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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 LIBIA CIV. 29÷51 PER COMPLESSIVI 70 ALLOGGI
DI ERP CON RELATIVE PERTINENZE E PARTI COMUNI**

LOTTO **3053/PN_2**

PROGETTO ESECUTIVO

TAV.		OGGETTO TABULATI DI CALCOLO CIVICO 29-31 STATO DI PROGETTO			DATA		
TAB_02					Settembre 2022		
SCALA					N. DISEGNO		
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TABULATI DI CALCOLO
CIVICI 29-31
STATO DI PROGETTO



Sommario

1 Risultati numerici.....	3
1.1 Sollecitazioni.....	3
1.1.1 Sollecitazioni aste.....	3
1.1.1.1 Convenzioni di segno aste.....	3
1.1.1.2 Sollecitazioni estreme aste.....	5
1.1.2 Sollecitazioni gusci.....	6
1.1.2.1 Convenzioni di segno gusci.....	6
1.1.2.2 Sollecitazioni estreme gusci.....	8
1.1.2.3 Sollecitazioni estreme gusci non verticali.....	9
1.1.2.4 Sollecitazioni estreme gusci verticali.....	11
1.1.3 Sollecitazioni gusci armati.....	12
1.1.3.1 Convenzioni di segno gusci.....	12
1.1.4 Sollecitazioni gusci muratura.....	13
1.1.4.1 Convenzioni di segno gusci muratura.....	13
1.1.5 Sollecitazioni aste in muratura.....	15
1.1.5.1 Convenzioni di segno aste.....	15
1.1.6 Sollecitazioni aste in muratura FRCM.....	18
1.1.6.1 Convenzioni di segno aste.....	18
1.1.7 Sollecitazioni aste in muratura armata.....	20
1.1.7.1 Convenzioni di segno aste.....	20
1.2 Reazioni nodali.....	23
1.2.1 Reazioni nodali estreme.....	23
1.2.2 Reazioni nodali in combinazioni di carico.....	24
1.3 Pressioni massime sul terreno.....	307
1.4 Cedimenti fondazioni superficiali.....	310
1.5 Baricentri delle rigidzze.....	313
1.6 Rigidzze di interpiano.....	314
1.7 Risposta modale.....	314
1.8 Equilibrio globale forze.....	314
1.9 Risposta di spettro.....	316
1.10 Annotazioni solutore.....	316
1.11 Statistiche soluzione.....	316



1 Risultati numerici

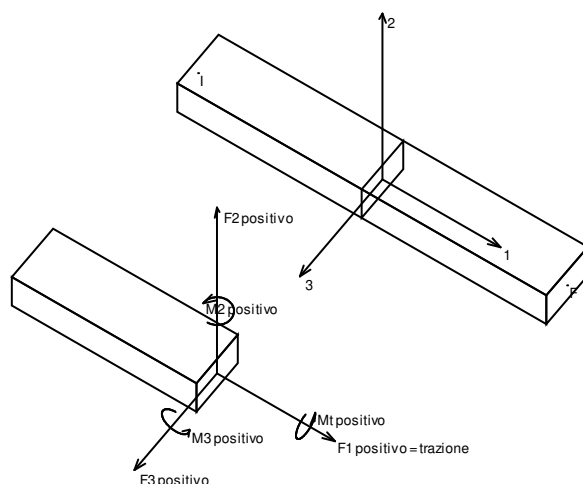
1.1 Sollecitazioni

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).

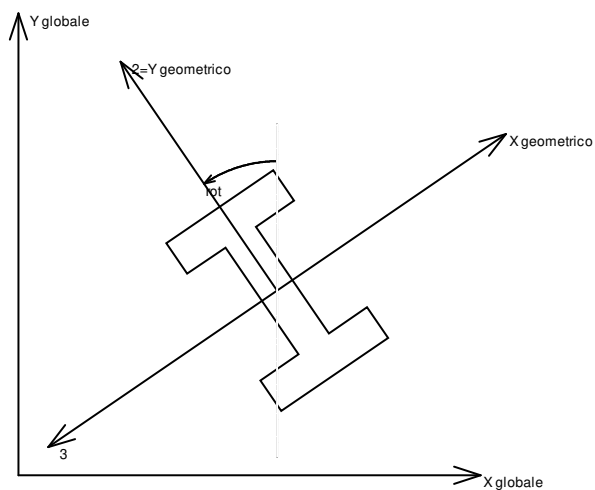
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- 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.

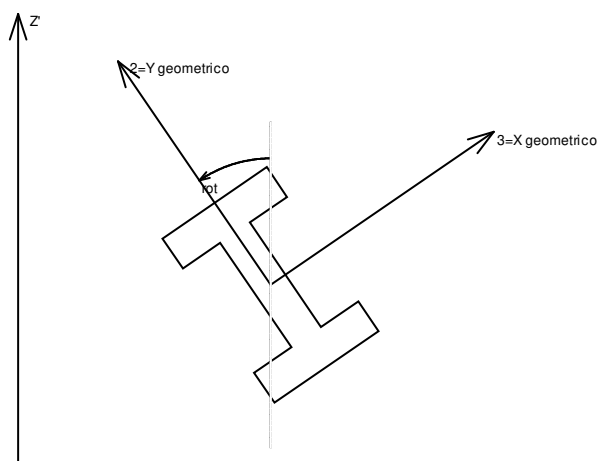


Sistema locale aste verticali



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

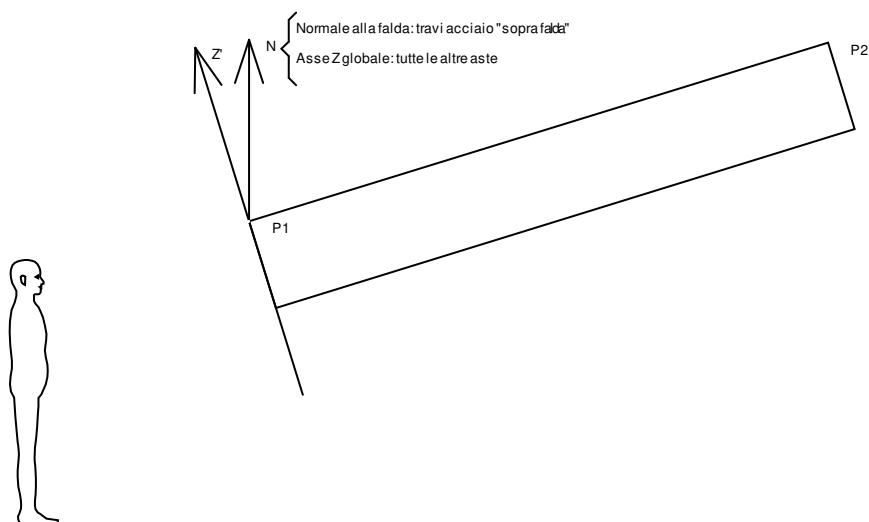
Sistema locale aste non verticali



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

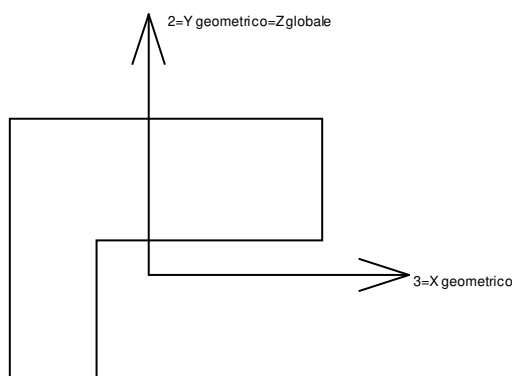
L'asse Z' è illustrato nella figura seguente dove:

- 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 mezziera, 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
1	SLV 7	31	-27.79	-9.39	-0.91	-12889	9239	3921	-341.56	-1715.06	5394.74
20	SLV 6	31	-27.77	-17.69	-0.91	-12227	9242	-3592	339.56	1384.99	5566.01
53	SLV 7	31	-27.75	-13.77	-0.91	-11829	-4918	2781	-5.34	-304.9	383.58
137	SLV 12	31	-28.57	-9.39	-0.91	-11226	9028	-3320	346.45	758.88	5216.64
173	SLV 12	31	-28.56	-13.77	-0.91	-11152	-3529	-2563	5.42	218.46	-53.03

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
38	SLV Y	1	-28.16	-13.27	-0.91	8252	1244	2902	9.32	-1353.79	456.37
53	SLV 10	31	-27.75	-13.77	-0.91	7062	-3286	-2633	7.64	249.38	-356.82
63	SLV 7	1	-24.07	-13.77	-0.91	6997	-1309	-107	5.73	548.52	-163.89
62	SLV 7	1	-24.48	-13.77	-0.91	6948	-1510	208	5.94	496.48	-192.61
191	SLV Y	31	-28.56	-13.27	-0.91	6903	1554	-2401	5.85	175.89	-251.05

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
137	SLV 5	1	-28.16	-9.39	-0.91	-298	4488	3246	126.23	-4942.47	3042.59
20	SLV 11	1	-28.16	-17.69	-0.91	-1084	4451	3318	125.68	-4838.47	2917.6
67	SLV 7	31	-21.06	-13.77	-0.91	-511	-5020	-5821	-21.14	-4411.55	-478.94
1	SLV Y	1	-28.16	-9.39	-0.91	-5073	3948	3317	-42.07	-3452.86	3322.17
21	SLV 11	1	-27.77	-17.69	-0.91	548	3535	2921	53.27	-3106.81	1660.71

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
155	SLV 8	1	-28.16	-17.69	-0.91	-845	4503	-3248	-130.1	4936.4	3015.01
1	SLV 10	1	-28.16	-9.39	-0.91	-529	4513	-3274	-129.59	4769.76	2945.75
67	SLV 10	31	-21.06	-13.77	-0.91	-1727	-4667	5587	16.34	3899.34	-1775.78
156	SLV 8	1	-28.56	-17.69	-0.91	1103	3604	-2871	-55.01	3118.78	1736.84
2	SLV 10	1	-27.79	-9.39	-0.91	1063	3667	-2909	-57.43	3115.7	1727.33

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
190	SLU 82	31	-35.27	-13.77	-0.91	-1472	7316	168	-0.34	67.46	-7657.98
208	SLU 82	31	-35.27	-13.27	-0.91	-866	6037	168	-0.34	67.46	-7333.48
67	SLU 81	9	-22.07	-13.77	-0.91	-1665	-91	-266	-7.57	-186.37	-5296.01
230	SLU 81	1	-34.79	-16.91	-0.91	367	-1443	-568	-190.06	93	-5182.66
172	SLU 81	1	-34.87	-17.69	-0.91	1470	-2769	-40	684.87	103.13	-5051.86

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
221	SLU 82	1	-34.79	-13.52	-0.91	-6426	15778	-735	85.77	-742.17	11794.83
220	SLU 82	31	-34.79	-13.52	-0.91	-6123	-15587	620	-87.25	-885.01	11475.92
155	SLV 6	1	-28.16	-17.69	-0.91	-9366	12735	2669	-210.14	-1087.04	10088.19
20	SLV 9	1	-28.16	-17.69	-0.91	-10149	12546	-3010	203.92	1821.91	10002.65
137	SLU 82	1	-28.16	-9.39	-0.91	-7589	13090	-392	251.32	-2069.26	9874.22

1.1.2 Sollecitazioni gusci

1.1.2.1 Convenzioni di segno gusci

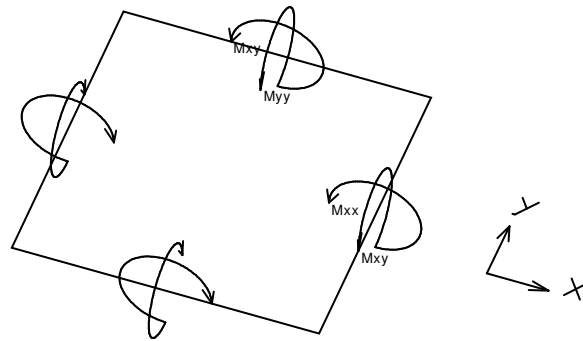
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- 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 destrorsa. 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.

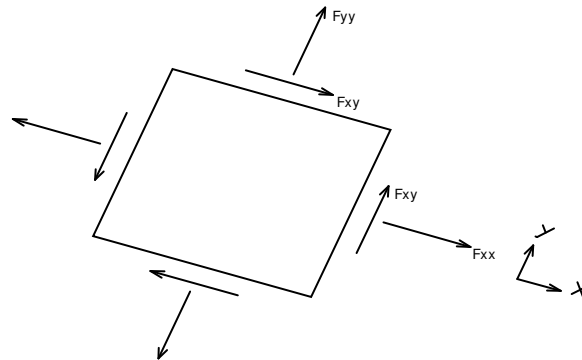
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione M_{xx} , M_{yy} , M_{xy} .



Si definiscono:

- M_{xx} : momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{yy} : momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{xy} : 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 F_{xx} , F_{yy} , F_{xy} .



Si definiscono:

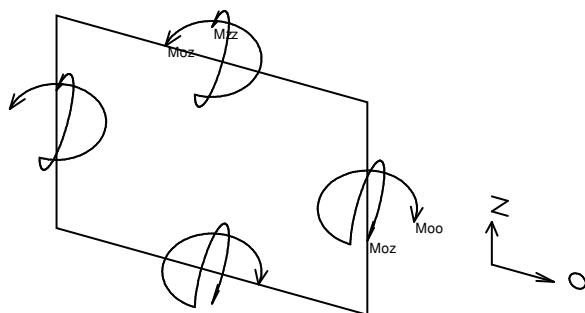
- F_{xx} : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{yy} : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse y (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{xy} : 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:

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

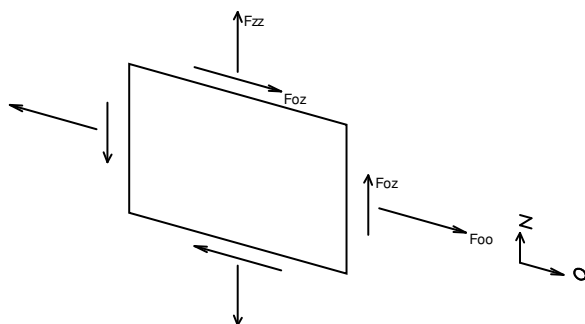
Convenzione di segno per gusci verticali

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 destrorsa. 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 M_{xx} , M_{yy} , M_{xy} .



- 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
89	SLV X	1777	-306	-191	-1226	-650	-448	-5251	2105	5468
2616	SLV 8	1464	-275	28	-185	216	-2528	-3612	-869	368



Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	M11	M12	M22	F11	F12	F22	V13	V23
88	SLV X	1777	-273	198	-1091	-573	1198	-4605	-2165	3812
2615	SLV 8	1240	-247	2	-32	951	-3023	-4068	118	224
2614	SLV 8	1022	-245	8	-115	584	-3411	-4221	144	277

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
89	SLV 3	1777	340	194	1361	-935	3836	8625	-2316	-6007
88	SLV 3	1777	303	-222	1213	407	-3261	5108	2376	-4191
517	SLV 12	1777	284	333	1136	-6658	-2957	-33812	-1989	-4890
90	SLV 3	1592	262	-49	-102	-4926	1666	-3239	-905	-642
2367	SLV 7	2679	239	-83	269	1224	1669	-6766	-627	624

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
89	SLV X	1777	-306	-191	-1226	-650	-448	-5251	2105	5468
88	SLV X	1777	-273	198	-1091	-573	1198	-4605	-2165	3812
517	SLV 5	1777	-185	-212	-741	-1228	565	-24982	1377	3301
87	SLV 3	1790	-169	-52	-677	-1084	-2002	-6386	-512	2781
2282	SLV 12	1777	-158	97	-634	942	-4635	8975	465	-1169

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
89	SLV 3	1777	340	194	1361	-935	3836	8625	-2316	-6007
88	SLV 3	1777	303	-222	1213	407	-3261	5108	2376	-4191
517	SLV 12	1777	284	333	1136	-6658	-2957	-33812	-1989	-4890
87	SLV X	1790	159	43	634	-372	508	-805	462	-2540
929	SLV X	1777	146	45	586	-236	623	1821	399	1194

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
2443	SLU 82	333	-28	24	-112	-26452	-32199	-5658	40	-179
2730	SLU 81	5	32	36	127	-24346	30165	-9585	33	343
2604	SLU 81	82	-37	-23	-147	-24107	28996	-6633	-67	-376
507	SLV 4	1423	-85	-28	-101	-22865	-5393	-15820	-106	-4
70	SLU 82	332	-37	-40	-152	-22255	24013	-9248	-80	-413

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
2730	SLU 81	449	-84	17	-13	20778	-9937	-18801	272	330
2604	SLV 5	4	-25	-12	-99	19922	28367	-19719	-99	-372
2443	SLU 82	533	50	2	86	19914	12340	-37627	251	-597
525	SLU 82	438	-88	6	-10	18409	-7774	-19467	320	328
263	SLU 81	468	92	-9	16	18319	-9659	-12477	-307	-299

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
97	SLU 81	153	18	24	70	4261	-29896	-67005	117	234
515	SLU 82	591	-13	-11	-31	8524	3618	-49907	77	579
411	SLU 82	1182	18	-8	-126	-936	-7403	-42542	-93	247
514	SLU 82	591	-6	-22	-6	-2451	4511	-41972	-37	11
2443	SLV 8	377	-32	21	-125	19732	-30440	-40787	70	-568

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
2282	SLV 3	1924	33	30	-141	-5415	5602	19946	-57	148
24	SLV 7	1420	-18	-34	-44	7494	4817	15056	77	27
2432	SLV Y	1757	-54	24	-215	3015	755	14152	-74	-177
2431	SLV Y	1987	-63	45	-176	3468	-2940	12852	102	-182
97	SLV Y	589	-4	5	15	2710	4258	12093	-21	60

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
2377	SLV 8	2745	-178	1	-46	1065	567	-3097	233	30
2359	SLV 8	2745	-178	4	-42	869	1079	-2453	230	-38
2341	SLV 8	2911	-172	-17	-44	-210	1180	-3283	244	-51
2205	SLV 12	2745	-167	-1	-43	604	-536	-3110	-220	32
2187	SLV 12	2745	-167	-4	-40	448	-473	-2523	-217	-36

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
2282	SLV 5	1777	140	-56	560	-755	-406	4373	-393	1076
2359	SLV 9	2911	134	11	34	-2628	-945	-3738	-178	23
2341	SLV 9	2911	134	15	33	-2274	-1130	-2166	-178	36
1888	SLV 15	2782	129	8	33	35	-2247	-1052	-230	-36
1658	SLV 14	2710	129	-7	33	217	2546	-758	-231	39

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
2282	SLV 12	1777	-158	97	-634	942	-4635	8974	465	-1169
2278	SLV 8	1787	-130	-15	-521	-5897	-3961	-37405	-148	-1359
2431	SLV 7	1783	-125	16	-499	-3792	-462	-23535	-164	-1139
2277	SLV 12	1784	-112	-18	-449	-4010	819	-23387	146	-1135
2852	SLV 7	1781	-103	-89	-414	-1436	724	-10055	611	981

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
2282	SLV 5	1777	140	-56	560	-755	-406	4373	-393	1076
2431	SLV 10	1783	87	-13	348	697	-1140	8327	177	451
2852	SLV 10	1781	86	56	341	-800	1075	-6602	-438	-1181
2853	SLV 10	1781	77	-24	306	-1321	355	-5182	130	-887
2277	SLV 5	1784	69	13	276	-70	1507	4568	-151	343

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
2845	SLU 82	1506	74	-14	17	-12741	15597	-21676	329	35
2737	SLU 82	189	3	2	10	-9662	4518	-30061	-24	-27
2437	SLU 82	1922	-99	14	-17	-8838	2850	-23892	294	66
416	SLV 10	1593	22	52	60	-8812	-7656	-20003	-21	-764
1654	SLU 82	1886	22	-14	25	-8031	-4791	-4159	-136	128

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
2282	SLV 15	1924	-11	8	-16	7344	-10464	-2897	45	-816
2281	SLV 3	1964	-29	29	-107	6104	-5241	1908	23	164
2827	SLU 82	1282	68	-1	16	5501	1392	-7031	210	9
2845	SLU 82	1750	-23	-51	-91	5084	-7922	-6197	130	138
416	SLV Y	1593	-75	-38	-221	4134	5720	9620	152	352

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
2278	SLV 7	2004	41	-31	37	-1965	-7427	-38992	288	-1362
2737	SLU 82	189	3	2	10	-9662	4518	-30061	-24	-27
2277	SLV 12	2001	29	-29	0	-452	-24324	5181	-170	-1136
2430	SLV 12	1997	25	-35	-8	-1817	5065	-24294	-169	-955
416	SLV 7	1787	-77	-63	-319	-6248	-1903	-24283	110	573

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
2282	SLV 3	1924	33	30	-141	-5416	5601	19946	-57	148
2432	SLV Y	1757	-54	24	-215	3015	755	14152	-74	-177
2431	SLV Y	1987	-63	45	-176	3461	-2929	12859	101	-182
2278	SLV 10	2004	8	16	221	1333	4422	11953	-112	138



Shell	Cont.	Nodo	Sollecitazione							
Ind	N.br.	Ind	Mxx	Mxy	Myy	Fxx	Fxy	Fyy	Vx	Vy
2279	SLV Y	1773	-59	-14	-238	1867	-263	11627	-47	-138

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
89	SLV X	1777	-306	-191	-1226	-650	-448	-5251	2105	5468
88	SLV X	1777	-273	198	-1091	-573	1198	-4605	-2165	3812
2367	SLV 10	2679	-237	76	-244	287	983	-2963	634	-558
90	SLV X	1592	-236	40	116	543	147	-3001	823	635
1213	SLV 7	2710	-230	2	-58	-1279	596	-1796	320	5

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
89	SLV 3	1777	340	194	1361	-935	3836	8625	-2316	-6007
88	SLV 3	1777	303	-222	1213	407	-3261	5108	2376	-4191
517	SLV 12	1777	284	333	1136	-6658	-2957	-33812	-1989	-4890
2616	SLV 8	1464	275	28	185	216	2528	-3612	-869	-368
90	SLV 3	1592	262	-49	-102	-4926	1666	-3239	-905	-642

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
89	SLV X	1777	-306	-191	-1226	-650	-448	-5251	2105	5468
88	SLV X	1777	-273	198	-1091	-573	1198	-4605	-2165	3812
517	SLV 5	1777	-185	-212	-741	-1228	565	-24982	1377	3301
87	SLV 3	1790	-169	-52	-677	-1084	-2002	-6386	-512	2781
929	SLV 3	1777	-156	-52	-625	-1762	-943	-13542	-444	-1299

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
89	SLV 3	1777	340	194	1361	-935	3836	8625	-2316	-6007
88	SLV 3	1777	303	-222	1213	407	-3261	5108	2376	-4191
517	SLV 12	1777	284	333	1136	-6658	-2957	-33812	-1989	-4890
87	SLV X	1790	159	43	634	-372	508	-805	462	-2540
929	SLV X	1777	146	45	586	-236	623	1821	399	1194

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
2443	SLU 82	333	28	24	112	-26452	32199	-5658	40	179
2730	SLU 81	5	-32	36	-127	-24346	-30165	-9585	33	-343
2604	SLU 81	82	37	-23	147	-24107	-28996	-6633	-67	376
507	SLV 4	1423	-85	-28	-101	-22865	-5393	-15820	-106	-4
70	SLU 82	332	-37	-40	-152	-22255	24013	-9248	-80	-413

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
2730	SLU 81	449	84	17	13	20778	9937	-18801	272	-330
2604	SLV 5	4	25	-12	99	19922	-28367	-19719	-99	372
2443	SLU 82	533	-50	2	-86	19914	-12340	-37627	251	597
525	SLU 82	438	-88	6	-10	18409	-7774	-19467	320	328
263	SLU 81	468	92	-9	16	18319	-9659	-12477	-307	-299

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
97	SLU 81	153	18	24	70	4261	-29896	-67005	117	234
515	SLU 82	591	-13	-11	-31	8524	3618	-49907	77	579
411	SLU 82	1182	18	-8	-126	-936	-7403	-42542	-93	247
514	SLU 82	591	-6	-22	-6	-2451	4511	-41972	-37	11
2443	SLV 8	377	32	21	125	19732	30440	-40787	70	568

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
24	SLV 7	1420	-18	-34	-44	7494	4817	15056	77	27
97	SLV Y	589	-4	5	15	2710	4258	12093	-21	60
246	SLV Y	24	-4	-2	-18	-2994	5237	11824	-16	-53
2611	SLV Y	467	-13	7	8	-2806	-929	11657	28	-58
89	SLV 2	1777	323	211	1291	183	2589	11302	-2194	-5701

1.1.3 Sollecitazioni gusci armati

1.1.3.1 Convenzioni di segno gusci

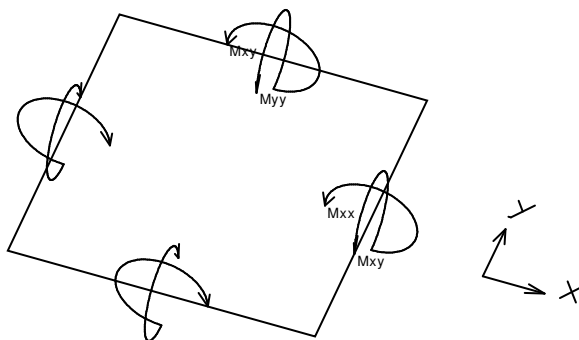
Sono individuate distinte convenzioni di segno in relazione al tipo di elemento strutturale a cui il guscio si riferisce:

- 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 destrorsa. In particolare l'asse x ha proiezione in pianta parallela ed equivale all'asse globale X. Nel caso di piastre orizzontali (caso più comune) gli assi x, y e z locali all'elemento sono paralleli ed equivale 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.

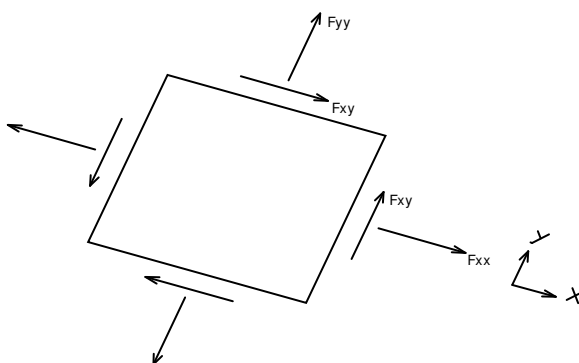
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione M_{xx} , M_{yy} , M_{xy} .



Si definiscono:

- M_{xx} : momento flettente $[Forza \cdot Lunghezza / Lunghezza]$ agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{yy} : momento flettente $[Forza \cdot Lunghezza / Lunghezza]$ agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{xy} : momento torcente $[Forza \cdot Lunghezza / Lunghezza]$ 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 F_{xx} , F_{yy} , F_{xy} .



Si definiscono:



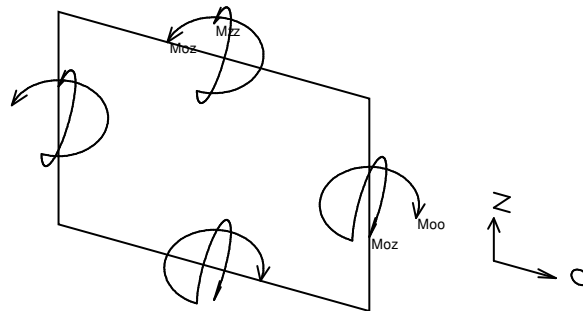
- F_{xx} : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{yy} : sforzo estensionale [Forza/Lunghezza] agente sul bordo di normale all'asse y (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{xy} : 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:

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

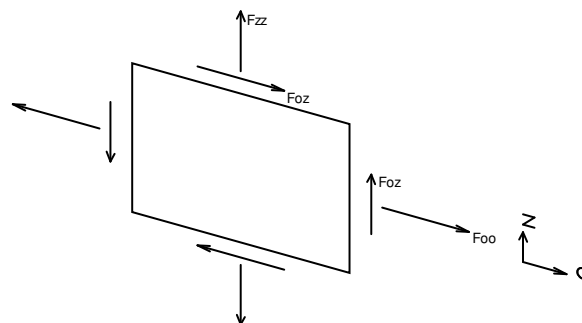
Convenzione di segno per gusci verticali

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 destrorsa. 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 M_{oo} , M_{zz} , M_{oz} .



- M_{oo} : 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);
- M_{zz} : 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);
- M_{oz} : 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 F_{oo} , F_{zz} , F_{oz} sono rispettivamente:



- F_{zz} : 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);
- F_{oo} : 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);
- F_{oz} : 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:

- V_o : taglio fuori piano applicato al bordo di normale parallela all'asse O ;
- V_z : 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:

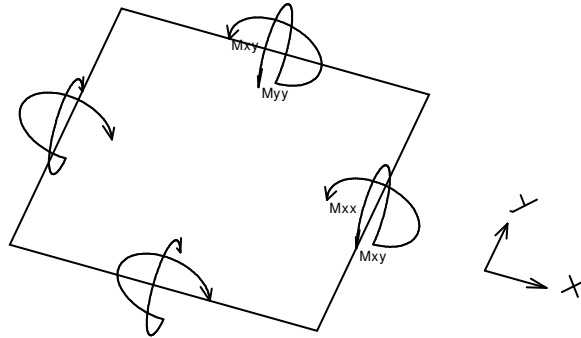


- convenzione per gusci non verticali, originati ad esempio da piastre e platee;
- convenzione per gusci verticali, originati ad esempio da pareti e muri.

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 destrorsa. 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.

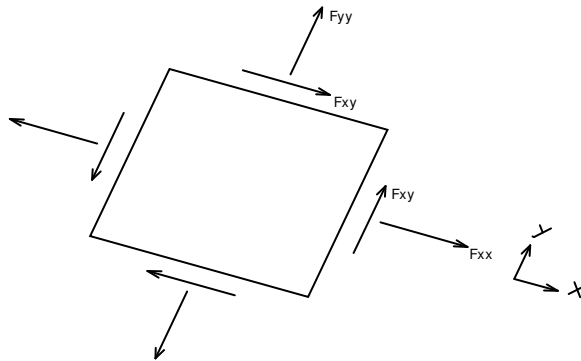
In figura è mostrato un elemento infinitesimo di shell orizzontale con indicato il sistema di riferimento e i parametri di sollecitazione M_{xx} , M_{yy} , M_{xy} .



Si definiscono:

- M_{xx} : momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{yy} : momento flettente [Forza*Lunghezza/Lunghezza] agente sul bordo di normale y (verso positivo indicato dalla freccia in figura che tende le fibre inferiori);
- M_{xy} : 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 F_{xx} , F_{yy} , F_{xy} .

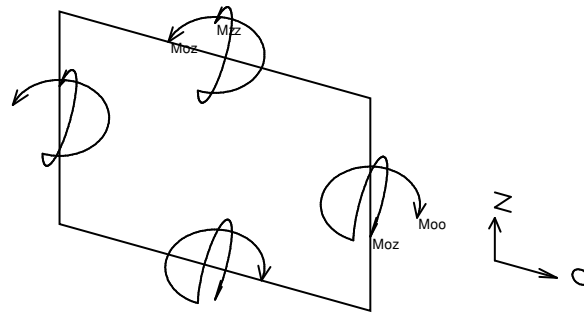


Si definiscono:

- F_{xx} : sforzo tensionale [Forza/Lunghezza] agente sul bordo di normale x (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- F_{yy} : 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);
- F_{xy} : sforzo tagliante [Forza/Lunghezza] agente sui bordi (verso positivo indicato dalla freccia in figura).

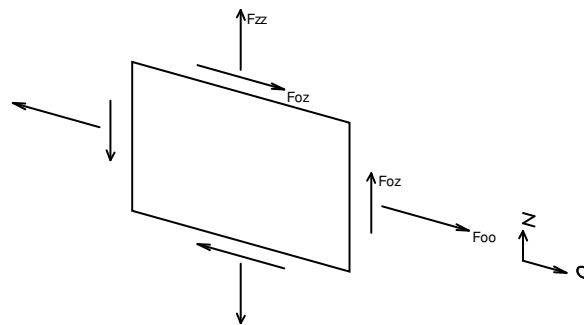
Convenzione di segno per gusci verticali

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 destrorsa. 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 M_{oo} , M_{zz} , M_{oz} .



- 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:



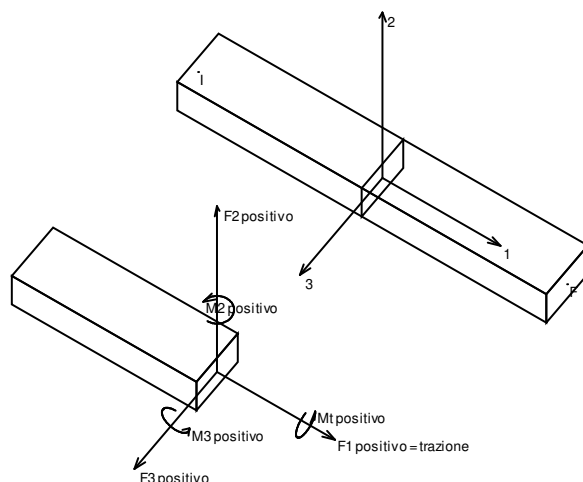
- Fzz: sforzo tensionale distribuito $[Forza / Lunghezza]$ applicato al bordo di normale parallela all'asse z (verso positivo indicato dalla freccia in figura che mette in trazione l'elemento);
- Foo: sforzo tensionale distribuito $[Forza / Lunghezza]$ applicato al bordo di normale parallela all'asse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

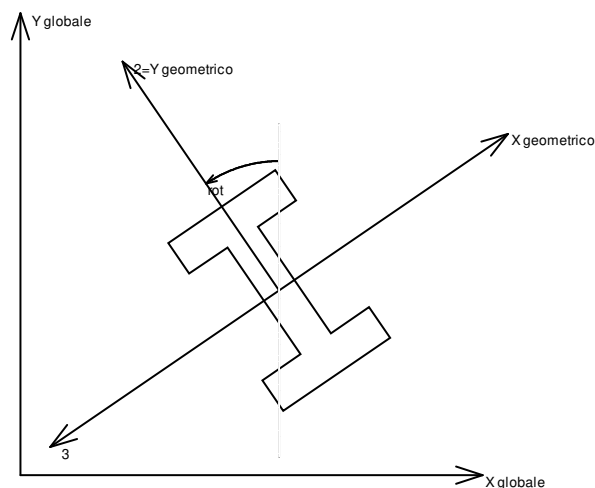
presa un'asta con nodo iniziale i e nodo finale f , asse 1 che va da i a f , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da 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.

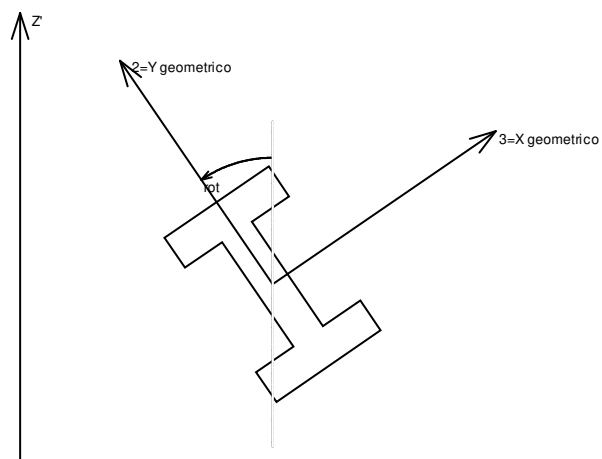
Sistema locale aste verticali



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



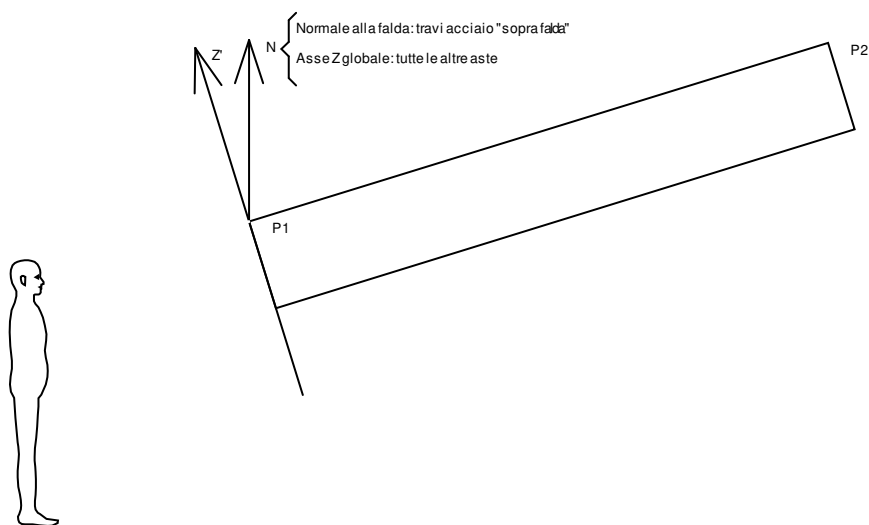
Sistema locale aste non verticali



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:

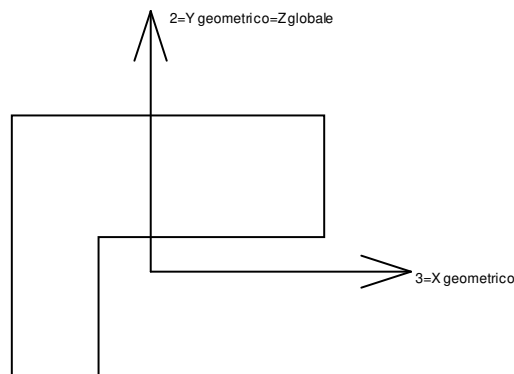
- $P1$ è il punto di inserimento iniziale dell'asta;
- $P2$ è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



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.



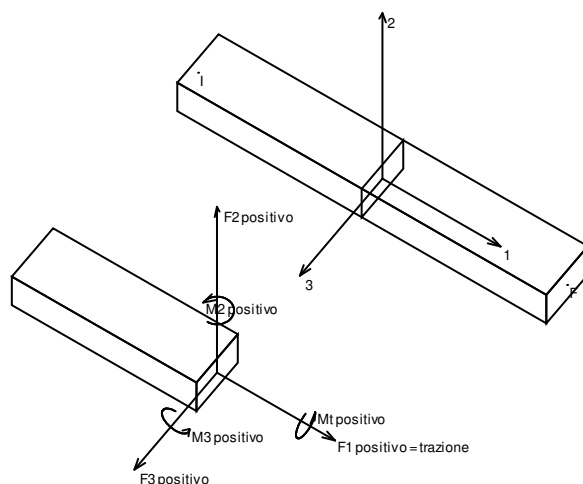
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli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

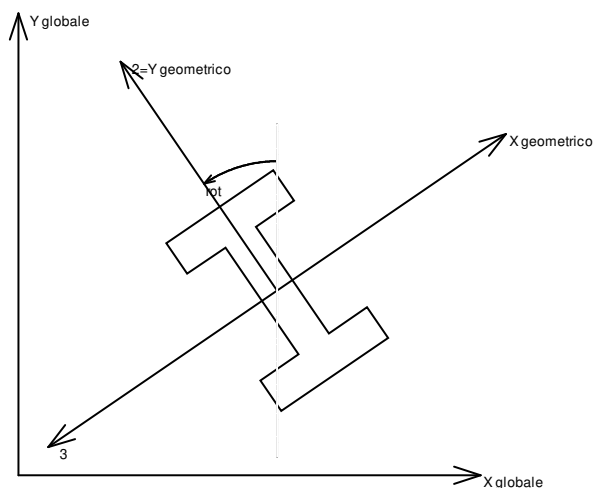
Il sistema è definito diversamente per tre categorie di aste, a seconda che siano originate da:

- 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.

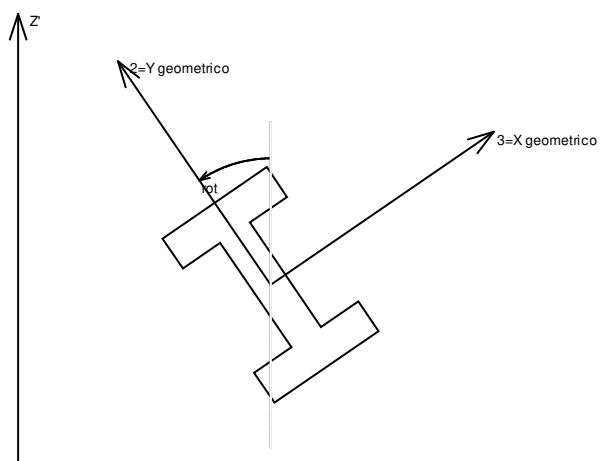


Sistema locale aste verticali



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

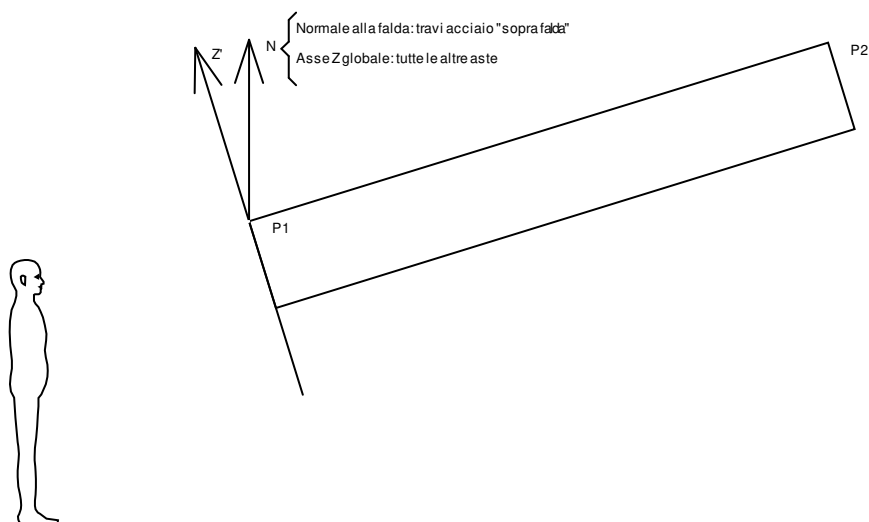
Sistema locale aste non verticali



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

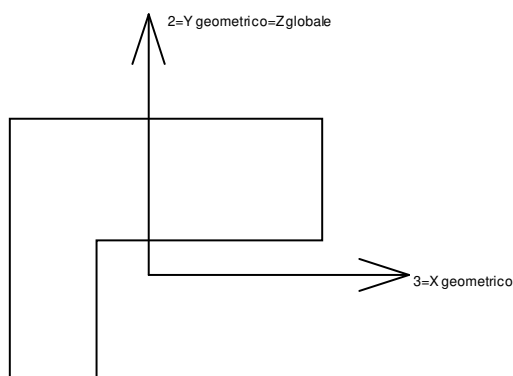
L'asse Z' è illustrato nella figura seguente dove:

- 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 aste derivanti da travi in c.a.



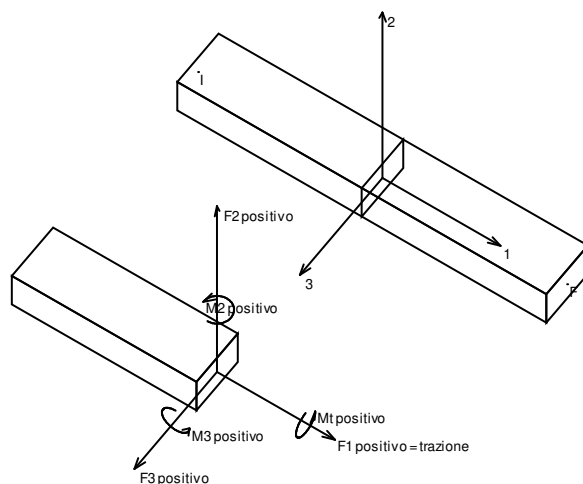
Nella figura si considera l'asse 1 entrante nel foglio (l'osservatore guarda in direzione coincidente a quella dell'asse 1). L'asse 2 è sempre verticale e quindi coincidente con l'asse Z globale nonché con l'asse y geometrico. L'asse 3 coincide con l'asse x geometrico. Si sottolinea il fatto che gli 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;
- $M1$ (M_t): 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:

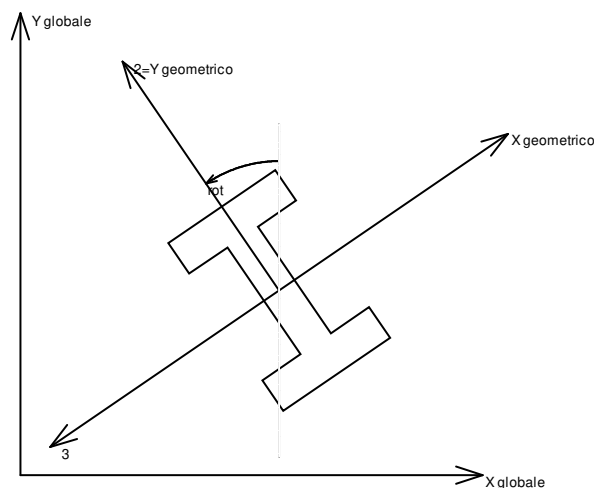
presa un'asta con nodo iniziale i e nodo finale f , asse 1 che va da i a f , assi 2 e 3 presi secondo quanto indicato nei paragrafi successivi relativi al sistema locale delle aste sezionando l'asta in un punto e considerando la sezione sinistra del punto in cui si è effettuato il taglio (sezione da 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.

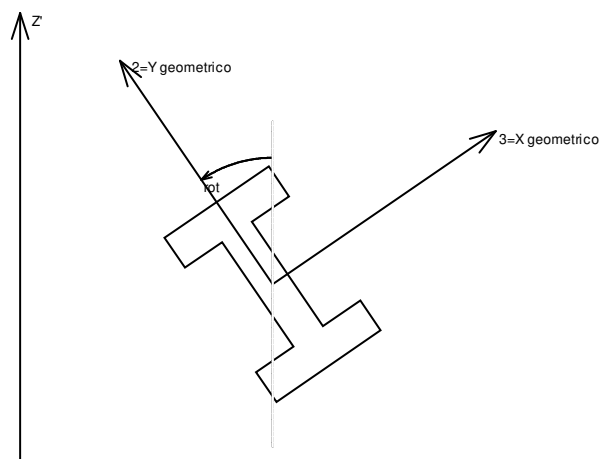
Sistema locale aste verticali



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



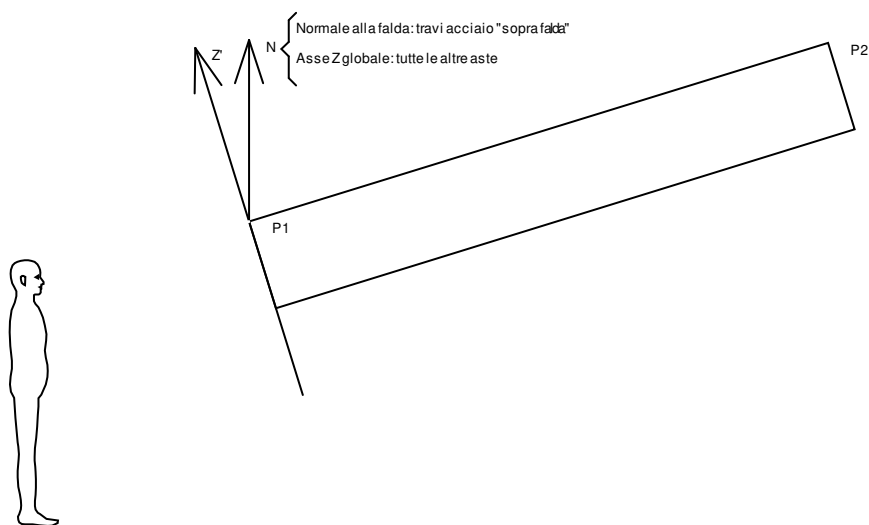
Sistema locale aste non verticali



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:

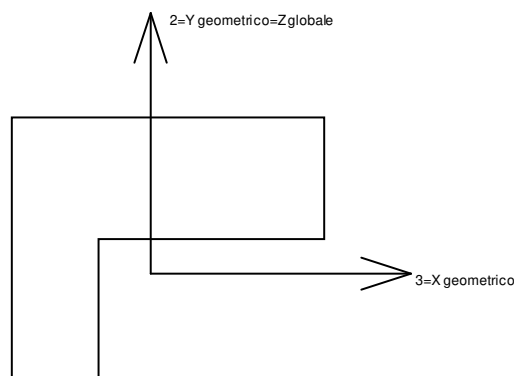
- $P1$ è il punto di inserimento iniziale dell'asta;
- $P2$ è il punto di inserimento finale dell'asta;
- N è la normale al piano o falda di inserimento;



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
208	SLV 15	-1671	-592	9403	7.2	-45.43	-5.05
223	SLV 15	-1475	-542	9997	11.41	-2256.77	-126.77
225	SLV 15	-1242	-659	9302	-2557.16	397.97	-305.87
24	SLV 15	-1034	-284	4889	1163.35	-11.56	248.37
397	SLV 14	-1014	262	5015	-1143.61	10.24	-244.17

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
208	SLV 2	1557	557	9185	-27.55	23.17	4.22
223	SLV 2	1397	593	5868	-66.51	-1313.94	142.8
225	SLV 2	1194	746	5697	-1578.45	231.38	290.98
397	SLV 3	1104	-213	6100	-1363.22	40.51	264.31
24	SLV 2	1077	197	6362	1381.32	14.16	-257.89

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
223	SLV 7	330	-1755	7131	62.85	-1602.35	-424.61
225	SLV 11	-451	-1741	7720	-2102.54	329.68	-19.78
208	SLV 11	-598	-1730	9407	56.05	-25.71	-7.07
188	SLV 8	151	-1175	6214	21.61	-1765.48	-342.39
24	SLV 7	138	-966	3521	823.68	4.3	-33.77

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
225	SLV 6	402	1828	7279	-2033.06	299.67	4.89
223	SLV 10	-407	1805	8735	-117.95	-1968.36	440.64
208	SLV 6	484	1695	9181	-76.39	3.45	6.24



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
188	SLV 9	-279	1183	5141	-29.46	-1477.74	344.98
137	SLV 6	236	958	3817	663.04	618.13	-276.18

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
24	SLV Y	-66	-910	-2136	-442.19	-1.01	15.57
188	SLV X	-822	58	-1548	1.39	417.96	16.9
92	SLV Y	-44	-664	-1303	5.2	-1.54	-0.65
44	SLV Y	-58	-624	-1284	-267.01	-217.99	124.76
85	SLV Y	-40	-563	-1250	-31.27	-1.21	0.74

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
208	SLU 82	-67	-48	14361	-14.24	-18.94	-0.56
223	SLU 82	-49	8	12268	-37.21	-2749.09	4.12
225	SLU 82	-31	33	11366	-3132.98	494.38	-7.75
188	SLU 82	-81	-12	8628	-5.58	-2465.95	-3.34
24	SLU 81	26	-62	8567	1936.91	1.78	-5.61

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	10	-4	2845	643.13	-760.42	-3.24
4	SLU 2	9	-19	2811	636.28	-750.52	-7.11
4	SLU 3	10	-4	2845	643.13	-760.42	-3.24
4	SLU 4	10	-13	2824	639.02	-754.48	-5.56
4	SLU 5	9	-19	2811	636.28	-750.52	-7.11
4	SLU 6	10	-4	2845	643.13	-760.42	-3.24
4	SLU 7	10	-13	2824	639.02	-754.48	-5.56
4	SLU 8	10	-4	2845	643.13	-760.42	-3.24
4	SLU 9	10	-13	2824	639.02	-754.48	-5.56
4	SLU 10	12	-21	3332	752.72	-888.92	-8.26
4	SLU 11	13	-7	3366	759.57	-898.82	-4.4
4	SLU 12	12	-16	3346	755.46	-892.88	-6.72
4	SLU 13	12	-21	3332	752.72	-888.92	-8.26
4	SLU 14	13	-7	3366	759.57	-898.82	-4.4
4	SLU 15	12	-16	3346	755.46	-892.88	-6.72
4	SLU 16	13	-7	3366	759.57	-898.82	-4.4
4	SLU 17	12	-16	3346	755.46	-892.88	-6.72
4	SLU 18	14	-8	3590	809.47	-958.14	-4.89
4	SLU 19	13	-17	3569	805.36	-952.2	-7.21
4	SLU 20	14	-8	3590	809.47	-958.14	-4.89
4	SLU 21	13	-17	3569	805.36	-952.2	-7.21
4	SLU 22	12	-6	3219	726.61	-859.69	-4.06
4	SLU 23	11	-20	3184	719.75	-849.79	-7.93
4	SLU 24	12	-6	3219	726.61	-859.69	-4.06
4	SLU 25	12	-15	3198	722.49	-853.75	-6.38
4	SLU 26	11	-20	3184	719.75	-849.79	-7.93
4	SLU 27	12	-6	3219	726.61	-859.69	-4.06
4	SLU 28	12	-15	3198	722.49	-853.75	-6.38
4	SLU 29	12	-6	3219	726.61	-859.69	-4.06
4	SLU 30	12	-15	3198	722.49	-853.75	-6.38
4	SLU 31	14	-23	3706	836.19	-988.2	-9.08
4	SLU 32	15	-8	3740	843.04	-998.1	-5.22
4	SLU 33	14	-17	3719	838.93	-992.16	-7.54
4	SLU 34	14	-23	3706	836.19	-988.2	-9.08
4	SLU 35	15	-8	3740	843.04	-998.1	-5.22
4	SLU 36	14	-17	3719	838.93	-992.16	-7.54
4	SLU 37	15	-8	3740	843.04	-998.1	-5.22
4	SLU 38	14	-17	3719	838.93	-992.16	-7.54
4	SLU 39	16	-9	3963	892.95	-1057.41	-5.71
4	SLU 40	15	-18	3943	888.84	-1051.47	-8.03
4	SLU 41	16	-9	3963	892.95	-1057.41	-5.71
4	SLU 42	15	-18	3943	888.84	-1051.47	-8.03
4	SLU 43	13	-5	3570	807.45	-954.51	-3.93
4	SLU 44	12	-20	3536	800.6	-944.61	-7.8
4	SLU 45	13	-5	3570	807.45	-954.51	-3.93
4	SLU 46	12	-14	3550	803.34	-948.57	-6.25



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
4	SLU 47	12	-20	3536	800.6	-944.61	-7.8
4	SLU 48	13	-5	3570	807.45	-954.51	-3.93
4	SLU 49	12	-14	3550	803.34	-948.57	-6.25
4	SLU 50	13	-5	3570	807.45	-954.51	-3.93
4	SLU 51	12	-14	3550	803.34	-948.57	-6.25
4	SLU 52	14	-22	4057	917.04	-1083.01	-8.96
4	SLU 53	15	-7	4092	923.89	-1092.91	-5.09
4	SLU 54	15	-16	4071	919.78	-1086.97	-7.41
4	SLU 55	14	-22	4057	917.04	-1083.01	-8.96
4	SLU 56	15	-7	4092	923.89	-1092.91	-5.09
4	SLU 57	15	-16	4071	919.78	-1086.97	-7.41
4	SLU 58	15	-7	4092	923.89	-1092.91	-5.09
4	SLU 59	15	-16	4071	919.78	-1086.97	-7.41
4	SLU 60	16	-9	4315	973.79	-1152.23	-5.58
4	SLU 61	16	-17	4294	969.68	-1146.29	-7.9
4	SLU 62	16	-9	4315	973.79	-1152.23	-5.58
4	SLU 63	16	-17	4294	969.68	-1146.29	-7.9
4	SLU 64	15	-6	3944	890.92	-1053.78	-4.75
4	SLU 65	14	-21	3910	884.07	-1043.88	-8.62
4	SLU 66	15	-6	3944	890.92	-1053.78	-4.75
4	SLU 67	14	-15	3923	886.81	-1047.84	-7.07
4	SLU 68	14	-21	3910	884.07	-1043.88	-8.62
4	SLU 69	15	-6	3944	890.92	-1053.78	-4.75
4	SLU 70	14	-15	3923	886.81	-1047.84	-7.07
4	SLU 71	15	-6	3944	890.92	-1053.78	-4.75
4	SLU 72	14	-15	3923	886.81	-1047.84	-7.07
4	SLU 73	16	-24	4431	1000.51	-1182.29	-9.77
4	SLU 74	17	-9	4465	1007.36	-1192.18	-5.91
4	SLU 75	17	-18	4445	1003.25	-1186.25	-8.23
4	SLU 76	16	-24	4431	1000.51	-1182.29	-9.77
4	SLU 77	17	-9	4465	1007.36	-1192.18	-5.91
4	SLU 78	17	-18	4445	1003.25	-1186.25	-8.23
4	SLU 79	17	-9	4465	1007.36	-1192.18	-5.91
4	SLU 80	17	-18	4445	1003.25	-1186.25	-8.23
4	SLU 81	18	-10	4689	1057.27	-1251.5	-6.4
4	SLU 82	18	-19	4668	1053.15	-1245.56	-8.72
4	SLU 83	18	-10	4689	1057.27	-1251.5	-6.4
4	SLU 84	18	-19	4668	1053.15	-1245.56	-8.72
4	SLE RA 1	11	-5	2952	666.98	-788.78	-3.47
4	SLE RA 2	10	-14	2929	662.41	-782.18	-6.05
4	SLE RA 3	11	-5	2952	666.98	-788.78	-3.47
4	SLE RA 4	11	-10	2938	664.24	-784.82	-5.02
4	SLE RA 5	10	-14	2929	662.41	-782.18	-6.05
4	SLE RA 6	11	-5	2952	666.98	-788.78	-3.47
4	SLE RA 7	11	-10	2938	664.24	-784.82	-5.02
4	SLE RA 8	11	-5	2952	666.98	-788.78	-3.47
4	SLE RA 9	11	-10	2938	664.24	-784.82	-5.02
4	SLE RA 10	12	-16	3276	740.04	-874.45	-6.82
4	SLE RA 11	13	-6	3299	744.61	-881.05	-4.24
4	SLE RA 12	12	-12	3285	741.87	-877.09	-5.79
4	SLE RA 13	12	-16	3276	740.04	-874.45	-6.82
4	SLE RA 14	13	-6	3299	744.61	-881.05	-4.24
4	SLE RA 15	12	-12	3285	741.87	-877.09	-5.79
4	SLE RA 16	13	-6	3299	744.61	-881.05	-4.24
4	SLE RA 17	12	-12	3285	741.87	-877.09	-5.79
4	SLE RA 18	13	-7	3448	777.88	-920.6	-4.58
4	SLE RA 19	13	-13	3434	775.13	-916.64	-6.12
4	SLE RA 20	13	-7	3448	777.88	-920.6	-4.58
4	SLE RA 21	13	-13	3434	775.13	-916.64	-6.12
4	SLE FR 1	11	-5	2952	666.98	-788.78	-3.47
4	SLE FR 2	11	-7	2947	666.07	-787.46	-3.99
4	SLE FR 3	11	-5	2952	666.98	-788.78	-3.47
4	SLE FR 4	12	-7	3096	699.34	-827.01	-4.32
4	SLE FR 5	12	-5	3101	700.25	-828.33	-3.8
4	SLE FR 6	12	-6	3200	722.43	-854.69	-4.02
4	SLE QP 1	11	-5	2952	666.98	-788.78	-3.47
4	SLE QP 2	12	-5	3101	700.25	-828.33	-3.8
4	SLD 1	200	80	3651	821.22	-971.21	-24.59
4	SLD 2	245	27	3628	816.32	-965.19	-50.09
4	SLD 3	208	-68	3342	756.76	-888.93	-66.57
4	SLD 4	253	-121	3319	751.86	-882.9	-92.07
4	SLD 5	40	265	3743	836.12	-998.22	63.05
4	SLD 6	87	209	3719	831.03	-991.96	36.56
4	SLD 7	65	-229	2713	621.24	-723.93	-76.88
4	SLD 8	112	-285	2689	616.16	-717.67	-103.38
4	SLD 9	-88	274	3513	784.34	-938.98	95.77
4	SLD 10	-42	219	3489	779.25	-932.72	69.27
4	SLD 11	-63	-220	2482	569.47	-664.69	-44.17
4	SLD 12	-17	-275	2458	564.38	-658.43	-70.66
4	SLD 13	-229	111	2883	648.64	-773.75	84.46
4	SLD 14	-185	57	2860	643.74	-767.72	58.96
4	SLD 15	-222	-37	2574	584.18	-691.46	42.48
4	SLD 16	-177	-91	2550	579.28	-685.44	16.98
4	SLV 1	441	194	4362	977.52	-1156.03	-49.72
4	SLV 2	543	72	4309	966.29	-1142.22	-108.2
4	SLV 3	459	-152	3640	827.01	-963.88	-147.83
4	SLV 4	561	-275	3587	815.78	-950.06	-206.31
4	SLV 5	75	626	4594	1015.94	-1223.27	153.24
4	SLV 6	183	497	4538	1004.11	-1208.72	91.65
4	SLV 7	134	-529	2188	514.23	-582.76	-173.79
4	SLV 8	242	-657	2132	502.4	-568.21	-235.38



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
4	SLV 9	-218	647	4069	898.1	-1088.44	227.77
4	SLV 10	-110	518	4014	886.27	-1073.89	166.18
4	SLV 11	-160	-508	1663	396.39	-447.93	-99.26
4	SLV 12	-52	-636	1607	384.56	-433.38	-160.85
4	SLV 13	-538	264	2614	584.72	-706.59	198.71
4	SLV 14	-435	142	2561	573.49	-692.77	140.23
4	SLV 15	-520	-82	1892	434.21	-514.44	100.6
4	SLV 16	-418	-205	1839	422.97	-500.62	42.12
4	CRTFP Ux+	0	0	0	0	0	0
4	CRTFP Ux-	0	0	0	0	0	0
4	CRTFP Uy+	0	0	0	0	0.01	0
4	CRTFP Uy-	0	0	0	0	-0.01	0
5	SLU 1	7	-2	1975	523.55	-50.88	-2.32
5	SLU 2	6	-13	1951	517.68	-50.22	-2.31
5	SLU 3	7	-2	1975	523.55	-50.88	-2.32
5	SLU 4	6	-8	1960	520.03	-50.48	-2.31
5	SLU 5	6	-13	1951	517.68	-50.22	-2.31
5	SLU 6	7	-2	1975	523.55	-50.88	-2.32
5	SLU 7	6	-8	1960	520.03	-50.48	-2.31
5	SLU 8	7	-2	1975	523.55	-50.88	-2.32
5	SLU 9	6	-8	1960	520.03	-50.48	-2.31
5	SLU 10	7	-14	2310	608.23	-59.38	-2.83
5	SLU 11	8	-3	2334	614.1	-60.04	-2.84
5	SLU 12	8	-10	2320	610.58	-59.65	-2.83
5	SLU 13	7	-14	2310	608.23	-59.38	-2.83
5	SLU 14	8	-3	2334	614.1	-60.04	-2.84
5	SLU 15	8	-10	2320	610.58	-59.65	-2.83
5	SLU 16	8	-3	2334	614.1	-60.04	-2.84
5	SLU 17	8	-10	2320	610.58	-59.65	-2.83
5	SLU 18	9	-4	2488	652.91	-63.97	-3.06
5	SLU 19	8	-10	2474	649.38	-63.57	-3.06
5	SLU 20	9	-4	2488	652.91	-63.97	-3.06
5	SLU 21	8	-10	2474	649.38	-63.57	-3.06
5	SLU 22	8	-3	2232	588.52	-57.46	-2.77
5	SLU 23	7	-13	2208	582.65	-56.8	-2.76
5	SLU 24	8	-3	2232	588.52	-57.46	-2.77
5	SLU 25	7	-9	2218	585	-57.06	-2.77
5	SLU 26	7	-13	2208	582.65	-56.8	-2.76
5	SLU 27	8	-3	2232	588.52	-57.46	-2.77
5	SLU 28	7	-9	2218	585	-57.06	-2.77
5	SLU 29	8	-3	2232	588.52	-57.46	-2.77
5	SLU 30	7	-9	2218	585	-57.06	-2.77
5	SLU 31	9	-15	2568	673.2	-65.96	-3.28
5	SLU 32	9	-4	2592	679.07	-66.62	-3.29
5	SLU 33	9	-11	2577	675.55	-66.23	-3.29
5	SLU 34	9	-15	2568	673.2	-65.96	-3.28
5	SLU 35	9	-4	2592	679.07	-66.62	-3.29
5	SLU 36	9	-11	2577	675.55	-66.23	-3.29
5	SLU 37	9	-4	2592	679.07	-66.62	-3.29
5	SLU 38	9	-11	2577	675.55	-66.23	-3.29
5	SLU 39	10	-5	2746	717.88	-70.55	-3.51
5	SLU 40	10	-11	2731	714.36	-70.15	-3.51
5	SLU 41	10	-5	2746	717.88	-70.55	-3.51
5	SLU 42	10	-11	2731	714.36	-70.15	-3.51
5	SLU 43	8	-2	2479	658.34	-63.89	-2.86
5	SLU 44	7	-13	2455	652.47	-63.23	-2.85
5	SLU 45	8	-2	2479	658.34	-63.89	-2.86
5	SLU 46	8	-9	2464	654.81	-63.49	-2.85
5	SLU 47	7	-13	2455	652.47	-63.23	-2.85
5	SLU 48	8	-2	2479	658.34	-63.89	-2.86
5	SLU 49	8	-9	2464	654.81	-63.49	-2.85
5	SLU 50	8	-2	2479	658.34	-63.89	-2.86
5	SLU 51	8	-9	2464	654.81	-63.49	-2.85
5	SLU 52	9	-14	2814	743.02	-72.39	-3.37
5	SLU 53	10	-4	2838	748.89	-73.05	-3.38
5	SLU 54	9	-10	2824	745.37	-72.66	-3.37
5	SLU 55	9	-14	2814	743.02	-72.39	-3.37
5	SLU 56	10	-4	2838	748.89	-73.05	-3.38
5	SLU 57	9	-10	2824	745.37	-72.66	-3.37
5	SLU 58	10	-4	2838	748.89	-73.05	-3.38
5	SLU 59	9	-10	2824	745.37	-72.66	-3.37
5	SLU 60	10	-4	2992	787.7	-76.98	-3.6
5	SLU 61	10	-11	2978	784.17	-76.58	-3.6
5	SLU 62	10	-4	2992	787.7	-76.98	-3.6
5	SLU 63	10	-11	2978	784.17	-76.58	-3.6
5	SLU 64	10	-3	2736	723.31	-70.47	-3.31
5	SLU 65	9	-14	2712	717.44	-69.81	-3.3
5	SLU 66	10	-3	2736	723.31	-70.47	-3.31
5	SLU 67	9	-9	2722	719.78	-70.07	-3.31
5	SLU 68	9	-14	2712	717.44	-69.81	-3.3
5	SLU 69	10	-3	2736	723.31	-70.47	-3.31
5	SLU 70	9	-9	2722	719.78	-70.07	-3.31
5	SLU 71	10	-3	2736	723.31	-70.47	-3.31
5	SLU 72	9	-9	2722	719.78	-70.07	-3.31
5	SLU 73	10	-15	3072	807.99	-78.97	-3.82
5	SLU 74	11	-5	3096	813.86	-79.63	-3.83
5	SLU 75	10	-11	3081	810.34	-79.23	-3.83
5	SLU 76	10	-15	3072	807.99	-78.97	-3.82
5	SLU 77	11	-5	3096	813.86	-79.63	-3.83
5	SLU 78	10	-11	3081	810.34	-79.23	-3.83
5	SLU 79	11	-5	3096	813.86	-79.63	-3.83



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
5	SLU 80	10	-11	3081	810.34	-79.23	-3.83
5	SLU 81	12	-5	3250	852.67	-83.56	-4.05
5	SLU 82	11	-12	3235	849.14	-83.16	-4.05
5	SLU 83	12	-5	3250	852.67	-83.56	-4.05
5	SLU 84	11	-12	3235	849.14	-83.16	-4.05
5	SLE RA 1	7	-2	2048	542.11	-52.76	-2.45
5	SLE RA 2	6	-9	2032	538.2	-52.32	-2.44
5	SLE RA 3	7	-2	2048	542.11	-52.76	-2.45
5	SLE RA 4	7	-6	2039	539.76	-52.5	-2.44
5	SLE RA 5	6	-9	2032	538.2	-52.32	-2.44
5	SLE RA 6	7	-2	2048	542.11	-52.76	-2.45
5	SLE RA 7	7	-6	2039	539.76	-52.5	-2.44
5	SLE RA 8	7	-2	2048	542.11	-52.76	-2.45
5	SLE RA 9	7	-6	2039	539.76	-52.5	-2.44
5	SLE RA 10	7	-10	2272	598.56	-58.43	-2.79
5	SLE RA 11	8	-3	2288	602.48	-58.87	-2.79
5	SLE RA 12	8	-7	2278	600.13	-58.6	-2.79
5	SLE RA 13	7	-10	2272	598.56	-58.43	-2.79
5	SLE RA 14	8	-3	2288	602.48	-58.87	-2.79
5	SLE RA 15	8	-7	2278	600.13	-58.6	-2.79
5	SLE RA 16	8	-3	2288	602.48	-58.87	-2.79
5	SLE RA 17	8	-7	2278	600.13	-58.6	-2.79
5	SLE RA 18	8	-4	2390	628.35	-61.49	-2.94
5	SLE RA 19	8	-8	2381	626	-61.22	-2.94
5	SLE RA 20	8	-4	2390	628.35	-61.49	-2.94
5	SLE RA 21	8	-8	2381	626	-61.22	-2.94
5	SLE FR 1	7	-2	2048	542.11	-52.76	-2.45
5	SLE FR 2	7	-4	2045	541.33	-52.67	-2.45
5	SLE FR 3	7	-2	2048	542.11	-52.76	-2.45
5	SLE FR 4	7	-4	2148	567.2	-55.29	-2.59
5	SLE FR 5	7	-3	2151	567.98	-55.38	-2.59
5	SLE FR 6	8	-3	2219	585.23	-57.12	-2.69
5	SLE QP 1	7	-2	2048	542.11	-52.76	-2.45
5	SLE QP 2	7	-3	2151	567.98	-55.38	-2.59
5	SLD 1	147	59	2522	662.46	-64.48	-49.97
5	SLD 2	178	21	2507	658.6	-64.1	-62.05
5	SLD 3	152	-48	2315	614.82	-59.3	-53.58
5	SLD 4	183	-86	2299	610.96	-58.93	-65.65
5	SLD 5	30	192	2583	670.01	-66.1	-6.88
5	SLD 6	63	153	2567	666	-65.71	-19.43
5	SLD 7	47	-164	1891	511.21	-48.84	-18.89
5	SLD 8	80	-204	1875	507.19	-48.45	-31.44
5	SLD 9	-65	198	2427	628.77	-62.3	26.25
5	SLD 10	-32	159	2411	624.76	-61.92	13.7
5	SLD 11	-48	-158	1735	469.97	-45.04	14.24
5	SLD 12	-15	-197	1719	465.96	-44.66	1.69
5	SLD 13	-169	81	2002	525	-51.83	60.46
5	SLD 14	-137	43	1987	521.14	-51.46	48.39
5	SLD 15	-163	-26	1795	477.36	-46.65	56.86
5	SLD 16	-132	-64	1780	473.5	-46.28	44.78
5	SLV 1	324	141	3002	784.47	-76.25	-110.29
5	SLV 2	397	54	2967	775.62	-75.39	-137.98
5	SLV 3	336	-109	2518	673.24	-64.15	-118.71
5	SLV 4	409	-196	2482	664.38	-63.3	-146.4
5	SLV 5	57	452	3154	804.97	-80.3	-11.71
5	SLV 6	134	361	3117	795.64	-79.4	-40.87
5	SLV 7	96	-381	1539	434.19	-39.99	-39.77
5	SLV 8	173	-472	1502	424.86	-39.09	-68.93
5	SLV 9	-158	467	2799	711.1	71.66	63.74
5	SLV 10	-81	376	2762	701.78	-70.76	34.58
5	SLV 11	-119	-366	1185	340.32	-31.35	35.68
5	SLV 12	-42	-457	1148	331	-30.45	6.52
5	SLV 13	-394	190	1819	471.58	-47.46	141.21
5	SLV 14	-321	104	1784	462.73	-46.6	113.52
5	SLV 15	-382	-59	1335	360.35	-35.36	132.79
5	SLV 16	-309	-146	1300	351.5	-34.51	105.1
5	CRTFP Ux+	0	0	0	0	0	0
5	CRTFP Ux-	0	0	0	0	0	0
5	CRTFP Uy+	0	0	0	0	0	0
5	CRTFP Uy-	0	0	0	0	0	0
7	SLU 1	7	1	2125	472.82	5.57	-2.51
7	SLU 2	6	-11	2098	466.49	5.58	-2.15
7	SLU 3	7	1	2125	472.82	5.57	-2.51
7	SLU 4	7	-6	2109	469.02	5.58	-2.29
7	SLU 5	6	-11	2098	466.49	5.58	-2.15
7	SLU 6	7	1	2125	472.82	5.57	-2.51
7	SLU 7	7	-6	2109	469.02	5.58	-2.29
7	SLU 8	7	1	2125	472.82	5.57	-2.51
7	SLU 9	7	-6	2109	469.02	5.58	-2.29
7	SLU 10	8	-12	2480	542.97	6.71	-2.66
7	SLU 11	9	0	2508	549.3	6.71	-3.02
7	SLU 12	8	-7	2491	545.51	6.71	-2.8
7	SLU 13	8	-12	2480	542.97	6.71	-2.66
7	SLU 14	9	0	2508	549.3	6.71	-3.02
7	SLU 15	8	-7	2491	545.51	6.71	-2.8
7	SLU 16	9	0	2508	549.3	6.71	-3.02
7	SLU 17	8	-7	2491	545.51	6.71	-2.8
7	SLU 18	10	0	2672	582.08	7.2	-3.23
7	SLU 19	9	-7	2655	578.28	7.2	-3.02
7	SLU 20	10	0	2672	582.08	7.2	-3.23
7	SLU 21	9	-7	2655	578.28	7.2	-3.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
7	SLU 22	9	1	2400	527.82	6.38	-2.97
7	SLU 23	8	-11	2372	521.49	6.38	-2.62
7	SLU 24	9	1	2400	527.82	6.38	-2.97
7	SLU 25	8	-6	2383	524.02	6.38	-2.76
7	SLU 26	8	-11	2372	521.49	6.38	-2.62
7	SLU 27	9	1	2400	527.82	6.38	-2.97
7	SLU 28	8	-6	2383	524.02	6.38	-2.76
7	SLU 29	9	1	2400	527.82	6.38	-2.97
7	SLU 30	8	-6	2383	524.02	6.38	-2.76
7	SLU 31	9	-12	2755	597.97	7.52	-3.12
7	SLU 32	10	0	2783	604.3	7.51	-3.48
7	SLU 33	10	-7	2766	600.5	7.52	-3.27
7	SLU 34	9	-12	2755	597.97	7.52	-3.12
7	SLU 35	10	0	2783	604.3	7.51	-3.48
7	SLU 36	10	-7	2766	600.5	7.52	-3.27
7	SLU 37	10	0	2783	604.3	7.51	-3.48
7	SLU 38	10	-7	2766	600.5	7.52	-3.27
7	SLU 39	11	0	2947	637.08	8	-3.7
7	SLU 40	11	-7	2930	633.28	8	-3.49
7	SLU 41	11	0	2947	637.08	8	-3.7
7	SLU 42	11	-7	2930	633.28	8	-3.49
7	SLU 43	9	1	2669	595.81	6.97	-3.1
7	SLU 44	8	-11	2641	589.48	6.97	-2.74
7	SLU 45	9	1	2669	595.81	6.97	-3.1
7	SLU 46	9	-6	2652	592.01	6.97	-2.88
7	SLU 47	8	-11	2641	589.48	6.97	-2.74
7	SLU 48	9	1	2669	595.81	6.97	-3.1
7	SLU 49	9	-6	2652	592.01	6.97	-2.88
7	SLU 50	9	1	2669	595.81	6.97	-3.1
7	SLU 51	9	-6	2652	592.01	6.97	-2.88
7	SLU 52	10	-11	3024	665.96	8.11	-3.25
7	SLU 53	11	1	3051	672.29	8.11	-3.61
7	SLU 54	10	-6	3035	668.5	8.11	-3.39
7	SLU 55	10	-11	3024	665.96	8.11	-3.25
7	SLU 56	11	1	3051	672.29	8.11	-3.61
7	SLU 57	10	-6	3035	668.5	8.11	-3.39
7	SLU 58	11	1	3051	672.29	8.11	-3.61
7	SLU 59	10	-6	3035	668.5	8.11	-3.39
7	SLU 60	11	1	3215	705.07	8.6	-3.83
7	SLU 61	11	-7	3199	701.27	8.6	-3.61
7	SLU 62	11	1	3215	705.07	8.6	-3.83
7	SLU 63	11	-7	3199	701.27	8.6	-3.61
7	SLU 64	11	1	2943	650.81	7.77	-3.57
7	SLU 65	10	-11	2916	644.48	7.78	-3.21
7	SLU 66	11	1	2943	650.81	7.77	-3.57
7	SLU 67	10	-6	2927	647.01	7.78	-3.35
7	SLU 68	10	-11	2916	644.48	7.78	-3.21
7	SLU 69	11	1	2943	650.81	7.77	-3.57
7	SLU 70	10	-6	2927	647.01	7.78	-3.35
7	SLU 71	11	1	2943	650.81	7.77	-3.57
7	SLU 72	10	-6	2927	647.01	7.78	-3.35
7	SLU 73	11	-11	3299	720.96	8.91	-3.72
7	SLU 74	12	1	3326	727.29	8.91	-4.08
7	SLU 75	12	-7	3310	723.49	8.91	-3.86
7	SLU 76	11	-11	3299	720.96	8.91	-3.72
7	SLU 77	12	1	3326	727.29	8.91	-4.08
7	SLU 78	12	-7	3310	723.49	8.91	-3.86
7	SLU 79	12	1	3326	727.29	8.91	-4.08
7	SLU 80	12	-7	3310	723.49	8.91	-3.86
7	SLU 81	13	1	3490	760.07	9.4	-4.29
7	SLU 82	12	-7	3474	756.27	9.4	-4.08
7	SLU 83	13	1	3490	760.07	9.4	-4.29
7	SLU 84	12	-7	3474	756.27	9.4	-4.08
7	SLE RA 1	8	1	2204	488.54	5.8	-2.64
7	SLE RA 2	7	-7	2185	484.32	5.81	-2.4
7	SLE RA 3	8	1	2204	488.54	5.8	-2.64
7	SLE RA 4	7	-4	2193	486	5.8	-2.5
7	SLE RA 5	7	-7	2185	484.32	5.81	-2.4
7	SLE RA 6	8	1	2204	488.54	5.8	-2.64
7	SLE RA 7	7	-4	2193	486	5.8	-2.5
7	SLE RA 8	8	1	2204	488.54	5.8	-2.64
7	SLE RA 9	7	-4	2193	486	5.8	-2.5
7	SLE RA 10	8	-7	2441	535.3	6.56	-2.74
7	SLE RA 11	9	1	2459	539.52	6.56	-2.98
7	SLE RA 12	9	-4	2448	536.99	6.56	-2.84
7	SLE RA 13	8	-7	2441	535.3	6.56	-2.74
7	SLE RA 14	9	1	2459	539.52	6.56	-2.98
7	SLE RA 15	9	-4	2448	536.99	6.56	-2.84
7	SLE RA 16	9	1	2459	539.52	6.56	-2.98
7	SLE RA 17	9	-4	2448	536.99	6.56	-2.84
7	SLE RA 18	9	0	2568	561.37	6.89	-3.13
7	SLE RA 19	9	-4	2557	558.84	6.89	-2.98
7	SLE RA 20	9	0	2568	561.37	6.89	-3.13
7	SLE RA 21	9	-4	2557	558.84	6.89	-2.98
7	SLE FR 1	8	1	2204	488.54	5.8	-2.64
7	SLE FR 2	8	-1	2200	487.69	5.8	-2.59
7	SLE FR 3	8	1	2204	488.54	5.8	-2.64
7	SLE FR 4	8	-1	2309	509.54	6.13	-2.74
7	SLE FR 5	8	1	2313	510.39	6.13	-2.79
7	SLE FR 6	9	1	2386	524.96	6.35	-2.88
7	SLE QP 1	8	1	2204	488.54	5.8	-2.64



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
7	SLE QP 2	8	1	2313	510.39	6.13	-2.79
7	SLD 1	171	69	2692	590.33	7.89	-59.73
7	SLD 2	208	29	2676	586.97	7.81	-72.55
7	SLD 3	177	-50	2476	552.19	7.03	-61.75
7	SLD 4	214	-90	2461	548.83	6.95	-74.57
7	SLD 5	34	216	2759	593.47	8	-12.07
7	SLD 6	73	174	2743	589.98	7.92	-25.39
7	SLD 7	54	-180	2041	466.31	5.12	-18.8
7	SLD 8	93	-221	2025	462.83	5.03	-32.12
7	SLD 9	-76	223	2602	557.95	7.23	26.55
7	SLD 10	-37	181	2586	554.46	7.14	13.23
7	SLD 11	-56	-173	1883	430.8	4.34	19.82
7	SLD 12	-18	-214	1867	427.31	4.26	6.5
7	SLD 13	-197	91	2166	471.95	5.31	69
7	SLD 14	-160	52	2150	468.59	5.23	56.18
7	SLD 15	-191	-27	1950	433.8	4.45	66.98
7	SLD 16	-154	-67	1934	430.44	4.37	54.16
7	SLV 1	378	159	3182	693.51	10.17	-132.31
7	SLV 2	463	68	3146	685.81	9.98	-161.7
7	SLV 3	392	-118	2678	604.44	8.15	-137.02
7	SLV 4	477	-210	2643	596.74	7.96	-166.42
7	SLV 5	66	503	3351	703.32	10.47	-23.43
7	SLV 6	156	407	3313	695.21	10.28	-54.38
7	SLV 7	112	-421	1672	406.41	3.74	-39.13
7	SLV 8	202	-517	1635	398.3	3.54	-70.09
7	SLV 9	-185	519	2991	622.48	8.71	64.52
7	SLV 10	-96	423	2954	614.37	8.52	33.56
7	SLV 11	-139	-406	1313	325.57	1.98	48.81
7	SLV 12	-50	-502	1276	317.46	1.78	17.86
7	SLV 13	-460	211	1984	424.03	4.3	160.84
7	SLV 14	-375	120	1948	416.34	4.11	131.45
7	SLV 15	-446	-66	1480	334.96	2.28	156.13
7	SLV 16	-361	-157	1445	327.26	2.09	126.74
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	7	4	1971	357.5	4.36	-2.4
8	SLU 2	6	-8	1943	351.51	4.38	-2.05
8	SLU 3	7	4	1971	357.5	4.36	-2.4
8	SLU 4	7	-3	1954	353.91	4.37	-2.19
8	SLU 5	6	-8	1943	351.51	4.38	-2.05
8	SLU 6	7	4	1971	357.5	4.36	-2.4
8	SLU 7	7	-3	1954	353.91	4.37	-2.19
8	SLU 8	7	4	1971	357.5	4.36	-2.4
8	SLU 9	7	-3	1954	353.91	4.37	-2.19
8	SLU 10	8	-7	2294	403.52	5.26	-2.51
8	SLU 11	9	5	2322	409.51	5.25	-2.86
8	SLU 12	8	-2	2305	405.91	5.25	-2.65
8	SLU 13	8	-7	2294	403.52	5.26	-2.51
8	SLU 14	9	5	2322	409.51	5.25	-2.86
8	SLU 15	8	-2	2305	405.91	5.25	-2.65
8	SLU 16	9	5	2322	409.51	5.25	-2.86
8	SLU 17	8	-2	2305	405.91	5.25	-2.65
8	SLU 18	9	5	2473	431.79	5.63	-3.06
8	SLU 19	9	-2	2456	428.2	5.63	-2.85
8	SLU 20	9	5	2473	431.79	5.63	-3.06
8	SLU 21	9	-2	2456	428.2	5.63	-2.85
8	SLU 22	8	5	2223	395.07	4.99	-2.83
8	SLU 23	7	-7	2196	389.08	5	-2.48
8	SLU 24	8	5	2223	395.07	4.99	-2.83
8	SLU 25	8	-2	2207	391.48	4.99	-2.62
8	SLU 26	7	-7	2196	389.08	5	-2.48
8	SLU 27	8	5	2223	395.07	4.99	-2.83
8	SLU 28	8	-2	2207	391.48	4.99	-2.62
8	SLU 29	8	5	2223	395.07	4.99	-2.83
8	SLU 30	8	-2	2207	391.48	4.99	-2.62
8	SLU 31	9	-6	2547	441.08	5.88	-2.95
8	SLU 32	10	6	2575	447.07	5.87	-3.3
8	SLU 33	9	-1	2558	443.48	5.88	-3.09
8	SLU 34	9	-6	2547	441.08	5.88	-2.95
8	SLU 35	10	6	2575	447.07	5.87	-3.3
8	SLU 36	9	-1	2558	443.48	5.88	-3.09
8	SLU 37	10	6	2575	447.07	5.87	-3.3
8	SLU 38	9	-1	2558	443.48	5.88	-3.09
8	SLU 39	10	6	2725	469.36	6.25	-3.5
8	SLU 40	10	-1	2709	465.76	6.25	-3.29
8	SLU 41	10	6	2725	469.36	6.25	-3.5
8	SLU 42	10	-1	2709	465.76	6.25	-3.29
8	SLU 43	9	5	2475	451.88	5.46	-2.97
8	SLU 44	8	-7	2447	445.89	5.47	-2.62
8	SLU 45	9	5	2475	451.88	5.46	-2.97
8	SLU 46	8	-2	2458	448.28	5.47	-2.76
8	SLU 47	8	-7	2447	445.89	5.47	-2.62
8	SLU 48	9	5	2475	451.88	5.46	-2.97
8	SLU 49	8	-2	2458	448.28	5.47	-2.76
8	SLU 50	9	5	2475	451.88	5.46	-2.97
8	SLU 51	8	-2	2458	448.28	5.47	-2.76
8	SLU 52	9	-6	2799	497.89	6.35	-3.08
8	SLU 53	10	6	2827	503.88	6.34	-3.43
8	SLU 54	10	-1	2810	500.28	6.35	-3.22



