	-2225	-0.0005262	0.0003369	0.0035	0.86		2730.1	2730.1		3.22	Si
SLV 12	fin.	492.67	2935	-0.0002845	0.0003369	0.0035	0.86		2724.52	2724.52		5.53	Si
SLV 7	ini.	-426.67	-1148	-0.000243	0.0003369	0.0035	0.86		2730.1	2730.1		6.4	Si
SLV 7	fin.	265.32	1626	-0.0001474	0.0003369	0.0035	0.86		2724.52	2724.52		10.27	Si
SLV 8	ini.	-584.71	-1528	-0.000343	0.0003369	0.0035	0.86		2730.1	2730.1		4.67	Si
SLV 8	fin.	365.31	2197	-0.0002063	0.0003369	0.0035	0.86		2724.52	2724.52		7.46	Si
SLV 15	ini.	-628.16	-1758	-0.0003718	0.0003369	0.0035	0.86		2730.1	2730.1		4.35	Si
SLV 15	fin.	291.03	1867	-0.0001624	0.0003369	0.0035	0.86		2724.52	2724.52		9.36	Si
SLV 14	ini.	-470.09	-1360	-0.0002698	0.0003369	0.0035	0.86		2730.1	2730.1		5.81	Si
SLV 14	fin.	175.61	1268	-0.0000963	0.0003369	0.0035	0.86		2724.52	2724.52		15.51	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 1	ini.	561.6	-1959	0.86	0	482	6819	6954	2193	7302		3.73	Si
SLV 1	fin.	-348.24	-2456	0.86	0	482	6819	6954	2193	7302		2.97	Si
SLV 14	ini.	-470.09	2031	0.86	0	482	6819	6954	2193	7302		3.6	Si
SLV 14	fin.	175.61	1534	0.86	0	482	6819	6954	2193	7302		4.76	Si
SLV 8	ini.	-584.71	2738	0.86	0	482	6819	6954	2193	7302		2.67	Si
SLV 8	fin.	365.31	2242	0.86	0	482	6819	6954	2193	7302		3.26	Si
SLV 12	ini.	-847.12	3736	0.86	0	482	6819	6954	2193	7302		1.95	Si
SLV 12	fin.	492.67	3240	0.86	0	482	6819	6954	2193	7302		2.25	Si
SLV 15	ini.	-628.16	2692	0.86	0	482	6819	6954	2193	7302		2.71	Si
SLV 15	fin.	291.03	2196	0.86	0	482	6819	6954	2193	7302		3.33	Si
SLV 6	ini.	465.52	-1674	0.86	0	482	6819	6954	2193	7302		4.36	Si
SLV 6	fin.	-350.54	-2172	0.86	0	482	6819	6954	2193	7302		3.36	Si
SLV 5	ini.	623.55	-2341	0.86	0	482	6819	6954	2193	7302		3.12	Si
SLV 5	fin.	-450.54	-2838	0.86	0	482	6819	6954	2193	7302		2.57	Si
SLV 11	ini.	-689.08	3070	0.86	0	482	6819	6954	2193	7302		2.38	Si
SLV 11	fin.	392.67	2574	0.86	0	482	6819	6954	2193	7302		2.84	Si
SLV 16	ini.	-785.16	3354	0.86	0	482	6819	6954	2193	7302		2.18	Si
SLV 16	fin.	390.37	2858	0.86	0	482	6819	6954	2193	7302		2.55	Si
SLV 7	ini.	-426.67	2071	0.86	0	482	6819	6954	2193	7302		3.53	Si
SLV 7	fin.	265.32	1575	0.86	0	482	6819	6954	2193	7302		4.63	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.223	SLV 12	Si
V_SLV	1.954	SLV 12	Si