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
8	SLU 55	9	-6	2799	497.89	6.35	-3.08
8	SLU 56	10	6	2827	503.88	6.34	-3.43
8	SLU 57	10	-1	2810	500.28	6.35	-3.22
8	SLU 58	10	6	2827	503.88	6.34	-3.43
8	SLU 59	10	-1	2810	500.28	6.35	-3.22
8	SLU 60	11	6	2977	526.16	6.72	-3.63
8	SLU 61	10	-1	2961	522.57	6.73	-3.42
8	SLU 62	11	6	2977	526.16	6.72	-3.63
8	SLU 63	10	-1	2961	522.57	6.73	-3.42
8	SLU 64	10	6	2728	489.44	6.08	-3.4
8	SLU 65	9	-6	2700	483.45	6.09	-3.05
8	SLU 66	10	6	2728	489.44	6.08	-3.4
8	SLU 67	10	-1	2711	485.85	6.09	-3.19
8	SLU 68	9	-6	2700	483.45	6.09	-3.05
8	SLU 69	10	6	2728	489.44	6.08	-3.4
8	SLU 70	10	-1	2711	485.85	6.09	-3.19
8	SLU 71	10	6	2728	489.44	6.08	-3.4
8	SLU 72	10	-1	2711	485.85	6.09	-3.19
8	SLU 73	11	-5	3051	535.45	6.98	-3.52
8	SLU 74	12	7	3079	541.44	6.96	-3.87
8	SLU 75	11	0	3063	537.85	6.97	-3.66
8	SLU 76	11	-5	3051	535.45	6.98	-3.52
8	SLU 77	12	7	3079	541.44	6.96	-3.87
8	SLU 78	11	0	3063	537.85	6.97	-3.66
8	SLU 79	12	7	3079	541.44	6.96	-3.87
8	SLU 80	11	0	3063	537.85	6.97	-3.66
8	SLU 81	12	7	3230	563.73	7.34	-4.06
8	SLU 82	12	0	3213	560.14	7.35	-3.85
8	SLU 83	12	7	3230	563.73	7.34	-4.06
8	SLU 84	12	0	3213	560.14	7.35	-3.85
8	SLE RA 1	7	4	2043	368.24	4.54	-2.52
8	SLE RA 2	7	-4	2024	364.24	4.55	-2.29
8	SLE RA 3	7	4	2043	368.24	4.54	-2.52
8	SLE RA 4	7	0	2032	365.84	4.55	-2.38
8	SLE RA 5	7	-4	2024	364.24	4.55	-2.29
8	SLE RA 6	7	4	2043	368.24	4.54	-2.52
8	SLE RA 7	7	0	2032	365.84	4.55	-2.38
8	SLE RA 8	7	4	2043	368.24	4.54	-2.52
8	SLE RA 9	7	0	2032	365.84	4.55	-2.38
8	SLE RA 10	8	-3	2259	398.91	5.14	-2.6
8	SLE RA 11	8	5	2277	402.9	5.13	-2.83
8	SLE RA 12	8	0	2266	400.51	5.13	-2.69
8	SLE RA 13	8	-3	2259	398.91	5.14	-2.6
8	SLE RA 14	8	5	2277	402.9	5.13	-2.83
8	SLE RA 15	8	0	2266	400.51	5.13	-2.69
8	SLE RA 16	8	5	2277	402.9	5.13	-2.83
8	SLE RA 17	8	0	2266	400.51	5.13	-2.69
8	SLE RA 18	9	5	2378	417.76	5.38	-2.96
8	SLE RA 19	8	0	2366	415.37	5.39	-2.82
8	SLE RA 20	9	5	2378	417.76	5.38	-2.96
8	SLE RA 21	8	0	2366	415.37	5.39	-2.82
8	SLE FR 1	7	4	2043	368.24	4.54	-2.52
8	SLE FR 2	7	3	2039	367.44	4.54	-2.47
8	SLE FR 3	7	4	2043	368.24	4.54	-2.52
8	SLE FR 4	8	3	2140	382.3	4.8	-2.61
8	SLE FR 5	8	4	2143	383.09	4.79	-2.65
8	SLE FR 6	8	5	2210	393	4.96	-2.74
8	SLE QP 1	7	4	2043	368.24	4.54	-2.52
8	SLE QP 2	8	4	2143	383.09	4.79	-2.65
8	SLD 1	171	68	2472	437.4	6.29	-59.69
8	SLD 2	208	32	2459	435.05	6.22	-72.52
8	SLD 3	177	-44	2280	413.84	5.57	-61.72
8	SLD 4	214	-80	2267	411.5	5.49	-74.54
8	SLD 5	34	206	2537	435.98	6.36	-11.95
8	SLD 6	73	169	2524	433.54	6.29	-25.28
8	SLD 7	54	-167	1899	357.46	3.96	-18.71
8	SLD 8	92	-203	1885	355.02	3.88	-32.04
8	SLD 9	-76	212	2401	411.17	5.7	26.73
8	SLD 10	-38	176	2388	408.73	5.63	13.4
8	SLD 11	-57	-161	1763	332.65	3.3	19.97
8	SLD 12	-18	-197	1749	330.2	3.23	6.64
8	SLD 13	-198	88	2019	354.69	4.09	69.24
8	SLD 14	-161	53	2006	352.35	4.02	56.41
8	SLD 15	-192	-23	1828	331.14	3.37	67.21
8	SLD 16	-155	-59	1815	328.79	3.3	54.38
8	SLV 1	378	152	2897	507.46	8.21	-132.38
8	SLV 2	463	71	2867	502.08	8.05	-161.8
8	SLV 3	392	-110	2450	452.41	6.53	-137.11
8	SLV 4	477	-191	2420	447.03	6.37	-166.53
8	SLV 5	66	476	3059	505.93	8.44	-23.32
8	SLV 6	156	390	3028	500.25	8.27	-54.3
8	SLV 7	112	-396	1568	322.43	2.82	-39.09
8	SLV 8	201	-481	1536	316.75	2.65	-70.07
8	SLV 9	-186	490	2750	449.44	6.94	64.76
8	SLV 10	-96	405	2719	443.76	6.77	33.79
8	SLV 11	-140	-382	1259	265.94	1.32	48.99
8	SLV 12	-50	-467	1227	260.26	1.15	18.01
8	SLV 13	-461	199	1867	319.16	3.22	161.22
8	SLV 14	-376	118	1837	313.78	3.06	131.81
8	SLV 15	-447	-62	1420	264.11	1.54	156.49
8	SLV 16	-362	-143	1390	258.73	1.37	127.08



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
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	7	6	1852	270.92	3.25	-2.29
9	SLU 2	6	-5	1824	265.11	3.26	-1.96
9	SLU 3	7	6	1852	270.92	3.25	-2.29
9	SLU 4	6	0	1835	267.43	3.26	-2.09
9	SLU 5	6	-5	1824	265.11	3.26	-1.96
9	SLU 6	7	6	1852	270.92	3.25	-2.29
9	SLU 7	6	0	1835	267.43	3.26	-2.09
9	SLU 8	7	6	1852	270.92	3.25	-2.29
9	SLU 9	6	0	1835	267.43	3.26	-2.09
9	SLU 10	7	-2	2152	298.66	3.91	-2.37
9	SLU 11	8	9	2180	304.48	3.89	-2.71
9	SLU 12	7	2	2163	300.99	3.9	-2.51
9	SLU 13	7	-2	2152	298.66	3.91	-2.37
9	SLU 14	8	9	2180	304.48	3.89	-2.71
9	SLU 15	7	2	2163	300.99	3.9	-2.51
9	SLU 16	8	9	2180	304.48	3.89	-2.71
9	SLU 17	7	2	2163	300.99	3.9	-2.51
9	SLU 18	9	9	2321	318.86	4.17	-2.88
9	SLU 19	8	3	2304	315.37	4.18	-2.68
9	SLU 20	9	9	2321	318.86	4.17	-2.88
9	SLU 21	8	3	2304	315.37	4.18	-2.68
9	SLU 22	8	8	2089	295.38	3.7	-2.69
9	SLU 23	7	-3	2060	289.56	3.72	-2.36
9	SLU 24	8	8	2089	295.38	3.7	-2.69
9	SLU 25	7	1	2072	291.89	3.71	-2.49
9	SLU 26	7	-3	2060	289.56	3.72	-2.36
9	SLU 27	8	8	2089	295.38	3.7	-2.69
9	SLU 28	7	1	2072	291.89	3.71	-2.49
9	SLU 29	8	8	2089	295.38	3.7	-2.69
9	SLU 30	7	1	2072	291.89	3.71	-2.49
9	SLU 31	8	-1	2388	323.12	4.37	-2.77
9	SLU 32	9	10	2416	328.94	4.35	-3.11
9	SLU 33	9	4	2399	325.44	4.36	-2.91
9	SLU 34	8	-1	2388	323.12	4.37	-2.77
9	SLU 35	9	10	2416	328.94	4.35	-3.11
9	SLU 36	9	4	2399	325.44	4.36	-2.91
9	SLU 37	9	10	2416	328.94	4.35	-3.11
9	SLU 38	9	4	2399	325.44	4.36	-2.91
9	SLU 39	10	11	2557	343.32	4.63	-3.28
9	SLU 40	9	5	2540	339.83	4.64	-3.08
9	SLU 41	10	11	2557	343.32	4.63	-3.28
9	SLU 42	9	5	2540	339.83	4.64	-3.08
9	SLU 43	8	8	2327	343.82	4.07	-2.84
9	SLU 44	7	-3	2299	338	4.08	-2.51
9	SLU 45	8	8	2327	343.82	4.07	-2.84
9	SLU 46	8	1	2310	340.33	4.08	-2.64
9	SLU 47	7	-3	2299	338	4.08	-2.51
9	SLU 48	8	8	2327	343.82	4.07	-2.84
9	SLU 49	8	1	2310	340.33	4.08	-2.64
9	SLU 50	8	8	2327	343.82	4.07	-2.84
9	SLU 51	8	1	2310	340.33	4.08	-2.64
9	SLU 52	9	-1	2627	371.55	4.73	-2.92
9	SLU 53	10	10	2655	377.37	4.71	-3.26
9	SLU 54	9	3	2638	373.88	4.72	-3.06
9	SLU 55	9	-1	2627	371.55	4.73	-2.92
9	SLU 56	10	10	2655	377.37	4.71	-3.26
9	SLU 57	9	3	2638	373.88	4.72	-3.06
9	SLU 58	10	10	2655	377.37	4.71	-3.26
9	SLU 59	9	3	2638	373.88	4.72	-3.06
9	SLU 60	10	11	2795	391.75	4.99	-3.43
9	SLU 61	10	4	2778	388.26	5	-3.24
9	SLU 62	10	11	2795	391.75	4.99	-3.43
9	SLU 63	10	4	2778	388.26	5	-3.24
9	SLU 64	10	9	2563	368.27	4.52	-3.24
9	SLU 65	9	-2	2535	362.46	4.54	-2.91
9	SLU 66	10	9	2563	368.27	4.52	-3.24
9	SLU 67	9	3	2546	364.78	4.53	-3.04
9	SLU 68	9	-2	2535	362.46	4.54	-2.91
9	SLU 69	10	9	2563	368.27	4.52	-3.24
9	SLU 70	9	3	2546	364.78	4.53	-3.04
9	SLU 71	10	9	2563	368.27	4.52	-3.24
9	SLU 72	9	3	2546	364.78	4.53	-3.04
9	SLU 73	10	1	2863	396.01	5.18	-3.32
9	SLU 74	11	12	2891	401.83	5.17	-3.66
9	SLU 75	10	5	2874	398.34	5.18	-3.46
9	SLU 76	10	1	2863	396.01	5.18	-3.32
9	SLU 77	11	12	2891	401.83	5.17	-3.66
9	SLU 78	10	5	2874	398.34	5.18	-3.46
9	SLU 79	11	12	2891	401.83	5.17	-3.66
9	SLU 80	10	5	2874	398.34	5.18	-3.46
9	SLU 81	11	13	3031	416.21	5.44	-3.83
9	SLU 82	11	6	3014	412.72	5.45	-3.63
9	SLU 83	11	13	3031	416.21	5.44	-3.83
9	SLU 84	11	6	3014	412.72	5.45	-3.63
9	SLE RA 1	7	7	1920	277.91	3.38	-2.41
9	SLE RA 2	6	-1	1901	274.03	3.39	-2.19
9	SLE RA 3	7	7	1920	277.91	3.38	-2.41



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
9	SLE RA 4	7	2	1909	275.59	3.38	-2.27
9	SLE RA 5	6	-1	1901	274.03	3.39	-2.19
9	SLE RA 6	7	7	1920	277.91	3.38	-2.41
9	SLE RA 7	7	2	1909	275.59	3.38	-2.27
9	SLE RA 8	7	7	1920	277.91	3.38	-2.41
9	SLE RA 9	7	2	1909	275.59	3.38	-2.27
9	SLE RA 10	7	1	2119	296.4	3.82	-2.46
9	SLE RA 11	8	8	2138	300.28	3.81	-2.68
9	SLE RA 12	8	4	2127	297.95	3.82	-2.55
9	SLE RA 13	7	1	2119	296.4	3.82	-2.46
9	SLE RA 14	8	8	2138	300.28	3.81	-2.68
9	SLE RA 15	8	4	2127	297.95	3.82	-2.55
9	SLE RA 16	8	8	2138	300.28	3.81	-2.68
9	SLE RA 17	8	4	2127	297.95	3.82	-2.55
9	SLE RA 18	8	9	2232	309.87	3.99	-2.8
9	SLE RA 19	8	5	2221	307.54	4	-2.67
9	SLE RA 20	8	9	2232	309.87	3.99	-2.8
9	SLE RA 21	8	5	2221	307.54	4	-2.67
9	SLE FR 1	7	7	1920	277.91	3.38	-2.41
9	SLE FR 2	7	5	1916	277.14	3.38	-2.36
9	SLE FR 3	7	7	1920	277.91	3.38	-2.41
9	SLE FR 4	7	6	2010	286.72	3.56	-2.48
9	SLE FR 5	7	7	2014	287.5	3.56	-2.53
9	SLE FR 6	8	8	2076	293.89	3.69	-2.6
9	SLE QP 1	7	7	1920	277.91	3.38	-2.41
9	SLE QP 2	7	7	2014	287.5	3.56	-2.53
9	SLD 1	170	66	2300	323.04	4.8	-59.64
9	SLD 2	207	35	2289	321.49	4.74	-72.48
9	SLD 3	176	-39	2128	309	4.23	-61.68
9	SLD 4	213	-70	2117	307.45	4.17	-74.52
9	SLD 5	34	196	2365	320.03	4.83	-11.82
9	SLD 6	72	164	2353	318.42	4.76	-25.15
9	SLD 7	53	-155	1791	273.22	2.91	-18.63
9	SLD 8	92	-187	1779	271.62	2.85	-31.97
9	SLD 9	-77	202	2248	303.38	4.27	26.92
9	SLD 10	-38	170	2236	301.77	4.21	13.58
9	SLD 11	-57	-149	1674	256.58	2.36	20.1
9	SLD 12	-19	-181	1662	254.97	2.3	6.76
9	SLD 13	-198	85	1910	267.55	2.96	69.47
9	SLD 14	-161	54	1899	266	2.9	56.63
9	SLD 15	-193	-20	1738	253.51	2.38	67.43
9	SLD 16	-155	-51	1727	251.96	2.32	54.59
9	SLV 1	378	144	2671	368.93	6.4	-132.43
9	SLV 2	463	73	2646	365.38	6.26	-161.87
9	SLV 3	392	-102	2269	336.01	5.06	-137.2
9	SLV 4	477	-173	2244	332.46	4.92	-166.64
9	SLV 5	66	448	2830	363.2	6.5	-23.17
9	SLV 6	155	373	2804	359.46	6.35	-54.18
9	SLV 7	112	-372	1490	253.45	2.03	-39.08
9	SLV 8	201	-447	1463	249.71	1.88	-70.09
9	SLV 9	-186	462	2564	325.28	5.24	65.03
9	SLV 10	-97	387	2537	321.55	5.09	34.03
9	SLV 11	-140	-358	1223	215.54	0.77	49.13
9	SLV 12	-51	-434	1197	211.8	0.62	18.12
9	SLV 13	-462	188	1783	242.54	2.2	161.59
9	SLV 14	-377	117	1758	238.99	2.06	132.15
9	SLV 15	-448	-58	1381	209.62	0.86	156.82
9	SLV 16	-363	-129	1356	206.07	0.72	127.38
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	6	8	1767	209.69	2.25	-2.2
10	SLU 2	6	-2	1738	203.93	2.27	-1.89
10	SLU 3	6	8	1767	209.69	2.25	-2.2
10	SLU 4	6	2	1750	206.23	2.27	-2.02
10	SLU 5	6	-2	1738	203.93	2.27	-1.89
10	SLU 6	6	8	1767	209.69	2.25	-2.2
10	SLU 7	6	2	1750	206.23	2.27	-2.02
10	SLU 8	6	8	1767	209.69	2.25	-2.2
10	SLU 9	6	2	1750	206.23	2.27	-2.02
10	SLU 10	7	1	2049	224.41	2.71	-2.25
10	SLU 11	8	11	2078	230.17	2.69	-2.56
10	SLU 12	7	5	2061	226.71	2.7	-2.38
10	SLU 13	7	1	2049	224.41	2.71	-2.25
10	SLU 14	8	11	2078	230.17	2.69	-2.56
10	SLU 15	7	5	2061	226.71	2.7	-2.38
10	SLU 16	8	11	2078	230.17	2.69	-2.56
10	SLU 17	7	5	2061	226.71	2.7	-2.38
10	SLU 18	8	13	2211	238.95	2.88	-2.71
10	SLU 19	8	7	2194	235.49	2.89	-2.53
10	SLU 20	8	13	2211	238.95	2.88	-2.71
10	SLU 21	8	7	2194	235.49	2.89	-2.53
10	SLU 22	8	11	1991	224.89	2.56	-2.56
10	SLU 23	7	0	1963	219.12	2.58	-2.26
10	SLU 24	8	11	1991	224.89	2.56	-2.56
10	SLU 25	7	4	1974	221.43	2.57	-2.38
10	SLU 26	7	0	1963	219.12	2.58	-2.26
10	SLU 27	8	11	1991	224.89	2.56	-2.56
10	SLU 28	7	4	1974	221.43	2.57	-2.38
10	SLU 29	8	11	1991	224.89	2.56	-2.56



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
10	SLU 30	7	4	1974	221.43	2.57	-2.38
10	SLU 31	8	3	2273	239.6	3.01	-2.61
10	SLU 32	9	14	2302	245.37	3	-2.92
10	SLU 33	8	8	2285	241.91	3.01	-2.74
10	SLU 34	8	3	2273	239.6	3.01	-2.61
10	SLU 35	9	14	2302	245.37	3	-2.92
10	SLU 36	8	8	2285	241.91	3.01	-2.74
10	SLU 37	9	14	2302	245.37	3	-2.92
10	SLU 38	8	8	2285	241.91	3.01	-2.74
10	SLU 39	9	15	2435	254.15	3.18	-3.07
10	SLU 40	9	9	2418	250.69	3.19	-2.89
10	SLU 41	9	15	2435	254.15	3.18	-3.07
10	SLU 42	9	9	2418	250.69	3.19	-2.89
10	SLU 43	8	10	2220	267.39	2.83	-2.74
10	SLU 44	7	-1	2191	261.62	2.84	-2.43
10	SLU 45	8	10	2220	267.39	2.83	-2.74
10	SLU 46	7	3	2203	263.93	2.84	-2.55
10	SLU 47	7	-1	2191	261.62	2.84	-2.43
10	SLU 48	8	10	2220	267.39	2.83	-2.74
10	SLU 49	7	3	2203	263.93	2.84	-2.55
10	SLU 50	8	10	2220	267.39	2.83	-2.74
10	SLU 51	7	3	2203	263.93	2.84	-2.55
10	SLU 52	8	3	2502	282.11	3.28	-2.79
10	SLU 53	9	13	2531	287.87	3.26	-3.1
10	SLU 54	9	7	2514	284.41	3.28	-2.91
10	SLU 55	8	3	2502	282.11	3.28	-2.79
10	SLU 56	9	13	2531	287.87	3.26	-3.1
10	SLU 57	9	7	2514	284.41	3.28	-2.91
10	SLU 58	9	13	2531	287.87	3.26	-3.1
10	SLU 59	9	7	2514	284.41	3.28	-2.91
10	SLU 60	10	14	2664	296.65	3.45	-3.25
10	SLU 61	9	8	2647	293.19	3.46	-3.07
10	SLU 62	10	14	2664	296.65	3.45	-3.25
10	SLU 63	9	8	2647	293.19	3.46	-3.07
10	SLU 64	9	12	2445	282.59	3.13	-3.1
10	SLU 65	8	2	2416	276.82	3.15	-2.79
10	SLU 66	9	12	2445	282.59	3.13	-3.1
10	SLU 67	9	6	2427	279.13	3.14	-2.92
10	SLU 68	8	2	2416	276.82	3.15	-2.79
10	SLU 69	9	12	2445	282.59	3.13	-3.1
10	SLU 70	9	6	2427	279.13	3.14	-2.92
10	SLU 71	9	12	2445	282.59	3.13	-3.1
10	SLU 72	9	6	2427	279.13	3.14	-2.92
10	SLU 73	9	5	2727	297.3	3.59	-3.15
10	SLU 74	10	15	2755	303.07	3.57	-3.46
10	SLU 75	10	9	2738	299.61	3.58	-3.27
10	SLU 76	9	5	2727	297.3	3.59	-3.15
10	SLU 77	10	15	2755	303.07	3.57	-3.46
10	SLU 78	10	9	2738	299.61	3.58	-3.27
10	SLU 79	10	15	2755	303.07	3.57	-3.46
10	SLU 80	10	9	2738	299.61	3.58	-3.27
10	SLU 81	11	17	2889	311.84	3.76	-3.61
10	SLU 82	10	11	2871	308.39	3.77	-3.43
10	SLU 83	11	17	2889	311.84	3.76	-3.61
10	SLU 84	10	11	2871	308.39	3.77	-3.43
10	SLE RA 1	7	9	1831	214.03	2.34	-2.3
10	SLE RA 2	6	2	1812	210.19	2.35	-2.1
10	SLE RA 3	7	9	1831	214.03	2.34	-2.3
10	SLE RA 4	6	5	1820	211.73	2.35	-2.18
10	SLE RA 5	6	2	1812	210.19	2.35	-2.1
10	SLE RA 6	7	9	1831	214.03	2.34	-2.3
10	SLE RA 7	6	5	1820	211.73	2.35	-2.18
10	SLE RA 8	7	9	1831	214.03	2.34	-2.3
10	SLE RA 9	6	5	1820	211.73	2.35	-2.18
10	SLE RA 10	7	4	2019	223.84	2.65	-2.34
10	SLE RA 11	7	11	2038	227.69	2.63	-2.54
10	SLE RA 12	7	7	2027	225.38	2.64	-2.42
10	SLE RA 13	7	4	2019	223.84	2.65	-2.34
10	SLE RA 14	7	11	2038	227.69	2.63	-2.54
10	SLE RA 15	7	7	2027	225.38	2.64	-2.42
10	SLE RA 16	7	11	2038	227.69	2.63	-2.54
10	SLE RA 17	7	7	2027	225.38	2.64	-2.42
10	SLE RA 18	8	12	2127	233.54	2.76	-2.65
10	SLE RA 19	7	8	2116	231.23	2.77	-2.52
10	SLE RA 20	8	12	2127	233.54	2.76	-2.65
10	SLE RA 21	7	8	2116	231.23	2.77	-2.52
10	SLE FR 1	7	9	1831	214.03	2.34	-2.3
10	SLE FR 2	7	7	1827	213.27	2.34	-2.26
10	SLE FR 3	7	9	1831	214.03	2.34	-2.3
10	SLE FR 4	7	8	1916	219.12	2.47	-2.37
10	SLE FR 5	7	10	1920	219.89	2.47	-2.41
10	SLE FR 6	7	10	1979	223.79	2.55	-2.48
10	SLE QP 1	7	9	1831	214.03	2.34	-2.3
10	SLE QP 2	7	10	1920	219.89	2.47	-2.41
10	SLD 1	170	64	2172	244.06	3.48	-59.59
10	SLD 2	207	37	2163	243.13	3.43	-72.44
10	SLD 3	176	-35	2015	232.48	3.05	-61.65
10	SLD 4	213	-63	2006	231.55	3	-74.51
10	SLD 5	33	187	2238	245.05	3.44	-11.68
10	SLD 6	72	158	2228	244.08	3.39	-25.03
10	SLD 7	53	-144	1713	206.44	2.01	-18.57



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
10	SLD 8	92	-173	1704	205.48	1.96	-31.92
10	SLD 9	-78	192	2136	234.3	2.98	27.11
10	SLD 10	-39	164	2127	233.33	2.92	13.75
10	SLD 11	-58	-139	1612	195.69	1.55	20.22
10	SLD 12	-19	-167	1602	194.72	1.49	6.86
10	SLD 13	-199	82	1834	208.22	1.93	69.69
10	SLD 14	-162	55	1825	207.29	1.88	56.84
10	SLD 15	-193	-17	1677	196.64	1.51	67.62
10	SLD 16	-156	-44	1668	195.71	1.45	54.77
10	SLV 1	378	136	2499	275.45	4.78	-132.46
10	SLV 2	463	74	2478	273.32	4.67	-161.93
10	SLV 3	392	-96	2132	248.16	3.78	-137.29
10	SLV 4	477	-158	2110	246.03	3.66	-166.76
10	SLV 5	65	423	2660	278.75	4.73	-23
10	SLV 6	155	357	2637	276.51	4.6	-54.04
10	SLV 7	112	-350	1434	187.78	1.38	-39.1
10	SLV 8	201	-416	1411	185.54	1.26	-70.13
10	SLV 9	-187	436	2429	254.24	3.67	65.32
10	SLV 10	-98	370	2406	251.99	3.55	34.28
10	SLV 11	-141	-338	1203	163.27	0.33	49.22
10	SLV 12	-51	-404	1180	161.02	0.21	18.19
10	SLV 13	-463	178	1730	193.74	1.27	161.94
10	SLV 14	-378	115	1708	191.61	1.15	132.47
10	SLV 15	-449	-54	1362	166.45	0.27	157.11
10	SLV 16	-364	-117	1341	164.32	0.15	127.64
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	6	9	1711	170.58	1.39	-2.12
11	SLU 2	5	-1	1681	164.79	1.4	-1.85
11	SLU 3	6	9	1711	170.58	1.39	-2.12
11	SLU 4	6	3	1693	167.11	1.4	-1.96
11	SLU 5	5	-1	1681	164.79	1.4	-1.85
11	SLU 6	6	9	1711	170.58	1.39	-2.12
11	SLU 7	6	3	1693	167.11	1.4	-1.96
11	SLU 8	6	9	1711	170.58	1.39	-2.12
11	SLU 9	6	3	1693	167.11	1.4	-1.96
11	SLU 10	6	3	1981	176.93	1.65	-2.15
11	SLU 11	7	13	2011	182.72	1.64	-2.42
11	SLU 12	7	7	1993	179.25	1.65	-2.26
11	SLU 13	6	3	1981	176.93	1.65	-2.15
11	SLU 14	7	13	2011	182.72	1.64	-2.42
11	SLU 15	7	7	1993	179.25	1.65	-2.26
11	SLU 16	7	13	2011	182.72	1.64	-2.42
11	SLU 17	7	7	1993	179.25	1.65	-2.26
11	SLU 18	7	15	2139	187.93	1.75	-2.55
11	SLU 19	7	9	2122	184.45	1.76	-2.39
11	SLU 20	7	15	2139	187.93	1.75	-2.55
11	SLU 21	7	9	2122	184.45	1.76	-2.39
11	SLU 22	7	12	1928	179.9	1.56	-2.44
11	SLU 23	6	2	1898	174.11	1.57	-2.17
11	SLU 24	7	12	1928	179.9	1.56	-2.44
11	SLU 25	7	6	1910	176.42	1.57	-2.28
11	SLU 26	6	2	1898	174.11	1.57	-2.17
11	SLU 27	7	12	1928	179.9	1.56	-2.44
11	SLU 28	7	6	1910	176.42	1.57	-2.28
11	SLU 29	7	12	1928	179.9	1.56	-2.44
11	SLU 30	7	6	1910	176.42	1.57	-2.28
11	SLU 31	7	6	2198	186.25	1.83	-2.47
11	SLU 32	8	16	2228	192.04	1.81	-2.74
11	SLU 33	8	10	2210	188.57	1.82	-2.58
11	SLU 34	7	6	2198	186.25	1.83	-2.47
11	SLU 35	8	16	2228	192.04	1.81	-2.74
11	SLU 36	8	10	2210	188.57	1.82	-2.58
11	SLU 37	8	16	2228	192.04	1.81	-2.74
11	SLU 38	8	10	2210	188.57	1.82	-2.58
11	SLU 39	8	18	2356	197.24	1.92	-2.87
11	SLU 40	8	12	2339	193.77	1.93	-2.7
11	SLU 41	8	18	2356	197.24	1.92	-2.87
11	SLU 42	8	12	2339	193.77	1.93	-2.7
11	SLU 43	8	11	2150	218.56	1.74	-2.65
11	SLU 44	7	1	2120	212.77	1.76	-2.38
11	SLU 45	8	11	2150	218.56	1.74	-2.65
11	SLU 46	7	5	2132	215.09	1.75	-2.49
11	SLU 47	7	1	2120	212.77	1.76	-2.38
11	SLU 48	8	11	2150	218.56	1.74	-2.65
11	SLU 49	7	5	2132	215.09	1.75	-2.49
11	SLU 50	8	11	2150	218.56	1.74	-2.65
11	SLU 51	7	5	2132	215.09	1.75	-2.49
11	SLU 52	8	5	2420	224.91	2.01	-2.68
11	SLU 53	9	15	2450	230.7	2	-2.95
11	SLU 54	8	9	2432	227.23	2	-2.79
11	SLU 55	8	5	2420	224.91	2.01	-2.68
11	SLU 56	9	15	2450	230.7	2	-2.95
11	SLU 57	8	9	2432	227.23	2	-2.79
11	SLU 58	9	15	2450	230.7	2	-2.95
11	SLU 59	8	9	2432	227.23	2	-2.79
11	SLU 60	9	17	2578	235.91	2.1	-3.08
11	SLU 61	9	11	2561	232.43	2.11	-2.91
11	SLU 62	9	17	2578	235.91	2.1	-3.08



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
11	SLU 63	9	11	2561	232.43	2.11	-2.91
11	SLU 64	9	14	2367	227.88	1.91	-2.97
11	SLU 65	8	4	2337	222.09	1.93	-2.7
11	SLU 66	9	14	2367	227.88	1.91	-2.97
11	SLU 67	8	8	2349	224.4	1.92	-2.8
11	SLU 68	8	4	2337	222.09	1.93	-2.7
11	SLU 69	9	14	2367	227.88	1.91	-2.97
11	SLU 70	8	8	2349	224.4	1.92	-2.8
11	SLU 71	9	14	2367	227.88	1.91	-2.97
11	SLU 72	8	8	2349	224.4	1.92	-2.8
11	SLU 73	9	8	2637	234.23	2.18	-2.99
11	SLU 74	10	18	2667	240.02	2.17	-3.27
11	SLU 75	9	12	2649	236.55	2.18	-3.1
11	SLU 76	9	8	2637	234.23	2.18	-2.99
11	SLU 77	10	18	2667	240.02	2.17	-3.27
11	SLU 78	9	12	2649	236.55	2.18	-3.1
11	SLU 79	10	18	2667	240.02	2.17	-3.27
11	SLU 80	9	12	2649	236.55	2.18	-3.1
11	SLU 81	10	20	2795	245.22	2.28	-3.4
11	SLU 82	9	14	2778	241.75	2.29	-3.23
11	SLU 83	10	20	2795	245.22	2.28	-3.4
11	SLU 84	9	14	2778	241.75	2.29	-3.23
11	SLE RA 1	6	10	1773	173.24	1.44	-2.21
11	SLE RA 2	6	3	1753	169.38	1.45	-2.03
11	SLE RA 3	6	10	1773	173.24	1.44	-2.21
11	SLE RA 4	6	6	1761	170.93	1.44	-2.1
11	SLE RA 5	6	3	1753	169.38	1.45	-2.03
11	SLE RA 6	6	10	1773	173.24	1.44	-2.21
11	SLE RA 7	6	6	1761	170.93	1.44	-2.1
11	SLE RA 8	6	10	1773	173.24	1.44	-2.21
11	SLE RA 9	6	6	1761	170.93	1.44	-2.1
11	SLE RA 10	7	6	1953	177.48	1.61	-2.23
11	SLE RA 11	7	13	1973	181.34	1.6	-2.41
11	SLE RA 12	7	9	1961	179.02	1.61	-2.3
11	SLE RA 13	7	6	1953	177.48	1.61	-2.23
11	SLE RA 14	7	13	1973	181.34	1.6	-2.41
11	SLE RA 15	7	9	1961	179.02	1.61	-2.3
11	SLE RA 16	7	13	1973	181.34	1.6	-2.41
11	SLE RA 17	7	9	1961	179.02	1.61	-2.3
11	SLE RA 18	7	14	2059	184.81	1.68	-2.5
11	SLE RA 19	7	10	2047	182.49	1.68	-2.39
11	SLE RA 20	7	14	2059	184.81	1.68	-2.5
11	SLE RA 21	7	10	2047	182.49	1.68	-2.39
11	SLE FR 1	6	10	1773	173.24	1.44	-2.21
11	SLE FR 2	6	9	1769	172.47	1.44	-2.18
11	SLE FR 3	6	10	1773	173.24	1.44	-2.21
11	SLE FR 4	7	10	1855	175.94	1.51	-2.26
11	SLE FR 5	7	11	1858	176.71	1.51	-2.3
11	SLE FR 6	7	12	1916	179.02	1.56	-2.36
11	SLE QP 1	6	10	1773	173.24	1.44	-2.21
11	SLE QP 2	7	11	1858	176.71	1.51	-2.3
11	SLD 1	170	61	2083	195.42	2.32	-59.53
11	SLD 2	207	38	2075	194.96	2.28	-72.4
11	SLD 3	176	-33	1936	181.54	2.03	-61.63
11	SLD 4	213	-57	1928	181.07	1.99	-74.49
11	SLD 5	33	178	2152	203.55	2.21	-11.53
11	SLD 6	71	153	2144	203.06	2.16	-24.9
11	SLD 7	53	-136	1662	157.28	1.24	-18.52
11	SLD 8	91	-161	1653	156.79	1.2	-31.89
11	SLD 9	-78	183	2063	196.63	1.82	27.29
11	SLD 10	-40	158	2055	196.14	1.77	13.93
11	SLD 11	-58	-131	1573	150.36	0.85	20.3
11	SLD 12	-20	-155	1565	149.87	0.81	6.94
11	SLD 13	-200	79	1789	172.35	1.03	69.89
11	SLD 14	-163	55	1781	171.88	0.98	57.03
11	SLD 15	-194	-15	1642	158.47	0.74	67.8
11	SLD 16	-157	-39	1634	158	0.69	54.93
11	SLV 1	378	128	2375	219.96	3.37	-132.47
11	SLV 2	463	74	2357	218.88	3.27	-161.97
11	SLV 3	392	-92	2031	187.28	2.69	-137.37
11	SLV 4	477	-146	2013	186.21	2.59	-166.87
11	SLV 5	65	401	2541	239.65	3.13	-22.81
11	SLV 6	154	343	2522	238.51	3.03	-53.88
11	SLV 7	112	-333	1396	130.73	0.87	-39.14
11	SLV 8	201	-390	1377	129.6	0.77	-70.21
11	SLV 9	-188	413	2340	223.82	2.24	65.61
11	SLV 10	-98	355	2321	222.69	2.14	34.54
11	SLV 11	-141	-321	1195	114.91	-0.01	49.28
11	SLV 12	-51	-378	1176	113.78	-0.11	18.21
11	SLV 13	-464	169	1704	167.21	0.42	162.27
11	SLV 14	-379	114	1686	166.14	0.32	132.77
11	SLV 15	-450	-51	1360	134.54	-0.26	157.37
11	SLV 16	-365	-106	1342	133.46	-0.35	127.87
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	6	10	1680	150.8	0.63	-2.06
12	SLU 2	5	0	1650	144.96	0.64	-1.82
12	SLU 3	6	10	1680	150.8	0.63	-2.06
12	SLU 4	5	4	1662	147.29	0.63	-1.92



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
12	SLU 5	5	0	1650	144.96	0.64	-1.82
12	SLU 6	6	10	1680	150.8	0.63	-2.06
12	SLU 7	5	4	1662	147.29	0.63	-1.92
12	SLU 8	6	10	1680	150.8	0.63	-2.06
12	SLU 9	5	4	1662	147.29	0.63	-1.92
12	SLU 10	6	5	1945	152.95	0.73	-2.06
12	SLU 11	7	14	1974	158.79	0.72	-2.3
12	SLU 12	6	9	1957	155.29	0.72	-2.16
12	SLU 13	6	5	1945	152.95	0.73	-2.06
12	SLU 14	7	14	1974	158.79	0.72	-2.3
12	SLU 15	6	9	1957	155.29	0.72	-2.16
12	SLU 16	7	14	1974	158.79	0.72	-2.3
12	SLU 17	6	9	1957	155.29	0.72	-2.16
12	SLU 18	7	16	2101	162.22	0.75	-2.4
12	SLU 19	7	11	2083	158.71	0.76	-2.26
12	SLU 20	7	16	2101	162.22	0.75	-2.4
12	SLU 21	7	11	2083	158.71	0.76	-2.26
12	SLU 22	7	13	1893	157.23	0.68	-2.33
12	SLU 23	6	3	1863	151.39	0.69	-2.1
12	SLU 24	7	13	1893	157.23	0.68	-2.33
12	SLU 25	6	7	1875	153.72	0.69	-2.19
12	SLU 26	6	3	1863	151.39	0.69	-2.1
12	SLU 27	7	13	1893	157.23	0.68	-2.33
12	SLU 28	6	7	1875	153.72	0.69	-2.19
12	SLU 29	7	13	1893	157.23	0.68	-2.33
12	SLU 30	6	7	1875	153.72	0.69	-2.19
12	SLU 31	7	8	2158	159.38	0.78	-2.34
12	SLU 32	7	18	2188	165.22	0.77	-2.57
12	SLU 33	7	12	2170	161.71	0.78	-2.43
12	SLU 34	7	8	2158	159.38	0.78	-2.34
12	SLU 35	7	18	2188	165.22	0.77	-2.57
12	SLU 36	7	12	2170	161.71	0.78	-2.43
12	SLU 37	7	18	2188	165.22	0.77	-2.57
12	SLU 38	7	12	2170	161.71	0.78	-2.43
12	SLU 39	8	20	2314	168.65	0.81	-2.67
12	SLU 40	7	14	2296	165.14	0.82	-2.53
12	SLU 41	8	20	2314	168.65	0.81	-2.67
12	SLU 42	7	14	2296	165.14	0.82	-2.53
12	SLU 43	7	11	2110	193.83	0.79	-2.58
12	SLU 44	7	2	2080	187.99	0.8	-2.35
12	SLU 45	7	11	2110	193.83	0.79	-2.58
12	SLU 46	7	5	2092	190.33	0.8	-2.44
12	SLU 47	7	2	2080	187.99	0.8	-2.35
12	SLU 48	7	11	2110	193.83	0.79	-2.58
12	SLU 49	7	5	2092	190.33	0.8	-2.44
12	SLU 50	7	11	2110	193.83	0.79	-2.58
12	SLU 51	7	5	2092	190.33	0.8	-2.44
12	SLU 52	7	6	2375	195.98	0.89	-2.59
12	SLU 53	8	16	2405	201.83	0.88	-2.82
12	SLU 54	8	10	2387	198.32	0.89	-2.68
12	SLU 55	7	6	2375	195.98	0.89	-2.59
12	SLU 56	8	16	2405	201.83	0.88	-2.82
12	SLU 57	8	10	2387	198.32	0.89	-2.68
12	SLU 58	8	16	2405	201.83	0.88	-2.82
12	SLU 59	8	10	2387	198.32	0.89	-2.68
12	SLU 60	8	18	2532	205.25	0.92	-2.92
12	SLU 61	8	12	2514	201.75	0.93	-2.78
12	SLU 62	8	18	2532	205.25	0.92	-2.92
12	SLU 63	8	12	2514	201.75	0.93	-2.78
12	SLU 64	8	15	2324	200.26	0.85	-2.86
12	SLU 65	8	5	2294	194.42	0.86	-2.62
12	SLU 66	8	15	2324	200.26	0.85	-2.86
12	SLU 67	8	9	2306	196.76	0.86	-2.72
12	SLU 68	8	5	2294	194.42	0.86	-2.62
12	SLU 69	8	15	2324	200.26	0.85	-2.86
12	SLU 70	8	9	2306	196.76	0.86	-2.72
12	SLU 71	8	15	2324	200.26	0.85	-2.86
12	SLU 72	8	9	2306	196.76	0.86	-2.72
12	SLU 73	8	10	2589	202.41	0.95	-2.86
12	SLU 74	9	19	2619	208.26	0.94	-3.09
12	SLU 75	9	14	2601	204.75	0.95	-2.95
12	SLU 76	8	10	2589	202.41	0.95	-2.86
12	SLU 77	9	19	2619	208.26	0.94	-3.09
12	SLU 78	9	14	2601	204.75	0.95	-2.95
12	SLU 79	9	19	2619	208.26	0.94	-3.09
12	SLU 80	9	14	2601	204.75	0.95	-2.95
12	SLU 81	9	21	2745	211.68	0.98	-3.2
12	SLU 82	9	16	2727	208.18	0.99	-3.06
12	SLU 83	9	21	2745	211.68	0.98	-3.2
12	SLU 84	9	16	2727	208.18	0.99	-3.06
12	SLE RA 1	6	10	1741	152.64	0.64	-2.14
12	SLE RA 2	6	4	1721	148.74	0.65	-1.98
12	SLE RA 3	6	10	1741	152.64	0.64	-2.14
12	SLE RA 4	6	7	1729	150.3	0.65	-2.04
12	SLE RA 5	6	4	1721	148.74	0.65	-1.98
12	SLE RA 6	6	10	1741	152.64	0.64	-2.14
12	SLE RA 7	6	7	1729	150.3	0.65	-2.04
12	SLE RA 8	6	10	1741	152.64	0.64	-2.14
12	SLE RA 9	6	7	1729	150.3	0.65	-2.04
12	SLE RA 10	6	7	1917	154.07	0.71	-2.14
12	SLE RA 11	7	14	1937	157.96	0.7	-2.3



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
12	SLE RA 12	6	10	1925	155.63	0.71	-2.2
12	SLE RA 13	6	7	1917	154.07	0.71	-2.14
12	SLE RA 14	7	14	1937	157.96	0.7	-2.3
12	SLE RA 15	6	10	1925	155.63	0.71	-2.2
12	SLE RA 16	7	14	1937	157.96	0.7	-2.3
12	SLE RA 17	6	10	1925	155.63	0.71	-2.2
12	SLE RA 18	7	15	2021	160.25	0.73	-2.36
12	SLE RA 19	7	11	2009	157.91	0.73	-2.27
12	SLE RA 20	7	15	2021	160.25	0.73	-2.36
12	SLE RA 21	7	11	2009	157.91	0.73	-2.27
12	SLE FR 1	6	10	1741	152.64	0.64	-2.14
12	SLE FR 2	6	9	1737	151.86	0.64	-2.11
12	SLE FR 3	6	10	1741	152.64	0.64	-2.14
12	SLE FR 4	6	11	1821	154.14	0.67	-2.17
12	SLE FR 5	6	12	1825	154.92	0.67	-2.21
12	SLE FR 6	6	13	1881	156.44	0.68	-2.25
12	SLE QP 1	6	10	1741	152.64	0.64	-2.14
12	SLE QP 2	6	12	1825	154.92	0.67	-2.21
12	SLD 1	170	59	2028	171.43	1.31	-59.48
12	SLD 2	207	38	2021	171.29	1.28	-72.35
12	SLD 3	176	-32	1887	155.2	1.16	-61.61
12	SLD 4	213	-52	1880	155.06	1.12	-74.48
12	SLD 5	32	170	2102	184.54	1.11	-11.4
12	SLD 6	71	149	2095	184.39	1.07	-24.78
12	SLD 7	53	-130	1632	130.44	0.59	-18.5
12	SLD 8	91	-152	1625	130.3	0.55	-31.88
12	SLD 9	-79	175	2024	179.54	0.78	27.47
12	SLD 10	-40	154	2017	179.4	0.74	14.09
12	SLD 11	-58	-125	1555	125.45	0.26	20.37
12	SLD 12	-20	-147	1548	125.3	0.22	6.99
12	SLD 13	-200	76	1770	154.78	0.21	70.07
12	SLD 14	-163	55	1763	154.64	0.18	57.2
12	SLD 15	-194	-14	1629	138.55	0.06	67.94
12	SLD 16	-157	-35	1622	138.41	0.02	55.07
12	SLV 1	378	121	2291	193.24	2.14	-132.46
12	SLV 2	463	74	2276	192.92	2.06	-161.99
12	SLV 3	392	-90	1962	155.1	1.77	-137.44
12	SLV 4	477	-137	1947	154.78	1.69	-166.97
12	SLV 5	64	382	2470	224.39	1.69	-22.61
12	SLV 6	154	332	2453	224.06	1.61	-53.71
12	SLV 7	112	-321	1373	97.24	0.48	-39.21
12	SLV 8	201	-370	1356	96.9	0.39	-70.31
12	SLV 9	-189	394	2293	212.94	0.94	65.9
12	SLV 10	-99	344	2277	212.6	0.86	34.8
12	SLV 11	-141	-309	1196	85.78	-0.27	49.3
12	SLV 12	-52	-358	1180	85.45	-0.36	18.2
12	SLV 13	-465	161	1703	155.06	-0.36	162.56
12	SLV 14	-380	114	1688	154.74	-0.44	133.03
12	SLV 15	-450	-50	1374	116.91	-0.72	157.58
12	SLV 16	-365	-97	1359	116.59	-0.8	128.05
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	6	9	1671	148.12	-0.05	-2.01
13	SLU 2	5	0	1641	142.22	-0.05	-1.82
13	SLU 3	6	9	1671	148.12	-0.05	-2.01
13	SLU 4	5	4	1653	144.58	-0.05	-1.9
13	SLU 5	5	0	1641	142.22	-0.05	-1.82
13	SLU 6	6	9	1671	148.12	-0.05	-2.01
13	SLU 7	5	4	1653	144.58	-0.05	-1.9
13	SLU 8	6	9	1671	148.12	-0.05	-2.01
13	SLU 9	5	4	1653	144.58	-0.05	-1.9
13	SLU 10	6	5	1935	149.8	-0.11	-1.99
13	SLU 11	6	14	1965	155.71	-0.11	-2.19
13	SLU 12	6	9	1947	152.16	-0.11	-2.07
13	SLU 13	6	5	1935	149.8	-0.11	-1.99
13	SLU 14	6	14	1965	155.71	-0.11	-2.19
13	SLU 15	6	9	1947	152.16	-0.11	-2.07
13	SLU 16	6	14	1965	155.71	-0.11	-2.19
13	SLU 17	6	9	1947	152.16	-0.11	-2.07
13	SLU 18	6	16	2091	158.96	-0.13	-2.26
13	SLU 19	6	11	2073	155.42	-0.13	-2.14
13	SLU 20	6	16	2091	158.96	-0.13	-2.26
13	SLU 21	6	11	2073	155.42	-0.13	-2.14
13	SLU 22	6	13	1884	154.33	-0.1	-2.24
13	SLU 23	6	3	1854	148.43	-0.1	-2.05
13	SLU 24	6	13	1884	154.33	-0.1	-2.24
13	SLU 25	6	7	1866	150.79	-0.1	-2.13
13	SLU 26	6	3	1854	148.43	-0.1	-2.05
13	SLU 27	6	13	1884	154.33	-0.1	-2.24
13	SLU 28	6	7	1866	150.79	-0.1	-2.13
13	SLU 29	6	13	1884	154.33	-0.1	-2.24
13	SLU 30	6	7	1866	150.79	-0.1	-2.13
13	SLU 31	6	9	2148	156.02	-0.15	-2.22
13	SLU 32	7	18	2178	161.92	-0.16	-2.41
13	SLU 33	7	12	2160	158.38	-0.16	-2.3
13	SLU 34	6	9	2148	156.02	-0.15	-2.22
13	SLU 35	7	18	2178	161.92	-0.16	-2.41
13	SLU 36	7	12	2160	158.38	-0.16	-2.3
13	SLU 37	7	18	2178	161.92	-0.16	-2.41



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
13	SLU 38	7	12	2160	158.38	-0.16	-2.3
13	SLU 39	7	20	2305	165.17	-0.18	-2.49
13	SLU 40	7	14	2287	161.63	-0.18	-2.37
13	SLU 41	7	20	2305	165.17	-0.18	-2.49
13	SLU 42	7	14	2287	161.63	-0.18	-2.37
13	SLU 43	7	11	2099	190.43	-0.05	-2.54
13	SLU 44	7	1	2069	184.53	-0.05	-2.35
13	SLU 45	7	11	2099	190.43	-0.05	-2.54
13	SLU 46	7	5	2081	186.89	-0.05	-2.42
13	SLU 47	7	1	2069	184.53	-0.05	-2.35
13	SLU 48	7	11	2099	190.43	-0.05	-2.54
13	SLU 49	7	5	2081	186.89	-0.05	-2.42
13	SLU 50	7	11	2099	190.43	-0.05	-2.54
13	SLU 51	7	5	2081	186.89	-0.05	-2.42
13	SLU 52	7	6	2363	192.11	-0.11	-2.52
13	SLU 53	8	16	2393	198.01	-0.11	-2.71
13	SLU 54	7	10	2375	194.47	-0.11	-2.6
13	SLU 55	7	6	2363	192.11	-0.11	-2.52
13	SLU 56	8	16	2393	198.01	-0.11	-2.71
13	SLU 57	7	10	2375	194.47	-0.11	-2.6
13	SLU 58	8	16	2393	198.01	-0.11	-2.71
13	SLU 59	7	10	2375	194.47	-0.11	-2.6
13	SLU 60	8	18	2519	201.26	-0.13	-2.79
13	SLU 61	8	12	2501	197.72	-0.13	-2.67
13	SLU 62	8	18	2519	201.26	-0.13	-2.79
13	SLU 63	8	12	2501	197.72	-0.13	-2.67
13	SLU 64	8	14	2312	196.64	-0.1	-2.77
13	SLU 65	7	5	2282	190.74	-0.1	-2.57
13	SLU 66	8	14	2312	196.64	-0.1	-2.77
13	SLU 67	7	9	2294	193.1	-0.1	-2.65
13	SLU 68	7	5	2282	190.74	-0.1	-2.57
13	SLU 69	8	14	2312	196.64	-0.1	-2.77
13	SLU 70	7	9	2294	193.1	-0.1	-2.65
13	SLU 71	8	14	2312	196.64	-0.1	-2.77
13	SLU 72	7	9	2294	193.1	-0.1	-2.65
13	SLU 73	8	10	2577	198.32	-0.15	-2.75
13	SLU 74	8	19	2607	204.23	-0.16	-2.94
13	SLU 75	8	14	2589	200.68	-0.15	-2.82
13	SLU 76	8	10	2577	198.32	-0.15	-2.75
13	SLU 77	8	19	2607	204.23	-0.16	-2.94
13	SLU 78	8	14	2589	200.68	-0.15	-2.82
13	SLU 79	8	19	2607	204.23	-0.16	-2.94
13	SLU 80	8	14	2589	200.68	-0.15	-2.82
13	SLU 81	9	21	2733	207.48	-0.18	-3.01
13	SLU 82	8	16	2715	203.93	-0.18	-2.9
13	SLU 83	9	21	2733	207.48	-0.18	-3.01
13	SLU 84	8	16	2715	203.93	-0.18	-2.9
13	SLE RA 1	6	10	1732	149.9	-0.07	-2.08
13	SLE RA 2	6	4	1712	145.96	-0.06	-1.95
13	SLE RA 3	6	10	1732	149.9	-0.07	-2.08
13	SLE RA 4	6	6	1720	147.54	-0.06	-2
13	SLE RA 5	6	4	1712	145.96	-0.06	-1.95
13	SLE RA 6	6	10	1732	149.9	-0.07	-2.08
13	SLE RA 7	6	6	1720	147.54	-0.06	-2
13	SLE RA 8	6	10	1732	149.9	-0.07	-2.08
13	SLE RA 9	6	6	1720	147.54	-0.06	-2
13	SLE RA 10	6	7	1908	151.02	-0.1	-2.06
13	SLE RA 11	6	13	1928	154.95	-0.1	-2.19
13	SLE RA 12	6	10	1916	152.59	-0.1	-2.12
13	SLE RA 13	6	7	1908	151.02	-0.1	-2.06
13	SLE RA 14	6	13	1928	154.95	-0.1	-2.19
13	SLE RA 15	6	10	1916	152.59	-0.1	-2.12
13	SLE RA 16	6	13	1928	154.95	-0.1	-2.19
13	SLE RA 17	6	10	1916	152.59	-0.1	-2.12
13	SLE RA 18	6	15	2012	157.12	-0.12	-2.24
13	SLE RA 19	6	11	2000	154.76	-0.12	-2.17
13	SLE RA 20	6	15	2012	157.12	-0.12	-2.24
13	SLE RA 21	6	11	2000	154.76	-0.12	-2.17
13	SLE FR 1	6	10	1732	149.9	-0.07	-2.08
13	SLE FR 2	6	9	1728	149.11	-0.07	-2.05
13	SLE FR 3	6	10	1732	149.9	-0.07	-2.08
13	SLE FR 4	6	10	1812	151.28	-0.08	-2.1
13	SLE FR 5	6	12	1816	152.06	-0.08	-2.13
13	SLE FR 6	6	12	1872	153.51	-0.09	-2.16
13	SLE QP 1	6	10	1732	149.9	-0.07	-2.08
13	SLE QP 2	6	12	1816	152.06	-0.08	-2.13
13	SLD 1	170	55	2001	168.01	0.42	-59.43
13	SLD 2	207	38	1996	168.1	0.39	-72.31
13	SLD 3	176	-32	1863	150.99	0.39	-61.59
13	SLD 4	213	-50	1857	151.07	0.36	-74.48
13	SLD 5	32	164	2083	182.64	0.13	-11.27
13	SLD 6	70	145	2077	182.73	0.1	-24.66
13	SLD 7	53	-128	1622	125.89	0.02	-18.49
13	SLD 8	91	-146	1617	125.98	-0.01	-31.88
13	SLD 9	-79	169	2015	178.15	-0.16	27.63
13	SLD 10	-41	151	2009	178.24	-0.19	14.24
13	SLD 11	-58	-122	1554	121.4	-0.26	20.4
13	SLD 12	-20	-141	1548	121.49	-0.29	7.01
13	SLD 13	-201	73	1774	153.06	-0.53	70.23
13	SLD 14	-164	55	1769	153.14	-0.55	57.34
13	SLD 15	-195	-15	1636	136.03	-0.56	68.06



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
13	SLD 16	-158	-32	1630	136.12	-0.59	55.17
13	SLV 1	378	114	2243	189.15	1.06	-132.44
13	SLV 2	463	73	2230	189.34	1	-161.99
13	SLV 3	392	-90	1919	149.14	0.99	-137.52
13	SLV 4	477	-131	1906	149.34	0.92	-167.07
13	SLV 5	64	368	2439	223.79	0.4	-22.4
13	SLV 6	153	325	2425	223.99	0.33	-53.52
13	SLV 7	112	-314	1362	90.44	0.15	-39.31
13	SLV 8	201	-357	1348	90.65	0.08	-70.43
13	SLV 9	-189	380	2284	213.48	-0.25	66.17
13	SLV 10	-100	337	2270	213.68	-0.32	35.05
13	SLV 11	-141	-302	1206	80.14	-0.49	49.27
13	SLV 12	-52	-345	1193	80.34	-0.56	18.15
13	SLV 13	-465	154	1725	154.79	-1.09	162.81
13	SLV 14	-380	113	1712	154.99	-1.16	133.26
13	SLV 15	-451	-50	1402	114.79	-1.16	157.74
13	SLV 16	-366	-91	1389	114.98	-1.23	128.19
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	6	8	1682	161.01	-0.68	-1.99
14	SLU 2	5	-1	1652	155.06	-0.68	-1.84
14	SLU 3	6	8	1682	161.01	-0.68	-1.99
14	SLU 4	5	2	1664	157.44	-0.68	-1.9
14	SLU 5	5	-1	1652	155.06	-0.68	-1.84
14	SLU 6	6	8	1682	161.01	-0.68	-1.99
14	SLU 7	5	2	1664	157.44	-0.68	-1.9
14	SLU 8	6	8	1682	161.01	-0.68	-1.99
14	SLU 9	5	2	1664	157.44	-0.68	-1.9
14	SLU 10	5	4	1950	165.68	-0.87	-1.94
14	SLU 11	6	13	1981	171.63	-0.87	-2.09
14	SLU 12	6	8	1962	168.06	-0.87	-2
14	SLU 13	5	4	1950	165.68	-0.87	-1.94
14	SLU 14	6	13	1981	171.63	-0.87	-2.09
14	SLU 15	6	8	1962	168.06	-0.87	-2
14	SLU 16	6	13	1981	171.63	-0.87	-2.09
14	SLU 17	6	8	1962	168.06	-0.87	-2
14	SLU 18	6	15	2108	176.18	-0.95	-2.14
14	SLU 19	6	10	2090	172.62	-0.95	-2.05
14	SLU 20	6	15	2108	176.18	-0.95	-2.14
14	SLU 21	6	10	2090	172.62	-0.95	-2.05
14	SLU 22	6	11	1899	169.46	-0.82	-2.17
14	SLU 23	6	2	1868	163.51	-0.82	-2.02
14	SLU 24	6	11	1899	169.46	-0.82	-2.17
14	SLU 25	6	6	1880	165.89	-0.82	-2.08
14	SLU 26	6	2	1868	163.51	-0.82	-2.02
14	SLU 27	6	11	1899	169.46	-0.82	-2.17
14	SLU 28	6	6	1880	165.89	-0.82	-2.08
14	SLU 29	6	11	1899	169.46	-0.82	-2.17
14	SLU 30	6	6	1880	165.89	-0.82	-2.08
14	SLU 31	6	8	2167	174.14	-1.02	-2.13
14	SLU 32	6	17	2197	180.09	-1.01	-2.28
14	SLU 33	6	11	2179	176.52	-1.01	-2.19
14	SLU 34	6	8	2167	174.14	-1.02	-2.13
14	SLU 35	6	17	2197	180.09	-1.01	-2.28
14	SLU 36	6	11	2179	176.52	-1.01	-2.19
14	SLU 37	6	17	2197	180.09	-1.01	-2.28
14	SLU 38	6	11	2179	176.52	-1.01	-2.19
14	SLU 39	6	19	2325	184.64	-1.09	-2.32
14	SLU 40	6	13	2307	181.07	-1.1	-2.23
14	SLU 41	6	19	2325	184.64	-1.09	-2.32
14	SLU 42	6	13	2307	181.07	-1.1	-2.23
14	SLU 43	7	9	2113	206.41	-0.83	-2.52
14	SLU 44	7	0	2083	200.46	-0.83	-2.37
14	SLU 45	7	9	2113	206.41	-0.83	-2.52
14	SLU 46	7	4	2095	202.84	-0.83	-2.43
14	SLU 47	7	0	2083	200.46	-0.83	-2.37
14	SLU 48	7	9	2113	206.41	-0.83	-2.52
14	SLU 49	7	4	2095	202.84	-0.83	-2.43
14	SLU 50	7	9	2113	206.41	-0.83	-2.52
14	SLU 51	7	4	2095	202.84	-0.83	-2.43
14	SLU 52	7	5	2381	211.09	-1.02	-2.48
14	SLU 53	7	14	2411	217.04	-1.02	-2.63
14	SLU 54	7	9	2393	213.47	-1.02	-2.54
14	SLU 55	7	5	2381	211.09	-1.02	-2.48
14	SLU 56	7	14	2411	217.04	-1.02	-2.63
14	SLU 57	7	9	2393	213.47	-1.02	-2.54
14	SLU 58	7	14	2411	217.04	-1.02	-2.63
14	SLU 59	7	9	2393	213.47	-1.02	-2.54
14	SLU 60	7	16	2539	221.59	-1.1	-2.67
14	SLU 61	7	11	2521	218.02	-1.11	-2.58
14	SLU 62	7	16	2539	221.59	-1.1	-2.67
14	SLU 63	7	11	2521	218.02	-1.11	-2.58
14	SLU 64	8	12	2329	214.87	-0.97	-2.7
14	SLU 65	7	3	2299	208.92	-0.98	-2.55
14	SLU 66	8	12	2329	214.87	-0.97	-2.7
14	SLU 67	7	7	2311	211.3	-0.97	-2.61
14	SLU 68	7	3	2299	208.92	-0.98	-2.55
14	SLU 69	8	12	2329	214.87	-0.97	-2.7
14	SLU 70	7	7	2311	211.3	-0.97	-2.61



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
14	SLU 71	8	12	2329	214.87	-0.97	-2.7
14	SLU 72	7	7	2311	211.3	-0.97	-2.61
14	SLU 73	7	9	2597	219.54	-1.17	-2.66
14	SLU 74	8	18	2627	225.49	-1.16	-2.81
14	SLU 75	8	12	2609	221.92	-1.17	-2.72
14	SLU 76	7	9	2597	219.54	-1.17	-2.66
14	SLU 77	8	18	2627	225.49	-1.16	-2.81
14	SLU 78	8	12	2609	221.92	-1.17	-2.72
14	SLU 79	8	18	2627	225.49	-1.16	-2.81
14	SLU 80	8	12	2609	221.92	-1.17	-2.72
14	SLU 81	8	20	2755	230.04	-1.25	-2.86
14	SLU 82	8	15	2737	226.47	-1.25	-2.77
14	SLU 83	8	20	2755	230.04	-1.25	-2.86
14	SLU 84	8	15	2737	226.47	-1.25	-2.77
14	SLE RA 1	6	9	1744	163.42	-0.72	-2.04
14	SLE RA 2	5	3	1724	159.46	-0.72	-1.94
14	SLE RA 3	6	9	1744	163.42	-0.72	-2.04
14	SLE RA 4	6	5	1732	161.04	-0.72	-1.98
14	SLE RA 5	5	3	1724	159.46	-0.72	-1.94
14	SLE RA 6	6	9	1744	163.42	-0.72	-2.04
14	SLE RA 7	6	5	1732	161.04	-0.72	-1.98
14	SLE RA 8	6	9	1744	163.42	-0.72	-2.04
14	SLE RA 9	6	5	1732	161.04	-0.72	-1.98
14	SLE RA 10	6	6	1923	166.54	-0.85	-2.01
14	SLE RA 11	6	12	1943	170.51	-0.84	-2.11
14	SLE RA 12	6	9	1931	168.13	-0.85	-2.05
14	SLE RA 13	6	6	1923	166.54	-0.85	-2.01
14	SLE RA 14	6	12	1943	170.51	-0.84	-2.11
14	SLE RA 15	6	9	1931	168.13	-0.85	-2.05
14	SLE RA 16	6	12	1943	170.51	-0.84	-2.11
14	SLE RA 17	6	9	1931	168.13	-0.85	-2.05
14	SLE RA 18	6	14	2028	173.54	-0.9	-2.14
14	SLE RA 19	6	10	2016	171.16	-0.9	-2.08
14	SLE RA 20	6	14	2028	173.54	-0.9	-2.14
14	SLE RA 21	6	10	2016	171.16	-0.9	-2.08
14	SLE FR 1	6	9	1744	163.42	-0.72	-2.04
14	SLE FR 2	6	8	1740	162.63	-0.72	-2.02
14	SLE FR 3	6	9	1744	163.42	-0.72	-2.04
14	SLE FR 4	6	9	1825	165.67	-0.77	-2.05
14	SLE FR 5	6	10	1829	166.46	-0.77	-2.07
14	SLE FR 6	6	11	1886	168.48	-0.81	-2.09
14	SLE QP 1	6	9	1744	163.42	-0.72	-2.04
14	SLE QP 2	6	10	1829	166.46	-0.77	-2.07
14	SLD 1	169	52	2001	166.8	-0.39	-59.38
14	SLD 2	206	37	1997	167.03	-0.41	-72.27
14	SLD 3	176	-34	1862	150.7	-0.29	-61.59
14	SLD 4	213	-49	1857	150.92	-0.32	-74.48
14	SLD 5	32	159	2094	190.91	-0.79	-11.15
14	SLD 6	70	143	2089	191.14	-0.82	-24.54
14	SLD 7	53	-128	1630	137.22	-0.47	-18.51
14	SLD 8	91	-144	1625	137.45	-0.5	-31.91
14	SLD 9	-80	164	2034	195.47	-1.04	27.77
14	SLD 10	-41	148	2029	195.7	-1.07	14.37
14	SLD 11	-59	-122	1570	141.77	-0.72	20.41
14	SLD 12	-20	-138	1565	142.01	-0.75	7.01
14	SLD 13	-201	70	1801	182	-1.23	70.35
14	SLD 14	-164	54	1796	182.22	-1.25	57.45
14	SLD 15	-195	-16	1662	165.89	-1.13	68.14
14	SLD 16	-158	-32	1657	166.11	-1.15	55.24
14	SLV 1	378	108	2226	167.69	0.09	-132.42
14	SLV 2	463	73	2214	168.2	0.04	-161.98
14	SLV 3	393	-93	1900	129.83	0.32	-137.58
14	SLV 4	478	-128	1889	130.34	0.26	-167.15
14	SLV 5	63	358	2446	224.06	-0.83	-22.2
14	SLV 6	152	321	2435	224.59	-0.89	-53.34
14	SLV 7	112	-312	1361	97.86	-0.08	-39.43
14	SLV 8	202	-350	1349	98.39	-0.14	-70.57
14	SLV 9	-190	370	2310	234.52	-1.4	66.43
14	SLV 10	-101	333	2298	235.06	-1.46	35.29
14	SLV 11	-141	-300	1224	108.32	-0.65	49.2
14	SLV 12	-51	-337	1212	108.86	-0.71	18.06
14	SLV 13	-466	149	1770	202.58	-1.81	163.01
14	SLV 14	-381	113	1759	203.09	-1.86	133.45
14	SLV 15	-451	-52	1444	164.72	-1.58	157.84
14	SLV 16	-366	-88	1433	165.23	-1.64	128.28
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	5	6	1713	188.46	-1.26	-1.98
15	SLU 2	5	-3	1683	182.48	-1.27	-1.87
15	SLU 3	5	6	1713	188.46	-1.26	-1.98
15	SLU 4	5	0	1695	184.88	-1.27	-1.92
15	SLU 5	5	-3	1683	182.48	-1.27	-1.87
15	SLU 6	5	6	1713	188.46	-1.26	-1.98
15	SLU 7	5	0	1695	184.88	-1.27	-1.92
15	SLU 8	5	6	1713	188.46	-1.26	-1.98
15	SLU 9	5	0	1695	184.88	-1.27	-1.92
15	SLU 10	5	2	1989	199.4	-1.59	-1.92
15	SLU 11	6	11	2019	205.38	-1.58	-2.02
15	SLU 12	5	6	2001	201.79	-1.59	-1.96



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
15	SLU 13	5	2	1989	199.4	-1.59	-1.92
15	SLU 14	6	11	2019	205.38	-1.58	-2.02
15	SLU 15	5	6	2001	201.79	-1.59	-1.96
15	SLU 16	6	11	2019	205.38	-1.58	-2.02
15	SLU 17	5	6	2001	201.79	-1.59	-1.96
15	SLU 18	6	13	2150	212.63	-1.72	-2.04
15	SLU 19	5	8	2132	209.04	-1.73	-1.98
15	SLU 20	6	13	2150	212.63	-1.72	-2.04
15	SLU 21	5	8	2132	209.04	-1.73	-1.98
15	SLU 22	6	9	1935	201.48	-1.5	-2.12
15	SLU 23	6	0	1905	195.5	-1.51	-2.01
15	SLU 24	6	9	1935	201.48	-1.5	-2.12
15	SLU 25	6	4	1917	197.89	-1.5	-2.05
15	SLU 26	6	0	1905	195.5	-1.51	-2.01
15	SLU 27	6	9	1935	201.48	-1.5	-2.12
15	SLU 28	6	4	1917	197.89	-1.5	-2.05
15	SLU 29	6	9	1935	201.48	-1.5	-2.12
15	SLU 30	6	4	1917	197.89	-1.5	-2.05
15	SLU 31	6	5	2211	212.42	-1.83	-2.05
15	SLU 32	6	14	2241	218.4	-1.82	-2.16
15	SLU 33	6	9	2223	214.81	-1.82	-2.09
15	SLU 34	6	5	2211	212.42	-1.83	-2.05
15	SLU 35	6	14	2241	218.4	-1.82	-2.16
15	SLU 36	6	9	2223	214.81	-1.82	-2.09
15	SLU 37	6	14	2241	218.4	-1.82	-2.16
15	SLU 38	6	9	2223	214.81	-1.82	-2.09
15	SLU 39	6	16	2372	225.65	-1.96	-2.18
15	SLU 40	6	11	2354	222.06	-1.96	-2.11
15	SLU 41	6	16	2372	225.65	-1.96	-2.18
15	SLU 42	6	11	2354	222.06	-1.96	-2.11
15	SLU 43	7	6	2150	240.54	-1.56	-2.53
15	SLU 44	7	-2	2120	234.56	-1.57	-2.42
15	SLU 45	7	6	2150	240.54	-1.56	-2.53
15	SLU 46	7	1	2132	236.95	-1.57	-2.47
15	SLU 47	7	-2	2120	234.56	-1.57	-2.42
15	SLU 48	7	6	2150	240.54	-1.56	-2.53
15	SLU 49	7	1	2132	236.95	-1.57	-2.47
15	SLU 50	7	6	2150	240.54	-1.56	-2.53
15	SLU 51	7	1	2132	236.95	-1.57	-2.47
15	SLU 52	7	3	2426	251.48	-1.89	-2.46
15	SLU 53	7	11	2456	257.45	-1.88	-2.57
15	SLU 54	7	6	2438	253.87	-1.89	-2.51
15	SLU 55	7	3	2426	251.48	-1.89	-2.46
15	SLU 56	7	11	2456	257.45	-1.88	-2.57
15	SLU 57	7	6	2438	253.87	-1.89	-2.51
15	SLU 58	7	11	2456	257.45	-1.88	-2.57
15	SLU 59	7	6	2438	253.87	-1.89	-2.51
15	SLU 60	7	13	2588	264.7	-2.02	-2.59
15	SLU 61	7	8	2570	261.12	-2.02	-2.52
15	SLU 62	7	13	2588	264.7	-2.02	-2.59
15	SLU 63	7	8	2570	261.12	-2.02	-2.52
15	SLU 64	7	10	2372	253.56	-1.8	-2.67
15	SLU 65	7	1	2342	247.58	-1.81	-2.56
15	SLU 66	7	10	2372	253.56	-1.8	-2.67
15	SLU 67	7	4	2354	249.97	-1.8	-2.6
15	SLU 68	7	1	2342	247.58	-1.81	-2.56
15	SLU 69	7	10	2372	253.56	-1.8	-2.67
15	SLU 70	7	4	2354	249.97	-1.8	-2.6
15	SLU 71	7	10	2372	253.56	-1.8	-2.67
15	SLU 72	7	4	2354	249.97	-1.8	-2.6
15	SLU 73	7	6	2649	264.49	-2.13	-2.6
15	SLU 74	7	15	2678	270.47	-2.12	-2.71
15	SLU 75	7	9	2661	266.89	-2.12	-2.64
15	SLU 76	7	6	2649	264.49	-2.13	-2.6
15	SLU 77	7	15	2678	270.47	-2.12	-2.71
15	SLU 78	7	9	2661	266.89	-2.12	-2.64
15	SLU 79	7	15	2678	270.47	-2.12	-2.71
15	SLU 80	7	9	2661	266.89	-2.12	-2.64
15	SLU 81	7	17	2810	277.72	-2.25	-2.72
15	SLU 82	7	12	2792	274.14	-2.26	-2.66
15	SLU 83	7	17	2810	277.72	-2.25	-2.72
15	SLU 84	7	12	2792	274.14	-2.26	-2.66
15	SLE RA 1	6	7	1776	192.18	-1.33	-2.02
15	SLE RA 2	5	1	1756	188.2	-1.34	-1.95
15	SLE RA 3	6	7	1776	192.18	-1.33	-2.02
15	SLE RA 4	5	3	1764	189.79	-1.33	-1.98
15	SLE RA 5	5	1	1756	188.2	-1.34	-1.95
15	SLE RA 6	6	7	1776	192.18	-1.33	-2.02
15	SLE RA 7	5	3	1764	189.79	-1.33	-1.98
15	SLE RA 8	6	7	1776	192.18	-1.33	-2.02
15	SLE RA 9	5	3	1764	189.79	-1.33	-1.98
15	SLE RA 10	5	4	1960	199.47	-1.55	-1.98
15	SLE RA 11	6	10	1980	203.46	-1.54	-2.05
15	SLE RA 12	5	7	1968	201.07	-1.55	-2.01
15	SLE RA 13	5	4	1960	199.47	-1.55	-1.98
15	SLE RA 14	6	10	1980	203.46	-1.54	-2.05
15	SLE RA 15	5	7	1968	201.07	-1.55	-2.01
15	SLE RA 16	6	10	1980	203.46	-1.54	-2.05
15	SLE RA 17	5	7	1968	201.07	-1.55	-2.01
15	SLE RA 18	6	11	2068	208.29	-1.63	-2.06
15	SLE RA 19	6	8	2056	205.9	-1.64	-2.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
15	SLE RA 20	6	11	2068	208.29	-1.63	-2.06
15	SLE RA 21	6	8	2056	205.9	-1.64	-2.02
15	SLE FR 1	6	7	1776	192.18	-1.33	-2.02
15	SLE FR 2	6	5	1772	191.39	-1.33	-2.01
15	SLE FR 3	6	7	1776	192.18	-1.33	-2.02
15	SLE FR 4	6	7	1859	196.22	-1.42	-2.02
15	SLE FR 5	6	8	1863	197.02	-1.42	-2.03
15	SLE FR 6	6	9	1922	200.24	-1.48	-2.04
15	SLE QP 1	6	7	1776	192.18	-1.33	-2.02
15	SLE QP 2	6	8	1863	197.02	-1.42	-2.03
15	SLD 1	169	49	2025	196.12	-1.14	-59.35
15	SLD 2	206	35	2021	196.41	-1.16	-72.24
15	SLD 3	176	-37	1882	182.09	-0.93	-61.6
15	SLD 4	213	-51	1878	182.38	-0.95	-74.49
15	SLD 5	31	155	2132	217.91	-1.65	-11.05
15	SLD 6	70	141	2127	218.22	-1.67	-24.45
15	SLD 7	53	-131	1653	171.15	-0.94	-18.55
15	SLD 8	91	-145	1648	171.46	-0.96	-31.95
15	SLD 9	-80	161	2079	222.57	-1.88	27.88
15	SLD 10	-42	147	2074	222.88	-1.9	14.49
15	SLD 11	-59	-125	1600	175.81	-1.17	20.38
15	SLD 12	-20	-139	1595	176.12	-1.19	6.98
15	SLD 13	-202	67	1849	211.65	-1.9	70.43
15	SLD 14	-165	53	1845	211.94	-1.92	57.53
15	SLD 15	-195	-19	1706	197.62	-1.68	68.18
15	SLD 16	-158	-33	1702	197.92	-1.7	55.28
15	SLV 1	378	103	2237	195.34	-0.78	-132.38
15	SLV 2	463	72	2227	196.01	-0.83	-161.95
15	SLV 3	393	-98	1901	162.34	-0.29	-137.65
15	SLV 4	478	-128	1891	163.02	-0.33	-167.22
15	SLV 5	62	353	2489	246.3	-1.97	-22.01
15	SLV 6	152	320	2478	247.01	-2.02	-53.15
15	SLV 7	113	-316	1369	136.32	-0.31	-39.58
15	SLV 8	202	-349	1359	137.03	-0.36	-70.72
15	SLV 9	-191	365	2368	257	-2.49	66.65
15	SLV 10	-102	333	2358	257.71	-2.53	35.51
15	SLV 11	-141	-304	1248	147.02	-0.83	49.08
15	SLV 12	-51	-336	1238	147.73	-0.87	17.94
15	SLV 13	-467	145	1836	231.01	-2.51	163.15
15	SLV 14	-382	114	1826	231.69	-2.56	133.59
15	SLV 15	-451	-56	1500	198.02	-2.01	157.88
15	SLV 16	-367	-87	1490	198.7	-2.06	128.32
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
15	CRTFP Uy-	0	0	0	0	0	0
16	SLU 1	5	3	1761	229.87	-1.82	-2
16	SLU 2	5	-6	1731	223.87	-1.84	-1.94
16	SLU 3	5	3	1761	229.87	-1.82	-2
16	SLU 4	5	-2	1743	226.27	-1.83	-1.96
16	SLU 5	5	-6	1731	223.87	-1.84	-1.94
16	SLU 6	5	3	1761	229.87	-1.82	-2
16	SLU 7	5	-2	1743	226.27	-1.83	-1.96
16	SLU 8	5	3	1761	229.87	-1.82	-2
16	SLU 9	5	-2	1743	226.27	-1.83	-1.96
16	SLU 10	5	-1	2049	250.22	-2.28	-1.91
16	SLU 11	5	8	2079	256.22	-2.26	-1.98
16	SLU 12	5	2	2061	252.62	-2.27	-1.94
16	SLU 13	5	-1	2049	250.22	-2.28	-1.91
16	SLU 14	5	8	2079	256.22	-2.26	-1.98
16	SLU 15	5	2	2061	252.62	-2.27	-1.94
16	SLU 16	5	8	2079	256.22	-2.26	-1.98
16	SLU 17	5	2	2061	252.62	-2.27	-1.94
16	SLU 18	5	10	2215	267.51	-2.45	-1.97
16	SLU 19	5	4	2197	263.91	-2.46	-1.93
16	SLU 20	5	10	2215	267.51	-2.45	-1.97
16	SLU 21	5	4	2197	263.91	-2.46	-1.93
16	SLU 22	6	6	1991	249.7	-2.14	-2.09
16	SLU 23	5	-3	1962	243.7	-2.16	-2.02
16	SLU 24	6	6	1991	249.7	-2.14	-2.09
16	SLU 25	6	1	1974	246.1	-2.15	-2.05
16	SLU 26	5	-3	1962	243.7	-2.16	-2.02
16	SLU 27	6	6	1991	249.7	-2.14	-2.09
16	SLU 28	6	1	1974	246.1	-2.15	-2.05
16	SLU 29	6	6	1991	249.7	-2.14	-2.09
16	SLU 30	6	1	1974	246.1	-2.15	-2.05
16	SLU 31	5	2	2280	270.05	-2.6	-2
16	SLU 32	6	11	2310	276.05	-2.59	-2.07
16	SLU 33	5	5	2292	272.45	-2.6	-2.03
16	SLU 34	5	2	2280	270.05	-2.6	-2
16	SLU 35	6	11	2310	276.05	-2.59	-2.07
16	SLU 36	5	5	2292	272.45	-2.6	-2.03
16	SLU 37	6	11	2310	276.05	-2.59	-2.07
16	SLU 38	5	5	2292	272.45	-2.6	-2.03
16	SLU 39	5	13	2446	287.34	-2.78	-2.06
16	SLU 40	5	7	2428	283.74	-2.79	-2.02
16	SLU 41	5	13	2446	287.34	-2.78	-2.06
16	SLU 42	5	7	2428	283.74	-2.79	-2.02
16	SLU 43	7	3	2210	292.04	-2.25	-2.57
16	SLU 44	7	-6	2180	286.04	-2.27	-2.51
16	SLU 45	7	3	2210	292.04	-2.25	-2.57



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
16	SLU 46	7	-2	2192	288.44	-2.26	-2.53
16	SLU 47	7	-6	2180	286.04	-2.27	-2.51
16	SLU 48	7	3	2210	292.04	-2.25	-2.57
16	SLU 49	7	-2	2192	288.44	-2.26	-2.53
16	SLU 50	7	3	2210	292.04	-2.25	-2.57
16	SLU 51	7	-2	2192	288.44	-2.26	-2.53
16	SLU 52	7	-1	2498	312.38	-2.71	-2.48
16	SLU 53	7	7	2528	318.38	-2.7	-2.55
16	SLU 54	7	2	2510	314.78	-2.71	-2.51
16	SLU 55	7	-1	2498	312.38	-2.71	-2.48
16	SLU 56	7	7	2528	318.38	-2.7	-2.55
16	SLU 57	7	2	2510	314.78	-2.71	-2.51
16	SLU 58	7	7	2528	318.38	-2.7	-2.55
16	SLU 59	7	2	2510	314.78	-2.71	-2.51
16	SLU 60	7	9	2664	329.68	-2.89	-2.54
16	SLU 61	7	4	2646	326.07	-2.9	-2.5
16	SLU 62	7	9	2664	329.68	-2.89	-2.54
16	SLU 63	7	4	2646	326.07	-2.9	-2.5
16	SLU 64	7	6	2440	311.87	-2.58	-2.66
16	SLU 65	7	-3	2411	305.87	-2.59	-2.59
16	SLU 66	7	6	2440	311.87	-2.58	-2.66
16	SLU 67	7	1	2423	308.27	-2.59	-2.62
16	SLU 68	7	-3	2411	305.87	-2.59	-2.59
16	SLU 69	7	6	2440	311.87	-2.58	-2.66
16	SLU 70	7	1	2423	308.27	-2.59	-2.62
16	SLU 71	7	6	2440	311.87	-2.58	-2.66
16	SLU 72	7	1	2423	308.27	-2.59	-2.62
16	SLU 73	7	2	2729	332.21	-3.04	-2.57
16	SLU 74	7	10	2759	338.21	-3.02	-2.64
16	SLU 75	7	5	2741	334.61	-3.03	-2.6
16	SLU 76	7	2	2729	332.21	-3.04	-2.57
16	SLU 77	7	10	2759	338.21	-3.02	-2.64
16	SLU 78	7	5	2741	334.61	-3.03	-2.6
16	SLU 79	7	10	2759	338.21	-3.02	-2.64
16	SLU 80	7	5	2741	334.61	-3.03	-2.6
16	SLU 81	7	12	2895	349.51	-3.21	-2.63
16	SLU 82	7	7	2877	345.91	-3.22	-2.59
16	SLU 83	7	12	2895	349.51	-3.21	-2.63
16	SLU 84	7	7	2877	345.91	-3.22	-2.59
16	SLE RA 1	5	4	1827	235.54	-1.91	-2.03
16	SLE RA 2	5	-2	1807	231.54	-1.92	-1.98
16	SLE RA 3	5	4	1827	235.54	-1.91	-2.03
16	SLE RA 4	5	0	1815	233.14	-1.92	-2
16	SLE RA 5	5	-2	1807	231.54	-1.92	-1.98
16	SLE RA 6	5	4	1827	235.54	-1.91	-2.03
16	SLE RA 7	5	0	1815	233.14	-1.92	-2
16	SLE RA 8	5	4	1827	235.54	-1.91	-2.03
16	SLE RA 9	5	0	1815	233.14	-1.92	-2
16	SLE RA 10	5	1	2019	249.1	-2.22	-1.97
16	SLE RA 11	5	7	2039	253.1	-2.21	-2.01
16	SLE RA 12	5	3	2027	250.7	-2.21	-1.98
16	SLE RA 13	5	1	2019	249.1	-2.22	-1.97
16	SLE RA 14	5	7	2039	253.1	-2.21	-2.01
16	SLE RA 15	5	3	2027	250.7	-2.21	-1.98
16	SLE RA 16	5	7	2039	253.1	-2.21	-2.01
16	SLE RA 17	5	3	2027	250.7	-2.21	-1.98
16	SLE RA 18	5	8	2129	260.63	-2.33	-2.01
16	SLE RA 19	5	5	2118	258.23	-2.34	-1.98
16	SLE RA 20	5	8	2129	260.63	-2.33	-2.01
16	SLE RA 21	5	5	2118	258.23	-2.34	-1.98
16	SLE FR 1	5	4	1827	235.54	-1.91	-2.03
16	SLE FR 2	5	3	1823	234.74	-1.91	-2.02
16	SLE FR 3	5	4	1827	235.54	-1.91	-2.03
16	SLE FR 4	5	4	1913	242.27	-2.04	-2.01
16	SLE FR 5	5	5	1917	243.07	-2.04	-2.02
16	SLE FR 6	5	6	1978	248.09	-2.12	-2.02
16	SLE QP 1	5	4	1827	235.54	-1.91	-2.03
16	SLE QP 2	5	5	1917	243.07	-2.04	-2.02
16	SLD 1	169	45	2072	241.47	-1.84	-59.33
16	SLD 2	206	34	2068	241.78	-1.85	-72.22
16	SLD 3	176	-42	1921	228.9	-1.52	-61.62
16	SLD 4	213	-53	1917	229.21	-1.53	-74.51
16	SLD 5	31	153	2195	261.54	-2.46	-10.97
16	SLD 6	69	141	2191	261.86	-2.48	-24.37
16	SLD 7	53	-136	1690	219.63	-1.39	-18.62
16	SLD 8	91	-148	1686	219.96	-1.4	-32.01
16	SLD 9	-80	159	2148	266.17	-2.67	27.97
16	SLD 10	-42	147	2145	266.5	-2.69	14.57
16	SLD 11	-58	-131	1644	224.27	-1.6	20.32
16	SLD 12	-20	-143	1640	224.6	-1.62	6.93
16	SLD 13	-202	63	1918	256.92	-2.55	70.47
16	SLD 14	-165	52	1914	257.24	-2.56	57.58
16	SLD 15	-195	-23	1767	244.35	-2.22	68.18
16	SLD 16	-158	-35	1763	244.67	-2.24	55.28
16	SLV 1	378	99	2274	239.71	-1.59	-132.34
16	SLV 2	462	72	2266	240.43	-1.63	-161.91
16	SLV 3	393	-104	1920	210.15	-0.84	-137.72
16	SLV 4	478	-131	1912	210.88	-0.88	-167.28
16	SLV 5	62	351	2564	286.61	-3.03	-21.84
16	SLV 6	151	323	2555	287.38	-3.07	-52.97
16	SLV 7	113	-326	1385	188.1	-0.52	-39.75



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
16	SLV 8	202	-354	1376	188.86	-0.56	-70.88
16	SLV 9	-192	364	2459	297.28	-3.52	66.83
16	SLV 10	-102	336	2450	298.04	-3.56	35.7
16	SLV 11	-140	-313	1279	198.76	-1.01	48.93
16	SLV 12	-51	-341	1271	199.52	-1.05	17.8
16	SLV 13	-467	141	1923	275.26	-3.2	163.23
16	SLV 14	-382	114	1915	275.98	-3.24	133.67
16	SLV 15	-451	-62	1569	245.7	-2.45	157.86
16	SLV 16	-367	-89	1561	246.43	-2.49	128.3
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	6	-1	1825	284.63	-2.34	-2.05
17	SLU 2	5	-9	1796	278.59	-2.36	-2.02
17	SLU 3	6	-1	1825	284.63	-2.34	-2.05
17	SLU 4	5	-6	1808	281.01	-2.35	-2.03
17	SLU 5	5	-9	1796	278.59	-2.36	-2.02
17	SLU 6	6	-1	1825	284.63	-2.34	-2.05
17	SLU 7	5	-6	1808	281.01	-2.35	-2.03
17	SLU 8	6	-1	1825	284.63	-2.34	-2.05
17	SLU 9	5	-6	1808	281.01	-2.35	-2.03
17	SLU 10	5	-5	2130	317.38	-2.91	-1.93
17	SLU 11	5	3	2159	323.42	-2.89	-1.96
17	SLU 12	5	-2	2142	319.8	-2.91	-1.94
17	SLU 13	5	-5	2130	317.38	-2.91	-1.93
17	SLU 14	5	3	2159	323.42	-2.89	-1.96
17	SLU 15	5	-2	2142	319.8	-2.91	-1.94
17	SLU 16	5	3	2159	323.42	-2.89	-1.96
17	SLU 17	5	-2	2142	319.8	-2.91	-1.94
17	SLU 18	5	5	2302	340.04	-3.13	-1.92
17	SLU 19	5	0	2285	336.42	-3.15	-1.9
17	SLU 20	5	5	2302	340.04	-3.13	-1.92
17	SLU 21	5	0	2285	336.42	-3.15	-1.9
17	SLU 22	6	2	2068	313.43	-2.74	-2.1
17	SLU 23	5	-7	2039	307.4	-2.76	-2.06
17	SLU 24	6	2	2068	313.43	-2.74	-2.1
17	SLU 25	6	-3	2050	309.81	-2.75	-2.08
17	SLU 26	5	-7	2039	307.4	-2.76	-2.06
17	SLU 27	6	2	2068	313.43	-2.74	-2.1
17	SLU 28	6	-3	2050	309.81	-2.75	-2.08
17	SLU 29	6	2	2068	313.43	-2.74	-2.1
17	SLU 30	6	-3	2050	309.81	-2.75	-2.08
17	SLU 31	5	-3	2372	346.18	-3.32	-1.97
17	SLU 32	5	6	2401	352.22	-3.3	-2.01
17	SLU 33	5	1	2384	348.6	-3.31	-1.99
17	SLU 34	5	-3	2372	346.18	-3.32	-1.97
17	SLU 35	5	6	2401	352.22	-3.3	-2.01
17	SLU 36	5	1	2384	348.6	-3.31	-1.99
17	SLU 37	5	6	2401	352.22	-3.3	-2.01
17	SLU 38	5	1	2384	348.6	-3.31	-1.99
17	SLU 39	5	8	2544	368.84	-3.54	-1.97
17	SLU 40	5	2	2527	365.22	-3.55	-1.95
17	SLU 41	5	8	2544	368.84	-3.54	-1.97
17	SLU 42	5	2	2527	365.22	-3.55	-1.95
17	SLU 43	7	-2	2290	360.14	-2.9	-2.65
17	SLU 44	7	-10	2261	354.11	-2.92	-2.62
17	SLU 45	7	-2	2290	360.14	-2.9	-2.65
17	SLU 46	7	-7	2273	356.52	-2.91	-2.63
17	SLU 47	7	-10	2261	354.11	-2.92	-2.62
17	SLU 48	7	-2	2290	360.14	-2.9	-2.65
17	SLU 49	7	-7	2273	356.52	-2.91	-2.63
17	SLU 50	7	-2	2290	360.14	-2.9	-2.65
17	SLU 51	7	-7	2273	356.52	-2.91	-2.63
17	SLU 52	7	-6	2595	392.9	-3.48	-2.53
17	SLU 53	7	2	2624	398.93	-3.46	-2.56
17	SLU 54	7	-3	2606	395.31	-3.47	-2.54
17	SLU 55	7	-6	2595	392.9	-3.48	-2.53
17	SLU 56	7	2	2624	398.93	-3.46	-2.56
17	SLU 57	7	-3	2606	395.31	-3.47	-2.54
17	SLU 58	7	2	2624	398.93	-3.46	-2.56
17	SLU 59	7	-3	2606	395.31	-3.47	-2.54
17	SLU 60	7	4	2767	415.55	-3.7	-2.52
17	SLU 61	7	-1	2749	411.93	-3.71	-2.5
17	SLU 62	7	4	2767	415.55	-3.7	-2.52
17	SLU 63	7	-1	2749	411.93	-3.71	-2.5
17	SLU 64	7	1	2532	388.95	-3.3	-2.7
17	SLU 65	7	-8	2503	382.91	-3.32	-2.66
17	SLU 66	7	1	2532	388.95	-3.3	-2.7
17	SLU 67	7	-4	2515	385.32	-3.32	-2.68
17	SLU 68	7	-8	2503	382.91	-3.32	-2.66
17	SLU 69	7	1	2532	388.95	-3.3	-2.7
17	SLU 70	7	-4	2515	385.32	-3.32	-2.68
17	SLU 71	7	1	2532	388.95	-3.3	-2.7
17	SLU 72	7	-4	2515	385.32	-3.32	-2.68
17	SLU 73	7	-4	2837	421.7	-3.88	-2.57
17	SLU 74	7	5	2866	427.73	-3.86	-2.61
17	SLU 75	7	0	2849	424.11	-3.87	-2.59
17	SLU 76	7	-4	2837	421.7	-3.88	-2.57
17	SLU 77	7	5	2866	427.73	-3.86	-2.61
17	SLU 78	7	0	2849	424.11	-3.87	-2.59



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
17	SLU 79	7	5	2866	427.73	-3.86	-2.61
17	SLU 80	7	0	2849	424.11	-3.87	-2.59
17	SLU 81	7	7	3009	444.36	-4.1	-2.57
17	SLU 82	7	1	2992	440.73	-4.11	-2.55
17	SLU 83	7	7	3009	444.36	-4.1	-2.57
17	SLU 84	7	1	2992	440.73	-4.11	-2.55
17	SLE RA 1	6	0	1895	292.86	-2.45	-2.07
17	SLE RA 2	5	-6	1875	288.84	-2.47	-2.04
17	SLE RA 3	6	0	1895	292.86	-2.45	-2.07
17	SLE RA 4	6	-3	1883	290.45	-2.46	-2.05
17	SLE RA 5	5	-6	1875	288.84	-2.47	-2.04
17	SLE RA 6	6	0	1895	292.86	-2.45	-2.07
17	SLE RA 7	6	-3	1883	290.45	-2.46	-2.05
17	SLE RA 8	6	0	1895	292.86	-2.45	-2.07
17	SLE RA 9	6	-3	1883	290.45	-2.46	-2.05
17	SLE RA 10	5	-3	2098	314.69	-2.84	-1.98
17	SLE RA 11	5	3	2117	318.72	-2.82	-2.01
17	SLE RA 12	5	-1	2106	316.3	-2.83	-1.99
17	SLE RA 13	5	-3	2098	314.69	-2.84	-1.98
17	SLE RA 14	5	3	2117	318.72	-2.82	-2.01
17	SLE RA 15	5	-1	2106	316.3	-2.83	-1.99
17	SLE RA 16	5	3	2117	318.72	-2.82	-2.01
17	SLE RA 17	5	-1	2106	316.3	-2.83	-1.99
17	SLE RA 18	5	4	2212	329.8	-2.98	-1.98
17	SLE RA 19	5	0	2201	327.38	-2.99	-1.97
17	SLE RA 20	5	4	2212	329.8	-2.98	-1.98
17	SLE RA 21	5	0	2201	327.38	-2.99	-1.97
17	SLE FR 1	6	0	1895	292.86	-2.45	-2.07
17	SLE FR 2	6	-1	1891	292.05	-2.46	-2.06
17	SLE FR 3	6	0	1895	292.86	-2.45	-2.07
17	SLE FR 4	5	0	1986	303.14	-2.61	-2.03
17	SLE FR 5	5	1	1990	303.94	-2.61	-2.04
17	SLE FR 6	5	2	2053	311.33	-2.72	-2.02
17	SLE QP 1	6	0	1895	292.86	-2.45	-2.07
17	SLE QP 2	5	1	1990	303.94	-2.61	-2.04
17	SLD 1	169	42	2139	303.77	-2.47	-59.32
17	SLD 2	206	32	2136	304.07	-2.49	-72.21
17	SLD 3	176	-47	1977	288.8	-2.06	-61.66
17	SLD 4	213	-57	1974	289.1	-2.07	-74.54
17	SLD 5	31	152	2282	326.48	-3.2	-10.93
17	SLD 6	69	142	2279	326.79	-3.22	-24.31
17	SLD 7	53	-144	1741	276.59	-1.8	-18.71
17	SLD 8	91	-155	1738	276.9	-1.82	-32.09
17	SLD 9	-81	157	2242	330.98	-3.41	28.01
17	SLD 10	-42	147	2239	331.3	-3.42	14.63
17	SLD 11	-58	-139	1701	281.09	-2.01	20.23
17	SLD 12	-20	-149	1698	281.4	-2.02	6.85
17	SLD 13	-202	60	2006	318.78	-3.15	70.46
17	SLD 14	-165	50	2003	319.08	-3.17	57.58
17	SLD 15	-195	-29	1844	303.81	-2.74	68.13
17	SLD 16	-158	-39	1841	304.11	-2.75	55.25
17	SLV 1	377	96	2335	303.82	-2.31	-132.31
17	SLV 2	462	73	2328	304.51	-2.34	-161.85
17	SLV 3	393	-112	1956	268.76	-1.33	-137.78
17	SLV 4	478	-135	1949	269.44	-1.36	-167.32
17	SLV 5	61	353	2671	356.83	-3.99	-21.7
17	SLV 6	150	329	2663	357.55	-4.03	-52.81
17	SLV 7	114	-339	1408	239.95	-0.73	-39.94
17	SLV 8	203	-364	1400	240.67	-0.76	-71.05
17	SLV 9	-192	366	2580	367.21	-4.46	66.97
17	SLV 10	-103	342	2572	367.94	-4.5	35.86
17	SLV 11	-140	-327	1317	250.33	-1.19	48.73
17	SLV 12	-50	-351	1309	251.05	-1.23	17.62
17	SLV 13	-467	138	2031	338.44	-3.86	163.24
17	SLV 14	-382	115	2024	339.12	-3.89	133.71
17	SLV 15	-451	-70	1652	303.37	-2.88	157.77
17	SLV 16	-367	-93	1645	304.06	-2.91	128.23
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	6	-5	1905	351.67	-2.77	-2.13
18	SLU 2	6	-13	1877	345.57	-2.79	-2.13
18	SLU 3	6	-5	1905	351.67	-2.77	-2.13
18	SLU 4	6	-10	1888	348.01	-2.79	-2.13
18	SLU 5	6	-13	1877	345.57	-2.79	-2.13
18	SLU 6	6	-5	1905	351.67	-2.77	-2.13
18	SLU 7	6	-10	1888	348.01	-2.79	-2.13
18	SLU 8	6	-5	1905	351.67	-2.77	-2.13
18	SLU 9	6	-10	1888	348.01	-2.79	-2.13
18	SLU 10	5	-10	2229	399.57	-3.45	-1.97
18	SLU 11	5	-1	2258	405.68	-3.43	-1.98
18	SLU 12	5	-7	2241	402.01	-3.44	-1.98
18	SLU 13	5	-10	2229	399.57	-3.45	-1.97
18	SLU 14	5	-1	2258	405.68	-3.43	-1.98
18	SLU 15	5	-7	2241	402.01	-3.44	-1.98
18	SLU 16	5	-1	2258	405.68	-3.43	-1.98
18	SLU 17	5	-7	2241	402.01	-3.44	-1.98
18	SLU 18	5	0	2409	428.82	-3.71	-1.91
18	SLU 19	5	-5	2392	425.16	-3.72	-1.91
18	SLU 20	5	0	2409	428.82	-3.71	-1.91



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
18	SLU 21	5	-5	2392	425.16	-3.72	-1.91
18	SLU 22	6	-3	2161	391.45	-3.25	-2.14
18	SLU 23	6	-11	2133	385.34	-3.27	-2.13
18	SLU 24	6	-3	2161	391.45	-3.25	-2.14
18	SLU 25	6	-8	2144	387.78	-3.26	-2.13
18	SLU 26	6	-11	2133	385.34	-3.27	-2.13
18	SLU 27	6	-3	2161	391.45	-3.25	-2.14
18	SLU 28	6	-8	2144	387.78	-3.26	-2.13
18	SLU 29	6	-3	2161	391.45	-3.25	-2.14
18	SLU 30	6	-8	2144	387.78	-3.26	-2.13
18	SLU 31	5	-8	2485	439.35	-3.92	-1.98
18	SLU 32	5	0	2514	445.45	-3.9	-1.98
18	SLU 33	5	-5	2497	441.79	-3.91	-1.98
18	SLU 34	5	-8	2485	439.35	-3.92	-1.98
18	SLU 35	5	0	2514	445.45	-3.9	-1.98
18	SLU 36	5	-5	2497	441.79	-3.91	-1.98
18	SLU 37	5	0	2514	445.45	-3.9	-1.98
18	SLU 38	5	-5	2497	441.79	-3.91	-1.98
18	SLU 39	5	2	2665	468.59	-4.18	-1.92
18	SLU 40	5	-3	2648	464.93	-4.19	-1.91
18	SLU 41	5	2	2665	468.59	-4.18	-1.92
18	SLU 42	5	-3	2648	464.93	-4.19	-1.91
18	SLU 43	7	-6	2389	443.54	-3.44	-2.77
18	SLU 44	7	-15	2361	437.43	-3.46	-2.77
18	SLU 45	7	-6	2389	443.54	-3.44	-2.77
18	SLU 46	7	-12	2372	439.88	-3.46	-2.77
18	SLU 47	7	-15	2361	437.43	-3.46	-2.77
18	SLU 48	7	-6	2389	443.54	-3.44	-2.77
18	SLU 49	7	-12	2372	439.88	-3.46	-2.77
18	SLU 50	7	-6	2389	443.54	-3.44	-2.77
18	SLU 51	7	-12	2372	439.88	-3.46	-2.77
18	SLU 52	7	-12	2713	491.44	-4.12	-2.61
18	SLU 53	7	-3	2742	497.54	-4.1	-2.62
18	SLU 54	7	-9	2725	493.88	-4.11	-2.62
18	SLU 55	7	-12	2713	491.44	-4.12	-2.61
18	SLU 56	7	-3	2742	497.54	-4.1	-2.62
18	SLU 57	7	-9	2725	493.88	-4.11	-2.62
18	SLU 58	7	-3	2742	497.54	-4.1	-2.62
18	SLU 59	7	-9	2725	493.88	-4.11	-2.62
18	SLU 60	7	-2	2893	520.69	-4.38	-2.55
18	SLU 61	7	-7	2876	517.02	-4.39	-2.55
18	SLU 62	7	-2	2893	520.69	-4.38	-2.55
18	SLU 63	7	-7	2876	517.02	-4.39	-2.55
18	SLU 64	7	-5	2645	483.31	-3.92	-2.78
18	SLU 65	7	-13	2617	477.21	-3.94	-2.77
18	SLU 66	7	-5	2645	483.31	-3.92	-2.78
18	SLU 67	7	-10	2628	479.65	-3.93	-2.77
18	SLU 68	7	-13	2617	477.21	-3.94	-2.77
18	SLU 69	7	-5	2645	483.31	-3.92	-2.78
18	SLU 70	7	-10	2628	479.65	-3.93	-2.77
18	SLU 71	7	-5	2645	483.31	-3.92	-2.78
18	SLU 72	7	-10	2628	479.65	-3.93	-2.77
18	SLU 73	7	-10	2969	531.21	-4.59	-2.62
18	SLU 74	7	-2	2998	537.32	-4.57	-2.62
18	SLU 75	7	-7	2981	533.65	-4.58	-2.62
18	SLU 76	7	-10	2969	531.21	-4.59	-2.62
18	SLU 77	7	-2	2998	537.32	-4.57	-2.62
18	SLU 78	7	-7	2981	533.65	-4.58	-2.62
18	SLU 79	7	-2	2998	537.32	-4.57	-2.62
18	SLU 80	7	-7	2981	533.65	-4.58	-2.62
18	SLU 81	7	0	3149	560.46	-4.85	-2.56
18	SLU 82	7	-5	3132	556.8	-4.86	-2.55
18	SLU 83	7	0	3149	560.46	-4.85	-2.56
18	SLU 84	7	-5	3132	556.8	-4.86	-2.55
18	SLE RA 1	6	-4	1978	363.04	-2.91	-2.13
18	SLE RA 2	6	-10	1959	358.97	-2.92	-2.13
18	SLE RA 3	6	-4	1978	363.04	-2.91	-2.13
18	SLE RA 4	6	-7	1967	360.6	-2.92	-2.13
18	SLE RA 5	6	-10	1959	358.97	-2.92	-2.13
18	SLE RA 6	6	-4	1978	363.04	-2.91	-2.13
18	SLE RA 7	6	-7	1967	360.6	-2.92	-2.13
18	SLE RA 8	6	-4	1978	363.04	-2.91	-2.13
18	SLE RA 9	6	-7	1967	360.6	-2.92	-2.13
18	SLE RA 10	5	-8	2195	394.97	-3.36	-2.03
18	SLE RA 11	5	-2	2213	399.04	-3.34	-2.03
18	SLE RA 12	5	-5	2202	396.6	-3.35	-2.03
18	SLE RA 13	5	-8	2195	394.97	-3.36	-2.03
18	SLE RA 14	5	-2	2213	399.04	-3.34	-2.03
18	SLE RA 15	5	-5	2202	396.6	-3.35	-2.03
18	SLE RA 16	5	-2	2213	399.04	-3.34	-2.03
18	SLE RA 17	5	-5	2202	396.6	-3.35	-2.03
18	SLE RA 18	5	-1	2314	414.47	-3.53	-1.99
18	SLE RA 19	5	-5	2303	412.03	-3.54	-1.99
18	SLE RA 20	5	-1	2314	414.47	-3.53	-1.99
18	SLE RA 21	5	-5	2303	412.03	-3.54	-1.99
18	SLE FR 1	6	-4	1978	363.04	-2.91	-2.13
18	SLE FR 2	6	-5	1975	362.22	-2.91	-2.13
18	SLE FR 3	6	-4	1978	363.04	-2.91	-2.13
18	SLE FR 4	6	-4	2075	377.65	-3.1	-2.09
18	SLE FR 5	6	-3	2079	378.47	-3.1	-2.09
18	SLE FR 6	5	-3	2146	388.75	-3.22	-2.06



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
18	SLE QP 1	6	-4	1978	363.04	-2.91	-2.13
18	SLE QP 2	6	-3	2079	378.47	-3.1	-2.09
18	SLD 1	169	38	2225	382.15	-3	-59.34
18	SLD 2	206	29	2222	382.41	-3.02	-72.21
18	SLD 3	176	-54	2049	360.1	-2.51	-61.72
18	SLD 4	213	-62	2047	360.36	-2.52	-74.58
18	SLD 5	31	152	2390	412.92	-3.81	-10.91
18	SLD 6	69	143	2387	413.19	-3.83	-24.28
18	SLD 7	53	-154	1805	339.42	-2.16	-18.83
18	SLD 8	92	-163	1802	339.69	-2.18	-32.19
18	SLD 9	-81	157	2356	417.25	-4.02	28.01
18	SLD 10	-42	148	2353	417.51	-4.03	14.65
18	SLD 11	-58	-149	1771	343.75	-2.36	20.1
18	SLD 12	-19	-158	1768	344.02	-2.38	6.73
18	SLD 13	-202	56	2111	396.58	-3.67	70.4
18	SLD 14	-165	48	2109	396.84	-3.68	57.54
18	SLD 15	-195	-36	1936	374.53	-3.18	68.03
18	SLD 16	-158	-44	1933	374.79	-3.19	55.16
18	SLV 1	377	93	2417	387.24	-2.9	-132.29
18	SLV 2	462	74	2410	387.83	-2.93	-161.79
18	SLV 3	393	-121	2006	335.71	-1.74	-137.86
18	SLV 4	478	-141	2000	336.3	-1.77	-167.36
18	SLV 5	61	358	2805	459.03	-4.78	-21.59
18	SLV 6	150	338	2798	459.65	-4.81	-52.66
18	SLV 7	114	-357	1437	287.26	-0.92	-40.16
18	SLV 8	204	-377	1431	287.89	-0.95	-71.23
18	SLV 9	-192	371	2727	469.05	-5.24	67.05
18	SLV 10	-103	350	2721	469.67	-5.27	35.98
18	SLV 11	-139	-344	1360	297.28	-1.38	48.48
18	SLV 12	-50	-365	1353	297.91	-1.41	17.41
18	SLV 13	-467	135	2158	420.64	-4.42	163.18
18	SLV 14	-382	115	2152	421.23	-4.45	133.68
18	SLV 15	-451	-80	1748	369.11	-3.26	157.61
18	SLV 16	-366	-99	1741	369.7	-3.29	128.11
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	6	-9	1996	428.86	-3.05	-2.25
19	SLU 2	6	-18	1969	422.62	-3.07	-2.27
19	SLU 3	6	-9	1996	428.86	-3.05	-2.25
19	SLU 4	6	-14	1980	425.12	-3.07	-2.26
19	SLU 5	6	-18	1969	422.62	-3.07	-2.27
19	SLU 6	6	-9	1996	428.86	-3.05	-2.25
19	SLU 7	6	-14	1980	425.12	-3.07	-2.26
19	SLU 8	6	-9	1996	428.86	-3.05	-2.25
19	SLU 9	6	-14	1980	425.12	-3.07	-2.26
19	SLU 10	5	-16	2343	494.14	-3.79	-2.05
19	SLU 11	5	-7	2370	500.38	-3.77	-2.04
19	SLU 12	5	-12	2354	496.64	-3.78	-2.05
19	SLU 13	5	-16	2343	494.14	-3.79	-2.05
19	SLU 14	5	-7	2370	500.38	-3.77	-2.04
19	SLU 15	5	-12	2354	496.64	-3.78	-2.05
19	SLU 16	5	-7	2370	500.38	-3.77	-2.04
19	SLU 17	5	-12	2354	496.64	-3.78	-2.05
19	SLU 18	5	-6	2531	531.03	-4.07	-1.95
19	SLU 19	5	-11	2514	527.29	-4.09	-1.96
19	SLU 20	5	-6	2531	531.03	-4.07	-1.95
19	SLU 21	5	-11	2514	527.29	-4.09	-1.96
19	SLU 22	6	-8	2268	481.26	-3.57	-2.21
19	SLU 23	6	-17	2240	475.03	-3.59	-2.23
19	SLU 24	6	-8	2268	481.26	-3.57	-2.21
19	SLU 25	6	-13	2251	477.52	-3.58	-2.22
19	SLU 26	6	-17	2240	475.03	-3.59	-2.23
19	SLU 27	6	-8	2268	481.26	-3.57	-2.21
19	SLU 28	6	-13	2251	477.52	-3.58	-2.22
19	SLU 29	6	-8	2268	481.26	-3.57	-2.21
19	SLU 30	6	-13	2251	477.52	-3.58	-2.22
19	SLU 31	5	-15	2614	546.54	-4.3	-2.02
19	SLU 32	5	-6	2642	552.78	-4.29	-2
19	SLU 33	5	-11	2625	549.04	-4.3	-2.01
19	SLU 34	5	-15	2614	546.54	-4.3	-2.02
19	SLU 35	5	-6	2642	552.78	-4.29	-2
19	SLU 36	5	-11	2625	549.04	-4.3	-2.01
19	SLU 37	5	-6	2642	552.78	-4.29	-2
19	SLU 38	5	-11	2625	549.04	-4.3	-2.01
19	SLU 39	5	-5	2802	583.43	-4.59	-1.91
19	SLU 40	5	-10	2785	579.69	-4.6	-1.92
19	SLU 41	5	-5	2802	583.43	-4.59	-1.91
19	SLU 42	5	-10	2785	579.69	-4.6	-1.92
19	SLU 43	8	-12	2502	539.55	-3.79	-2.94
19	SLU 44	8	-21	2474	533.32	-3.81	-2.95
19	SLU 45	8	-12	2502	539.55	-3.79	-2.94
19	SLU 46	8	-17	2485	535.81	-3.8	-2.95
19	SLU 47	8	-21	2474	533.32	-3.81	-2.95
19	SLU 48	8	-12	2502	539.55	-3.79	-2.94
19	SLU 49	8	-17	2485	535.81	-3.8	-2.95
19	SLU 50	8	-12	2502	539.55	-3.79	-2.94
19	SLU 51	8	-17	2485	535.81	-3.8	-2.95
19	SLU 52	7	-19	2848	604.83	-4.52	-2.74
19	SLU 53	7	-10	2876	611.07	-4.51	-2.73



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
19	SLU 54	7	-15	2859	607.33	-4.52	-2.73
19	SLU 55	7	-19	2848	604.83	-4.52	-2.74
19	SLU 56	7	-10	2876	611.07	-4.51	-2.73
19	SLU 57	7	-15	2859	607.33	-4.52	-2.73
19	SLU 58	7	-10	2876	611.07	-4.51	-2.73
19	SLU 59	7	-15	2859	607.33	-4.52	-2.73
19	SLU 60	7	-9	3036	641.72	-4.81	-2.63
19	SLU 61	7	-14	3020	637.98	-4.82	-2.64
19	SLU 62	7	-9	3036	641.72	-4.81	-2.63
19	SLU 63	7	-14	3020	637.98	-4.82	-2.64
19	SLU 64	8	-11	2774	591.95	-4.31	-2.9
19	SLU 65	8	-20	2746	585.72	-4.33	-2.92
19	SLU 66	8	-11	2774	591.95	-4.31	-2.9
19	SLU 67	8	-16	2757	588.21	-4.32	-2.91
19	SLU 68	8	-20	2746	585.72	-4.33	-2.92
19	SLU 69	8	-11	2774	591.95	-4.31	-2.9
19	SLU 70	8	-16	2757	588.21	-4.32	-2.91
19	SLU 71	8	-11	2774	591.95	-4.31	-2.9
19	SLU 72	8	-16	2757	588.21	-4.32	-2.91
19	SLU 73	7	-18	3120	657.23	-5.04	-2.7
19	SLU 74	7	-9	3148	663.47	-5.03	-2.69
19	SLU 75	7	-14	3131	659.73	-5.04	-2.7
19	SLU 76	7	-18	3120	657.23	-5.04	-2.7
19	SLU 77	7	-9	3148	663.47	-5.03	-2.69
19	SLU 78	7	-14	3131	659.73	-5.04	-2.7
19	SLU 79	7	-9	3148	663.47	-5.03	-2.69
19	SLU 80	7	-14	3131	659.73	-5.04	-2.7
19	SLU 81	7	-8	3308	694.12	-5.33	-2.6
19	SLU 82	7	-13	3291	690.38	-5.34	-2.61
19	SLU 83	7	-8	3308	694.12	-5.33	-2.6
19	SLU 84	7	-13	3291	690.38	-5.34	-2.61
19	SLE RA 1	6	-8	2074	443.83	-3.2	-2.24
19	SLE RA 2	6	-14	2055	439.67	-3.21	-2.25
19	SLE RA 3	6	-8	2074	443.83	-3.2	-2.24
19	SLE RA 4	6	-12	2063	441.34	-3.21	-2.25
19	SLE RA 5	6	-14	2055	439.67	-3.21	-2.25
19	SLE RA 6	6	-8	2074	443.83	-3.2	-2.24
19	SLE RA 7	6	-12	2063	441.34	-3.21	-2.25
19	SLE RA 8	6	-8	2074	443.83	-3.2	-2.24
19	SLE RA 9	6	-12	2063	441.34	-3.21	-2.25
19	SLE RA 10	6	-13	2305	487.35	-3.69	-2.11
19	SLE RA 11	6	-7	2323	491.51	-3.68	-2.1
19	SLE RA 12	6	-11	2312	489.01	-3.69	-2.1
19	SLE RA 13	6	-13	2305	487.35	-3.69	-2.11
19	SLE RA 14	6	-7	2323	491.51	-3.68	-2.1
19	SLE RA 15	6	-11	2312	489.01	-3.69	-2.1
19	SLE RA 16	6	-7	2323	491.51	-3.68	-2.1
19	SLE RA 17	6	-11	2312	489.01	-3.69	-2.1
19	SLE RA 18	5	-6	2430	511.94	-3.88	-2.04
19	SLE RA 19	5	-10	2419	509.45	-3.89	-2.04
19	SLE RA 20	5	-6	2430	511.94	-3.88	-2.04
19	SLE RA 21	5	-10	2419	509.45	-3.89	-2.04
19	SLE FR 1	6	-8	2074	443.83	-3.2	-2.24
19	SLE FR 2	6	-10	2070	443	-3.21	-2.24
19	SLE FR 3	6	-8	2074	443.83	-3.2	-2.24
19	SLE FR 4	6	-9	2177	463.43	-3.41	-2.18
19	SLE FR 5	6	-8	2181	464.26	-3.41	-2.18
19	SLE FR 6	6	-7	2252	477.89	-3.54	-2.14
19	SLE QP 1	6	-8	2074	443.83	-3.2	-2.24
19	SLE QP 2	6	-8	2181	464.26	-3.41	-2.18
19	SLD 1	176	34	2325	473.15	-3.34	-59.39
19	SLD 2	213	27	2322	473.36	-3.35	-72.23
19	SLD 3	169	-61	2133	441.21	-2.8	-61.8
19	SLD 4	206	-68	2131	441.42	-2.81	-74.65
19	SLD 5	54	152	2514	515.3	-4.2	-10.94
19	SLD 6	92	144	2512	515.51	-4.21	-24.28
19	SLD 7	31	-165	1878	408.83	-2.4	-18.98
19	SLD 8	69	-173	1875	409.04	-2.42	-32.33
19	SLD 9	-57	157	2486	519.48	-4.4	27.97
19	SLD 10	-19	150	2484	519.7	-4.41	14.62
19	SLD 11	-81	-160	1849	413.02	-2.6	19.92
19	SLD 12	-42	-167	1847	413.23	-2.62	6.58
19	SLD 13	-194	52	2230	487.11	-4	70.29
19	SLD 14	-158	45	2228	487.31	-4.02	57.44
19	SLD 15	-201	-43	2039	455.17	-3.47	67.87
19	SLD 16	-165	-50	2037	455.37	-3.48	55.03
19	SLV 1	394	91	2514	485.1	-3.26	-132.27
19	SLV 2	478	75	2509	485.56	-3.29	-161.72
19	SLV 3	377	-131	2068	410.5	-2	-137.94
19	SLV 4	462	-147	2063	410.97	-2.03	-167.39
19	SLV 5	115	365	2960	583.47	-5.26	-21.53
19	SLV 6	204	348	2954	583.96	-5.29	-52.54
19	SLV 7	61	-376	1472	334.83	-1.07	-40.41
19	SLV 8	150	-393	1466	335.32	-1.1	-71.42
19	SLV 9	-138	377	2895	593.21	-5.72	67.07
19	SLV 10	-49	360	2889	593.7	-5.75	36.05
19	SLV 11	-193	-364	1407	344.56	-1.52	48.18
19	SLV 12	-104	-381	1402	345.05	-1.55	17.17
19	SLV 13	-450	132	2299	517.56	-4.78	163.03
19	SLV 14	-366	115	2294	518.02	-4.81	133.58
19	SLV 15	-467	-91	1853	442.96	-3.52	157.37



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
19	SLV 16	-382	-107	1847	443.43	-3.55	127.91
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	7	-13	2092	512.23	-3.06	-2.41
20	SLU 2	7	-22	2065	505.8	-3.07	-2.44
20	SLU 3	7	-13	2092	512.23	-3.06	-2.41
20	SLU 4	7	-18	2076	508.37	-3.07	-2.43
20	SLU 5	7	-22	2065	505.8	-3.07	-2.44
20	SLU 6	7	-13	2092	512.23	-3.06	-2.41
20	SLU 7	7	-18	2076	508.37	-3.07	-2.43
20	SLU 8	7	-13	2092	512.23	-3.06	-2.41
20	SLU 9	7	-18	2076	508.37	-3.07	-2.43
20	SLU 10	6	-21	2461	596.24	-3.78	-2.17
20	SLU 11	6	-12	2489	602.68	-3.77	-2.15
20	SLU 12	6	-18	2472	598.82	-3.78	-2.16
20	SLU 13	6	-21	2461	596.24	-3.78	-2.17
20	SLU 14	6	-12	2489	602.68	-3.77	-2.15
20	SLU 15	6	-18	2472	598.82	-3.78	-2.16
20	SLU 16	6	-12	2489	602.68	-3.77	-2.15
20	SLU 17	6	-18	2472	598.82	-3.78	-2.16
20	SLU 18	5	-12	2658	641.44	-4.08	-2.03
20	SLU 19	5	-17	2642	637.58	-4.08	-2.05
20	SLU 20	5	-12	2658	641.44	-4.08	-2.03
20	SLU 21	5	-17	2642	637.58	-4.08	-2.05
20	SLU 22	6	-13	2380	578.28	-3.58	-2.34
20	SLU 23	6	-22	2353	571.85	-3.59	-2.37
20	SLU 24	6	-13	2380	578.28	-3.58	-2.34
20	SLU 25	6	-18	2364	574.42	-3.59	-2.36
20	SLU 26	6	-22	2353	571.85	-3.59	-2.37
20	SLU 27	6	-13	2380	578.28	-3.58	-2.34
20	SLU 28	6	-18	2364	574.42	-3.59	-2.36
20	SLU 29	6	-13	2380	578.28	-3.58	-2.34
20	SLU 30	6	-18	2364	574.42	-3.59	-2.36
20	SLU 31	5	-21	2749	662.29	-4.3	-2.1
20	SLU 32	5	-12	2776	668.73	-4.29	-2.08
20	SLU 33	5	-17	2760	664.87	-4.3	-2.09
20	SLU 34	5	-21	2749	662.29	-4.3	-2.1
20	SLU 35	5	-12	2776	668.73	-4.29	-2.08
20	SLU 36	5	-17	2760	664.87	-4.3	-2.09
20	SLU 37	5	-12	2776	668.73	-4.29	-2.08
20	SLU 38	5	-17	2760	664.87	-4.3	-2.09
20	SLU 39	5	-11	2946	707.49	-4.6	-1.96
20	SLU 40	5	-17	2930	703.63	-4.6	-1.98
20	SLU 41	5	-11	2946	707.49	-4.6	-1.96
20	SLU 42	5	-17	2930	703.63	-4.6	-1.98
20	SLU 43	9	-17	2621	643.26	-3.8	-3.16
20	SLU 44	9	-26	2594	636.82	-3.81	-3.19
20	SLU 45	9	-17	2621	643.26	-3.8	-3.16
20	SLU 46	9	-22	2605	639.4	-3.81	-3.18
20	SLU 47	9	-26	2594	636.82	-3.81	-3.19
20	SLU 48	9	-17	2621	643.26	-3.8	-3.16
20	SLU 49	9	-22	2605	639.4	-3.81	-3.18
20	SLU 50	9	-17	2621	643.26	-3.8	-3.16
20	SLU 51	9	-22	2605	639.4	-3.81	-3.18
20	SLU 52	8	-25	2990	727.27	-4.52	-2.92
20	SLU 53	8	-16	3018	733.7	-4.51	-2.89
20	SLU 54	8	-22	3001	729.84	-4.52	-2.91
20	SLU 55	8	-25	2990	727.27	-4.52	-2.92
20	SLU 56	8	-16	3018	733.7	-4.51	-2.89
20	SLU 57	8	-22	3001	729.84	-4.52	-2.91
20	SLU 58	8	-16	3018	733.7	-4.51	-2.89
20	SLU 59	8	-22	3001	729.84	-4.52	-2.91
20	SLU 60	7	-16	3187	772.46	-4.82	-2.78
20	SLU 61	7	-21	3171	768.6	-4.83	-2.8
20	SLU 62	7	-16	3187	772.46	-4.82	-2.78
20	SLU 63	7	-21	3171	768.6	-4.83	-2.8
20	SLU 64	8	-17	2909	709.31	-4.32	-3.09
20	SLU 65	8	-26	2882	702.87	-4.33	-3.12
20	SLU 66	8	-17	2909	709.31	-4.32	-3.09
20	SLU 67	8	-22	2893	705.45	-4.33	-3.11
20	SLU 68	8	-26	2882	702.87	-4.33	-3.12
20	SLU 69	8	-17	2909	709.31	-4.32	-3.09
20	SLU 70	8	-22	2893	705.45	-4.33	-3.11
20	SLU 71	8	-17	2909	709.31	-4.32	-3.09
20	SLU 72	8	-22	2893	705.45	-4.33	-3.11
20	SLU 73	7	-25	3278	793.32	-5.04	-2.85
20	SLU 74	7	-16	3305	799.75	-5.03	-2.82
20	SLU 75	7	-21	3289	795.89	-5.04	-2.84
20	SLU 76	7	-25	3278	793.32	-5.04	-2.85
20	SLU 77	7	-16	3305	799.75	-5.03	-2.82
20	SLU 78	7	-21	3289	795.89	-5.04	-2.84
20	SLU 79	7	-16	3305	799.75	-5.03	-2.82
20	SLU 80	7	-21	3289	795.89	-5.04	-2.84
20	SLU 81	7	-15	3475	838.51	-5.34	-2.71
20	SLU 82	7	-21	3459	834.65	-5.34	-2.73
20	SLU 83	7	-15	3475	838.51	-5.34	-2.71
20	SLU 84	7	-21	3459	834.65	-5.34	-2.73
20	SLE RA 1	6	-13	2174	531.11	-3.21	-2.39
20	SLE RA 2	6	-19	2156	526.82	-3.22	-2.41



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
20	SLE RA 3	6	-13	2174	531.11	-3.21	-2.39
20	SLE RA 4	6	-17	2163	528.53	-3.21	-2.4
20	SLE RA 5	6	-19	2156	526.82	-3.22	-2.41
20	SLE RA 6	6	-13	2174	531.11	-3.21	-2.39
20	SLE RA 7	6	-17	2163	528.53	-3.21	-2.4
20	SLE RA 8	6	-13	2174	531.11	-3.21	-2.39
20	SLE RA 9	6	-17	2163	528.53	-3.21	-2.4
20	SLE RA 10	6	-18	2420	587.11	-3.69	-2.23
20	SLE RA 11	6	-12	2439	591.4	-3.68	-2.22
20	SLE RA 12	6	-16	2428	588.83	-3.69	-2.23
20	SLE RA 13	6	-18	2420	587.11	-3.69	-2.23
20	SLE RA 14	6	-12	2439	591.4	-3.68	-2.22
20	SLE RA 15	6	-16	2428	588.83	-3.69	-2.23
20	SLE RA 16	6	-12	2439	591.4	-3.68	-2.22
20	SLE RA 17	6	-16	2428	588.83	-3.69	-2.23
20	SLE RA 18	6	-12	2552	617.24	-3.89	-2.14
20	SLE RA 19	6	-16	2541	614.67	-3.89	-2.15
20	SLE RA 20	6	-12	2552	617.24	-3.89	-2.14
20	SLE RA 21	6	-16	2541	614.67	-3.89	-2.15
20	SLE FR 1	6	-13	2174	531.11	-3.21	-2.39
20	SLE FR 2	6	-14	2171	530.25	-3.21	-2.4
20	SLE FR 3	6	-13	2174	531.11	-3.21	-2.39
20	SLE FR 4	6	-14	2284	556.09	-3.41	-2.32
20	SLE FR 5	6	-13	2288	556.95	-3.41	-2.32
20	SLE FR 6	6	-12	2363	574.17	-3.55	-2.27
20	SLE QP 1	6	-13	2174	531.11	-3.21	-2.39
20	SLE QP 2	6	-13	2288	556.95	-3.41	-2.32
20	SLD 1	177	31	2430	571.49	-3.33	-61.93
20	SLD 2	213	26	2428	571.63	-3.34	-74.74
20	SLD 3	169	-68	2223	528.54	-2.8	-59.47
20	SLD 4	206	-73	2221	528.68	-2.82	-72.29
20	SLD 5	55	152	2645	626.39	-4.19	-19.19
20	SLD 6	93	146	2643	626.54	-4.2	-32.5
20	SLD 7	31	-177	1955	483.23	-2.42	-11.01
20	SLD 8	69	-182	1953	483.38	-2.43	-24.32
20	SLD 9	-57	157	2623	630.51	-4.39	19.69
20	SLD 10	-18	151	2621	630.66	-4.4	6.37
20	SLD 11	-80	-172	1932	487.35	-2.62	27.87
20	SLD 12	-42	-177	1930	487.5	-2.64	14.55
20	SLD 13	-194	48	2354	585.21	-4.01	67.65
20	SLD 14	-157	42	2352	585.35	-4.02	54.84
20	SLD 15	-201	-51	2147	542.27	-3.48	70.1
20	SLD 16	-164	-56	2145	542.4	-3.49	57.29
20	SLV 1	394	90	2619	590.9	-3.25	-138.04
20	SLV 2	478	77	2614	591.22	-3.27	-167.43
20	SLV 3	377	-141	2135	490.61	-2.01	-132.28
20	SLV 4	462	-153	2130	490.93	-2.04	-161.67
20	SLV 5	116	372	3123	719.12	-5.23	-40.71
20	SLV 6	205	359	3118	719.45	-5.26	-71.65
20	SLV 7	61	-396	1509	384.82	-1.1	-21.51
20	SLV 8	149	-409	1505	385.16	-1.13	-52.45
20	SLV 9	-137	384	3071	728.74	-5.69	47.82
20	SLV 10	-48	371	3066	729.07	-5.72	16.87
20	SLV 11	-193	-384	1457	394.44	-1.57	67.02
20	SLV 12	-104	-398	1453	394.77	-1.59	36.07
20	SLV 13	-449	128	2445	622.96	-4.79	157.03
20	SLV 14	-365	115	2441	623.28	-4.81	127.65
20	SLV 15	-466	-102	1961	522.67	-3.55	162.79
20	SLV 16	-382	-115	1957	522.99	-3.58	133.41
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	7	-17	2182	595.47	-2.62	-2.64
21	SLU 2	7	-26	2155	588.76	-2.62	-2.67
21	SLU 3	7	-17	2182	595.47	-2.62	-2.64
21	SLU 4	7	-22	2166	591.44	-2.62	-2.66
21	SLU 5	7	-26	2155	588.76	-2.62	-2.67
21	SLU 6	7	-17	2182	595.47	-2.62	-2.64
21	SLU 7	7	-22	2166	591.44	-2.62	-2.66
21	SLU 8	7	-17	2182	595.47	-2.62	-2.64
21	SLU 9	7	-22	2166	591.44	-2.62	-2.66
21	SLU 10	6	-26	2572	698.12	-3.23	-2.36
21	SLU 11	6	-17	2599	704.84	-3.23	-2.33
21	SLU 12	6	-23	2583	700.81	-3.23	-2.34
21	SLU 13	6	-26	2572	698.12	-3.23	-2.36
21	SLU 14	6	-17	2599	704.84	-3.23	-2.33
21	SLU 15	6	-23	2583	700.81	-3.23	-2.34
21	SLU 16	6	-17	2599	704.84	-3.23	-2.33
21	SLU 17	6	-23	2583	700.81	-3.23	-2.34
21	SLU 18	6	-17	2778	751.71	-3.49	-2.19
21	SLU 19	6	-23	2761	747.68	-3.49	-2.21
21	SLU 20	6	-17	2778	751.71	-3.49	-2.19
21	SLU 21	6	-23	2761	747.68	-3.49	-2.21
21	SLU 22	7	-17	2485	675.17	-3.06	-2.54
21	SLU 23	7	-27	2458	668.46	-3.07	-2.57
21	SLU 24	7	-17	2485	675.17	-3.06	-2.54
21	SLU 25	7	-23	2468	671.14	-3.06	-2.56
21	SLU 26	7	-27	2458	668.46	-3.07	-2.57
21	SLU 27	7	-17	2485	675.17	-3.06	-2.54
21	SLU 28	7	-23	2468	671.14	-3.06	-2.56



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
21	SLU 29	7	-17	2485	675.17	-3.06	-2.54
21	SLU 30	7	-23	2468	671.14	-3.06	-2.56
21	SLU 31	6	-27	2875	777.82	-3.68	-2.26
21	SLU 32	6	-18	2902	784.54	-3.67	-2.23
21	SLU 33	6	-23	2886	780.51	-3.67	-2.25
21	SLU 34	6	-27	2875	777.82	-3.68	-2.26
21	SLU 35	6	-18	2902	784.54	-3.67	-2.23
21	SLU 36	6	-23	2886	780.51	-3.67	-2.25
21	SLU 37	6	-18	2902	784.54	-3.67	-2.23
21	SLU 38	6	-23	2886	780.51	-3.67	-2.25
21	SLU 39	5	-18	3081	831.41	-3.93	-2.09
21	SLU 40	6	-23	3064	827.38	-3.93	-2.11
21	SLU 41	5	-18	3081	831.41	-3.93	-2.09
21	SLU 42	6	-23	3064	827.38	-3.93	-2.11
21	SLU 43	10	-21	2732	746.79	-3.25	-3.46
21	SLU 44	10	-31	2705	740.07	-3.26	-3.49
21	SLU 45	10	-21	2732	746.79	-3.25	-3.46
21	SLU 46	10	-27	2716	742.76	-3.25	-3.48
21	SLU 47	10	-31	2705	740.07	-3.26	-3.49
21	SLU 48	10	-21	2732	746.79	-3.25	-3.46
21	SLU 49	10	-27	2716	742.76	-3.25	-3.48
21	SLU 50	10	-21	2732	746.79	-3.25	-3.46
21	SLU 51	10	-27	2716	742.76	-3.25	-3.48
21	SLU 52	9	-31	3123	849.44	-3.86	-3.18
21	SLU 53	9	-22	3150	856.16	-3.86	-3.15
21	SLU 54	9	-27	3133	852.13	-3.86	-3.17
21	SLU 55	9	-31	3123	849.44	-3.86	-3.18
21	SLU 56	9	-22	3150	856.16	-3.86	-3.15
21	SLU 57	9	-27	3133	852.13	-3.86	-3.17
21	SLU 58	9	-22	3150	856.16	-3.86	-3.15
21	SLU 59	9	-27	3133	852.13	-3.86	-3.17
21	SLU 60	8	-22	3328	903.03	-4.12	-3.02
21	SLU 61	8	-27	3312	899	-4.12	-3.03
21	SLU 62	8	-22	3328	903.03	-4.12	-3.02
21	SLU 63	8	-27	3312	899	-4.12	-3.03
21	SLU 64	9	-22	3035	826.49	-3.69	-3.37
21	SLU 65	9	-32	3008	819.77	-3.7	-3.39
21	SLU 66	9	-22	3035	826.49	-3.69	-3.37
21	SLU 67	9	-28	3019	822.46	-3.7	-3.38
21	SLU 68	9	-32	3008	819.77	-3.7	-3.39
21	SLU 69	9	-22	3035	826.49	-3.69	-3.37
21	SLU 70	9	-28	3019	822.46	-3.7	-3.38
21	SLU 71	9	-22	3035	826.49	-3.69	-3.37
21	SLU 72	9	-28	3019	822.46	-3.7	-3.38
21	SLU 73	8	-32	3425	929.14	-4.31	-3.08
21	SLU 74	8	-22	3452	935.86	-4.3	-3.05
21	SLU 75	8	-28	3436	931.83	-4.31	-3.07
21	SLU 76	8	-32	3425	929.14	-4.31	-3.08
21	SLU 77	8	-22	3452	935.86	-4.3	-3.05
21	SLU 78	8	-28	3436	931.83	-4.31	-3.07
21	SLU 79	8	-22	3452	935.86	-4.3	-3.05
21	SLU 80	8	-28	3436	931.83	-4.31	-3.07
21	SLU 81	8	-22	3631	982.73	-4.56	-2.92
21	SLU 82	8	-28	3615	978.7	-4.57	-2.94
21	SLU 83	8	-22	3631	982.73	-4.56	-2.92
21	SLU 84	8	-28	3615	978.7	-4.57	-2.94
21	SLE RA 1	7	-17	2268	618.24	-2.74	-2.61
21	SLE RA 2	7	-23	2250	613.77	-2.75	-2.63
21	SLE RA 3	7	-17	2268	618.24	-2.74	-2.61
21	SLE RA 4	7	-21	2257	615.56	-2.75	-2.62
21	SLE RA 5	7	-23	2250	613.77	-2.75	-2.63
21	SLE RA 6	7	-17	2268	618.24	-2.74	-2.61
21	SLE RA 7	7	-21	2257	615.56	-2.75	-2.62
21	SLE RA 8	7	-17	2268	618.24	-2.74	-2.61
21	SLE RA 9	7	-21	2257	615.56	-2.75	-2.62
21	SLE RA 10	7	-23	2528	686.68	-3.15	-2.42
21	SLE RA 11	6	-17	2546	691.16	-3.15	-2.4
21	SLE RA 12	7	-21	2536	688.47	-3.15	-2.41
21	SLE RA 13	7	-23	2528	686.68	-3.15	-2.42
21	SLE RA 14	6	-17	2546	691.16	-3.15	-2.4
21	SLE RA 15	7	-21	2536	688.47	-3.15	-2.41
21	SLE RA 16	6	-17	2546	691.16	-3.15	-2.4
21	SLE RA 17	7	-21	2536	688.47	-3.15	-2.41
21	SLE RA 18	6	-17	2666	722.4	-3.32	-2.31
21	SLE RA 19	6	-21	2655	719.72	-3.33	-2.32
21	SLE RA 20	6	-17	2666	722.4	-3.32	-2.31
21	SLE RA 21	6	-21	2655	719.72	-3.33	-2.32
21	SLE FR 1	7	-17	2268	618.24	-2.74	-2.61
21	SLE FR 2	7	-18	2265	617.35	-2.74	-2.61
21	SLE FR 3	7	-17	2268	618.24	-2.74	-2.61
21	SLE FR 4	7	-18	2384	648.6	-2.92	-2.53
21	SLE FR 5	7	-17	2387	649.49	-2.92	-2.52
21	SLE FR 6	7	-17	2467	670.32	-3.03	-2.46
21	SLE QP 1	7	-17	2268	618.24	-2.74	-2.61
21	SLE QP 2	7	-17	2387	649.49	-2.92	-2.52
21	SLD 1	177	28	2529	669.43	-2.79	-62.11
21	SLD 2	214	24	2527	669.49	-2.8	-74.88
21	SLD 3	170	-74	2307	615.85	-2.35	-59.61
21	SLD 4	207	-77	2305	615.91	-2.36	-72.38
21	SLD 5	55	152	2767	736.72	-3.55	-19.46
21	SLD 6	93	149	2766	736.78	-3.56	-32.74



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
21	SLD 7	31	-187	2027	558.11	-2.07	-11.14
21	SLD 8	69	-191	2025	558.17	-2.08	-24.41
21	SLD 9	-56	157	2750	740.81	-3.76	19.37
21	SLD 10	-18	153	2748	740.88	-3.77	6.1
21	SLD 11	-80	-182	2009	562.2	-2.27	27.7
21	SLD 12	-42	-186	2008	562.27	-2.29	14.42
21	SLD 13	-193	44	2470	683.07	-3.48	67.34
21	SLD 14	-156	40	2468	683.14	-3.49	54.57
21	SLD 15	-200	-58	2248	629.49	-3.03	69.84
21	SLD 16	-163	-62	2246	629.55	-3.05	57.06
21	SLV 1	395	89	2716	696.01	-2.64	-138.19
21	SLV 2	479	80	2713	696.15	-2.67	-167.49
21	SLV 3	378	-149	2197	570.89	-1.6	-132.33
21	SLV 4	462	-158	2194	571.03	-1.63	-161.63
21	SLV 5	117	379	3274	853.16	-4.4	-41.08
21	SLV 6	206	370	3270	853.31	-4.43	-71.94
21	SLV 7	61	-414	1545	436.09	-0.94	-21.54
21	SLV 8	149	-423	1541	436.24	-0.97	-52.4
21	SLV 9	-136	389	3234	862.74	-4.87	47.35
21	SLV 10	-47	380	3230	862.89	-4.9	16.5
21	SLV 11	-192	-404	1504	445.68	-1.41	66.89
21	SLV 12	-104	-413	1501	445.83	-1.44	36.04
21	SLV 13	-448	124	2581	727.95	-4.21	156.59
21	SLV 14	-364	116	2578	728.09	-4.24	127.29
21	SLV 15	-465	-114	2062	602.83	-3.17	162.45
21	SLV 16	-381	-122	2059	602.98	-3.2	133.15
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	8	-17	2047	609.15	34.36	-2.37
22	SLU 2	8	-26	2022	602.71	33.94	-2.24
22	SLU 3	8	-17	2047	609.15	34.36	-2.37
22	SLU 4	8	-23	2032	605.29	34.11	-2.29
22	SLU 5	8	-26	2022	602.71	33.94	-2.24
22	SLU 6	8	-17	2047	609.15	34.36	-2.37
22	SLU 7	8	-23	2032	605.29	34.11	-2.29
22	SLU 8	8	-17	2047	609.15	34.36	-2.37
22	SLU 9	8	-23	2032	605.29	34.11	-2.29
22	SLU 10	7	-27	2416	717.55	40.5	-1.91
22	SLU 11	7	-18	2440	723.99	40.92	-2.04
22	SLU 12	7	-24	2426	720.13	40.67	-1.96
22	SLU 13	7	-27	2416	717.55	40.5	-1.91
22	SLU 14	7	-18	2440	723.99	40.92	-2.04
22	SLU 15	7	-24	2426	720.13	40.67	-1.96
22	SLU 16	7	-18	2440	723.99	40.92	-2.04
22	SLU 17	7	-24	2426	720.13	40.67	-1.96
22	SLU 18	6	-19	2609	773.21	43.73	-1.9
22	SLU 19	6	-24	2594	769.35	43.48	-1.82
22	SLU 20	6	-19	2609	773.21	43.73	-1.9
22	SLU 21	6	-24	2594	769.35	43.48	-1.82
22	SLU 22	7	-18	2333	692.72	39.12	-2.25
22	SLU 23	7	-27	2308	686.28	38.7	-2.12
22	SLU 24	7	-18	2333	692.72	39.12	-2.25
22	SLU 25	7	-24	2318	688.86	38.87	-2.17
22	SLU 26	7	-27	2308	686.28	38.7	-2.12
22	SLU 27	7	-18	2333	692.72	39.12	-2.25
22	SLU 28	7	-24	2318	688.86	38.87	-2.17
22	SLU 29	7	-18	2333	692.72	39.12	-2.25
22	SLU 30	7	-24	2318	688.86	38.87	-2.17
22	SLU 31	6	-28	2702	801.12	45.26	-1.78
22	SLU 32	6	-20	2726	807.56	45.68	-1.92
22	SLU 33	6	-25	2712	803.7	45.43	-1.84
22	SLU 34	6	-28	2702	801.12	45.26	-1.78
22	SLU 35	6	-20	2726	807.56	45.68	-1.92
22	SLU 36	6	-25	2712	803.7	45.43	-1.84
22	SLU 37	6	-20	2726	807.56	45.68	-1.92
22	SLU 38	6	-25	2712	803.7	45.43	-1.84
22	SLU 39	6	-20	2895	856.78	48.5	-1.77
22	SLU 40	6	-25	2880	852.92	48.24	-1.69
22	SLU 41	6	-20	2895	856.78	48.5	-1.77
22	SLU 42	6	-25	2880	852.92	48.24	-1.69
22	SLU 43	10	-22	2562	763.24	43.04	-3.13
22	SLU 44	10	-31	2538	756.8	42.61	-3
22	SLU 45	10	-22	2562	763.24	43.04	-3.13
22	SLU 46	10	-27	2548	759.38	42.78	-3.05
22	SLU 47	10	-31	2538	756.8	42.61	-3
22	SLU 48	10	-22	2562	763.24	43.04	-3.13
22	SLU 49	10	-27	2548	759.38	42.78	-3.05
22	SLU 50	10	-22	2562	763.24	43.04	-3.13
22	SLU 51	10	-27	2548	759.38	42.78	-3.05
22	SLU 52	9	-32	2932	871.65	49.17	-2.66
22	SLU 53	9	-23	2956	878.09	49.6	-2.8
22	SLU 54	9	-28	2941	874.22	49.34	-2.72
22	SLU 55	9	-32	2932	871.65	49.17	-2.66
22	SLU 56	9	-23	2956	878.09	49.6	-2.8
22	SLU 57	9	-28	2941	874.22	49.34	-2.72
22	SLU 58	9	-23	2956	878.09	49.6	-2.8
22	SLU 59	9	-28	2941	874.22	49.34	-2.72
22	SLU 60	9	-24	3125	927.3	52.41	-2.65
22	SLU 61	9	-29	3110	923.44	52.15	-2.57



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
22	SLU 62	9	-24	3125	927.3	52.41	-2.65
22	SLU 63	9	-29	3110	923.44	52.15	-2.57
22	SLU 64	10	-23	2848	846.81	47.8	-3
22	SLU 65	10	-32	2824	840.37	47.37	-2.87
22	SLU 66	10	-23	2848	846.81	47.8	-3
22	SLU 67	10	-29	2834	842.95	47.54	-2.92
22	SLU 68	10	-32	2824	840.37	47.37	-2.87
22	SLU 69	10	-23	2848	846.81	47.8	-3
22	SLU 70	10	-29	2834	842.95	47.54	-2.92
22	SLU 71	10	-23	2848	846.81	47.8	-3
22	SLU 72	10	-29	2834	842.95	47.54	-2.92
22	SLU 73	9	-33	3218	955.22	53.93	-2.54
22	SLU 74	9	-24	3242	961.66	54.36	-2.67
22	SLU 75	9	-30	3228	957.79	54.1	-2.59
22	SLU 76	9	-33	3218	955.22	53.93	-2.54
22	SLU 77	9	-24	3242	961.66	54.36	-2.67
22	SLU 78	9	-30	3228	957.79	54.1	-2.59
22	SLU 79	9	-24	3242	961.66	54.36	-2.67
22	SLU 80	9	-30	3228	957.79	54.1	-2.59
22	SLU 81	8	-25	3411	1010.87	57.17	-2.53
22	SLU 82	8	-30	3396	1007.01	56.92	-2.45
22	SLU 83	8	-25	3411	1010.87	57.17	-2.53
22	SLU 84	8	-30	3396	1007.01	56.92	-2.45
22	SLE RA 1	7	-18	2128	633.03	35.72	-2.34
22	SLE RA 2	7	-23	2112	628.73	35.44	-2.25
22	SLE RA 3	7	-18	2128	633.03	35.72	-2.34
22	SLE RA 4	7	-21	2118	630.45	35.55	-2.29
22	SLE RA 5	7	-23	2112	628.73	35.44	-2.25
22	SLE RA 6	7	-18	2128	633.03	35.72	-2.34
22	SLE RA 7	7	-21	2118	630.45	35.55	-2.29
22	SLE RA 8	7	-18	2128	633.03	35.72	-2.34
22	SLE RA 9	7	-21	2118	630.45	35.55	-2.29
22	SLE RA 10	7	-24	2374	705.3	39.81	-2.03
22	SLE RA 11	7	-18	2391	709.59	40.1	-2.12
22	SLE RA 12	7	-22	2381	707.01	39.93	-2.06
22	SLE RA 13	7	-24	2374	705.3	39.81	-2.03
22	SLE RA 14	7	-18	2391	709.59	40.1	-2.12
22	SLE RA 15	7	-22	2381	707.01	39.93	-2.06
22	SLE RA 16	7	-18	2391	709.59	40.1	-2.12
22	SLE RA 17	7	-22	2381	707.01	39.93	-2.06
22	SLE RA 18	7	-19	2503	742.4	41.97	-2.02
22	SLE RA 19	7	-22	2493	739.83	41.8	-1.97
22	SLE RA 20	7	-19	2503	742.4	41.97	-2.02
22	SLE RA 21	7	-22	2493	739.83	41.8	-1.97
22	SLE FR 1	7	-18	2128	633.03	35.72	-2.34
22	SLE FR 2	7	-19	2125	632.17	35.66	-2.32
22	SLE FR 3	7	-18	2128	633.03	35.72	-2.34
22	SLE FR 4	7	-19	2237	664.98	37.54	-2.23
22	SLE FR 5	7	-18	2241	665.84	37.6	-2.24
22	SLE FR 6	7	-18	2316	687.71	38.85	-2.18
22	SLE QP 1	7	-18	2128	633.03	35.72	-2.34
22	SLE QP 2	7	-18	2241	665.84	37.6	-2.24
22	SLD 1	162	24	2368	688.03	39.91	-57.04
22	SLD 2	196	22	2367	687.99	39.88	-68.63
22	SLD 3	156	-71	2156	631.47	36.42	-53.65
22	SLD 4	189	-73	2155	631.42	36.39	-65.24
22	SLD 5	52	139	2601	758.31	43.59	-19.54
22	SLD 6	86	137	2600	758.26	43.56	-31.58
22	SLD 7	29	-177	1894	569.75	31.96	-8.24
22	SLD 8	64	-179	1893	569.7	31.93	-20.28
22	SLD 9	-50	143	2589	761.98	43.26	15.8
22	SLD 10	-15	141	2587	761.93	43.23	3.76
22	SLD 11	-72	-173	1882	573.42	31.63	27.1
22	SLD 12	-37	-175	1881	573.37	31.6	15.05
22	SLD 13	-175	37	2327	700.26	38.8	60.76
22	SLD 14	-141	35	2326	700.21	38.77	49.17
22	SLD 15	-181	-58	2115	643.69	35.31	64.15
22	SLD 16	-148	-60	2113	643.65	35.29	52.56
22	SLV 1	361	80	2537	717.62	42.96	-127.05
22	SLV 2	437	76	2535	717.51	42.9	-153.62
22	SLV 3	345	-142	2042	585.54	34.82	-119.12
22	SLV 4	421	-145	2039	585.43	34.75	-145.69
22	SLV 5	108	349	3082	881.75	51.59	-41.71
22	SLV 6	189	345	3079	881.63	51.52	-69.69
22	SLV 7	56	-389	1431	441.46	24.43	-15.27
22	SLV 8	136	-393	1428	441.34	24.36	-43.26
22	SLV 9	-122	358	3053	890.34	50.83	38.77
22	SLV 10	-41	354	3051	890.22	50.76	10.78
22	SLV 11	-174	-381	1402	450.05	23.67	65.21
22	SLV 12	-94	-385	1400	449.93	23.61	37.22
22	SLV 13	-407	110	2442	746.25	40.44	141.2
22	SLV 14	-330	106	2440	746.14	40.37	114.63
22	SLV 15	-423	-112	1947	614.17	32.29	149.14
22	SLV 16	-346	-116	1944	614.06	32.23	122.56
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
24	SLU 1	23	-41	5136	1161.99	1.28	-4.94
24	SLU 2	23	-63	5073	1149.31	1.34	-4.97
24	SLU 3	23	-41	5136	1161.99	1.28	-4.94



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
24	SLU 4	23	-54	5098	1154.38	1.32	-4.96
24	SLU 5	23	-63	5073	1149.31	1.34	-4.97
24	SLU 6	23	-41	5136	1161.99	1.28	-4.94
24	SLU 7	23	-54	5098	1154.38	1.32	-4.96
24	SLU 8	23	-41	5136	1161.99	1.28	-4.94
24	SLU 9	23	-54	5098	1154.38	1.32	-4.96
24	SLU 10	20	-67	6065	1372.96	1.43	-4.47
24	SLU 11	20	-45	6128	1385.64	1.36	-4.44
24	SLU 12	20	-58	6090	1378.03	1.4	-4.46
24	SLU 13	20	-67	6065	1372.96	1.43	-4.47
24	SLU 14	20	-45	6128	1385.64	1.36	-4.44
24	SLU 15	20	-58	6090	1378.03	1.4	-4.46
24	SLU 16	20	-45	6128	1385.64	1.36	-4.44
24	SLU 17	20	-58	6090	1378.03	1.4	-4.46
24	SLU 18	19	-47	6553	1481.5	1.4	-4.23
24	SLU 19	19	-60	6515	1473.89	1.44	-4.25
24	SLU 20	19	-47	6553	1481.5	1.4	-4.23
24	SLU 21	19	-60	6515	1473.89	1.44	-4.25
24	SLU 22	22	-45	5857	1324.54	1.27	-4.79
24	SLU 23	22	-67	5794	1311.85	1.33	-4.82
24	SLU 24	22	-45	5857	1324.54	1.27	-4.79
24	SLU 25	22	-58	5819	1316.93	1.31	-4.81
24	SLU 26	22	-67	5794	1311.85	1.33	-4.82
24	SLU 27	22	-45	5857	1324.54	1.27	-4.79
24	SLU 28	22	-58	5819	1316.93	1.31	-4.81
24	SLU 29	22	-45	5857	1324.54	1.27	-4.79
24	SLU 30	22	-58	5819	1316.93	1.31	-4.81
24	SLU 31	20	-71	6785	1535.51	1.42	-4.32
24	SLU 32	20	-49	6848	1548.19	1.35	-4.29
24	SLU 33	20	-62	6810	1540.58	1.39	-4.31
24	SLU 34	20	-71	6785	1535.51	1.42	-4.32
24	SLU 35	20	-49	6848	1548.19	1.35	-4.29
24	SLU 36	20	-62	6810	1540.58	1.39	-4.31
24	SLU 37	20	-49	6848	1548.19	1.35	-4.29
24	SLU 38	20	-62	6810	1540.58	1.39	-4.31
24	SLU 39	19	-51	7273	1644.04	1.39	-4.08
24	SLU 40	19	-64	7235	1636.43	1.43	-4.09
24	SLU 41	19	-51	7273	1644.04	1.39	-4.08
24	SLU 42	19	-64	7235	1636.43	1.43	-4.09
24	SLU 43	30	-52	6430	1454.86	1.66	-6.48
24	SLU 44	30	-74	6367	1442.18	1.73	-6.5
24	SLU 45	30	-52	6430	1454.86	1.66	-6.48
24	SLU 46	30	-66	6392	1447.25	1.7	-6.49
24	SLU 47	30	-74	6367	1442.18	1.73	-6.5
24	SLU 48	30	-52	6430	1454.86	1.66	-6.48
24	SLU 49	30	-66	6392	1447.25	1.7	-6.49
24	SLU 50	30	-52	6430	1454.86	1.66	-6.48
24	SLU 51	30	-66	6392	1447.25	1.7	-6.49
24	SLU 52	27	-78	7359	1665.83	1.81	-6
24	SLU 53	27	-56	7422	1678.51	1.75	-5.98
24	SLU 54	27	-70	7384	1670.9	1.79	-5.99
24	SLU 55	27	-78	7359	1665.83	1.81	-6
24	SLU 56	27	-56	7422	1678.51	1.75	-5.98
24	SLU 57	27	-70	7384	1670.9	1.79	-5.99
24	SLU 58	27	-56	7422	1678.51	1.75	-5.98
24	SLU 59	27	-70	7384	1670.9	1.79	-5.99
24	SLU 60	26	-58	7847	1774.36	1.79	-5.77
24	SLU 61	26	-71	7809	1766.75	1.82	-5.78
24	SLU 62	26	-58	7847	1774.36	1.79	-5.77
24	SLU 63	26	-71	7809	1766.75	1.82	-5.78
24	SLU 64	29	-56	7151	1617.41	1.65	-6.33
24	SLU 65	29	-78	7087	1604.72	1.72	-6.35
24	SLU 66	29	-56	7151	1617.41	1.65	-6.33
24	SLU 67	29	-69	7113	1609.8	1.69	-6.34
24	SLU 68	29	-78	7087	1604.72	1.72	-6.35
24	SLU 69	29	-56	7151	1617.41	1.65	-6.33
24	SLU 70	29	-69	7113	1609.8	1.69	-6.34
24	SLU 71	29	-56	7151	1617.41	1.65	-6.33
24	SLU 72	29	-69	7113	1609.8	1.69	-6.34
24	SLU 73	27	-82	8079	1828.37	1.8	-5.85
24	SLU 74	27	-60	8142	1841.06	1.74	-5.83
24	SLU 75	27	-73	8104	1833.45	1.78	-5.84
24	SLU 76	27	-82	8079	1828.37	1.8	-5.85
24	SLU 77	27	-60	8142	1841.06	1.74	-5.83
24	SLU 78	27	-73	8104	1833.45	1.78	-5.84
24	SLU 79	27	-60	8142	1841.06	1.74	-5.83
24	SLU 80	27	-73	8104	1833.45	1.78	-5.84
24	SLU 81	26	-62	8567	1936.91	1.78	-5.61
24	SLU 82	26	-75	8529	1929.3	1.81	-5.63
24	SLU 83	26	-62	8567	1936.91	1.78	-5.61
24	SLU 84	26	-75	8529	1929.3	1.81	-5.63
24	SLE RA 1	22	-42	5342	1208.43	1.27	-4.9
24	SLE RA 2	23	-57	5300	1199.98	1.32	-4.92
24	SLE RA 3	22	-42	5342	1208.43	1.27	-4.9
24	SLE RA 4	23	-51	5317	1203.36	1.3	-4.91
24	SLE RA 5	23	-57	5300	1199.98	1.32	-4.92
24	SLE RA 6	22	-42	5342	1208.43	1.27	-4.9
24	SLE RA 7	23	-51	5317	1203.36	1.3	-4.91
24	SLE RA 8	22	-42	5342	1208.43	1.27	-4.9
24	SLE RA 9	23	-51	5317	1203.36	1.3	-4.91
24	SLE RA 10	21	-60	5961	1349.08	1.37	-4.58



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
24	SLE RA 11	21	-45	6003	1357.54	1.33	-4.57
24	SLE RA 12	21	-54	5978	1352.46	1.36	-4.58
24	SLE RA 13	21	-60	5961	1349.08	1.37	-4.58
24	SLE RA 14	21	-45	6003	1357.54	1.33	-4.57
24	SLE RA 15	21	-54	5978	1352.46	1.36	-4.58
24	SLE RA 16	21	-45	6003	1357.54	1.33	-4.57
24	SLE RA 17	21	-54	5978	1352.46	1.36	-4.58
24	SLE RA 18	20	-46	6286	1421.44	1.36	-4.42
24	SLE RA 19	20	-55	6261	1416.36	1.38	-4.44
24	SLE RA 20	20	-46	6286	1421.44	1.36	-4.42
24	SLE RA 21	20	-55	6261	1416.36	1.38	-4.44
24	SLE FR 1	22	-42	5342	1208.43	1.27	-4.9
24	SLE FR 2	22	-45	5334	1206.74	1.28	-4.9
24	SLE FR 3	22	-42	5342	1208.43	1.27	-4.9
24	SLE FR 4	22	-46	5617	1270.64	1.31	-4.76
24	SLE FR 5	22	-43	5625	1272.34	1.3	-4.76
24	SLE FR 6	21	-44	5814	1314.94	1.32	-4.66
24	SLE QP 1	22	-42	5342	1208.43	1.27	-4.9
24	SLE QP 2	22	-43	5625	1272.34	1.3	-4.76
24	SLD 1	402	57	5943	1319.38	7.09	-96.48
24	SLD 2	485	59	5941	1318.97	6.93	-115.79
24	SLD 3	385	-176	5394	1205.75	6.84	-92.5
24	SLD 4	468	-175	5392	1205.34	6.69	-111.8
24	SLD 5	131	341	6554	1458.93	3.47	-31.18
24	SLD 6	217	342	6552	1458.5	3.31	-51.24
24	SLD 7	75	-438	4724	1080.18	2.64	-17.91
24	SLD 8	161	-437	4722	1079.76	2.48	-37.97
24	SLD 9	-117	350	6529	1464.91	0.11	28.45
24	SLD 10	-31	351	6526	1464.49	-0.04	8.4
24	SLD 11	-173	-429	4699	1086.17	-0.71	41.72
24	SLD 12	-87	-428	4697	1085.74	-0.87	21.67
24	SLD 13	-424	88	5858	1339.33	-4.09	102.29
24	SLD 14	-341	89	5856	1338.92	-4.24	82.99
24	SLD 15	-441	-146	5310	1225.7	-4.33	106.27
24	SLD 16	-358	-144	5308	1225.29	-4.49	86.97
24	SLV 1	887	193	6367	1382.26	14.51	-213.62
24	SLV 2	1077	197	6362	1381.32	14.16	-257.89
24	SLV 3	848	-353	5085	1116.94	13.9	-204.28
24	SLV 4	1038	-349	5080	1116	13.55	-248.54
24	SLV 5	270	854	7793	1708.06	6.31	-64.92
24	SLV 6	470	858	7789	1707.07	5.94	-111.54
24	SLV 7	138	-966	3521	823.68	4.3	-33.77
24	SLV 8	338	-962	3516	822.69	3.93	-80.39
24	SLV 9	-295	875	7735	1721.98	-1.33	70.88
24	SLV 10	-94	879	7730	1720.99	-1.7	24.26
24	SLV 11	-426	-945	3462	837.6	-3.34	102.02
24	SLV 12	-226	-941	3457	836.61	-3.71	55.41
24	SLV 13	-994	262	6171	1428.67	-10.96	239.03
24	SLV 14	-804	266	6166	1427.73	-11.31	194.77
24	SLV 15	-1034	-284	4889	1163.35	-11.56	248.37
24	SLV 16	-844	-280	4884	1162.41	-11.91	204.11
24	CRTFP Ux+	0	0	0	0	0	0
24	CRTFP Ux-	0	0	0	0	0	0
24	CRTFP Uy+	0	0	0	-0.01	0	0
24	CRTFP Uy-	0	0	0	0.01	0	0
26	SLU 1	10	-14	2042	608.93	-34.18	-3.76
26	SLU 2	10	-23	2017	602.5	-33.74	-3.92
26	SLU 3	10	-14	2042	608.93	-34.18	-3.76
26	SLU 4	10	-20	2027	605.07	-33.92	-3.85
26	SLU 5	10	-23	2017	602.5	-33.74	-3.92
26	SLU 6	10	-14	2042	608.93	-34.18	-3.76
26	SLU 7	10	-20	2027	605.07	-33.92	-3.85
26	SLU 8	10	-14	2042	608.93	-34.18	-3.76
26	SLU 9	10	-20	2027	605.07	-33.92	-3.85
26	SLU 10	9	-25	2410	718.18	-40.28	-3.63
26	SLU 11	9	-16	2435	724.61	-40.71	-3.47
26	SLU 12	9	-21	2420	720.75	-40.45	-3.57
26	SLU 13	9	-25	2410	718.18	-40.28	-3.63
26	SLU 14	9	-16	2435	724.61	-40.71	-3.47
26	SLU 15	9	-21	2420	720.75	-40.45	-3.57
26	SLU 16	9	-16	2435	724.61	-40.71	-3.47
26	SLU 17	9	-21	2420	720.75	-40.45	-3.57
26	SLU 18	9	-16	2604	774.18	-43.51	-3.35
26	SLU 19	9	-22	2589	770.32	-43.25	-3.45
26	SLU 20	9	-16	2604	774.18	-43.51	-3.35
26	SLU 21	9	-22	2589	770.32	-43.25	-3.45
26	SLU 22	10	-16	2328	692.99	-38.94	-3.69
26	SLU 23	10	-25	2303	686.56	-38.5	-3.85
26	SLU 24	10	-16	2328	692.99	-38.94	-3.69
26	SLU 25	10	-21	2313	689.13	-38.67	-3.79
26	SLU 26	10	-25	2303	686.56	-38.5	-3.85
26	SLU 27	10	-16	2328	692.99	-38.94	-3.69
26	SLU 28	10	-21	2313	689.13	-38.67	-3.79
26	SLU 29	10	-16	2328	692.99	-38.94	-3.69
26	SLU 30	10	-21	2313	689.13	-38.67	-3.79
26	SLU 31	9	-26	2696	802.23	-45.03	-3.57
26	SLU 32	9	-17	2721	808.66	-45.47	-3.41
26	SLU 33	9	-23	2706	804.8	-45.21	-3.5
26	SLU 34	9	-26	2696	802.23	-45.03	-3.57
26	SLU 35	9	-17	2721	808.66	-45.47	-3.41
26	SLU 36	9	-23	2706	804.8	-45.21	-3.5



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
26	SLU 37	9	-17	2721	808.66	-45.47	-3.41
26	SLU 38	9	-23	2706	804.8	-45.21	-3.5
26	SLU 39	9	-18	2890	858.24	-48.27	-3.29
26	SLU 40	9	-23	2875	854.38	-48.01	-3.38
26	SLU 41	9	-18	2890	858.24	-48.27	-3.29
26	SLU 42	9	-23	2875	854.38	-48.01	-3.38
26	SLU 43	13	-18	2557	762.79	-42.8	-4.91
26	SLU 44	13	-27	2532	756.36	-42.36	-5.07
26	SLU 45	13	-18	2557	762.79	-42.8	-4.91
26	SLU 46	13	-23	2542	758.93	-42.54	-5
26	SLU 47	13	-27	2532	756.36	-42.36	-5.07
26	SLU 48	13	-18	2557	762.79	-42.8	-4.91
26	SLU 49	13	-23	2542	758.93	-42.54	-5
26	SLU 50	13	-18	2557	762.79	-42.8	-4.91
26	SLU 51	13	-23	2542	758.93	-42.54	-5
26	SLU 52	13	-29	2925	872.04	-48.9	-4.78
26	SLU 53	13	-20	2950	878.47	-49.34	-4.62
26	SLU 54	13	-25	2935	874.61	-49.07	-4.72
26	SLU 55	13	-29	2925	872.04	-48.9	-4.78
26	SLU 56	13	-20	2950	878.47	-49.34	-4.62
26	SLU 57	13	-25	2935	874.61	-49.07	-4.72
26	SLU 58	13	-20	2950	878.47	-49.34	-4.62
26	SLU 59	13	-25	2935	874.61	-49.07	-4.72
26	SLU 60	12	-20	3118	928.04	-52.14	-4.5
26	SLU 61	12	-26	3104	924.18	-51.87	-4.6
26	SLU 62	12	-20	3118	928.04	-52.14	-4.5
26	SLU 63	12	-26	3104	924.18	-51.87	-4.6
26	SLU 64	13	-19	2842	846.85	-47.56	-4.84
26	SLU 65	13	-28	2818	840.42	-47.12	-5
26	SLU 66	13	-19	2842	846.85	-47.56	-4.84
26	SLU 67	13	-25	2828	842.99	-47.3	-4.94
26	SLU 68	13	-28	2818	840.42	-47.12	-5
26	SLU 69	13	-19	2842	846.85	-47.56	-4.84
26	SLU 70	13	-25	2828	842.99	-47.3	-4.94
26	SLU 71	13	-19	2842	846.85	-47.56	-4.84
26	SLU 72	13	-25	2828	842.99	-47.3	-4.94
26	SLU 73	12	-30	3211	956.09	-53.66	-4.72
26	SLU 74	12	-21	3236	962.52	-54.09	-4.56
26	SLU 75	12	-26	3221	958.66	-53.83	-4.65
26	SLU 76	12	-30	3211	956.09	-53.66	-4.72
26	SLU 77	12	-21	3236	962.52	-54.09	-4.56
26	SLU 78	12	-26	3221	958.66	-53.83	-4.65
26	SLU 79	12	-21	3236	962.52	-54.09	-4.56
26	SLU 80	12	-26	3221	958.66	-53.83	-4.65
26	SLU 81	12	-22	3404	1012.1	-56.89	-4.43
26	SLU 82	12	-27	3389	1008.24	-56.63	-4.53
26	SLU 83	12	-22	3404	1012.1	-56.89	-4.43
26	SLU 84	12	-27	3389	1008.24	-56.63	-4.53
26	SLE RA 1	10	-15	2124	632.95	-35.54	-3.74
26	SLE RA 2	10	-21	2107	628.66	-35.25	-3.85
26	SLE RA 3	10	-15	2124	632.95	-35.54	-3.74
26	SLE RA 4	10	-18	2114	630.38	-35.36	-3.8
26	SLE RA 5	10	-21	2107	628.66	-35.25	-3.85
26	SLE RA 6	10	-15	2124	632.95	-35.54	-3.74
26	SLE RA 7	10	-18	2114	630.38	-35.36	-3.8
26	SLE RA 8	10	-15	2124	632.95	-35.54	-3.74
26	SLE RA 9	10	-18	2114	630.38	-35.36	-3.8
26	SLE RA 10	10	-22	2369	705.78	-39.6	-3.66
26	SLE RA 11	10	-16	2386	710.06	-39.89	-3.55
26	SLE RA 12	10	-19	2376	707.49	-39.72	-3.61
26	SLE RA 13	10	-22	2369	705.78	-39.6	-3.66
26	SLE RA 14	10	-16	2386	710.06	-39.89	-3.55
26	SLE RA 15	10	-19	2376	707.49	-39.72	-3.61
26	SLE RA 16	10	-16	2386	710.06	-39.89	-3.55
26	SLE RA 17	10	-19	2376	707.49	-39.72	-3.61
26	SLE RA 18	9	-16	2498	743.11	-41.76	-3.47
26	SLE RA 19	9	-20	2488	740.54	-41.59	-3.53
26	SLE RA 20	9	-16	2498	743.11	-41.76	-3.47
26	SLE RA 21	9	-20	2488	740.54	-41.59	-3.53
26	SLE FR 1	10	-15	2124	632.95	-35.54	-3.74
26	SLE FR 2	10	-16	2120	632.09	-35.48	-3.76
26	SLE FR 3	10	-15	2124	632.95	-35.54	-3.74
26	SLE FR 4	10	-16	2233	665.14	-37.35	-3.68
26	SLE FR 5	10	-15	2236	666	-37.41	-3.66
26	SLE FR 6	10	-15	2311	688.03	-38.65	-3.6
26	SLE QP 1	10	-15	2124	632.95	-35.54	-3.74
26	SLE QP 2	10	-15	2236	666	-37.41	-3.66
26	SLD 1	165	38	2323	688.73	-38.63	-55.74
26	SLD 2	199	41	2322	688.4	-38.64	-67.31
26	SLD 3	158	-57	2111	632.18	-35.16	-57.84
26	SLD 4	192	-54	2111	631.85	-35.16	-69.4
26	SLD 5	55	144	2584	758.71	-43.04	-11.83
26	SLD 6	89	147	2583	758.37	-43.05	-23.84
26	SLD 7	32	-173	1878	570.2	-31.46	-18.82
26	SLD 8	66	-170	1877	569.85	-31.46	-30.83
26	SLD 9	-46	140	2595	762.14	-43.35	23.52
26	SLD 10	-12	143	2595	761.79	-43.35	11.51
26	SLD 11	-69	-177	1889	573.62	-31.76	16.53
26	SLD 12	-35	-174	1889	573.28	-31.77	4.52
26	SLD 13	-172	24	2361	700.15	-39.65	62.09
26	SLD 14	-138	27	2361	699.81	-39.65	50.53



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
26	SLD 15	-179	-71	2150	643.59	-36.17	59.99
26	SLD 16	-145	-68	2149	643.26	-36.18	48.43
26	SLV 1	364	108	2439	719.02	-40.3	-122.1
26	SLV 2	440	115	2438	718.26	-40.3	-148.61
26	SLV 3	348	-114	1945	587	-32.18	-127.04
26	SLV 4	424	-108	1944	586.24	-32.19	-153.55
26	SLV 5	112	356	3048	882.43	-50.58	-21.72
26	SLV 6	193	363	3046	881.62	-50.59	-49.64
26	SLV 7	58	-384	1399	442.35	-23.53	-38.18
26	SLV 8	138	-377	1398	441.55	-23.53	-66.1
26	SLV 9	-118	347	3074	890.45	-51.28	58.78
26	SLV 10	-38	354	3073	889.64	-51.28	30.87
26	SLV 11	-173	-393	1426	450.37	-24.23	42.32
26	SLV 12	-92	-386	1425	449.57	-24.23	14.4
26	SLV 13	-404	77	2528	745.75	-42.62	146.23
26	SLV 14	-328	84	2527	744.99	-42.63	119.72
26	SLV 15	-420	-145	2034	613.73	-34.51	141.29
26	SLV 16	-344	-138	2033	612.97	-34.51	114.78
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	0	0
26	CRTFP Uy-	0	0	0	0	0	0
27	SLU 1	13	-11	2173	594.91	2.73	-4.26
27	SLU 2	13	-21	2145	588.21	2.74	-4.26
27	SLU 3	13	-11	2173	594.91	2.73	-4.26
27	SLU 4	13	-17	2157	590.89	2.74	-4.26
27	SLU 5	13	-21	2145	588.21	2.74	-4.26
27	SLU 6	13	-11	2173	594.91	2.73	-4.26
27	SLU 7	13	-17	2157	590.89	2.74	-4.26
27	SLU 8	13	-11	2173	594.91	2.73	-4.26
27	SLU 9	13	-17	2157	590.89	2.74	-4.26
27	SLU 10	12	-22	2561	698.93	3.39	-3.89
27	SLU 11	12	-12	2589	705.63	3.37	-3.89
27	SLU 12	12	-18	2572	701.61	3.38	-3.89
27	SLU 13	12	-22	2561	698.93	3.39	-3.89
27	SLU 14	12	-12	2589	705.63	3.37	-3.89
27	SLU 15	12	-18	2572	701.61	3.38	-3.89
27	SLU 16	12	-12	2589	705.63	3.37	-3.89
27	SLU 17	12	-18	2572	701.61	3.38	-3.89
27	SLU 18	11	-13	2767	753.09	3.65	-3.73
27	SLU 19	11	-19	2750	749.07	3.66	-3.73
27	SLU 20	11	-13	2767	753.09	3.65	-3.73
27	SLU 21	11	-19	2750	749.07	3.66	-3.73
27	SLU 22	12	-12	2476	675.38	3.18	-4.15
27	SLU 23	12	-22	2448	668.68	3.2	-4.15
27	SLU 24	12	-12	2476	675.38	3.18	-4.15
27	SLU 25	12	-18	2459	671.36	3.19	-4.15
27	SLU 26	12	-22	2448	668.68	3.2	-4.15
27	SLU 27	12	-12	2476	675.38	3.18	-4.15
27	SLU 28	12	-18	2459	671.36	3.19	-4.15
27	SLU 29	12	-12	2476	675.38	3.18	-4.15
27	SLU 30	12	-18	2459	671.36	3.19	-4.15
27	SLU 31	11	-23	2864	779.41	3.84	-3.78
27	SLU 32	11	-13	2891	786.11	3.83	-3.77
27	SLU 33	11	-19	2875	782.09	3.84	-3.78
27	SLU 34	11	-23	2864	779.41	3.84	-3.78
27	SLU 35	11	-13	2891	786.11	3.83	-3.77
27	SLU 36	11	-19	2875	782.09	3.84	-3.78
27	SLU 37	11	-13	2891	786.11	3.83	-3.77
27	SLU 38	11	-19	2875	782.09	3.84	-3.78
27	SLU 39	11	-14	3070	833.56	4.1	-3.62
27	SLU 40	11	-20	3053	829.54	4.11	-3.62
27	SLU 41	11	-14	3070	833.56	4.1	-3.62
27	SLU 42	11	-20	3053	829.54	4.11	-3.62
27	SLU 43	16	-14	2721	745.79	3.39	-5.57
27	SLU 44	17	-24	2694	739.09	3.41	-5.58
27	SLU 45	16	-14	2721	745.79	3.39	-5.57
27	SLU 46	17	-20	2705	741.77	3.4	-5.57
27	SLU 47	17	-24	2694	739.09	3.41	-5.58
27	SLU 48	16	-14	2721	745.79	3.39	-5.57
27	SLU 49	17	-20	2705	741.77	3.4	-5.57
27	SLU 50	16	-14	2721	745.79	3.39	-5.57
27	SLU 51	17	-20	2705	741.77	3.4	-5.57
27	SLU 52	16	-25	3109	849.81	4.05	-5.21
27	SLU 53	16	-15	3137	856.52	4.04	-5.2
27	SLU 54	16	-21	3120	852.49	4.04	-5.2
27	SLU 55	16	-25	3109	849.81	4.05	-5.21
27	SLU 56	16	-15	3137	856.52	4.04	-5.2
27	SLU 57	16	-21	3120	852.49	4.04	-5.2
27	SLU 58	16	-15	3137	856.52	4.04	-5.2
27	SLU 59	16	-21	3120	852.49	4.04	-5.2
27	SLU 60	15	-16	3315	903.97	4.31	-5.04
27	SLU 61	15	-22	3299	899.95	4.32	-5.04
27	SLU 62	15	-16	3315	903.97	4.31	-5.04
27	SLU 63	15	-22	3299	899.95	4.32	-5.04
27	SLU 64	16	-15	3024	826.26	3.85	-5.46
27	SLU 65	16	-25	2996	819.56	3.86	-5.47
27	SLU 66	16	-15	3024	826.26	3.85	-5.46
27	SLU 67	16	-21	3007	822.24	3.86	-5.46
27	SLU 68	16	-25	2996	819.56	3.86	-5.47
27	SLU 69	16	-15	3024	826.26	3.85	-5.46