Trave di accoppiamento 18

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-33.043	5.726	4.16	5.15	0.99	-30.833	5.726	4.16	5.15	0.99	2.21	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 11	ini.	874.71	-207	-0.0004013	0.0002807	0.0035	0.99		3592.29	3592.29		4.11	Si
SLV 11	fin.	-1347.09	-673	-0.0006739	0.0002807	0.0035	0.99		3598.69	3598.69		2.67	Si
SLV 13	ini.	1484.12	-869	-0.0007629	0.0002807	0.0035	0.99		3592.29	3592.29		2.42	Si
SLV 13	fin.	-1974.64	-2083	-0.0011075	0.0002807	0.0035	0.99		3598.69	3598.69		1.82	Si
SLV 3	ini.	-1612.57	782	-0.0008466	0.0002807	0.0035	0.99		3598.69	3598.69		2.23	Si
SLV 3	fin.	1126.28	1996	-0.0005419	0.0002807	0.0035	0.99		3592.29	3592.29		3.19	Si
SLV 16	ini.	2110.33	-1275	-0.001217	0.0002807	0.0035	0.99		3592.29	3592.29		1.7	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 16	fin.	-2542.05	-2545	-0.0015984	0.0002807	0.0035	0.99		3598.69	3598.69		1.42	Si
SLV 14	ini.	1848.51	-1321	-0.0010152	0.0002807	0.0035	0.99		3592.29	3592.29		1.94	Si
SLV 14	fin.	-2289.5	-2535	-0.0013643	0.0002807	0.0035	0.99		3598.69	3598.69		1.57	Si
SLV 12	ini.	1241.51	-662	-0.0006103	0.0002807	0.0035	0.99		3592.29	3592.29		2.89	Si
SLV 12	fin.	-1664.02	-1128	-0.0008818	0.0002807	0.0035	0.99		3598.69	3598.69		2.16	Si
SLV 2	ini.	-1509.99	284	-0.0007782	0.0002807	0.0035	0.99		3598.69	3598.69		2.38	Si
SLV 2	fin.	1063.98	1554	-0.0005059	0.0002807	0.0035	0.99		3592.29	3592.29		3.38	Si
SLV 15	ini.	1745.93	-823	-0.0009411	0.0002807	0.0035	0.99		3592.29	3592.29		2.06	Si
SLV 15	fin.	-2227.2	-2093	-0.0013108	0.0002807	0.0035	0.99		3598.69	3598.69		1.62	Si
SLV 4	ini.	-1248.18	330	-0.0006131	0.0002807	0.0035	0.99		3598.69	3598.69		2.88	Si
SLV 4	fin.	811.42	1544	-0.0003679	0.0002807	0.0035	0.99		3592.29	3592.29		4.43	Si
SLV 1	ini.	-1874.39	736	-0.001032	0.0002807	0.0035	0.99		3598.69	3598.69		1.92	Si
SLV 1	fin.	1378.84	2006	-0.0006952	0.0002807	0.0035	0.99		3592.29	3592.29		2.61	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 13	ini.	1484.12	-67	0.99	0	430	7850	6670	2525	8281		123.62	Si
SLV 13	fin.	-1974.64	-3267	0.99	0	430	7850	6670	2525	8281		2.53	Si
SLV 12	ini.	1241.51	189	0.99	0	430	7850	6670	2525	8281		43.75	Si
SLV 12	fin.	-1664.02	-2908	0.99	0	430	7850	6670	2525	8281		2.85	Si
SLV 2	ini.	-1509.99	2952	0.99	0	430	7850	6670	2525	8281		2.8	Si
SLV 2	fin.	1063.98	-212	0.99	0	430	7850	6670	2525	8281		39.13	Si
SLV 3	ini.	-1612.57	2983	0.99	0	430	7850	6670	2525	8281		2.78	Si
SLV 3	fin.	1126.28	-139	0.99	0	430	7850	6670	2525	8281		59.49	Si
SLV 16	ini.	2110.33	-651	0.99	0	430	7850	6670	2525	8281		12.72	Si
SLV 16	fin.	-2542.05	-3810	0.99	0	430	7850	6670	2525	8281		2.17	Si
SLV 1	ini.	-1874.39	3260	0.99	0	430	7850	6670	2525	8281		2.54	Si
SLV 1	fin.	1378.84	96	0.99	0	430	7850	6670	2525	8281		86.51	Si
SLV 15	ini.	1745.93	-344	0.99	0	430	7850	6670	2525	8281		24.09	Si
SLV 15	fin.	-2227.2	-3502	0.99	0	430	7850	6670	2525	8281		2.36	Si
SLV 4	ini.	-1248.18	2676	0.99	0	430	7850	6670	2525	8281		3.09	Si
SLV 4	fin.	811.42	-447	0.99	0	430	7850	6670	2525	8281		18.54	Si
SLV 14	ini.	1848.51	-374	0.99	0	430	7850	6670	2525	8281		22.12	Si
SLV 14	fin.	-2289.5	-3575	0.99	0	430	7850	6670	2525	8281		2.32	Si
SLV 11	ini.	874.71	499	0.99	0	430	7850	6670	2525	8281		16.61	Si
SLV 11	fin.	-1347.09	-2598	0.99	0	430	7850	6670	2525	8281		3.19	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.416	SLV 16	Si
V_SLV	2.174	SLV 16	Si

Trave di accoppiamento 19

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-28.373	5.726	4.16	5.15	0.99	-26.163	5.726	4.16	5.15	0.99	2.21	0.3	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco solo su un lato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 1	ini.	-2570.97	-2288	-0.0016273	0.0002807	0.0035	0.99		3598.69	3598.69		1.4	Si
SLV 1	fin.	2032.9	-1207	-0.0011553	0.0002807	0.0035	0.99		3592.29	3592.29		1.77	Si
SLV 4	ini.	-2258.88	-1385	-0.0013378	0.0002807	0.0035	0.99		3598.69	3598.69		1.59	Si
SLV 4	fin.	1737.97	-333	-0.0009355	0.0002807	0.0035	0.99		3592.29	3592.29		2.07	Si
SLV 2	ini.	-2258.49	-1836	-0.0013375	0.0002807	0.0035	0.99		3598.69	3598.69		1.59	Si
SLV 2	fin.	1692.34	-755	-0.0009034	0.0002807	0.0035	0.99		3592.29	3592.29		2.12	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 15	ini.	1083.05	1565	-0.0005169	0.0002807	0.0035	0.99		3592.29	3592.29		3.32	Si
SLV 15	fin.	-1627.32	485	-0.0008566	0.0002807	0.0035	0.99		3598.69	3598.69		2.21	Si
SLV 14	ini.	1395.91	1567	-0.0007061	0.0002807	0.0035	0.99		3592.29	3592.29		2.57	Si
SLV 14	fin.	-2013.52	515	-0.0011375	0.0002807	0.0035	0.99		3598.69	3598.69		1.79	Si
SLV 13	ini.	1083.44	1114	-0.0005171	0.0002807	0.0035	0.99		3592.29	3592.29		3.32	Si
SLV 13	fin.	-1672.96	63	-0.000888	0.0002807	0.0035	0.99		3598.69	3598.69		2.15	Si
SLV 16	ini.	1395.52	2017	-0.0007058	0.0002807	0.0035	0.99		3592.29	3592.29		2.57	Si
SLV 16	fin.	-1967.89	937	-0.0011023	0.0002807	0.0035	0.99		3598.69	3598.69		1.83	Si
SLV 3	ini.	-2571.36	-1837	-0.0016277	0.0002807	0.0035	0.99		3598.69	3598.69		1.4	Si
SLV 3	fin.	2078.53	-786	-0.0011914	0.0002807	0.0035	0.99		3592.29	3592.29		1.73	Si
SLV 5	ini.	-1292.5	-1625	-0.0006401	0.0002807	0.0035	0.99		3598.69	3598.69		2.78	Si
SLV 5	fin.	683.74	-1256	-0.000303	0.0002807	0.0035	0.99		3592.29	3592.29		5.25	Si
SLV 7	ini.	-1293.8	-121	-0.0006409	0.0002807	0.0035	0.99		3598.69	3598.69		2.78	Si
SLV 7	fin.	835.85	149	-0.0003807	0.0002807	0.0035	0.99		3592.29	3592.29		4.3	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 16	ini.	1395.52	-27	0.99	0	430	7850	6670	2525	8281		307.36	Si
SLV 16	fin.	-1967.89	-3105	0.99	0	430	7850	6670	2525	8281		2.67	Si
SLV 13	ini.	1083.44	148	0.99	0	430	7850	6670	2525	8281		55.76	Si
SLV 13	fin.	-1672.96	-2935	0.99	0	430	7850	6670	2525	8281		2.82	Si
SLV 4	ini.	-2258.88	3627	0.99	0	430	7850	6670	2525	8281		2.28	Si
SLV 4	fin.	1737.97	554	0.99	0	430	7850	6670	2525	8281		14.94	Si
SLV 7	ini.	-1293.8	2785	0.99	0	430	7850	6670	2525	8281		2.97	Si
SLV 7	fin.	835.85	-283	0.99	0	430	7850	6670	2525	8281		29.25	Si
SLV 8	ini.	-979.26	2487	0.99	0	430	7850	6670	2525	8281		3.33	Si
SLV 8	fin.	493.04	-581	0.99	0	430	7850	6670	2525	8281		14.26	Si
SLV 1	ini.	-2570.97	3803	0.99	0	430	7850	6670	2525	8281		2.18	Si
SLV 1	fin.	2032.9	724	0.99	0	430	7850	6670	2525	8281		11.44	Si
SLV 2	ini.	-2258.49	3507	0.99	0	430	7850	6670	2525	8281		2.36	Si
SLV 2	fin.	1692.34	428	0.99	0	430	7850	6670	2525	8281		19.33	Si
SLV 3	ini.	-2571.36	3923	0.99	0	430	7850	6670	2525	8281		2.11	Si
SLV 3	fin.	2078.53	850	0.99	0	430	7850	6670	2525	8281		9.74	Si
SLV 14	ini.	1395.91	-147	0.99	0	430	7850	6670	2525	8281		56.33	Si
SLV 14	fin.	-2013.52	-3231	0.99	0	430	7850	6670	2525	8281		2.56	Si
SLV 15	ini.	1083.05	269	0.99	0	430	7850	6670	2525	8281		30.83	Si
SLV 15	fin.	-1627.32	-2809	0.99	0	430	7850	6670	2525	8281		2.95	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	1.4	SLV 3	Si
V_SLV	2.111	SLV 3	Si