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
27	SLU 70	16	-21	3007	822.24	3.86	-5.46
27	SLU 71	16	-15	3024	826.26	3.85	-5.46
27	SLU 72	16	-21	3007	822.24	3.86	-5.46
27	SLU 73	15	-26	3412	930.29	4.51	-5.1
27	SLU 74	15	-16	3440	936.99	4.49	-5.09
27	SLU 75	15	-22	3423	932.97	4.5	-5.09
27	SLU 76	15	-26	3412	930.29	4.51	-5.1
27	SLU 77	15	-16	3440	936.99	4.49	-5.09
27	SLU 78	15	-22	3423	932.97	4.5	-5.09
27	SLU 79	15	-16	3440	936.99	4.49	-5.09
27	SLU 80	15	-22	3423	932.97	4.5	-5.09
27	SLU 81	15	-17	3618	984.44	4.77	-4.93
27	SLU 82	15	-23	3601	980.42	4.78	-4.93
27	SLU 83	15	-17	3618	984.44	4.77	-4.93
27	SLU 84	15	-23	3601	980.42	4.78	-4.93
27	SLE RA 1	13	-12	2260	617.9	2.86	-4.22
27	SLE RA 2	13	-18	2241	613.43	2.87	-4.23
27	SLE RA 3	13	-12	2260	617.9	2.86	-4.22
27	SLE RA 4	13	-15	2249	615.22	2.87	-4.23
27	SLE RA 5	13	-18	2241	613.43	2.87	-4.23
27	SLE RA 6	13	-12	2260	617.9	2.86	-4.22
27	SLE RA 7	13	-15	2249	615.22	2.87	-4.23
27	SLE RA 8	13	-12	2260	617.9	2.86	-4.22
27	SLE RA 9	13	-15	2249	615.22	2.87	-4.23
27	SLE RA 10	12	-19	2518	687.25	3.3	-3.98
27	SLE RA 11	12	-12	2537	691.72	3.29	-3.98
27	SLE RA 12	12	-16	2526	689.04	3.29	-3.98
27	SLE RA 13	12	-19	2518	687.25	3.3	-3.98
27	SLE RA 14	12	-12	2537	691.72	3.29	-3.98
27	SLE RA 15	12	-16	2526	689.04	3.29	-3.98
27	SLE RA 16	12	-12	2537	691.72	3.29	-3.98
27	SLE RA 17	12	-16	2526	689.04	3.29	-3.98
27	SLE RA 18	12	-13	2655	723.35	3.47	-3.87
27	SLE RA 19	12	-17	2644	720.67	3.48	-3.87
27	SLE RA 20	12	-13	2655	723.35	3.47	-3.87
27	SLE RA 21	12	-17	2644	720.67	3.48	-3.87
27	SLE FR 1	13	-12	2260	617.9	2.86	-4.22
27	SLE FR 2	13	-13	2256	617.01	2.86	-4.23
27	SLE FR 3	13	-12	2260	617.9	2.86	-4.22
27	SLE FR 4	12	-13	2375	648.64	3.04	-4.12
27	SLE FR 5	12	-12	2378	649.54	3.04	-4.12
27	SLE FR 6	12	-12	2458	670.63	3.17	-4.05
27	SLE QP 1	13	-12	2260	617.9	2.86	-4.22
27	SLE QP 2	12	-12	2378	649.54	3.04	-4.12
27	SLD 1	183	44	2462	670.52	3.6	-63.93
27	SLD 2	220	50	2462	670.11	3.59	-76.7
27	SLD 3	175	-58	2241	617.02	3.14	-61.17
27	SLD 4	212	-53	2241	616.6	3.13	-73.93
27	SLD 5	62	158	2739	737.13	3.91	-21.54
27	SLD 6	100	163	2739	736.7	3.9	-34.8
27	SLD 7	36	-182	2001	558.79	2.38	-12.32
27	SLD 8	74	-177	2001	558.36	2.37	-25.59
27	SLD 9	-49	153	2756	740.72	3.72	17.35
27	SLD 10	-11	159	2755	740.28	3.7	4.08
27	SLD 11	-75	-187	2017	562.37	2.19	26.57
27	SLD 12	-37	-182	2017	561.94	2.17	13.3
27	SLD 13	-187	29	2516	682.47	2.96	65.7
27	SLD 14	-151	34	2516	682.05	2.94	52.93
27	SLD 15	-195	-73	2295	628.97	2.5	68.46
27	SLD 16	-159	-68	2294	628.55	2.48	55.69
27	SLV 1	401	120	2575	698.44	4.33	-140.32
27	SLV 2	485	131	2575	697.49	4.3	-169.6
27	SLV 3	383	-119	2058	573.57	3.26	-133.83
27	SLV 4	467	-107	2058	572.62	3.22	-163.11
27	SLV 5	125	385	3222	853.95	5.07	-43.8
27	SLV 6	214	398	3222	852.95	5.04	-74.63
27	SLV 7	64	-411	1498	437.72	1.49	-22.17
27	SLV 8	153	-398	1498	436.71	1.46	-53
27	SLV 9	-128	374	3259	862.36	4.63	44.76
27	SLV 10	-40	387	3259	861.35	4.59	13.93
27	SLV 11	-189	-421	1535	446.12	1.05	66.39
27	SLV 12	-101	-409	1535	445.12	1.02	35.56
27	SLV 13	-443	84	2699	726.46	2.86	154.87
27	SLV 14	-359	95	2699	725.5	2.83	125.59
27	SLV 15	-461	-155	2182	601.59	1.79	161.36
27	SLV 16	-377	-143	2181	600.63	1.75	132.08
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
28	SLU 1	14	-6	2080	511.12	3.15	-4.61
28	SLU 2	14	-16	2052	504.71	3.17	-4.63
28	SLU 3	14	-6	2080	511.12	3.15	-4.61
28	SLU 4	14	-12	2064	507.27	3.16	-4.62
28	SLU 5	14	-16	2052	504.71	3.17	-4.63
28	SLU 6	14	-6	2080	511.12	3.15	-4.61
28	SLU 7	14	-12	2064	507.27	3.16	-4.62
28	SLU 8	14	-6	2080	511.12	3.15	-4.61
28	SLU 9	14	-12	2064	507.27	3.16	-4.62
28	SLU 10	13	-16	2446	596.66	3.92	-4.22
28	SLU 11	13	-6	2474	603.06	3.9	-4.2



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
28	SLU 12	13	-12	2457	599.22	3.91	-4.21
28	SLU 13	13	-16	2446	596.66	3.92	-4.22
28	SLU 14	13	-6	2474	603.06	3.9	-4.2
28	SLU 15	13	-12	2457	599.22	3.91	-4.21
28	SLU 16	13	-6	2474	603.06	3.9	-4.2
28	SLU 17	13	-12	2457	599.22	3.91	-4.21
28	SLU 18	12	-6	2643	642.47	4.22	-4.03
28	SLU 19	12	-12	2626	638.62	4.24	-4.04
28	SLU 20	12	-6	2643	642.47	4.22	-4.03
28	SLU 21	12	-12	2626	638.62	4.24	-4.04
28	SLU 22	13	-6	2368	578	3.68	-4.48
28	SLU 23	13	-16	2339	571.59	3.7	-4.5
28	SLU 24	13	-6	2368	578	3.68	-4.48
28	SLU 25	13	-12	2351	574.15	3.69	-4.49
28	SLU 26	13	-16	2339	571.59	3.7	-4.5
28	SLU 27	13	-6	2368	578	3.68	-4.48
28	SLU 28	13	-12	2351	574.15	3.69	-4.49
28	SLU 29	13	-6	2368	578	3.68	-4.48
28	SLU 30	13	-12	2351	574.15	3.69	-4.49
28	SLU 31	12	-16	2733	663.53	4.45	-4.09
28	SLU 32	12	-7	2761	669.94	4.43	-4.07
28	SLU 33	12	-12	2744	666.1	4.44	-4.08
28	SLU 34	12	-16	2733	663.53	4.45	-4.09
28	SLU 35	12	-7	2761	669.94	4.43	-4.07
28	SLU 36	12	-12	2744	666.1	4.44	-4.08
28	SLU 37	12	-7	2761	669.94	4.43	-4.07
28	SLU 38	12	-12	2744	666.1	4.44	-4.08
28	SLU 39	12	-7	2930	709.35	4.75	-3.9
28	SLU 40	12	-13	2913	705.5	4.77	-3.91
28	SLU 41	12	-7	2930	709.35	4.75	-3.9
28	SLU 42	12	-13	2913	705.5	4.77	-3.91
28	SLU 43	18	-8	2606	641.52	3.91	-6.04
28	SLU 44	18	-17	2578	635.12	3.93	-6.06
28	SLU 45	18	-8	2606	641.52	3.91	-6.04
28	SLU 46	18	-14	2589	637.68	3.92	-6.05
28	SLU 47	18	-17	2578	635.12	3.93	-6.06
28	SLU 48	18	-8	2606	641.52	3.91	-6.04
28	SLU 49	18	-14	2589	637.68	3.92	-6.05
28	SLU 50	18	-8	2606	641.52	3.91	-6.04
28	SLU 51	18	-14	2589	637.68	3.92	-6.05
28	SLU 52	17	-18	2972	727.06	4.68	-5.65
28	SLU 53	17	-8	3000	733.47	4.66	-5.63
28	SLU 54	17	-14	2983	729.62	4.67	-5.64
28	SLU 55	17	-18	2972	727.06	4.68	-5.65
28	SLU 56	17	-8	3000	733.47	4.66	-5.63
28	SLU 57	17	-14	2983	729.62	4.67	-5.64
28	SLU 58	17	-8	3000	733.47	4.66	-5.63
28	SLU 59	17	-14	2983	729.62	4.67	-5.64
28	SLU 60	16	-8	3169	772.87	4.98	-5.46
28	SLU 61	16	-14	3152	769.03	5	-5.47
28	SLU 62	16	-8	3169	772.87	4.98	-5.46
28	SLU 63	16	-14	3152	769.03	5	-5.47
28	SLU 64	18	-8	2893	708.4	4.44	-5.91
28	SLU 65	18	-18	2865	701.99	4.46	-5.93
28	SLU 66	18	-8	2893	708.4	4.44	-5.91
28	SLU 67	18	-14	2876	704.56	4.45	-5.92
28	SLU 68	18	-18	2865	701.99	4.46	-5.93
28	SLU 69	18	-8	2893	708.4	4.44	-5.91
28	SLU 70	18	-14	2876	704.56	4.45	-5.92
28	SLU 71	18	-8	2893	708.4	4.44	-5.91
28	SLU 72	18	-14	2876	704.56	4.45	-5.92
28	SLU 73	17	-18	3259	793.94	5.22	-5.52
28	SLU 74	16	-8	3287	800.35	5.19	-5.5
28	SLU 75	17	-14	3270	796.5	5.21	-5.51
28	SLU 76	17	-18	3259	793.94	5.22	-5.52
28	SLU 77	16	-8	3287	800.35	5.19	-5.5
28	SLU 78	17	-14	3270	796.5	5.21	-5.51
28	SLU 79	16	-8	3287	800.35	5.19	-5.5
28	SLU 80	17	-14	3270	796.5	5.21	-5.51
28	SLU 81	16	-8	3456	839.75	5.51	-5.33
28	SLU 82	16	-14	3439	835.91	5.53	-5.34
28	SLU 83	16	-8	3456	839.75	5.51	-5.33
28	SLU 84	16	-14	3439	835.91	5.53	-5.34
28	SLE RA 1	14	-6	2163	530.23	3.3	-4.58
28	SLE RA 2	14	-13	2144	525.95	3.31	-4.59
28	SLE RA 3	14	-6	2163	530.23	3.3	-4.58
28	SLE RA 4	14	-10	2151	527.66	3.31	-4.58
28	SLE RA 5	14	-13	2144	525.95	3.31	-4.59
28	SLE RA 6	14	-6	2163	530.23	3.3	-4.58
28	SLE RA 7	14	-10	2151	527.66	3.31	-4.58
28	SLE RA 8	14	-6	2163	530.23	3.3	-4.58
28	SLE RA 9	14	-10	2151	527.66	3.31	-4.58
28	SLE RA 10	13	-13	2406	587.25	3.82	-4.31
28	SLE RA 11	13	-6	2425	591.52	3.8	-4.3
28	SLE RA 12	13	-10	2414	588.96	3.81	-4.31
28	SLE RA 13	13	-13	2406	587.25	3.82	-4.31
28	SLE RA 14	13	-6	2425	591.52	3.8	-4.3
28	SLE RA 15	13	-10	2414	588.96	3.81	-4.31
28	SLE RA 16	13	-6	2425	591.52	3.8	-4.3
28	SLE RA 17	13	-10	2414	588.96	3.81	-4.31
28	SLE RA 18	13	-6	2537	617.79	4.01	-4.19



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
28	SLE RA 19	13	-10	2526	615.23	4.02	-4.19
28	SLE RA 20	13	-6	2537	617.79	4.01	-4.19
28	SLE RA 21	13	-10	2526	615.23	4.02	-4.19
28	SLE FR 1	14	-6	2163	530.23	3.3	-4.58
28	SLE FR 2	14	-7	2159	529.37	3.3	-4.58
28	SLE FR 3	14	-6	2163	530.23	3.3	-4.58
28	SLE FR 4	13	-7	2271	555.64	3.52	-4.46
28	SLE FR 5	13	-6	2275	556.5	3.51	-4.46
28	SLE FR 6	13	-6	2350	574.01	3.66	-4.38
28	SLE QP 1	14	-6	2163	530.23	3.3	-4.58
28	SLE QP 2	13	-6	2275	556.5	3.51	-4.46
28	SLD 1	184	48	2344	572.5	4.1	-64.4
28	SLD 2	221	55	2344	572.05	4.09	-77.2
28	SLD 3	177	-51	2137	529.71	3.55	-61.56
28	SLD 4	213	-44	2138	529.27	3.54	-74.36
28	SLD 5	63	158	2608	626.35	4.53	-22.03
28	SLD 6	101	165	2608	625.89	4.51	-35.33
28	SLD 7	37	-172	1921	483.74	2.7	-12.54
28	SLD 8	75	-165	1921	483.27	2.68	-25.84
28	SLD 9	-48	153	2629	629.72	4.34	16.92
28	SLD 10	-10	160	2629	629.26	4.33	3.63
28	SLD 11	-75	-177	1942	487.11	2.52	26.41
28	SLD 12	-37	-170	1942	486.64	2.5	13.11
28	SLD 13	-187	32	2412	583.73	3.49	65.44
28	SLD 14	-150	38	2413	583.28	3.47	52.64
28	SLD 15	-195	-67	2206	540.94	2.94	68.28
28	SLD 16	-158	-61	2206	540.5	2.92	55.49
28	SLV 1	403	121	2437	593.76	4.87	-140.96
28	SLV 2	487	136	2438	592.74	4.84	-170.31
28	SLV 3	384	-110	1955	493.94	3.59	-134.28
28	SLV 4	469	-95	1956	492.92	3.56	-163.63
28	SLV 5	127	377	3053	719.45	5.88	-44.49
28	SLV 6	216	393	3054	718.37	5.84	-75.4
28	SLV 7	65	-394	1449	386.73	1.61	-22.23
28	SLV 8	153	-378	1450	385.65	1.57	-53.13
28	SLV 9	-127	365	3100	727.34	5.46	44.21
28	SLV 10	-38	382	3101	726.26	5.42	13.31
28	SLV 11	-189	-405	1496	394.62	1.19	66.48
28	SLV 12	-100	-389	1497	393.54	1.15	35.57
28	SLV 13	-442	83	2594	620.07	3.47	154.71
28	SLV 14	-358	98	2595	619.05	3.44	125.37
28	SLV 15	-461	-149	2112	520.26	2.19	161.39
28	SLV 16	-377	-133	2113	519.23	2.16	132.05
28	CRTFP Ux+	0	0	0	0	0	0
28	CRTFP Ux-	0	0	0	0	0	0
28	CRTFP Uy+	0	0	0	0	0	0
28	CRTFP Uy-	0	0	0	0	0	0
29	SLU 1	14	-1	1982	426.78	3.11	-4.9
29	SLU 2	15	-10	1953	420.61	3.13	-4.94
29	SLU 3	14	-1	1982	426.78	3.11	-4.9
29	SLU 4	15	-7	1965	423.08	3.12	-4.92
29	SLU 5	15	-10	1953	420.61	3.13	-4.94
29	SLU 6	14	-1	1982	426.78	3.11	-4.9
29	SLU 7	15	-7	1965	423.08	3.12	-4.92
29	SLU 8	14	-1	1982	426.78	3.11	-4.9
29	SLU 9	15	-7	1965	423.08	3.12	-4.92
29	SLU 10	13	-10	2324	493.48	3.89	-4.48
29	SLU 11	13	0	2353	499.66	3.86	-4.45
29	SLU 12	13	-6	2335	495.96	3.88	-4.47
29	SLU 13	13	-10	2324	493.48	3.89	-4.48
29	SLU 14	13	0	2353	499.66	3.86	-4.45
29	SLU 15	13	-6	2335	495.96	3.88	-4.47
29	SLU 16	13	0	2353	499.66	3.86	-4.45
29	SLU 17	13	-6	2335	495.96	3.88	-4.47
29	SLU 18	13	0	2511	530.89	4.18	-4.25
29	SLU 19	13	-5	2494	527.19	4.2	-4.27
29	SLU 20	13	0	2511	530.89	4.18	-4.25
29	SLU 21	13	-5	2494	527.19	4.2	-4.27
29	SLU 22	14	0	2253	479.88	3.64	-4.74
29	SLU 23	14	-10	2224	473.71	3.67	-4.78
29	SLU 24	14	0	2253	479.88	3.64	-4.74
29	SLU 25	14	-6	2235	476.18	3.65	-4.77
29	SLU 26	14	-10	2224	473.71	3.67	-4.78
29	SLU 27	14	0	2253	479.88	3.64	-4.74
29	SLU 28	14	-6	2235	476.18	3.65	-4.77
29	SLU 29	14	0	2253	479.88	3.64	-4.74
29	SLU 30	14	-6	2235	476.18	3.65	-4.77
29	SLU 31	13	-9	2594	546.59	4.42	-4.32
29	SLU 32	13	1	2623	552.76	4.39	-4.29
29	SLU 33	13	-5	2606	549.06	4.41	-4.31
29	SLU 34	13	-9	2594	546.59	4.42	-4.32
29	SLU 35	13	1	2623	552.76	4.39	-4.29
29	SLU 36	13	-5	2606	549.06	4.41	-4.31
29	SLU 37	13	1	2623	552.76	4.39	-4.29
29	SLU 38	13	-5	2606	549.06	4.41	-4.31
29	SLU 39	12	1	2782	583.99	4.71	-4.09
29	SLU 40	12	-5	2764	580.29	4.73	-4.11
29	SLU 41	12	1	2782	583.99	4.71	-4.09
29	SLU 42	12	-5	2764	580.29	4.73	-4.11
29	SLU 43	19	-1	2484	536.61	3.86	-6.43
29	SLU 44	19	-11	2455	530.44	3.88	-6.46



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
29	SLU 45	19	-1	2484	536.61	3.86	-6.43
29	SLU 46	19	-7	2467	532.91	3.87	-6.45
29	SLU 47	19	-11	2455	530.44	3.88	-6.46
29	SLU 48	19	-1	2484	536.61	3.86	-6.43
29	SLU 49	19	-7	2467	532.91	3.87	-6.45
29	SLU 50	19	-1	2484	536.61	3.86	-6.43
29	SLU 51	19	-7	2467	532.91	3.87	-6.45
29	SLU 52	18	-10	2826	603.31	4.64	-6.01
29	SLU 53	18	0	2855	609.49	4.61	-5.97
29	SLU 54	18	-6	2837	605.78	4.63	-5.99
29	SLU 55	18	-10	2826	603.31	4.64	-6.01
29	SLU 56	18	0	2855	609.49	4.61	-5.97
29	SLU 57	18	-6	2837	605.78	4.63	-5.99
29	SLU 58	18	0	2855	609.49	4.61	-5.97
29	SLU 59	18	-6	2837	605.78	4.63	-5.99
29	SLU 60	17	0	3013	640.72	4.93	-5.77
29	SLU 61	17	-6	2996	637.02	4.95	-5.8
29	SLU 62	17	0	3013	640.72	4.93	-5.77
29	SLU 63	17	-6	2996	637.02	4.95	-5.8
29	SLU 64	19	-1	2755	589.71	4.39	-6.27
29	SLU 65	19	-10	2726	583.54	4.42	-6.31
29	SLU 66	19	-1	2755	589.71	4.39	-6.27
29	SLU 67	19	-6	2737	586.01	4.4	-6.29
29	SLU 68	19	-10	2726	583.54	4.42	-6.31
29	SLU 69	19	-1	2755	589.71	4.39	-6.27
29	SLU 70	19	-6	2737	586.01	4.4	-6.29
29	SLU 71	19	-1	2755	589.71	4.39	-6.27
29	SLU 72	19	-6	2737	586.01	4.4	-6.29
29	SLU 73	17	-9	3096	656.41	5.17	-5.85
29	SLU 74	17	0	3125	662.59	5.14	-5.81
29	SLU 75	17	-6	3108	658.89	5.16	-5.83
29	SLU 76	17	-9	3096	656.41	5.17	-5.85
29	SLU 77	17	0	3125	662.59	5.14	-5.81
29	SLU 78	17	-6	3108	658.89	5.16	-5.83
29	SLU 79	17	0	3125	662.59	5.14	-5.81
29	SLU 80	17	-6	3108	658.89	5.16	-5.83
29	SLU 81	17	1	3284	693.82	5.46	-5.62
29	SLU 82	17	-5	3266	690.12	5.48	-5.64
29	SLU 83	17	1	3284	693.82	5.46	-5.62
29	SLU 84	17	-5	3266	690.12	5.48	-5.64
29	SLE RA 1	14	-1	2060	441.96	3.26	-4.86
29	SLE RA 2	14	-7	2040	437.84	3.28	-4.88
29	SLE RA 3	14	-1	2060	441.96	3.26	-4.86
29	SLE RA 4	14	-4	2048	439.48	3.27	-4.87
29	SLE RA 5	14	-7	2040	437.84	3.28	-4.88
29	SLE RA 6	14	-1	2060	441.96	3.26	-4.86
29	SLE RA 7	14	-4	2048	439.48	3.27	-4.87
29	SLE RA 8	14	-1	2060	441.96	3.26	-4.86
29	SLE RA 9	14	-4	2048	439.48	3.27	-4.87
29	SLE RA 10	14	-6	2287	486.42	3.78	-4.58
29	SLE RA 11	14	0	2306	490.54	3.76	-4.55
29	SLE RA 12	14	-4	2295	488.07	3.77	-4.57
29	SLE RA 13	14	-6	2287	486.42	3.78	-4.58
29	SLE RA 14	14	0	2306	490.54	3.76	-4.55
29	SLE RA 15	14	-4	2295	488.07	3.77	-4.57
29	SLE RA 16	14	0	2306	490.54	3.76	-4.55
29	SLE RA 17	14	-4	2295	488.07	3.77	-4.57
29	SLE RA 18	13	0	2412	511.36	3.97	-4.42
29	SLE RA 19	13	-4	2401	508.89	3.99	-4.44
29	SLE RA 20	13	0	2412	511.36	3.97	-4.42
29	SLE RA 21	13	-4	2401	508.89	3.99	-4.44
29	SLE FR 1	14	-1	2060	441.96	3.26	-4.86
29	SLE FR 2	14	-2	2056	441.13	3.26	-4.86
29	SLE FR 3	14	-1	2060	441.96	3.26	-4.86
29	SLE FR 4	14	-2	2162	461.95	3.48	-4.73
29	SLE FR 5	14	0	2165	462.78	3.47	-4.73
29	SLE FR 6	14	0	2236	476.66	3.62	-4.64
29	SLE QP 1	14	-1	2060	441.96	3.26	-4.86
29	SLE QP 2	14	0	2165	462.78	3.47	-4.73
29	SLD 1	186	52	2217	473.5	4.06	-64.79
29	SLD 2	222	60	2218	473.01	4.04	-77.61
29	SLD 3	177	-43	2028	441.78	3.5	-61.86
29	SLD 4	214	-35	2029	441.3	3.48	-74.68
29	SLD 5	64	157	2468	514.27	4.5	-22.44
29	SLD 6	102	165	2469	513.76	4.48	-35.76
29	SLD 7	37	-161	1836	408.56	2.64	-12.7
29	SLD 8	75	-152	1837	408.06	2.62	-26.02
29	SLD 9	-47	152	2494	517.5	4.32	16.57
29	SLD 10	-9	160	2494	516.99	4.3	3.24
29	SLD 11	-74	-166	1862	411.79	2.46	26.31
29	SLD 12	-36	-157	1863	411.28	2.44	12.99
29	SLD 13	-186	35	2302	484.26	3.46	65.23
29	SLD 14	-149	43	2303	483.77	3.44	52.41
29	SLD 15	-194	-61	2113	452.55	2.9	68.15
29	SLD 16	-157	-53	2114	452.06	2.89	55.33
29	SLV 1	405	121	2289	487.73	4.82	-141.49
29	SLV 2	489	140	2291	486.61	4.79	-170.89
29	SLV 3	385	-101	1846	413.79	3.52	-134.63
29	SLV 4	470	-83	1848	412.68	3.48	-164.03
29	SLV 5	129	367	2873	582.82	5.87	-45.09
29	SLV 6	217	386	2875	581.64	5.83	-76.05



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
29	SLV 7	65	-375	1398	336.37	1.52	-22.22
29	SLV 8	153	-356	1400	335.19	1.49	-53.19
29	SLV 9	-125	355	2931	590.36	5.46	43.73
29	SLV 10	-37	374	2933	589.19	5.42	12.77
29	SLV 11	-189	-387	1456	343.91	1.11	66.6
29	SLV 12	-100	-367	1458	342.74	1.08	35.63
29	SLV 13	-442	82	2483	512.88	3.46	154.58
29	SLV 14	-357	100	2485	511.76	3.42	125.18
29	SLV 15	-461	-141	2040	438.94	2.16	161.44
29	SLV 16	-376	-122	2042	437.83	2.12	132.04
29	CRTFP Ux+	0	0	0	0	0	0
29	CRTFP Ux-	0	0	0	0	0	0
29	CRTFP Uy+	0	0	0	0	0	0
29	CRTFP Uy-	0	0	0	0	0	0
30	SLU 1	15	4	1890	348.86	2.79	-5.13
30	SLU 2	15	-5	1860	342.85	2.82	-5.2
30	SLU 3	15	4	1890	348.86	2.79	-5.13
30	SLU 4	15	-1	1872	345.25	2.81	-5.17
30	SLU 5	15	-5	1860	342.85	2.82	-5.2
30	SLU 6	15	4	1890	348.86	2.79	-5.13
30	SLU 7	15	-1	1872	345.25	2.81	-5.17
30	SLU 8	15	4	1890	348.86	2.79	-5.13
30	SLU 9	15	-1	1872	345.25	2.81	-5.17
30	SLU 10	14	-3	2208	397.97	3.51	-4.69
30	SLU 11	14	6	2238	403.97	3.48	-4.62
30	SLU 12	14	0	2220	400.37	3.49	-4.66
30	SLU 13	14	-3	2208	397.97	3.51	-4.69
30	SLU 14	14	6	2238	403.97	3.48	-4.62
30	SLU 15	14	0	2220	400.37	3.49	-4.66
30	SLU 16	14	6	2238	403.97	3.48	-4.62
30	SLU 17	14	0	2220	400.37	3.49	-4.66
30	SLU 18	13	7	2387	427.59	3.77	-4.4
30	SLU 19	13	1	2369	423.99	3.79	-4.45
30	SLU 20	13	7	2387	427.59	3.77	-4.4
30	SLU 21	13	1	2369	423.99	3.79	-4.45
30	SLU 22	15	6	2145	389.14	3.27	-4.94
30	SLU 23	15	-4	2115	383.14	3.3	-5.01
30	SLU 24	15	6	2145	389.14	3.27	-4.94
30	SLU 25	15	0	2127	385.54	3.29	-4.98
30	SLU 26	15	-4	2115	383.14	3.3	-5.01
30	SLU 27	15	6	2145	389.14	3.27	-4.94
30	SLU 28	15	0	2127	385.54	3.29	-4.98
30	SLU 29	15	6	2145	389.14	3.27	-4.94
30	SLU 30	15	0	2127	385.54	3.29	-4.98
30	SLU 31	13	-2	2463	438.25	3.99	-4.5
30	SLU 32	13	8	2492	444.26	3.96	-4.43
30	SLU 33	13	2	2474	440.65	3.98	-4.47
30	SLU 34	13	-2	2463	438.25	3.99	-4.5
30	SLU 35	13	8	2492	444.26	3.96	-4.43
30	SLU 36	13	2	2474	440.65	3.98	-4.47
30	SLU 37	13	8	2492	444.26	3.96	-4.43
30	SLU 38	13	2	2474	440.65	3.98	-4.47
30	SLU 39	13	8	2641	467.88	4.25	-4.22
30	SLU 40	13	3	2623	464.28	4.27	-4.26
30	SLU 41	13	8	2641	467.88	4.25	-4.22
30	SLU 42	13	3	2623	464.28	4.27	-4.26
30	SLU 43	20	5	2370	439.7	3.46	-6.74
30	SLU 44	20	-4	2340	433.7	3.49	-6.81
30	SLU 45	20	5	2370	439.7	3.46	-6.74
30	SLU 46	20	-1	2352	436.1	3.48	-6.78
30	SLU 47	20	-4	2340	433.7	3.49	-6.81
30	SLU 48	20	5	2370	439.7	3.46	-6.74
30	SLU 49	20	-1	2352	436.1	3.48	-6.78
30	SLU 50	20	5	2370	439.7	3.46	-6.74
30	SLU 51	20	-1	2352	436.1	3.48	-6.78
30	SLU 52	19	-3	2688	488.81	4.18	-6.3
30	SLU 53	18	7	2718	494.82	4.15	-6.23
30	SLU 54	19	1	2700	491.21	4.16	-6.27
30	SLU 55	19	-3	2688	488.81	4.18	-6.3
30	SLU 56	18	7	2718	494.82	4.15	-6.23
30	SLU 57	19	1	2700	491.21	4.16	-6.27
30	SLU 58	18	7	2718	494.82	4.15	-6.23
30	SLU 59	19	1	2700	491.21	4.16	-6.27
30	SLU 60	18	8	2867	518.44	4.44	-6.01
30	SLU 61	18	2	2849	514.83	4.46	-6.05
30	SLU 62	18	8	2867	518.44	4.44	-6.01
30	SLU 63	18	2	2849	514.83	4.46	-6.05
30	SLU 64	19	6	2625	479.99	3.94	-6.55
30	SLU 65	20	-3	2595	473.98	3.97	-6.62
30	SLU 66	19	6	2625	479.99	3.94	-6.55
30	SLU 67	19	1	2607	476.38	3.96	-6.59
30	SLU 68	20	-3	2595	473.98	3.97	-6.62
30	SLU 69	19	6	2625	479.99	3.94	-6.55
30	SLU 70	19	1	2607	476.38	3.96	-6.59
30	SLU 71	19	6	2625	479.99	3.94	-6.55
30	SLU 72	19	1	2607	476.38	3.96	-6.59
30	SLU 73	18	-1	2942	529.1	4.66	-6.11
30	SLU 74	18	8	2972	535.1	4.63	-6.04
30	SLU 75	18	3	2954	531.5	4.65	-6.08
30	SLU 76	18	-1	2942	529.1	4.66	-6.11
30	SLU 77	18	8	2972	535.1	4.63	-6.04



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
30	SLU 78	18	3	2954	531.5	4.65	-6.08
30	SLU 79	18	8	2972	535.1	4.63	-6.04
30	SLU 80	18	3	2954	531.5	4.65	-6.08
30	SLU 81	17	9	3121	558.72	4.92	-5.82
30	SLU 82	18	3	3103	555.12	4.94	-5.86
30	SLU 83	17	9	3121	558.72	4.92	-5.82
30	SLU 84	18	3	3103	555.12	4.94	-5.86
30	SLE RA 1	15	5	1963	360.37	2.93	-5.08
30	SLE RA 2	15	-2	1943	356.36	2.95	-5.12
30	SLE RA 3	15	5	1963	360.37	2.93	-5.08
30	SLE RA 4	15	1	1951	357.97	2.94	-5.11
30	SLE RA 5	15	-2	1943	356.36	2.95	-5.12
30	SLE RA 6	15	5	1963	360.37	2.93	-5.08
30	SLE RA 7	15	1	1951	357.97	2.94	-5.11
30	SLE RA 8	15	5	1963	360.37	2.93	-5.08
30	SLE RA 9	15	1	1951	357.97	2.94	-5.11
30	SLE RA 10	14	0	2175	393.11	3.4	-4.78
30	SLE RA 11	14	6	2195	397.11	3.38	-4.74
30	SLE RA 12	14	2	2183	394.71	3.4	-4.77
30	SLE RA 13	14	0	2175	393.11	3.4	-4.78
30	SLE RA 14	14	6	2195	397.11	3.38	-4.74
30	SLE RA 15	14	2	2183	394.71	3.4	-4.77
30	SLE RA 16	14	6	2195	397.11	3.38	-4.74
30	SLE RA 17	14	2	2183	394.71	3.4	-4.77
30	SLE RA 18	14	7	2294	412.86	3.58	-4.59
30	SLE RA 19	14	3	2282	410.46	3.59	-4.62
30	SLE RA 20	14	7	2294	412.86	3.58	-4.59
30	SLE RA 21	14	3	2282	410.46	3.59	-4.62
30	SLE FR 1	15	5	1963	360.37	2.93	-5.08
30	SLE FR 2	15	3	1959	359.57	2.93	-5.09
30	SLE FR 3	15	5	1963	360.37	2.93	-5.08
30	SLE FR 4	15	4	2058	375.31	3.13	-4.94
30	SLE FR 5	15	5	2062	376.12	3.12	-4.93
30	SLE FR 6	14	6	2129	386.61	3.25	-4.84
30	SLE QP 1	15	5	1963	360.37	2.93	-5.08
30	SLE QP 2	15	5	2062	376.12	3.12	-4.93
30	SLD 1	186	55	2098	381.96	3.69	-65.09
30	SLD 2	223	64	2099	381.44	3.67	-77.92
30	SLD 3	178	-36	1924	360.09	3.17	-62.09
30	SLD 4	215	-27	1925	359.56	3.16	-74.93
30	SLD 5	65	156	2336	411.24	4.08	-22.78
30	SLD 6	103	165	2337	410.69	4.06	-36.11
30	SLD 7	37	-150	1757	338.33	2.36	-12.8
30	SLD 8	76	-140	1758	337.78	2.35	-26.13
30	SLD 9	-46	150	2366	414.45	3.9	16.27
30	SLD 10	-8	160	2368	413.9	3.88	2.93
30	SLD 11	-74	-155	1788	341.54	2.18	26.25
30	SLD 12	-36	-145	1789	340.99	2.17	12.91
30	SLD 13	-186	38	2199	392.67	3.09	65.06
30	SLD 14	-149	47	2201	392.14	3.07	52.23
30	SLD 15	-194	-54	2026	370.8	2.57	68.06
30	SLD 16	-157	-45	2027	370.27	2.56	55.22
30	SLV 1	406	121	2148	389.72	4.42	-141.92
30	SLV 2	490	143	2151	388.52	4.38	-171.35
30	SLV 3	386	-93	1742	338.79	3.22	-134.89
30	SLV 4	470	-71	1745	337.59	3.18	-164.32
30	SLV 5	130	357	2702	457.9	5.35	-45.61
30	SLV 6	219	379	2705	456.62	5.31	-76.61
30	SLV 7	64	-357	1350	288.13	1.34	-22.17
30	SLV 8	153	-334	1353	286.86	1.3	-53.17
30	SLV 9	-124	345	2772	465.37	4.94	43.31
30	SLV 10	-35	367	2775	464.1	4.9	12.31
30	SLV 11	-190	-369	1419	295.61	0.94	66.74
30	SLV 12	-101	-346	1423	294.33	0.9	35.74
30	SLV 13	-441	82	2380	414.65	3.06	154.46
30	SLV 14	-357	103	2383	413.44	3.02	125.02
30	SLV 15	-461	-132	1974	363.72	1.86	161.49
30	SLV 16	-376	-111	1977	362.51	1.82	132.05
30	CRTFP Ux+	0	0	0	0	0	0
30	CRTFP Ux-	0	0	0	0	0	0
30	CRTFP Uy+	0	0	0	0	0	0
30	CRTFP Uy-	0	0	0	0	0	0
31	SLU 1	16	9	1811	281.62	2.31	-5.31
31	SLU 2	16	-1	1780	275.73	2.34	-5.42
31	SLU 3	16	9	1811	281.62	2.31	-5.31
31	SLU 4	16	3	1792	278.09	2.33	-5.37
31	SLU 5	16	-1	1780	275.73	2.34	-5.42
31	SLU 6	16	9	1811	281.62	2.31	-5.31
31	SLU 7	16	3	1792	278.09	2.33	-5.37
31	SLU 8	16	9	1811	281.62	2.31	-5.31
31	SLU 9	16	3	1792	278.09	2.33	-5.37
31	SLU 10	14	2	2108	315.37	2.93	-4.85
31	SLU 11	14	12	2138	321.27	2.9	-4.74
31	SLU 12	14	6	2120	317.73	2.92	-4.81
31	SLU 13	14	2	2108	315.37	2.93	-4.85
31	SLU 14	14	12	2138	321.27	2.9	-4.74
31	SLU 15	14	6	2120	317.73	2.92	-4.81
31	SLU 16	14	12	2138	321.27	2.9	-4.74
31	SLU 17	14	6	2120	317.73	2.92	-4.81
31	SLU 18	13	13	2279	338.26	3.15	-4.5
31	SLU 19	14	7	2260	334.72	3.17	-4.57



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
31	SLU 20	13	13	2279	338.26	3.15	-4.5
31	SLU 21	14	7	2260	334.72	3.17	-4.57
31	SLU 22	15	11	2051	310.77	2.72	-5.08
31	SLU 23	15	1	2020	304.87	2.75	-5.19
31	SLU 24	15	11	2051	310.77	2.72	-5.08
31	SLU 25	15	5	2033	307.23	2.74	-5.15
31	SLU 26	15	1	2020	304.87	2.75	-5.19
31	SLU 27	15	11	2051	310.77	2.72	-5.08
31	SLU 28	15	5	2033	307.23	2.74	-5.15
31	SLU 29	15	11	2051	310.77	2.72	-5.08
31	SLU 30	15	5	2033	307.23	2.74	-5.15
31	SLU 31	14	4	2348	344.51	3.34	-4.63
31	SLU 32	13	14	2379	350.41	3.31	-4.52
31	SLU 33	14	8	2361	346.87	3.32	-4.58
31	SLU 34	14	4	2348	344.51	3.34	-4.63
31	SLU 35	13	14	2379	350.41	3.31	-4.52
31	SLU 36	14	8	2361	346.87	3.32	-4.58
31	SLU 37	13	14	2379	350.41	3.31	-4.52
31	SLU 38	14	8	2361	346.87	3.32	-4.58
31	SLU 39	13	15	2520	367.4	3.56	-4.28
31	SLU 40	13	9	2501	363.86	3.58	-4.34
31	SLU 41	13	15	2520	367.4	3.56	-4.28
31	SLU 42	13	9	2501	363.86	3.58	-4.34
31	SLU 43	20	11	2271	356.12	2.87	-6.98
31	SLU 44	21	1	2241	350.22	2.89	-7.09
31	SLU 45	20	11	2271	356.12	2.87	-6.98
31	SLU 46	21	5	2253	352.58	2.88	-7.04
31	SLU 47	21	1	2241	350.22	2.89	-7.09
31	SLU 48	20	11	2271	356.12	2.87	-6.98
31	SLU 49	21	5	2253	352.58	2.88	-7.04
31	SLU 50	20	11	2271	356.12	2.87	-6.98
31	SLU 51	21	5	2253	352.58	2.88	-7.04
31	SLU 52	19	4	2568	389.87	3.48	-6.52
31	SLU 53	19	14	2599	395.76	3.45	-6.41
31	SLU 54	19	8	2581	392.22	3.47	-6.48
31	SLU 55	19	4	2568	389.87	3.48	-6.52
31	SLU 56	19	14	2599	395.76	3.45	-6.41
31	SLU 57	19	8	2581	392.22	3.47	-6.48
31	SLU 58	19	14	2599	395.76	3.45	-6.41
31	SLU 59	19	8	2581	392.22	3.47	-6.48
31	SLU 60	18	15	2740	412.75	3.7	-6.17
31	SLU 61	18	9	2721	409.21	3.72	-6.24
31	SLU 62	18	15	2740	412.75	3.7	-6.17
31	SLU 63	18	9	2721	409.21	3.72	-6.24
31	SLU 64	20	13	2512	385.26	3.28	-6.75
31	SLU 65	20	3	2481	379.37	3.3	-6.86
31	SLU 66	20	13	2512	385.26	3.28	-6.75
31	SLU 67	20	7	2494	381.72	3.29	-6.82
31	SLU 68	20	3	2481	379.37	3.3	-6.86
31	SLU 69	20	13	2512	385.26	3.28	-6.75
31	SLU 70	20	7	2494	381.72	3.29	-6.82
31	SLU 71	20	13	2512	385.26	3.28	-6.75
31	SLU 72	20	7	2494	381.72	3.29	-6.82
31	SLU 73	19	6	2809	419.01	3.89	-6.3
31	SLU 74	18	16	2840	424.91	3.86	-6.19
31	SLU 75	18	10	2821	421.37	3.88	-6.25
31	SLU 76	19	6	2809	419.01	3.89	-6.3
31	SLU 77	18	16	2840	424.91	3.86	-6.19
31	SLU 78	18	10	2821	421.37	3.88	-6.25
31	SLU 79	18	16	2840	424.91	3.86	-6.19
31	SLU 80	18	10	2821	421.37	3.88	-6.25
31	SLU 81	18	17	2980	441.89	4.11	-5.95
31	SLU 82	18	11	2962	438.36	4.13	-6.01
31	SLU 83	18	17	2980	441.89	4.11	-5.95
31	SLU 84	18	11	2962	438.36	4.13	-6.01
31	SLE RA 1	15	9	1879	289.95	2.43	-5.24
31	SLE RA 2	16	3	1859	286.02	2.45	-5.32
31	SLE RA 3	15	9	1879	289.95	2.43	-5.24
31	SLE RA 4	16	6	1867	287.59	2.44	-5.29
31	SLE RA 5	16	3	1859	286.02	2.45	-5.32
31	SLE RA 6	15	9	1879	289.95	2.43	-5.24
31	SLE RA 7	16	6	1867	287.59	2.44	-5.29
31	SLE RA 8	15	9	1879	289.95	2.43	-5.24
31	SLE RA 9	16	6	1867	287.59	2.44	-5.29
31	SLE RA 10	15	5	2077	312.45	2.84	-4.94
31	SLE RA 11	14	11	2098	316.38	2.82	-4.87
31	SLE RA 12	14	8	2086	314.02	2.83	-4.91
31	SLE RA 13	15	5	2077	312.45	2.84	-4.94
31	SLE RA 14	14	11	2098	316.38	2.82	-4.87
31	SLE RA 15	14	8	2086	314.02	2.83	-4.91
31	SLE RA 16	14	11	2098	316.38	2.82	-4.87
31	SLE RA 17	14	8	2086	314.02	2.83	-4.91
31	SLE RA 18	14	12	2192	327.71	2.99	-4.71
31	SLE RA 19	14	8	2179	325.35	3	-4.75
31	SLE RA 20	14	12	2192	327.71	2.99	-4.71
31	SLE RA 21	14	8	2179	325.35	3	-4.75
31	SLE FR 1	15	9	1879	289.95	2.43	-5.24
31	SLE FR 2	15	8	1875	289.16	2.43	-5.26
31	SLE FR 3	15	9	1879	289.95	2.43	-5.24
31	SLE FR 4	15	9	1969	300.49	2.6	-5.1
31	SLE FR 5	15	10	1973	301.28	2.6	-5.08



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
31	SLE FR 6	15	11	2036	308.83	2.71	-4.98
31	SLE QP 1	15	9	1879	289.95	2.43	-5.24
31	SLE QP 2	15	10	1973	301.28	2.6	-5.08
31	SLD 1	187	58	1992	303.57	3.13	-65.31
31	SLD 2	224	68	1994	303.02	3.11	-78.16
31	SLD 3	178	-31	1833	288.54	2.69	-62.25
31	SLD 4	215	-20	1835	288	2.68	-75.09
31	SLD 5	66	155	2221	324.96	3.42	-23.05
31	SLD 6	104	166	2223	324.39	3.4	-36.4
31	SLD 7	37	-140	1688	274.87	1.97	-12.84
31	SLD 8	76	-129	1690	274.3	1.96	-26.18
31	SLD 9	-46	149	2256	328.25	3.24	16.02
31	SLD 10	-7	160	2258	327.69	3.22	2.67
31	SLD 11	-74	-145	1724	278.17	1.79	26.23
31	SLD 12	-36	-134	1726	277.6	1.77	12.89
31	SLD 13	-185	41	2112	314.56	2.52	64.93
31	SLD 14	-148	51	2114	314.01	2.5	52.08
31	SLD 15	-194	-48	1952	299.53	2.08	67.99
31	SLD 16	-157	-37	1954	298.99	2.06	55.15
31	SLV 1	406	121	2022	306.63	3.82	-142.24
31	SLV 2	491	145	2026	305.38	3.78	-171.7
31	SLV 3	386	-86	1648	271.69	2.81	-135.05
31	SLV 4	471	-61	1653	270.44	2.77	-164.5
31	SLV 5	131	348	2553	356.34	4.52	-46.05
31	SLV 6	220	373	2557	355.03	4.48	-77.07
31	SLV 7	64	-341	1308	239.88	1.13	-22.07
31	SLV 8	153	-315	1312	238.56	1.09	-53.09
31	SLV 9	-123	336	2634	363.99	4.1	42.92
31	SLV 10	-34	362	2639	362.68	4.06	11.9
31	SLV 11	-190	-353	1389	247.53	0.72	66.9
31	SLV 12	-101	-327	1394	246.21	0.67	35.88
31	SLV 13	-441	82	2294	332.12	2.43	154.34
31	SLV 14	-356	106	2298	330.87	2.39	124.88
31	SLV 15	-461	-124	1920	297.18	1.41	161.53
31	SLV 16	-377	-100	1924	295.93	1.37	132.08
31	CRTFP Ux+	0	0	0	0	0	0
31	CRTFP Ux-	0	0	0	0	0	0
31	CRTFP Uy+	0	0	0	0	0	0
31	CRTFP Uy-	0	0	0	0	0	0
32	SLU 1	16	13	1747	227.69	1.76	-5.44
32	SLU 2	16	3	1716	221.85	1.78	-5.6
32	SLU 3	16	13	1747	227.69	1.76	-5.44
32	SLU 4	16	7	1728	224.19	1.77	-5.53
32	SLU 5	16	3	1716	221.85	1.78	-5.6
32	SLU 6	16	13	1747	227.69	1.76	-5.44
32	SLU 7	16	7	1728	224.19	1.77	-5.53
32	SLU 8	16	13	1747	227.69	1.76	-5.44
32	SLU 9	16	7	1728	224.19	1.77	-5.53
32	SLU 10	15	7	2027	248.92	2.24	-4.97
32	SLU 11	14	16	2059	254.75	2.22	-4.81
32	SLU 12	14	11	2040	251.25	2.23	-4.91
32	SLU 13	15	7	2027	248.92	2.24	-4.97
32	SLU 14	14	16	2059	254.75	2.22	-4.81
32	SLU 15	14	11	2040	251.25	2.23	-4.91
32	SLU 16	14	16	2059	254.75	2.22	-4.81
32	SLU 17	14	11	2040	251.25	2.23	-4.91
32	SLU 18	13	18	2192	266.35	2.42	-4.55
32	SLU 19	14	12	2173	262.85	2.43	-4.64
32	SLU 20	13	18	2192	266.35	2.42	-4.55
32	SLU 21	14	12	2173	262.85	2.43	-4.64
32	SLU 22	15	15	1976	247.79	2.08	-5.17
32	SLU 23	16	5	1945	241.96	2.1	-5.33
32	SLU 24	15	15	1976	247.79	2.08	-5.17
32	SLU 25	15	9	1958	244.29	2.09	-5.27
32	SLU 26	16	5	1945	241.96	2.1	-5.33
32	SLU 27	15	15	1976	247.79	2.08	-5.17
32	SLU 28	15	9	1958	244.29	2.09	-5.27
32	SLU 29	15	15	1976	247.79	2.08	-5.17
32	SLU 30	15	9	1958	244.29	2.09	-5.27
32	SLU 31	14	9	2256	269.02	2.56	-4.71
32	SLU 32	13	19	2288	274.86	2.54	-4.55
32	SLU 33	14	13	2269	271.36	2.56	-4.65
32	SLU 34	14	9	2256	269.02	2.56	-4.71
32	SLU 35	13	19	2288	274.86	2.54	-4.55
32	SLU 36	14	13	2269	271.36	2.56	-4.65
32	SLU 37	13	19	2288	274.86	2.54	-4.55
32	SLU 38	14	13	2269	271.36	2.56	-4.65
32	SLU 39	13	21	2421	286.45	2.74	-4.28
32	SLU 40	13	15	2402	282.95	2.76	-4.38
32	SLU 41	13	21	2421	286.45	2.74	-4.28
32	SLU 42	13	15	2402	282.95	2.76	-4.38
32	SLU 43	21	16	2193	289.1	2.17	-7.16
32	SLU 44	21	6	2161	283.27	2.2	-7.32
32	SLU 45	21	16	2193	289.1	2.17	-7.16
32	SLU 46	21	10	2174	285.6	2.19	-7.25
32	SLU 47	21	6	2161	283.27	2.2	-7.32
32	SLU 48	21	16	2193	289.1	2.17	-7.16
32	SLU 49	21	10	2174	285.6	2.19	-7.25
32	SLU 50	21	16	2193	289.1	2.17	-7.16
32	SLU 51	21	10	2174	285.6	2.19	-7.25
32	SLU 52	20	10	2473	310.33	2.66	-6.69



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
32	SLU 53	19	19	2504	316.17	2.64	-6.53
32	SLU 54	19	13	2485	312.67	2.65	-6.63
32	SLU 55	20	10	2473	310.33	2.66	-6.69
32	SLU 56	19	19	2504	316.17	2.64	-6.53
32	SLU 57	19	13	2485	312.67	2.65	-6.63
32	SLU 58	19	19	2504	316.17	2.64	-6.53
32	SLU 59	19	13	2485	312.67	2.65	-6.63
32	SLU 60	18	21	2638	327.76	2.84	-6.27
32	SLU 61	19	15	2619	324.26	2.85	-6.36
32	SLU 62	18	21	2638	327.76	2.84	-6.27
32	SLU 63	19	15	2619	324.26	2.85	-6.36
32	SLU 64	20	18	2422	309.21	2.5	-6.89
32	SLU 65	21	8	2390	303.37	2.52	-7.05
32	SLU 66	20	18	2422	309.21	2.5	-6.89
32	SLU 67	20	12	2403	305.71	2.51	-6.99
32	SLU 68	21	8	2390	303.37	2.52	-7.05
32	SLU 69	20	18	2422	309.21	2.5	-6.89
32	SLU 70	20	12	2403	305.71	2.51	-6.99
32	SLU 71	20	18	2422	309.21	2.5	-6.89
32	SLU 72	20	12	2403	305.71	2.51	-6.99
32	SLU 73	19	12	2702	330.44	2.98	-6.43
32	SLU 74	18	22	2733	336.27	2.96	-6.27
32	SLU 75	19	16	2714	332.77	2.97	-6.37
32	SLU 76	19	12	2702	330.44	2.98	-6.43
32	SLU 77	18	22	2733	336.27	2.96	-6.27
32	SLU 78	19	16	2714	332.77	2.97	-6.37
32	SLU 79	18	22	2733	336.27	2.96	-6.27
32	SLU 80	19	16	2714	332.77	2.97	-6.37
32	SLU 81	18	24	2867	347.87	3.16	-6
32	SLU 82	18	18	2848	344.37	3.17	-6.1
32	SLU 83	18	24	2867	347.87	3.16	-6
32	SLU 84	18	18	2848	344.37	3.17	-6.1
32	SLE RA 1	16	13	1813	233.43	1.85	-5.36
32	SLE RA 2	16	7	1792	229.54	1.86	-5.47
32	SLE RA 3	16	13	1813	233.43	1.85	-5.36
32	SLE RA 4	16	9	1800	231.1	1.86	-5.42
32	SLE RA 5	16	7	1792	229.54	1.86	-5.47
32	SLE RA 6	16	13	1813	233.43	1.85	-5.36
32	SLE RA 7	16	9	1800	231.1	1.86	-5.42
32	SLE RA 8	16	13	1813	233.43	1.85	-5.36
32	SLE RA 9	16	9	1800	231.1	1.86	-5.42
32	SLE RA 10	15	9	1999	247.59	2.17	-5.05
32	SLE RA 11	15	16	2020	251.47	2.16	-4.95
32	SLE RA 12	15	12	2008	249.14	2.17	-5.01
32	SLE RA 13	15	9	1999	247.59	2.17	-5.05
32	SLE RA 14	15	16	2020	251.47	2.16	-4.95
32	SLE RA 15	15	12	2008	249.14	2.17	-5.01
32	SLE RA 16	15	16	2020	251.47	2.16	-4.95
32	SLE RA 17	15	12	2008	249.14	2.17	-5.01
32	SLE RA 18	14	17	2109	259.21	2.29	-4.77
32	SLE RA 19	14	13	2097	256.87	2.3	-4.83
32	SLE RA 20	14	17	2109	259.21	2.29	-4.77
32	SLE RA 21	14	13	2097	256.87	2.3	-4.83
32	SLE FR 1	16	13	1813	233.43	1.85	-5.36
32	SLE FR 2	16	12	1809	232.66	1.85	-5.38
32	SLE FR 3	16	13	1813	233.43	1.85	-5.36
32	SLE FR 4	15	13	1897	240.39	1.98	-5.2
32	SLE FR 5	15	15	1902	241.17	1.98	-5.18
32	SLE FR 6	15	15	1961	246.32	2.07	-5.06
32	SLE QP 1	16	13	1813	233.43	1.85	-5.36
32	SLE QP 2	15	15	1902	241.17	1.98	-5.18
32	SLD 1	187	60	1906	242.18	2.48	-65.47
32	SLD 2	224	71	1908	241.66	2.46	-78.31
32	SLD 3	178	-26	1757	229.2	2.15	-62.34
32	SLD 4	215	-14	1759	228.69	2.13	-75.18
32	SLD 5	67	154	2128	261.34	2.64	-23.27
32	SLD 6	105	166	2130	260.81	2.62	-36.62
32	SLD 7	37	-132	1632	218.09	1.53	-12.84
32	SLD 8	75	-120	1634	217.55	1.51	-26.18
32	SLD 9	-45	149	2169	264.78	2.45	15.82
32	SLD 10	-7	161	2172	264.24	2.43	2.47
32	SLD 11	-75	-137	1673	221.52	1.34	26.25
32	SLD 12	-36	-125	1676	220.99	1.32	12.9
32	SLD 13	-185	44	2044	253.64	1.83	64.82
32	SLD 14	-148	55	2046	253.13	1.82	51.97
32	SLD 15	-194	-42	1895	240.67	1.5	67.95
32	SLD 16	-157	-31	1897	240.15	1.48	55.1
32	SLV 1	407	120	1916	243.61	3.13	-142.48
32	SLV 2	492	147	1921	242.43	3.09	-171.93
32	SLV 3	386	-81	1568	213.39	2.35	-135.13
32	SLV 4	471	-54	1573	212.21	2.31	-164.58
32	SLV 5	132	341	2432	288.17	3.52	-46.43
32	SLV 6	221	369	2437	286.93	3.48	-77.45
32	SLV 7	63	-329	1272	187.45	0.93	-21.92
32	SLV 8	152	-301	1277	186.2	0.88	-52.94
32	SLV 9	-122	330	2526	296.13	3.08	42.58
32	SLV 10	-33	358	2532	294.88	3.04	11.56
32	SLV 11	-191	-340	1366	195.4	0.49	67.08
32	SLV 12	-102	-312	1372	194.16	0.44	36.06
32	SLV 13	-440	83	2230	270.12	1.66	154.22
32	SLV 14	-356	110	2236	268.94	1.61	124.76



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
32	SLV 15	-461	-118	1882	239.9	0.88	161.57
32	SLV 16	-377	-91	1888	238.72	0.83	132.11
32	CRTFP Ux+	0	0	0	0	0	0
32	CRTFP Ux-	0	0	0	0	0	0
32	CRTFP Uy+	0	0	0	0	0	0
32	CRTFP Uy-	0	0	0	0	0	0
33	SLU 1	16	16	1702	188.44	1.16	-5.52
33	SLU 2	17	6	1670	182.65	1.17	-5.74
33	SLU 3	16	16	1702	188.44	1.16	-5.52
33	SLU 4	16	10	1683	184.97	1.17	-5.65
33	SLU 5	17	6	1670	182.65	1.17	-5.74
33	SLU 6	16	16	1702	188.44	1.16	-5.52
33	SLU 7	16	10	1683	184.97	1.17	-5.65
33	SLU 8	16	16	1702	188.44	1.16	-5.52
33	SLU 9	16	10	1683	184.97	1.17	-5.65
33	SLU 10	15	10	1969	200.36	1.5	-5.05
33	SLU 11	14	20	2001	206.15	1.49	-4.84
33	SLU 12	14	14	1981	202.68	1.5	-4.97
33	SLU 13	15	10	1969	200.36	1.5	-5.05
33	SLU 14	14	20	2001	206.15	1.49	-4.84
33	SLU 15	14	14	1981	202.68	1.5	-4.97
33	SLU 16	14	20	2001	206.15	1.49	-4.84
33	SLU 17	14	14	1981	202.68	1.5	-4.97
33	SLU 18	13	22	2129	213.74	1.64	-4.55
33	SLU 19	14	16	2110	210.27	1.64	-4.67
33	SLU 20	13	22	2129	213.74	1.64	-4.55
33	SLU 21	14	16	2110	210.27	1.64	-4.67
33	SLU 22	15	19	1922	201.85	1.39	-5.22
33	SLU 23	16	9	1890	196.06	1.4	-5.43
33	SLU 24	15	19	1922	201.85	1.39	-5.22
33	SLU 25	16	13	1903	198.37	1.39	-5.35
33	SLU 26	16	9	1890	196.06	1.4	-5.43
33	SLU 27	15	19	1922	201.85	1.39	-5.22
33	SLU 28	16	13	1903	198.37	1.39	-5.35
33	SLU 29	15	19	1922	201.85	1.39	-5.22
33	SLU 30	16	13	1903	198.37	1.39	-5.35
33	SLU 31	14	13	2189	213.77	1.73	-4.75
33	SLU 32	13	23	2221	219.56	1.72	-4.53
33	SLU 33	14	17	2202	216.08	1.73	-4.66
33	SLU 34	14	13	2189	213.77	1.73	-4.75
33	SLU 35	13	23	2221	219.56	1.72	-4.53
33	SLU 36	14	17	2202	216.08	1.73	-4.66
33	SLU 37	13	23	2221	219.56	1.72	-4.53
33	SLU 38	14	17	2202	216.08	1.73	-4.66
33	SLU 39	12	25	2349	227.15	1.87	-4.24
33	SLU 40	13	19	2330	223.67	1.87	-4.37
33	SLU 41	12	25	2349	227.15	1.87	-4.24
33	SLU 42	13	19	2330	223.67	1.87	-4.37
33	SLU 43	21	19	2137	240.38	1.43	-7.28
33	SLU 44	22	9	2105	234.58	1.44	-7.5
33	SLU 45	21	19	2137	240.38	1.43	-7.28
33	SLU 46	21	13	2117	236.9	1.43	-7.41
33	SLU 47	22	9	2105	234.58	1.44	-7.5
33	SLU 48	21	19	2137	240.38	1.43	-7.28
33	SLU 49	21	13	2117	236.9	1.43	-7.41
33	SLU 50	21	19	2137	240.38	1.43	-7.28
33	SLU 51	21	13	2117	236.9	1.43	-7.41
33	SLU 52	20	14	2403	252.29	1.77	-6.82
33	SLU 53	19	24	2436	258.09	1.76	-6.6
33	SLU 54	20	18	2416	254.61	1.77	-6.73
33	SLU 55	20	14	2403	252.29	1.77	-6.82
33	SLU 56	19	24	2436	258.09	1.76	-6.6
33	SLU 57	20	18	2416	254.61	1.77	-6.73
33	SLU 58	19	24	2436	258.09	1.76	-6.6
33	SLU 59	20	18	2416	254.61	1.77	-6.73
33	SLU 60	18	26	2564	265.68	1.91	-6.31
33	SLU 61	19	20	2544	262.2	1.91	-6.44
33	SLU 62	18	26	2564	265.68	1.91	-6.31
33	SLU 63	19	20	2544	262.2	1.91	-6.44
33	SLU 64	20	22	2357	253.79	1.66	-6.98
33	SLU 65	21	12	2325	247.99	1.67	-7.19
33	SLU 66	20	22	2357	253.79	1.66	-6.98
33	SLU 67	21	16	2338	250.31	1.66	-7.11
33	SLU 68	21	12	2325	247.99	1.67	-7.19
33	SLU 69	20	22	2357	253.79	1.66	-6.98
33	SLU 70	21	16	2338	250.31	1.66	-7.11
33	SLU 71	20	22	2357	253.79	1.66	-6.98
33	SLU 72	21	16	2338	250.31	1.66	-7.11
33	SLU 73	19	17	2624	265.7	2	-6.51
33	SLU 74	18	27	2656	271.5	1.99	-6.29
33	SLU 75	19	21	2637	268.02	2	-6.42
33	SLU 76	19	17	2624	265.7	2	-6.51
33	SLU 77	18	27	2656	271.5	1.99	-6.29
33	SLU 78	19	21	2637	268.02	2	-6.42
33	SLU 79	18	27	2656	271.5	1.99	-6.29
33	SLU 80	19	21	2637	268.02	2	-6.42
33	SLU 81	18	29	2784	279.09	2.13	-6
33	SLU 82	18	23	2765	275.61	2.14	-6.13
33	SLU 83	18	29	2784	279.09	2.13	-6
33	SLU 84	18	23	2765	275.61	2.14	-6.13
33	SLE RA 1	16	17	1765	192.27	1.22	-5.44



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
33	SLE RA 2	16	10	1743	188.41	1.23	-5.58
33	SLE RA 3	16	17	1765	192.27	1.22	-5.44
33	SLE RA 4	16	13	1752	189.96	1.23	-5.52
33	SLE RA 5	16	10	1743	188.41	1.23	-5.58
33	SLE RA 6	16	17	1765	192.27	1.22	-5.44
33	SLE RA 7	16	13	1752	189.96	1.23	-5.52
33	SLE RA 8	16	17	1765	192.27	1.22	-5.44
33	SLE RA 9	16	13	1752	189.96	1.23	-5.52
33	SLE RA 10	15	13	1943	200.22	1.45	-5.12
33	SLE RA 11	15	20	1964	204.08	1.45	-4.98
33	SLE RA 12	15	16	1951	201.76	1.45	-5.07
33	SLE RA 13	15	13	1943	200.22	1.45	-5.12
33	SLE RA 14	15	20	1964	204.08	1.45	-4.98
33	SLE RA 15	15	16	1951	201.76	1.45	-5.07
33	SLE RA 16	15	20	1964	204.08	1.45	-4.98
33	SLE RA 17	15	16	1951	201.76	1.45	-5.07
33	SLE RA 18	14	21	2050	209.14	1.54	-4.78
33	SLE RA 19	14	17	2037	206.82	1.55	-4.87
33	SLE RA 20	14	21	2050	209.14	1.54	-4.78
33	SLE RA 21	14	17	2037	206.82	1.55	-4.87
33	SLE FR 1	16	17	1765	192.27	1.22	-5.44
33	SLE FR 2	16	15	1761	191.5	1.23	-5.46
33	SLE FR 3	16	17	1765	192.27	1.22	-5.44
33	SLE FR 4	15	16	1846	196.56	1.32	-5.27
33	SLE FR 5	15	18	1850	197.33	1.32	-5.24
33	SLE FR 6	15	19	1907	200.71	1.38	-5.11
33	SLE QP 1	16	17	1765	192.27	1.22	-5.44
33	SLE QP 2	15	18	1850	197.33	1.32	-5.24
33	SLD 1	187	61	1840	198.83	1.79	-65.57
33	SLD 2	224	74	1843	198.4	1.77	-78.41
33	SLD 3	178	-24	1699	184.25	1.57	-62.38
33	SLD 4	215	-10	1702	183.83	1.55	-75.22
33	SLD 5	67	154	2060	220.05	1.8	-23.44
33	SLD 6	105	168	2063	219.6	1.78	-36.78
33	SLD 7	37	-128	1590	171.46	1.07	-12.79
33	SLD 8	75	-114	1593	171.02	1.05	-26.13
33	SLD 9	-45	150	2108	223.65	1.59	15.65
33	SLD 10	-6	163	2111	223.21	1.56	2.31
33	SLD 11	-75	-132	1637	175.07	0.86	26.3
33	SLD 12	-37	-118	1640	174.62	0.84	12.96
33	SLD 13	-185	46	1998	210.84	1.09	64.74
33	SLD 14	-148	59	2002	210.42	1.07	51.9
33	SLD 15	-194	-39	1857	196.27	0.87	67.93
33	SLD 16	-157	-25	1860	195.84	0.85	55.09
33	SLV 1	407	118	1831	200.98	2.4	-142.64
33	SLV 2	492	149	1838	200	2.35	-172.08
33	SLV 3	386	-79	1501	166.94	1.89	-135.13
33	SLV 4	471	-49	1508	165.97	1.84	-164.58
33	SLV 5	133	337	2342	250.41	2.43	-46.75
33	SLV 6	222	369	2350	249.38	2.38	-77.76
33	SLV 7	62	-323	1242	136.97	0.74	-21.74
33	SLV 8	151	-291	1250	135.94	0.69	-52.75
33	SLV 9	-121	326	2451	258.73	1.95	42.27
33	SLV 10	-32	359	2458	257.7	1.9	11.26
33	SLV 11	-192	-333	1351	145.29	0.26	67.28
33	SLV 12	-103	-301	1358	144.26	0.21	36.27
33	SLV 13	-440	84	2192	228.7	0.8	154.1
33	SLV 14	-356	115	2199	227.73	0.75	124.65
33	SLV 15	-461	-113	1862	194.67	0.29	161.6
33	SLV 16	-377	-83	1869	193.69	0.24	132.16
33	CRTFP Ux+	0	0	0	0	0	0
33	CRTFP Ux-	0	0	0	0	0	0
33	CRTFP Uy+	0	0	0	0	0	0
33	CRTFP Uy-	0	0	0	0	0	0
34	SLU 1	16	18	1676	164.76	0.53	-5.57
34	SLU 2	17	7	1643	158.99	0.52	-5.85
34	SLU 3	16	18	1676	164.76	0.53	-5.57
34	SLU 4	17	12	1656	161.3	0.52	-5.74
34	SLU 5	17	7	1643	158.99	0.52	-5.85
34	SLU 6	16	18	1676	164.76	0.53	-5.57
34	SLU 7	17	12	1656	161.3	0.52	-5.74
34	SLU 8	16	18	1676	164.76	0.53	-5.57
34	SLU 9	17	12	1656	161.3	0.52	-5.74
34	SLU 10	15	12	1934	170.8	0.72	-5.1
34	SLU 11	14	23	1966	176.56	0.73	-4.83
34	SLU 12	14	16	1947	173.1	0.72	-4.99
34	SLU 13	15	12	1934	170.8	0.72	-5.1
34	SLU 14	14	23	1966	176.56	0.73	-4.83
34	SLU 15	14	16	1947	173.1	0.72	-4.99
34	SLU 16	14	23	1966	176.56	0.73	-4.83
34	SLU 17	14	16	1947	173.1	0.72	-4.99
34	SLU 18	13	25	2091	181.62	0.81	-4.51
34	SLU 19	14	19	2071	178.16	0.81	-4.67
34	SLU 20	13	25	2091	181.62	0.81	-4.51
34	SLU 21	14	19	2071	178.16	0.81	-4.67
34	SLU 22	15	21	1891	173.98	0.66	-5.23
34	SLU 23	16	11	1858	168.21	0.65	-5.5
34	SLU 24	15	21	1891	173.98	0.66	-5.23
34	SLU 25	16	15	1871	170.52	0.65	-5.39
34	SLU 26	16	11	1858	168.21	0.65	-5.5
34	SLU 27	15	21	1891	173.98	0.66	-5.23



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
34	SLU 28	16	15	1871	170.52	0.65	-5.39
34	SLU 29	15	21	1891	173.98	0.66	-5.23
34	SLU 30	16	15	1871	170.52	0.65	-5.39
34	SLU 31	14	16	2149	180.01	0.85	-4.76
34	SLU 32	13	26	2181	185.78	0.85	-4.48
34	SLU 33	13	20	2162	182.32	0.85	-4.65
34	SLU 34	14	16	2149	180.01	0.85	-4.76
34	SLU 35	13	26	2181	185.78	0.85	-4.48
34	SLU 36	13	20	2162	182.32	0.85	-4.65
34	SLU 37	13	26	2181	185.78	0.85	-4.48
34	SLU 38	13	20	2162	182.32	0.85	-4.65
34	SLU 39	12	28	2306	190.84	0.94	-4.16
34	SLU 40	13	22	2286	187.38	0.94	-4.33
34	SLU 41	12	28	2306	190.84	0.94	-4.16
34	SLU 42	13	22	2286	187.38	0.94	-4.33
34	SLU 43	21	22	2104	211.03	0.64	-7.36
34	SLU 44	22	12	2072	205.26	0.64	-7.64
34	SLU 45	21	22	2104	211.03	0.64	-7.36
34	SLU 46	22	16	2085	207.57	0.64	-7.53
34	SLU 47	22	12	2072	205.26	0.64	-7.64
34	SLU 48	21	22	2104	211.03	0.64	-7.36
34	SLU 49	22	16	2085	207.57	0.64	-7.53
34	SLU 50	21	22	2104	211.03	0.64	-7.36
34	SLU 51	22	16	2085	207.57	0.64	-7.53
34	SLU 52	20	16	2363	217.07	0.84	-6.89
34	SLU 53	19	27	2395	222.83	0.84	-6.62
34	SLU 54	20	21	2376	219.37	0.84	-6.78
34	SLU 55	20	16	2363	217.07	0.84	-6.89
34	SLU 56	19	27	2395	222.83	0.84	-6.62
34	SLU 57	20	21	2376	219.37	0.84	-6.78
34	SLU 58	19	27	2395	222.83	0.84	-6.62
34	SLU 59	20	21	2376	219.37	0.84	-6.78
34	SLU 60	18	29	2519	227.89	0.92	-6.3
34	SLU 61	19	23	2500	224.43	0.92	-6.47
34	SLU 62	18	29	2519	227.89	0.92	-6.3
34	SLU 63	19	23	2500	224.43	0.92	-6.47
34	SLU 64	20	25	2320	220.25	0.77	-7.02
34	SLU 65	21	15	2287	214.48	0.77	-7.29
34	SLU 66	20	25	2320	220.25	0.77	-7.02
34	SLU 67	21	19	2300	216.79	0.77	-7.18
34	SLU 68	21	15	2287	214.48	0.77	-7.29
34	SLU 69	20	25	2320	220.25	0.77	-7.02
34	SLU 70	21	19	2300	216.79	0.77	-7.18
34	SLU 71	20	25	2320	220.25	0.77	-7.02
34	SLU 72	21	19	2300	216.79	0.77	-7.18
34	SLU 73	19	20	2578	226.28	0.97	-6.55
34	SLU 74	18	30	2610	232.05	0.97	-6.27
34	SLU 75	19	24	2591	228.59	0.97	-6.44
34	SLU 76	19	20	2578	226.28	0.97	-6.55
34	SLU 77	18	30	2610	232.05	0.97	-6.27
34	SLU 78	19	24	2591	228.59	0.97	-6.44
34	SLU 79	18	30	2610	232.05	0.97	-6.27
34	SLU 80	19	24	2591	228.59	0.97	-6.44
34	SLU 81	17	32	2735	237.11	1.05	-5.95
34	SLU 82	18	26	2715	233.65	1.05	-6.12
34	SLU 83	17	32	2735	237.11	1.05	-5.95
34	SLU 84	18	26	2715	233.65	1.05	-6.12
34	SLE RA 1	16	19	1737	167.39	0.56	-5.47
34	SLE RA 2	16	12	1715	163.55	0.56	-5.66
34	SLE RA 3	16	19	1737	167.39	0.56	-5.47
34	SLE RA 4	16	15	1724	165.09	0.56	-5.58
34	SLE RA 5	16	12	1715	163.55	0.56	-5.66
34	SLE RA 6	16	19	1737	167.39	0.56	-5.47
34	SLE RA 7	16	15	1724	165.09	0.56	-5.58
34	SLE RA 8	16	19	1737	167.39	0.56	-5.47
34	SLE RA 9	16	15	1724	165.09	0.56	-5.58
34	SLE RA 10	15	15	1909	171.42	0.69	-5.16
34	SLE RA 11	14	22	1931	175.26	0.7	-4.98
34	SLE RA 12	15	18	1918	172.96	0.7	-5.09
34	SLE RA 13	15	15	1909	171.42	0.69	-5.16
34	SLE RA 14	14	22	1931	175.26	0.7	-4.98
34	SLE RA 15	15	18	1918	172.96	0.7	-5.09
34	SLE RA 16	14	22	1931	175.26	0.7	-4.98
34	SLE RA 17	15	18	1918	172.96	0.7	-5.09
34	SLE RA 18	14	23	2014	178.63	0.75	-4.77
34	SLE RA 19	14	19	2001	176.33	0.75	-4.88
34	SLE RA 20	14	23	2014	178.63	0.75	-4.77
34	SLE RA 21	14	19	2001	176.33	0.75	-4.88
34	SLE FR 1	16	19	1737	167.39	0.56	-5.47
34	SLE FR 2	16	17	1733	166.63	0.56	-5.51
34	SLE FR 3	16	19	1737	167.39	0.56	-5.47
34	SLE FR 4	15	19	1816	170	0.62	-5.3
34	SLE FR 5	15	20	1820	170.77	0.62	-5.26
34	SLE FR 6	15	21	1875	173.01	0.66	-5.12
34	SLE QP 1	16	19	1737	167.39	0.56	-5.47
34	SLE QP 2	15	20	1820	170.77	0.62	-5.26
34	SLD 1	187	61	1796	172.85	1.07	-65.62
34	SLD 2	224	77	1800	172.58	1.05	-78.45
34	SLD 3	178	-23	1659	156.24	0.98	-62.37
34	SLD 4	215	-8	1663	155.97	0.95	-75.2
34	SLD 5	67	155	2019	196.68	0.9	-23.56



Nodo	Cont.	Reazione a traslazione				Reazione a rotazione		
Ind.	N.br.	x	y	z		x	y	z
34	SLD 6	106	171	2023	196.4	0.88		-36.89
34	SLD 7	36	-127	1563	141.32	0.6		-12.72
34	SLD 8	75	-111	1567	141.04	0.57		-26.05
34	SLD 9	-44	151	2073	200.49	0.67		15.53
34	SLD 10	-6	167	2077	200.21	0.64		2.2
34	SLD 11	-75	-131	1617	145.13	0.36		26.37
34	SLD 12	-37	-115	1621	144.86	0.34		13.04
34	SLD 13	-185	48	1977	185.56	0.29		64.67
34	SLD 14	-148	63	1981	185.29	0.26		51.84
34	SLD 15	-194	-36	1840	168.96	0.19		67.93
34	SLD 16	-157	-21	1844	168.69	0.17		55.1
34	SLV 1	408	117	1769	175.84	1.65		-142.73
34	SLV 2	492	152	1778	175.22	1.6		-172.15
34	SLV 3	386	-81	1449	137.01	1.44		-135.08
34	SLV 4	470	-46	1458	136.4	1.38		-164.5
34	SLV 5	134	336	2287	231.41	1.28		-47.02
34	SLV 6	223	372	2296	230.76	1.22		-78
34	SLV 7	61	-323	1220	101.99	0.56		-21.53
34	SLV 8	150	-287	1229	101.34	0.5		-52.51
34	SLV 9	-120	327	2411	240.19	0.74		41.99
34	SLV 10	-31	363	2420	239.54	0.68		11.01
34	SLV 11	-193	-332	1344	110.78	0.02		67.48
34	SLV 12	-104	-296	1353	110.13	-0.04		36.5
34	SLV 13	-440	86	2182	205.14	-0.14		153.97
34	SLV 14	-355	121	2191	204.52	-0.2		124.56
34	SLV 15	-462	-111	1862	166.31	-0.35		161.62
34	SLV 16	-377	-77	1871	165.69	-0.41		132.2
34	CRTFP Ux+	0	0	0	0	0	0	0
34	CRTFP Ux-	0	0	0	0	0	0	0
34	CRTFP Uy+	0	0	0	0	0	0	0
34	CRTFP Uy-	0	0	0	0	0	0	0
35	SLU 1	16	19	1669	157.35	-0.15		-5.6
35	SLU 2	17	8	1638	151.62	-0.16		-5.93
35	SLU 3	16	19	1669	157.35	-0.15		-5.6
35	SLU 4	17	13	1650	153.91	-0.15		-5.8
35	SLU 5	17	8	1638	151.62	-0.16		-5.93
35	SLU 6	16	19	1669	157.35	-0.15		-5.6
35	SLU 7	17	13	1650	153.91	-0.15		-5.8
35	SLU 8	16	19	1669	157.35	-0.15		-5.6
35	SLU 9	17	13	1650	153.91	-0.15		-5.8
35	SLU 10	15	13	1924	161.13	-0.1		-5.13
35	SLU 11	14	24	1956	166.86	-0.09		-4.79
35	SLU 12	14	18	1937	163.42	-0.1		-4.99
35	SLU 13	15	13	1924	161.13	-0.1		-5.13
35	SLU 14	14	24	1956	166.86	-0.09		-4.79
35	SLU 15	14	18	1937	163.42	-0.1		-4.99
35	SLU 16	14	24	1956	166.86	-0.09		-4.79
35	SLU 17	14	18	1937	163.42	-0.1		-4.99
35	SLU 18	13	26	2079	170.93	-0.06		-4.45
35	SLU 19	13	20	2060	167.49	-0.07		-4.65
35	SLU 20	13	26	2079	170.93	-0.06		-4.45
35	SLU 21	13	20	2060	167.49	-0.07		-4.65
35	SLU 22	15	22	1882	165	-0.12		-5.21
35	SLU 23	16	12	1850	159.27	-0.13		-5.54
35	SLU 24	15	22	1882	165	-0.12		-5.21
35	SLU 25	16	16	1863	161.56	-0.13		-5.41
35	SLU 26	16	12	1850	159.27	-0.13		-5.54
35	SLU 27	15	22	1882	165	-0.12		-5.21
35	SLU 28	16	16	1863	161.56	-0.13		-5.41
35	SLU 29	15	22	1882	165	-0.12		-5.21
35	SLU 30	16	16	1863	161.56	-0.13		-5.41
35	SLU 31	14	17	2137	168.78	-0.08		-4.74
35	SLU 32	13	27	2169	174.51	-0.06		-4.41
35	SLU 33	13	21	2150	171.07	-0.07		-4.61
35	SLU 34	14	17	2137	168.78	-0.08		-4.74
35	SLU 35	13	27	2169	174.51	-0.06		-4.41
35	SLU 36	13	21	2150	171.07	-0.07		-4.61
35	SLU 37	13	27	2169	174.51	-0.06		-4.41
35	SLU 38	13	21	2150	171.07	-0.07		-4.61
35	SLU 39	12	30	2292	178.58	-0.04		-4.06
35	SLU 40	12	23	2272	175.15	-0.05		-4.26
35	SLU 41	12	30	2292	178.58	-0.04		-4.06
35	SLU 42	12	23	2272	175.15	-0.05		-4.26
35	SLU 43	21	23	2097	201.93	-0.2		-7.41
35	SLU 44	22	13	2065	196.2	-0.21		-7.75
35	SLU 45	21	23	2097	201.93	-0.2		-7.41
35	SLU 46	22	17	2078	198.49	-0.21		-7.61
35	SLU 47	22	13	2065	196.2	-0.21		-7.75
35	SLU 48	21	23	2097	201.93	-0.2		-7.41
35	SLU 49	22	17	2078	198.49	-0.21		-7.61
35	SLU 50	21	23	2097	201.93	-0.2		-7.41
35	SLU 51	22	17	2078	198.49	-0.21		-7.61
35	SLU 52	20	18	2352	205.71	-0.15		-6.94
35	SLU 53	19	28	2384	211.44	-0.14		-6.61
35	SLU 54	20	22	2365	208	-0.15		-6.81
35	SLU 55	20	18	2352	205.71	-0.15		-6.94
35	SLU 56	19	28	2384	211.44	-0.14		-6.61
35	SLU 57	20	22	2365	208	-0.15		-6.81
35	SLU 58	19	28	2384	211.44	-0.14		-6.61
35	SLU 59	20	22	2365	208	-0.15		-6.81
35	SLU 60	18	30	2507	215.51	-0.12		-6.26



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
35	SLU 61	19	24	2488	212.08	-0.12	-6.46
35	SLU 62	18	30	2507	215.51	-0.12	-6.26
35	SLU 63	19	24	2488	212.08	-0.12	-6.46
35	SLU 64	20	27	2310	209.58	-0.17	-7.02
35	SLU 65	21	16	2278	203.85	-0.19	-7.36
35	SLU 66	20	27	2310	209.58	-0.17	-7.02
35	SLU 67	21	21	2291	206.14	-0.18	-7.22
35	SLU 68	21	16	2278	203.85	-0.19	-7.36
35	SLU 69	20	27	2310	209.58	-0.17	-7.02
35	SLU 70	21	21	2291	206.14	-0.18	-7.22
35	SLU 71	20	27	2310	209.58	-0.17	-7.02
35	SLU 72	21	21	2291	206.14	-0.18	-7.22
35	SLU 73	19	21	2565	213.36	-0.13	-6.55
35	SLU 74	18	32	2597	219.09	-0.11	-6.22
35	SLU 75	18	26	2577	215.65	-0.12	-6.42
35	SLU 76	19	21	2565	213.36	-0.13	-6.55
35	SLU 77	18	32	2597	219.09	-0.11	-6.22
35	SLU 78	18	26	2577	215.65	-0.12	-6.42
35	SLU 79	18	32	2597	219.09	-0.11	-6.22
35	SLU 80	18	26	2577	215.65	-0.12	-6.42
35	SLU 81	17	34	2719	223.17	-0.09	-5.87
35	SLU 82	17	28	2700	219.73	-0.1	-6.07
35	SLU 83	17	34	2719	223.17	-0.09	-5.87
35	SLU 84	17	28	2700	219.73	-0.1	-6.07
35	SLE RA 1	16	20	1730	159.53	-0.14	-5.49
35	SLE RA 2	16	13	1709	155.71	-0.15	-5.71
35	SLE RA 3	16	20	1730	159.53	-0.14	-5.49
35	SLE RA 4	16	16	1717	157.24	-0.14	-5.62
35	SLE RA 5	16	13	1709	155.71	-0.15	-5.71
35	SLE RA 6	16	20	1730	159.53	-0.14	-5.49
35	SLE RA 7	16	16	1717	157.24	-0.14	-5.62
35	SLE RA 8	16	20	1730	159.53	-0.14	-5.49
35	SLE RA 9	16	16	1717	157.24	-0.14	-5.62
35	SLE RA 10	15	16	1900	162.05	-0.11	-5.17
35	SLE RA 11	14	23	1921	165.87	-0.1	-4.95
35	SLE RA 12	15	19	1909	163.58	-0.11	-5.08
35	SLE RA 13	15	16	1900	162.05	-0.11	-5.17
35	SLE RA 14	14	23	1921	165.87	-0.1	-4.95
35	SLE RA 15	15	19	1909	163.58	-0.11	-5.08
35	SLE RA 16	14	23	1921	165.87	-0.1	-4.95
35	SLE RA 17	15	19	1909	163.58	-0.11	-5.08
35	SLE RA 18	14	25	2003	168.59	-0.08	-4.72
35	SLE RA 19	14	20	1990	166.3	-0.09	-4.86
35	SLE RA 20	14	25	2003	168.59	-0.08	-4.72
35	SLE RA 21	14	20	1990	166.3	-0.09	-4.86
35	SLE FR 1	16	20	1730	159.53	-0.14	-5.49
35	SLE FR 2	16	18	1726	158.77	-0.14	-5.53
35	SLE FR 3	16	20	1730	159.53	-0.14	-5.49
35	SLE FR 4	15	20	1808	161.49	-0.12	-5.3
35	SLE FR 5	15	21	1812	162.25	-0.12	-5.26
35	SLE FR 6	15	22	1867	164.06	-0.11	-5.1
35	SLE QP 1	16	20	1730	159.53	-0.14	-5.49
35	SLE QP 2	15	21	1812	162.25	-0.12	-5.26
35	SLD 1	187	62	1774	163.85	0.32	-65.63
35	SLD 2	224	79	1779	163.79	0.29	-78.44
35	SLD 3	178	-24	1638	146.46	0.37	-62.32
35	SLD 4	215	-7	1643	146.4	0.34	-75.13
35	SLD 5	68	157	2005	189.13	-0.04	-23.65
35	SLD 6	106	175	2010	189.07	-0.07	-36.97
35	SLD 7	36	-129	1552	131.16	0.1	-12.62
35	SLD 8	74	-111	1557	131.1	0.07	-25.94
35	SLD 9	-44	154	2067	193.4	-0.31	15.42
35	SLD 10	-6	171	2072	193.34	-0.34	2.11
35	SLD 11	-76	-132	1614	135.43	-0.17	26.45
35	SLD 12	-38	-115	1619	135.37	-0.2	13.14
35	SLD 13	-185	50	1981	178.1	-0.58	64.62
35	SLD 14	-148	67	1986	178.04	-0.61	51.81
35	SLD 15	-194	-36	1845	160.71	-0.54	67.93
35	SLD 16	-157	-19	1850	160.65	-0.57	55.11
35	SLV 1	408	116	1730	166.27	0.89	-142.76
35	SLV 2	492	155	1741	166.15	0.82	-172.15
35	SLV 3	385	-85	1412	125.59	0.99	-134.97
35	SLV 4	470	-45	1423	125.47	0.92	-164.36
35	SLV 5	135	339	2266	225.2	0.06	-47.25
35	SLV 6	224	381	2278	225.07	-0.02	-78.2
35	SLV 7	60	-330	1205	89.6	0.39	-21.3
35	SLV 8	149	-288	1217	89.47	0.32	-52.25
35	SLV 9	-119	331	2408	235.03	-0.56	41.73
35	SLV 10	-30	372	2419	234.9	-0.63	10.78
35	SLV 11	-194	-338	1347	99.43	-0.23	67.68
35	SLV 12	-105	-297	1358	99.3	-0.3	36.73
35	SLV 13	-439	88	2201	199.03	-1.16	153.85
35	SLV 14	-355	127	2212	198.91	-1.23	124.46
35	SLV 15	-462	-113	1883	158.35	-1.06	161.63
35	SLV 16	-377	-73	1894	158.23	-1.13	132.24
35	CRTFP Ux+	0	0	0	0	0	0
35	CRTFP Ux-	0	0	0	0	0	0
35	CRTFP Uy+	0	0	0	0	0	0
35	CRTFP Uy-	0	0	0	0	0	0
36	SLU 1	16	19	1685	166.61	-0.87	-5.6
36	SLU 2	17	9	1654	160.95	-0.9	-5.99