Trave di accoppiamento 20

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-26.838	-3.254	3.39	5.15	1.76	-26.838	-2.254	3.39	5.15	1.76	1	0.14	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 11	ini.	400.87	-33	-0.0000519	0.0003369	0.0035	1.76		11992.55	11992.55		29.92	Si
SLV 11	fin.	249.43	383	-0.0000321	0.0003369	0.0035	1.76		11992.55	11992.55		48.08	Si
SLV 12	ini.	416.16	-18	-0.0000539	0.0003369	0.0035	1.76		11992.55	11992.55		28.82	Si
SLV 12	fin.	246.92	386	-0.0000318	0.0003369	0.0035	1.76		11992.55	11992.55		48.57	Si
SLV 7	ini.	436.99	87	-0.0000566	0.0003369	0.0035	1.76		11992.55	11992.55		27.44	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 7	fin.	287.88	458	-0.0000371	0.0003369	0.0035	1.76		11992.55	11992.55		41.66	Si
SLV 10	ini.	88.72	282	-0.0000114	0.0003369	0.0035	1.76		11992.55	11992.55		135.17	Si
SLV 10	fin.	-348.05	-347	-0.0000449	0.0003369	0.0035	1.76		12003.61	12003.61		34.49	Si
SLV 3	ini.	364.58	333	-0.0000471	0.0003369	0.0035	1.76		11992.55	11992.55		32.89	Si
SLV 3	fin.	124.49	290	-0.000016	0.0003369	0.0035	1.76		11992.55	11992.55		96.33	Si
SLV 8	ini.	452.28	102	-0.0000586	0.0003369	0.0035	1.76		11992.55	11992.55		26.52	Si
SLV 8	fin.	285.37	461	-0.0000368	0.0003369	0.0035	1.76		11992.55	11992.55		42.02	Si
SLV 9	ini.	73.43	267	-0.0000094	0.0003369	0.0035	1.76		11992.55	11992.55		163.31	Si
SLV 9	fin.	-345.54	-350	-0.0000446	0.0003369	0.0035	1.76		12003.61	12003.61		34.74	Si
SLV 4	ini.	379.77	348	-0.0000491	0.0003369	0.0035	1.76		11992.55	11992.55		31.58	Si
SLV 4	fin.	122	293	-0.0000156	0.0003369	0.0035	1.76		11992.55	11992.55		98.3	Si
SLV 6	ini.	124.84	402	-0.000016	0.0003369	0.0035	1.76		11992.55	11992.55		96.06	Si
SLV 6	fin.	-309.6	-271	-0.0000399	0.0003369	0.0035	1.76		12003.61	12003.61		38.77	Si
SLV 5	ini.	109.55	387	-0.000014	0.0003369	0.0035	1.76		11992.55	11992.55		109.47	Si
SLV 5	fin.	-307.09	-274	-0.0000396	0.0003369	0.0035	1.76		12003.61	12003.61		39.09	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 13	ini.	145.95	-228	1.76	0	536	7930	6641	4488	8465		37.14	Si
SLV 13	fin.	-182.17	-646	1.76	0	536	7930	6641	4488	8465		13.1	Si
SLV 9	ini.	73.43	-596	1.76	0	536	7930	6641	4488	8465		14.21	Si
SLV 9	fin.	-345.54	-1025	1.76	0	536	7930	6641	4488	8465		8.26	Si
SLV 2	ini.	281.54	-457	1.76	0	536	7930	6641	4488	8465		18.52	Si
SLV 2	fin.	-56.49	-902	1.76	0	536	7930	6641	4488	8465		9.38	Si
SLV 14	ini.	161.13	-256	1.76	0	536	7930	6641	4488	8465		33.02	Si
SLV 14	fin.	-184.66	-675	1.76	0	536	7930	6641	4488	8465		12.55	Si
SLV 3	ini.	364.58	-174	1.76	0	536	7930	6641	4488	8465		48.74	Si
SLV 3	fin.	124.49	-617	1.76	0	536	7930	6641	4488	8465		13.71	Si
SLV 10	ini.	88.72	-624	1.76	0	536	7930	6641	4488	8465		13.56	Si
SLV 10	fin.	-348.05	-1053	1.76	0	536	7930	6641	4488	8465		8.04	Si
SLV 6	ini.	124.84	-684	1.76	0	536	7930	6641	4488	8465		12.37	Si
SLV 6	fin.	-309.6	-1122	1.76	0	536	7930	6641	4488	8465		7.55	Si
SLV 5	ini.	109.55	-656	1.76	0	536	7930	6641	4488	8465		12.91	Si
SLV 5	fin.	-307.09	-1093	1.76	0	536	7930	6641	4488	8465		7.74	Si
SLV 1	ini.	266.35	-429	1.76	0	536	7930	6641	4488	8465		19.75	Si
SLV 1	fin.	-54	-874	1.76	0	536	7930	6641	4488	8465		9.69	Si
SLV 4	ini.	379.77	-202	1.76	0	536	7930	6641	4488	8465		41.89	Si
SLV 4	fin.	122	-646	1.76	0	536	7930	6641	4488	8465		13.11	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	26.516	SLV 8	Si
V_SLV	7.547	SLV 6	Si