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
36	SLU 3	16	19	1685	166.61	-0.87	-5.6
36	SLU 4	17	13	1666	163.21	-0.89	-5.84
36	SLU 5	17	9	1654	160.95	-0.9	-5.99
36	SLU 6	16	19	1685	166.61	-0.87	-5.6
36	SLU 7	17	13	1666	163.21	-0.89	-5.84
36	SLU 8	16	19	1685	166.61	-0.87	-5.6
36	SLU 9	17	13	1666	163.21	-0.89	-5.84
36	SLU 10	15	13	1941	171.82	-0.99	-5.13
36	SLU 11	14	24	1972	177.48	-0.96	-4.74
36	SLU 12	14	18	1953	174.09	-0.98	-4.98
36	SLU 13	15	13	1941	171.82	-0.99	-5.13
36	SLU 14	14	24	1972	177.48	-0.96	-4.74
36	SLU 15	14	18	1953	174.09	-0.98	-4.98
36	SLU 16	14	24	1972	177.48	-0.96	-4.74
36	SLU 17	14	18	1953	174.09	-0.98	-4.98
36	SLU 18	12	26	2095	182.14	-1	-4.37
36	SLU 19	13	20	2076	178.74	-1.02	-4.61
36	SLU 20	12	26	2095	182.14	-1	-4.37
36	SLU 21	13	20	2076	178.74	-1.02	-4.61
36	SLU 22	15	23	1899	175.36	-0.95	-5.17
36	SLU 23	16	12	1867	169.7	-0.98	-5.57
36	SLU 24	15	23	1899	175.36	-0.95	-5.17
36	SLU 25	15	16	1880	171.97	-0.97	-5.41
36	SLU 26	16	12	1867	169.7	-0.98	-5.57
36	SLU 27	15	23	1899	175.36	-0.95	-5.17
36	SLU 28	15	16	1880	171.97	-0.97	-5.41
36	SLU 29	15	23	1899	175.36	-0.95	-5.17
36	SLU 30	15	16	1880	171.97	-0.97	-5.41
36	SLU 31	13	17	2155	180.57	-1.07	-4.71
36	SLU 32	12	28	2186	186.24	-1.05	-4.31
36	SLU 33	13	21	2167	182.84	-1.06	-4.55
36	SLU 34	13	17	2155	180.57	-1.07	-4.71
36	SLU 35	12	28	2186	186.24	-1.05	-4.31
36	SLU 36	13	21	2167	182.84	-1.06	-4.55
36	SLU 37	12	28	2186	186.24	-1.05	-4.31
36	SLU 38	13	21	2167	182.84	-1.06	-4.55
36	SLU 39	11	30	2309	190.9	-1.09	-3.94
36	SLU 40	12	23	2290	187.5	-1.1	-4.18
36	SLU 41	11	30	2309	190.9	-1.09	-3.94
36	SLU 42	12	23	2290	187.5	-1.1	-4.18
36	SLU 43	21	24	2117	213.59	-1.1	-7.43
36	SLU 44	22	13	2086	207.93	-1.13	-7.82
36	SLU 45	21	24	2117	213.59	-1.1	-7.43
36	SLU 46	22	17	2099	210.2	-1.12	-7.66
36	SLU 47	22	13	2086	207.93	-1.13	-7.82
36	SLU 48	21	24	2117	213.59	-1.1	-7.43
36	SLU 49	22	17	2099	210.2	-1.12	-7.66
36	SLU 50	21	24	2117	213.59	-1.1	-7.43
36	SLU 51	22	17	2099	210.2	-1.12	-7.66
36	SLU 52	20	18	2373	218.8	-1.22	-6.96
36	SLU 53	19	29	2405	224.47	-1.19	-6.57
36	SLU 54	19	22	2386	221.07	-1.21	-6.8
36	SLU 55	20	18	2373	218.8	-1.22	-6.96
36	SLU 56	19	29	2405	224.47	-1.19	-6.57
36	SLU 57	19	22	2386	221.07	-1.21	-6.8
36	SLU 58	19	29	2405	224.47	-1.19	-6.57
36	SLU 59	19	22	2386	221.07	-1.21	-6.8
36	SLU 60	18	31	2528	229.13	-1.23	-6.2
36	SLU 61	18	24	2509	225.73	-1.25	-6.44
36	SLU 62	18	31	2528	229.13	-1.23	-6.2
36	SLU 63	18	24	2509	225.73	-1.25	-6.44
36	SLU 64	20	27	2331	222.35	-1.19	-7
36	SLU 65	21	17	2300	216.69	-1.21	-7.39
36	SLU 66	20	27	2331	222.35	-1.19	-7
36	SLU 67	21	21	2312	218.95	-1.2	-7.23
36	SLU 68	21	17	2300	216.69	-1.21	-7.39
36	SLU 69	20	27	2331	222.35	-1.19	-7
36	SLU 70	21	21	2312	218.95	-1.2	-7.23
36	SLU 71	20	27	2331	222.35	-1.19	-7
36	SLU 72	21	21	2312	218.95	-1.2	-7.23
36	SLU 73	19	22	2587	227.56	-1.31	-6.53
36	SLU 74	18	32	2618	233.22	-1.28	-6.14
36	SLU 75	18	26	2599	229.82	-1.3	-6.38
36	SLU 76	19	22	2587	227.56	-1.31	-6.53
36	SLU 77	18	32	2618	233.22	-1.28	-6.14
36	SLU 78	18	26	2599	229.82	-1.3	-6.38
36	SLU 79	18	32	2618	233.22	-1.28	-6.14
36	SLU 80	18	26	2599	229.82	-1.3	-6.38
36	SLU 81	16	34	2741	237.88	-1.32	-5.77
36	SLU 82	17	28	2722	234.48	-1.33	-6.01
36	SLU 83	16	34	2741	237.88	-1.32	-5.77
36	SLU 84	17	28	2722	234.48	-1.33	-6.01
36	SLE RA 1	16	20	1746	169.11	-0.89	-5.48
36	SLE RA 2	16	13	1725	165.34	-0.91	-5.74
36	SLE RA 3	16	20	1746	169.11	-0.89	-5.48
36	SLE RA 4	16	16	1734	166.85	-0.9	-5.64
36	SLE RA 5	16	13	1725	165.34	-0.91	-5.74
36	SLE RA 6	16	20	1746	169.11	-0.89	-5.48
36	SLE RA 7	16	16	1734	166.85	-0.9	-5.64
36	SLE RA 8	16	20	1746	169.11	-0.89	-5.48
36	SLE RA 9	16	16	1734	166.85	-0.9	-5.64



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
36	SLE RA 10	15	16	1917	172.59	-0.97	-5.17
36	SLE RA 11	14	23	1938	176.36	-0.96	-4.9
36	SLE RA 12	14	19	1925	174.1	-0.97	-5.06
36	SLE RA 13	15	16	1917	172.59	-0.97	-5.17
36	SLE RA 14	14	23	1938	176.36	-0.96	-4.9
36	SLE RA 15	14	19	1925	174.1	-0.97	-5.06
36	SLE RA 16	14	23	1938	176.36	-0.96	-4.9
36	SLE RA 17	14	19	1925	174.1	-0.97	-5.06
36	SLE RA 18	13	25	2020	179.47	-0.98	-4.66
36	SLE RA 19	14	21	2007	177.2	-0.99	-4.82
36	SLE RA 20	13	25	2020	179.47	-0.98	-4.66
36	SLE RA 21	14	21	2007	177.2	-0.99	-4.82
36	SLE FR 1	16	20	1746	169.11	-0.89	-5.48
36	SLE FR 2	16	19	1742	168.36	-0.9	-5.53
36	SLE FR 3	16	20	1746	169.11	-0.89	-5.48
36	SLE FR 4	15	20	1824	171.46	-0.92	-5.28
36	SLE FR 5	15	22	1828	172.22	-0.92	-5.23
36	SLE FR 6	14	23	1883	174.29	-0.94	-5.07
36	SLE QP 1	16	20	1746	169.11	-0.89	-5.48
36	SLE QP 2	15	22	1828	172.22	-0.92	-5.23
36	SLD 1	187	62	1777	171.22	-0.47	-65.61
36	SLD 2	224	81	1782	171.44	-0.5	-78.4
36	SLD 3	178	-27	1638	154.77	-0.29	-62.24
36	SLD 4	214	-7	1643	154.99	-0.33	-75.04
36	SLD 5	68	161	2021	196.79	-1.04	-23.72
36	SLD 6	106	181	2027	197.02	-1.08	-37.01
36	SLD 7	35	-134	1558	141.95	-0.45	-12.51
36	SLD 8	73	-114	1564	142.18	-0.48	-25.8
36	SLD 9	-44	157	2092	202.26	-1.36	15.34
36	SLD 10	-5	178	2098	202.49	-1.39	2.04
36	SLD 11	-76	-138	1629	147.42	-0.76	26.55
36	SLD 12	-38	-117	1635	147.65	-0.8	13.25
36	SLD 13	-184	50	2013	189.45	-1.52	64.58
36	SLD 14	-148	70	2019	189.67	-1.55	51.78
36	SLD 15	-194	-38	1874	173	-1.34	67.94
36	SLD 16	-157	-19	1880	173.22	-1.37	55.14
36	SLV 1	408	116	1715	170.34	0.11	-142.74
36	SLV 2	492	161	1728	170.84	0.02	-172.09
36	SLV 3	384	-91	1390	131.85	0.52	-134.83
36	SLV 4	469	-46	1403	132.35	0.44	-164.17
36	SLV 5	136	347	2282	229.84	-1.22	-47.43
36	SLV 6	225	394	2296	230.37	-1.3	-78.34
36	SLV 7	59	-343	1199	101.55	0.18	-21.06
36	SLV 8	148	-296	1212	102.07	0.09	-51.97
36	SLV 9	-118	339	2444	242.36	-1.93	41.5
36	SLV 10	-29	386	2458	242.89	-2.02	10.59
36	SLV 11	-195	-351	1360	114.07	-0.54	67.88
36	SLV 12	-106	-304	1374	114.6	-0.63	36.97
36	SLV 13	-439	90	2254	212.09	-2.28	153.71
36	SLV 14	-355	134	2267	212.59	-2.36	124.36
36	SLV 15	-462	-117	1929	173.6	-1.86	161.62
36	SLV 16	-378	-73	1942	174.1	-1.95	132.28
36	CRTFP Ux+	0	0	0	0	0	0
36	CRTFP Ux-	0	0	0	0	0	0
36	CRTFP Uy+	0	0	0	0	0	0
36	CRTFP Uy-	0	0	0	0	0	0
37	SLU 1	16	19	1724	193.75	-1.66	-5.58
37	SLU 2	17	8	1694	188.16	-1.7	-6.03
37	SLU 3	16	19	1724	193.75	-1.66	-5.58
37	SLU 4	17	13	1706	190.4	-1.68	-5.85
37	SLU 5	17	8	1694	188.16	-1.7	-6.03
37	SLU 6	16	19	1724	193.75	-1.66	-5.58
37	SLU 7	17	13	1706	190.4	-1.68	-5.85
37	SLU 8	16	19	1724	193.75	-1.66	-5.58
37	SLU 9	17	13	1706	190.4	-1.68	-5.85
37	SLU 10	15	13	1987	204.24	-1.95	-5.12
37	SLU 11	13	23	2017	209.83	-1.92	-4.67
37	SLU 12	14	17	1999	206.48	-1.94	-4.94
37	SLU 13	15	13	1987	204.24	-1.95	-5.12
37	SLU 14	13	23	2017	209.83	-1.92	-4.67
37	SLU 15	14	17	1999	206.48	-1.94	-4.94
37	SLU 16	13	23	2017	209.83	-1.92	-4.67
37	SLU 17	14	17	1999	206.48	-1.94	-4.94
37	SLU 18	12	25	2142	216.72	-2.03	-4.28
37	SLU 19	13	19	2124	213.37	-2.05	-4.55
37	SLU 20	12	25	2142	216.72	-2.03	-4.28
37	SLU 21	13	19	2124	213.37	-2.05	-4.55
37	SLU 22	15	22	1943	206.42	-1.87	-5.12
37	SLU 23	16	11	1912	200.84	-1.9	-5.57
37	SLU 24	15	22	1943	206.42	-1.87	-5.12
37	SLU 25	15	16	1924	203.07	-1.89	-5.39
37	SLU 26	16	11	1912	200.84	-1.9	-5.57
37	SLU 27	15	22	1943	206.42	-1.87	-5.12
37	SLU 28	15	16	1924	203.07	-1.89	-5.39
37	SLU 29	15	22	1943	206.42	-1.87	-5.12
37	SLU 30	15	16	1924	203.07	-1.89	-5.39
37	SLU 31	13	16	2205	216.92	-2.16	-4.66
37	SLU 32	12	27	2235	222.51	-2.12	-4.21
37	SLU 33	13	20	2217	219.16	-2.14	-4.48
37	SLU 34	13	16	2205	216.92	-2.16	-4.66
37	SLU 35	12	27	2235	222.51	-2.12	-4.21



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
37	SLU 36	13	20	2217	219.16	-2.14	-4.48
37	SLU 37	12	27	2235	222.51	-2.12	-4.21
37	SLU 38	13	20	2217	219.16	-2.14	-4.48
37	SLU 39	11	29	2360	229.4	-2.23	-3.82
37	SLU 40	12	22	2342	226.05	-2.25	-4.09
37	SLU 41	11	29	2360	229.4	-2.23	-3.82
37	SLU 42	12	22	2342	226.05	-2.25	-4.09
37	SLU 43	21	24	2167	247.52	-2.09	-7.42
37	SLU 44	22	13	2137	241.94	-2.13	-7.87
37	SLU 45	21	24	2167	247.52	-2.09	-7.42
37	SLU 46	22	17	2149	244.17	-2.11	-7.69
37	SLU 47	22	13	2137	241.94	-2.13	-7.87
37	SLU 48	21	24	2167	247.52	-2.09	-7.42
37	SLU 49	22	17	2149	244.17	-2.11	-7.69
37	SLU 50	21	24	2167	247.52	-2.09	-7.42
37	SLU 51	22	17	2149	244.17	-2.11	-7.69
37	SLU 52	20	17	2429	258.02	-2.38	-6.96
37	SLU 53	18	28	2459	263.61	-2.35	-6.51
37	SLU 54	19	22	2441	260.26	-2.37	-6.78
37	SLU 55	20	17	2429	258.02	-2.38	-6.96
37	SLU 56	18	28	2459	263.61	-2.35	-6.51
37	SLU 57	19	22	2441	260.26	-2.37	-6.78
37	SLU 58	18	28	2459	263.61	-2.35	-6.51
37	SLU 59	19	22	2441	260.26	-2.37	-6.78
37	SLU 60	17	30	2585	270.5	-2.46	-6.12
37	SLU 61	18	23	2567	267.15	-2.48	-6.39
37	SLU 62	17	30	2585	270.5	-2.46	-6.12
37	SLU 63	18	23	2567	267.15	-2.48	-6.39
37	SLU 64	20	27	2385	260.2	-2.3	-6.95
37	SLU 65	21	16	2355	254.62	-2.33	-7.4
37	SLU 66	20	27	2385	260.2	-2.3	-6.95
37	SLU 67	21	20	2367	256.85	-2.32	-7.22
37	SLU 68	21	16	2355	254.62	-2.33	-7.4
37	SLU 69	20	27	2385	260.2	-2.3	-6.95
37	SLU 70	21	20	2367	256.85	-2.32	-7.22
37	SLU 71	20	27	2385	260.2	-2.3	-6.95
37	SLU 72	21	20	2367	256.85	-2.32	-7.22
37	SLU 73	18	20	2647	270.7	-2.59	-6.49
37	SLU 74	17	31	2677	276.28	-2.55	-6.04
37	SLU 75	18	25	2659	272.93	-2.57	-6.31
37	SLU 76	18	20	2647	270.7	-2.59	-6.49
37	SLU 77	17	31	2677	276.28	-2.55	-6.04
37	SLU 78	18	25	2659	272.93	-2.57	-6.31
37	SLU 79	17	31	2677	276.28	-2.55	-6.04
37	SLU 80	18	25	2659	272.93	-2.57	-6.31
37	SLU 81	16	33	2803	283.18	-2.66	-5.65
37	SLU 82	17	27	2785	279.83	-2.68	-5.92
37	SLU 83	16	33	2803	283.18	-2.66	-5.65
37	SLU 84	17	27	2785	279.83	-2.68	-5.92
37	SLE RA 1	16	20	1787	197.37	-1.72	-5.45
37	SLE RA 2	16	13	1767	193.65	-1.75	-5.75
37	SLE RA 3	16	20	1787	197.37	-1.72	-5.45
37	SLE RA 4	16	16	1775	195.14	-1.74	-5.63
37	SLE RA 5	16	13	1767	193.65	-1.75	-5.75
37	SLE RA 6	16	20	1787	197.37	-1.72	-5.45
37	SLE RA 7	16	16	1775	195.14	-1.74	-5.63
37	SLE RA 8	16	20	1787	197.37	-1.72	-5.45
37	SLE RA 9	16	16	1775	195.14	-1.74	-5.63
37	SLE RA 10	15	16	1961	204.37	-1.92	-5.14
37	SLE RA 11	14	23	1982	208.09	-1.89	-4.84
37	SLE RA 12	14	19	1970	205.86	-1.91	-5.02
37	SLE RA 13	15	16	1961	204.37	-1.92	-5.14
37	SLE RA 14	14	23	1982	208.09	-1.89	-4.84
37	SLE RA 15	14	19	1970	205.86	-1.91	-5.02
37	SLE RA 16	14	23	1982	208.09	-1.89	-4.84
37	SLE RA 17	14	19	1970	205.86	-1.91	-5.02
37	SLE RA 18	13	24	2065	212.69	-1.96	-4.58
37	SLE RA 19	13	20	2053	210.45	-1.98	-4.76
37	SLE RA 20	13	24	2065	212.69	-1.96	-4.58
37	SLE RA 21	13	20	2053	210.45	-1.98	-4.76
37	SLE FR 1	16	20	1787	197.37	-1.72	-5.45
37	SLE FR 2	16	19	1783	196.62	-1.73	-5.51
37	SLE FR 3	16	20	1787	197.37	-1.72	-5.45
37	SLE FR 4	15	20	1866	201.22	-1.8	-5.25
37	SLE FR 5	15	21	1870	201.96	-1.79	-5.19
37	SLE FR 6	14	22	1926	205.03	-1.84	-5.02
37	SLE QP 1	16	20	1787	197.37	-1.72	-5.45
37	SLE QP 2	15	21	1870	201.96	-1.79	-5.19
37	SLD 1	187	62	1804	195.52	-1.32	-65.55
37	SLD 2	224	84	1811	196.08	-1.36	-78.33
37	SLD 3	177	-31	1658	181.38	-1	-62.14
37	SLD 4	214	-8	1665	181.93	-1.04	-74.92
37	SLD 5	68	166	2069	221.28	-2.12	-23.75
37	SLD 6	106	189	2076	221.86	-2.17	-37.03
37	SLD 7	35	-143	1583	174.13	-1.05	-12.38
37	SLD 8	73	-120	1590	174.71	-1.1	-25.66
37	SLD 9	-43	162	2151	229.22	-2.49	15.27
37	SLD 10	-5	186	2158	229.8	-2.53	2
37	SLD 11	-77	-146	1664	182.07	-1.42	26.65
37	SLD 12	-39	-123	1671	182.65	-1.47	13.37
37	SLD 13	-184	51	2076	221.99	-2.55	64.54



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
37	SLD 14	-148	73	2082	222.55	-2.59	51.76
37	SLD 15	-194	-42	1930	207.85	-2.23	67.95
37	SLD 16	-158	-20	1937	208.41	-2.27	55.17
37	SLV 1	407	117	1724	187.63	-0.72	-142.67
37	SLV 2	492	168	1740	188.91	-0.82	-171.97
37	SLV 3	384	-100	1383	154.55	0.03	-134.64
37	SLV 4	468	-48	1398	155.83	-0.07	-163.94
37	SLV 5	137	359	2338	247.35	-2.57	-47.58
37	SLV 6	226	413	2355	248.7	-2.67	-78.44
37	SLV 7	58	-363	1200	137.09	-0.07	-20.81
37	SLV 8	147	-309	1217	138.44	-0.18	-51.67
37	SLV 9	-117	351	2523	265.49	-3.41	41.29
37	SLV 10	-28	405	2540	266.84	-3.51	10.43
37	SLV 11	-196	-371	1386	155.23	-0.91	68.06
37	SLV 12	-107	-317	1403	156.58	-1.02	37.2
37	SLV 13	-439	91	2342	248.1	-3.52	153.56
37	SLV 14	-354	142	2358	249.38	-3.62	124.26
37	SLV 15	-462	-126	2001	215.02	-2.77	161.59
37	SLV 16	-378	-74	2017	216.3	-2.87	132.29
37	CRTFP Ux+	0	0	0	0	0	0
37	CRTFP Ux-	0	0	0	0	0	0
37	CRTFP Uy+	0	0	0	0	0	0
37	CRTFP Uy-	0	0	0	0	0	0
38	SLU 1	16	18	1790	240.27	-2.53	-5.55
38	SLU 2	17	7	1760	234.75	-2.58	-6.04
38	SLU 3	16	18	1790	240.27	-2.53	-5.55
38	SLU 4	17	12	1772	236.96	-2.56	-5.85
38	SLU 5	17	7	1760	234.75	-2.58	-6.04
38	SLU 6	16	18	1790	240.27	-2.53	-5.55
38	SLU 7	17	12	1772	236.96	-2.56	-5.85
38	SLU 8	16	18	1790	240.27	-2.53	-5.55
38	SLU 9	17	12	1772	236.96	-2.56	-5.85
38	SLU 10	14	11	2064	260.11	-3.01	-5.09
38	SLU 11	13	22	2093	265.63	-2.97	-4.59
38	SLU 12	14	15	2075	262.32	-2.99	-4.89
38	SLU 13	14	11	2064	260.11	-3.01	-5.09
38	SLU 14	13	22	2093	265.63	-2.97	-4.59
38	SLU 15	14	15	2075	262.32	-2.99	-4.89
38	SLU 16	13	22	2093	265.63	-2.97	-4.59
38	SLU 17	14	15	2075	262.32	-2.99	-4.89
38	SLU 18	12	24	2223	276.5	-3.15	-4.18
38	SLU 19	13	17	2205	273.19	-3.18	-4.48
38	SLU 20	12	24	2223	276.5	-3.15	-4.18
38	SLU 21	13	17	2205	273.19	-3.18	-4.48
38	SLU 22	14	21	2016	259.87	-2.87	-5.05
38	SLU 23	16	10	1987	254.35	-2.91	-5.55
38	SLU 24	14	21	2016	259.87	-2.87	-5.05
38	SLU 25	15	14	1999	256.56	-2.89	-5.35
38	SLU 26	16	10	1987	254.35	-2.91	-5.55
38	SLU 27	14	21	2016	259.87	-2.87	-5.05
38	SLU 28	15	14	1999	256.56	-2.89	-5.35
38	SLU 29	14	21	2016	259.87	-2.87	-5.05
38	SLU 30	15	14	1999	256.56	-2.89	-5.35
38	SLU 31	13	14	2290	279.71	-3.34	-4.59
38	SLU 32	12	25	2319	285.23	-3.3	-4.1
38	SLU 33	12	18	2302	281.92	-3.33	-4.39
38	SLU 34	13	14	2290	279.71	-3.34	-4.59
38	SLU 35	12	25	2319	285.23	-3.3	-4.1
38	SLU 36	12	18	2302	281.92	-3.33	-4.39
38	SLU 37	12	25	2319	285.23	-3.3	-4.1
38	SLU 38	12	18	2302	281.92	-3.33	-4.39
38	SLU 39	10	27	2449	296.1	-3.49	-3.69
38	SLU 40	11	20	2432	292.79	-3.51	-3.98
38	SLU 41	10	27	2449	296.1	-3.49	-3.69
38	SLU 42	11	20	2432	292.79	-3.51	-3.98
38	SLU 43	21	23	2249	305.62	-3.18	-7.38
38	SLU 44	22	12	2220	300.11	-3.22	-7.88
38	SLU 45	21	23	2249	305.62	-3.18	-7.38
38	SLU 46	22	16	2231	302.31	-3.2	-7.68
38	SLU 47	22	12	2220	300.11	-3.22	-7.88
38	SLU 48	21	23	2249	305.62	-3.18	-7.38
38	SLU 49	22	16	2231	302.31	-3.2	-7.68
38	SLU 50	21	23	2249	305.62	-3.18	-7.38
38	SLU 51	22	16	2231	302.31	-3.2	-7.68
38	SLU 52	20	16	2523	325.47	-3.65	-6.92
38	SLU 53	18	27	2552	330.99	-3.61	-6.43
38	SLU 54	19	20	2534	327.67	-3.64	-6.73
38	SLU 55	20	16	2523	325.47	-3.65	-6.92
38	SLU 56	18	27	2552	330.99	-3.61	-6.43
38	SLU 57	19	20	2534	327.67	-3.64	-6.73
38	SLU 58	18	27	2552	330.99	-3.61	-6.43
38	SLU 59	19	20	2534	327.67	-3.64	-6.73
38	SLU 60	17	28	2682	341.85	-3.8	-6.02
38	SLU 61	18	22	2664	338.54	-3.82	-6.32
38	SLU 62	17	28	2682	341.85	-3.8	-6.02
38	SLU 63	18	22	2664	338.54	-3.82	-6.32
38	SLU 64	20	26	2475	325.23	-3.51	-6.89
38	SLU 65	21	15	2446	319.71	-3.56	-7.38
38	SLU 66	20	26	2475	325.23	-3.51	-6.89
38	SLU 67	20	19	2458	321.92	-3.54	-7.18
38	SLU 68	21	15	2446	319.71	-3.56	-7.38



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
38	SLU 69	20	26	2475	325.23	-3.51	-6.89
38	SLU 70	20	19	2458	321.92	-3.54	-7.18
38	SLU 71	20	26	2475	325.23	-3.51	-6.89
38	SLU 72	20	19	2458	321.92	-3.54	-7.18
38	SLU 73	18	18	2749	345.07	-3.99	-6.43
38	SLU 74	17	29	2778	350.59	-3.95	-5.93
38	SLU 75	18	23	2761	347.28	-3.97	-6.23
38	SLU 76	18	18	2749	345.07	-3.99	-6.43
38	SLU 77	17	29	2778	350.59	-3.95	-5.93
38	SLU 78	18	23	2761	347.28	-3.97	-6.23
38	SLU 79	17	29	2778	350.59	-3.95	-5.93
38	SLU 80	18	23	2761	347.28	-3.97	-6.23
38	SLU 81	16	31	2908	361.46	-4.13	-5.52
38	SLU 82	16	24	2891	358.15	-4.16	-5.82
38	SLU 83	16	31	2908	361.46	-4.13	-5.52
38	SLU 84	16	24	2891	358.15	-4.16	-5.82
38	SLE RA 1	15	19	1854	245.87	-2.63	-5.41
38	SLE RA 2	16	12	1835	242.19	-2.66	-5.74
38	SLE RA 3	15	19	1854	245.87	-2.63	-5.41
38	SLE RA 4	16	15	1843	243.66	-2.65	-5.6
38	SLE RA 5	16	12	1835	242.19	-2.66	-5.74
38	SLE RA 6	15	19	1854	245.87	-2.63	-5.41
38	SLE RA 7	16	15	1843	243.66	-2.65	-5.6
38	SLE RA 8	15	19	1854	245.87	-2.63	-5.41
38	SLE RA 9	16	15	1843	243.66	-2.65	-5.6
38	SLE RA 10	14	14	2037	259.1	-2.95	-5.1
38	SLE RA 11	13	22	2056	262.77	-2.92	-4.77
38	SLE RA 12	14	17	2045	260.57	-2.93	-4.97
38	SLE RA 13	14	14	2037	259.1	-2.95	-5.1
38	SLE RA 14	13	22	2056	262.77	-2.92	-4.77
38	SLE RA 15	14	17	2045	260.57	-2.93	-4.97
38	SLE RA 16	13	22	2056	262.77	-2.92	-4.77
38	SLE RA 17	14	17	2045	260.57	-2.93	-4.97
38	SLE RA 18	13	23	2143	270.02	-3.04	-4.5
38	SLE RA 19	13	18	2131	267.81	-3.06	-4.69
38	SLE RA 20	13	23	2143	270.02	-3.04	-4.5
38	SLE RA 21	13	18	2131	267.81	-3.06	-4.69
38	SLE FR 1	15	19	1854	245.87	-2.63	-5.41
38	SLE FR 2	16	18	1850	245.13	-2.64	-5.47
38	SLE FR 3	15	19	1854	245.87	-2.63	-5.41
38	SLE FR 4	15	19	1937	252.38	-2.76	-5.2
38	SLE FR 5	15	20	1941	253.11	-2.75	-5.13
38	SLE FR 6	14	21	1999	257.94	-2.84	-4.95
38	SLE QP 1	15	19	1854	245.87	-2.63	-5.41
38	SLE QP 2	15	20	1941	253.11	-2.75	-5.13
38	SLD 1	187	62	1859	238.86	-2.24	-65.46
38	SLD 2	224	88	1867	239.85	-2.29	-78.22
38	SLD 3	177	-36	1702	226.38	-1.77	-62.01
38	SLD 4	213	-10	1710	227.37	-1.82	-74.77
38	SLD 5	68	172	2151	267.4	-3.28	-23.76
38	SLD 6	106	199	2160	268.43	-3.34	-37.01
38	SLD 7	34	-155	1628	225.8	-1.73	-12.24
38	SLD 8	72	-128	1636	226.83	-1.79	-25.5
38	SLD 9	-43	169	2245	279.4	-3.72	15.23
38	SLD 10	-5	195	2254	280.43	-3.77	1.98
38	SLD 11	-77	-158	1721	237.8	-2.17	26.75
38	SLD 12	-39	-132	1730	238.83	-2.22	13.49
38	SLD 13	-184	51	2172	278.86	-3.68	64.5
38	SLD 14	-148	76	2180	279.85	-3.73	51.74
38	SLD 15	-195	-47	2014	266.38	-3.22	67.95
38	SLD 16	-158	-22	2023	267.37	-3.27	55.2
38	SLV 1	407	119	1759	220.94	-1.59	-142.55
38	SLV 2	491	178	1778	223.21	-1.71	-171.8
38	SLV 3	383	-110	1392	191.8	-0.5	-134.41
38	SLV 4	467	-52	1411	194.07	-0.62	-163.67
38	SLV 5	137	376	2436	286.8	-4	-47.68
38	SLV 6	226	438	2456	289.19	-4.13	-78.49
38	SLV 7	57	-389	1212	189.67	-0.39	-20.56
38	SLV 8	146	-327	1232	192.06	-0.51	-51.37
38	SLV 9	-116	368	2650	314.17	-4.99	41.1
38	SLV 10	-28	429	2670	316.56	-5.12	10.3
38	SLV 11	-197	-397	1425	217.03	-1.37	68.22
38	SLV 12	-108	-335	1446	219.42	-1.5	37.42
38	SLV 13	-438	92	2471	312.16	-4.88	153.4
38	SLV 14	-354	151	2490	314.43	-5	124.15
38	SLV 15	-462	-137	2103	283.02	-3.8	161.53
38	SLV 16	-378	-79	2123	285.29	-3.92	132.28
38	CRTFP Ux+	0	0	0	0	0	0
38	CRTFP Ux-	0	0	0	0	0	0
38	CRTFP Uy+	0	0	0	0	0	0
38	CRTFP Uy-	0	0	0	0	0	0
39	SLU 1	16	17	1883	307.92	-3.48	-5.5
39	SLU 2	17	6	1855	302.46	-3.52	-6.03
39	SLU 3	16	17	1883	307.92	-3.48	-5.5
39	SLU 4	16	10	1866	304.64	-3.5	-5.82
39	SLU 5	17	6	1855	302.46	-3.52	-6.03
39	SLU 6	16	17	1883	307.92	-3.48	-5.5
39	SLU 7	16	10	1866	304.64	-3.5	-5.82
39	SLU 8	16	17	1883	307.92	-3.48	-5.5
39	SLU 9	16	10	1866	304.64	-3.5	-5.82
39	SLU 10	14	9	2175	341.4	-4.14	-5.03



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
39	SLU 11	13	20	2202	346.87	-4.1	-4.5
39	SLU 12	14	13	2186	343.59	-4.12	-4.82
39	SLU 13	14	9	2175	341.4	-4.14	-5.03
39	SLU 14	13	20	2202	346.87	-4.1	-4.5
39	SLU 15	14	13	2186	343.59	-4.12	-4.82
39	SLU 16	13	20	2202	346.87	-4.1	-4.5
39	SLU 17	14	13	2186	343.59	-4.12	-4.82
39	SLU 18	11	21	2339	363.56	-4.36	-4.08
39	SLU 19	12	15	2323	360.27	-4.39	-4.39
39	SLU 20	11	21	2339	363.56	-4.36	-4.08
39	SLU 21	12	15	2323	360.27	-4.39	-4.39
39	SLU 22	14	20	2122	337.66	-3.95	-4.97
39	SLU 23	16	8	2094	332.19	-4	-5.5
39	SLU 24	14	20	2122	337.66	-3.95	-4.97
39	SLU 25	15	13	2105	334.37	-3.98	-5.29
39	SLU 26	16	8	2094	332.19	-4	-5.5
39	SLU 27	14	20	2122	337.66	-3.95	-4.97
39	SLU 28	15	13	2105	334.37	-3.98	-5.29
39	SLU 29	14	20	2122	337.66	-3.95	-4.97
39	SLU 30	15	13	2105	334.37	-3.98	-5.29
39	SLU 31	13	11	2414	371.13	-4.62	-4.51
39	SLU 32	11	22	2441	376.6	-4.57	-3.97
39	SLU 33	12	16	2425	373.32	-4.6	-4.29
39	SLU 34	13	11	2414	371.13	-4.62	-4.51
39	SLU 35	11	22	2441	376.6	-4.57	-3.97
39	SLU 36	12	16	2425	373.32	-4.6	-4.29
39	SLU 37	11	22	2441	376.6	-4.57	-3.97
39	SLU 38	12	16	2425	373.32	-4.6	-4.29
39	SLU 39	10	24	2578	393.29	-4.84	-3.55
39	SLU 40	11	17	2562	390.01	-4.87	-3.87
39	SLU 41	10	24	2578	393.29	-4.84	-3.55
39	SLU 42	11	17	2562	390.01	-4.87	-3.87
39	SLU 43	21	22	2366	390.11	-4.35	-7.32
39	SLU 44	22	10	2338	384.64	-4.4	-7.86
39	SLU 45	21	22	2366	390.11	-4.35	-7.32
39	SLU 46	22	15	2349	386.83	-4.38	-7.64
39	SLU 47	22	10	2338	384.64	-4.4	-7.86
39	SLU 48	21	22	2366	390.11	-4.35	-7.32
39	SLU 49	22	15	2349	386.83	-4.38	-7.64
39	SLU 50	21	22	2366	390.11	-4.35	-7.32
39	SLU 51	22	15	2349	386.83	-4.38	-7.64
39	SLU 52	19	13	2658	423.58	-5.02	-6.86
39	SLU 53	18	25	2685	429.05	-4.98	-6.33
39	SLU 54	19	18	2669	425.77	-5	-6.65
39	SLU 55	19	13	2658	423.58	-5.02	-6.86
39	SLU 56	18	25	2685	429.05	-4.98	-6.33
39	SLU 57	19	18	2669	425.77	-5	-6.65
39	SLU 58	18	25	2685	429.05	-4.98	-6.33
39	SLU 59	19	18	2669	425.77	-5	-6.65
39	SLU 60	17	26	2822	445.74	-5.24	-5.9
39	SLU 61	18	19	2806	442.46	-5.27	-6.22
39	SLU 62	17	26	2822	445.74	-5.24	-5.9
39	SLU 63	18	19	2806	442.46	-5.27	-6.22
39	SLU 64	19	24	2605	419.84	-4.83	-6.8
39	SLU 65	21	12	2577	414.37	-4.88	-7.33
39	SLU 66	19	24	2605	419.84	-4.83	-6.8
39	SLU 67	20	17	2588	416.56	-4.86	-7.12
39	SLU 68	21	12	2577	414.37	-4.88	-7.33
39	SLU 69	19	24	2605	419.84	-4.83	-6.8
39	SLU 70	20	17	2588	416.56	-4.86	-7.12
39	SLU 71	19	24	2605	419.84	-4.83	-6.8
39	SLU 72	20	17	2588	416.56	-4.86	-7.12
39	SLU 73	18	15	2897	453.31	-5.5	-6.34
39	SLU 74	16	27	2924	458.78	-5.45	-5.8
39	SLU 75	17	20	2908	455.5	-5.48	-6.12
39	SLU 76	18	15	2897	453.31	-5.5	-6.34
39	SLU 77	16	27	2924	458.78	-5.45	-5.8
39	SLU 78	17	20	2908	455.5	-5.48	-6.12
39	SLU 79	16	27	2924	458.78	-5.45	-5.8
39	SLU 80	17	20	2908	455.5	-5.48	-6.12
39	SLU 81	15	28	3061	475.47	-5.72	-5.38
39	SLU 82	16	21	3045	472.19	-5.75	-5.7
39	SLU 83	15	28	3061	475.47	-5.72	-5.38
39	SLU 84	16	21	3045	472.19	-5.75	-5.7
39	SLE RA 1	15	18	1951	316.42	-3.61	-5.35
39	SLE RA 2	16	10	1933	312.77	-3.64	-5.7
39	SLE RA 3	15	18	1951	316.42	-3.61	-5.35
39	SLE RA 4	16	13	1940	314.23	-3.63	-5.56
39	SLE RA 5	16	10	1933	312.77	-3.64	-5.7
39	SLE RA 6	15	18	1951	316.42	-3.61	-5.35
39	SLE RA 7	16	13	1940	314.23	-3.63	-5.56
39	SLE RA 8	15	18	1951	316.42	-3.61	-5.35
39	SLE RA 9	16	13	1940	314.23	-3.63	-5.56
39	SLE RA 10	14	12	2146	338.73	-4.06	-5.04
39	SLE RA 11	13	20	2164	342.38	-4.03	-4.68
39	SLE RA 12	14	15	2153	340.19	-4.04	-4.9
39	SLE RA 13	14	12	2146	338.73	-4.06	-5.04
39	SLE RA 14	13	20	2164	342.38	-4.03	-4.68
39	SLE RA 15	14	15	2153	340.19	-4.04	-4.9
39	SLE RA 16	13	20	2164	342.38	-4.03	-4.68
39	SLE RA 17	14	15	2153	340.19	-4.04	-4.9



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
39	SLE RA 18	12	21	2256	353.51	-4.2	-4.4
39	SLE RA 19	13	16	2244	351.32	-4.22	-4.61
39	SLE RA 20	12	21	2256	353.51	-4.2	-4.4
39	SLE RA 21	13	16	2244	351.32	-4.22	-4.61
39	SLE FR 1	15	18	1951	316.42	-3.61	-5.35
39	SLE FR 2	15	16	1948	315.69	-3.62	-5.42
39	SLE FR 3	15	18	1951	316.42	-3.61	-5.35
39	SLE FR 4	15	17	2039	326.82	-3.79	-5.13
39	SLE FR 5	14	19	2043	327.54	-3.79	-5.06
39	SLE FR 6	14	19	2103	334.96	-3.91	-4.87
39	SLE QP 1	15	18	1951	316.42	-3.61	-5.35
39	SLE QP 2	14	19	2043	327.54	-3.79	-5.06
39	SLD 1	187	50	1943	305.14	-3.21	-65.35
39	SLD 2	223	79	1953	306.69	-3.27	-78.08
39	SLD 3	176	-55	1770	289.14	-2.6	-61.85
39	SLD 4	213	-25	1781	290.69	-2.67	-74.59
39	SLD 5	68	176	2271	344.51	-4.52	-23.74
39	SLD 6	106	207	2282	346.13	-4.58	-36.97
39	SLD 7	33	-173	1695	291.19	-2.49	-12.1
39	SLD 8	72	-143	1706	292.8	-2.55	-25.33
39	SLD 9	-43	180	2379	362.29	-5.03	15.2
39	SLD 10	-5	210	2390	363.9	-5.09	1.97
39	SLD 11	-78	-169	1803	308.96	-3	26.85
39	SLD 12	-40	-139	1814	310.58	-3.06	13.62
39	SLD 13	-184	63	2304	364.4	-4.91	64.46
39	SLD 14	-148	92	2315	365.95	-4.97	51.73
39	SLD 15	-195	-42	2132	348.4	-4.3	67.96
39	SLD 16	-158	-13	2142	349.95	-4.36	55.22
39	SLV 1	407	93	1821	276.87	-2.5	-142.38
39	SLV 2	491	160	1845	280.44	-2.64	-171.58
39	SLV 3	382	-152	1418	239.57	-1.07	-134.15
39	SLV 4	466	-85	1441	243.14	-1.21	-163.35
39	SLV 5	138	387	2580	367.57	-5.5	-47.74
39	SLV 6	226	458	2604	371.33	-5.65	-78.49
39	SLV 7	56	-429	1234	243.24	-0.76	-20.31
39	SLV 8	144	-358	1259	246.99	-0.91	-51.06
39	SLV 9	-116	396	2826	408.1	-6.67	40.94
39	SLV 10	-27	467	2851	411.85	-6.81	10.19
39	SLV 11	-198	-420	1481	283.76	-1.92	68.37
39	SLV 12	-109	-350	1505	287.52	-2.07	37.62
39	SLV 13	-438	122	2644	411.95	-6.36	153.23
39	SLV 14	-354	189	2667	415.52	-6.5	124.03
39	SLV 15	-462	-123	2240	374.65	-4.94	161.46
39	SLV 16	-378	-55	2264	378.22	-5.08	132.26
39	CRTFP Ux+	0	0	0	0	0	0
39	CRTFP Ux-	0	0	0	0	0	0
39	CRTFP Uy+	0	0	0	0	0	0
39	CRTFP Uy-	0	0	0	0	0	0
40	SLU 1	15	16	2006	398.66	-4.46	-5.42
40	SLU 2	17	4	1980	393.2	-4.5	-5.99
40	SLU 3	15	16	2006	398.66	-4.46	-5.42
40	SLU 4	16	9	1990	395.38	-4.48	-5.76
40	SLU 5	17	4	1980	393.2	-4.5	-5.99
40	SLU 6	15	16	2006	398.66	-4.46	-5.42
40	SLU 7	16	9	1990	395.38	-4.48	-5.76
40	SLU 8	15	16	2006	398.66	-4.46	-5.42
40	SLU 9	16	9	1990	395.38	-4.48	-5.76
40	SLU 10	14	6	2322	450.31	-5.32	-4.96
40	SLU 11	12	18	2348	455.77	-5.27	-4.4
40	SLU 12	13	11	2332	452.5	-5.3	-4.73
40	SLU 13	14	6	2322	450.31	-5.32	-4.96
40	SLU 14	12	18	2348	455.77	-5.27	-4.4
40	SLU 15	13	11	2332	452.5	-5.3	-4.73
40	SLU 16	12	18	2348	455.77	-5.27	-4.4
40	SLU 17	13	11	2332	452.5	-5.3	-4.73
40	SLU 18	11	19	2495	480.25	-5.62	-3.96
40	SLU 19	12	12	2479	476.97	-5.65	-4.29
40	SLU 20	11	19	2495	480.25	-5.62	-3.96
40	SLU 21	12	12	2479	476.97	-5.65	-4.29
40	SLU 22	14	17	2262	441.95	-5.08	-4.87
40	SLU 23	15	6	2236	436.49	-5.12	-5.43
40	SLU 24	14	17	2262	441.95	-5.08	-4.87
40	SLU 25	15	10	2247	438.68	-5.1	-5.21
40	SLU 26	15	6	2236	436.49	-5.12	-5.43
40	SLU 27	14	17	2262	441.95	-5.08	-4.87
40	SLU 28	15	10	2247	438.68	-5.1	-5.21
40	SLU 29	14	17	2262	441.95	-5.08	-4.87
40	SLU 30	15	10	2247	438.68	-5.1	-5.21
40	SLU 31	12	8	2578	493.61	-5.94	-4.41
40	SLU 32	11	19	2604	499.07	-5.9	-3.85
40	SLU 33	12	12	2589	495.79	-5.92	-4.18
40	SLU 34	12	8	2578	493.61	-5.94	-4.41
40	SLU 35	11	19	2604	499.07	-5.9	-3.85
40	SLU 36	12	12	2589	495.79	-5.92	-4.18
40	SLU 37	11	19	2604	499.07	-5.9	-3.85
40	SLU 38	12	12	2589	495.79	-5.92	-4.18
40	SLU 39	9	20	2751	523.54	-6.25	-3.41
40	SLU 40	10	13	2735	520.27	-6.27	-3.74
40	SLU 41	9	20	2751	523.54	-6.25	-3.41
40	SLU 42	10	13	2735	520.27	-6.27	-3.74
40	SLU 43	21	20	2520	503.41	-5.58	-7.24



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
40	SLU 44	22	8	2494	497.95	-5.62	-7.8
40	SLU 45	21	20	2520	503.41	-5.58	-7.24
40	SLU 46	21	13	2505	500.13	-5.6	-7.58
40	SLU 47	22	8	2494	497.95	-5.62	-7.8
40	SLU 48	21	20	2520	503.41	-5.58	-7.24
40	SLU 49	21	13	2505	500.13	-5.6	-7.58
40	SLU 50	21	20	2520	503.41	-5.58	-7.24
40	SLU 51	21	13	2505	500.13	-5.6	-7.58
40	SLU 52	19	10	2836	555.07	-6.44	-6.77
40	SLU 53	17	22	2862	560.52	-6.4	-6.21
40	SLU 54	18	15	2846	557.25	-6.42	-6.55
40	SLU 55	19	10	2836	555.07	-6.44	-6.77
40	SLU 56	17	22	2862	560.52	-6.4	-6.21
40	SLU 57	18	15	2846	557.25	-6.42	-6.55
40	SLU 58	17	22	2862	560.52	-6.4	-6.21
40	SLU 59	18	15	2846	557.25	-6.42	-6.55
40	SLU 60	16	23	3009	585	-6.75	-5.77
40	SLU 61	17	16	2993	581.73	-6.77	-6.11
40	SLU 62	16	23	3009	585	-6.75	-5.77
40	SLU 63	17	16	2993	581.73	-6.77	-6.11
40	SLU 64	19	22	2777	546.7	-6.2	-6.69
40	SLU 65	20	10	2750	541.25	-6.24	-7.25
40	SLU 66	19	22	2777	546.7	-6.2	-6.69
40	SLU 67	20	15	2761	543.43	-6.23	-7.03
40	SLU 68	20	10	2750	541.25	-6.24	-7.25
40	SLU 69	19	22	2777	546.7	-6.2	-6.69
40	SLU 70	20	15	2761	543.43	-6.23	-7.03
40	SLU 71	19	22	2777	546.7	-6.2	-6.69
40	SLU 72	20	15	2761	543.43	-6.23	-7.03
40	SLU 73	17	12	3092	598.36	-7.06	-6.22
40	SLU 74	16	24	3118	603.82	-7.02	-5.66
40	SLU 75	17	16	3103	600.54	-7.05	-6
40	SLU 76	17	12	3092	598.36	-7.06	-6.22
40	SLU 77	16	24	3118	603.82	-7.02	-5.66
40	SLU 78	17	16	3103	600.54	-7.05	-6
40	SLU 79	16	24	3118	603.82	-7.02	-5.66
40	SLU 80	17	16	3103	600.54	-7.05	-6
40	SLU 81	15	24	3265	628.3	-7.37	-5.22
40	SLU 82	15	17	3249	625.02	-7.4	-5.56
40	SLU 83	15	24	3265	628.3	-7.37	-5.22
40	SLU 84	15	17	3249	625.02	-7.4	-5.56
40	SLE RA 1	15	16	2079	411.03	-4.63	-5.27
40	SLE RA 2	16	8	2062	407.39	-4.66	-5.64
40	SLE RA 3	15	16	2079	411.03	-4.63	-5.27
40	SLE RA 4	16	12	2069	408.84	-4.65	-5.49
40	SLE RA 5	16	8	2062	407.39	-4.66	-5.64
40	SLE RA 6	15	16	2079	411.03	-4.63	-5.27
40	SLE RA 7	16	12	2069	408.84	-4.65	-5.49
40	SLE RA 8	15	16	2079	411.03	-4.63	-5.27
40	SLE RA 9	16	12	2069	408.84	-4.65	-5.49
40	SLE RA 10	14	10	2290	445.46	-5.21	-4.96
40	SLE RA 11	13	18	2307	449.1	-5.18	-4.58
40	SLE RA 12	13	13	2297	446.92	-5.2	-4.81
40	SLE RA 13	14	10	2290	445.46	-5.21	-4.96
40	SLE RA 14	13	18	2307	449.1	-5.18	-4.58
40	SLE RA 15	13	13	2297	446.92	-5.2	-4.81
40	SLE RA 16	13	18	2307	449.1	-5.18	-4.58
40	SLE RA 17	13	13	2297	446.92	-5.2	-4.81
40	SLE RA 18	12	18	2405	465.42	-5.41	-4.29
40	SLE RA 19	13	13	2395	463.24	-5.43	-4.51
40	SLE RA 20	12	18	2405	465.42	-5.41	-4.29
40	SLE RA 21	13	13	2395	463.24	-5.43	-4.51
40	SLE FR 1	15	16	2079	411.03	-4.63	-5.27
40	SLE FR 2	15	15	2076	410.3	-4.64	-5.34
40	SLE FR 3	15	16	2079	411.03	-4.63	-5.27
40	SLE FR 4	14	15	2174	426.62	-4.87	-5.05
40	SLE FR 5	14	17	2177	427.34	-4.87	-4.97
40	SLE FR 6	13	17	2242	438.22	-5.02	-4.78
40	SLE QP 1	15	16	2079	411.03	-4.63	-5.27
40	SLE QP 2	14	17	2177	427.34	-4.87	-4.97
40	SLD 1	186	49	2059	396.92	-4.22	-65.2
40	SLD 2	223	83	2071	399.21	-4.29	-77.91
40	SLD 3	176	-63	1866	370.87	-3.47	-61.67
40	SLD 4	212	-30	1878	373.16	-3.54	-74.38
40	SLD 5	68	185	2430	456.88	-5.78	-23.69
40	SLD 6	106	219	2442	459.26	-5.85	-36.9
40	SLD 7	33	-190	1787	370.05	-3.29	-11.94
40	SLD 8	71	-155	1799	372.43	-3.36	-25.14
40	SLD 9	-43	189	2555	482.26	-6.37	15.2
40	SLD 10	-5	223	2568	484.64	-6.44	1.99
40	SLD 11	-78	-185	1912	395.43	-3.88	26.95
40	SLD 12	-40	-151	1925	397.81	-3.95	13.75
40	SLD 13	-184	63	2476	481.53	-6.19	64.44
40	SLD 14	-148	97	2489	483.82	-6.26	51.72
40	SLD 15	-195	-49	2284	455.48	-5.44	67.96
40	SLD 16	-158	-16	2296	457.77	-5.52	55.25
40	SLV 1	406	94	1913	358.7	-3.41	-142.16
40	SLV 2	490	170	1941	363.95	-3.58	-171.31
40	SLV 3	381	-169	1462	297.94	-1.67	-133.84
40	SLV 4	465	-92	1490	303.19	-1.83	-162.99
40	SLV 5	138	409	2771	496.93	-7.02	-47.76



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
40	SLV 6	226	490	2800	502.46	-7.19	-78.46
40	SLV 7	55	-466	1268	294.39	-1.2	-20.05
40	SLV 8	143	-385	1298	299.92	-1.37	-50.75
40	SLV 9	-115	419	3056	554.77	-8.36	40.8
40	SLV 10	-27	500	3086	560.3	-8.54	10.1
40	SLV 11	-198	-456	1554	352.23	-2.55	68.51
40	SLV 12	-110	-376	1584	357.76	-2.72	37.81
40	SLV 13	-437	126	2864	551.5	-7.9	153.05
40	SLV 14	-353	203	2893	556.75	-8.07	123.9
40	SLV 15	-462	-136	2414	490.74	-6.16	161.36
40	SLV 16	-378	-60	2442	495.99	-6.32	132.21
40	CRTFP Ux+	0	0	0	0	0	0
40	CRTFP Ux-	0	0	0	0	0	0
40	CRTFP Uy+	0	0	0	0	0	0
40	CRTFP Uy-	0	0	0	0	0	0
41	SLU 1	15	14	2160	513.34	-5.4	-5.34
41	SLU 2	17	2	2135	507.83	-5.44	-5.92
41	SLU 3	15	14	2160	513.34	-5.4	-5.34
41	SLU 4	16	7	2145	510.03	-5.43	-5.69
41	SLU 5	17	2	2135	507.83	-5.44	-5.92
41	SLU 6	15	14	2160	513.34	-5.4	-5.34
41	SLU 7	16	7	2145	510.03	-5.43	-5.69
41	SLU 8	15	14	2160	513.34	-5.4	-5.34
41	SLU 9	16	7	2145	510.03	-5.43	-5.69
41	SLU 10	14	3	2505	587.81	-6.45	-4.86
41	SLU 11	12	15	2530	593.31	-6.41	-4.29
41	SLU 12	13	8	2515	590.01	-6.44	-4.63
41	SLU 13	14	3	2505	587.81	-6.45	-4.86
41	SLU 14	12	15	2530	593.31	-6.41	-4.29
41	SLU 15	13	8	2515	590.01	-6.44	-4.63
41	SLU 16	12	15	2530	593.31	-6.41	-4.29
41	SLU 17	13	8	2515	590.01	-6.44	-4.63
41	SLU 18	11	15	2689	627.59	-6.85	-3.83
41	SLU 19	12	8	2674	624.29	-6.87	-4.18
41	SLU 20	11	15	2689	627.59	-6.85	-3.83
41	SLU 21	12	8	2674	624.29	-6.87	-4.18
41	SLU 22	13	15	2438	573.72	-6.17	-4.77
41	SLU 23	15	3	2413	568.21	-6.21	-5.35
41	SLU 24	13	15	2438	573.72	-6.17	-4.77
41	SLU 25	14	8	2423	570.41	-6.19	-5.12
41	SLU 26	15	3	2413	568.21	-6.21	-5.35
41	SLU 27	13	15	2438	573.72	-6.17	-4.77
41	SLU 28	14	8	2423	570.41	-6.19	-5.12
41	SLU 29	13	15	2438	573.72	-6.17	-4.77
41	SLU 30	14	8	2423	570.41	-6.19	-5.12
41	SLU 31	12	4	2783	648.19	-7.22	-4.29
41	SLU 32	10	16	2808	653.7	-7.18	-3.71
41	SLU 33	11	8	2793	650.39	-7.2	-4.06
41	SLU 34	12	4	2783	648.19	-7.22	-4.29
41	SLU 35	10	16	2808	653.7	-7.18	-3.71
41	SLU 36	11	8	2793	650.39	-7.2	-4.06
41	SLU 37	10	16	2808	653.7	-7.18	-3.71
41	SLU 38	11	8	2793	650.39	-7.2	-4.06
41	SLU 39	9	16	2967	687.97	-7.61	-3.26
41	SLU 40	10	9	2952	684.67	-7.63	-3.61
41	SLU 41	9	16	2967	687.97	-7.61	-3.26
41	SLU 42	10	9	2952	684.67	-7.63	-3.61
41	SLU 43	20	18	2713	646.63	-6.76	-7.14
41	SLU 44	22	6	2687	641.13	-6.8	-7.72
41	SLU 45	20	18	2713	646.63	-6.76	-7.14
41	SLU 46	21	11	2698	643.33	-6.79	-7.49
41	SLU 47	22	6	2687	641.13	-6.8	-7.72
41	SLU 48	20	18	2713	646.63	-6.76	-7.14
41	SLU 49	21	11	2698	643.33	-6.79	-7.49
41	SLU 50	20	18	2713	646.63	-6.76	-7.14
41	SLU 51	21	11	2698	643.33	-6.79	-7.49
41	SLU 52	19	7	3058	721.11	-7.81	-6.66
41	SLU 53	17	19	3083	726.61	-7.77	-6.08
41	SLU 54	18	12	3068	723.31	-7.8	-6.43
41	SLU 55	19	7	3058	721.11	-7.81	-6.66
41	SLU 56	17	19	3083	726.61	-7.77	-6.08
41	SLU 57	18	12	3068	723.31	-7.8	-6.43
41	SLU 58	17	19	3083	726.61	-7.77	-6.08
41	SLU 59	18	12	3068	723.31	-7.8	-6.43
41	SLU 60	16	19	3242	760.89	-8.2	-5.63
41	SLU 61	17	12	3227	757.58	-8.23	-5.98
41	SLU 62	16	19	3242	760.89	-8.2	-5.63
41	SLU 63	17	12	3227	757.58	-8.23	-5.98
41	SLU 64	19	19	2990	707.02	-7.53	-6.57
41	SLU 65	20	7	2965	701.51	-7.57	-7.15
41	SLU 66	19	19	2990	707.02	-7.53	-6.57
41	SLU 67	19	12	2975	703.71	-7.55	-6.91
41	SLU 68	20	7	2965	701.51	-7.57	-7.15
41	SLU 69	19	19	2990	707.02	-7.53	-6.57
41	SLU 70	19	12	2975	703.71	-7.55	-6.91
41	SLU 71	19	19	2990	707.02	-7.53	-6.57
41	SLU 72	19	12	2975	703.71	-7.55	-6.91
41	SLU 73	17	8	3336	781.49	-8.58	-6.09
41	SLU 74	15	20	3361	787	-8.54	-5.51
41	SLU 75	16	13	3346	783.69	-8.56	-5.86
41	SLU 76	17	8	3336	781.49	-8.58	-6.09



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
41	SLU 77	15	20	3361	787	-8.54	-5.51
41	SLU 78	16	13	3346	783.69	-8.56	-5.86
41	SLU 79	15	20	3361	787	-8.54	-5.51
41	SLU 80	16	13	3346	783.69	-8.56	-5.86
41	SLU 81	14	20	3519	821.27	-8.97	-5.06
41	SLU 82	15	13	3504	817.97	-8.99	-5.41
41	SLU 83	14	20	3519	821.27	-8.97	-5.06
41	SLU 84	15	13	3504	817.97	-8.99	-5.41
41	SLE RA 1	15	14	2239	530.59	-5.62	-5.18
41	SLE RA 2	16	6	2223	526.92	-5.65	-5.56
41	SLE RA 3	15	14	2239	530.59	-5.62	-5.18
41	SLE RA 4	15	10	2229	528.38	-5.64	-5.41
41	SLE RA 5	16	6	2223	526.92	-5.65	-5.56
41	SLE RA 6	15	14	2239	530.59	-5.62	-5.18
41	SLE RA 7	15	10	2229	528.38	-5.64	-5.41
41	SLE RA 8	15	14	2239	530.59	-5.62	-5.18
41	SLE RA 9	15	10	2229	528.38	-5.64	-5.41
41	SLE RA 10	14	7	2469	580.24	-6.32	-4.86
41	SLE RA 11	13	15	2486	583.91	-6.3	-4.47
41	SLE RA 12	13	10	2476	581.7	-6.31	-4.71
41	SLE RA 13	14	7	2469	580.24	-6.32	-4.86
41	SLE RA 14	13	15	2486	583.91	-6.3	-4.47
41	SLE RA 15	13	10	2476	581.7	-6.31	-4.71
41	SLE RA 16	13	15	2486	583.91	-6.3	-4.47
41	SLE RA 17	13	10	2476	581.7	-6.31	-4.71
41	SLE RA 18	12	15	2592	606.76	-6.58	-4.17
41	SLE RA 19	12	10	2582	604.56	-6.6	-4.4
41	SLE RA 20	12	15	2592	606.76	-6.58	-4.17
41	SLE RA 21	12	10	2582	604.56	-6.6	-4.4
41	SLE FR 1	15	14	2239	530.59	-5.62	-5.18
41	SLE FR 2	15	13	2236	529.85	-5.63	-5.25
41	SLE FR 3	15	14	2239	530.59	-5.62	-5.18
41	SLE FR 4	14	13	2342	552.7	-5.92	-4.95
41	SLE FR 5	14	15	2345	553.44	-5.91	-4.88
41	SLE FR 6	13	15	2416	568.67	-6.1	-4.67
41	SLE QP 1	15	14	2239	530.59	-5.62	-5.18
41	SLE QP 2	14	15	2345	553.44	-5.91	-4.88
41	SLD 1	186	64	2205	514.04	-5.18	-65.03
41	SLD 2	222	102	2219	517.26	-5.26	-77.72
41	SLD 3	175	-56	1987	473.38	-4.31	-61.47
41	SLD 4	212	-19	2002	476.6	-4.39	-74.16
41	SLD 5	68	198	2627	602.09	-6.98	-23.63
41	SLD 6	106	237	2642	605.43	-7.07	-36.82
41	SLD 7	32	-203	1903	466.57	-4.08	-11.76
41	SLD 8	70	-164	1918	469.92	-4.17	-24.95
41	SLD 9	-43	193	2772	636.96	-7.66	15.2
41	SLD 10	-5	233	2787	640.3	-7.74	2.01
41	SLD 11	-79	-208	2048	501.45	-4.76	27.07
41	SLD 12	-41	-169	2063	504.79	-4.84	13.88
41	SLD 13	-184	48	2688	630.27	-7.43	64.41
41	SLD 14	-148	86	2703	633.49	-7.51	51.72
41	SLD 15	-195	-72	2471	589.62	-6.56	67.97
41	SLD 16	-158	-35	2485	592.84	-6.64	55.28
41	SLV 1	406	131	2032	464.78	-4.28	-141.89
41	SLV 2	490	217	2065	472.16	-4.46	-171
41	SLV 3	380	-151	1524	369.9	-2.24	-133.51
41	SLV 4	464	-64	1558	377.28	-2.43	-162.61
41	SLV 5	138	444	3008	667.96	-8.44	-47.74
41	SLV 6	226	535	3044	675.74	-8.63	-78.4
41	SLV 7	54	-494	1316	351.7	-1.66	-19.78
41	SLV 8	142	-403	1351	359.47	-1.85	-50.43
41	SLV 9	-115	433	3339	747.41	-9.97	40.68
41	SLV 10	-26	524	3374	755.18	-10.17	10.03
41	SLV 11	-199	-505	1646	431.14	-3.19	68.65
41	SLV 12	-110	-414	1682	438.92	-3.39	37.99
41	SLV 13	-437	94	3132	729.6	-9.4	152.86
41	SLV 14	-353	180	3166	736.98	-9.58	123.75
41	SLV 15	-462	-188	2625	634.72	-7.36	161.25
41	SLV 16	-378	-101	2658	642.1	-7.55	132.14
41	CRTFP Ux+	0	0	0	0	0	0
41	CRTFP Ux-	0	0	0	0	0	0
41	CRTFP Uy+	0	0	0	0	0	0
41	CRTFP Uy-	0	0	0	0	0	0
42	SLU 1	13	11	1996	552.02	51.81	-4.79
42	SLU 2	14	0	1975	547.18	51.22	-5
42	SLU 3	13	11	1996	552.02	51.81	-4.79
42	SLU 4	14	4	1983	549.12	51.46	-4.92
42	SLU 5	14	0	1975	547.18	51.22	-5
42	SLU 6	13	11	1996	552.02	51.81	-4.79
42	SLU 7	14	4	1983	549.12	51.46	-4.92
42	SLU 8	13	11	1996	552.02	51.81	-4.79
42	SLU 9	14	4	1983	549.12	51.46	-4.92
42	SLU 10	11	0	2320	638	60.1	-4.05
42	SLU 11	10	10	2340	642.84	60.7	-3.85
42	SLU 12	11	4	2328	639.94	60.34	-3.97
42	SLU 13	11	0	2320	638	60.1	-4.05
42	SLU 14	10	10	2340	642.84	60.7	-3.85
42	SLU 15	11	4	2328	639.94	60.34	-3.97
42	SLU 16	10	10	2340	642.84	60.7	-3.85
42	SLU 17	11	4	2328	639.94	60.34	-3.97
42	SLU 18	9	10	2488	681.76	64.5	-3.44



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
42	SLU 19	10	4	2476	678.86	64.15	-3.57
42	SLU 20	9	10	2488	681.76	64.5	-3.44
42	SLU 21	10	4	2476	678.86	64.15	-3.57
42	SLU 22	11	11	2254	620.43	58.48	-4.28
42	SLU 23	13	0	2234	615.6	57.88	-4.49
42	SLU 24	11	11	2254	620.43	58.48	-4.28
42	SLU 25	12	4	2242	617.53	58.12	-4.4
42	SLU 26	13	0	2234	615.6	57.88	-4.49
42	SLU 27	11	11	2254	620.43	58.48	-4.28
42	SLU 28	12	4	2242	617.53	58.12	-4.4
42	SLU 29	11	11	2254	620.43	58.48	-4.28
42	SLU 30	12	4	2242	617.53	58.12	-4.4
42	SLU 31	10	0	2578	706.42	66.77	-3.54
42	SLU 32	8	10	2599	711.25	67.36	-3.34
42	SLU 33	9	4	2587	708.35	67	-3.46
42	SLU 34	10	0	2578	706.42	66.77	-3.54
42	SLU 35	8	10	2599	711.25	67.36	-3.34
42	SLU 36	9	4	2587	708.35	67	-3.46
42	SLU 37	8	10	2599	711.25	67.36	-3.34
42	SLU 38	9	4	2587	708.35	67	-3.46
42	SLU 39	7	10	2747	750.17	71.17	-2.93
42	SLU 40	8	4	2734	747.27	70.81	-3.05
42	SLU 41	7	10	2747	750.17	71.17	-2.93
42	SLU 42	8	4	2734	747.27	70.81	-3.05
42	SLU 43	17	14	2506	694.16	65.07	-6.41
42	SLU 44	18	3	2485	689.33	64.48	-6.61
42	SLU 45	17	14	2506	694.16	65.07	-6.41
42	SLU 46	18	8	2493	691.26	64.71	-6.53
42	SLU 47	18	3	2485	689.33	64.48	-6.61
42	SLU 48	17	14	2506	694.16	65.07	-6.41
42	SLU 49	18	8	2493	691.26	64.71	-6.53
42	SLU 50	17	14	2506	694.16	65.07	-6.41
42	SLU 51	18	8	2493	691.26	64.71	-6.53
42	SLU 52	16	3	2830	780.15	73.36	-5.67
42	SLU 53	14	14	2850	784.99	73.96	-5.46
42	SLU 54	15	7	2838	782.08	73.6	-5.59
42	SLU 55	16	3	2830	780.15	73.36	-5.67
42	SLU 56	14	14	2850	784.99	73.96	-5.46
42	SLU 57	15	7	2838	782.08	73.6	-5.59
42	SLU 58	14	14	2850	784.99	73.96	-5.46
42	SLU 59	15	7	2838	782.08	73.6	-5.59
42	SLU 60	13	13	2998	823.91	77.76	-5.06
42	SLU 61	14	7	2986	821.01	77.4	-5.18
42	SLU 62	13	13	2998	823.91	77.76	-5.06
42	SLU 63	14	7	2986	821.01	77.4	-5.18
42	SLU 64	16	14	2764	762.58	71.74	-5.89
42	SLU 65	17	3	2744	757.74	71.14	-6.1
42	SLU 66	16	14	2764	762.58	71.74	-5.89
42	SLU 67	16	8	2752	759.68	71.38	-6.02
42	SLU 68	17	3	2744	757.74	71.14	-6.1
42	SLU 69	16	14	2764	762.58	71.74	-5.89
42	SLU 70	16	8	2752	759.68	71.38	-6.02
42	SLU 71	16	14	2764	762.58	71.74	-5.89
42	SLU 72	16	8	2752	759.68	71.38	-6.02
42	SLU 73	14	3	3088	848.56	80.02	-5.15
42	SLU 74	13	14	3109	853.4	80.62	-4.95
42	SLU 75	14	7	3097	850.5	80.26	-5.07
42	SLU 76	14	3	3088	848.56	80.02	-5.15
42	SLU 77	13	14	3109	853.4	80.62	-4.95
42	SLU 78	14	7	3097	850.5	80.26	-5.07
42	SLU 79	13	14	3109	853.4	80.62	-4.95
42	SLU 80	14	7	3097	850.5	80.26	-5.07
42	SLU 81	12	13	3257	892.32	84.43	-4.54
42	SLU 82	12	7	3244	889.42	84.07	-4.67
42	SLU 83	12	13	3257	892.32	84.43	-4.54
42	SLU 84	12	7	3244	889.42	84.07	-4.67
42	SLE RA 1	12	11	2070	571.56	53.72	-4.65
42	SLE RA 2	13	4	2056	568.34	53.32	-4.78
42	SLE RA 3	12	11	2070	571.56	53.72	-4.65
42	SLE RA 4	13	7	2061	569.63	53.48	-4.73
42	SLE RA 5	13	4	2056	568.34	53.32	-4.78
42	SLE RA 6	12	11	2070	571.56	53.72	-4.65
42	SLE RA 7	13	7	2061	569.63	53.48	-4.73
42	SLE RA 8	12	11	2070	571.56	53.72	-4.65
42	SLE RA 9	13	7	2061	569.63	53.48	-4.73
42	SLE RA 10	11	3	2286	628.89	59.24	-4.15
42	SLE RA 11	10	10	2299	632.11	59.64	-4.02
42	SLE RA 12	11	6	2291	630.18	59.4	-4.1
42	SLE RA 13	11	3	2286	628.89	59.24	-4.15
42	SLE RA 14	10	10	2299	632.11	59.64	-4.02
42	SLE RA 15	11	6	2291	630.18	59.4	-4.1
42	SLE RA 16	10	10	2299	632.11	59.64	-4.02
42	SLE RA 17	11	6	2291	630.18	59.4	-4.1
42	SLE RA 18	10	10	2398	658.06	62.18	-3.75
42	SLE RA 19	10	6	2390	656.12	61.94	-3.83
42	SLE RA 20	10	10	2398	658.06	62.18	-3.75
42	SLE RA 21	10	6	2390	656.12	61.94	-3.83
42	SLE FR 1	12	11	2070	571.56	53.72	-4.65
42	SLE FR 2	12	9	2067	570.92	53.64	-4.67
42	SLE FR 3	12	11	2070	571.56	53.72	-4.65
42	SLE FR 4	12	9	2165	596.87	56.18	-4.4



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
42	SLE FR 5	12	11	2168	597.51	56.26	-4.38
42	SLE FR 6	11	11	2234	614.81	57.95	-4.2
42	SLE QP 1	12	11	2070	571.56	53.72	-4.65
42	SLE QP 2	12	11	2168	597.51	56.26	-4.38
42	SLD 1	159	55	2029	555.23	52.87	-56.78
42	SLD 2	190	91	2043	558.86	53.22	-68.69
42	SLD 3	150	-54	1820	505.95	47.64	-51.08
42	SLD 4	181	-18	1835	509.59	48	-62.99
42	SLD 5	58	177	2437	658.21	63.04	-24.35
42	SLD 6	91	215	2452	661.99	63.41	-36.73
42	SLD 7	27	-189	1742	493.97	45.61	-5.33
42	SLD 8	60	-151	1757	497.75	45.98	-17.71
42	SLD 9	-37	173	2579	697.27	66.53	8.95
42	SLD 10	-4	210	2594	701.05	66.9	-3.42
42	SLD 11	-68	-193	1884	533.03	49.1	27.97
42	SLD 12	-35	-156	1899	536.81	49.47	15.6
42	SLD 13	-158	40	2502	685.43	64.52	54.23
42	SLD 14	-127	76	2516	689.07	64.87	42.32
42	SLD 15	-167	-70	2293	636.16	59.29	59.94
42	SLD 16	-136	-34	2308	639.8	59.64	48.03
42	SLV 1	347	116	1856	502.55	48.7	-123.8
42	SLV 2	419	198	1890	510.89	49.51	-151.11
42	SLV 3	325	-141	1369	387.52	36.49	-110.44
42	SLV 4	397	-58	1403	395.87	37.3	-137.75
42	SLV 5	118	400	2801	740.33	72.21	-50.18
42	SLV 6	194	487	2836	749.12	73.06	-78.94
42	SLV 7	46	-455	1177	356.92	31.49	-5.65
42	SLV 8	121	-368	1212	365.71	32.35	-34.42
42	SLV 9	-98	389	3124	829.32	80.16	25.66
42	SLV 10	-23	476	3159	838.1	81.02	-3.1
42	SLV 11	-171	-466	1500	445.9	39.45	70.19
42	SLV 12	-95	-379	1535	454.69	40.3	41.42
42	SLV 13	-374	80	2933	799.16	75.21	129
42	SLV 14	-302	162	2967	807.5	76.02	101.69
42	SLV 15	-396	-177	2446	684.13	63	142.36
42	SLV 16	-324	-95	2480	692.47	63.81	115.05
42	CRTFP Ux+	0	0	0	0	0	0
42	CRTFP Ux-	0	0	0	0	0	0
42	CRTFP Uy+	0	0	0	0	0	0
42	CRTFP Uy-	0	0	0	0	0	0
44	SLU 1	17	14	3012	687.06	517.13	-6.91
44	SLU 2	19	-1	2982	681.28	511.37	-4.65
44	SLU 3	17	14	3012	687.06	517.13	-6.91
44	SLU 4	18	5	2994	683.59	513.68	-5.56
44	SLU 5	19	-1	2982	681.28	511.37	-4.65
44	SLU 6	17	14	3012	687.06	517.13	-6.91
44	SLU 7	18	5	2994	683.59	513.68	-5.56
44	SLU 8	17	14	3012	687.06	517.13	-6.91
44	SLU 9	18	5	2994	683.59	513.68	-5.56
44	SLU 10	15	-3	3506	799.18	600.79	-3.38
44	SLU 11	13	12	3536	804.97	606.55	-5.64
44	SLU 12	14	3	3518	801.5	603.09	-4.28
44	SLU 13	15	-3	3506	799.18	600.79	-3.38
44	SLU 14	13	12	3536	804.97	606.55	-5.64
44	SLU 15	14	3	3518	801.5	603.09	-4.28
44	SLU 16	13	12	3536	804.97	606.55	-5.64
44	SLU 17	14	3	3518	801.5	603.09	-4.28
44	SLU 18	11	12	3761	855.5	644.87	-5.1
44	SLU 19	12	3	3743	852.03	641.41	-3.74
44	SLU 20	11	12	3761	855.5	644.87	-5.1
44	SLU 21	12	3	3743	852.03	641.41	-3.74
44	SLU 22	15	13	3406	775.71	584.24	-6.23
44	SLU 23	17	-2	3376	769.92	578.48	-3.96
44	SLU 24	15	13	3406	775.71	584.24	-6.23
44	SLU 25	16	4	3388	772.24	580.78	-4.87
44	SLU 26	17	-2	3376	769.92	578.48	-3.96
44	SLU 27	15	13	3406	775.71	584.24	-6.23
44	SLU 28	16	4	3388	772.24	580.78	-4.87
44	SLU 29	15	13	3406	775.71	584.24	-6.23
44	SLU 30	16	4	3388	772.24	580.78	-4.87
44	SLU 31	12	-4	3900	887.83	667.9	-2.69
44	SLU 32	10	11	3930	893.61	673.66	-4.95
44	SLU 33	12	2	3912	890.14	670.2	-3.59
44	SLU 34	12	-4	3900	887.83	667.9	-2.69
44	SLU 35	10	11	3930	893.61	673.66	-4.95
44	SLU 36	12	2	3912	890.14	670.2	-3.59
44	SLU 37	10	11	3930	893.61	673.66	-4.95
44	SLU 38	12	2	3912	890.14	670.2	-3.59
44	SLU 39	9	11	4154	944.14	711.98	-4.41
44	SLU 40	10	2	4136	940.67	708.52	-3.05
44	SLU 41	9	11	4154	944.14	711.98	-4.41
44	SLU 42	10	2	4136	940.67	708.52	-3.05
44	SLU 43	23	18	3781	862.79	649.26	-9.23
44	SLU 44	25	3	3751	857	643.5	-6.96
44	SLU 45	23	18	3781	862.79	649.26	-9.23
44	SLU 46	24	9	3763	859.32	645.81	-7.87
44	SLU 47	25	3	3751	857	643.5	-6.96
44	SLU 48	23	18	3781	862.79	649.26	-9.23
44	SLU 49	24	9	3763	859.32	645.81	-7.87
44	SLU 50	23	18	3781	862.79	649.26	-9.23
44	SLU 51	24	9	3763	859.32	645.81	-7.87



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
44	SLU 52	21	2	4275	974.91	732.92	-5.69
44	SLU 53	19	17	4305	980.69	738.68	-7.95
44	SLU 54	20	8	4287	977.22	735.22	-6.59
44	SLU 55	21	2	4275	974.91	732.92	-5.69
44	SLU 56	19	17	4305	980.69	738.68	-7.95
44	SLU 57	20	8	4287	977.22	735.22	-6.59
44	SLU 58	19	17	4305	980.69	738.68	-7.95
44	SLU 59	20	8	4287	977.22	735.22	-6.59
44	SLU 60	17	16	4530	1031.22	777	-7.41
44	SLU 61	18	7	4512	1027.75	773.54	-6.05
44	SLU 62	17	16	4530	1031.22	777	-7.41
44	SLU 63	18	7	4512	1027.75	773.54	-6.05
44	SLU 64	21	17	4175	951.43	716.37	-8.54
44	SLU 65	23	2	4145	945.65	710.61	-6.27
44	SLU 66	21	17	4175	951.43	716.37	-8.54
44	SLU 67	22	8	4157	947.96	712.91	-7.18
44	SLU 68	23	2	4145	945.65	710.61	-6.27
44	SLU 69	21	17	4175	951.43	716.37	-8.54
44	SLU 70	22	8	4157	947.96	712.91	-7.18
44	SLU 71	21	17	4175	951.43	716.37	-8.54
44	SLU 72	22	8	4157	947.96	712.91	-7.18
44	SLU 73	18	1	4668	1063.55	800.03	-5
44	SLU 74	16	16	4699	1069.34	805.79	-7.26
44	SLU 75	18	7	4681	1065.87	802.33	-5.9
44	SLU 76	18	1	4668	1063.55	800.03	-5
44	SLU 77	16	16	4699	1069.34	805.79	-7.26
44	SLU 78	18	7	4681	1065.87	802.33	-5.9
44	SLU 79	16	16	4699	1069.34	805.79	-7.26
44	SLU 80	18	7	4681	1065.87	802.33	-5.9
44	SLU 81	15	15	4923	1119.87	844.11	-6.72
44	SLU 82	16	6	4905	1116.4	840.65	-5.36
44	SLU 83	15	15	4923	1119.87	844.11	-6.72
44	SLU 84	16	6	4905	1116.4	840.65	-5.36
44	SLE RA 1	17	14	3125	712.39	536.3	-6.72
44	SLE RA 2	18	4	3105	708.53	532.47	-5.21
44	SLE RA 3	17	14	3125	712.39	536.3	-6.72
44	SLE RA 4	17	8	3113	710.07	534	-5.81
44	SLE RA 5	18	4	3105	708.53	532.47	-5.21
44	SLE RA 6	17	14	3125	712.39	536.3	-6.72
44	SLE RA 7	17	8	3113	710.07	534	-5.81
44	SLE RA 8	17	14	3125	712.39	536.3	-6.72
44	SLE RA 9	17	8	3113	710.07	534	-5.81
44	SLE RA 10	15	3	3454	787.14	592.08	-4.36
44	SLE RA 11	14	13	3474	790.99	595.91	-5.87
44	SLE RA 12	14	7	3462	788.68	593.61	-4.96
44	SLE RA 13	15	3	3454	787.14	592.08	-4.36
44	SLE RA 14	14	13	3474	790.99	595.91	-5.87
44	SLE RA 15	14	7	3462	788.68	593.61	-4.96
44	SLE RA 16	14	13	3474	790.99	595.91	-5.87
44	SLE RA 17	14	7	3462	788.68	593.61	-4.96
44	SLE RA 18	12	12	3624	824.68	621.46	-5.51
44	SLE RA 19	13	6	3612	822.37	619.16	-4.6
44	SLE RA 20	12	12	3624	824.68	621.46	-5.51
44	SLE RA 21	13	6	3612	822.37	619.16	-4.6
44	SLE FR 1	17	14	3125	712.39	536.3	-6.72
44	SLE FR 2	17	12	3121	711.62	535.54	-6.42
44	SLE FR 3	17	14	3125	712.39	536.3	-6.72
44	SLE FR 4	16	11	3270	745.3	561.08	-6.05
44	SLE FR 5	15	13	3274	746.07	561.85	-6.35
44	SLE FR 6	14	13	3374	768.53	578.88	-6.11
44	SLE QP 1	17	14	3125	712.39	536.3	-6.72
44	SLE QP 2	15	13	3274	746.07	561.85	-6.35
44	SLD 1	223	79	3057	694.52	526.71	-68.12
44	SLD 2	269	133	3081	699.38	530.68	-89.06
44	SLD 3	208	-82	2727	625.91	470.71	-36.08
44	SLD 4	254	-28	2751	630.77	474.68	-57.02
44	SLD 5	83	256	3701	832.87	634.78	-65.74
44	SLD 6	131	312	3725	837.92	638.91	-87.49
44	SLD 7	34	-278	2601	604.17	448.1	41.06
44	SLD 8	81	-222	2626	609.22	452.23	19.3
44	SLD 9	-51	248	3923	882.93	671.47	-32.01
44	SLD 10	-3	304	3948	887.98	675.6	-53.76
44	SLD 11	-100	-286	2824	654.23	484.79	74.79
44	SLD 12	-53	-229	2848	659.28	488.92	53.03
44	SLD 13	-223	54	3798	861.38	649.02	44.31
44	SLD 14	-178	108	3822	866.24	653	23.37
44	SLD 15	-238	-106	3468	792.77	593.02	76.35
44	SLD 16	-193	-52	3492	797.63	596.99	55.41
44	SLV 1	489	167	2788	630.6	483.45	-147.78
44	SLV 2	594	290	2843	641.74	492.56	-195.81
44	SLV 3	454	-208	2018	470.39	352.65	-72.93
44	SLV 4	559	-84	2072	481.53	361.76	-120.95
44	SLV 5	171	580	4276	950.22	733.27	-144.23
44	SLV 6	281	711	4334	961.95	742.87	-194.81
44	SLV 7	54	-667	1709	416.19	297.29	105.29
44	SLV 8	165	-537	1766	427.93	306.88	54.71
44	SLV 9	-134	563	4783	1064.22	816.82	-67.42
44	SLV 10	-24	694	4840	1075.96	826.42	-118
44	SLV 11	-251	-684	2215	530.2	380.83	182.1
44	SLV 12	-141	-554	2273	541.93	390.43	131.52
44	SLV 13	-528	110	4476	1010.62	761.94	108.24



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
44	SLV 14	-423	234	4531	1021.76	771.05	60.22
44	SLV 15	-563	-264	3706	850.41	631.14	183.1
44	SLV 16	-458	-140	3761	861.55	640.25	135.08
44	CRTFP Ux+	0	0	0	0	0	0
44	CRTFP Ux-	0	0	0	0	0	0
44	CRTFP Uy+	0	0	0	-0.01	0	0
44	CRTFP Uy-	0	0	0	0.01	0	0
82	SLU 1	5	-1	1539	39.93	-650.67	-0.75
82	SLU 2	5	-10	1521	39.5	-642.35	-4.84
82	SLU 3	5	-1	1539	39.93	-650.67	-0.75
82	SLU 4	5	-7	1528	39.67	-645.68	-3.2
82	SLU 5	5	-10	1521	39.5	-642.35	-4.84
82	SLU 6	5	-1	1539	39.93	-650.67	-0.75
82	SLU 7	5	-7	1528	39.67	-645.68	-3.2
82	SLU 8	5	-1	1539	39.93	-650.67	-0.75
82	SLU 9	5	-7	1528	39.67	-645.68	-3.2
82	SLU 10	6	-11	1800	46.67	-758.69	-5.38
82	SLU 11	6	-2	1818	47.1	-767.01	-1.29
82	SLU 12	6	-8	1807	46.84	-762.02	-3.74
82	SLU 13	6	-11	1800	46.67	-758.69	-5.38
82	SLU 14	6	-2	1818	47.1	-767.01	-1.29
82	SLU 15	6	-8	1807	46.84	-762.02	-3.74
82	SLU 16	6	-2	1818	47.1	-767.01	-1.29
82	SLU 17	6	-8	1807	46.84	-762.02	-3.74
82	SLU 18	7	-3	1938	50.17	-816.87	-1.52
82	SLU 19	6	-8	1927	49.92	-811.88	-3.97
82	SLU 20	7	-3	1938	50.17	-816.87	-1.52
82	SLU 21	6	-8	1927	49.92	-811.88	-3.97
82	SLU 22	6	-2	1739	45.07	-734.17	-1.05
82	SLU 23	6	-11	1721	44.64	-725.85	-5.13
82	SLU 24	6	-2	1739	45.07	-734.17	-1.05
82	SLU 25	6	-7	1728	44.82	-729.18	-3.5
82	SLU 26	6	-11	1721	44.64	-725.85	-5.13
82	SLU 27	6	-2	1739	45.07	-734.17	-1.05
82	SLU 28	6	-7	1728	44.82	-729.18	-3.5
82	SLU 29	6	-2	1739	45.07	-734.17	-1.05
82	SLU 30	6	-7	1728	44.82	-729.18	-3.5
82	SLU 31	7	-12	2000	51.82	-842.19	-5.67
82	SLU 32	7	-3	2019	52.25	-850.51	-1.58
82	SLU 33	7	-8	2007	51.99	-845.52	-4.04
82	SLU 34	7	-12	2000	51.82	-842.19	-5.67
82	SLU 35	7	-3	2019	52.25	-850.51	-1.58
82	SLU 36	7	-8	2007	51.99	-845.52	-4.04
82	SLU 37	7	-3	2019	52.25	-850.51	-1.58
82	SLU 38	7	-8	2007	51.99	-845.52	-4.04
82	SLU 39	8	-4	2138	55.32	-900.37	-1.81
82	SLU 40	7	-9	2127	55.06	-895.38	-4.27
82	SLU 41	8	-4	2138	55.32	-900.37	-1.81
82	SLU 42	7	-9	2127	55.06	-895.38	-4.27
82	SLU 43	6	-2	1932	50.14	-817.24	-0.88
82	SLU 44	6	-10	1914	49.71	-808.92	-4.96
82	SLU 45	6	-2	1932	50.14	-817.24	-0.88
82	SLU 46	6	-7	1921	49.88	-812.25	-3.33
82	SLU 47	6	-10	1914	49.71	-808.92	-4.96
82	SLU 48	6	-2	1932	50.14	-817.24	-0.88
82	SLU 49	6	-7	1921	49.88	-812.25	-3.33
82	SLU 50	6	-2	1932	50.14	-817.24	-0.88
82	SLU 51	6	-7	1921	49.88	-812.25	-3.33
82	SLU 52	7	-11	2193	56.88	-925.26	-5.5
82	SLU 53	8	-3	2211	57.31	-933.58	-1.41
82	SLU 54	7	-8	2200	57.05	-928.59	-3.87
82	SLU 55	7	-11	2193	56.88	-925.26	-5.5
82	SLU 56	8	-3	2211	57.31	-933.58	-1.41
82	SLU 57	7	-8	2200	57.05	-928.59	-3.87
82	SLU 58	8	-3	2211	57.31	-933.58	-1.41
82	SLU 59	7	-8	2200	57.05	-928.59	-3.87
82	SLU 60	8	-3	2331	60.39	-983.44	-1.64
82	SLU 61	8	-8	2320	60.13	-978.45	-4.1
82	SLU 62	8	-3	2331	60.39	-983.44	-1.64
82	SLU 63	8	-8	2320	60.13	-978.45	-4.1
82	SLU 64	7	-2	2132	55.29	-900.74	-1.17
82	SLU 65	7	-11	2114	54.86	-892.43	-5.26
82	SLU 66	7	-2	2132	55.29	-900.74	-1.17
82	SLU 67	7	-7	2121	55.03	-895.75	-3.62
82	SLU 68	7	-11	2114	54.86	-892.43	-5.26
82	SLU 69	7	-2	2132	55.29	-900.74	-1.17
82	SLU 70	7	-7	2121	55.03	-895.75	-3.62
82	SLU 71	7	-2	2132	55.29	-900.74	-1.17
82	SLU 72	7	-7	2121	55.03	-895.75	-3.62
82	SLU 73	8	-12	2393	62.03	-1008.76	-5.8
82	SLU 74	9	-3	2412	62.46	-1017.08	-1.71
82	SLU 75	8	-8	2401	62.2	-1012.09	-4.16
82	SLU 76	8	-12	2393	62.03	-1008.76	-5.8
82	SLU 77	9	-3	2412	62.46	-1017.08	-1.71
82	SLU 78	8	-8	2401	62.2	-1012.09	-4.16
82	SLU 79	9	-3	2412	62.46	-1017.08	-1.71
82	SLU 80	8	-8	2401	62.2	-1012.09	-4.16
82	SLU 81	9	-4	2531	65.53	-1066.94	-1.94
82	SLU 82	9	-9	2520	65.28	-1061.95	-4.39
82	SLU 83	9	-4	2531	65.53	-1066.94	-1.94
82	SLU 84	9	-9	2520	65.28	-1061.95	-4.39