Trave di accoppiamento 21

Verifiche condotte secondo D.M. 17-01-18 (N.T.C.)

Dati geometrici

X ini.	Y ini.	Z ini.inf.	Z ini.sup.	H ini.	X fin.	Y fin.	Z fin.inf.	Z fin.sup	H fin.	Luce	Spessore	R. Trazione
-25.183	-0.614	3.39	5.15	1.76	-25.983	-0.614	3.39	5.15	1.76	0.8	0.14	3500

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 Intonaco armato_Corti

fb_	fhk	fvk0	fhmedio	τ0	fv0	μ	ϕ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCM

Materiale	Fu Verticale	Fu Orizzontale	tfv	tfo	E	εu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									εlim,conv / ε,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	εlim,conv	ε,fd	γF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	tipo blocco fibrenet
GeoSteel G1200	Sinistro	Interna	100	100	100	100	1	CNR DT215	0.8			0.009				Si	GeoCalce F Antisismico	0.02	

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 15	ini.	882.96	880	-0.0001162	0.0003369	0.0035	1.76		11992.55	11992.55		13.58	Si
SLV 15	fin.	-93.41	-370	-0.000012	0.0003369	0.0035	1.76		12003.61	12003.61		128.5	Si
SLV 12	ini.	412.4	372	-0.0000534	0.0003369	0.0035	1.76		11992.55	11992.55		29.08	Si
SLV 12	fin.	-1.8	106	-0.0000002	0.0003369	0.0035	1.76		12003.61	12003.61		6668.36	Si