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
82	SLE RA 1	5	-2	1596	41.4	-674.53	-0.84
82	SLE RA 2	5	-7	1584	41.11	-668.98	-3.56
82	SLE RA 3	5	-2	1596	41.4	-674.53	-0.84
82	SLE RA 4	5	-5	1589	41.22	-671.2	-2.47
82	SLE RA 5	5	-7	1584	41.11	-668.98	-3.56
82	SLE RA 6	5	-2	1596	41.4	-674.53	-0.84
82	SLE RA 7	5	-5	1589	41.22	-671.2	-2.47
82	SLE RA 8	5	-2	1596	41.4	-674.53	-0.84
82	SLE RA 9	5	-5	1589	41.22	-671.2	-2.47
82	SLE RA 10	6	-8	1770	45.89	-746.54	-3.92
82	SLE RA 11	6	-2	1782	46.18	-752.09	-1.19
82	SLE RA 12	6	-6	1775	46.01	-748.76	-2.83
82	SLE RA 13	6	-8	1770	45.89	-746.54	-3.92
82	SLE RA 14	6	-2	1782	46.18	-752.09	-1.19
82	SLE RA 15	6	-6	1775	46.01	-748.76	-2.83
82	SLE RA 16	6	-2	1782	46.18	-752.09	-1.19
82	SLE RA 17	6	-6	1775	46.01	-748.76	-2.83
82	SLE RA 18	7	-3	1862	48.23	-785.33	-1.35
82	SLE RA 19	6	-6	1855	48.06	-782	-2.98
82	SLE RA 20	7	-3	1862	48.23	-785.33	-1.35
82	SLE RA 21	6	-6	1855	48.06	-782	-2.98
82	SLE FR 1	5	-2	1596	41.4	-674.53	-0.84
82	SLE FR 2	5	-3	1594	41.34	-673.42	-1.38
82	SLE FR 3	5	-2	1596	41.4	-674.53	-0.84
82	SLE FR 4	6	-3	1674	43.39	-706.66	-1.53
82	SLE FR 5	6	-2	1676	43.45	-707.77	-0.99
82	SLE FR 6	6	-2	1729	44.81	-729.93	-1.09
82	SLE QP 1	5	-2	1596	41.4	-674.53	-0.84
82	SLE QP 2	6	-2	1676	43.45	-707.77	-0.99
82	SLD 1	117	48	1961	50.56	-823.35	20.84
82	SLD 2	142	18	1950	50.28	-818.55	5.98
82	SLD 3	121	-38	1802	46.75	-757.07	-19.88
82	SLD 4	146	-68	1791	46.47	-752.27	-34.73
82	SLD 5	24	154	2007	51.45	-844.74	72.79
82	SLD 6	50	123	1995	51.16	-839.75	57.36
82	SLD 7	37	-132	1477	38.77	-623.81	-62.91
82	SLD 8	63	-163	1465	38.48	-618.82	-78.35
82	SLD 9	-52	159	1887	48.41	-796.71	76.37
82	SLD 10	-26	128	1875	48.12	-791.72	60.93
82	SLD 11	-38	-127	1357	35.73	-575.79	-59.34
82	SLD 12	-12	-158	1345	35.44	-570.8	-74.77
82	SLD 13	-134	64	1562	40.42	-663.26	32.75
82	SLD 14	-109	34	1550	40.14	-658.46	17.9
82	SLD 15	-130	-21	1403	36.62	-596.99	-7.96
82	SLD 16	-105	-51	1391	36.34	-592.18	-22.82
82	SLV 1	259	113	2330	59.75	-972.88	50
82	SLV 2	316	45	2303	59.1	-961.86	15.93
82	SLV 3	268	-87	1959	50.87	-818.1	-45.15
82	SLV 4	325	-156	1932	50.22	-807.08	-79.22
82	SLV 5	46	363	2446	62.05	-1026.2	171.44
82	SLV 6	106	290	2418	61.37	-1014.6	135.56
82	SLV 7	77	-306	1208	32.45	-510.27	-145.71
82	SLV 8	138	-378	1179	31.77	-498.66	-181.6
82	SLV 9	-126	374	2173	55.12	-916.87	179.62
82	SLV 10	-65	302	2145	54.45	-905.27	143.73
82	SLV 11	-95	-294	935	25.52	-400.94	-137.54
82	SLV 12	-34	-366	906	24.85	-389.34	-173.42
82	SLV 13	-314	152	1421	36.67	-608.45	77.24
82	SLV 14	-256	83	1394	36.03	-597.44	43.17
82	SLV 15	-304	-48	1049	27.79	-453.67	-17.91
82	SLV 16	-247	-117	1022	27.15	-442.66	-51.98
82	CRTFP Ux+	0	0	0	0	0	0
82	CRTFP Ux-	0	0	0	0	0	0
82	CRTFP Uy+	0	0	0	0	0	0
82	CRTFP Uy-	0	0	0	0	0	0
85	SLU 1	13	-25	3114	83.8	1.53	0.21
85	SLU 2	13	-39	3078	82.92	1.6	0.2
85	SLU 3	13	-25	3114	83.8	1.53	0.21
85	SLU 4	13	-33	3092	83.27	1.57	0.21
85	SLU 5	13	-39	3078	82.92	1.6	0.2
85	SLU 6	13	-25	3114	83.8	1.53	0.21
85	SLU 7	13	-33	3092	83.27	1.57	0.21
85	SLU 8	13	-25	3114	83.8	1.53	0.21
85	SLU 9	13	-33	3092	83.27	1.57	0.21
85	SLU 10	11	-41	3679	99.13	1.68	0.17
85	SLU 11	11	-28	3715	100.01	1.61	0.18
85	SLU 12	11	-36	3694	99.48	1.66	0.17
85	SLU 13	11	-41	3679	99.13	1.68	0.17
85	SLU 14	11	-28	3715	100.01	1.61	0.18
85	SLU 15	11	-36	3694	99.48	1.66	0.17
85	SLU 16	11	-28	3715	100.01	1.61	0.18
85	SLU 17	11	-36	3694	99.48	1.66	0.17
85	SLU 18	11	-29	3973	106.95	1.65	0.16
85	SLU 19	11	-37	3951	106.43	1.69	0.16
85	SLU 20	11	-29	3973	106.95	1.65	0.16
85	SLU 21	11	-37	3951	106.43	1.69	0.16
85	SLU 22	12	-27	3551	95.58	1.51	0.19
85	SLU 23	12	-41	3515	94.7	1.58	0.18
85	SLU 24	12	-27	3551	95.58	1.51	0.19
85	SLU 25	12	-36	3529	95.05	1.55	0.19
85	SLU 26	12	-41	3515	94.7	1.58	0.18



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
85	SLU 27	12	-27	3551	95.58	1.51	0.19
85	SLU 28	12	-36	3529	95.05	1.55	0.19
85	SLU 29	12	-27	3551	95.58	1.51	0.19
85	SLU 30	12	-36	3529	95.05	1.55	0.19
85	SLU 31	11	-43	4116	110.91	1.66	0.15
85	SLU 32	11	-30	4152	111.78	1.59	0.16
85	SLU 33	11	-38	4131	111.26	1.64	0.15
85	SLU 34	11	-43	4116	110.91	1.66	0.15
85	SLU 35	11	-30	4152	111.78	1.59	0.16
85	SLU 36	11	-38	4131	111.26	1.64	0.15
85	SLU 37	11	-30	4152	111.78	1.59	0.16
85	SLU 38	11	-38	4131	111.26	1.64	0.15
85	SLU 39	10	-31	4410	118.73	1.63	0.15
85	SLU 40	10	-39	4388	118.21	1.67	0.14
85	SLU 41	10	-31	4410	118.73	1.63	0.15
85	SLU 42	10	-39	4388	118.21	1.67	0.14
85	SLU 43	17	-32	3898	104.9	1.99	0.28
85	SLU 44	17	-46	3862	104.02	2.07	0.27
85	SLU 45	17	-32	3898	104.9	1.99	0.28
85	SLU 46	17	-40	3876	104.37	2.04	0.28
85	SLU 47	17	-46	3862	104.02	2.07	0.27
85	SLU 48	17	-32	3898	104.9	1.99	0.28
85	SLU 49	17	-40	3876	104.37	2.04	0.28
85	SLU 50	17	-32	3898	104.9	1.99	0.28
85	SLU 51	17	-40	3876	104.37	2.04	0.28
85	SLU 52	15	-48	4463	120.23	2.15	0.24
85	SLU 53	15	-34	4500	121.11	2.08	0.25
85	SLU 54	15	-43	4478	120.58	2.12	0.24
85	SLU 55	15	-48	4463	120.23	2.15	0.24
85	SLU 56	15	-34	4500	121.11	2.08	0.25
85	SLU 57	15	-43	4478	120.58	2.12	0.24
85	SLU 58	15	-34	4500	121.11	2.08	0.25
85	SLU 59	15	-43	4478	120.58	2.12	0.24
85	SLU 60	15	-35	4757	128.05	2.11	0.23
85	SLU 61	15	-44	4736	127.53	2.16	0.23
85	SLU 62	15	-35	4757	128.05	2.11	0.23
85	SLU 63	15	-44	4736	127.53	2.16	0.23
85	SLU 64	16	-34	4335	116.68	1.98	0.26
85	SLU 65	16	-48	4299	115.8	2.05	0.25
85	SLU 66	16	-34	4335	116.68	1.98	0.26
85	SLU 67	16	-42	4313	116.15	2.02	0.26
85	SLU 68	16	-48	4299	115.8	2.05	0.25
85	SLU 69	16	-34	4335	116.68	1.98	0.26
85	SLU 70	16	-42	4313	116.15	2.02	0.26
85	SLU 71	16	-34	4335	116.68	1.98	0.26
85	SLU 72	16	-42	4313	116.15	2.02	0.26
85	SLU 73	15	-50	4900	132.01	2.13	0.22
85	SLU 74	15	-37	4937	132.89	2.06	0.23
85	SLU 75	15	-45	4915	132.36	2.1	0.22
85	SLU 76	15	-50	4900	132.01	2.13	0.22
85	SLU 77	15	-37	4937	132.89	2.06	0.23
85	SLU 78	15	-45	4915	132.36	2.1	0.22
85	SLU 79	15	-37	4937	132.89	2.06	0.23
85	SLU 80	15	-45	4915	132.36	2.1	0.22
85	SLU 81	14	-38	5194	139.83	2.09	0.22
85	SLU 82	14	-46	5173	139.31	2.14	0.21
85	SLU 83	14	-38	5194	139.83	2.09	0.22
85	SLU 84	14	-46	5173	139.31	2.14	0.21
85	SLE RA 1	13	-26	3239	87.16	1.52	0.21
85	SLE RA 2	13	-35	3214	86.58	1.57	0.2
85	SLE RA 3	13	-26	3239	87.16	1.52	0.21
85	SLE RA 4	13	-31	3224	86.81	1.55	0.2
85	SLE RA 5	13	-35	3214	86.58	1.57	0.2
85	SLE RA 6	13	-26	3239	87.16	1.52	0.21
85	SLE RA 7	13	-31	3224	86.81	1.55	0.2
85	SLE RA 8	13	-26	3239	87.16	1.52	0.21
85	SLE RA 9	13	-31	3224	86.81	1.55	0.2
85	SLE RA 10	12	-37	3615	97.39	1.63	0.18
85	SLE RA 11	12	-27	3640	97.97	1.58	0.18
85	SLE RA 12	12	-33	3625	97.62	1.61	0.18
85	SLE RA 13	12	-37	3615	97.39	1.63	0.18
85	SLE RA 14	12	-27	3640	97.97	1.58	0.18
85	SLE RA 15	12	-33	3625	97.62	1.61	0.18
85	SLE RA 16	12	-27	3640	97.97	1.58	0.18
85	SLE RA 17	12	-33	3625	97.62	1.61	0.18
85	SLE RA 18	11	-28	3812	102.6	1.6	0.18
85	SLE RA 19	11	-34	3797	102.25	1.63	0.17
85	SLE RA 20	11	-28	3812	102.6	1.6	0.18
85	SLE RA 21	11	-34	3797	102.25	1.63	0.17
85	SLE FR 1	13	-26	3239	87.16	1.52	0.21
85	SLE FR 2	13	-28	3234	87.05	1.53	0.21
85	SLE FR 3	13	-26	3239	87.16	1.52	0.21
85	SLE FR 4	12	-28	3406	91.68	1.56	0.2
85	SLE FR 5	12	-27	3411	91.79	1.55	0.2
85	SLE FR 6	12	-27	3525	94.88	1.56	0.19
85	SLE QP 1	13	-26	3239	87.16	1.52	0.21
85	SLE QP 2	12	-27	3411	91.79	1.55	0.2
85	SLD 1	246	36	3546	95.1	8.28	-5.85
85	SLD 2	295	37	3545	95.07	8.11	-6.48
85	SLD 3	236	-109	3225	87.07	7.98	-5.66
85	SLD 4	285	-108	3224	87.04	7.81	-6.29



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
85	SLD 5	79	211	3939	104.98	4.08	-1.67
85	SLD 6	131	212	3938	104.95	3.9	-2.33
85	SLD 7	46	-271	2868	78.2	3.09	-1.04
85	SLD 8	97	-270	2867	78.17	2.92	-1.69
85	SLD 9	-73	217	3954	105.42	0.18	2.09
85	SLD 10	-21	218	3953	105.39	0	1.44
85	SLD 11	-106	-265	2884	78.64	-0.8	2.72
85	SLD 12	-55	-264	2882	78.61	-0.98	2.07
85	SLD 13	-261	55	3598	96.55	-4.71	6.69
85	SLD 14	-211	56	3596	96.52	-4.89	6.06
85	SLD 15	-271	-90	3276	88.52	-5.01	6.88
85	SLD 16	-221	-89	3275	88.49	-5.18	6.25
85	SLV 1	544	120	3727	99.52	16.91	-13.58
85	SLV 2	658	122	3724	99.46	16.52	-15.03
85	SLV 3	520	-218	2977	80.76	16.19	-13.14
85	SLV 4	634	-216	2974	80.7	15.79	-14.58
85	SLV 5	165	529	4644	122.59	7.4	-4.06
85	SLV 6	285	532	4641	122.52	6.99	-5.59
85	SLV 7	86	-598	2144	60.06	4.99	-2.59
85	SLV 8	205	-595	2141	59.99	4.57	-4.11
85	SLV 9	-181	542	4680	123.6	-1.48	4.5
85	SLV 10	-61	545	4677	123.53	-1.89	2.98
85	SLV 11	-260	-585	2180	61.07	-3.9	5.98
85	SLV 12	-141	-582	2177	61	-4.31	4.46
85	SLV 13	-609	163	3847	102.89	-12.7	14.98
85	SLV 14	-496	165	3844	102.83	-13.09	13.53
85	SLV 15	-633	-175	3097	84.13	-13.42	15.42
85	SLV 16	-520	-173	3094	84.07	-13.81	13.98
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	11	9	1819	47.44	339.59	-2.53
88	SLU 2	12	-1	1802	47.08	335.5	-0.18
88	SLU 3	11	9	1819	47.44	339.59	-2.53
88	SLU 4	12	3	1809	47.22	337.14	-1.12
88	SLU 5	12	-1	1802	47.08	335.5	-0.18
88	SLU 6	11	9	1819	47.44	339.59	-2.53
88	SLU 7	12	3	1809	47.22	337.14	-1.12
88	SLU 8	11	9	1819	47.44	339.59	-2.53
88	SLU 9	12	3	1809	47.22	337.14	-1.12
88	SLU 10	10	-2	2116	55.19	392.39	0.06
88	SLU 11	9	8	2133	55.56	396.48	-2.29
88	SLU 12	10	2	2123	55.34	394.03	-0.88
88	SLU 13	10	-2	2116	55.19	392.39	0.06
88	SLU 14	9	8	2133	55.56	396.48	-2.29
88	SLU 15	10	2	2123	55.34	394.03	-0.88
88	SLU 16	9	8	2133	55.56	396.48	-2.29
88	SLU 17	10	2	2123	55.34	394.03	-0.88
88	SLU 18	8	8	2268	59.04	420.86	-2.18
88	SLU 19	9	2	2258	58.82	418.41	-0.77
88	SLU 20	8	8	2268	59.04	420.86	-2.18
88	SLU 21	9	2	2258	58.82	418.41	-0.77
88	SLU 22	10	8	2055	53.54	382.24	-2.42
88	SLU 23	11	-1	2038	53.18	378.15	-0.07
88	SLU 24	10	8	2055	53.54	382.24	-2.42
88	SLU 25	11	3	2045	53.32	379.78	-1.01
88	SLU 26	11	-1	2038	53.18	378.15	-0.07
88	SLU 27	10	8	2055	53.54	382.24	-2.42
88	SLU 28	11	3	2045	53.32	379.78	-1.01
88	SLU 29	10	8	2055	53.54	382.24	-2.42
88	SLU 30	11	3	2045	53.32	379.78	-1.01
88	SLU 31	9	-2	2352	61.29	435.04	0.17
88	SLU 32	8	8	2370	61.66	439.12	-2.18
88	SLU 33	8	2	2359	61.44	436.67	-0.77
88	SLU 34	9	-2	2352	61.29	435.04	0.17
88	SLU 35	8	8	2370	61.66	439.12	-2.18
88	SLU 36	8	2	2359	61.44	436.67	-0.77
88	SLU 37	8	8	2370	61.66	439.12	-2.18
88	SLU 38	8	2	2359	61.44	436.67	-0.77
88	SLU 39	7	7	2504	65.14	463.5	-2.07
88	SLU 40	7	2	2494	64.92	461.05	-0.66
88	SLU 41	7	7	2504	65.14	463.5	-2.07
88	SLU 42	7	2	2494	64.92	461.05	-0.66
88	SLU 43	15	12	2284	59.58	426.85	-3.33
88	SLU 44	16	2	2267	59.22	422.76	-0.98
88	SLU 45	15	12	2284	59.58	426.85	-3.33
88	SLU 46	16	6	2273	59.36	424.39	-1.92
88	SLU 47	16	2	2267	59.22	422.76	-0.98
88	SLU 48	15	12	2284	59.58	426.85	-3.33
88	SLU 49	16	6	2273	59.36	424.39	-1.92
88	SLU 50	15	12	2284	59.58	426.85	-3.33
88	SLU 51	16	6	2273	59.36	424.39	-1.92
88	SLU 52	14	1	2581	67.33	479.65	-0.73
88	SLU 53	13	11	2598	67.7	483.73	-3.08
88	SLU 54	13	5	2588	67.48	481.28	-1.67
88	SLU 55	14	1	2581	67.33	479.65	-0.73
88	SLU 56	13	11	2598	67.7	483.73	-3.08
88	SLU 57	13	5	2588	67.48	481.28	-1.67
88	SLU 58	13	11	2598	67.7	483.73	-3.08
88	SLU 59	13	5	2588	67.48	481.28	-1.67



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
88	SLU 60	12	10	2733	71.18	508.12	-2.98
88	SLU 61	12	5	2723	70.96	505.66	-1.57
88	SLU 62	12	10	2733	71.18	508.12	-2.98
88	SLU 63	12	5	2723	70.96	505.66	-1.57
88	SLU 64	14	11	2520	65.68	469.49	-3.22
88	SLU 65	15	2	2503	65.32	465.4	-0.87
88	SLU 66	14	11	2520	65.68	469.49	-3.22
88	SLU 67	14	6	2510	65.47	467.04	-1.81
88	SLU 68	15	2	2503	65.32	465.4	-0.87
88	SLU 69	14	11	2520	65.68	469.49	-3.22
88	SLU 70	14	6	2510	65.47	467.04	-1.81
88	SLU 71	14	11	2520	65.68	469.49	-3.22
88	SLU 72	14	6	2510	65.47	467.04	-1.81
88	SLU 73	13	1	2817	73.44	522.29	-0.63
88	SLU 74	11	10	2834	73.8	526.38	-2.97
88	SLU 75	12	5	2824	73.58	523.93	-1.57
88	SLU 76	13	1	2817	73.44	522.29	-0.63
88	SLU 77	11	10	2834	73.8	526.38	-2.97
88	SLU 78	12	5	2824	73.58	523.93	-1.57
88	SLU 79	11	10	2834	73.8	526.38	-2.97
88	SLU 80	12	5	2824	73.58	523.93	-1.57
88	SLU 81	11	10	2969	77.28	550.76	-2.87
88	SLU 82	11	4	2959	77.06	548.31	-1.46
88	SLU 83	11	10	2969	77.28	550.76	-2.87
88	SLU 84	11	4	2959	77.06	548.31	-1.46
88	SLE RA 1	11	9	1886	49.19	351.78	-2.5
88	SLE RA 2	12	2	1875	48.94	349.05	-0.93
88	SLE RA 3	11	9	1886	49.19	351.78	-2.5
88	SLE RA 4	11	5	1880	49.04	350.14	-1.56
88	SLE RA 5	12	2	1875	48.94	349.05	-0.93
88	SLE RA 6	11	9	1886	49.19	351.78	-2.5
88	SLE RA 7	11	5	1880	49.04	350.14	-1.56
88	SLE RA 8	11	9	1886	49.19	351.78	-2.5
88	SLE RA 9	11	5	1880	49.04	350.14	-1.56
88	SLE RA 10	10	2	2085	54.35	386.98	-0.77
88	SLE RA 11	9	8	2096	54.6	389.7	-2.34
88	SLE RA 12	10	4	2089	54.45	388.07	-1.4
88	SLE RA 13	10	2	2085	54.35	386.98	-0.77
88	SLE RA 14	9	8	2096	54.6	389.7	-2.34
88	SLE RA 15	10	4	2089	54.45	388.07	-1.4
88	SLE RA 16	9	8	2096	54.6	389.7	-2.34
88	SLE RA 17	10	4	2089	54.45	388.07	-1.4
88	SLE RA 18	9	8	2186	56.92	405.95	-2.27
88	SLE RA 19	9	4	2179	56.77	404.32	-1.33
88	SLE RA 20	9	8	2186	56.92	405.95	-2.27
88	SLE RA 21	9	4	2179	56.77	404.32	-1.33
88	SLE FR 1	11	9	1886	49.19	351.78	-2.5
88	SLE FR 2	11	7	1884	49.14	351.23	-2.19
88	SLE FR 3	11	9	1886	49.19	351.78	-2.5
88	SLE FR 4	10	7	1974	51.46	367.48	-2.12
88	SLE FR 5	10	8	1976	51.5	368.03	-2.43
88	SLE FR 6	10	8	2036	53.05	378.86	-2.38
88	SLE QP 1	11	9	1886	49.19	351.78	-2.5
88	SLE QP 2	10	8	1976	51.5	368.03	-2.43
88	SLD 1	140	50	1844	47.96	347.52	-15.38
88	SLD 2	167	83	1858	48.26	350.14	-24.45
88	SLD 3	132	-51	1655	43.54	312.2	9.84
88	SLD 4	160	-18	1669	43.84	314.82	0.76
88	SLD 5	51	161	2218	57.04	414.48	-41.21
88	SLD 6	79	196	2232	57.35	417.2	-50.64
88	SLD 7	25	-175	1588	42.3	296.74	42.85
88	SLD 8	53	-140	1602	42.61	299.47	33.42
88	SLD 9	-33	157	2350	60.4	436.59	-38.28
88	SLD 10	-5	192	2364	60.71	439.31	-47.71
88	SLD 11	-59	-179	1720	45.66	318.86	45.78
88	SLD 12	-31	-144	1734	45.97	321.58	36.35
88	SLD 13	-139	34	2284	59.17	421.24	-5.62
88	SLD 14	-112	68	2297	59.47	423.86	-14.7
88	SLD 15	-147	-66	2095	54.75	385.92	19.59
88	SLD 16	-120	-33	2108	55.05	388.54	10.52
88	SLV 1	306	105	1681	43.55	322.25	-32.61
88	SLV 2	369	182	1712	44.24	328.25	-53.42
88	SLV 3	288	-130	1240	33.22	239.76	26.32
88	SLV 4	350	-53	1271	33.92	245.76	5.51
88	SLV 5	103	365	2546	64.52	477.14	-93.03
88	SLV 6	169	446	2578	65.25	483.46	-114.94
88	SLV 7	42	-419	1075	30.1	202.18	103.41
88	SLV 8	108	-338	1107	30.83	208.5	81.49
88	SLV 9	-87	355	2846	72.18	527.55	-86.35
88	SLV 10	-22	436	2878	72.91	533.88	-108.27
88	SLV 11	-149	-430	1375	37.76	252.59	110.08
88	SLV 12	-83	-348	1407	38.49	258.92	88.17
88	SLV 13	-330	70	2682	69.09	490.29	-10.37
88	SLV 14	-268	147	2712	69.78	496.3	-31.18
88	SLV 15	-348	-165	2241	58.77	407.81	48.56
88	SLV 16	-286	-88	2271	59.46	413.81	27.75
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
89	SLU 1	4	-2	1676	-3.87	-672.68	-0.76



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
89	SLU 2	3	-12	1658	-3.75	-665.01	-5.61
89	SLU 3	4	-2	1676	-3.87	-672.68	-0.76
89	SLU 4	3	-8	1666	-3.8	-668.08	-3.67
89	SLU 5	3	-12	1658	-3.75	-665.01	-5.61
89	SLU 6	4	-2	1676	-3.87	-672.68	-0.76
89	SLU 7	3	-8	1666	-3.8	-668.08	-3.67
89	SLU 8	4	-2	1676	-3.87	-672.68	-0.76
89	SLU 9	3	-8	1666	-3.8	-668.08	-3.67
89	SLU 10	4	-13	1960	-4.53	-783.25	-6.21
89	SLU 11	4	-3	1977	-4.65	-790.91	-1.36
89	SLU 12	4	-9	1967	-4.58	-786.31	-4.27
89	SLU 13	4	-13	1960	-4.53	-783.25	-6.21
89	SLU 14	4	-3	1977	-4.65	-790.91	-1.36
89	SLU 15	4	-9	1967	-4.58	-786.31	-4.27
89	SLU 16	4	-3	1977	-4.65	-790.91	-1.36
89	SLU 17	4	-9	1967	-4.58	-786.31	-4.27
89	SLU 18	5	-4	2106	-4.99	-841.58	-1.61
89	SLU 19	4	-10	2096	-4.91	-836.99	-4.53
89	SLU 20	5	-4	2106	-4.99	-841.58	-1.61
89	SLU 21	4	-10	2096	-4.91	-836.99	-4.53
89	SLU 22	4	-2	1892	-4.43	-757.59	-1.07
89	SLU 23	4	-13	1875	-4.3	-749.93	-5.93
89	SLU 24	4	-2	1892	-4.43	-757.59	-1.07
89	SLU 25	4	-9	1882	-4.35	-752.99	-3.99
89	SLU 26	4	-13	1875	-4.3	-749.93	-5.93
89	SLU 27	4	-2	1892	-4.43	-757.59	-1.07
89	SLU 28	4	-9	1882	-4.35	-752.99	-3.99
89	SLU 29	4	-2	1892	-4.43	-757.59	-1.07
89	SLU 30	4	-9	1882	-4.35	-752.99	-3.99
89	SLU 31	4	-14	2176	-5.08	-868.16	-6.53
89	SLU 32	5	-4	2194	-5.21	-875.82	-1.67
89	SLU 33	5	-10	2183	-5.13	-871.23	-4.58
89	SLU 34	4	-14	2176	-5.08	-868.16	-6.53
89	SLU 35	5	-4	2194	-5.21	-875.82	-1.67
89	SLU 36	5	-10	2183	-5.13	-871.23	-4.58
89	SLU 37	5	-4	2194	-5.21	-875.82	-1.67
89	SLU 38	5	-10	2183	-5.13	-871.23	-4.58
89	SLU 39	5	-4	2323	-5.54	-926.5	-1.93
89	SLU 40	5	-10	2312	-5.47	-921.9	-4.84
89	SLU 41	5	-4	2323	-5.54	-926.5	-1.93
89	SLU 42	5	-10	2312	-5.47	-921.9	-4.84
89	SLU 43	5	-2	2105	-4.84	-845.36	-0.88
89	SLU 44	4	-12	2087	-4.72	-837.7	-5.73
89	SLU 45	5	-2	2105	-4.84	-845.36	-0.88
89	SLU 46	4	-8	2094	-4.77	-840.77	-3.79
89	SLU 47	4	-12	2087	-4.72	-837.7	-5.73
89	SLU 48	5	-2	2105	-4.84	-845.36	-0.88
89	SLU 49	4	-8	2094	-4.77	-840.77	-3.79
89	SLU 50	5	-2	2105	-4.84	-845.36	-0.88
89	SLU 51	4	-8	2094	-4.77	-840.77	-3.79
89	SLU 52	4	-14	2388	-5.5	-955.94	-6.33
89	SLU 53	5	-3	2406	-5.62	-963.6	-1.48
89	SLU 54	5	-9	2396	-5.55	-959	-4.39
89	SLU 55	4	-14	2388	-5.5	-955.94	-6.33
89	SLU 56	5	-3	2406	-5.62	-963.6	-1.48
89	SLU 57	5	-9	2396	-5.55	-959	-4.39
89	SLU 58	5	-3	2406	-5.62	-963.6	-1.48
89	SLU 59	5	-9	2396	-5.55	-959	-4.39
89	SLU 60	5	-4	2535	-5.96	-1014.27	-1.73
89	SLU 61	5	-10	2525	-5.88	-1009.68	-4.65
89	SLU 62	5	-4	2535	-5.96	-1014.27	-1.73
89	SLU 63	5	-10	2525	-5.88	-1009.68	-4.65
89	SLU 64	5	-3	2321	-5.4	-930.28	-1.19
89	SLU 65	5	-13	2303	-5.27	-922.61	-6.05
89	SLU 66	5	-3	2321	-5.4	-930.28	-1.19
89	SLU 67	5	-9	2310	-5.32	-925.68	-4.1
89	SLU 68	5	-13	2303	-5.27	-922.61	-6.05
89	SLU 69	5	-3	2321	-5.4	-930.28	-1.19
89	SLU 70	5	-9	2310	-5.32	-925.68	-4.1
89	SLU 71	5	-3	2321	-5.4	-930.28	-1.19
89	SLU 72	5	-9	2310	-5.32	-925.68	-4.1
89	SLU 73	5	-14	2605	-6.05	-1040.85	-6.64
89	SLU 74	6	-4	2622	-6.18	-1048.51	-1.79
89	SLU 75	5	-10	2612	-6.1	-1043.92	-4.7
89	SLU 76	5	-14	2605	-6.05	-1040.85	-6.64
89	SLU 77	6	-4	2622	-6.18	-1048.51	-1.79
89	SLU 78	5	-10	2612	-6.1	-1043.92	-4.7
89	SLU 79	6	-4	2622	-6.18	-1048.51	-1.79
89	SLU 80	5	-10	2612	-6.1	-1043.92	-4.7
89	SLU 81	6	-5	2751	-6.51	-1099.19	-2.05
89	SLU 82	6	-11	2741	-6.44	-1094.59	-4.96
89	SLU 83	6	-5	2751	-6.51	-1099.19	-2.05
89	SLU 84	6	-11	2741	-6.44	-1094.59	-4.96
89	SLE RA 1	4	-2	1738	-4.03	-696.94	-0.85
89	SLE RA 2	3	-9	1726	-3.95	-691.83	-4.08
89	SLE RA 3	4	-2	1738	-4.03	-696.94	-0.85
89	SLE RA 4	4	-6	1731	-3.98	-693.87	-2.79
89	SLE RA 5	3	-9	1726	-3.95	-691.83	-4.08
89	SLE RA 6	4	-2	1738	-4.03	-696.94	-0.85
89	SLE RA 7	4	-6	1731	-3.98	-693.87	-2.79
89	SLE RA 8	4	-2	1738	-4.03	-696.94	-0.85



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
89	SLE RA 9	4	-6	1731	-3.98	-693.87	-2.79
89	SLE RA 10	4	-10	1927	-4.47	-770.65	-4.48
89	SLE RA 11	4	-3	1939	-4.55	-775.76	-1.25
89	SLE RA 12	4	-7	1932	-4.5	-772.69	-3.19
89	SLE RA 13	4	-10	1927	-4.47	-770.65	-4.48
89	SLE RA 14	4	-3	1939	-4.55	-775.76	-1.25
89	SLE RA 15	4	-7	1932	-4.5	-772.69	-3.19
89	SLE RA 16	4	-3	1939	-4.55	-775.76	-1.25
89	SLE RA 17	4	-7	1932	-4.5	-772.69	-3.19
89	SLE RA 18	4	-3	2025	-4.77	-809.54	-1.42
89	SLE RA 19	4	-7	2018	-4.72	-806.48	-3.36
89	SLE RA 20	4	-3	2025	-4.77	-809.54	-1.42
89	SLE RA 21	4	-7	2018	-4.72	-806.48	-3.36
89	SLE FR 1	4	-2	1738	-4.03	-696.94	-0.85
89	SLE FR 2	4	-3	1736	-4.02	-695.91	-1.5
89	SLE FR 3	4	-2	1738	-4.03	-696.94	-0.85
89	SLE FR 4	4	-4	1822	-4.24	-729.7	-1.67
89	SLE FR 5	4	-2	1824	-4.25	-730.72	-1.02
89	SLE FR 6	4	-3	1881	-4.4	-753.24	-1.13
89	SLE QP 1	4	-2	1738	-4.03	-696.94	-0.85
89	SLE QP 2	4	-2	1824	-4.25	-730.72	-1.02
89	SLD 1	134	56	2121	-5.42	-842.63	26.62
89	SLD 2	160	21	2109	-5.36	-838.18	9.98
89	SLD 3	138	-45	1963	-4.5	-780.92	-21.33
89	SLD 4	164	-80	1952	-4.43	-776.46	-37.97
89	SLD 5	27	181	2156	-6.03	-859.54	86.14
89	SLD 6	54	145	2144	-5.96	-854.91	68.86
89	SLD 7	41	-155	1631	-2.95	-653.82	-73.69
89	SLD 8	68	-192	1619	-2.88	-649.2	-90.97
89	SLD 9	-60	187	2029	-5.63	-812.24	88.94
89	SLD 10	-33	151	2017	-5.56	-807.61	71.65
89	SLD 11	-46	-149	1504	-2.55	-606.52	-70.89
89	SLD 12	-19	-186	1492	-2.48	-601.9	-88.18
89	SLD 13	-156	76	1696	-4.08	-684.97	35.93
89	SLD 14	-130	40	1685	-4.01	-680.52	19.29
89	SLD 15	-152	-25	1539	-3.15	-623.26	-12.02
89	SLD 16	-126	-61	1527	-3.09	-618.81	-28.66
89	SLV 1	299	134	2504	-6.94	-987.38	63.44
89	SLV 2	359	53	2478	-6.79	-977.17	25.29
89	SLV 3	309	-103	2137	-4.78	-843.26	-48.62
89	SLV 4	369	-183	2110	-4.63	-833.05	-86.77
89	SLV 5	54	427	2596	-8.39	-1030.15	202.65
89	SLV 6	118	342	2568	-8.23	-1019.4	162.46
89	SLV 7	88	-360	1370	-1.2	-549.73	-170.89
89	SLV 8	152	-445	1342	-1.03	-538.98	-211.07
89	SLV 9	-144	441	2306	-7.48	-922.45	209.03
89	SLV 10	-80	355	2278	-7.31	-911.7	168.85
89	SLV 11	-110	-347	1080	-0.28	-442.04	-164.5
89	SLV 12	-46	-432	1052	-0.12	-431.28	-204.68
89	SLV 13	-361	179	1538	-3.88	-628.39	84.73
89	SLV 14	-301	98	1511	-3.73	-618.18	46.58
89	SLV 15	-351	-57	1170	-1.72	-484.26	-27.33
89	SLV 16	-291	-138	1144	-1.57	-474.05	-65.48
89	CRTFP Ux+	0	0	0	0	0	0
89	CRTFP Ux-	0	0	0	0	0	0
89	CRTFP Uy+	0	0	0	0	0	0
89	CRTFP Uy-	0	0	0	0	0	0
92	SLU 1	11	-29	3530	-3.66	1.93	0.82
92	SLU 2	11	-45	3493	-3.46	2.01	0.82
92	SLU 3	11	-29	3530	-3.66	1.93	0.82
92	SLU 4	11	-38	3508	-3.54	1.98	0.82
92	SLU 5	11	-45	3493	-3.46	2.01	0.82
92	SLU 6	11	-29	3530	-3.66	1.93	0.82
92	SLU 7	11	-38	3508	-3.54	1.98	0.82
92	SLU 8	11	-29	3530	-3.66	1.93	0.82
92	SLU 9	11	-38	3508	-3.54	1.98	0.82
92	SLU 10	10	-47	4177	-4.08	2.07	0.73
92	SLU 11	10	-31	4213	-4.29	1.99	0.73
92	SLU 12	10	-41	4191	-4.17	2.04	0.73
92	SLU 13	10	-47	4177	-4.08	2.07	0.73
92	SLU 14	10	-31	4213	-4.29	1.99	0.73
92	SLU 15	10	-41	4191	-4.17	2.04	0.73
92	SLU 16	10	-31	4213	-4.29	1.99	0.73
92	SLU 17	10	-41	4191	-4.17	2.04	0.73
92	SLU 18	10	-32	4506	-4.56	2.02	0.69
92	SLU 19	10	-42	4484	-4.43	2.07	0.69
92	SLU 20	10	-32	4506	-4.56	2.02	0.69
92	SLU 21	10	-42	4484	-4.43	2.07	0.69
92	SLU 22	11	-31	4026	-4.12	1.89	0.79
92	SLU 23	11	-47	3990	-3.91	1.97	0.78
92	SLU 24	11	-31	4026	-4.12	1.89	0.79
92	SLU 25	11	-41	4005	-3.99	1.94	0.78
92	SLU 26	11	-47	3990	-3.91	1.97	0.78
92	SLU 27	11	-31	4026	-4.12	1.89	0.79
92	SLU 28	11	-41	4005	-3.99	1.94	0.78
92	SLU 29	11	-31	4026	-4.12	1.89	0.79
92	SLU 30	11	-41	4005	-3.99	1.94	0.78
92	SLU 31	10	-50	4674	-4.54	2.03	0.69
92	SLU 32	10	-34	4710	-4.74	1.95	0.7
92	SLU 33	10	-43	4688	-4.62	2	0.69
92	SLU 34	10	-50	4674	-4.54	2.03	0.69



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
92	SLU 35	10	-34	4710	-4.74	1.95	0.7
92	SLU 36	10	-43	4688	-4.62	2	0.69
92	SLU 37	10	-34	4710	-4.74	1.95	0.7
92	SLU 38	10	-43	4688	-4.62	2	0.69
92	SLU 39	9	-35	5003	-5.01	1.98	0.66
92	SLU 40	9	-45	4981	-4.89	2.03	0.65
92	SLU 41	9	-35	5003	-5.01	1.98	0.66
92	SLU 42	9	-45	4981	-4.89	2.03	0.65
92	SLU 43	15	-36	4418	-4.61	2.53	1.08
92	SLU 44	15	-52	4382	-4.4	2.6	1.08
92	SLU 45	15	-36	4418	-4.61	2.53	1.08
92	SLU 46	15	-46	4396	-4.49	2.57	1.08
92	SLU 47	15	-52	4382	-4.4	2.6	1.08
92	SLU 48	15	-36	4418	-4.61	2.53	1.08
92	SLU 49	15	-46	4396	-4.49	2.57	1.08
92	SLU 50	15	-36	4418	-4.61	2.53	1.08
92	SLU 51	15	-46	4396	-4.49	2.57	1.08
92	SLU 52	14	-55	5066	-5.03	2.67	0.99
92	SLU 53	14	-39	5102	-5.23	2.59	0.99
92	SLU 54	14	-49	5080	-5.11	2.63	0.99
92	SLU 55	14	-55	5066	-5.03	2.67	0.99
92	SLU 56	14	-39	5102	-5.23	2.59	0.99
92	SLU 57	14	-49	5080	-5.11	2.63	0.99
92	SLU 58	14	-39	5102	-5.23	2.59	0.99
92	SLU 59	14	-49	5080	-5.11	2.63	0.99
92	SLU 60	13	-40	5395	-5.5	2.61	0.95
92	SLU 61	13	-50	5373	-5.38	2.66	0.95
92	SLU 62	13	-40	5395	-5.5	2.61	0.95
92	SLU 63	13	-50	5373	-5.38	2.66	0.95
92	SLU 64	14	-39	4915	-5.06	2.48	1.05
92	SLU 65	15	-55	4879	-4.86	2.56	1.04
92	SLU 66	14	-39	4915	-5.06	2.48	1.05
92	SLU 67	14	-49	4893	-4.94	2.53	1.04
92	SLU 68	15	-55	4879	-4.86	2.56	1.04
92	SLU 69	14	-39	4915	-5.06	2.48	1.05
92	SLU 70	14	-49	4893	-4.94	2.53	1.04
92	SLU 71	14	-39	4915	-5.06	2.48	1.05
92	SLU 72	14	-49	4893	-4.94	2.53	1.04
92	SLU 73	13	-58	5562	-5.48	2.62	0.95
92	SLU 74	13	-42	5599	-5.69	2.55	0.96
92	SLU 75	13	-51	5577	-5.56	2.59	0.95
92	SLU 76	13	-58	5562	-5.48	2.62	0.95
92	SLU 77	13	-42	5599	-5.69	2.55	0.96
92	SLU 78	13	-51	5577	-5.56	2.59	0.95
92	SLU 79	13	-42	5599	-5.69	2.55	0.96
92	SLU 80	13	-51	5577	-5.56	2.59	0.95
92	SLU 81	13	-43	5892	-5.95	2.57	0.92
92	SLU 82	13	-52	5870	-5.83	2.62	0.91
92	SLU 83	13	-43	5892	-5.95	2.57	0.92
92	SLU 84	13	-52	5870	-5.83	2.62	0.91
92	SLE RA 1	11	-29	3672	-3.79	1.92	0.81
92	SLE RA 2	11	-40	3647	-3.66	1.97	0.81
92	SLE RA 3	11	-29	3672	-3.79	1.92	0.81
92	SLE RA 4	11	-36	3657	-3.71	1.95	0.81
92	SLE RA 5	11	-40	3647	-3.66	1.97	0.81
92	SLE RA 6	11	-29	3672	-3.79	1.92	0.81
92	SLE RA 7	11	-36	3657	-3.71	1.95	0.81
92	SLE RA 8	11	-29	3672	-3.79	1.92	0.81
92	SLE RA 9	11	-36	3657	-3.71	1.95	0.81
92	SLE RA 10	10	-42	4103	-4.07	2.01	0.75
92	SLE RA 11	10	-31	4127	-4.21	1.96	0.75
92	SLE RA 12	10	-38	4113	-4.13	1.99	0.75
92	SLE RA 13	10	-42	4103	-4.07	2.01	0.75
92	SLE RA 14	10	-31	4127	-4.21	1.96	0.75
92	SLE RA 15	10	-38	4113	-4.13	1.99	0.75
92	SLE RA 16	10	-31	4127	-4.21	1.96	0.75
92	SLE RA 17	10	-38	4113	-4.13	1.99	0.75
92	SLE RA 18	10	-32	4323	-4.39	1.98	0.73
92	SLE RA 19	10	-38	4308	-4.31	2.01	0.72
92	SLE RA 20	10	-32	4323	-4.39	1.98	0.73
92	SLE RA 21	10	-38	4308	-4.31	2.01	0.72
92	SLE FR 1	11	-29	3672	-3.79	1.92	0.81
92	SLE FR 2	11	-31	3667	-3.77	1.93	0.81
92	SLE FR 3	11	-29	3672	-3.79	1.92	0.81
92	SLE FR 4	11	-32	3862	-3.94	1.95	0.79
92	SLE FR 5	11	-30	3867	-3.97	1.94	0.79
92	SLE FR 6	11	-31	3997	-4.09	1.95	0.77
92	SLE QP 1	11	-29	3672	-3.79	1.92	0.81
92	SLE QP 2	11	-30	3867	-3.97	1.94	0.79
92	SLD 1	282	43	4004	-4.86	9.96	1.43
92	SLD 2	336	45	4003	-4.85	9.78	2.46
92	SLD 3	271	-127	3669	-3.52	9.59	1.27
92	SLD 4	324	-126	3668	-3.52	9.4	2.29
92	SLD 5	90	250	4416	-6.27	4.98	0.85
92	SLD 6	145	251	4415	-6.26	4.79	1.92
92	SLD 7	52	-318	3300	-1.81	3.73	0.3
92	SLD 8	108	-317	3299	-1.81	3.54	1.37
92	SLD 9	-86	257	4435	-6.14	0.33	0.21
92	SLD 10	-30	258	4433	-6.13	0.14	1.27
92	SLD 11	-124	-312	3319	-1.68	-0.91	-0.34
92	SLD 12	-68	-310	3317	-1.68	-1.11	0.72



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
92	SLD 13	-303	66	4065	-4.43	-5.53	-0.72
92	SLD 14	-249	67	4064	-4.42	-5.71	0.31
92	SLD 15	-314	-105	3731	-3.09	-5.9	-0.88
92	SLD 16	-261	-104	3729	-3.08	-6.09	0.14
92	SLV 1	629	142	4188	-6.05	20.27	2.25
92	SLV 2	752	145	4185	-6.04	19.84	4.61
92	SLV 3	602	-256	3406	-2.93	19.34	1.86
92	SLV 4	725	-253	3403	-2.92	18.92	4.22
92	SLV 5	190	625	5150	-9.34	9	0.93
92	SLV 6	319	628	5147	-9.32	8.55	3.41
92	SLV 7	102	-703	2544	1.07	5.92	-0.37
92	SLV 8	231	-700	2541	1.08	5.47	2.11
92	SLV 9	-209	640	5193	-9.03	-1.59	-0.54
92	SLV 10	-80	643	5190	-9.01	-2.04	1.94
92	SLV 11	-298	-688	2587	1.38	-4.68	-1.83
92	SLV 12	-169	-685	2584	1.39	-5.13	0.64
92	SLV 13	-703	193	4331	-5.03	-15.04	-2.64
92	SLV 14	-581	196	4328	-5.01	-15.47	-0.29
92	SLV 15	-730	-205	3549	-1.91	-15.97	-3.03
92	SLV 16	-607	-203	3546	-1.89	-16.39	-0.68
92	CRTFP Ux+	0	0	0	0	0	0
92	CRTFP Ux-	0	0	0	0	0	0
92	CRTFP Uy+	0	0	0	0	0	0
92	CRTFP Uy-	0	0	0	0	0	0
95	SLU 1	13	10	1980	-3.91	306.21	-2.5
95	SLU 2	14	-1	1965	-3.76	302.76	0.28
95	SLU 3	13	10	1980	-3.91	306.21	-2.5
95	SLU 4	14	3	1971	-3.82	304.14	-0.83
95	SLU 5	14	-1	1965	-3.76	302.76	0.28
95	SLU 6	13	10	1980	-3.91	306.21	-2.5
95	SLU 7	14	3	1971	-3.82	304.14	-0.83
95	SLU 8	13	10	1980	-3.91	306.21	-2.5
95	SLU 9	14	3	1971	-3.82	304.14	-0.83
95	SLU 10	13	-2	2304	-4.52	352.33	0.48
95	SLU 11	12	9	2320	-4.68	355.77	-2.3
95	SLU 12	12	2	2310	-4.58	353.7	-0.63
95	SLU 13	13	-2	2304	-4.52	352.33	0.48
95	SLU 14	12	9	2320	-4.68	355.77	-2.3
95	SLU 15	12	2	2310	-4.58	353.7	-0.63
95	SLU 16	12	9	2320	-4.68	355.77	-2.3
95	SLU 17	12	2	2310	-4.58	353.7	-0.63
95	SLU 18	11	9	2465	-5	377.02	-2.21
95	SLU 19	12	2	2456	-4.91	374.95	-0.54
95	SLU 20	11	9	2465	-5	377.02	-2.21
95	SLU 21	12	2	2456	-4.91	374.95	-0.54
95	SLU 22	13	10	2235	-4.48	343.31	-2.42
95	SLU 23	14	-2	2220	-4.33	339.86	0.37
95	SLU 24	13	10	2235	-4.48	343.31	-2.42
95	SLU 25	13	3	2226	-4.39	341.24	-0.75
95	SLU 26	14	-2	2220	-4.33	339.86	0.37
95	SLU 27	13	10	2235	-4.48	343.31	-2.42
95	SLU 28	13	3	2226	-4.39	341.24	-0.75
95	SLU 29	13	10	2235	-4.48	343.31	-2.42
95	SLU 30	13	3	2226	-4.39	341.24	-0.75
95	SLU 31	12	-2	2559	-5.09	389.42	0.57
95	SLU 32	11	9	2575	-5.24	392.87	-2.22
95	SLU 33	12	2	2566	-5.15	390.8	-0.55
95	SLU 34	12	-2	2559	-5.09	389.42	0.57
95	SLU 35	11	9	2575	-5.24	392.87	-2.22
95	SLU 36	12	2	2566	-5.15	390.8	-0.55
95	SLU 37	11	9	2575	-5.24	392.87	-2.22
95	SLU 38	12	2	2566	-5.15	390.8	-0.55
95	SLU 39	10	8	2720	-5.57	414.11	-2.13
95	SLU 40	11	2	2711	-5.48	412.05	-0.46
95	SLU 41	10	8	2720	-5.57	414.11	-2.13
95	SLU 42	11	2	2711	-5.48	412.05	-0.46
95	SLU 43	17	13	2487	-4.89	385.35	-3.28
95	SLU 44	19	2	2472	-4.74	381.91	-0.49
95	SLU 45	17	13	2487	-4.89	385.35	-3.28
95	SLU 46	18	6	2478	-4.8	383.28	-1.61
95	SLU 47	19	2	2472	-4.74	381.91	-0.49
95	SLU 48	17	13	2487	-4.89	385.35	-3.28
95	SLU 49	18	6	2478	-4.8	383.28	-1.61
95	SLU 50	17	13	2487	-4.89	385.35	-3.28
95	SLU 51	18	6	2478	-4.8	383.28	-1.61
95	SLU 52	17	1	2811	-5.5	431.47	-0.29
95	SLU 53	16	12	2826	-5.66	434.92	-3.08
95	SLU 54	17	6	2817	-5.56	432.85	-1.41
95	SLU 55	17	1	2811	-5.5	431.47	-0.29
95	SLU 56	16	12	2826	-5.66	434.92	-3.08
95	SLU 57	17	6	2817	-5.56	432.85	-1.41
95	SLU 58	16	12	2826	-5.66	434.92	-3.08
95	SLU 59	17	6	2817	-5.56	432.85	-1.41
95	SLU 60	15	12	2972	-5.98	456.16	-2.99
95	SLU 61	16	5	2963	-5.89	454.09	-1.32
95	SLU 62	15	12	2972	-5.98	456.16	-2.99
95	SLU 63	16	5	2963	-5.89	454.09	-1.32
95	SLU 64	17	13	2742	-5.46	422.45	-3.2
95	SLU 65	18	2	2727	-5.3	419	-0.41
95	SLU 66	17	13	2742	-5.46	422.45	-3.2
95	SLU 67	17	6	2733	-5.37	420.38	-1.53



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
95	SLU 68	18	2	2727	-5.3	419	-0.41
95	SLU 69	17	13	2742	-5.46	422.45	-3.2
95	SLU 70	17	6	2733	-5.37	420.38	-1.53
95	SLU 71	17	13	2742	-5.46	422.45	-3.2
95	SLU 72	17	6	2733	-5.37	420.38	-1.53
95	SLU 73	17	1	3066	-6.07	468.57	-0.21
95	SLU 74	15	12	3081	-6.22	472.02	-3
95	SLU 75	16	5	3072	-6.13	469.95	-1.33
95	SLU 76	17	1	3066	-6.07	468.57	-0.21
95	SLU 77	15	12	3081	-6.22	472.02	-3
95	SLU 78	16	5	3072	-6.13	469.95	-1.33
95	SLU 79	15	12	3081	-6.22	472.02	-3
95	SLU 80	16	5	3072	-6.13	469.95	-1.33
95	SLU 81	15	11	3227	-6.55	493.26	-2.91
95	SLU 82	15	5	3218	-6.46	491.19	-1.24
95	SLU 83	15	11	3227	-6.55	493.26	-2.91
95	SLU 84	15	5	3218	-6.46	491.19	-1.24
95	SLE RA 1	13	10	2053	-4.08	316.81	-2.48
95	SLE RA 2	14	2	2043	-3.97	314.51	-0.62
95	SLE RA 3	13	10	2053	-4.08	316.81	-2.48
95	SLE RA 4	14	5	2047	-4.01	315.43	-1.36
95	SLE RA 5	14	2	2043	-3.97	314.51	-0.62
95	SLE RA 6	13	10	2053	-4.08	316.81	-2.48
95	SLE RA 7	14	5	2047	-4.01	315.43	-1.36
95	SLE RA 8	13	10	2053	-4.08	316.81	-2.48
95	SLE RA 9	14	5	2047	-4.01	315.43	-1.36
95	SLE RA 10	13	2	2269	-4.48	347.55	-0.49
95	SLE RA 11	12	9	2279	-4.58	349.85	-2.34
95	SLE RA 12	13	5	2273	-4.52	348.47	-1.23
95	SLE RA 13	13	2	2269	-4.48	347.55	-0.49
95	SLE RA 14	12	9	2279	-4.58	349.85	-2.34
95	SLE RA 15	13	5	2273	-4.52	348.47	-1.23
95	SLE RA 16	12	9	2279	-4.58	349.85	-2.34
95	SLE RA 17	13	5	2273	-4.52	348.47	-1.23
95	SLE RA 18	12	9	2376	-4.8	364.01	-2.29
95	SLE RA 19	12	5	2370	-4.74	362.63	-1.17
95	SLE RA 20	12	9	2376	-4.8	364.01	-2.29
95	SLE RA 21	12	5	2370	-4.74	362.63	-1.17
95	SLE FR 1	13	10	2053	-4.08	316.81	-2.48
95	SLE FR 2	13	8	2051	-4.05	316.35	-2.11
95	SLE FR 3	13	10	2053	-4.08	316.81	-2.48
95	SLE FR 4	13	8	2148	-4.27	330.51	-2.05
95	SLE FR 5	13	10	2150	-4.29	330.97	-2.42
95	SLE FR 6	12	9	2215	-4.44	340.41	-2.38
95	SLE QP 1	13	10	2053	-4.08	316.81	-2.48
95	SLE QP 2	13	10	2150	-4.29	330.97	-2.42
95	SLD 1	153	57	2002	-4.15	312.87	-14.23
95	SLD 2	180	96	2014	-4.25	315.17	-23.83
95	SLD 3	159	-60	1818	-2.97	283.81	14.86
95	SLD 4	187	-21	1830	-3.07	286.12	5.25
95	SLD 5	34	187	2380	-5.99	368.75	-46.53
95	SLD 6	63	227	2393	-6.09	371.15	-56.51
95	SLD 7	56	-203	1766	-2.08	271.91	50.43
95	SLD 8	85	-162	1779	-2.18	274.3	40.45
95	SLD 9	-60	181	2521	-6.4	387.64	-45.29
95	SLD 10	-31	222	2534	-6.5	390.04	-55.27
95	SLD 11	-38	-208	1907	-2.49	290.79	51.67
95	SLD 12	-9	-167	1920	-2.59	293.19	41.69
95	SLD 13	-161	40	2470	-5.51	375.82	-10.09
95	SLD 14	-134	79	2483	-5.61	378.13	-19.7
95	SLD 15	-155	-77	2286	-4.34	346.77	18.99
95	SLD 16	-127	-38	2298	-4.44	349.08	9.39
95	SLV 1	331	121	1817	-4	290.27	-30.14
95	SLV 2	393	211	1846	-4.22	295.55	-52.17
95	SLV 3	346	-152	1387	-1.26	222.43	37.83
95	SLV 4	409	-62	1416	-1.48	227.71	15.8
95	SLV 5	61	423	2692	-8.28	419.66	-105.54
95	SLV 6	127	518	2722	-8.52	425.22	-128.74
95	SLV 7	113	-486	1258	0.86	193.53	121.05
95	SLV 8	179	-392	1288	0.63	199.1	97.85
95	SLV 9	-154	411	3012	-9.21	462.84	-102.69
95	SLV 10	-88	506	3042	-9.45	468.41	-125.89
95	SLV 11	-102	-498	1578	-0.07	236.72	123.9
95	SLV 12	-36	-404	1608	-0.31	242.29	100.7
95	SLV 13	-384	81	2884	-7.11	434.23	-20.64
95	SLV 14	-321	171	2913	-7.33	439.51	-42.67
95	SLV 15	-368	-191	2454	-4.36	366.39	47.33
95	SLV 16	-306	-102	2483	-4.59	371.68	25.31
95	CRTFP Ux+	0	0	0	0	0	0
95	CRTFP Ux-	0	0	0	0	0	0
95	CRTFP Uy+	0	0	0	0	0	0
95	CRTFP Uy-	0	0	0	0	0	0
96	SLU 1	1	-2	1571	-2.6	-601.32	-0.8
96	SLU 2	0	-12	1557	-2.49	-595.67	-5.68
96	SLU 3	1	-2	1571	-2.6	-601.32	-0.8
96	SLU 4	1	-8	1562	-2.53	-597.93	-3.73
96	SLU 5	0	-12	1557	-2.49	-595.67	-5.68
96	SLU 6	1	-2	1571	-2.6	-601.32	-0.8
96	SLU 7	1	-8	1562	-2.53	-597.93	-3.73
96	SLU 8	1	-2	1571	-2.6	-601.32	-0.8
96	SLU 9	1	-8	1562	-2.53	-597.93	-3.73



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
96	SLU 10	0	-13	1837	-2.99	-699.79	-6.28
96	SLU 11	1	-3	1851	-3.11	-705.43	-1.4
96	SLU 12	1	-9	1842	-3.04	-702.05	-4.33
96	SLU 13	0	-13	1837	-2.99	-699.79	-6.28
96	SLU 14	1	-3	1851	-3.11	-705.43	-1.4
96	SLU 15	1	-9	1842	-3.04	-702.05	-4.33
96	SLU 16	1	-3	1851	-3.11	-705.43	-1.4
96	SLU 17	1	-9	1842	-3.04	-702.05	-4.33
96	SLU 18	1	-4	1971	-3.32	-750.06	-1.66
96	SLU 19	1	-10	1962	-3.26	-746.67	-4.59
96	SLU 20	1	-4	1971	-3.32	-750.06	-1.66
96	SLU 21	1	-10	1962	-3.26	-746.67	-4.59
96	SLU 22	1	-3	1772	-2.96	-676.15	-1.11
96	SLU 23	0	-13	1758	-2.85	-670.51	-6
96	SLU 24	1	-3	1772	-2.96	-676.15	-1.11
96	SLU 25	1	-9	1763	-2.89	-672.77	-4.04
96	SLU 26	0	-13	1758	-2.85	-670.51	-6
96	SLU 27	1	-3	1772	-2.96	-676.15	-1.11
96	SLU 28	1	-9	1763	-2.89	-672.77	-4.04
96	SLU 29	1	-3	1772	-2.96	-676.15	-1.11
96	SLU 30	1	-9	1763	-2.89	-672.77	-4.04
96	SLU 31	1	-14	2038	-3.36	-774.63	-6.6
96	SLU 32	1	-4	2052	-3.47	-780.27	-1.72
96	SLU 33	1	-10	2044	-3.4	-776.89	-4.65
96	SLU 34	1	-14	2038	-3.36	-774.63	-6.6
96	SLU 35	1	-4	2052	-3.47	-780.27	-1.72
96	SLU 36	1	-10	2044	-3.4	-776.89	-4.65
96	SLU 37	1	-4	2052	-3.47	-780.27	-1.72
96	SLU 38	1	-10	2044	-3.4	-776.89	-4.65
96	SLU 39	1	-4	2172	-3.69	-824.9	-1.97
96	SLU 40	1	-11	2164	-3.62	-821.51	-4.9
96	SLU 41	1	-4	2172	-3.69	-824.9	-1.97
96	SLU 42	1	-11	2164	-3.62	-821.51	-4.9
96	SLU 43	1	-2	1973	-3.25	-756.05	-0.93
96	SLU 44	0	-12	1959	-3.14	-750.41	-5.81
96	SLU 45	1	-2	1973	-3.25	-756.05	-0.93
96	SLU 46	1	-8	1964	-3.19	-752.67	-3.86
96	SLU 47	0	-12	1959	-3.14	-750.41	-5.81
96	SLU 48	1	-2	1973	-3.25	-756.05	-0.93
96	SLU 49	1	-8	1964	-3.19	-752.67	-3.86
96	SLU 50	1	-2	1973	-3.25	-756.05	-0.93
96	SLU 51	1	-8	1964	-3.19	-752.67	-3.86
96	SLU 52	1	-14	2239	-3.65	-854.53	-6.42
96	SLU 53	1	-3	2253	-3.76	-860.17	-1.53
96	SLU 54	1	-10	2245	-3.7	-856.78	-4.46
96	SLU 55	1	-14	2239	-3.65	-854.53	-6.42
96	SLU 56	1	-3	2253	-3.76	-860.17	-1.53
96	SLU 57	1	-10	2245	-3.7	-856.78	-4.46
96	SLU 58	1	-3	2253	-3.76	-860.17	-1.53
96	SLU 59	1	-10	2245	-3.7	-856.78	-4.46
96	SLU 60	1	-4	2373	-3.98	-904.79	-1.79
96	SLU 61	1	-10	2365	-3.91	-901.41	-4.72
96	SLU 62	1	-4	2373	-3.98	-904.79	-1.79
96	SLU 63	1	-10	2365	-3.91	-901.41	-4.72
96	SLU 64	1	-3	2174	-3.61	-830.89	-1.24
96	SLU 65	1	-13	2160	-3.5	-825.25	-6.13
96	SLU 66	1	-3	2174	-3.61	-830.89	-1.24
96	SLU 67	1	-9	2166	-3.55	-827.51	-4.18
96	SLU 68	1	-13	2160	-3.5	-825.25	-6.13
96	SLU 69	1	-3	2174	-3.61	-830.89	-1.24
96	SLU 70	1	-9	2166	-3.55	-827.51	-4.18
96	SLU 71	1	-3	2174	-3.61	-830.89	-1.24
96	SLU 72	1	-9	2166	-3.55	-827.51	-4.18
96	SLU 73	1	-14	2440	-4.01	-929.37	-6.73
96	SLU 74	1	-4	2454	-4.12	-935.01	-1.85
96	SLU 75	1	-10	2446	-4.06	-931.62	-4.78
96	SLU 76	1	-14	2440	-4.01	-929.37	-6.73
96	SLU 77	1	-4	2454	-4.12	-935.01	-1.85
96	SLU 78	1	-10	2446	-4.06	-931.62	-4.78
96	SLU 79	1	-4	2454	-4.12	-935.01	-1.85
96	SLU 80	1	-10	2446	-4.06	-931.62	-4.78
96	SLU 81	1	-5	2574	-4.34	-979.63	-2.11
96	SLU 82	1	-11	2566	-4.27	-976.25	-5.04
96	SLU 83	1	-5	2574	-4.34	-979.63	-2.11
96	SLU 84	1	-11	2566	-4.27	-976.25	-5.04
96	SLE RA 1	1	-2	1628	-2.7	-622.7	-0.89
96	SLE RA 2	1	-9	1619	-2.63	-618.94	-4.14
96	SLE RA 3	1	-2	1628	-2.7	-622.7	-0.89
96	SLE RA 4	1	-6	1623	-2.66	-620.44	-2.84
96	SLE RA 5	1	-9	1619	-2.63	-618.94	-4.14
96	SLE RA 6	1	-2	1628	-2.7	-622.7	-0.89
96	SLE RA 7	1	-6	1623	-2.66	-620.44	-2.84
96	SLE RA 8	1	-2	1628	-2.7	-622.7	-0.89
96	SLE RA 9	1	-6	1623	-2.66	-620.44	-2.84
96	SLE RA 10	1	-10	1806	-2.97	-688.35	-4.55
96	SLE RA 11	1	-3	1815	-3.04	-692.11	-1.29
96	SLE RA 12	1	-7	1809	-3	-689.85	-3.24
96	SLE RA 13	1	-10	1806	-2.97	-688.35	-4.55
96	SLE RA 14	1	-3	1815	-3.04	-692.11	-1.29
96	SLE RA 15	1	-7	1809	-3	-689.85	-3.24
96	SLE RA 16	1	-3	1815	-3.04	-692.11	-1.29



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
96	SLE RA 17	1	-7	1809	-3	-689.85	-3.24
96	SLE RA 18	1	-3	1895	-3.19	-721.86	-1.46
96	SLE RA 19	1	-7	1889	-3.14	-719.6	-3.42
96	SLE RA 20	1	-3	1895	-3.19	-721.86	-1.46
96	SLE RA 21	1	-7	1889	-3.14	-719.6	-3.42
96	SLE FR 1	1	-2	1628	-2.7	-622.7	-0.89
96	SLE FR 2	1	-3	1626	-2.69	-621.95	-1.54
96	SLE FR 3	1	-2	1628	-2.7	-622.7	-0.89
96	SLE FR 4	1	-4	1706	-2.83	-651.69	-1.71
96	SLE FR 5	1	-2	1708	-2.85	-652.45	-1.06
96	SLE FR 6	1	-3	1761	-2.94	-672.28	-1.18
96	SLE QP 1	1	-2	1628	-2.7	-622.7	-0.89
96	SLE QP 2	1	-2	1708	-2.85	-652.45	-1.06
96	SLD 1	133	56	1971	-3.75	-744.24	26.66
96	SLD 2	156	21	1962	-3.69	-740.88	9.99
96	SLD 3	129	-45	1842	-2.95	-697.13	-21.42
96	SLD 4	152	-81	1832	-2.89	-693.77	-38.08
96	SLD 5	38	182	1987	-4.36	-752.68	86.34
96	SLD 6	62	145	1977	-4.29	-749.19	69.02
96	SLD 7	25	-156	1555	-1.68	-595.64	-73.93
96	SLD 8	49	-193	1546	-1.62	-592.15	-91.25
96	SLD 9	-47	188	1871	-4.07	-712.74	89.13
96	SLD 10	-23	151	1861	-4.01	-709.25	71.81
96	SLD 11	-60	-150	1439	-1.4	-555.71	-71.14
96	SLD 12	-37	-187	1429	-1.34	-552.21	-88.46
96	SLD 13	-150	76	1584	-2.8	-611.12	35.96
96	SLD 14	-127	40	1574	-2.74	-607.76	19.3
96	SLD 15	-154	-26	1455	-2	-564.01	-12.12
96	SLD 16	-131	-61	1445	-1.94	-560.65	-28.78
96	SLV 1	302	134	2311	-4.93	-862.93	63.59
96	SLV 2	355	53	2289	-4.8	-855.22	25.37
96	SLV 3	293	-103	2009	-3.06	-752.91	-48.77
96	SLV 4	345	-184	1987	-2.93	-745.2	-86.99
96	SLV 5	86	428	2355	-6.36	-885.36	203.15
96	SLV 6	142	343	2332	-6.22	-877.24	162.9
96	SLV 7	54	-361	1348	-0.12	-518.62	-171.4
96	SLV 8	109	-446	1325	0.02	-510.51	-211.65
96	SLV 9	-108	441	2091	-5.71	-794.39	209.53
96	SLV 10	-52	356	2068	-5.57	-786.27	169.28
96	SLV 11	-140	-347	1084	0.53	-427.65	-165.02
96	SLV 12	-84	-433	1061	0.67	-419.54	-205.27
96	SLV 13	-343	179	1429	-2.77	-559.69	84.87
96	SLV 14	-291	98	1408	-2.63	-551.99	46.65
96	SLV 15	-353	-58	1127	-0.89	-449.67	-27.49
96	SLV 16	-300	-139	1105	-0.76	-441.97	-65.71
96	CRTFP Ux+	0	0	0	0	0	0
96	CRTFP Ux-	0	0	0	0	0	0
96	CRTFP Uy+	0	0	0	0	0	0
96	CRTFP Uy-	0	0	0	0	0	0
99	SLU 1	7	-27	3429	-2.57	2.1	0.92
99	SLU 2	7	-43	3399	-2.39	2.17	0.92
99	SLU 3	7	-27	3429	-2.57	2.1	0.92
99	SLU 4	7	-37	3411	-2.46	2.14	0.92
99	SLU 5	7	-43	3399	-2.39	2.17	0.92
99	SLU 6	7	-27	3429	-2.57	2.1	0.92
99	SLU 7	7	-37	3411	-2.46	2.14	0.92
99	SLU 8	7	-27	3429	-2.57	2.1	0.92
99	SLU 9	7	-37	3411	-2.46	2.14	0.92
99	SLU 10	6	-46	4066	-2.76	2.19	0.82
99	SLU 11	6	-30	4096	-2.94	2.12	0.82
99	SLU 12	6	-39	4078	-2.83	2.16	0.82
99	SLU 13	6	-46	4066	-2.76	2.19	0.82
99	SLU 14	6	-30	4096	-2.94	2.12	0.82
99	SLU 15	6	-39	4078	-2.83	2.16	0.82
99	SLU 16	6	-30	4096	-2.94	2.12	0.82
99	SLU 17	6	-39	4078	-2.83	2.16	0.82
99	SLU 18	6	-31	4383	-3.1	2.13	0.78
99	SLU 19	6	-40	4365	-2.99	2.17	0.78
99	SLU 20	6	-31	4383	-3.1	2.13	0.78
99	SLU 21	6	-40	4365	-2.99	2.17	0.78
99	SLU 22	7	-29	3914	-2.84	2.03	0.88
99	SLU 23	7	-46	3884	-2.66	2.11	0.88
99	SLU 24	7	-29	3914	-2.84	2.03	0.88
99	SLU 25	7	-39	3896	-2.73	2.08	0.88
99	SLU 26	7	-46	3884	-2.66	2.11	0.88
99	SLU 27	7	-29	3914	-2.84	2.03	0.88
99	SLU 28	7	-39	3896	-2.73	2.08	0.88
99	SLU 29	7	-29	3914	-2.84	2.03	0.88
99	SLU 30	7	-39	3896	-2.73	2.08	0.88
99	SLU 31	6	-48	4552	-3.03	2.13	0.78
99	SLU 32	6	-32	4582	-3.21	2.06	0.79
99	SLU 33	6	-42	4564	-3.1	2.1	0.78
99	SLU 34	6	-48	4552	-3.03	2.13	0.78
99	SLU 35	6	-32	4582	-3.21	2.06	0.79
99	SLU 36	6	-42	4564	-3.1	2.1	0.78
99	SLU 37	6	-32	4582	-3.21	2.06	0.79
99	SLU 38	6	-42	4564	-3.1	2.1	0.78
99	SLU 39	6	-33	4868	-3.37	2.06	0.74
99	SLU 40	6	-43	4850	-3.26	2.11	0.74
99	SLU 41	6	-33	4868	-3.37	2.06	0.74
99	SLU 42	6	-43	4850	-3.26	2.11	0.74



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
99	SLU 43	9	-35	4291	-3.25	2.75	1.21
99	SLU 44	9	-51	4261	-3.07	2.82	1.21
99	SLU 45	9	-35	4291	-3.25	2.75	1.21
99	SLU 46	9	-44	4273	-3.14	2.79	1.21
99	SLU 47	9	-51	4261	-3.07	2.82	1.21
99	SLU 48	9	-35	4291	-3.25	2.75	1.21
99	SLU 49	9	-44	4273	-3.14	2.79	1.21
99	SLU 50	9	-35	4291	-3.25	2.75	1.21
99	SLU 51	9	-44	4273	-3.14	2.79	1.21
99	SLU 52	8	-53	4929	-3.44	2.84	1.11
99	SLU 53	8	-37	4959	-3.62	2.77	1.11
99	SLU 54	8	-47	4941	-3.51	2.81	1.11
99	SLU 55	8	-53	4929	-3.44	2.84	1.11
99	SLU 56	8	-37	4959	-3.62	2.77	1.11
99	SLU 57	8	-47	4941	-3.51	2.81	1.11
99	SLU 58	8	-37	4959	-3.62	2.77	1.11
99	SLU 59	8	-47	4941	-3.51	2.81	1.11
99	SLU 60	8	-38	5245	-3.78	2.78	1.07
99	SLU 61	8	-48	5227	-3.67	2.82	1.07
99	SLU 62	8	-38	5245	-3.78	2.78	1.07
99	SLU 63	8	-48	5227	-3.67	2.82	1.07
99	SLU 64	9	-37	4776	-3.52	2.68	1.17
99	SLU 65	9	-53	4746	-3.34	2.76	1.17
99	SLU 66	9	-37	4776	-3.52	2.68	1.17
99	SLU 67	9	-46	4758	-3.41	2.73	1.17
99	SLU 68	9	-53	4746	-3.34	2.76	1.17
99	SLU 69	9	-37	4776	-3.52	2.68	1.17
99	SLU 70	9	-46	4758	-3.41	2.73	1.17
99	SLU 71	9	-37	4776	-3.52	2.68	1.17
99	SLU 72	9	-46	4758	-3.41	2.73	1.17
99	SLU 73	8	-55	5414	-3.71	2.78	1.07
99	SLU 74	8	-39	5444	-3.89	2.71	1.07
99	SLU 75	8	-49	5426	-3.78	2.75	1.07
99	SLU 76	8	-55	5414	-3.71	2.78	1.07
99	SLU 77	8	-39	5444	-3.89	2.71	1.07
99	SLU 78	8	-49	5426	-3.78	2.75	1.07
99	SLU 79	8	-39	5444	-3.89	2.71	1.07
99	SLU 80	8	-49	5426	-3.78	2.75	1.07
99	SLU 81	8	-40	5730	-4.05	2.71	1.03
99	SLU 82	8	-50	5712	-3.94	2.76	1.03
99	SLU 83	8	-40	5730	-4.05	2.71	1.03
99	SLU 84	8	-50	5712	-3.94	2.76	1.03
99	SLE RA 1	7	-28	3567	-2.65	2.08	0.91
99	SLE RA 2	7	-39	3547	-2.53	2.13	0.91
99	SLE RA 3	7	-28	3567	-2.65	2.08	0.91
99	SLE RA 4	7	-34	3555	-2.58	2.11	0.91
99	SLE RA 5	7	-39	3547	-2.53	2.13	0.91
99	SLE RA 6	7	-28	3567	-2.65	2.08	0.91
99	SLE RA 7	7	-34	3555	-2.58	2.11	0.91
99	SLE RA 8	7	-28	3567	-2.65	2.08	0.91
99	SLE RA 9	7	-34	3555	-2.58	2.11	0.91
99	SLE RA 10	6	-40	3993	-2.77	2.14	0.84
99	SLE RA 11	6	-29	4012	-2.9	2.09	0.84
99	SLE RA 12	6	-36	4001	-2.82	2.12	0.84
99	SLE RA 13	6	-40	3993	-2.77	2.14	0.84
99	SLE RA 14	6	-29	4012	-2.9	2.09	0.84
99	SLE RA 15	6	-36	4001	-2.82	2.12	0.84
99	SLE RA 16	6	-29	4012	-2.9	2.09	0.84
99	SLE RA 17	6	-36	4001	-2.82	2.12	0.84
99	SLE RA 18	6	-30	4203	-3	2.1	0.82
99	SLE RA 19	6	-37	4191	-2.93	2.13	0.82
99	SLE RA 20	6	-30	4203	-3	2.1	0.82
99	SLE RA 21	6	-37	4191	-2.93	2.13	0.82
99	SLE FR 1	7	-28	3567	-2.65	2.08	0.91
99	SLE FR 2	7	-30	3563	-2.63	2.09	0.91
99	SLE FR 3	7	-28	3567	-2.65	2.08	0.91
99	SLE FR 4	7	-31	3754	-2.73	2.09	0.88
99	SLE FR 5	7	-28	3758	-2.76	2.08	0.88
99	SLE FR 6	6	-29	3885	-2.83	2.09	0.86
99	SLE QP 1	7	-28	3567	-2.65	2.08	0.91
99	SLE QP 2	7	-28	3758	-2.76	2.08	0.88
99	SLD 1	275	45	3873	-3.54	10.3	1.46
99	SLD 2	323	47	3872	-3.54	10.13	2.56
99	SLD 3	264	-126	3580	-2.34	9.89	1.28
99	SLD 4	312	-124	3579	-2.34	9.71	2.38
99	SLD 5	85	252	4239	-4.82	5.23	0.93
99	SLD 6	135	254	4238	-4.81	5.06	2.07
99	SLD 7	50	-317	3259	-0.81	3.87	0.31
99	SLD 8	100	-316	3258	-0.81	3.69	1.46
99	SLD 9	-87	259	4258	-4.71	0.48	0.3
99	SLD 10	-37	260	4257	-4.7	0.3	1.45
99	SLD 11	-122	-311	3279	-0.7	-0.89	-0.31
99	SLD 12	-72	-309	3278	-0.7	-1.07	0.83
99	SLD 13	-299	67	3938	-3.18	-5.55	-0.62
99	SLD 14	-251	69	3937	-3.17	-5.72	0.48
99	SLD 15	-310	-103	3644	-1.97	-5.96	-0.8
99	SLD 16	-262	-102	3643	-1.97	-6.13	0.3
99	SLV 1	617	144	4027	-4.6	20.85	2.2
99	SLV 2	728	147	4024	-4.59	20.45	4.73
99	SLV 3	593	-255	3341	-1.8	19.83	1.77
99	SLV 4	703	-252	3338	-1.78	19.43	4.29



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
99	SLV 5	186	628	4880	-7.57	9.41	0.98
99	SLV 6	302	631	4877	-7.56	9	3.64
99	SLV 7	104	-703	2593	1.78	6.01	-0.46
99	SLV 8	219	-700	2591	1.8	5.59	2.2
99	SLV 9	-206	643	4925	-7.31	-1.42	-0.44
99	SLV 10	-90	646	4923	-7.3	-1.84	2.22
99	SLV 11	-289	-688	2639	2.05	-4.83	-1.88
99	SLV 12	-173	-685	2636	2.06	-5.24	0.78
99	SLV 13	-690	195	4178	-3.73	-15.26	-2.53
99	SLV 14	-580	198	4176	-3.72	-15.66	-0.01
99	SLV 15	-714	-204	3492	-0.92	-16.29	-2.97
99	SLV 16	-604	-201	3490	-0.91	-16.68	-0.44
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	13	10	1883	-2.61	241.32	-2.44
102	SLU 2	14	-1	1872	-2.48	238.98	0.37
102	SLU 3	13	10	1883	-2.61	241.32	-2.44
102	SLU 4	14	3	1877	-2.53	239.92	-0.76
102	SLU 5	14	-1	1872	-2.48	238.98	0.37
102	SLU 6	13	10	1883	-2.61	241.32	-2.44
102	SLU 7	14	3	1877	-2.53	239.92	-0.76
102	SLU 8	13	10	1883	-2.61	241.32	-2.44
102	SLU 9	14	3	1877	-2.53	239.92	-0.76
102	SLU 10	14	-2	2193	-2.96	276.85	0.56
102	SLU 11	13	9	2204	-3.1	279.19	-2.24
102	SLU 12	13	2	2197	-3.02	277.79	-0.56
102	SLU 13	14	-2	2193	-2.96	276.85	0.56
102	SLU 14	13	9	2204	-3.1	279.19	-2.24
102	SLU 15	13	2	2197	-3.02	277.79	-0.56
102	SLU 16	13	9	2204	-3.1	279.19	-2.24
102	SLU 17	13	2	2197	-3.02	277.79	-0.56
102	SLU 18	12	9	2341	-3.31	295.42	-2.16
102	SLU 19	13	2	2335	-3.23	294.02	-0.48
102	SLU 20	12	9	2341	-3.31	295.42	-2.16
102	SLU 21	13	2	2335	-3.23	294.02	-0.48
102	SLU 22	13	9	2125	-2.97	269.57	-2.36
102	SLU 23	14	-2	2114	-2.84	267.23	0.45
102	SLU 24	13	9	2125	-2.97	269.57	-2.36
102	SLU 25	14	3	2118	-2.89	268.17	-0.68
102	SLU 26	14	-2	2114	-2.84	267.23	0.45
102	SLU 27	13	9	2125	-2.97	269.57	-2.36
102	SLU 28	14	3	2118	-2.89	268.17	-0.68
102	SLU 29	13	9	2125	-2.97	269.57	-2.36
102	SLU 30	14	3	2118	-2.89	268.17	-0.68
102	SLU 31	14	-3	2434	-3.33	305.1	0.64
102	SLU 32	13	8	2445	-3.46	307.44	-2.16
102	SLU 33	13	2	2439	-3.38	306.04	-0.48
102	SLU 34	14	-3	2434	-3.33	305.1	0.64
102	SLU 35	13	8	2445	-3.46	307.44	-2.16
102	SLU 36	13	2	2439	-3.38	306.04	-0.48
102	SLU 37	13	8	2445	-3.46	307.44	-2.16
102	SLU 38	13	2	2439	-3.38	306.04	-0.48
102	SLU 39	12	8	2583	-3.67	323.67	-2.08
102	SLU 40	13	1	2576	-3.59	322.27	-0.4
102	SLU 41	12	8	2583	-3.67	323.67	-2.08
102	SLU 42	13	1	2576	-3.59	322.27	-0.4
102	SLU 43	17	13	2366	-3.27	304.03	-3.2
102	SLU 44	18	2	2355	-3.14	301.69	-0.39
102	SLU 45	17	13	2366	-3.27	304.03	-3.2
102	SLU 46	17	6	2359	-3.19	302.63	-1.52
102	SLU 47	18	2	2355	-3.14	301.69	-0.39
102	SLU 48	17	13	2366	-3.27	304.03	-3.2
102	SLU 49	17	6	2359	-3.19	302.63	-1.52
102	SLU 50	17	13	2366	-3.27	304.03	-3.2
102	SLU 51	17	6	2359	-3.19	302.63	-1.52
102	SLU 52	17	1	2675	-3.62	339.56	-0.2
102	SLU 53	16	12	2686	-3.76	341.9	-3
102	SLU 54	17	5	2680	-3.68	340.5	-1.32
102	SLU 55	17	1	2675	-3.62	339.56	-0.2
102	SLU 56	16	12	2686	-3.76	341.9	-3
102	SLU 57	17	5	2680	-3.68	340.5	-1.32
102	SLU 58	16	12	2686	-3.76	341.9	-3
102	SLU 59	17	5	2680	-3.68	340.5	-1.32
102	SLU 60	16	12	2824	-3.96	358.13	-2.92
102	SLU 61	17	5	2817	-3.88	356.72	-1.24
102	SLU 62	16	12	2824	-3.96	358.13	-2.92
102	SLU 63	17	5	2817	-3.88	356.72	-1.24
102	SLU 64	17	13	2607	-3.63	332.28	-3.12
102	SLU 65	18	1	2596	-3.5	329.94	-0.31
102	SLU 66	17	13	2607	-3.63	332.28	-3.12
102	SLU 67	17	6	2600	-3.55	330.88	-1.44
102	SLU 68	18	1	2596	-3.5	329.94	-0.31
102	SLU 69	17	13	2607	-3.63	332.28	-3.12
102	SLU 70	17	6	2600	-3.55	330.88	-1.44
102	SLU 71	17	13	2607	-3.63	332.28	-3.12
102	SLU 72	17	6	2600	-3.55	330.88	-1.44
102	SLU 73	17	0	2917	-3.99	367.81	-0.12
102	SLU 74	16	12	2928	-4.12	370.15	-2.92
102	SLU 75	17	5	2921	-4.04	368.75	-1.24