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 11	ini.	413.76	372	-0.0000536	0.0003369	0.0035	1.76		11992.55	11992.55		28.98	Si
SLV 11	fin.	-1.77	106	-0.0000002	0.0003369	0.0035	1.76		12003.61	12003.61		6787.11	Si
SLV 4	ini.	-675.62	-915	-0.0000882	0.0003369	0.0035	1.76		12003.61	12003.61		17.77	Si
SLV 4	fin.	100.96	514	-0.0000129	0.0003369	0.0035	1.76		11992.55	11992.55		118.79	Si
SLV 13	ini.	817.97	777	-0.0001074	0.0003369	0.0035	1.76		11992.55	11992.55		14.66	Si
SLV 13	fin.	-113.64	-513	-0.0000146	0.0003369	0.0035	1.76		12003.61	12003.61		105.63	Si
SLV 2	ini.	-740.61	-1018	-0.0000969	0.0003369	0.0035	1.76		12003.61	12003.61		16.21	Si
SLV 2	fin.	80.73	372	-0.0000103	0.0003369	0.0035	1.76		11992.55	11992.55		148.55	Si
SLV 3	ini.	-674.26	-914	-0.000088	0.0003369	0.0035	1.76		12003.61	12003.61		17.8	Si
SLV 3	fin.	100.99	514	-0.0000129	0.0003369	0.0035	1.76		11992.55	11992.55		118.75	Si
SLV 16	ini.	881.6	880	-0.000116	0.0003369	0.0035	1.76		11992.55	11992.55		13.6	Si
SLV 16	fin.	-93.44	-370	-0.000012	0.0003369	0.0035	1.76		12003.61	12003.61		128.46	Si
SLV 1	ini.	-739.25	-1017	-0.0000967	0.0003369	0.0035	1.76		12003.61	12003.61		16.24	Si
SLV 1	fin.	80.76	372	-0.0000103	0.0003369	0.0035	1.76		11992.55	11992.55		148.5	Si
SLV 14	ini.	816.61	777	-0.0001072	0.0003369	0.0035	1.76		11992.55	11992.55		14.69	Si
SLV 14	fin.	-113.67	-513	-0.0000146	0.0003369	0.0035	1.76		12003.61	12003.61		105.6	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 15	ini.	882.96	-1472	1.76	0	536	6344	6641	4488	6879		4.67	Si
SLV 15	fin.	-93.41	-2937	1.76	0	536	6344	6641	4488	6879		2.34	Si
SLV 10	ini.	195.76	-284	1.76	0	536	6344	6641	4488	6879		24.2	Si
SLV 10	fin.	-69.23	-2342	1.76	0	536	6344	6641	4488	6879		2.94	Si
SLV 1	ini.	-739.25	2786	1.76	0	536	6344	6641	4488	6879		2.47	Si
SLV 1	fin.	80.76	673	1.76	0	536	6344	6641	4488	6879		10.21	Si
SLV 13	ini.	817.97	-1640	1.76	0	536	6344	6641	4488	6879		4.2	Si
SLV 13	fin.	-113.64	-3306	1.76	0	536	6344	6641	4488	6879		2.08	Si
SLV 4	ini.	-675.62	2956	1.76	0	536	6344	6641	4488	6879		2.33	Si
SLV 4	fin.	100.96	1045	1.76	0	536	6344	6641	4488	6879		6.58	Si
SLV 14	ini.	816.61	-1638	1.76	0	536	6344	6641	4488	6879		4.2	Si
SLV 14	fin.	-113.67	-3304	1.76	0	536	6344	6641	4488	6879		2.08	Si
SLV 3	ini.	-674.26	2954	1.76	0	536	6344	6641	4488	6879		2.33	Si
SLV 3	fin.	100.99	1043	1.76	0	536	6344	6641	4488	6879		6.6	Si
SLV 16	ini.	881.6	-1470	1.76	0	536	6344	6641	4488	6879		4.68	Si
SLV 16	fin.	-93.44	-2934	1.76	0	536	6344	6641	4488	6879		2.34	Si
SLV 2	ini.	-740.61	2788	1.76	0	536	6344	6641	4488	6879		2.47	Si
SLV 2	fin.	80.73	676	1.76	0	536	6344	6641	4488	6879		10.18	Si
SLV 9	ini.	197.12	-286	1.76	0	536	6344	6641	4488	6879		24.01	Si
SLV 9	fin.	-69.2	-2344	1.76	0	536	6344	6641	4488	6879		2.93	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	13.582	SLV 15	Si
V_SLV	2.081	SLV 13	Si