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
102	SLU 76	17	0	2917	-3.99	367.81	-0.12
102	SLU 77	16	12	2928	-4.12	370.15	-2.92
102	SLU 78	17	5	2921	-4.04	368.75	-1.24
102	SLU 79	16	12	2928	-4.12	370.15	-2.92
102	SLU 80	17	5	2921	-4.04	368.75	-1.24
102	SLU 81	16	11	3065	-4.33	386.38	-2.84
102	SLU 82	17	4	3058	-4.25	384.98	-1.16
102	SLU 83	16	11	3065	-4.33	386.38	-2.84
102	SLU 84	17	4	3058	-4.25	384.98	-1.16
102	SLE RA 1	13	10	1952	-2.71	249.39	-2.42
102	SLE RA 2	14	2	1945	-2.62	247.83	-0.55
102	SLE RA 3	13	10	1952	-2.71	249.39	-2.42
102	SLE RA 4	13	5	1948	-2.66	248.46	-1.29
102	SLE RA 5	14	2	1945	-2.62	247.83	-0.55
102	SLE RA 6	13	10	1952	-2.71	249.39	-2.42
102	SLE RA 7	13	5	1948	-2.66	248.46	-1.29
102	SLE RA 8	13	10	1952	-2.71	249.39	-2.42
102	SLE RA 9	13	5	1948	-2.66	248.46	-1.29
102	SLE RA 10	13	2	2159	-2.95	273.08	-0.42
102	SLE RA 11	13	9	2166	-3.04	274.64	-2.29
102	SLE RA 12	13	5	2162	-2.98	273.7	-1.16
102	SLE RA 13	13	2	2159	-2.95	273.08	-0.42
102	SLE RA 14	13	9	2166	-3.04	274.64	-2.29
102	SLE RA 15	13	5	2162	-2.98	273.7	-1.16
102	SLE RA 16	13	9	2166	-3.04	274.64	-2.29
102	SLE RA 17	13	5	2162	-2.98	273.7	-1.16
102	SLE RA 18	13	9	2258	-3.18	285.46	-2.23
102	SLE RA 19	13	4	2253	-3.12	284.52	-1.11
102	SLE RA 20	13	9	2258	-3.18	285.46	-2.23
102	SLE RA 21	13	4	2253	-3.12	284.52	-1.11
102	SLE FR 1	13	10	1952	-2.71	249.39	-2.42
102	SLE FR 2	13	8	1951	-2.7	249.08	-2.04
102	SLE FR 3	13	10	1952	-2.71	249.39	-2.42
102	SLE FR 4	13	8	2042	-2.83	259.9	-1.99
102	SLE FR 5	13	9	2044	-2.85	260.21	-2.36
102	SLE FR 6	13	9	2105	-2.95	267.43	-2.32
102	SLE QP 1	13	10	1952	-2.71	249.39	-2.42
102	SLE QP 2	13	9	2044	-2.85	260.21	-2.36
102	SLD 1	150	57	1896	-2.85	244.01	-14.2
102	SLD 2	173	96	1906	-2.93	245.78	-23.83
102	SLD 3	155	-60	1745	-1.83	224.35	14.97
102	SLD 4	179	-21	1755	-1.91	226.12	5.35
102	SLD 5	37	187	2226	-4.36	284.51	-46.61
102	SLD 6	61	227	2236	-4.45	286.35	-56.61
102	SLD 7	56	-203	1720	-0.97	218.99	50.65
102	SLD 8	80	-163	1731	-1.06	220.83	40.65
102	SLD 9	-54	181	2357	-4.65	299.6	-45.37
102	SLD 10	-30	222	2367	-4.73	301.44	-55.37
102	SLD 11	-35	-208	1851	-1.26	234.07	51.89
102	SLD 12	-11	-168	1862	-1.34	235.91	41.89
102	SLD 13	-153	40	2333	-3.79	294.3	-10.07
102	SLD 14	-130	79	2343	-3.88	296.07	-19.7
102	SLD 15	-147	-77	2181	-2.78	274.64	19.1
102	SLD 16	-124	-38	2191	-2.86	276.41	9.48
102	SLV 1	324	121	1712	-2.87	223.31	-30.17
102	SLV 2	377	211	1735	-3.06	227.37	-52.24
102	SLV 3	337	-152	1358	-0.49	177.43	38.02
102	SLV 4	391	-63	1381	-0.68	181.49	15.95
102	SLV 5	66	424	2473	-6.39	317.19	-105.81
102	SLV 6	122	518	2497	-6.59	321.47	-129.06
102	SLV 7	110	-487	1292	1.53	164.27	121.48
102	SLV 8	166	-393	1316	1.33	168.55	98.24
102	SLV 9	-141	412	2772	-7.04	351.88	-102.96
102	SLV 10	-85	506	2795	-7.24	356.15	-126.21
102	SLV 11	-96	-499	1591	0.89	198.96	124.33
102	SLV 12	-40	-405	1615	0.69	203.23	101.09
102	SLV 13	-365	82	2707	-5.02	338.93	-20.67
102	SLV 14	-312	171	2730	-5.21	342.99	-42.74
102	SLV 15	-352	-192	2353	-2.65	293.06	47.52
102	SLV 16	-299	-102	2376	-2.84	297.12	25.45
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
103	SLU 1	-2	-2	1507	-1.28	-559.62	-0.8
103	SLU 2	-2	-12	1497	-1.19	-555.71	-5.71
103	SLU 3	-2	-2	1507	-1.28	-559.62	-0.8
103	SLU 4	-2	-8	1501	-1.22	-557.27	-3.74
103	SLU 5	-2	-12	1497	-1.19	-555.71	-5.71
103	SLU 6	-2	-2	1507	-1.28	-559.62	-0.8
103	SLU 7	-2	-8	1501	-1.22	-557.27	-3.74
103	SLU 8	-2	-2	1507	-1.28	-559.62	-0.8
103	SLU 9	-2	-8	1501	-1.22	-557.27	-3.74
103	SLU 10	-3	-13	1765	-1.42	-651.92	-6.3
103	SLU 11	-2	-3	1775	-1.51	-655.83	-1.39
103	SLU 12	-3	-9	1769	-1.45	-653.48	-4.34
103	SLU 13	-3	-13	1765	-1.42	-651.92	-6.3
103	SLU 14	-2	-3	1775	-1.51	-655.83	-1.39
103	SLU 15	-3	-9	1769	-1.45	-653.48	-4.34
103	SLU 16	-2	-3	1775	-1.51	-655.83	-1.39
103	SLU 17	-3	-9	1769	-1.45	-653.48	-4.34



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
103	SLU 18	-2	-4	1890	-1.61	-697.07	-1.64
103	SLU 19	-3	-10	1884	-1.55	-694.72	-4.59
103	SLU 20	-2	-4	1890	-1.61	-697.07	-1.64
103	SLU 21	-3	-10	1884	-1.55	-694.72	-4.59
103	SLU 22	-2	-3	1700	-1.44	-628.85	-1.1
103	SLU 23	-3	-13	1690	-1.35	-624.94	-6.01
103	SLU 24	-2	-3	1700	-1.44	-628.85	-1.1
103	SLU 25	-2	-9	1694	-1.38	-626.5	-4.05
103	SLU 26	-3	-13	1690	-1.35	-624.94	-6.01
103	SLU 27	-2	-3	1700	-1.44	-628.85	-1.1
103	SLU 28	-2	-9	1694	-1.38	-626.5	-4.05
103	SLU 29	-2	-3	1700	-1.44	-628.85	-1.1
103	SLU 30	-2	-9	1694	-1.38	-626.5	-4.05
103	SLU 31	-3	-14	1958	-1.58	-721.15	-6.61
103	SLU 32	-2	-4	1968	-1.67	-725.06	-1.7
103	SLU 33	-3	-10	1962	-1.61	-722.72	-4.64
103	SLU 34	-3	-14	1958	-1.58	-721.15	-6.61
103	SLU 35	-2	-4	1968	-1.67	-725.06	-1.7
103	SLU 36	-3	-10	1962	-1.61	-722.72	-4.64
103	SLU 37	-2	-4	1968	-1.67	-725.06	-1.7
103	SLU 38	-3	-10	1962	-1.61	-722.72	-4.64
103	SLU 39	-2	-4	2083	-1.77	-766.3	-1.95
103	SLU 40	-3	-11	2077	-1.71	-763.95	-4.9
103	SLU 41	-2	-4	2083	-1.77	-766.3	-1.95
103	SLU 42	-3	-11	2077	-1.71	-763.95	-4.9
103	SLU 43	-3	-2	1894	-1.61	-703.77	-0.93
103	SLU 44	-3	-13	1883	-1.52	-699.86	-5.84
103	SLU 45	-3	-2	1894	-1.61	-703.77	-0.93
103	SLU 46	-3	-8	1887	-1.55	-701.42	-3.88
103	SLU 47	-3	-13	1883	-1.52	-699.86	-5.84
103	SLU 48	-3	-2	1894	-1.61	-703.77	-0.93
103	SLU 49	-3	-8	1887	-1.55	-701.42	-3.88
103	SLU 50	-3	-2	1894	-1.61	-703.77	-0.93
103	SLU 51	-3	-8	1887	-1.55	-701.42	-3.88
103	SLU 52	-3	-14	2151	-1.75	-796.07	-6.43
103	SLU 53	-3	-3	2162	-1.84	-799.98	-1.52
103	SLU 54	-3	-10	2155	-1.78	-797.64	-4.47
103	SLU 55	-3	-14	2151	-1.75	-796.07	-6.43
103	SLU 56	-3	-3	2162	-1.84	-799.98	-1.52
103	SLU 57	-3	-10	2155	-1.78	-797.64	-4.47
103	SLU 58	-3	-3	2162	-1.84	-799.98	-1.52
103	SLU 59	-3	-10	2155	-1.78	-797.64	-4.47
103	SLU 60	-3	-4	2277	-1.94	-841.22	-1.78
103	SLU 61	-3	-10	2270	-1.88	-838.87	-4.72
103	SLU 62	-3	-4	2277	-1.94	-841.22	-1.78
103	SLU 63	-3	-10	2270	-1.88	-838.87	-4.72
103	SLU 64	-3	-3	2086	-1.77	-773	-1.24
103	SLU 65	-3	-13	2076	-1.68	-769.09	-6.15
103	SLU 66	-3	-3	2086	-1.77	-773	-1.24
103	SLU 67	-3	-9	2080	-1.71	-770.66	-4.18
103	SLU 68	-3	-13	2076	-1.68	-769.09	-6.15
103	SLU 69	-3	-3	2086	-1.77	-773	-1.24
103	SLU 70	-3	-9	2080	-1.71	-770.66	-4.18
103	SLU 71	-3	-3	2086	-1.77	-773	-1.24
103	SLU 72	-3	-9	2080	-1.71	-770.66	-4.18
103	SLU 73	-3	-14	2344	-1.91	-865.3	-6.74
103	SLU 74	-3	-4	2354	-2	-869.21	-1.83
103	SLU 75	-3	-10	2348	-1.94	-866.87	-4.78
103	SLU 76	-3	-14	2344	-1.91	-865.3	-6.74
103	SLU 77	-3	-4	2354	-2	-869.21	-1.83
103	SLU 78	-3	-10	2348	-1.94	-866.87	-4.78
103	SLU 79	-3	-4	2354	-2	-869.21	-1.83
103	SLU 80	-3	-10	2348	-1.94	-866.87	-4.78
103	SLU 81	-3	-5	2469	-2.1	-910.45	-2.08
103	SLU 82	-3	-11	2463	-2.04	-908.1	-5.03
103	SLU 83	-3	-5	2469	-2.1	-910.45	-2.08
103	SLU 84	-3	-11	2463	-2.04	-908.1	-5.03
103	SLE RA 1	-2	-2	1562	-1.33	-579.4	-0.88
103	SLE RA 2	-2	-9	1555	-1.26	-576.79	-4.16
103	SLE RA 3	-2	-2	1562	-1.33	-579.4	-0.88
103	SLE RA 4	-2	-6	1558	-1.29	-577.84	-2.85
103	SLE RA 5	-2	-9	1555	-1.26	-576.79	-4.16
103	SLE RA 6	-2	-2	1562	-1.33	-579.4	-0.88
103	SLE RA 7	-2	-6	1558	-1.29	-577.84	-2.85
103	SLE RA 8	-2	-2	1562	-1.33	-579.4	-0.88
103	SLE RA 9	-2	-6	1558	-1.29	-577.84	-2.85
103	SLE RA 10	-2	-10	1734	-1.42	-640.93	-4.55
103	SLE RA 11	-2	-3	1741	-1.48	-643.54	-1.28
103	SLE RA 12	-2	-7	1737	-1.44	-641.98	-3.24
103	SLE RA 13	-2	-10	1734	-1.42	-640.93	-4.55
103	SLE RA 14	-2	-3	1741	-1.48	-643.54	-1.28
103	SLE RA 15	-2	-7	1737	-1.44	-641.98	-3.24
103	SLE RA 16	-2	-3	1741	-1.48	-643.54	-1.28
103	SLE RA 17	-2	-7	1737	-1.44	-641.98	-3.24
103	SLE RA 18	-2	-3	1818	-1.55	-671.03	-1.45
103	SLE RA 19	-2	-7	1814	-1.51	-669.47	-3.41
103	SLE RA 20	-2	-3	1818	-1.55	-671.03	-1.45
103	SLE RA 21	-2	-7	1814	-1.51	-669.47	-3.41
103	SLE FR 1	-2	-2	1562	-1.33	-579.4	-0.88
103	SLE FR 2	-2	-3	1561	-1.32	-578.88	-1.54
103	SLE FR 3	-2	-2	1562	-1.33	-579.4	-0.88



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
103	SLE FR 4	-2	-4	1638	-1.38	-606.37	-1.71
103	SLE FR 5	-2	-2	1639	-1.39	-606.89	-1.05
103	SLE FR 6	-2	-3	1690	-1.44	-625.22	-1.17
103	SLE QP 1	-2	-2	1562	-1.33	-579.4	-0.88
103	SLE QP 2	-2	-2	1639	-1.39	-606.89	-1.05
103	SLD 1	129	56	1877	-2.03	-684.68	26.73
103	SLD 2	149	21	1869	-1.98	-682.22	10.03
103	SLD 3	125	-45	1772	-1.34	-649.41	-21.44
103	SLD 4	145	-81	1764	-1.29	-646.94	-38.14
103	SLD 5	36	182	1873	-2.64	-684.63	86.51
103	SLD 6	56	145	1865	-2.59	-682.07	69.17
103	SLD 7	23	-156	1522	-0.36	-567.06	-74.07
103	SLD 8	44	-193	1514	-0.31	-564.5	-91.41
103	SLD 9	-48	188	1764	-2.48	-649.28	89.31
103	SLD 10	-27	151	1756	-2.43	-646.72	71.96
103	SLD 11	-61	-150	1413	-0.2	-531.71	-71.28
103	SLD 12	-40	-187	1405	-0.15	-529.15	-88.62
103	SLD 13	-149	76	1514	-1.5	-566.84	36.03
103	SLD 14	-129	40	1506	-1.44	-564.38	19.34
103	SLD 15	-153	-26	1409	-0.81	-531.57	-12.14
103	SLD 16	-133	-61	1401	-0.76	-529.11	-28.84
103	SLV 1	296	134	2184	-2.86	-785.16	63.74
103	SLV 2	341	53	2167	-2.74	-779.51	25.46
103	SLV 3	287	-103	1939	-1.26	-702.79	-48.85
103	SLV 4	333	-184	1921	-1.14	-697.15	-87.13
103	SLV 5	83	429	2182	-4.3	-787.42	203.56
103	SLV 6	132	343	2163	-4.18	-781.48	163.24
103	SLV 7	54	-362	1363	1.03	-512.86	-171.73
103	SLV 8	102	-447	1344	1.15	-506.92	-212.05
103	SLV 9	-106	442	1934	-3.94	-706.87	209.94
103	SLV 10	-58	357	1915	-3.81	-700.92	169.63
103	SLV 11	-136	-348	1115	1.39	-432.31	-165.35
103	SLV 12	-88	-433	1096	1.51	-426.36	-205.67
103	SLV 13	-337	179	1357	-1.65	-516.64	85.02
103	SLV 14	-291	98	1340	-1.53	-510.99	46.74
103	SLV 15	-346	-58	1112	-0.05	-434.27	-27.56
103	SLV 16	-300	-139	1094	0.07	-428.63	-65.85
103	CRTFP Ux+	0	0	0	0	0	0
103	CRTFP Ux-	0	0	0	0	0	0
103	CRTFP Uy+	0	0	0	0	0	0
103	CRTFP Uy-	0	0	0	0	0	0
106	SLU 1	2	-25	3359	-1.77	2.27	0.97
106	SLU 2	2	-42	3334	-1.61	2.34	0.97
106	SLU 3	2	-25	3359	-1.77	2.27	0.97
106	SLU 4	2	-35	3344	-1.68	2.31	0.97
106	SLU 5	2	-42	3334	-1.61	2.34	0.97
106	SLU 6	2	-25	3359	-1.77	2.27	0.97
106	SLU 7	2	-35	3344	-1.68	2.31	0.97
106	SLU 8	2	-25	3359	-1.77	2.27	0.97
106	SLU 9	2	-35	3344	-1.68	2.31	0.97
106	SLU 10	2	-44	3993	-1.79	2.32	0.87
106	SLU 11	2	-27	4017	-1.95	2.25	0.87
106	SLU 12	2	-37	4003	-1.85	2.29	0.87
106	SLU 13	2	-44	3993	-1.79	2.32	0.87
106	SLU 14	2	-27	4017	-1.95	2.25	0.87
106	SLU 15	2	-37	4003	-1.85	2.29	0.87
106	SLU 16	2	-27	4017	-1.95	2.25	0.87
106	SLU 17	2	-37	4003	-1.85	2.29	0.87
106	SLU 18	2	-28	4300	-2.03	2.24	0.83
106	SLU 19	2	-38	4285	-1.93	2.28	0.83
106	SLU 20	2	-28	4300	-2.03	2.24	0.83
106	SLU 21	2	-38	4285	-1.93	2.28	0.83
106	SLU 22	2	-27	3837	-1.91	2.19	0.93
106	SLU 23	2	-44	3813	-1.74	2.26	0.93
106	SLU 24	2	-27	3837	-1.91	2.19	0.93
106	SLU 25	2	-37	3823	-1.81	2.23	0.93
106	SLU 26	2	-44	3813	-1.74	2.26	0.93
106	SLU 27	2	-27	3837	-1.91	2.19	0.93
106	SLU 28	2	-37	3823	-1.81	2.23	0.93
106	SLU 29	2	-27	3837	-1.91	2.19	0.93
106	SLU 30	2	-37	3823	-1.81	2.23	0.93
106	SLU 31	2	-46	4472	-1.92	2.24	0.84
106	SLU 32	2	-29	4496	-2.08	2.17	0.83
106	SLU 33	2	-39	4481	-1.98	2.21	0.83
106	SLU 34	2	-46	4472	-1.92	2.24	0.84
106	SLU 35	2	-29	4496	-2.08	2.17	0.83
106	SLU 36	2	-39	4481	-1.98	2.21	0.83
106	SLU 37	2	-29	4496	-2.08	2.17	0.83
106	SLU 38	2	-39	4481	-1.98	2.21	0.83
106	SLU 39	2	-30	4778	-2.16	2.16	0.79
106	SLU 40	2	-40	4764	-2.06	2.2	0.79
106	SLU 41	2	-30	4778	-2.16	2.16	0.79
106	SLU 42	2	-40	4764	-2.06	2.2	0.79
106	SLU 43	2	-32	4202	-2.26	2.97	1.27
106	SLU 44	2	-48	4178	-2.1	3.04	1.27
106	SLU 45	2	-32	4202	-2.26	2.97	1.27
106	SLU 46	2	-42	4187	-2.16	3.02	1.27
106	SLU 47	2	-48	4178	-2.1	3.04	1.27
106	SLU 48	2	-32	4202	-2.26	2.97	1.27
106	SLU 49	2	-42	4187	-2.16	3.02	1.27
106	SLU 50	2	-32	4202	-2.26	2.97	1.27



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
106	SLU 51	2	-42	4187	-2.16	3.02	1.27
106	SLU 52	2	-51	4836	-2.28	3.03	1.17
106	SLU 53	2	-34	4861	-2.44	2.96	1.17
106	SLU 54	2	-44	4846	-2.34	3	1.17
106	SLU 55	2	-51	4836	-2.28	3.03	1.17
106	SLU 56	2	-34	4861	-2.44	2.96	1.17
106	SLU 57	2	-44	4846	-2.34	3	1.17
106	SLU 58	2	-34	4861	-2.44	2.96	1.17
106	SLU 59	2	-44	4846	-2.34	3	1.17
106	SLU 60	2	-35	5143	-2.52	2.95	1.13
106	SLU 61	2	-45	5128	-2.42	2.99	1.13
106	SLU 62	2	-35	5143	-2.52	2.95	1.13
106	SLU 63	2	-45	5128	-2.42	2.99	1.13
106	SLU 64	2	-34	4681	-2.39	2.89	1.23
106	SLU 65	3	-50	4656	-2.23	2.96	1.24
106	SLU 66	2	-34	4681	-2.39	2.89	1.23
106	SLU 67	3	-44	4666	-2.29	2.94	1.23
106	SLU 68	3	-50	4656	-2.23	2.96	1.24
106	SLU 69	2	-34	4681	-2.39	2.89	1.23
106	SLU 70	3	-44	4666	-2.29	2.94	1.23
106	SLU 71	2	-34	4681	-2.39	2.89	1.23
106	SLU 72	3	-44	4666	-2.29	2.94	1.23
106	SLU 73	2	-53	5315	-2.41	2.95	1.14
106	SLU 74	2	-36	5339	-2.57	2.88	1.13
106	SLU 75	2	-46	5325	-2.47	2.92	1.14
106	SLU 76	2	-53	5315	-2.41	2.95	1.14
106	SLU 77	2	-36	5339	-2.57	2.88	1.13
106	SLU 78	2	-46	5325	-2.47	2.92	1.14
106	SLU 79	2	-36	5339	-2.57	2.88	1.13
106	SLU 80	2	-46	5325	-2.47	2.92	1.14
106	SLU 81	2	-37	5622	-2.65	2.87	1.09
106	SLU 82	2	-47	5607	-2.55	2.91	1.09
106	SLU 83	2	-37	5622	-2.65	2.87	1.09
106	SLU 84	2	-47	5607	-2.55	2.91	1.09
106	SLE RA 1	2	-26	3495	-1.81	2.24	0.96
106	SLE RA 2	2	-37	3479	-1.7	2.29	0.96
106	SLE RA 3	2	-26	3495	-1.81	2.24	0.96
106	SLE RA 4	2	-32	3486	-1.75	2.27	0.96
106	SLE RA 5	2	-37	3479	-1.7	2.29	0.96
106	SLE RA 6	2	-26	3495	-1.81	2.24	0.96
106	SLE RA 7	2	-32	3486	-1.75	2.27	0.96
106	SLE RA 8	2	-26	3495	-1.81	2.24	0.96
106	SLE RA 9	2	-32	3486	-1.75	2.27	0.96
106	SLE RA 10	2	-38	3918	-1.82	2.28	0.89
106	SLE RA 11	2	-27	3934	-1.93	2.23	0.89
106	SLE RA 12	2	-34	3925	-1.86	2.26	0.89
106	SLE RA 13	2	-38	3918	-1.82	2.28	0.89
106	SLE RA 14	2	-27	3934	-1.93	2.23	0.89
106	SLE RA 15	2	-34	3925	-1.86	2.26	0.89
106	SLE RA 16	2	-27	3934	-1.93	2.23	0.89
106	SLE RA 17	2	-34	3925	-1.86	2.26	0.89
106	SLE RA 18	2	-28	4123	-1.98	2.23	0.86
106	SLE RA 19	2	-34	4113	-1.92	2.26	0.86
106	SLE RA 20	2	-28	4123	-1.98	2.23	0.86
106	SLE RA 21	2	-34	4113	-1.92	2.26	0.86
106	SLE FR 1	2	-26	3495	-1.81	2.24	0.96
106	SLE FR 2	2	-28	3492	-1.79	2.25	0.96
106	SLE FR 3	2	-26	3495	-1.81	2.24	0.96
106	SLE FR 4	2	-29	3680	-1.84	2.25	0.93
106	SLE FR 5	2	-26	3683	-1.86	2.24	0.93
106	SLE FR 6	2	-27	3809	-1.9	2.24	0.91
106	SLE QP 1	2	-26	3495	-1.81	2.24	0.96
106	SLE QP 2	2	-26	3683	-1.86	2.24	0.93
106	SLD 1	268	47	3778	-2.56	10.65	1.36
106	SLD 2	310	49	3777	-2.56	10.49	2.51
106	SLD 3	258	-124	3522	-1.45	10.2	1.17
106	SLD 4	300	-122	3521	-1.45	10.04	2.31
106	SLD 5	81	255	4101	-3.76	5.5	0.93
106	SLD 6	125	256	4100	-3.75	5.34	2.12
106	SLD 7	48	-316	3246	-0.06	4	0.28
106	SLD 8	92	-314	3246	-0.05	3.84	1.47
106	SLD 9	-89	261	4121	-3.67	0.64	0.39
106	SLD 10	-45	263	4121	-3.67	0.48	1.58
106	SLD 11	-121	-309	3267	0.03	-0.86	-0.27
106	SLD 12	-77	-308	3266	0.03	-1.03	0.92
106	SLD 13	-296	70	3846	-2.28	-5.57	-0.45
106	SLD 14	-254	71	3845	-2.27	-5.72	0.69
106	SLD 15	-306	-102	3590	-1.17	-6.02	-0.65
106	SLD 16	-264	-100	3589	-1.16	-6.17	0.49
106	SLV 1	607	147	3903	-3.5	21.46	1.92
106	SLV 2	704	150	3901	-3.49	21.1	4.54
106	SLV 3	584	-253	3305	-0.9	20.34	1.45
106	SLV 4	681	-250	3303	-0.89	19.98	4.07
106	SLV 5	181	631	4658	-6.29	9.85	0.94
106	SLV 6	283	634	4656	-6.28	9.47	3.7
106	SLV 7	106	-702	2663	2.36	6.1	-0.61
106	SLV 8	208	-699	2661	2.37	5.72	2.15
106	SLV 9	-204	646	4706	-6.1	-1.24	-0.3
106	SLV 10	-102	649	4704	-6.08	-1.62	2.46
106	SLV 11	-280	-687	2711	2.56	-4.99	-1.85
106	SLV 12	-178	-684	2709	2.57	-5.37	0.91



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
106	SLV 13	-677	197	4064	-2.84	-15.5	-2.22
106	SLV 14	-581	200	4062	-2.82	-15.86	0.4
106	SLV 15	-700	-202	3466	-0.24	-16.63	-2.68
106	SLV 16	-603	-200	3464	-0.23	-16.99	-0.06
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	12	10	1823	-1.43	201.07	-2.41
109	SLU 2	13	-1	1816	-1.33	199.52	0.42
109	SLU 3	12	10	1823	-1.43	201.07	-2.41
109	SLU 4	13	3	1819	-1.37	200.14	-0.71
109	SLU 5	13	-1	1816	-1.33	199.52	0.42
109	SLU 6	12	10	1823	-1.43	201.07	-2.41
109	SLU 7	13	3	1819	-1.37	200.14	-0.71
109	SLU 8	12	10	1823	-1.43	201.07	-2.41
109	SLU 9	13	3	1819	-1.37	200.14	-0.71
109	SLU 10	13	-2	2126	-1.56	230.86	0.61
109	SLU 11	13	9	2133	-1.66	232.41	-2.22
109	SLU 12	13	2	2129	-1.6	231.48	-0.53
109	SLU 13	13	-2	2126	-1.56	230.86	0.61
109	SLU 14	13	9	2133	-1.66	232.41	-2.22
109	SLU 15	13	2	2129	-1.6	231.48	-0.53
109	SLU 16	13	9	2133	-1.66	232.41	-2.22
109	SLU 17	13	2	2129	-1.6	231.48	-0.53
109	SLU 18	13	9	2266	-1.76	245.85	-2.14
109	SLU 19	13	2	2262	-1.7	244.91	-0.45
109	SLU 20	13	9	2266	-1.76	245.85	-2.14
109	SLU 21	13	2	2262	-1.7	244.91	-0.45
109	SLU 22	13	9	2057	-1.61	224.32	-2.34
109	SLU 23	14	-2	2049	-1.5	222.77	0.49
109	SLU 24	13	9	2057	-1.61	224.32	-2.34
109	SLU 25	13	3	2052	-1.54	223.39	-0.64
109	SLU 26	14	-2	2049	-1.5	222.77	0.49
109	SLU 27	13	9	2057	-1.61	224.32	-2.34
109	SLU 28	13	3	2052	-1.54	223.39	-0.64
109	SLU 29	13	9	2057	-1.61	224.32	-2.34
109	SLU 30	13	3	2052	-1.54	223.39	-0.64
109	SLU 31	14	-3	2359	-1.73	254.11	0.68
109	SLU 32	13	9	2367	-1.84	255.66	-2.15
109	SLU 33	14	2	2362	-1.77	254.73	-0.45
109	SLU 34	14	-3	2359	-1.73	254.11	0.68
109	SLU 35	13	9	2367	-1.84	255.66	-2.15
109	SLU 36	14	2	2362	-1.77	254.73	-0.45
109	SLU 37	13	9	2367	-1.84	255.66	-2.15
109	SLU 38	14	2	2362	-1.77	254.73	-0.45
109	SLU 39	14	8	2500	-1.93	269.09	-2.07
109	SLU 40	14	1	2495	-1.87	268.16	-0.37
109	SLU 41	14	8	2500	-1.93	269.09	-2.07
109	SLU 42	14	1	2495	-1.87	268.16	-0.37
109	SLU 43	16	13	2290	-1.81	253.43	-3.16
109	SLU 44	16	2	2283	-1.7	251.88	-0.33
109	SLU 45	16	13	2290	-1.81	253.43	-3.16
109	SLU 46	16	6	2286	-1.74	252.5	-1.46
109	SLU 47	16	2	2283	-1.7	251.88	-0.33
109	SLU 48	16	13	2290	-1.81	253.43	-3.16
109	SLU 49	16	6	2286	-1.74	252.5	-1.46
109	SLU 50	16	13	2290	-1.81	253.43	-3.16
109	SLU 51	16	6	2286	-1.74	252.5	-1.46
109	SLU 52	17	1	2593	-1.93	283.22	-0.14
109	SLU 53	16	12	2600	-2.04	284.77	-2.97
109	SLU 54	17	5	2596	-1.97	283.84	-1.27
109	SLU 55	17	1	2593	-1.93	283.22	-0.14
109	SLU 56	16	12	2600	-2.04	284.77	-2.97
109	SLU 57	17	5	2596	-1.97	283.84	-1.27
109	SLU 58	16	12	2600	-2.04	284.77	-2.97
109	SLU 59	17	5	2596	-1.97	283.84	-1.27
109	SLU 60	16	12	2733	-2.14	298.2	-2.89
109	SLU 61	17	5	2729	-2.07	297.27	-1.19
109	SLU 62	16	12	2733	-2.14	298.2	-2.89
109	SLU 63	17	5	2729	-2.07	297.27	-1.19
109	SLU 64	16	12	2524	-1.98	276.67	-3.09
109	SLU 65	17	1	2516	-1.87	275.12	-0.26
109	SLU 66	16	12	2524	-1.98	276.67	-3.09
109	SLU 67	17	6	2519	-1.91	275.74	-1.39
109	SLU 68	17	1	2516	-1.87	275.12	-0.26
109	SLU 69	16	12	2524	-1.98	276.67	-3.09
109	SLU 70	17	6	2519	-1.91	275.74	-1.39
109	SLU 71	16	12	2524	-1.98	276.67	-3.09
109	SLU 72	17	6	2519	-1.91	275.74	-1.39
109	SLU 73	17	0	2826	-2.1	306.46	-0.07
109	SLU 74	17	12	2834	-2.21	308.01	-2.9
109	SLU 75	17	5	2829	-2.14	307.08	-1.2
109	SLU 76	17	0	2826	-2.1	306.46	-0.07
109	SLU 77	17	12	2834	-2.21	308.01	-2.9
109	SLU 78	17	5	2829	-2.14	307.08	-1.2
109	SLU 79	17	12	2834	-2.21	308.01	-2.9
109	SLU 80	17	5	2829	-2.14	307.08	-1.2
109	SLU 81	17	11	2967	-2.31	321.44	-2.82
109	SLU 82	17	4	2962	-2.24	320.51	-1.12
109	SLU 83	17	11	2967	-2.31	321.44	-2.82



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
109	SLU 84	17	4	2962	-2.24	320.51	-1.12
109	SLE RA 1	12	10	1890	-1.48	207.72	-2.39
109	SLE RA 2	13	2	1885	-1.41	206.68	-0.5
109	SLE RA 3	12	10	1890	-1.48	207.72	-2.39
109	SLE RA 4	13	5	1887	-1.44	207.1	-1.26
109	SLE RA 5	13	2	1885	-1.41	206.68	-0.5
109	SLE RA 6	12	10	1890	-1.48	207.72	-2.39
109	SLE RA 7	13	5	1887	-1.44	207.1	-1.26
109	SLE RA 8	12	10	1890	-1.48	207.72	-2.39
109	SLE RA 9	13	5	1887	-1.44	207.1	-1.26
109	SLE RA 10	13	2	2092	-1.56	227.57	-0.38
109	SLE RA 11	13	9	2097	-1.64	228.61	-2.27
109	SLE RA 12	13	5	2094	-1.59	227.99	-1.13
109	SLE RA 13	13	2	2092	-1.56	227.57	-0.38
109	SLE RA 14	13	9	2097	-1.64	228.61	-2.27
109	SLE RA 15	13	5	2094	-1.59	227.99	-1.13
109	SLE RA 16	13	9	2097	-1.64	228.61	-2.27
109	SLE RA 17	13	5	2094	-1.59	227.99	-1.13
109	SLE RA 18	13	9	2185	-1.7	237.56	-2.21
109	SLE RA 19	13	4	2182	-1.66	236.94	-1.08
109	SLE RA 20	13	9	2185	-1.7	237.56	-2.21
109	SLE RA 21	13	4	2182	-1.66	236.94	-1.08
109	SLE FR 1	12	10	1890	-1.48	207.72	-2.39
109	SLE FR 2	12	8	1889	-1.47	207.51	-2.01
109	SLE FR 3	12	10	1890	-1.48	207.72	-2.39
109	SLE FR 4	13	8	1978	-1.53	216.46	-1.96
109	SLE FR 5	13	9	1979	-1.55	216.67	-2.34
109	SLE FR 6	13	9	2038	-1.59	222.64	-2.3
109	SLE QP 1	12	10	1890	-1.48	207.72	-2.39
109	SLE QP 2	13	9	1979	-1.55	216.67	-2.34
109	SLD 1	147	57	1828	-1.69	199.18	-14.21
109	SLD 2	166	96	1836	-1.76	200.72	-23.86
109	SLD 3	152	-60	1704	-0.82	185.87	15.03
109	SLD 4	171	-21	1712	-0.89	187.41	5.38
109	SLD 5	38	187	2118	-2.89	231.04	-46.68
109	SLD 6	58	227	2126	-2.97	232.64	-56.7
109	SLD 7	55	-203	1706	0.02	186.68	50.78
109	SLD 8	75	-163	1714	-0.05	188.28	40.76
109	SLD 9	-50	182	2243	-3.05	245.06	-45.44
109	SLD 10	-30	222	2251	-3.12	246.66	-55.46
109	SLD 11	-33	-208	1831	-0.13	200.7	52.03
109	SLD 12	-13	-168	1839	-0.2	202.3	42.01
109	SLD 13	-146	40	2245	-2.21	245.93	-10.06
109	SLD 14	-127	79	2253	-2.28	247.47	-19.7
109	SLD 15	-141	-77	2122	-1.34	232.62	19.18
109	SLD 16	-122	-38	2129	-1.4	234.16	9.54
109	SLV 1	318	121	1638	-1.9	176.42	-30.23
109	SLV 2	362	211	1656	-2.06	179.94	-52.34
109	SLV 3	330	-152	1350	0.14	145.38	38.11
109	SLV 4	374	-63	1367	-0.02	148.91	16
109	SLV 5	69	424	2308	-4.7	250.34	-106.02
109	SLV 6	116	518	2326	-4.86	254.06	-129.3
109	SLV 7	109	-488	1346	2.12	146.88	121.76
109	SLV 8	156	-393	1364	1.95	150.6	98.48
109	SLV 9	-131	412	2593	-5.05	282.74	-103.15
109	SLV 10	-84	506	2612	-5.21	286.46	-126.44
109	SLV 11	-91	-499	1631	1.76	179.28	124.63
109	SLV 12	-44	-405	1650	1.6	183	101.34
109	SLV 13	-349	82	2590	-3.08	284.43	-20.67
109	SLV 14	-305	171	2608	-3.24	287.96	-42.78
109	SLV 15	-337	-192	2302	-1.04	253.39	47.66
109	SLV 16	-292	-102	2319	-1.19	256.92	25.55
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	-5	-2	1487	0	-547.16	-0.75
110	SLU 2	-5	-12	1479	0.08	-544.67	-5.69
110	SLU 3	-5	-2	1487	0	-547.16	-0.75
110	SLU 4	-5	-8	1482	0.05	-545.67	-3.71
110	SLU 5	-5	-12	1479	0.08	-544.67	-5.69
110	SLU 6	-5	-2	1487	0	-547.16	-0.75
110	SLU 7	-5	-8	1482	0.05	-545.67	-3.71
110	SLU 8	-5	-2	1487	0	-547.16	-0.75
110	SLU 9	-5	-8	1482	0.05	-545.67	-3.71
110	SLU 10	-5	-13	1744	0.12	-639.09	-6.26
110	SLU 11	-5	-3	1752	0.04	-641.58	-1.32
110	SLU 12	-5	-9	1747	0.09	-640.08	-4.28
110	SLU 13	-5	-13	1744	0.12	-639.09	-6.26
110	SLU 14	-5	-3	1752	0.04	-641.58	-1.32
110	SLU 15	-5	-9	1747	0.09	-640.08	-4.28
110	SLU 16	-5	-3	1752	0.04	-641.58	-1.32
110	SLU 17	-5	-9	1747	0.09	-640.08	-4.28
110	SLU 18	-5	-3	1865	0.05	-682.04	-1.57
110	SLU 19	-6	-10	1861	0.1	-680.55	-4.53
110	SLU 20	-5	-3	1865	0.05	-682.04	-1.57
110	SLU 21	-6	-10	1861	0.1	-680.55	-4.53
110	SLU 22	-5	-2	1677	0.03	-615.19	-1.04
110	SLU 23	-5	-13	1670	0.11	-612.7	-5.98
110	SLU 24	-5	-2	1677	0.03	-615.19	-1.04
110	SLU 25	-5	-9	1673	0.08	-613.7	-4



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
110	SLU 26	-5	-13	1670		0.11	-612.7	-5.98
110	SLU 27	-5	-2	1677		0.03	-615.19	-1.04
110	SLU 28	-5	-9	1673		0.08	-613.7	-4
110	SLU 29	-5	-2	1677		0.03	-615.19	-1.04
110	SLU 30	-5	-9	1673		0.08	-613.7	-4
110	SLU 31	-6	-14	1935		0.16	-707.12	-6.55
110	SLU 32	-5	-4	1942		0.07	-709.6	-1.61
110	SLU 33	-6	-10	1938		0.12	-708.11	-4.57
110	SLU 34	-6	-14	1935		0.16	-707.12	-6.55
110	SLU 35	-5	-4	1942		0.07	-709.6	-1.61
110	SLU 36	-6	-10	1938		0.12	-708.11	-4.57
110	SLU 37	-5	-4	1942		0.07	-709.6	-1.61
110	SLU 38	-6	-10	1938		0.12	-708.11	-4.57
110	SLU 39	-6	-4	2056		0.09	-750.07	-1.86
110	SLU 40	-6	-10	2051		0.14	-748.57	-4.82
110	SLU 41	-6	-4	2056		0.09	-750.07	-1.86
110	SLU 42	-6	-10	2051		0.14	-748.57	-4.82
110	SLU 43	-6	-2	1867		-0.02	-687.98	-0.88
110	SLU 44	-7	-12	1860		0.06	-685.5	-5.82
110	SLU 45	-6	-2	1867		-0.02	-687.98	-0.88
110	SLU 46	-6	-8	1863		0.03	-686.49	-3.84
110	SLU 47	-7	-12	1860		0.06	-685.5	-5.82
110	SLU 48	-6	-2	1867		-0.02	-687.98	-0.88
110	SLU 49	-6	-8	1863		0.03	-686.49	-3.84
110	SLU 50	-6	-2	1867		-0.02	-687.98	-0.88
110	SLU 51	-6	-8	1863		0.03	-686.49	-3.84
110	SLU 52	-7	-14	2125		0.11	-779.91	-6.39
110	SLU 53	-7	-3	2132		0.02	-782.4	-1.45
110	SLU 54	-7	-10	2128		0.07	-780.91	-4.41
110	SLU 55	-7	-14	2125		0.11	-779.91	-6.39
110	SLU 56	-7	-3	2132		0.02	-782.4	-1.45
110	SLU 57	-7	-10	2128		0.07	-780.91	-4.41
110	SLU 58	-7	-3	2132		0.02	-782.4	-1.45
110	SLU 59	-7	-10	2128		0.07	-780.91	-4.41
110	SLU 60	-7	-4	2246		0.04	-822.86	-1.69
110	SLU 61	-7	-10	2241		0.09	-821.37	-4.66
110	SLU 62	-7	-4	2246		0.04	-822.86	-1.69
110	SLU 63	-7	-10	2241		0.09	-821.37	-4.66
110	SLU 64	-7	-3	2058		0.02	-756.01	-1.17
110	SLU 65	-7	-13	2050		0.1	-753.52	-6.1
110	SLU 66	-7	-3	2058		0.02	-756.01	-1.17
110	SLU 67	-7	-9	2053		0.07	-754.52	-4.13
110	SLU 68	-7	-13	2050		0.1	-753.52	-6.1
110	SLU 69	-7	-3	2058		0.02	-756.01	-1.17
110	SLU 70	-7	-9	2053		0.07	-754.52	-4.13
110	SLU 71	-7	-3	2058		0.02	-756.01	-1.17
110	SLU 72	-7	-9	2053		0.07	-754.52	-4.13
110	SLU 73	-7	-14	2315		0.14	-847.94	-6.67
110	SLU 74	-7	-4	2323		0.06	-850.43	-1.74
110	SLU 75	-7	-10	2318		0.11	-848.94	-4.7
110	SLU 76	-7	-14	2315		0.14	-847.94	-6.67
110	SLU 77	-7	-4	2323		0.06	-850.43	-1.74
110	SLU 78	-7	-10	2318		0.11	-848.94	-4.7
110	SLU 79	-7	-4	2323		0.06	-850.43	-1.74
110	SLU 80	-7	-10	2318		0.11	-848.94	-4.7
110	SLU 81	-7	-4	2437		0.08	-890.89	-1.98
110	SLU 82	-7	-11	2432		0.13	-889.4	-4.94
110	SLU 83	-7	-4	2437		0.08	-890.89	-1.98
110	SLU 84	-7	-11	2432		0.13	-889.4	-4.94
110	SLE RA 1	-5	-2	1541		0.01	-566.6	-0.83
110	SLE RA 2	-5	-9	1536		0.06	-564.94	-4.13
110	SLE RA 3	-5	-2	1541		0.01	-566.6	-0.83
110	SLE RA 4	-5	-6	1538		0.04	-565.6	-2.81
110	SLE RA 5	-5	-9	1536		0.06	-564.94	-4.13
110	SLE RA 6	-5	-2	1541		0.01	-566.6	-0.83
110	SLE RA 7	-5	-6	1538		0.04	-565.6	-2.81
110	SLE RA 8	-5	-2	1541		0.01	-566.6	-0.83
110	SLE RA 9	-5	-6	1538		0.04	-565.6	-2.81
110	SLE RA 10	-5	-10	1713		0.09	-627.88	-4.51
110	SLE RA 11	-5	-3	1718		0.03	-629.54	-1.21
110	SLE RA 12	-5	-7	1715		0.07	-628.55	-3.19
110	SLE RA 13	-5	-10	1713		0.09	-627.88	-4.51
110	SLE RA 14	-5	-3	1718		0.03	-629.54	-1.21
110	SLE RA 15	-5	-7	1715		0.07	-628.55	-3.19
110	SLE RA 16	-5	-3	1718		0.03	-629.54	-1.21
110	SLE RA 17	-5	-7	1715		0.07	-628.55	-3.19
110	SLE RA 18	-5	-3	1794		0.05	-656.52	-1.38
110	SLE RA 19	-5	-7	1790		0.08	-655.52	-3.35
110	SLE RA 20	-5	-3	1794		0.05	-656.52	-1.38
110	SLE RA 21	-5	-7	1790		0.08	-655.52	-3.35
110	SLE FR 1	-5	-2	1541		0.01	-566.6	-0.83
110	SLE FR 2	-5	-3	1540		0.02	-566.27	-1.49
110	SLE FR 3	-5	-2	1541		0.01	-566.6	-0.83
110	SLE FR 4	-5	-4	1616		0.03	-593.24	-1.66
110	SLE FR 5	-5	-2	1617		0.02	-593.57	-1
110	SLE FR 6	-5	-3	1667		0.03	-611.56	-1.11
110	SLE QP 1	-5	-2	1541		0.01	-566.6	-0.83
110	SLE QP 2	-5	-2	1617		0.02	-593.57	-1
110	SLD 1	121	56	1839		-0.36	-663.39	26.82
110	SLD 2	138	21	1833		-0.32	-661.65	10.1
110	SLD 3	125	-45	1754		0.22	-637.46	-21.41



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
110	SLD 4	142	-81	1748	0.26	-635.72	-38.13
110	SLD 5	21	182	1814	-0.99	-654.48	86.68
110	SLD 6	39	146	1808	-0.94	-652.68	69.31
110	SLD 7	33	-156	1532	0.94	-568.06	-74.1
110	SLD 8	51	-193	1525	0.99	-566.25	-91.47
110	SLD 9	-61	188	1708	-0.95	-620.89	89.47
110	SLD 10	-43	151	1702	-0.9	-619.09	72.1
110	SLD 11	-49	-150	1426	0.98	-534.47	-71.31
110	SLD 12	-31	-187	1419	1.03	-532.66	-88.67
110	SLD 13	-152	76	1486	-0.23	-551.42	36.13
110	SLD 14	-135	41	1480	-0.18	-549.69	19.42
110	SLD 15	-149	-25	1401	0.35	-525.49	-12.1
110	SLD 16	-131	-61	1395	0.4	-523.76	-28.82
110	SLV 1	282	134	2125	-0.87	-753.44	63.88
110	SLV 2	321	53	2111	-0.76	-749.46	25.55
110	SLV 3	290	-103	1927	0.49	-692.89	-48.85
110	SLV 4	330	-184	1913	0.59	-688.91	-87.18
110	SLV 5	54	429	2075	-2.34	-734.87	203.87
110	SLV 6	95	344	2060	-2.23	-730.67	163.5
110	SLV 7	81	-362	1415	2.17	-533.03	-171.88
110	SLV 8	122	-447	1400	2.28	-528.84	-212.26
110	SLV 9	-133	443	1834	-2.24	-658.3	210.26
110	SLV 10	-91	357	1819	-2.13	-654.11	169.89
110	SLV 11	-106	-348	1174	2.26	-456.47	-165.49
110	SLV 12	-64	-434	1159	2.37	-452.28	-205.86
110	SLV 13	-340	179	1321	-0.55	-498.24	85.18
110	SLV 14	-301	98	1307	-0.45	-494.26	46.85
110	SLV 15	-332	-58	1123	0.8	-437.69	-27.54
110	SLV 16	-292	-139	1109	0.9	-433.71	-65.88
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
113	SLU 1	-3	-23	3311	-1.15	2.45	0.97
113	SLU 2	-3	-39	3292	-1	2.51	0.98
113	SLU 3	-3	-23	3311	-1.15	2.45	0.97
113	SLU 4	-3	-33	3300	-1.06	2.49	0.97
113	SLU 5	-3	-39	3292	-1	2.51	0.98
113	SLU 6	-3	-23	3311	-1.15	2.45	0.97
113	SLU 7	-3	-33	3300	-1.06	2.49	0.97
113	SLU 8	-3	-23	3311	-1.15	2.45	0.97
113	SLU 9	-3	-33	3300	-1.06	2.49	0.97
113	SLU 10	-3	-41	3948	-1.02	2.46	0.88
113	SLU 11	-3	-25	3967	-1.17	2.39	0.87
113	SLU 12	-3	-35	3955	-1.08	2.43	0.88
113	SLU 13	-3	-41	3948	-1.02	2.46	0.88
113	SLU 14	-3	-25	3967	-1.17	2.39	0.87
113	SLU 15	-3	-35	3955	-1.08	2.43	0.88
113	SLU 16	-3	-25	3967	-1.17	2.39	0.87
113	SLU 17	-3	-35	3955	-1.08	2.43	0.88
113	SLU 18	-3	-26	4248	-1.17	2.37	0.83
113	SLU 19	-3	-35	4236	-1.09	2.41	0.84
113	SLU 20	-3	-26	4248	-1.17	2.37	0.83
113	SLU 21	-3	-35	4236	-1.09	2.41	0.84
113	SLU 22	-3	-25	3788	-1.17	2.35	0.93
113	SLU 23	-3	-41	3768	-1.02	2.41	0.94
113	SLU 24	-3	-25	3788	-1.17	2.35	0.93
113	SLU 25	-3	-35	3776	-1.08	2.39	0.94
113	SLU 26	-3	-41	3768	-1.02	2.41	0.94
113	SLU 27	-3	-25	3788	-1.17	2.35	0.93
113	SLU 28	-3	-35	3776	-1.08	2.39	0.94
113	SLU 29	-3	-25	3788	-1.17	2.35	0.93
113	SLU 30	-3	-35	3776	-1.08	2.39	0.94
113	SLU 31	-2	-43	4424	-1.04	2.36	0.84
113	SLU 32	-3	-27	4443	-1.18	2.3	0.84
113	SLU 33	-3	-36	4432	-1.1	2.34	0.84
113	SLU 34	-2	-43	4424	-1.04	2.36	0.84
113	SLU 35	-3	-27	4443	-1.18	2.3	0.84
113	SLU 36	-3	-36	4432	-1.1	2.34	0.84
113	SLU 37	-3	-27	4443	-1.18	2.3	0.84
113	SLU 38	-3	-36	4432	-1.1	2.34	0.84
113	SLU 39	-2	-27	4724	-1.19	2.27	0.8
113	SLU 40	-2	-37	4713	-1.1	2.31	0.8
113	SLU 41	-2	-27	4724	-1.19	2.27	0.8
113	SLU 42	-2	-37	4713	-1.1	2.31	0.8
113	SLU 43	-4	-29	4141	-1.49	3.22	1.27
113	SLU 44	-4	-46	4122	-1.34	3.28	1.28
113	SLU 45	-4	-29	4141	-1.49	3.22	1.27
113	SLU 46	-4	-39	4130	-1.4	3.25	1.28
113	SLU 47	-4	-46	4122	-1.34	3.28	1.28
113	SLU 48	-4	-29	4141	-1.49	3.22	1.27
113	SLU 49	-4	-39	4130	-1.4	3.25	1.28
113	SLU 50	-4	-29	4141	-1.49	3.22	1.27
113	SLU 51	-4	-39	4130	-1.4	3.25	1.28
113	SLU 52	-4	-48	4778	-1.36	3.23	1.18
113	SLU 53	-4	-31	4797	-1.5	3.16	1.18
113	SLU 54	-4	-41	4785	-1.42	3.2	1.18
113	SLU 55	-4	-48	4778	-1.36	3.23	1.18
113	SLU 56	-4	-31	4797	-1.5	3.16	1.18
113	SLU 57	-4	-41	4785	-1.42	3.2	1.18
113	SLU 58	-4	-31	4797	-1.5	3.16	1.18



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
113	SLU 59	-4	-41	4785	-1.42	3.2	1.18
113	SLU 60	-4	-32	5078	-1.51	3.14	1.14
113	SLU 61	-4	-42	5066	-1.42	3.18	1.14
113	SLU 62	-4	-32	5078	-1.51	3.14	1.14
113	SLU 63	-4	-42	5066	-1.42	3.18	1.14
113	SLU 64	-4	-31	4618	-1.5	3.12	1.24
113	SLU 65	-4	-48	4598	-1.36	3.18	1.24
113	SLU 66	-4	-31	4618	-1.5	3.12	1.24
113	SLU 67	-4	-41	4606	-1.42	3.16	1.24
113	SLU 68	-4	-48	4598	-1.36	3.18	1.24
113	SLU 69	-4	-31	4618	-1.5	3.12	1.24
113	SLU 70	-4	-41	4606	-1.42	3.16	1.24
113	SLU 71	-4	-31	4618	-1.5	3.12	1.24
113	SLU 72	-4	-41	4606	-1.42	3.16	1.24
113	SLU 73	-4	-49	5254	-1.38	3.13	1.15
113	SLU 74	-4	-33	5273	-1.52	3.06	1.14
113	SLU 75	-4	-43	5262	-1.43	3.1	1.14
113	SLU 76	-4	-49	5254	-1.38	3.13	1.15
113	SLU 77	-4	-33	5273	-1.52	3.06	1.14
113	SLU 78	-4	-43	5262	-1.43	3.1	1.14
113	SLU 79	-4	-33	5273	-1.52	3.06	1.14
113	SLU 80	-4	-43	5262	-1.43	3.1	1.14
113	SLU 81	-3	-34	5554	-1.53	3.04	1.1
113	SLU 82	-3	-44	5543	-1.44	3.08	1.1
113	SLU 83	-3	-34	5554	-1.53	3.04	1.1
113	SLU 84	-3	-44	5543	-1.44	3.08	1.1
113	SLE RA 1	-3	-24	3447	-1.15	2.42	0.96
113	SLE RA 2	-3	-35	3435	-1.05	2.46	0.96
113	SLE RA 3	-3	-24	3447	-1.15	2.42	0.96
113	SLE RA 4	-3	-30	3440	-1.09	2.45	0.96
113	SLE RA 5	-3	-35	3435	-1.05	2.46	0.96
113	SLE RA 6	-3	-24	3447	-1.15	2.42	0.96
113	SLE RA 7	-3	-30	3440	-1.09	2.45	0.96
113	SLE RA 8	-3	-24	3447	-1.15	2.42	0.96
113	SLE RA 9	-3	-30	3440	-1.09	2.45	0.96
113	SLE RA 10	-3	-36	3872	-1.07	2.43	0.9
113	SLE RA 11	-3	-25	3884	-1.17	2.38	0.9
113	SLE RA 12	-3	-31	3877	-1.11	2.41	0.9
113	SLE RA 13	-3	-36	3872	-1.07	2.43	0.9
113	SLE RA 14	-3	-25	3884	-1.17	2.38	0.9
113	SLE RA 15	-3	-31	3877	-1.11	2.41	0.9
113	SLE RA 16	-3	-25	3884	-1.17	2.38	0.9
113	SLE RA 17	-3	-31	3877	-1.11	2.41	0.9
113	SLE RA 18	-3	-25	4072	-1.17	2.37	0.87
113	SLE RA 19	-3	-32	4064	-1.11	2.4	0.87
113	SLE RA 20	-3	-25	4072	-1.17	2.37	0.87
113	SLE RA 21	-3	-32	4064	-1.11	2.4	0.87
113	SLE FR 1	-3	-24	3447	-1.15	2.42	0.96
113	SLE FR 2	-3	-26	3445	-1.13	2.43	0.96
113	SLE FR 3	-3	-24	3447	-1.15	2.42	0.96
113	SLE FR 4	-3	-26	3632	-1.14	2.41	0.93
113	SLE FR 5	-3	-24	3635	-1.16	2.4	0.93
113	SLE FR 6	-3	-24	3760	-1.16	2.39	0.91
113	SLE QP 1	-3	-24	3447	-1.15	2.42	0.96
113	SLE QP 2	-3	-24	3635	-1.16	2.4	0.93
113	SLD 1	261	50	3711	-1.78	11.03	1.17
113	SLD 2	297	51	3710	-1.78	10.89	2.32
113	SLD 3	252	-121	3489	-0.73	10.54	0.96
113	SLD 4	289	-120	3489	-0.73	10.4	2.12
113	SLD 5	76	258	3994	-2.94	5.79	0.88
113	SLD 6	114	259	3993	-2.94	5.64	2.09
113	SLD 7	47	-314	3256	0.56	4.15	0.2
113	SLD 8	84	-312	3255	0.57	4	1.41
113	SLD 9	-90	264	4014	-2.88	0.81	0.46
113	SLD 10	-53	265	4014	-2.88	0.66	1.66
113	SLD 11	-120	-307	3276	0.62	-0.83	-0.22
113	SLD 12	-82	-306	3276	0.63	-0.98	0.98
113	SLD 13	-295	72	3781	-1.59	-5.59	-0.26
113	SLD 14	-258	73	3780	-1.58	-5.73	0.9
113	SLD 15	-303	-99	3559	-0.54	-6.08	-0.46
113	SLD 16	-267	-98	3559	-0.53	-6.22	0.7
113	SLV 1	598	149	3811	-2.62	22.12	1.47
113	SLV 2	682	152	3809	-2.61	21.79	4.12
113	SLV 3	578	-251	3294	-0.16	20.89	0.99
113	SLV 4	661	-248	3293	-0.15	20.56	3.64
113	SLV 5	178	634	4472	-5.32	10.31	0.82
113	SLV 6	265	637	4470	-5.31	9.97	3.62
113	SLV 7	108	-701	2749	2.86	6.2	-0.78
113	SLV 8	196	-698	2748	2.87	5.86	2.01
113	SLV 9	-202	649	4522	-5.19	-1.05	-0.15
113	SLV 10	-114	652	4520	-5.18	-1.39	2.64
113	SLV 11	-271	-685	2799	3	-5.16	-1.75
113	SLV 12	-184	-682	2797	3.01	-5.5	1.04
113	SLV 13	-667	200	3977	-2.17	-15.75	-1.78
113	SLV 14	-584	203	3975	-2.16	-16.08	0.88
113	SLV 15	-688	-200	3460	0.29	-16.98	-2.26
113	SLV 16	-604	-198	3458	0.3	-17.31	0.4
113	CRTFP Ux+	0	0	0	0	0	0
113	CRTFP Ux-	0	0	0	0	0	0
113	CRTFP Uy+	0	0	0	0	0	0
113	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
116	SLU 1	11	10	1796	-0.42	181.79	-2.41
116	SLU 2	11	-2	1792	-0.34	180.67	0.44
116	SLU 3	11	10	1796	-0.42	181.79	-2.41
116	SLU 4	11	3	1793	-0.37	181.12	-0.7
116	SLU 5	11	-2	1792	-0.34	180.67	0.44
116	SLU 6	11	10	1796	-0.42	181.79	-2.41
116	SLU 7	11	3	1793	-0.37	181.12	-0.7
116	SLU 8	11	10	1796	-0.42	181.79	-2.41
116	SLU 9	11	3	1793	-0.37	181.12	-0.7
116	SLU 10	13	-2	2098	-0.34	210	0.61
116	SLU 11	12	9	2103	-0.42	211.12	-2.24
116	SLU 12	12	2	2100	-0.37	210.45	-0.53
116	SLU 13	13	-2	2098	-0.34	210	0.61
116	SLU 14	12	9	2103	-0.42	211.12	-2.24
116	SLU 15	12	2	2100	-0.37	210.45	-0.53
116	SLU 16	12	9	2103	-0.42	211.12	-2.24
116	SLU 17	12	2	2100	-0.37	210.45	-0.53
116	SLU 18	13	9	2234	-0.42	223.69	-2.17
116	SLU 19	13	2	2232	-0.37	223.02	-0.46
116	SLU 20	13	9	2234	-0.42	223.69	-2.17
116	SLU 21	13	2	2232	-0.37	223.02	-0.46
116	SLU 22	12	10	2027	-0.42	203.39	-2.35
116	SLU 23	12	-2	2022	-0.34	202.26	0.5
116	SLU 24	12	10	2027	-0.42	203.39	-2.35
116	SLU 25	12	3	2024	-0.37	202.71	-0.64
116	SLU 26	12	-2	2022	-0.34	202.26	0.5
116	SLU 27	12	10	2027	-0.42	203.39	-2.35
116	SLU 28	12	3	2024	-0.37	202.71	-0.64
116	SLU 29	12	10	2027	-0.42	203.39	-2.35
116	SLU 30	12	3	2024	-0.37	202.71	-0.64
116	SLU 31	14	-3	2329	-0.34	231.59	0.67
116	SLU 32	13	9	2334	-0.42	232.72	-2.18
116	SLU 33	13	2	2331	-0.37	232.04	-0.47
116	SLU 34	14	-3	2329	-0.34	231.59	0.67
116	SLU 35	13	9	2334	-0.42	232.72	-2.18
116	SLU 36	13	2	2331	-0.37	232.04	-0.47
116	SLU 37	13	9	2334	-0.42	232.72	-2.18
116	SLU 38	13	2	2331	-0.37	232.04	-0.47
116	SLU 39	14	8	2465	-0.42	245.29	-2.11
116	SLU 40	14	2	2462	-0.37	244.61	-0.4
116	SLU 41	14	8	2465	-0.42	245.29	-2.11
116	SLU 42	14	2	2462	-0.37	244.61	-0.4
116	SLU 43	14	13	2256	-0.55	228.93	-3.16
116	SLU 44	14	2	2251	-0.46	227.8	-0.31
116	SLU 45	14	13	2256	-0.55	228.93	-3.16
116	SLU 46	14	6	2253	-0.5	228.25	-1.45
116	SLU 47	14	2	2251	-0.46	227.8	-0.31
116	SLU 48	14	13	2256	-0.55	228.93	-3.16
116	SLU 49	14	6	2253	-0.5	228.25	-1.45
116	SLU 50	14	13	2256	-0.55	228.93	-3.16
116	SLU 51	14	6	2253	-0.5	228.25	-1.45
116	SLU 52	15	1	2558	-0.46	257.13	-0.14
116	SLU 53	15	12	2562	-0.55	258.26	-2.99
116	SLU 54	15	5	2560	-0.5	257.58	-1.28
116	SLU 55	15	1	2558	-0.46	257.13	-0.14
116	SLU 56	15	12	2562	-0.55	258.26	-2.99
116	SLU 57	15	5	2560	-0.5	257.58	-1.28
116	SLU 58	15	12	2562	-0.55	258.26	-2.99
116	SLU 59	15	5	2560	-0.5	257.58	-1.28
116	SLU 60	16	12	2694	-0.55	270.83	-2.91
116	SLU 61	16	5	2691	-0.5	270.15	-1.2
116	SLU 62	16	12	2694	-0.55	270.83	-2.91
116	SLU 63	16	5	2691	-0.5	270.15	-1.2
116	SLU 64	15	13	2487	-0.55	250.52	-3.09
116	SLU 65	15	1	2482	-0.46	249.39	-0.24
116	SLU 66	15	13	2487	-0.55	250.52	-3.09
116	SLU 67	15	6	2484	-0.5	249.84	-1.38
116	SLU 68	15	1	2482	-0.46	249.39	-0.24
116	SLU 69	15	13	2487	-0.55	250.52	-3.09
116	SLU 70	15	6	2484	-0.5	249.84	-1.38
116	SLU 71	15	13	2487	-0.55	250.52	-3.09
116	SLU 72	15	6	2484	-0.5	249.84	-1.38
116	SLU 73	16	0	2789	-0.46	278.72	-0.07
116	SLU 74	16	12	2793	-0.55	279.85	-2.92
116	SLU 75	16	5	2791	-0.5	279.18	-1.21
116	SLU 76	16	0	2789	-0.46	278.72	-0.07
116	SLU 77	16	12	2793	-0.55	279.85	-2.92
116	SLU 78	16	5	2791	-0.5	279.18	-1.21
116	SLU 79	16	12	2793	-0.55	279.85	-2.92
116	SLU 80	16	5	2791	-0.5	279.18	-1.21
116	SLU 81	17	12	2925	-0.55	292.42	-2.85
116	SLU 82	17	5	2922	-0.5	291.75	-1.14
116	SLU 83	17	12	2925	-0.55	292.42	-2.85
116	SLU 84	17	5	2922	-0.5	291.75	-1.14
116	SLE RA 1	11	10	1862	-0.42	187.96	-2.39
116	SLE RA 2	11	2	1859	-0.37	187.21	-0.49
116	SLE RA 3	11	10	1862	-0.42	187.96	-2.39
116	SLE RA 4	11	5	1860	-0.39	187.51	-1.25
116	SLE RA 5	11	2	1859	-0.37	187.21	-0.49
116	SLE RA 6	11	10	1862	-0.42	187.96	-2.39
116	SLE RA 7	11	5	1860	-0.39	187.51	-1.25



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
116	SLE RA 8	11	10	1862	-0.42	187.96	-2.39
116	SLE RA 9	11	5	1860	-0.39	187.51	-1.25
116	SLE RA 10	12	2	2064	-0.37	206.77	-0.38
116	SLE RA 11	12	9	2066	-0.42	207.52	-2.28
116	SLE RA 12	12	5	2065	-0.39	207.07	-1.14
116	SLE RA 13	12	2	2064	-0.37	206.77	-0.38
116	SLE RA 14	12	9	2066	-0.42	207.52	-2.28
116	SLE RA 15	12	5	2065	-0.39	207.07	-1.14
116	SLE RA 16	12	9	2066	-0.42	207.52	-2.28
116	SLE RA 17	12	5	2065	-0.39	207.07	-1.14
116	SLE RA 18	12	9	2154	-0.42	215.9	-2.23
116	SLE RA 19	13	5	2152	-0.39	215.45	-1.09
116	SLE RA 20	12	9	2154	-0.42	215.9	-2.23
116	SLE RA 21	13	5	2152	-0.39	215.45	-1.09
116	SLE FR 1	11	10	1862	-0.42	187.96	-2.39
116	SLE FR 2	11	8	1861	-0.41	187.81	-2.01
116	SLE FR 3	11	10	1862	-0.42	187.96	-2.39
116	SLE FR 4	12	8	1949	-0.41	196.19	-1.96
116	SLE FR 5	12	10	1950	-0.42	196.34	-2.35
116	SLE FR 6	12	9	2008	-0.42	201.93	-2.31
116	SLE QP 1	11	10	1862	-0.42	187.96	-2.39
116	SLE QP 2	12	10	1950	-0.42	196.34	-2.35
116	SLD 1	144	57	1792	-0.7	176.68	-14.25
116	SLD 2	160	96	1797	-0.75	178.35	-23.91
116	SLD 3	149	-60	1692	0.05	166.89	15.02
116	SLD 4	165	-21	1698	-0.01	168.55	5.37
116	SLD 5	38	187	2051	-1.62	204.69	-46.75
116	SLD 6	55	227	2057	-1.67	206.41	-56.78
116	SLD 7	54	-203	1719	0.87	172.04	50.83
116	SLD 8	70	-163	1725	0.81	173.77	40.8
116	SLD 9	-47	182	2174	-1.66	218.92	-45.49
116	SLD 10	-31	222	2180	-1.71	220.65	-55.52
116	SLD 11	-32	-208	1842	0.83	186.27	52.09
116	SLD 12	-15	-168	1848	0.77	188	42.06
116	SLD 13	-141	40	2202	-0.84	224.13	-10.06
116	SLD 14	-126	79	2207	-0.89	225.8	-19.71
116	SLD 15	-137	-77	2102	-0.09	214.34	19.22
116	SLD 16	-121	-38	2108	-0.15	216	9.56
116	SLV 1	313	121	1592	-1.07	150.92	-30.3
116	SLV 2	349	211	1605	-1.19	154.73	-52.45
116	SLV 3	324	-152	1359	0.67	128.08	38.11
116	SLV 4	360	-63	1373	0.55	131.89	15.97
116	SLV 5	72	424	2190	-3.21	215.92	-106.15
116	SLV 6	110	518	2204	-3.34	219.94	-129.48
116	SLV 7	108	-487	1415	2.59	139.79	121.89
116	SLV 8	146	-393	1429	2.46	143.8	98.57
116	SLV 9	-123	412	2470	-3.3	248.88	-103.26
116	SLV 10	-85	507	2484	-3.43	252.9	-126.58
116	SLV 11	-87	-499	1695	2.49	172.75	124.79
116	SLV 12	-49	-405	1709	2.36	176.77	101.46
116	SLV 13	-337	82	2527	-1.39	260.79	-20.66
116	SLV 14	-301	171	2540	-1.51	264.61	-42.8
116	SLV 15	-326	-192	2294	0.35	237.95	47.76
116	SLV 16	-290	-102	2307	0.23	241.77	25.61
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
117	SLU 1	-8	-2	1506	1.16	-562.19	-0.66
117	SLU 2	-8	-12	1501	1.23	-560.85	-5.62
117	SLU 3	-8	-2	1506	1.16	-562.19	-0.66
117	SLU 4	-8	-8	1503	1.2	-561.38	-3.64
117	SLU 5	-8	-12	1501	1.23	-560.85	-5.62
117	SLU 6	-8	-2	1506	1.16	-562.19	-0.66
117	SLU 7	-8	-8	1503	1.2	-561.38	-3.64
117	SLU 8	-8	-2	1506	1.16	-562.19	-0.66
117	SLU 9	-8	-8	1503	1.2	-561.38	-3.64
117	SLU 10	-8	-13	1771	1.52	-659.21	-6.16
117	SLU 11	-8	-3	1776	1.45	-660.55	-1.2
117	SLU 12	-8	-9	1773	1.49	-659.75	-4.17
117	SLU 13	-8	-13	1771	1.52	-659.21	-6.16
117	SLU 14	-8	-3	1776	1.45	-660.55	-1.2
117	SLU 15	-8	-9	1773	1.49	-659.75	-4.17
117	SLU 16	-8	-3	1776	1.45	-660.55	-1.2
117	SLU 17	-8	-9	1773	1.49	-659.75	-4.17
117	SLU 18	-8	-3	1892	1.57	-702.71	-1.43
117	SLU 19	-8	-9	1889	1.62	-701.9	-4.4
117	SLU 20	-8	-3	1892	1.57	-702.71	-1.43
117	SLU 21	-8	-9	1889	1.62	-701.9	-4.4
117	SLU 22	-8	-2	1701	1.38	-633.15	-0.93
117	SLU 23	-8	-13	1696	1.45	-631.82	-5.88
117	SLU 24	-8	-2	1701	1.38	-633.15	-0.93
117	SLU 25	-8	-8	1698	1.42	-632.35	-3.9
117	SLU 26	-8	-13	1696	1.45	-631.82	-5.88
117	SLU 27	-8	-2	1701	1.38	-633.15	-0.93
117	SLU 28	-8	-8	1698	1.42	-632.35	-3.9
117	SLU 29	-8	-2	1701	1.38	-633.15	-0.93
117	SLU 30	-8	-8	1698	1.42	-632.35	-3.9
117	SLU 31	-8	-14	1966	1.73	-730.18	-6.42
117	SLU 32	-8	-3	1971	1.66	-731.52	-1.46
117	SLU 33	-8	-9	1968	1.71	-730.72	-4.43



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
117	SLU 34	-8	-14	1966	1.73	-730.18	-6.42
117	SLU 35	-8	-3	1971	1.66	-731.52	-1.46
117	SLU 36	-8	-9	1968	1.71	-730.72	-4.43
117	SLU 37	-8	-3	1971	1.66	-731.52	-1.46
117	SLU 38	-8	-9	1968	1.71	-730.72	-4.43
117	SLU 39	-8	-4	2087	1.79	-773.68	-1.69
117	SLU 40	-8	-10	2084	1.83	-772.87	-4.66
117	SLU 41	-8	-4	2087	1.79	-773.68	-1.69
117	SLU 42	-8	-10	2084	1.83	-772.87	-4.66
117	SLU 43	-10	-2	1891	1.44	-706.51	-0.77
117	SLU 44	-10	-12	1886	1.51	-705.17	-5.73
117	SLU 45	-10	-2	1891	1.44	-706.51	-0.77
117	SLU 46	-10	-8	1888	1.48	-705.71	-3.75
117	SLU 47	-10	-12	1886	1.51	-705.17	-5.73
117	SLU 48	-10	-2	1891	1.44	-706.51	-0.77
117	SLU 49	-10	-8	1888	1.48	-705.71	-3.75
117	SLU 50	-10	-2	1891	1.44	-706.51	-0.77
117	SLU 51	-10	-8	1888	1.48	-705.71	-3.75
117	SLU 52	-10	-13	2156	1.8	-803.54	-6.27
117	SLU 53	-10	-3	2161	1.73	-804.88	-1.31
117	SLU 54	-10	-9	2158	1.77	-804.07	-4.28
117	SLU 55	-10	-13	2156	1.8	-803.54	-6.27
117	SLU 56	-10	-3	2161	1.73	-804.88	-1.31
117	SLU 57	-10	-9	2158	1.77	-804.07	-4.28
117	SLU 58	-10	-3	2161	1.73	-804.88	-1.31
117	SLU 59	-10	-9	2158	1.77	-804.07	-4.28
117	SLU 60	-10	-3	2277	1.85	-847.03	-1.54
117	SLU 61	-10	-10	2274	1.89	-846.23	-4.51
117	SLU 62	-10	-3	2277	1.85	-847.03	-1.54
117	SLU 63	-10	-10	2274	1.89	-846.23	-4.51
117	SLU 64	-10	-2	2086	1.65	-777.48	-1.04
117	SLU 65	-10	-13	2080	1.72	-776.14	-5.99
117	SLU 66	-10	-2	2086	1.65	-777.48	-1.04
117	SLU 67	-10	-9	2083	1.69	-776.67	-4.01
117	SLU 68	-10	-13	2080	1.72	-776.14	-5.99
117	SLU 69	-10	-2	2086	1.65	-777.48	-1.04
117	SLU 70	-10	-9	2083	1.69	-776.67	-4.01
117	SLU 71	-10	-2	2086	1.65	-777.48	-1.04
117	SLU 72	-10	-9	2083	1.69	-776.67	-4.01
117	SLU 73	-10	-14	2351	2.01	-874.5	-6.53
117	SLU 74	-10	-4	2356	1.94	-875.84	-1.57
117	SLU 75	-10	-10	2353	1.98	-875.04	-4.54
117	SLU 76	-10	-14	2351	2.01	-874.5	-6.53
117	SLU 77	-10	-4	2356	1.94	-875.84	-1.57
117	SLU 78	-10	-10	2353	1.98	-875.04	-4.54
117	SLU 79	-10	-4	2356	1.94	-875.84	-1.57
117	SLU 80	-10	-10	2353	1.98	-875.04	-4.54
117	SLU 81	-11	-4	2472	2.06	-918	-1.8
117	SLU 82	-11	-10	2469	2.11	-917.2	-4.77
117	SLU 83	-11	-4	2472	2.06	-918	-1.8
117	SLU 84	-11	-10	2469	2.11	-917.2	-4.77
117	SLE RA 1	-8	-2	1561	1.22	-582.46	-0.74
117	SLE RA 2	-8	-9	1558	1.27	-581.57	-4.04
117	SLE RA 3	-8	-2	1561	1.22	-582.46	-0.74
117	SLE RA 4	-8	-6	1559	1.25	-581.93	-2.72
117	SLE RA 5	-8	-9	1558	1.27	-581.57	-4.04
117	SLE RA 6	-8	-2	1561	1.22	-582.46	-0.74
117	SLE RA 7	-8	-6	1559	1.25	-581.93	-2.72
117	SLE RA 8	-8	-2	1561	1.22	-582.46	-0.74
117	SLE RA 9	-8	-6	1559	1.25	-581.93	-2.72
117	SLE RA 10	-8	-9	1738	1.46	-647.15	-4.4
117	SLE RA 11	-8	-2	1742	1.42	-648.04	-1.1
117	SLE RA 12	-8	-7	1740	1.44	-647.5	-3.08
117	SLE RA 13	-8	-9	1738	1.46	-647.15	-4.4
117	SLE RA 14	-8	-2	1742	1.42	-648.04	-1.1
117	SLE RA 15	-8	-7	1740	1.44	-647.5	-3.08
117	SLE RA 16	-8	-2	1742	1.42	-648.04	-1.1
117	SLE RA 17	-8	-7	1740	1.44	-647.5	-3.08
117	SLE RA 18	-8	-3	1819	1.5	-676.14	-1.25
117	SLE RA 19	-8	-7	1817	1.53	-675.61	-3.23
117	SLE RA 20	-8	-3	1819	1.5	-676.14	-1.25
117	SLE RA 21	-8	-7	1817	1.53	-675.61	-3.23
117	SLE FR 1	-8	-2	1561	1.22	-582.46	-0.74
117	SLE FR 2	-8	-3	1561	1.23	-582.28	-1.4
117	SLE FR 3	-8	-2	1561	1.22	-582.46	-0.74
117	SLE FR 4	-8	-3	1638	1.32	-610.39	-1.55
117	SLE FR 5	-8	-2	1639	1.31	-610.57	-0.89
117	SLE FR 6	-8	-2	1690	1.36	-629.3	-0.99
117	SLE QP 1	-8	-2	1561	1.22	-582.46	-0.74
117	SLE QP 2	-8	-2	1639	1.31	-610.57	-0.89
117	SLD 1	118	57	1853	1.2	-678.09	26.95
117	SLD 2	133	21	1848	1.24	-676.93	10.21
117	SLD 3	122	-45	1786	1.69	-659.32	-21.31
117	SLD 4	136	-80	1781	1.73	-658.16	-38.04
117	SLD 5	19	183	1807	0.52	-659.73	86.83
117	SLD 6	34	146	1802	0.56	-658.52	69.44
117	SLD 7	31	-156	1582	2.15	-597.15	-74.02
117	SLD 8	46	-193	1577	2.19	-595.94	-91.41
117	SLD 9	-62	189	1700	0.42	-625.19	89.62
117	SLD 10	-47	152	1695	0.46	-623.99	72.24
117	SLD 11	-50	-150	1475	2.05	-562.61	-71.23



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
117	SLD 12	-35	-187	1470	2.09	-561.4	-88.61
117	SLD 13	-152	76	1497	0.88	-562.98	36.26
117	SLD 14	-137	41	1492	0.92	-561.81	19.53
117	SLD 15	-149	-25	1429	1.37	-544.2	-11.99
117	SLD 16	-134	-61	1424	1.41	-543.04	-28.73
117	SLV 1	279	135	2129	1.05	-765.02	64.02
117	SLV 2	312	54	2118	1.14	-762.36	25.65
117	SLV 3	287	-103	1971	2.19	-721.18	-48.75
117	SLV 4	320	-184	1960	2.28	-718.51	-87.13
117	SLV 5	54	430	2029	-0.53	-724.41	204.08
117	SLV 6	89	344	2018	-0.44	-721.6	163.67
117	SLV 7	80	-362	1504	3.27	-578.25	-171.85
117	SLV 8	115	-447	1492	3.36	-575.44	-212.26
117	SLV 9	-131	443	1786	-0.75	-645.69	210.47
117	SLV 10	-96	358	1774	-0.66	-642.88	170.06
117	SLV 11	-104	-348	1260	3.05	-499.53	-165.45
117	SLV 12	-70	-434	1248	3.15	-496.72	-205.86
117	SLV 13	-336	180	1317	0.33	-502.62	85.34
117	SLV 14	-303	99	1306	0.42	-499.96	46.97
117	SLV 15	-328	-58	1159	1.47	-458.78	-27.44
117	SLV 16	-295	-139	1148	1.56	-456.11	-65.81
117	CRTFP Ux+	0	0	0	0	0	0
117	CRTFP Ux-	0	0	0	0	0	0
117	CRTFP Uy+	0	0	0	0	0	0
117	CRTFP Uy-	0	0	0	0	0	0
120	SLU 1	-8	-21	3283	-0.63	2.64	0.93
120	SLU 2	-8	-37	3268	-0.49	2.7	0.94
120	SLU 3	-8	-21	3283	-0.63	2.64	0.93
120	SLU 4	-8	-31	3274	-0.55	2.68	0.94
120	SLU 5	-8	-37	3268	-0.49	2.7	0.94
120	SLU 6	-8	-21	3283	-0.63	2.64	0.93
120	SLU 7	-8	-31	3274	-0.55	2.68	0.94
120	SLU 8	-8	-21	3283	-0.63	2.64	0.93
120	SLU 9	-8	-31	3274	-0.55	2.68	0.94
120	SLU 10	-7	-39	3925	-0.38	2.61	0.85
120	SLU 11	-7	-22	3940	-0.51	2.55	0.84
120	SLU 12	-7	-32	3931	-0.43	2.59	0.84
120	SLU 13	-7	-39	3925	-0.38	2.61	0.85
120	SLU 14	-7	-22	3940	-0.51	2.55	0.84
120	SLU 15	-7	-32	3931	-0.43	2.59	0.84
120	SLU 16	-7	-22	3940	-0.51	2.55	0.84
120	SLU 17	-7	-32	3931	-0.43	2.59	0.84
120	SLU 18	-7	-23	4221	-0.46	2.52	0.8
120	SLU 19	-7	-33	4213	-0.38	2.55	0.8
120	SLU 20	-7	-23	4221	-0.46	2.52	0.8
120	SLU 21	-7	-33	4213	-0.38	2.55	0.8
120	SLU 22	-8	-22	3760	-0.55	2.52	0.9
120	SLU 23	-8	-39	3745	-0.41	2.59	0.9
120	SLU 24	-8	-22	3760	-0.55	2.52	0.9
120	SLU 25	-8	-32	3751	-0.47	2.56	0.9
120	SLU 26	-8	-39	3745	-0.41	2.59	0.9
120	SLU 27	-8	-22	3760	-0.55	2.52	0.9
120	SLU 28	-8	-32	3751	-0.47	2.56	0.9
120	SLU 29	-8	-22	3760	-0.55	2.52	0.9
120	SLU 30	-8	-32	3751	-0.47	2.56	0.9
120	SLU 31	-7	-40	4402	-0.3	2.5	0.81
120	SLU 32	-7	-24	4417	-0.43	2.44	0.8
120	SLU 33	-7	-34	4408	-0.35	2.47	0.81
120	SLU 34	-7	-40	4402	-0.3	2.5	0.81
120	SLU 35	-7	-24	4417	-0.43	2.44	0.8
120	SLU 36	-7	-34	4408	-0.35	2.47	0.81
120	SLU 37	-7	-24	4417	-0.43	2.44	0.8
120	SLU 38	-7	-34	4408	-0.35	2.47	0.81
120	SLU 39	-6	-24	4699	-0.38	2.4	0.76
120	SLU 40	-6	-34	4690	-0.3	2.44	0.77
120	SLU 41	-6	-24	4699	-0.38	2.4	0.76
120	SLU 42	-6	-34	4690	-0.3	2.44	0.77
120	SLU 43	-11	-27	4104	-0.84	3.47	1.22
120	SLU 44	-11	-43	4089	-0.71	3.53	1.23
120	SLU 45	-11	-27	4104	-0.84	3.47	1.22
120	SLU 46	-11	-36	4095	-0.76	3.51	1.23
120	SLU 47	-11	-43	4089	-0.71	3.53	1.23
120	SLU 48	-11	-27	4104	-0.84	3.47	1.22
120	SLU 49	-11	-36	4095	-0.76	3.51	1.23
120	SLU 50	-11	-27	4104	-0.84	3.47	1.22
120	SLU 51	-11	-36	4095	-0.76	3.51	1.23
120	SLU 52	-10	-44	4746	-0.59	3.45	1.14
120	SLU 53	-10	-28	4761	-0.72	3.38	1.13
120	SLU 54	-10	-38	4752	-0.64	3.42	1.13
120	SLU 55	-10	-44	4746	-0.59	3.45	1.14
120	SLU 56	-10	-28	4761	-0.72	3.38	1.13
120	SLU 57	-10	-38	4752	-0.64	3.42	1.13
120	SLU 58	-10	-28	4761	-0.72	3.38	1.13
120	SLU 59	-10	-38	4752	-0.64	3.42	1.13
120	SLU 60	-9	-29	5043	-0.67	3.35	1.09
120	SLU 61	-9	-38	5034	-0.59	3.38	1.09
120	SLU 62	-9	-29	5043	-0.67	3.35	1.09
120	SLU 63	-9	-38	5034	-0.59	3.38	1.09
120	SLU 64	-10	-28	4581	-0.76	3.36	1.19
120	SLU 65	-10	-44	4566	-0.63	3.42	1.2
120	SLU 66	-10	-28	4581	-0.76	3.36	1.19



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
120	SLU 67	-10	-38	4572	-0.68	3.39	1.19
120	SLU 68	-10	-44	4566	-0.63	3.42	1.2
120	SLU 69	-10	-28	4581	-0.76	3.36	1.19
120	SLU 70	-10	-38	4572	-0.68	3.39	1.19
120	SLU 71	-10	-28	4581	-0.76	3.36	1.19
120	SLU 72	-10	-38	4572	-0.68	3.39	1.19
120	SLU 73	-9	-46	5224	-0.51	3.33	1.1
120	SLU 74	-9	-29	5238	-0.64	3.27	1.09
120	SLU 75	-9	-39	5229	-0.57	3.31	1.1
120	SLU 76	-9	-46	5224	-0.51	3.33	1.1
120	SLU 77	-9	-29	5238	-0.64	3.27	1.09
120	SLU 78	-9	-39	5229	-0.57	3.31	1.1
120	SLU 79	-9	-29	5238	-0.64	3.27	1.09
120	SLU 80	-9	-39	5229	-0.57	3.31	1.1
120	SLU 81	-9	-30	5520	-0.59	3.23	1.05
120	SLU 82	-9	-40	5511	-0.51	3.27	1.06
120	SLU 83	-9	-30	5520	-0.59	3.23	1.05
120	SLU 84	-9	-40	5511	-0.51	3.27	1.06
120	SLE RA 1	-8	-21	3419	-0.6	2.61	0.92
120	SLE RA 2	-8	-32	3409	-0.52	2.65	0.93
120	SLE RA 3	-8	-21	3419	-0.6	2.61	0.92
120	SLE RA 4	-8	-28	3413	-0.55	2.63	0.92
120	SLE RA 5	-8	-32	3409	-0.52	2.65	0.93
120	SLE RA 6	-8	-21	3419	-0.6	2.61	0.92
120	SLE RA 7	-8	-28	3413	-0.55	2.63	0.92
120	SLE RA 8	-8	-21	3419	-0.6	2.61	0.92
120	SLE RA 9	-8	-28	3413	-0.55	2.63	0.92
120	SLE RA 10	-7	-33	3847	-0.44	2.59	0.86
120	SLE RA 11	-7	-22	3857	-0.53	2.55	0.86
120	SLE RA 12	-7	-29	3851	-0.47	2.57	0.86
120	SLE RA 13	-7	-33	3847	-0.44	2.59	0.86
120	SLE RA 14	-7	-22	3857	-0.53	2.55	0.86
120	SLE RA 15	-7	-29	3851	-0.47	2.57	0.86
120	SLE RA 16	-7	-22	3857	-0.53	2.55	0.86
120	SLE RA 17	-7	-29	3851	-0.47	2.57	0.86
120	SLE RA 18	-7	-23	4045	-0.49	2.52	0.83
120	SLE RA 19	-7	-29	4039	-0.44	2.55	0.84
120	SLE RA 20	-7	-23	4045	-0.49	2.52	0.83
120	SLE RA 21	-7	-29	4039	-0.44	2.55	0.84
120	SLE FR 1	-8	-21	3419	-0.6	2.61	0.92
120	SLE FR 2	-8	-23	3417	-0.59	2.61	0.92
120	SLE FR 3	-8	-21	3419	-0.6	2.61	0.92
120	SLE FR 4	-8	-24	3605	-0.55	2.59	0.9
120	SLE FR 5	-8	-22	3607	-0.57	2.58	0.89
120	SLE FR 6	-8	-22	3732	-0.55	2.57	0.88
120	SLE QP 1	-8	-21	3419	-0.6	2.61	0.92
120	SLE QP 2	-8	-22	3607	-0.57	2.58	0.89
120	SLD 1	256	75	3667	-1.16	11.43	0.91
120	SLD 2	286	76	3666	-1.16	11.31	2.05
120	SLD 3	248	-97	3479	-0.15	10.9	0.7
120	SLD 4	278	-96	3478	-0.15	10.77	1.85
120	SLD 5	73	267	3910	-2.28	6.1	0.79
120	SLD 6	104	268	3909	-2.28	5.96	1.98
120	SLD 7	45	-305	3283	1.09	4.31	0.1
120	SLD 8	77	-304	3283	1.09	4.18	1.29
120	SLD 9	-92	260	3931	-2.23	0.98	0.5
120	SLD 10	-61	262	3930	-2.23	0.85	1.69
120	SLD 11	-120	-311	3304	1.14	-0.8	-0.19
120	SLD 12	-88	-310	3303	1.14	-0.93	1
120	SLD 13	-294	52	3735	-0.99	-5.61	-0.06
120	SLD 14	-263	54	3735	-0.99	-5.74	1.09
120	SLD 15	-302	-119	3547	0.02	-6.14	-0.27
120	SLD 16	-271	-118	3547	0.02	-6.27	0.88
120	SLV 1	593	203	3745	-1.95	22.82	0.93
120	SLV 2	663	206	3744	-1.94	22.52	3.56
120	SLV 3	574	-198	3306	0.41	21.47	0.44
120	SLV 4	643	-195	3305	0.42	21.18	3.07
120	SLV 5	175	652	4314	-4.57	10.8	0.65
120	SLV 6	249	655	4313	-4.56	10.49	3.42
120	SLV 7	111	-684	2852	3.3	6.32	-0.97
120	SLV 8	185	-681	2850	3.31	6.01	1.8
120	SLV 9	-200	637	4363	-4.45	-0.85	-0.01
120	SLV 10	-127	640	4362	-4.44	-1.16	2.76
120	SLV 11	-264	-699	2901	3.42	-5.33	-1.63
120	SLV 12	-191	-696	2899	3.43	-5.64	1.14
120	SLV 13	-659	152	3908	-1.56	-16.02	-1.28
120	SLV 14	-589	155	3907	-1.55	-16.31	1.35
120	SLV 15	-678	-249	3470	0.8	-17.36	-1.77
120	SLV 16	-608	-246	3468	0.81	-17.65	0.86
120	CRTFP Ux+	0	0	0	0	0	0
120	CRTFP Ux-	0	0	0	0	0	0
120	CRTFP Uy+	0	0	0	0	0	0
120	CRTFP Uy-	0	0	0	0	0	0
123	SLU 1	9	10	1796	0.4	179.84	-2.44
123	SLU 2	9	-1	1794	0.47	178.74	0.43
123	SLU 3	9	10	1796	0.4	179.84	-2.44
123	SLU 4	9	3	1795	0.44	179.18	-0.72
123	SLU 5	9	-1	1794	0.47	178.74	0.43
123	SLU 6	9	10	1796	0.4	179.84	-2.44
123	SLU 7	9	3	1795	0.44	179.18	-0.72
123	SLU 8	9	10	1796	0.4	179.84	-2.44



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
123	SLU 9	9	3	1795	0.44	179.18	-0.72
123	SLU 10	11	-2	2104	0.66	209.92	0.57
123	SLU 11	11	9	2106	0.6	211.02	-2.3
123	SLU 12	11	3	2105	0.64	210.36	-0.57
123	SLU 13	11	-2	2104	0.66	209.92	0.57
123	SLU 14	11	9	2106	0.6	211.02	-2.3
123	SLU 15	11	3	2105	0.64	210.36	-0.57
123	SLU 16	11	9	2106	0.6	211.02	-2.3
123	SLU 17	11	3	2105	0.64	210.36	-0.57
123	SLU 18	11	9	2239	0.68	224.38	-2.23
123	SLU 19	11	2	2237	0.72	223.72	-0.51
123	SLU 20	11	9	2239	0.68	224.38	-2.23
123	SLU 21	11	2	2237	0.72	223.72	-0.51
123	SLU 22	10	10	2029	0.55	202.64	-2.4
123	SLU 23	10	-2	2027	0.61	201.54	0.47
123	SLU 24	10	10	2029	0.55	202.64	-2.4
123	SLU 25	10	3	2028	0.59	201.98	-0.68
123	SLU 26	10	-2	2027	0.61	201.54	0.47
123	SLU 27	10	10	2029	0.55	202.64	-2.4
123	SLU 28	10	3	2028	0.59	201.98	-0.68
123	SLU 29	10	10	2029	0.55	202.64	-2.4
123	SLU 30	10	3	2028	0.59	201.98	-0.68
123	SLU 31	12	-2	2337	0.81	232.72	0.62
123	SLU 32	12	9	2339	0.74	233.82	-2.25
123	SLU 33	12	2	2337	0.78	233.16	-0.53
123	SLU 34	12	-2	2337	0.81	232.72	0.62
123	SLU 35	12	9	2339	0.74	233.82	-2.25
123	SLU 36	12	2	2337	0.78	233.16	-0.53
123	SLU 37	12	9	2339	0.74	233.82	-2.25
123	SLU 38	12	2	2337	0.78	233.16	-0.53
123	SLU 39	13	9	2472	0.83	247.18	-2.19
123	SLU 40	13	2	2470	0.87	246.52	-0.46
123	SLU 41	13	9	2472	0.83	247.18	-2.19
123	SLU 42	13	2	2470	0.87	246.52	-0.46
123	SLU 43	11	13	2255	0.48	225.98	-3.19
123	SLU 44	11	2	2253	0.54	224.88	-0.32
123	SLU 45	11	13	2255	0.48	225.98	-3.19
123	SLU 46	11	6	2254	0.51	225.32	-1.47
123	SLU 47	11	2	2253	0.54	224.88	-0.32
123	SLU 48	11	13	2255	0.48	225.98	-3.19
123	SLU 49	11	6	2254	0.51	225.32	-1.47
123	SLU 50	11	13	2255	0.48	225.98	-3.19
123	SLU 51	11	6	2254	0.51	225.32	-1.47
123	SLU 52	13	1	2563	0.74	256.06	-0.18
123	SLU 53	13	13	2565	0.67	257.16	-3.04
123	SLU 54	13	6	2564	0.71	256.5	-1.32
123	SLU 55	13	1	2563	0.74	256.06	-0.18
123	SLU 56	13	13	2565	0.67	257.16	-3.04
123	SLU 57	13	6	2564	0.71	256.5	-1.32
123	SLU 58	13	13	2565	0.67	257.16	-3.04
123	SLU 59	13	6	2564	0.71	256.5	-1.32
123	SLU 60	14	12	2698	0.76	270.52	-2.98
123	SLU 61	14	5	2696	0.79	269.86	-1.26
123	SLU 62	14	12	2698	0.76	270.52	-2.98
123	SLU 63	14	5	2696	0.79	269.86	-1.26
123	SLU 64	13	13	2488	0.62	248.78	-3.15
123	SLU 65	13	2	2486	0.68	247.68	-0.28
123	SLU 66	13	13	2488	0.62	248.78	-3.15
123	SLU 67	13	6	2487	0.66	248.12	-1.42
123	SLU 68	13	2	2486	0.68	247.68	-0.28
123	SLU 69	13	13	2488	0.62	248.78	-3.15
123	SLU 70	13	6	2487	0.66	248.12	-1.42
123	SLU 71	13	13	2488	0.62	248.78	-3.15
123	SLU 72	13	6	2487	0.66	248.12	-1.42
123	SLU 73	14	1	2796	0.88	278.85	-0.13
123	SLU 74	14	12	2798	0.82	279.95	-3
123	SLU 75	14	5	2796	0.85	279.29	-1.28
123	SLU 76	14	1	2796	0.88	278.85	-0.13
123	SLU 77	14	12	2798	0.82	279.95	-3
123	SLU 78	14	5	2796	0.85	279.29	-1.28
123	SLU 79	14	12	2798	0.82	279.95	-3
123	SLU 80	14	5	2796	0.85	279.29	-1.28
123	SLU 81	15	12	2931	0.9	293.32	-2.93
123	SLU 82	15	5	2929	0.94	292.66	-1.21
123	SLU 83	15	12	2931	0.9	293.32	-2.93
123	SLU 84	15	5	2929	0.94	292.66	-1.21
123	SLE RA 1	9	10	1863	0.45	186.35	-2.43
123	SLE RA 2	9	2	1861	0.49	185.62	-0.52
123	SLE RA 3	9	10	1863	0.45	186.35	-2.43
123	SLE RA 4	9	5	1862	0.47	185.92	-1.28
123	SLE RA 5	9	2	1861	0.49	185.62	-0.52
123	SLE RA 6	9	10	1863	0.45	186.35	-2.43
123	SLE RA 7	9	5	1862	0.47	185.92	-1.28
123	SLE RA 8	9	10	1863	0.45	186.35	-2.43
123	SLE RA 9	9	5	1862	0.47	185.92	-1.28
123	SLE RA 10	11	2	2068	0.62	206.41	-0.42
123	SLE RA 11	11	10	2069	0.58	207.14	-2.33
123	SLE RA 12	11	5	2068	0.6	206.7	-1.18
123	SLE RA 13	11	2	2068	0.62	206.41	-0.42
123	SLE RA 14	11	10	2069	0.58	207.14	-2.33
123	SLE RA 15	11	5	2068	0.6	206.7	-1.18



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
123	SLE RA 16	11	10	2069	0.58	207.14	-2.33
123	SLE RA 17	11	5	2068	0.6	206.7	-1.18
123	SLE RA 18	11	9	2158	0.63	216.05	-2.29
123	SLE RA 19	11	5	2157	0.66	215.61	-1.14
123	SLE RA 20	11	9	2158	0.63	216.05	-2.29
123	SLE RA 21	11	5	2157	0.66	215.61	-1.14
123	SLE FR 1	9	10	1863	0.45	186.35	-2.43
123	SLE FR 2	9	8	1862	0.45	186.21	-2.05
123	SLE FR 3	9	10	1863	0.45	186.35	-2.43
123	SLE FR 4	10	8	1951	0.51	195.12	-2.01
123	SLE FR 5	10	10	1951	0.5	195.26	-2.39
123	SLE FR 6	10	10	2010	0.54	201.2	-2.36
123	SLE QP 1	9	10	1863	0.45	186.35	-2.43
123	SLE QP 2	10	10	1951	0.5	195.26	-2.39
123	SLD 1	142	57	1782	0.05	174.05	-14.31
123	SLD 2	155	96	1787	0.01	176.26	-23.98
123	SLD 3	146	-60	1703	0.67	165.05	14.97
123	SLD 4	159	-21	1708	0.64	167.26	5.3
123	SLD 5	39	187	2019	-0.57	201.73	-46.8
123	SLD 6	52	228	2024	-0.6	204.03	-56.84
123	SLD 7	52	-203	1755	1.51	171.73	50.8
123	SLD 8	66	-162	1759	1.48	174.03	40.75
123	SLD 9	-46	182	2143	-0.47	216.49	-45.53
123	SLD 10	-33	222	2148	-0.51	218.79	-55.57
123	SLD 11	-32	-208	1879	1.61	186.5	52.07
123	SLD 12	-19	-167	1883	1.57	188.8	42.02
123	SLD 13	-139	40	2195	0.36	223.26	-10.08
123	SLD 14	-127	79	2199	0.33	225.47	-19.74
123	SLD 15	-135	-77	2116	0.99	214.26	19.2
123	SLD 16	-122	-38	2120	0.95	216.48	9.53
123	SLV 1	311	121	1568	-0.54	146.24	-30.38
123	SLV 2	340	211	1579	-0.62	151.31	-52.55
123	SLV 3	321	-152	1383	0.92	125.23	38.04
123	SLV 4	350	-63	1393	0.83	130.3	15.87
123	SLV 5	74	424	2113	-1.99	210.52	-106.22
123	SLV 6	105	518	2124	-2.08	215.86	-129.57
123	SLV 7	107	-487	1496	2.87	140.47	121.87
123	SLV 8	138	-393	1507	2.78	145.81	98.52
123	SLV 9	-118	412	2396	-1.78	244.71	-103.3
123	SLV 10	-87	507	2407	-1.86	250.06	-126.64
123	SLV 11	-86	-499	1778	3.08	174.66	124.79
123	SLV 12	-55	-404	1789	2.99	180.01	101.44
123	SLV 13	-330	82	2509	0.17	260.23	-20.65
123	SLV 14	-301	172	2519	0.09	265.3	-42.82
123	SLV 15	-321	-191	2324	1.63	239.21	47.78
123	SLV 16	-291	-102	2334	1.54	244.29	25.61
123	CRTFP Ux+	0	0	0	0	0	0
123	CRTFP Ux-	0	0	0	0	0	0
123	CRTFP Uy+	0	0	0	0	0	0
123	CRTFP Uy-	0	0	0	0	0	0
124	SLU 1	-11	-1	1560	2.14	-601.35	-0.53
124	SLU 2	-10	-12	1557	2.2	-600.91	-5.51
124	SLU 3	-11	-1	1560	2.14	-601.35	-0.53
124	SLU 4	-11	-8	1558	2.17	-601.08	-3.52
124	SLU 5	-10	-12	1557	2.2	-600.91	-5.51
124	SLU 6	-11	-1	1560	2.14	-601.35	-0.53
124	SLU 7	-11	-8	1558	2.17	-601.08	-3.52
124	SLU 8	-11	-1	1560	2.14	-601.35	-0.53
124	SLU 9	-11	-8	1558	2.17	-601.08	-3.52
124	SLU 10	-10	-13	1840	2.69	-708.25	-5.99
124	SLU 11	-11	-2	1843	2.63	-708.69	-1.02
124	SLU 12	-10	-9	1842	2.67	-708.42	-4
124	SLU 13	-10	-13	1840	2.69	-708.25	-5.99
124	SLU 14	-11	-2	1843	2.63	-708.69	-1.02
124	SLU 15	-10	-9	1842	2.67	-708.42	-4
124	SLU 16	-11	-2	1843	2.63	-708.69	-1.02
124	SLU 17	-10	-9	1842	2.67	-708.42	-4
124	SLU 18	-10	-3	1965	2.84	-754.69	-1.23
124	SLU 19	-10	-9	1963	2.88	-754.43	-4.21
124	SLU 20	-10	-3	1965	2.84	-754.69	-1.23
124	SLU 21	-10	-9	1963	2.88	-754.43	-4.21
124	SLU 22	-11	-2	1764	2.5	-678.88	-0.76
124	SLU 23	-11	-12	1761	2.56	-678.44	-5.73
124	SLU 24	-11	-2	1764	2.5	-678.88	-0.76
124	SLU 25	-11	-8	1763	2.54	-678.62	-3.74
124	SLU 26	-11	-12	1761	2.56	-678.44	-5.73
124	SLU 27	-11	-2	1764	2.5	-678.88	-0.76
124	SLU 28	-11	-8	1763	2.54	-678.62	-3.74
124	SLU 29	-11	-2	1764	2.5	-678.88	-0.76
124	SLU 30	-11	-8	1763	2.54	-678.62	-3.74
124	SLU 31	-10	-13	2045	3.05	-785.78	-6.22
124	SLU 32	-11	-3	2048	3	-786.22	-1.24
124	SLU 33	-10	-9	2046	3.03	-785.96	-4.23
124	SLU 34	-10	-13	2045	3.05	-785.78	-6.22
124	SLU 35	-11	-3	2048	3	-786.22	-1.24
124	SLU 36	-10	-9	2046	3.03	-785.96	-4.23
124	SLU 37	-11	-3	2048	3	-786.22	-1.24
124	SLU 38	-10	-9	2046	3.03	-785.96	-4.23
124	SLU 39	-11	-3	2169	3.21	-832.23	-1.45
124	SLU 40	-10	-9	2167	3.24	-831.96	-4.44
124	SLU 41	-11	-3	2169	3.21	-832.23	-1.45



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
124	SLU 42	-10	-9	2167	3.24	-831.96	-4.44
124	SLU 43	-14	-2	1958	2.65	-755.17	-0.62
124	SLU 44	-14	-12	1955	2.71	-754.73	-5.59
124	SLU 45	-14	-2	1958	2.65	-755.17	-0.62
124	SLU 46	-14	-8	1956	2.69	-754.9	-3.6
124	SLU 47	-14	-12	1955	2.71	-754.73	-5.59
124	SLU 48	-14	-2	1958	2.65	-755.17	-0.62
124	SLU 49	-14	-8	1956	2.69	-754.9	-3.6
124	SLU 50	-14	-2	1958	2.65	-755.17	-0.62
124	SLU 51	-14	-8	1956	2.69	-754.9	-3.6
124	SLU 52	-14	-13	2238	3.21	-862.07	-6.08
124	SLU 53	-14	-3	2241	3.15	-862.51	-1.1
124	SLU 54	-14	-9	2240	3.18	-862.24	-4.09
124	SLU 55	-14	-13	2238	3.21	-862.07	-6.08
124	SLU 56	-14	-3	2241	3.15	-862.51	-1.1
124	SLU 57	-14	-9	2240	3.18	-862.24	-4.09
124	SLU 58	-14	-3	2241	3.15	-862.51	-1.1
124	SLU 59	-14	-9	2240	3.18	-862.24	-4.09
124	SLU 60	-14	-3	2363	3.36	-908.51	-1.31
124	SLU 61	-14	-9	2361	3.4	-908.25	-4.29
124	SLU 62	-14	-3	2363	3.36	-908.51	-1.31
124	SLU 63	-14	-9	2361	3.4	-908.25	-4.29
124	SLU 64	-14	-2	2162	3.02	-832.7	-0.84
124	SLU 65	-14	-12	2159	3.08	-832.26	-5.82
124	SLU 66	-14	-2	2162	3.02	-832.7	-0.84
124	SLU 67	-14	-8	2161	3.05	-832.44	-3.83
124	SLU 68	-14	-12	2159	3.08	-832.26	-5.82
124	SLU 69	-14	-2	2162	3.02	-832.7	-0.84
124	SLU 70	-14	-8	2161	3.05	-832.44	-3.83
124	SLU 71	-14	-2	2162	3.02	-832.7	-0.84
124	SLU 72	-14	-8	2161	3.05	-832.44	-3.83
124	SLU 73	-14	-13	2443	3.57	-939.6	-6.3
124	SLU 74	-14	-3	2446	3.51	-940.04	-1.33
124	SLU 75	-14	-9	2444	3.55	-939.78	-4.31
124	SLU 76	-14	-13	2443	3.57	-939.6	-6.3
124	SLU 77	-14	-3	2446	3.51	-940.04	-1.33
124	SLU 78	-14	-9	2444	3.55	-939.78	-4.31
124	SLU 79	-14	-3	2446	3.51	-940.04	-1.33
124	SLU 80	-14	-9	2444	3.55	-939.78	-4.31
124	SLU 81	-14	-3	2567	3.72	-986.05	-1.54
124	SLU 82	-14	-10	2565	3.76	-985.78	-4.52
124	SLU 83	-14	-3	2567	3.72	-986.05	-1.54
124	SLU 84	-14	-10	2565	3.76	-985.78	-4.52
124	SLE RA 1	-11	-1	1618	2.24	-623.5	-0.6
124	SLE RA 2	-11	-8	1616	2.28	-623.21	-3.91
124	SLE RA 3	-11	-1	1618	2.24	-623.5	-0.6
124	SLE RA 4	-11	-6	1617	2.26	-623.32	-2.59
124	SLE RA 5	-11	-8	1616	2.28	-623.21	-3.91
124	SLE RA 6	-11	-1	1618	2.24	-623.5	-0.6
124	SLE RA 7	-11	-6	1617	2.26	-623.32	-2.59
124	SLE RA 8	-11	-1	1618	2.24	-623.5	-0.6
124	SLE RA 9	-11	-6	1617	2.26	-623.32	-2.59
124	SLE RA 10	-10	-9	1805	2.61	-694.77	-4.24
124	SLE RA 11	-11	-2	1807	2.57	-695.06	-0.92
124	SLE RA 12	-11	-6	1806	2.59	-694.88	-2.91
124	SLE RA 13	-10	-9	1805	2.61	-694.77	-4.24
124	SLE RA 14	-11	-2	1807	2.57	-695.06	-0.92
124	SLE RA 15	-11	-6	1806	2.59	-694.88	-2.91
124	SLE RA 16	-11	-2	1807	2.57	-695.06	-0.92
124	SLE RA 17	-11	-6	1806	2.59	-694.88	-2.91
124	SLE RA 18	-11	-2	1888	2.71	-725.73	-1.06
124	SLE RA 19	-10	-7	1887	2.74	-725.55	-3.05
124	SLE RA 20	-11	-2	1888	2.71	-725.73	-1.06
124	SLE RA 21	-10	-7	1887	2.74	-725.55	-3.05
124	SLE FR 1	-11	-1	1618	2.24	-623.5	-0.6
124	SLE FR 2	-11	-3	1618	2.25	-623.44	-1.26
124	SLE FR 3	-11	-1	1618	2.24	-623.5	-0.6
124	SLE FR 4	-11	-3	1699	2.39	-654.11	-1.4
124	SLE FR 5	-11	-2	1699	2.38	-654.17	-0.74
124	SLE FR 6	-11	-2	1753	2.48	-674.61	-0.83
124	SLE QP 1	-11	-1	1618	2.24	-623.5	-0.6
124	SLE QP 2	-11	-2	1699	2.38	-654.17	-0.74
124	SLD 1	116	57	1914	2.48	-724.43	27.1
124	SLD 2	128	22	1910	2.51	-723.71	10.36
124	SLD 3	120	-45	1861	2.9	-710.97	-21.14
124	SLD 4	132	-80	1857	2.93	-710.25	-37.88
124	SLD 5	17	183	1845	1.77	-695.93	86.96
124	SLD 6	30	146	1842	1.81	-695.18	69.57
124	SLD 7	30	-155	1669	3.15	-651.06	-73.84
124	SLD 8	42	-192	1665	3.19	-650.31	-91.23
124	SLD 9	-63	189	1734	1.58	-658.03	89.76
124	SLD 10	-51	152	1730	1.61	-657.28	72.36
124	SLD 11	-51	-150	1557	2.96	-613.16	-71.04
124	SLD 12	-39	-186	1553	2.99	-612.41	-88.44
124	SLD 13	-153	77	1542	1.84	-598.09	36.41
124	SLD 14	-141	41	1538	1.87	-597.37	19.67
124	SLD 15	-149	-25	1489	2.25	-584.63	-11.83
124	SLD 16	-137	-60	1485	2.28	-583.91	-28.57
124	SLV 1	277	135	2189	2.59	-814.69	64.17
124	SLV 2	305	54	2181	2.67	-813.04	25.78
124	SLV 3	286	-102	2065	3.56	-783.24	-48.57



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
124	SLV 4	313	-183	2057	3.64	-781.59	-86.96
124	SLV 5	53	430	2037	0.95	-750.64	204.19
124	SLV 6	81	344	2028	1.03	-748.9	163.75
124	SLV 7	81	-361	1625	4.18	-645.82	-171.62
124	SLV 8	110	-447	1616	4.26	-644.08	-212.05
124	SLV 9	-131	443	1783	0.51	-664.26	210.58
124	SLV 10	-102	358	1774	0.59	-662.52	170.15
124	SLV 11	-103	-348	1370	3.74	-559.44	-165.23
124	SLV 12	-74	-433	1362	3.82	-557.7	-205.66
124	SLV 13	-334	180	1342	1.13	-526.75	85.49
124	SLV 14	-307	99	1333	1.2	-525.1	47.1
124	SLV 15	-326	-57	1218	2.09	-495.3	-27.25
124	SLV 16	-299	-139	1210	2.17	-493.65	-65.65
124	CRTFP Ux+	0	0	0	0	0	0
124	CRTFP Ux-	0	0	0	0	0	0
124	CRTFP Uy+	0	0	0	0	0	0
124	CRTFP Uy-	0	0	0	0	0	0
127	SLU 1	-13	-18	3270	-0.18	2.84	0.85
127	SLU 2	-13	-35	3259	-0.06	2.9	0.86
127	SLU 3	-13	-18	3270	-0.18	2.84	0.85
127	SLU 4	-13	-28	3263	-0.11	2.88	0.85
127	SLU 5	-13	-35	3259	-0.06	2.9	0.86
127	SLU 6	-13	-18	3270	-0.18	2.84	0.85
127	SLU 7	-13	-28	3263	-0.11	2.88	0.85
127	SLU 8	-13	-18	3270	-0.18	2.84	0.85
127	SLU 9	-13	-28	3263	-0.11	2.88	0.85
127	SLU 10	-11	-36	3922	0.18	2.78	0.77
127	SLU 11	-11	-19	3933	0.06	2.72	0.76
127	SLU 12	-11	-29	3926	0.13	2.76	0.77
127	SLU 13	-11	-36	3922	0.18	2.78	0.77
127	SLU 14	-11	-19	3933	0.06	2.72	0.76
127	SLU 15	-11	-29	3926	0.13	2.76	0.77
127	SLU 16	-11	-19	3933	0.06	2.72	0.76
127	SLU 17	-11	-29	3926	0.13	2.76	0.77
127	SLU 18	-11	-20	4217	0.16	2.67	0.73
127	SLU 19	-11	-30	4210	0.23	2.71	0.73
127	SLU 20	-11	-20	4217	0.16	2.67	0.73
127	SLU 21	-11	-30	4210	0.23	2.71	0.73
127	SLU 22	-12	-20	3751	-0.02	2.71	0.82
127	SLU 23	-12	-36	3740	0.11	2.77	0.83
127	SLU 24	-12	-20	3751	-0.02	2.71	0.82
127	SLU 25	-12	-30	3745	0.06	2.75	0.82
127	SLU 26	-12	-36	3740	0.11	2.77	0.83
127	SLU 27	-12	-20	3751	-0.02	2.71	0.82
127	SLU 28	-12	-30	3745	0.06	2.75	0.82
127	SLU 29	-12	-20	3751	-0.02	2.71	0.82
127	SLU 30	-12	-30	3745	0.06	2.75	0.82
127	SLU 31	-11	-37	4403	0.34	2.65	0.74
127	SLU 32	-11	-21	4414	0.22	2.59	0.73
127	SLU 33	-11	-30	4408	0.29	2.63	0.74
127	SLU 34	-11	-37	4403	0.34	2.65	0.74
127	SLU 35	-11	-21	4414	0.22	2.59	0.73
127	SLU 36	-11	-30	4408	0.29	2.63	0.74
127	SLU 37	-11	-21	4414	0.22	2.59	0.73
127	SLU 38	-11	-30	4408	0.29	2.63	0.74
127	SLU 39	-10	-21	4698	0.32	2.54	0.69
127	SLU 40	-10	-31	4692	0.39	2.58	0.7
127	SLU 41	-10	-21	4698	0.32	2.54	0.69
127	SLU 42	-10	-31	4692	0.39	2.58	0.7
127	SLU 43	-17	-23	4085	-0.29	3.74	1.11
127	SLU 44	-17	-40	4075	-0.17	3.8	1.12
127	SLU 45	-17	-23	4085	-0.29	3.74	1.11
127	SLU 46	-17	-33	4079	-0.22	3.78	1.12
127	SLU 47	-17	-40	4075	-0.17	3.8	1.12
127	SLU 48	-17	-23	4085	-0.29	3.74	1.11
127	SLU 49	-17	-33	4079	-0.22	3.78	1.12
127	SLU 50	-17	-23	4085	-0.29	3.74	1.11
127	SLU 51	-17	-33	4079	-0.22	3.78	1.12
127	SLU 52	-15	-41	4738	0.07	3.68	1.04
127	SLU 53	-15	-24	4748	-0.05	3.62	1.03
127	SLU 54	-15	-34	4742	0.02	3.66	1.03
127	SLU 55	-15	-41	4738	0.07	3.68	1.04
127	SLU 56	-15	-24	4748	-0.05	3.62	1.03
127	SLU 57	-15	-34	4742	0.02	3.66	1.03
127	SLU 58	-15	-24	4748	-0.05	3.62	1.03
127	SLU 59	-15	-34	4742	0.02	3.66	1.03
127	SLU 60	-15	-25	5033	0.05	3.57	0.99
127	SLU 61	-15	-35	5026	0.12	3.61	1
127	SLU 62	-15	-25	5033	0.05	3.57	0.99
127	SLU 63	-15	-35	5026	0.12	3.61	1
127	SLU 64	-16	-25	4567	-0.12	3.61	1.08
127	SLU 65	-16	-41	4556	0	3.67	1.09
127	SLU 66	-16	-25	4567	-0.12	3.61	1.08
127	SLU 67	-16	-35	4560	-0.05	3.65	1.09
127	SLU 68	-16	-41	4556	0	3.67	1.09
127	SLU 69	-16	-25	4567	-0.12	3.61	1.08
127	SLU 70	-16	-35	4560	-0.05	3.65	1.09
127	SLU 71	-16	-25	4567	-0.12	3.61	1.08
127	SLU 72	-16	-35	4560	-0.05	3.65	1.09
127	SLU 73	-15	-42	5219	0.23	3.55	1.01
127	SLU 74	-15	-26	5230	0.11	3.49	1



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
127	SLU 75	-15	-36	5223	0.18	3.53	1
127	SLU 76	-15	-42	5219	0.23	3.55	1.01
127	SLU 77	-15	-26	5230	0.11	3.49	1
127	SLU 78	-15	-36	5223	0.18	3.53	1
127	SLU 79	-15	-26	5230	0.11	3.49	1
127	SLU 80	-15	-36	5223	0.18	3.53	1
127	SLU 81	-14	-26	5514	0.21	3.44	0.96
127	SLU 82	-14	-36	5508	0.28	3.48	0.97
127	SLU 83	-14	-26	5514	0.21	3.44	0.96
127	SLU 84	-14	-36	5508	0.28	3.48	0.97
127	SLE RA 1	-13	-19	3407	-0.13	2.81	0.84
127	SLE RA 2	-13	-30	3400	-0.05	2.84	0.85
127	SLE RA 3	-13	-19	3407	-0.13	2.81	0.84
127	SLE RA 4	-13	-25	3403	-0.08	2.83	0.84
127	SLE RA 5	-13	-30	3400	-0.05	2.84	0.85
127	SLE RA 6	-13	-19	3407	-0.13	2.81	0.84
127	SLE RA 7	-13	-25	3403	-0.08	2.83	0.84
127	SLE RA 8	-13	-19	3407	-0.13	2.81	0.84
127	SLE RA 9	-13	-25	3403	-0.08	2.83	0.84
127	SLE RA 10	-12	-30	3842	0.11	2.77	0.79
127	SLE RA 11	-12	-19	3849	0.02	2.73	0.78
127	SLE RA 12	-12	-26	3845	0.07	2.75	0.79
127	SLE RA 13	-12	-30	3842	0.11	2.77	0.79
127	SLE RA 14	-12	-19	3849	0.02	2.73	0.78
127	SLE RA 15	-12	-26	3845	0.07	2.75	0.79
127	SLE RA 16	-12	-19	3849	0.02	2.73	0.78
127	SLE RA 17	-12	-26	3845	0.07	2.75	0.79
127	SLE RA 18	-11	-20	4039	0.09	2.69	0.76
127	SLE RA 19	-11	-26	4034	0.14	2.72	0.76
127	SLE RA 20	-11	-20	4039	0.09	2.69	0.76
127	SLE RA 21	-11	-26	4034	0.14	2.72	0.76
127	SLE FR 1	-13	-19	3407	-0.13	2.81	0.84
127	SLE FR 2	-13	-21	3406	-0.12	2.81	0.84
127	SLE FR 3	-13	-19	3407	-0.13	2.81	0.84
127	SLE FR 4	-12	-21	3595	-0.05	2.78	0.82
127	SLE FR 5	-12	-19	3597	-0.06	2.77	0.81
127	SLE FR 6	-12	-19	3723	-0.02	2.75	0.8
127	SLE QP 1	-13	-19	3407	-0.13	2.81	0.84
127	SLE QP 2	-12	-19	3597	-0.06	2.77	0.81
127	SLD 1	252	77	3642	-0.44	11.86	0.62
127	SLD 2	277	78	3642	-0.44	11.75	1.74
127	SLD 3	245	-94	3487	0.54	11.29	0.42
127	SLD 4	270	-93	3486	0.55	11.17	1.53
127	SLD 5	70	270	3847	-1.67	6.42	0.65
127	SLD 6	95	271	3846	-1.67	6.3	1.81
127	SLD 7	44	-302	3328	1.61	4.49	-0.02
127	SLD 8	70	-301	3327	1.61	4.37	1.14
127	SLD 9	-94	263	3866	-1.74	1.17	0.49
127	SLD 10	-69	264	3865	-1.74	1.05	1.65
127	SLD 11	-119	-309	3347	1.54	-0.75	-0.18
127	SLD 12	-94	-308	3347	1.54	-0.87	0.98
127	SLD 13	-294	55	3707	-0.68	-5.63	0.09
127	SLD 14	-269	56	3706	-0.67	-5.74	1.21
127	SLD 15	-301	-116	3551	0.31	-6.2	-0.11
127	SLD 16	-277	-115	3551	0.31	-6.32	1.01
127	SLV 1	590	205	3703	-0.94	23.56	0.38
127	SLV 2	647	208	3702	-0.93	23.3	2.94
127	SLV 3	573	-196	3339	1.36	22.1	-0.1
127	SLV 4	629	-193	3338	1.36	21.84	2.46
127	SLV 5	174	655	4180	-3.82	11.31	0.44
127	SLV 6	233	658	4179	-3.81	11.04	3.14
127	SLV 7	115	-681	2969	3.84	6.46	-1.15
127	SLV 8	175	-678	2968	3.85	6.19	1.55
127	SLV 9	-199	640	4225	-3.98	-0.64	0.08
127	SLV 10	-140	643	4224	-3.97	-0.92	2.78
127	SLV 11	-258	-696	3014	3.68	-5.49	-1.51
127	SLV 12	-198	-693	3013	3.69	-5.77	1.18
127	SLV 13	-654	155	3855	-1.49	-16.3	-0.83
127	SLV 14	-597	158	3854	-1.48	-16.56	1.73
127	SLV 15	-671	-246	3491	0.8	-17.75	-1.31
127	SLV 16	-615	-243	3490	0.81	-18.01	1.25
127	CRTFP Ux+	0	0	0	0	0	0
127	CRTFP Ux-	0	0	0	0	0	0
127	CRTFP Uy+	0	0	0	0	0	0
127	CRTFP Uy-	0	0	0	0	0	0
130	SLU 1	7	10	1818	1.02	191.67	-2.51
130	SLU 2	6	-1	1817	1.06	190.21	0.38
130	SLU 3	7	10	1818	1.02	191.67	-2.51
130	SLU 4	6	4	1817	1.04	190.8	-0.78
130	SLU 5	6	-1	1817	1.06	190.21	0.38
130	SLU 6	7	10	1818	1.02	191.67	-2.51
130	SLU 7	6	4	1817	1.04	190.8	-0.78
130	SLU 8	7	10	1818	1.02	191.67	-2.51
130	SLU 9	6	4	1817	1.04	190.8	-0.78
130	SLU 10	8	-2	2135	1.41	226.3	0.5
130	SLU 11	8	10	2136	1.37	227.76	-2.39
130	SLU 12	8	3	2135	1.39	226.88	-0.66
130	SLU 13	8	-2	2135	1.41	226.3	0.5
130	SLU 14	8	10	2136	1.37	227.76	-2.39
130	SLU 15	8	3	2135	1.39	226.88	-0.66
130	SLU 16	8	10	2136	1.37	227.76	-2.39



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
130	SLU 17	8	3	2135	1.39	226.88	-0.66
130	SLU 18	9	10	2272	1.52	243.23	-2.34
130	SLU 19	9	3	2272	1.54	242.35	-0.61
130	SLU 20	9	10	2272	1.52	243.23	-2.34
130	SLU 21	9	3	2272	1.54	242.35	-0.61
130	SLU 22	8	10	2057	1.27	217.96	-2.48
130	SLU 23	8	-1	2056	1.31	216.49	0.4
130	SLU 24	8	10	2057	1.27	217.96	-2.48
130	SLU 25	8	3	2056	1.3	217.08	-0.75
130	SLU 26	8	-1	2056	1.31	216.49	0.4
130	SLU 27	8	10	2057	1.27	217.96	-2.48
130	SLU 28	8	3	2056	1.3	217.08	-0.75
130	SLU 29	8	10	2057	1.27	217.96	-2.48
130	SLU 30	8	3	2056	1.3	217.08	-0.75
130	SLU 31	10	-2	2374	1.66	252.58	0.52
130	SLU 32	10	10	2375	1.62	254.05	-2.36
130	SLU 33	10	3	2374	1.65	253.17	-0.63
130	SLU 34	10	-2	2374	1.66	252.58	0.52
130	SLU 35	10	10	2375	1.62	254.05	-2.36
130	SLU 36	10	3	2374	1.65	253.17	-0.63
130	SLU 37	10	10	2375	1.62	254.05	-2.36
130	SLU 38	10	3	2374	1.65	253.17	-0.63
130	SLU 39	11	10	2511	1.77	269.51	-2.31
130	SLU 40	10	3	2510	1.79	268.63	-0.58
130	SLU 41	11	10	2511	1.77	269.51	-2.31
130	SLU 42	10	3	2510	1.79	268.63	-0.58
130	SLU 43	8	14	2281	1.24	240.16	-3.27
130	SLU 44	8	2	2281	1.28	238.7	-0.38
130	SLU 45	8	14	2281	1.24	240.16	-3.27
130	SLU 46	8	7	2281	1.26	239.29	-1.54
130	SLU 47	8	2	2281	1.28	238.7	-0.38
130	SLU 48	8	14	2281	1.24	240.16	-3.27
130	SLU 49	8	7	2281	1.26	239.29	-1.54
130	SLU 50	8	14	2281	1.24	240.16	-3.27
130	SLU 51	8	7	2281	1.26	239.29	-1.54
130	SLU 52	10	2	2598	1.63	274.79	-0.26
130	SLU 53	10	13	2599	1.59	276.25	-3.15
130	SLU 54	10	6	2599	1.61	275.37	-1.42
130	SLU 55	10	2	2598	1.63	274.79	-0.26
130	SLU 56	10	13	2599	1.59	276.25	-3.15
130	SLU 57	10	6	2599	1.61	275.37	-1.42
130	SLU 58	10	13	2599	1.59	276.25	-3.15
130	SLU 59	10	6	2599	1.61	275.37	-1.42
130	SLU 60	11	13	2735	1.73	291.72	-3.1
130	SLU 61	11	6	2735	1.76	290.84	-1.37
130	SLU 62	11	13	2735	1.73	291.72	-3.1
130	SLU 63	11	6	2735	1.76	290.84	-1.37
130	SLU 64	9	13	2520	1.49	266.45	-3.24
130	SLU 65	9	2	2520	1.53	264.99	-0.36
130	SLU 66	9	13	2520	1.49	266.45	-3.24
130	SLU 67	9	7	2520	1.52	265.57	-1.51
130	SLU 68	9	2	2520	1.53	264.99	-0.36
130	SLU 69	9	13	2520	1.49	266.45	-3.24
130	SLU 70	9	7	2520	1.52	265.57	-1.51
130	SLU 71	9	13	2520	1.49	266.45	-3.24
130	SLU 72	9	7	2520	1.52	265.57	-1.51
130	SLU 73	11	1	2837	1.88	301.07	-0.24
130	SLU 74	11	13	2838	1.84	302.54	-3.12
130	SLU 75	11	6	2838	1.86	301.66	-1.39
130	SLU 76	11	1	2837	1.88	301.07	-0.24
130	SLU 77	11	13	2838	1.84	302.54	-3.12
130	SLU 78	11	6	2838	1.86	301.66	-1.39
130	SLU 79	11	13	2838	1.84	302.54	-3.12
130	SLU 80	11	6	2838	1.86	301.66	-1.39
130	SLU 81	12	13	2974	1.99	318	-3.07
130	SLU 82	12	6	2974	2.01	317.12	-1.34
130	SLU 83	12	13	2974	1.99	318	-3.07
130	SLU 84	12	6	2974	2.01	317.12	-1.34
130	SLE RA 1	7	10	1886	1.09	199.18	-2.5
130	SLE RA 2	7	3	1886	1.12	198.21	-0.58
130	SLE RA 3	7	10	1886	1.09	199.18	-2.5
130	SLE RA 4	7	6	1886	1.11	198.6	-1.35
130	SLE RA 5	7	3	1886	1.12	198.21	-0.58
130	SLE RA 6	7	10	1886	1.09	199.18	-2.5
130	SLE RA 7	7	6	1886	1.11	198.6	-1.35
130	SLE RA 8	7	10	1886	1.09	199.18	-2.5
130	SLE RA 9	7	6	1886	1.11	198.6	-1.35
130	SLE RA 10	8	2	2098	1.35	222.27	-0.5
130	SLE RA 11	8	10	2098	1.32	223.24	-2.42
130	SLE RA 12	8	5	2098	1.34	222.66	-1.27
130	SLE RA 13	8	2	2098	1.35	222.27	-0.5
130	SLE RA 14	8	10	2098	1.32	223.24	-2.42
130	SLE RA 15	8	5	2098	1.34	222.66	-1.27
130	SLE RA 16	8	10	2098	1.32	223.24	-2.42
130	SLE RA 17	8	5	2098	1.34	222.66	-1.27
130	SLE RA 18	9	10	2189	1.42	233.55	-2.39
130	SLE RA 19	9	5	2189	1.44	232.97	-1.23
130	SLE RA 20	9	10	2189	1.42	233.55	-2.39
130	SLE RA 21	9	5	2189	1.44	232.97	-1.23
130	SLE FR 1	7	10	1886	1.09	199.18	-2.5
130	SLE FR 2	7	9	1886	1.1	198.99	-2.11



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
130	SLE FR 3	7	10	1886	1.09	199.18	-2.5
130	SLE FR 4	7	9	1977	1.2	209.3	-2.08
130	SLE FR 5	7	10	1977	1.19	209.49	-2.47
130	SLE FR 6	8	10	2038	1.26	216.37	-2.44
130	SLE QP 1	7	10	1886	1.09	199.18	-2.5
130	SLE QP 2	7	10	1977	1.19	209.49	-2.47
130	SLD 1	145	58	1795	0.65	187.35	-14.39
130	SLD 2	155	97	1798	0.63	190.59	-24.06
130	SLD 3	141	-59	1732	1.16	176.6	14.87
130	SLD 4	151	-20	1736	1.14	179.83	5.2
130	SLD 5	51	187	2016	0.26	217.97	-46.84
130	SLD 6	62	228	2020	0.25	221.33	-56.89
130	SLD 7	37	-202	1807	1.96	182.12	50.68
130	SLD 8	48	-162	1811	1.94	185.48	40.63
130	SLD 9	-33	182	2143	0.44	233.51	-45.56
130	SLD 10	-22	223	2147	0.42	236.87	-55.61
130	SLD 11	-47	-207	1934	2.14	197.66	51.96
130	SLD 12	-36	-167	1938	2.12	201.02	41.91
130	SLD 13	-136	41	2218	1.24	239.15	-10.13
130	SLD 14	-126	80	2222	1.22	242.39	-19.8
130	SLD 15	-140	-76	2156	1.75	228.4	19.13
130	SLD 16	-130	-37	2159	1.73	231.63	9.45
130	SLV 1	321	121	1563	-0.05	158.5	-30.46
130	SLV 2	344	211	1572	-0.09	165.91	-52.64
130	SLV 3	311	-152	1417	1.14	133.32	37.92
130	SLV 4	334	-62	1425	1.1	140.74	15.74
130	SLV 5	108	424	2071	-0.97	229.58	-106.21
130	SLV 6	132	518	2080	-1.01	237.39	-129.57
130	SLV 7	75	-486	1584	2.99	145.67	121.7
130	SLV 8	99	-392	1593	2.95	153.48	98.34
130	SLV 9	-84	412	2361	-0.57	265.5	-103.27
130	SLV 10	-60	507	2370	-0.61	273.31	-126.63
130	SLV 11	-117	-498	1874	3.39	181.6	124.64
130	SLV 12	-93	-404	1883	3.35	189.41	101.28
130	SLV 13	-319	83	2529	1.29	278.25	-20.67
130	SLV 14	-296	172	2537	1.25	285.66	-42.85
130	SLV 15	-329	-190	2382	2.47	253.08	47.71
130	SLV 16	-306	-101	2391	2.43	260.49	25.52
130	CRTFP Ux+	0	0	0	0	0	0
130	CRTFP Ux-	0	0	0	0	0	0
130	CRTFP Uy+	0	0	0	0	0	0
130	CRTFP Uy-	0	0	0	0	0	0
131	SLU 1	-14	-1	1642	2.82	-659.47	-0.36
131	SLU 2	-13	-11	1640	2.87	-659.72	-5.35
131	SLU 3	-14	-1	1642	2.82	-659.47	-0.36
131	SLU 4	-13	-7	1641	2.85	-659.62	-3.35
131	SLU 5	-13	-11	1640	2.87	-659.72	-5.35
131	SLU 6	-14	-1	1642	2.82	-659.47	-0.36
131	SLU 7	-13	-7	1641	2.85	-659.62	-3.35
131	SLU 8	-14	-1	1642	2.82	-659.47	-0.36
131	SLU 9	-13	-7	1641	2.85	-659.62	-3.35
131	SLU 10	-13	-12	1942	3.5	-779.95	-5.77
131	SLU 11	-13	-2	1944	3.45	-779.7	-0.78
131	SLU 12	-13	-8	1943	3.48	-779.85	-3.78
131	SLU 13	-13	-12	1942	3.5	-779.95	-5.77
131	SLU 14	-13	-2	1944	3.45	-779.7	-0.78
131	SLU 15	-13	-8	1943	3.48	-779.85	-3.78
131	SLU 16	-13	-2	1944	3.45	-779.7	-0.78
131	SLU 17	-13	-8	1943	3.48	-779.85	-3.78
131	SLU 18	-13	-2	2073	3.73	-831.23	-0.96
131	SLU 19	-13	-8	2072	3.76	-831.38	-3.96
131	SLU 20	-13	-2	2073	3.73	-831.23	-0.96
131	SLU 21	-13	-8	2072	3.76	-831.38	-3.96
131	SLU 22	-13	-1	1859	3.28	-746.4	-0.54
131	SLU 23	-13	-12	1858	3.33	-746.65	-5.53
131	SLU 24	-13	-1	1859	3.28	-746.4	-0.54
131	SLU 25	-13	-8	1859	3.31	-746.55	-3.53
131	SLU 26	-13	-12	1858	3.33	-746.65	-5.53
131	SLU 27	-13	-1	1859	3.28	-746.4	-0.54
131	SLU 28	-13	-8	1859	3.31	-746.55	-3.53
131	SLU 29	-13	-1	1859	3.28	-746.4	-0.54
131	SLU 30	-13	-8	1859	3.31	-746.55	-3.53
131	SLU 31	-13	-13	2160	3.97	-866.88	-5.95
131	SLU 32	-13	-2	2161	3.92	-866.63	-0.96
131	SLU 33	-13	-8	2161	3.95	-866.78	-3.96
131	SLU 34	-13	-13	2160	3.97	-866.88	-5.95
131	SLU 35	-13	-2	2161	3.92	-866.63	-0.96
131	SLU 36	-13	-8	2161	3.95	-866.78	-3.96
131	SLU 37	-13	-2	2161	3.92	-866.63	-0.96
131	SLU 38	-13	-8	2161	3.95	-866.78	-3.96
131	SLU 39	-13	-3	2291	4.19	-918.16	-1.15
131	SLU 40	-13	-9	2290	4.22	-918.31	-4.14
131	SLU 41	-13	-3	2291	4.19	-918.16	-1.15
131	SLU 42	-13	-9	2290	4.22	-918.31	-4.14
131	SLU 43	-18	-1	2059	3.5	-827.51	-0.4
131	SLU 44	-17	-12	2058	3.55	-827.76	-5.39
131	SLU 45	-18	-1	2059	3.5	-827.51	-0.4
131	SLU 46	-18	-7	2059	3.53	-827.66	-3.4
131	SLU 47	-17	-12	2058	3.55	-827.76	-5.39
131	SLU 48	-18	-1	2059	3.5	-827.51	-0.4
131	SLU 49	-18	-7	2059	3.53	-827.66	-3.4



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
131	SLU 50	-18	-1	2059	3.5	-827.51	-0.4
131	SLU 51	-18	-7	2059	3.53	-827.66	-3.4
131	SLU 52	-17	-12	2360	4.19	-947.99	-5.82
131	SLU 53	-17	-2	2361	4.14	-947.74	-0.83
131	SLU 54	-17	-8	2361	4.17	-947.89	-3.82
131	SLU 55	-17	-12	2360	4.19	-947.99	-5.82
131	SLU 56	-17	-2	2361	4.14	-947.74	-0.83
131	SLU 57	-17	-8	2361	4.17	-947.89	-3.82
131	SLU 58	-17	-2	2361	4.14	-947.74	-0.83
131	SLU 59	-17	-8	2361	4.17	-947.89	-3.82
131	SLU 60	-17	-2	2491	4.41	-999.26	-1.01
131	SLU 61	-17	-9	2490	4.44	-999.41	-4
131	SLU 62	-17	-2	2491	4.41	-999.26	-1.01
131	SLU 63	-17	-9	2490	4.44	-999.41	-4
131	SLU 64	-18	-1	2277	3.97	-914.44	-0.58
131	SLU 65	-17	-12	2276	4.02	-914.69	-5.57
131	SLU 66	-18	-1	2277	3.97	-914.44	-0.58
131	SLU 67	-17	-8	2276	4	-914.59	-3.58
131	SLU 68	-17	-12	2276	4.02	-914.69	-5.57
131	SLU 69	-18	-1	2277	3.97	-914.44	-0.58
131	SLU 70	-17	-8	2276	4	-914.59	-3.58
131	SLU 71	-18	-1	2277	3.97	-914.44	-0.58
131	SLU 72	-17	-8	2276	4	-914.59	-3.58
131	SLU 73	-17	-13	2578	4.65	-1034.92	-6
131	SLU 74	-17	-2	2579	4.6	-1034.67	-1.01
131	SLU 75	-17	-9	2578	4.63	-1034.82	-4
131	SLU 76	-17	-13	2578	4.65	-1034.92	-6
131	SLU 77	-17	-2	2579	4.6	-1034.67	-1.01
131	SLU 78	-17	-9	2578	4.63	-1034.82	-4
131	SLU 79	-17	-2	2579	4.6	-1034.67	-1.01
131	SLU 80	-17	-9	2578	4.63	-1034.82	-4
131	SLU 81	-17	-3	2709	4.88	-1086.2	-1.19
131	SLU 82	-17	-9	2708	4.91	-1086.35	-4.18
131	SLU 83	-17	-3	2709	4.88	-1086.2	-1.19
131	SLU 84	-17	-9	2708	4.91	-1086.35	-4.18
131	SLE RA 1	-14	-1	1704	2.95	-684.31	-0.41
131	SLE RA 2	-13	-8	1703	2.98	-684.47	-3.74
131	SLE RA 3	-14	-1	1704	2.95	-684.31	-0.41
131	SLE RA 4	-13	-5	1703	2.97	-684.41	-2.4
131	SLE RA 5	-13	-8	1703	2.98	-684.47	-3.74
131	SLE RA 6	-14	-1	1704	2.95	-684.31	-0.41
131	SLE RA 7	-13	-5	1703	2.97	-684.41	-2.4
131	SLE RA 8	-14	-1	1704	2.95	-684.31	-0.41
131	SLE RA 9	-13	-5	1703	2.97	-684.41	-2.4
131	SLE RA 10	-13	-9	1904	3.41	-764.63	-4.02
131	SLE RA 11	-13	-2	1905	3.37	-764.46	-0.69
131	SLE RA 12	-13	-6	1905	3.39	-764.56	-2.69
131	SLE RA 13	-13	-9	1904	3.41	-764.63	-4.02
131	SLE RA 14	-13	-2	1905	3.37	-764.46	-0.69
131	SLE RA 15	-13	-6	1905	3.39	-764.56	-2.69
131	SLE RA 16	-13	-2	1905	3.37	-764.46	-0.69
131	SLE RA 17	-13	-6	1905	3.39	-764.56	-2.69
131	SLE RA 18	-13	-2	1991	3.56	-798.81	-0.81
131	SLE RA 19	-13	-6	1991	3.58	-798.91	-2.81
131	SLE RA 20	-13	-2	1991	3.56	-798.81	-0.81
131	SLE RA 21	-13	-6	1991	3.58	-798.91	-2.81
131	SLE FR 1	-14	-1	1704	2.95	-684.31	-0.41
131	SLE FR 2	-13	-2	1704	2.96	-684.34	-1.07
131	SLE FR 3	-14	-1	1704	2.95	-684.31	-0.41
131	SLE FR 4	-13	-3	1790	3.14	-718.69	-1.2
131	SLE FR 5	-13	-1	1790	3.13	-718.66	-0.53
131	SLE FR 6	-13	-1	1848	3.25	-741.56	-0.61
131	SLE QP 1	-14	-1	1704	2.95	-684.31	-0.41
131	SLE QP 2	-13	-1	1790	3.13	-718.66	-0.53
131	SLD 1	114	57	2010	3.38	-795.67	27.29
131	SLD 2	124	22	2008	3.41	-795.28	10.54
131	SLD 3	118	-44	1970	3.74	-786.04	-20.9
131	SLD 4	128	-79	1967	3.77	-785.65	-37.64
131	SLD 5	15	183	1919	2.65	-756.52	87.09
131	SLD 6	25	146	1916	2.68	-756.11	69.69
131	SLD 7	29	-155	1783	3.85	-724.4	-73.54
131	SLD 8	39	-192	1781	3.88	-724	-90.94
131	SLD 9	-65	189	1800	2.39	-713.32	89.87
131	SLD 10	-56	152	1797	2.42	-712.91	72.48
131	SLD 11	-52	-149	1664	3.58	-681.21	-70.75
131	SLD 12	-42	-186	1661	3.61	-680.8	-88.15
131	SLD 13	-155	77	1613	2.5	-651.67	36.58
131	SLD 14	-145	41	1611	2.53	-651.28	19.84
131	SLD 15	-150	-25	1573	2.86	-642.04	-11.6
131	SLD 16	-141	-60	1570	2.88	-641.65	-28.35
131	SLV 1	277	135	2293	3.68	-894.41	64.34
131	SLV 2	299	54	2287	3.75	-893.51	25.95
131	SLV 3	286	-102	2198	4.52	-871.89	-48.28
131	SLV 4	308	-183	2192	4.58	-870.99	-86.68
131	SLV 5	51	430	2087	2	-805.88	204.19
131	SLV 6	74	344	2081	2.07	-804.93	163.76
131	SLV 7	83	-360	1771	4.79	-730.81	-171.21
131	SLV 8	106	-446	1764	4.86	-729.87	-211.64
131	SLV 9	-133	443	1816	1.4	-707.45	210.58
131	SLV 10	-109	358	1810	1.47	-706.51	170.15
131	SLV 11	-101	-347	1499	4.19	-632.39	-164.82



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
131	SLV 12	-78	-432	1493	4.26	-631.44	-205.25
131	SLV 13	-335	180	1389	1.68	-566.33	85.61
131	SLV 14	-313	99	1383	1.74	-565.43	47.22
131	SLV 15	-325	-57	1294	2.51	-543.81	-27.01
131	SLV 16	-304	-138	1288	2.58	-542.91	-65.4
131	CRTFP Ux+	0	0	0	0	0	0
131	CRTFP Ux-	0	0	0	0	0	0
131	CRTFP Uy+	0	0	0	0	0	0
131	CRTFP Uy-	0	0	0	0	0	0
134	SLU 1	-17	-16	3270	0.19	3.06	0.72
134	SLU 2	-17	-32	3263	0.3	3.11	0.73
134	SLU 3	-17	-16	3270	0.19	3.06	0.72
134	SLU 4	-17	-26	3266	0.25	3.09	0.73
134	SLU 5	-17	-32	3263	0.3	3.11	0.73
134	SLU 6	-17	-16	3270	0.19	3.06	0.72
134	SLU 7	-17	-26	3266	0.25	3.09	0.73
134	SLU 8	-17	-16	3270	0.19	3.06	0.72
134	SLU 9	-17	-26	3266	0.25	3.09	0.73
134	SLU 10	-15	-33	3935	0.62	2.97	0.66
134	SLU 11	-15	-17	3942	0.51	2.91	0.65
134	SLU 12	-15	-26	3938	0.58	2.94	0.65
134	SLU 13	-15	-33	3935	0.62	2.97	0.66
134	SLU 14	-15	-17	3942	0.51	2.91	0.65
134	SLU 15	-15	-26	3938	0.58	2.94	0.65
134	SLU 16	-15	-17	3942	0.51	2.91	0.65
134	SLU 17	-15	-26	3938	0.58	2.94	0.65
134	SLU 18	-14	-17	4230	0.65	2.85	0.62
134	SLU 19	-14	-27	4226	0.72	2.88	0.62
134	SLU 20	-14	-17	4230	0.65	2.85	0.62
134	SLU 21	-14	-27	4226	0.72	2.88	0.62
134	SLU 22	-16	-17	3758	0.42	2.91	0.69
134	SLU 23	-16	-33	3751	0.53	2.97	0.71
134	SLU 24	-16	-17	3758	0.42	2.91	0.69
134	SLU 25	-16	-27	3754	0.48	2.95	0.7
134	SLU 26	-16	-33	3751	0.53	2.97	0.71
134	SLU 27	-16	-17	3758	0.42	2.91	0.69
134	SLU 28	-16	-27	3754	0.48	2.95	0.7
134	SLU 29	-16	-17	3758	0.42	2.91	0.69
134	SLU 30	-16	-27	3754	0.48	2.95	0.7
134	SLU 31	-14	-34	4423	0.85	2.82	0.63
134	SLU 32	-14	-17	4430	0.74	2.77	0.62
134	SLU 33	-14	-27	4426	0.81	2.8	0.63
134	SLU 34	-14	-34	4423	0.85	2.82	0.63
134	SLU 35	-14	-17	4430	0.74	2.77	0.62
134	SLU 36	-14	-27	4426	0.81	2.8	0.63
134	SLU 37	-14	-17	4430	0.74	2.77	0.62
134	SLU 38	-14	-27	4426	0.81	2.8	0.63
134	SLU 39	-14	-18	4718	0.88	2.7	0.59
134	SLU 40	-14	-28	4714	0.95	2.74	0.59
134	SLU 41	-14	-18	4718	0.88	2.7	0.59
134	SLU 42	-14	-28	4714	0.95	2.74	0.59
134	SLU 43	-22	-20	4084	0.17	4.03	0.95
134	SLU 44	-22	-37	4077	0.28	4.08	0.96
134	SLU 45	-22	-20	4084	0.17	4.03	0.95
134	SLU 46	-22	-30	4080	0.23	4.06	0.96
134	SLU 47	-22	-37	4077	0.28	4.08	0.96
134	SLU 48	-22	-20	4084	0.17	4.03	0.95
134	SLU 49	-22	-30	4080	0.23	4.06	0.96
134	SLU 50	-22	-20	4084	0.17	4.03	0.95
134	SLU 51	-22	-30	4080	0.23	4.06	0.96
134	SLU 52	-20	-38	4749	0.6	3.93	0.89
134	SLU 53	-20	-21	4756	0.49	3.88	0.87
134	SLU 54	-20	-31	4752	0.56	3.91	0.88
134	SLU 55	-20	-38	4749	0.6	3.93	0.89
134	SLU 56	-20	-21	4756	0.49	3.88	0.87
134	SLU 57	-20	-31	4752	0.56	3.91	0.88
134	SLU 58	-20	-21	4756	0.49	3.88	0.87
134	SLU 59	-20	-31	4752	0.56	3.91	0.88
134	SLU 60	-20	-21	5044	0.63	3.81	0.84
134	SLU 61	-20	-31	5040	0.7	3.85	0.85
134	SLU 62	-20	-21	5044	0.63	3.81	0.84
134	SLU 63	-20	-31	5040	0.7	3.85	0.85
134	SLU 64	-21	-21	4571	0.39	3.88	0.92
134	SLU 65	-21	-38	4565	0.5	3.94	0.93
134	SLU 66	-21	-21	4571	0.39	3.88	0.92
134	SLU 67	-21	-31	4567	0.46	3.91	0.93
134	SLU 68	-21	-38	4565	0.5	3.94	0.93
134	SLU 69	-21	-21	4571	0.39	3.88	0.92
134	SLU 70	-21	-31	4567	0.46	3.91	0.93
134	SLU 71	-21	-21	4571	0.39	3.88	0.92
134	SLU 72	-21	-31	4567	0.46	3.91	0.93
134	SLU 73	-20	-38	5237	0.83	3.79	0.86
134	SLU 74	-20	-22	5244	0.72	3.73	0.85
134	SLU 75	-20	-32	5240	0.78	3.77	0.85
134	SLU 76	-20	-38	5237	0.83	3.79	0.86
134	SLU 77	-20	-22	5244	0.72	3.73	0.85
134	SLU 78	-20	-32	5240	0.78	3.77	0.85
134	SLU 79	-20	-22	5244	0.72	3.73	0.85
134	SLU 80	-20	-32	5240	0.78	3.77	0.85
134	SLU 81	-19	-22	5532	0.86	3.67	0.81
134	SLU 82	-19	-32	5528	0.92	3.7	0.82



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
134	SLU 83	-19	-22	5532	0.86	3.67	0.81
134	SLU 84	-19	-32	5528	0.92	3.7	0.82
134	SLE RA 1	-17	-16	3409	0.25	3.02	0.71
134	SLE RA 2	-17	-27	3405	0.33	3.05	0.72
134	SLE RA 3	-17	-16	3409	0.25	3.02	0.71
134	SLE RA 4	-17	-23	3407	0.3	3.04	0.72
134	SLE RA 5	-17	-27	3405	0.33	3.05	0.72
134	SLE RA 6	-17	-16	3409	0.25	3.02	0.71
134	SLE RA 7	-17	-23	3407	0.3	3.04	0.72
134	SLE RA 8	-17	-16	3409	0.25	3.02	0.71
134	SLE RA 9	-17	-23	3407	0.3	3.04	0.72
134	SLE RA 10	-15	-28	3853	0.54	2.96	0.67
134	SLE RA 11	-15	-17	3857	0.47	2.92	0.66
134	SLE RA 12	-15	-23	3855	0.51	2.94	0.67
134	SLE RA 13	-15	-28	3853	0.54	2.96	0.67
134	SLE RA 14	-15	-17	3857	0.47	2.92	0.66
134	SLE RA 15	-15	-23	3855	0.51	2.94	0.67
134	SLE RA 16	-15	-17	3857	0.47	2.92	0.66
134	SLE RA 17	-15	-23	3855	0.51	2.94	0.67
134	SLE RA 18	-15	-17	4049	0.56	2.88	0.64
134	SLE RA 19	-15	-23	4047	0.61	2.9	0.65
134	SLE RA 20	-15	-17	4049	0.56	2.88	0.64
134	SLE RA 21	-15	-23	4047	0.61	2.9	0.65
134	SLE FR 1	-17	-16	3409	0.25	3.02	0.71
134	SLE FR 2	-17	-18	3408	0.27	3.02	0.72
134	SLE FR 3	-17	-16	3409	0.25	3.02	0.71
134	SLE FR 4	-16	-19	3600	0.36	2.98	0.69
134	SLE FR 5	-16	-16	3601	0.35	2.98	0.69
134	SLE FR 6	-16	-16	3729	0.41	2.95	0.68
134	SLE QP 1	-17	-16	3409	0.25	3.02	0.71
134	SLE QP 2	-16	-16	3601	0.35	2.98	0.69
134	SLD 1	250	80	3635	0.02	12.32	0.38
134	SLD 2	269	81	3635	0.02	12.22	1.45
134	SLD 3	243	-92	3511	0.98	11.7	0.18
134	SLD 4	262	-91	3511	0.99	11.6	1.25
134	SLD 5	67	272	3800	-1.22	6.76	0.5
134	SLD 6	87	273	3799	-1.21	6.65	1.61
134	SLD 7	44	-300	3386	2	4.69	-0.15
134	SLD 8	64	-298	3386	2	4.58	0.96
134	SLD 9	-96	266	3817	-1.31	1.37	0.43
134	SLD 10	-76	267	3816	-1.31	1.26	1.54
134	SLD 11	-119	-306	3403	1.9	-0.7	-0.22
134	SLD 12	-100	-305	3403	1.91	-0.81	0.89
134	SLD 13	-295	58	3692	-0.3	-5.65	0.14
134	SLD 14	-276	59	3691	-0.29	-5.75	1.21
134	SLD 15	-302	-114	3568	0.67	-6.27	-0.06
134	SLD 16	-283	-113	3567	0.67	-6.37	1.01
134	SLV 1	591	208	3680	-0.41	24.34	-0.03
134	SLV 2	635	211	3679	-0.4	24.11	2.43
134	SLV 3	575	-193	3390	1.84	22.78	-0.48
134	SLV 4	618	-190	3390	1.85	22.55	1.97
134	SLV 5	174	658	4064	-3.3	11.85	0.25
134	SLV 6	220	661	4064	-3.29	11.61	2.83
134	SLV 7	120	-678	3099	4.21	6.63	-1.28
134	SLV 8	166	-675	3098	4.22	6.38	1.3
134	SLV 9	-198	643	4104	-3.53	-0.43	0.08
134	SLV 10	-152	646	4104	-3.52	-0.67	2.67
134	SLV 11	-252	-693	3139	3.98	-5.66	-1.45
134	SLV 12	-206	-690	3138	3.99	-5.9	1.14
134	SLV 13	-650	157	3813	-1.16	-16.6	-0.58
134	SLV 14	-607	160	3812	-1.15	-16.83	1.87
134	SLV 15	-667	-243	3524	1.09	-18.16	-1.04
134	SLV 16	-623	-241	3523	1.1	-18.39	1.41
134	CRTFP Ux+	0	0	0	0	0	0
134	CRTFP Ux-	0	0	0	0	0	0
134	CRTFP Uy+	0	0	0	0	0	0
134	CRTFP Uy-	0	0	0	0	0	0
137	SLU 1	3	21	3460	609.8	520.38	-4.89
137	SLU 2	2	-1	3461	610.02	517.91	0.68
137	SLU 3	3	21	3460	609.8	520.38	-4.89
137	SLU 4	3	8	3460	609.93	518.9	-1.55
137	SLU 5	2	-1	3461	610.02	517.91	0.68
137	SLU 6	3	21	3460	609.8	520.38	-4.89
137	SLU 7	3	8	3460	609.93	518.9	-1.55
137	SLU 8	3	21	3460	609.8	520.38	-4.89
137	SLU 9	3	8	3460	609.93	518.9	-1.55
137	SLU 10	5	-1	4080	720.35	619.07	0.33
137	SLU 11	6	20	4079	720.14	621.54	-5.24
137	SLU 12	6	7	4080	720.27	620.06	-1.9
137	SLU 13	5	-1	4080	720.35	619.07	0.33
137	SLU 14	6	20	4079	720.14	621.54	-5.24
137	SLU 15	6	7	4080	720.27	620.06	-1.9
137	SLU 16	6	20	4079	720.14	621.54	-5.24
137	SLU 17	6	7	4080	720.27	620.06	-1.9
137	SLU 18	8	20	4345	767.42	664.89	-5.39
137	SLU 19	7	7	4345	767.55	663.41	-2.05
137	SLU 20	8	20	4345	767.42	664.89	-5.39
137	SLU 21	7	7	4345	767.55	663.41	-2.05
137	SLU 22	5	21	3925	692.59	594.84	-5.2
137	SLU 23	4	-1	3926	692.81	592.37	0.37
137	SLU 24	5	21	3925	692.59	594.84	-5.2



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
137	SLU 25	5	8	3925	692.72	593.36	-1.86
137	SLU 26	4	-1	3926	692.81	592.37	0.37
137	SLU 27	5	21	3925	692.59	594.84	-5.2
137	SLU 28	5	8	3925	692.72	593.36	-1.86
137	SLU 29	5	21	3925	692.59	594.84	-5.2
137	SLU 30	5	8	3925	692.72	593.36	-1.86
137	SLU 31	7	-1	4545	803.14	693.53	0.02
137	SLU 32	8	20	4545	802.92	696	-5.55
137	SLU 33	8	8	4545	803.05	694.52	-2.21
137	SLU 34	7	-1	4545	803.14	693.53	0.02
137	SLU 35	8	20	4545	802.92	696	-5.55
137	SLU 36	8	8	4545	803.05	694.52	-2.21
137	SLU 37	8	20	4545	802.92	696	-5.55
137	SLU 38	8	8	4545	803.05	694.52	-2.21
137	SLU 39	9	20	4810	850.21	739.36	-5.7
137	SLU 40	9	7	4810	850.34	737.87	-2.36
137	SLU 41	9	20	4810	850.21	739.36	-5.7
137	SLU 42	9	7	4810	850.34	737.87	-2.36
137	SLU 43	4	27	4339	764.36	650.97	-6.25
137	SLU 44	2	5	4339	764.58	648.5	-0.68
137	SLU 45	4	27	4339	764.36	650.97	-6.25
137	SLU 46	3	14	4339	764.49	649.48	-2.91
137	SLU 47	2	5	4339	764.58	648.5	-0.68
137	SLU 48	4	27	4339	764.36	650.97	-6.25
137	SLU 49	3	14	4339	764.49	649.48	-2.91
137	SLU 50	4	27	4339	764.36	650.97	-6.25
137	SLU 51	3	14	4339	764.49	649.48	-2.91
137	SLU 52	6	5	4959	874.91	749.66	-1.03
137	SLU 53	7	26	4958	874.69	752.13	-6.6
137	SLU 54	6	14	4958	874.82	750.64	-3.26
137	SLU 55	6	5	4959	874.91	749.66	-1.03
137	SLU 56	7	26	4958	874.69	752.13	-6.6
137	SLU 57	6	14	4958	874.82	750.64	-3.26
137	SLU 58	7	26	4958	874.69	752.13	-6.6
137	SLU 59	6	14	4958	874.82	750.64	-3.26
137	SLU 60	8	26	5224	921.98	795.48	-6.75
137	SLU 61	7	13	5224	922.11	794	-3.41
137	SLU 62	8	26	5224	921.98	795.48	-6.75
137	SLU 63	7	13	5224	922.11	794	-3.41
137	SLU 64	5	27	4804	847.15	725.43	-6.56
137	SLU 65	4	6	4804	847.36	722.96	-0.99
137	SLU 66	5	27	4804	847.15	725.43	-6.56
137	SLU 67	5	14	4804	847.28	723.94	-3.22
137	SLU 68	4	6	4804	847.36	722.96	-0.99
137	SLU 69	5	27	4804	847.15	725.43	-6.56
137	SLU 70	5	14	4804	847.28	723.94	-3.22
137	SLU 71	5	27	4804	847.15	725.43	-6.56
137	SLU 72	5	14	4804	847.28	723.94	-3.22
137	SLU 73	7	5	5424	957.69	824.12	-1.34
137	SLU 74	8	27	5423	957.48	826.59	-6.91
137	SLU 75	8	14	5423	957.61	825.1	-3.57
137	SLU 76	7	5	5424	957.69	824.12	-1.34
137	SLU 77	8	27	5423	957.48	826.59	-6.91
137	SLU 78	8	14	5423	957.61	825.1	-3.57
137	SLU 79	8	27	5423	957.48	826.59	-6.91
137	SLU 80	8	14	5423	957.61	825.1	-3.57
137	SLU 81	10	26	5689	1004.76	869.94	-7.06
137	SLU 82	9	14	5689	1004.89	868.46	-3.72
137	SLU 83	10	26	5689	1004.76	869.94	-7.06
137	SLU 84	9	14	5689	1004.89	868.46	-3.72
137	SLE RA 1	4	21	3593	633.46	541.66	-4.98
137	SLE RA 2	3	6	3593	633.6	540.01	-1.27
137	SLE RA 3	4	21	3593	633.46	541.66	-4.98
137	SLE RA 4	3	12	3593	633.54	540.67	-2.75
137	SLE RA 5	3	6	3593	633.6	540.01	-1.27
137	SLE RA 6	4	21	3593	633.46	541.66	-4.98
137	SLE RA 7	3	12	3593	633.54	540.67	-2.75
137	SLE RA 8	4	21	3593	633.46	541.66	-4.98
137	SLE RA 9	3	12	3593	633.54	540.67	-2.75
137	SLE RA 10	5	6	4006	707.16	607.45	-1.5
137	SLE RA 11	6	20	4006	707.01	609.1	-5.21
137	SLE RA 12	5	12	4006	707.1	608.11	-2.99
137	SLE RA 13	5	6	4006	707.16	607.45	-1.5
137	SLE RA 14	6	20	4006	707.01	609.1	-5.21
137	SLE RA 15	5	12	4006	707.1	608.11	-2.99
137	SLE RA 16	6	20	4006	707.01	609.1	-5.21
137	SLE RA 17	5	12	4006	707.1	608.11	-2.99
137	SLE RA 18	7	20	4183	738.53	638	-5.31
137	SLE RA 19	6	12	4183	738.62	637.01	-3.09
137	SLE RA 20	7	20	4183	738.53	638	-5.31
137	SLE RA 21	6	12	4183	738.62	637.01	-3.09
137	SLE FR 1	4	21	3593	633.46	541.66	-4.98
137	SLE FR 2	4	18	3593	633.49	541.33	-4.23
137	SLE FR 3	4	21	3593	633.46	541.66	-4.98
137	SLE FR 4	4	18	3770	665.01	570.23	-4.34
137	SLE FR 5	5	21	3770	664.98	570.56	-5.08
137	SLE FR 6	5	21	3888	686	589.83	-5.15
137	SLE QP 1	4	21	3593	633.46	541.66	-4.98
137	SLE QP 2	5	21	3770	664.98	570.56	-5.08
137	SLD 1	267	108	3394	596.57	514.44	-70.27
137	SLD 2	280	180	3401	597.78	520.72	-89.93



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
137	SLD 3	258	-108	3311	584.5	492.99	-15.08
137	SLD 4	270	-36	3318	585.71	499.27	-34.74
137	SLD 5	93	347	3780	662.31	583.93	-101.08
137	SLD 6	106	422	3787	663.57	590.46	-121.5
137	SLD 7	62	-371	3504	622.09	512.44	82.89
137	SLD 8	75	-297	3511	623.34	518.96	62.46
137	SLD 9	-66	338	4028	706.62	622.15	-72.62
137	SLD 10	-53	413	4035	707.87	628.68	-93.05
137	SLD 11	-96	-381	3753	666.39	550.66	111.35
137	SLD 12	-83	-306	3760	667.65	557.19	90.92
137	SLD 13	-261	77	4222	744.25	641.85	24.58
137	SLD 14	-249	149	4229	745.46	648.13	4.92
137	SLD 15	-270	-139	4139	732.18	620.4	79.77
137	SLD 16	-258	-67	4146	733.39	626.68	60.11
137	SLV 1	602	225	2916	509.51	442.54	-155
137	SLV 2	631	390	2931	512.28	456.95	-200.09
137	SLV 3	581	-279	2722	481.28	392.28	-26.02
137	SLV 4	609	-113	2738	484.05	406.68	-71.11
137	SLV 5	206	784	3801	660.12	602.96	-228.7
137	SLV 6	236	958	3817	663.04	618.13	-276.18
137	SLV 7	134	-895	3157	566	435.42	201.24
137	SLV 8	164	-721	3173	568.92	450.59	153.76
137	SLV 9	-155	762	4367	761.04	690.53	-163.91
137	SLV 10	-125	936	4383	763.96	705.7	-211.4
137	SLV 11	-227	-916	3723	666.92	522.98	266.03
137	SLV 12	-197	-742	3739	669.84	538.15	218.54
137	SLV 13	-600	154	4802	845.91	734.43	60.95
137	SLV 14	-572	320	4817	848.68	748.84	15.86
137	SLV 15	-622	-349	4609	817.68	684.17	189.93
137	SLV 16	-593	-184	4624	820.45	698.57	144.84
137	CRTFP Ux+	0	0	0	0	0	0
137	CRTFP Ux-	0	0	0	0	0	0
137	CRTFP Uy+	0	0	0	0	0	0
137	CRTFP Uy-	0	0	0	0	0	0
138	SLU 1	-17	-1	1738	3.06	-728.87	-0.14
138	SLU 2	-16	-11	1739	3.1	-729.63	-5.14
138	SLU 3	-17	-1	1738	3.06	-728.87	-0.14
138	SLU 4	-17	-7	1739	3.09	-729.33	-3.14
138	SLU 5	-16	-11	1739	3.1	-729.63	-5.14
138	SLU 6	-17	-1	1738	3.06	-728.87	-0.14
138	SLU 7	-17	-7	1739	3.09	-729.33	-3.14
138	SLU 8	-17	-1	1738	3.06	-728.87	-0.14
138	SLU 9	-17	-7	1739	3.09	-729.33	-3.14
138	SLU 10	-16	-12	2062	3.79	-865.02	-5.49
138	SLU 11	-16	-1	2062	3.75	-864.25	-0.49
138	SLU 12	-16	-8	2062	3.77	-864.71	-3.49
138	SLU 13	-16	-12	2062	3.79	-865.02	-5.49
138	SLU 14	-16	-1	2062	3.75	-864.25	-0.49
138	SLU 15	-16	-8	2062	3.77	-864.71	-3.49
138	SLU 16	-16	-1	2062	3.75	-864.25	-0.49
138	SLU 17	-16	-8	2062	3.77	-864.71	-3.49
138	SLU 18	-16	-2	2201	4.04	-922.27	-0.64
138	SLU 19	-15	-8	2201	4.06	-922.73	-3.64
138	SLU 20	-16	-2	2201	4.04	-922.27	-0.64
138	SLU 21	-15	-8	2201	4.06	-922.73	-3.64
138	SLU 22	-16	-1	1972	3.56	-826.82	-0.26
138	SLU 23	-16	-11	1973	3.6	-827.59	-5.27
138	SLU 24	-16	-1	1972	3.56	-826.82	-0.26
138	SLU 25	-16	-7	1972	3.59	-827.28	-3.27
138	SLU 26	-16	-11	1973	3.6	-827.59	-5.27
138	SLU 27	-16	-1	1972	3.56	-826.82	-0.26
138	SLU 28	-16	-7	1972	3.59	-827.28	-3.27
138	SLU 29	-16	-1	1972	3.56	-826.82	-0.26
138	SLU 30	-16	-7	1972	3.59	-827.28	-3.27
138	SLU 31	-15	-12	2296	4.29	-962.97	-5.62
138	SLU 32	-16	-1	2296	4.25	-962.21	-0.62
138	SLU 33	-15	-8	2296	4.27	-962.67	-3.62
138	SLU 34	-15	-12	2296	4.29	-962.97	-5.62
138	SLU 35	-16	-1	2296	4.25	-962.21	-0.62
138	SLU 36	-15	-8	2296	4.27	-962.67	-3.62
138	SLU 37	-16	-1	2296	4.25	-962.21	-0.62
138	SLU 38	-15	-8	2296	4.27	-962.67	-3.62
138	SLU 39	-15	-2	2435	4.54	-1020.23	-0.77
138	SLU 40	-15	-8	2435	4.56	-1020.69	-3.77
138	SLU 41	-15	-2	2435	4.54	-1020.23	-0.77
138	SLU 42	-15	-8	2435	4.56	-1020.69	-3.77
138	SLU 43	-22	-1	2180	3.81	-913.94	-0.13
138	SLU 44	-22	-11	2180	3.85	-914.71	-5.13
138	SLU 45	-22	-1	2180	3.81	-913.94	-0.13
138	SLU 46	-22	-7	2180	3.83	-914.4	-3.13
138	SLU 47	-22	-11	2180	3.85	-914.71	-5.13
138	SLU 48	-22	-1	2180	3.81	-913.94	-0.13
138	SLU 49	-22	-7	2180	3.83	-914.4	-3.13
138	SLU 50	-22	-1	2180	3.81	-913.94	-0.13
138	SLU 51	-22	-7	2180	3.83	-914.4	-3.13
138	SLU 52	-21	-12	2504	4.53	-1050.09	-5.48
138	SLU 53	-21	-1	2504	4.49	-1049.32	-0.48
138	SLU 54	-21	-8	2504	4.52	-1049.78	-3.48
138	SLU 55	-21	-12	2504	4.53	-1050.09	-5.48
138	SLU 56	-21	-1	2504	4.49	-1049.32	-0.48
138	SLU 57	-21	-8	2504	4.52	-1049.78	-3.48



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
138	SLU 58	-21	-1	2504	4.49	-1049.32	-0.48
138	SLU 59	-21	-8	2504	4.52	-1049.78	-3.48
138	SLU 60	-21	-2	2642	4.79	-1107.34	-0.63
138	SLU 61	-21	-8	2642	4.81	-1107.8	-3.63
138	SLU 62	-21	-2	2642	4.79	-1107.34	-0.63
138	SLU 63	-21	-8	2642	4.81	-1107.8	-3.63
138	SLU 64	-22	-1	2414	4.31	-1011.9	-0.26
138	SLU 65	-21	-11	2414	4.35	-1012.66	-5.26
138	SLU 66	-22	-1	2414	4.31	-1011.9	-0.26
138	SLU 67	-21	-7	2414	4.33	-1012.36	-3.26
138	SLU 68	-21	-11	2414	4.35	-1012.66	-5.26
138	SLU 69	-22	-1	2414	4.31	-1011.9	-0.26
138	SLU 70	-21	-7	2414	4.33	-1012.36	-3.26
138	SLU 71	-22	-1	2414	4.31	-1011.9	-0.26
138	SLU 72	-21	-7	2414	4.33	-1012.36	-3.26
138	SLU 73	-20	-12	2738	5.04	-1148.05	-5.61
138	SLU 74	-21	-2	2737	4.99	-1147.28	-0.61
138	SLU 75	-21	-8	2738	5.02	-1147.74	-3.61
138	SLU 76	-20	-12	2738	5.04	-1148.05	-5.61
138	SLU 77	-21	-2	2737	4.99	-1147.28	-0.61
138	SLU 78	-21	-8	2738	5.02	-1147.74	-3.61
138	SLU 79	-21	-2	2737	4.99	-1147.28	-0.61
138	SLU 80	-21	-8	2738	5.02	-1147.74	-3.61
138	SLU 81	-20	-2	2876	5.29	-1205.3	-0.76
138	SLU 82	-20	-8	2876	5.31	-1205.76	-3.76
138	SLU 83	-20	-2	2876	5.29	-1205.3	-0.76
138	SLU 84	-20	-8	2876	5.31	-1205.76	-3.76
138	SLE RA 1	-17	-1	1805	3.2	-756.85	-0.17
138	SLE RA 2	-16	-8	1805	3.23	-757.37	-3.51
138	SLE RA 3	-17	-1	1805	3.2	-756.85	-0.17
138	SLE RA 4	-17	-5	1805	3.22	-757.16	-2.17
138	SLE RA 5	-16	-8	1805	3.23	-757.37	-3.51
138	SLE RA 6	-17	-1	1805	3.2	-756.85	-0.17
138	SLE RA 7	-17	-5	1805	3.22	-757.16	-2.17
138	SLE RA 8	-17	-1	1805	3.2	-756.85	-0.17
138	SLE RA 9	-17	-5	1805	3.22	-757.16	-2.17
138	SLE RA 10	-16	-8	2021	3.69	-847.62	-3.74
138	SLE RA 11	-16	-1	2021	3.66	-847.11	-0.41
138	SLE RA 12	-16	-5	2021	3.68	-847.42	-2.41
138	SLE RA 13	-16	-8	2021	3.69	-847.62	-3.74
138	SLE RA 14	-16	-1	2021	3.66	-847.11	-0.41
138	SLE RA 15	-16	-5	2021	3.68	-847.42	-2.41
138	SLE RA 16	-16	-1	2021	3.66	-847.11	-0.41
138	SLE RA 17	-16	-5	2021	3.68	-847.42	-2.41
138	SLE RA 18	-16	-1	2114	3.86	-885.79	-0.51
138	SLE RA 19	-16	-5	2114	3.87	-886.1	-2.51
138	SLE RA 20	-16	-1	2114	3.86	-885.79	-0.51
138	SLE RA 21	-16	-5	2114	3.87	-886.1	-2.51
138	SLE FR 1	-17	-1	1805	3.2	-756.85	-0.17
138	SLE FR 2	-17	-2	1805	3.21	-756.96	-0.84
138	SLE FR 3	-17	-1	1805	3.2	-756.85	-0.17
138	SLE FR 4	-16	-2	1898	3.41	-795.64	-0.94
138	SLE FR 5	-16	-1	1898	3.4	-795.53	-0.27
138	SLE FR 6	-16	-1	1959	3.53	-821.32	-0.34
138	SLE QP 1	-17	-1	1805	3.2	-756.85	-0.17
138	SLE QP 2	-16	-1	1898	3.4	-795.53	-0.27
138	SLD 1	113	58	2127	3.71	-881.85	27.51
138	SLD 2	120	22	2126	3.74	-881.69	10.78
138	SLD 3	117	-43	2097	4.03	-874.91	-20.59
138	SLD 4	124	-79	2096	4.06	-874.75	-37.32
138	SLD 5	13	183	2013	3	-832	87.19
138	SLD 6	20	147	2011	3.03	-831.83	69.81
138	SLD 7	28	-154	1913	4.07	-808.89	-73.13
138	SLD 8	35	-191	1911	4.09	-808.73	-90.52
138	SLD 9	-68	189	1884	2.71	-782.34	89.97
138	SLD 10	-61	153	1883	2.73	-782.18	72.59
138	SLD 11	-53	-148	1785	3.77	-759.23	-70.36
138	SLD 12	-46	-185	1783	3.8	-759.07	-87.74
138	SLD 13	-157	77	1700	2.74	-716.32	36.77
138	SLD 14	-150	42	1698	2.77	-716.16	20.04
138	SLD 15	-153	-24	1670	3.06	-709.38	-11.33
138	SLD 16	-146	-59	1668	3.09	-709.22	-28.06
138	SLV 1	277	136	2421	4.11	-992.35	64.52
138	SLV 2	294	55	2417	4.16	-991.98	26.15
138	SLV 3	288	-101	2351	4.85	-976.13	-47.89
138	SLV 4	304	-182	2347	4.91	-975.76	-86.26
138	SLV 5	50	430	2162	2.46	-879.31	204.1
138	SLV 6	67	344	2158	2.52	-878.93	163.7
138	SLV 7	84	-359	1929	4.94	-825.25	-170.6
138	SLV 8	102	-445	1925	5	-824.87	-211.01
138	SLV 9	-134	443	1870	1.8	-766.2	210.46
138	SLV 10	-117	358	1866	1.86	-765.82	170.05
138	SLV 11	-100	-346	1637	4.28	-712.14	-164.24
138	SLV 12	-83	-431	1633	4.34	-711.76	-204.65
138	SLV 13	-337	180	1448	1.89	-615.31	85.71
138	SLV 14	-320	99	1444	1.95	-614.94	47.35
138	SLV 15	-327	-56	1378	2.64	-599.09	-26.7
138	SLV 16	-310	-137	1374	2.7	-598.72	-65.06
138	CRTFP Ux+	0	0	0	0	0	0
138	CRTFP Ux-	0	0	0	0	0	0
138	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
138	CRTFP Uy-	0	0	0	0	0	0
141	SLU 1	-20	-13	3280	0.43	3.28	0.55
141	SLU 2	-20	-30	3277	0.53	3.34	0.56
141	SLU 3	-20	-13	3280	0.43	3.28	0.55
141	SLU 4	-20	-23	3278	0.49	3.32	0.56
141	SLU 5	-20	-30	3277	0.53	3.34	0.56
141	SLU 6	-20	-13	3280	0.43	3.28	0.55
141	SLU 7	-20	-23	3278	0.49	3.32	0.56
141	SLU 8	-20	-13	3280	0.43	3.28	0.55
141	SLU 9	-20	-23	3278	0.49	3.32	0.56
141	SLU 10	-18	-30	3961	0.9	3.16	0.5
141	SLU 11	-18	-14	3964	0.8	3.11	0.49
141	SLU 12	-18	-24	3962	0.86	3.14	0.5
141	SLU 13	-18	-30	3961	0.9	3.16	0.5
141	SLU 14	-18	-14	3964	0.8	3.11	0.49
141	SLU 15	-18	-24	3962	0.86	3.14	0.5
141	SLU 16	-18	-14	3964	0.8	3.11	0.49
141	SLU 17	-18	-24	3962	0.86	3.14	0.5
141	SLU 18	-17	-14	4257	0.95	3.03	0.47
141	SLU 19	-17	-24	4255	1.02	3.06	0.47
141	SLU 20	-17	-14	4257	0.95	3.03	0.47
141	SLU 21	-17	-24	4255	1.02	3.06	0.47
141	SLU 22	-19	-14	3776	0.69	3.13	0.53
141	SLU 23	-19	-31	3773	0.79	3.18	0.54
141	SLU 24	-19	-14	3776	0.69	3.13	0.53
141	SLU 25	-19	-24	3774	0.75	3.16	0.54
141	SLU 26	-19	-31	3773	0.79	3.18	0.54
141	SLU 27	-19	-14	3776	0.69	3.13	0.53
141	SLU 28	-19	-24	3774	0.75	3.16	0.54
141	SLU 29	-19	-14	3776	0.69	3.13	0.53
141	SLU 30	-19	-24	3774	0.75	3.16	0.54
141	SLU 31	-17	-31	4456	1.16	3	0.48
141	SLU 32	-17	-14	4460	1.06	2.95	0.47
141	SLU 33	-17	-24	4458	1.12	2.98	0.48
141	SLU 34	-17	-31	4456	1.16	3	0.48
141	SLU 35	-17	-14	4460	1.06	2.95	0.47
141	SLU 36	-17	-24	4458	1.12	2.98	0.48
141	SLU 37	-17	-14	4460	1.06	2.95	0.47
141	SLU 38	-17	-24	4458	1.12	2.98	0.48
141	SLU 39	-16	-15	4753	1.21	2.88	0.45
141	SLU 40	-16	-25	4751	1.28	2.91	0.45
141	SLU 41	-16	-15	4753	1.21	2.88	0.45
141	SLU 42	-16	-25	4751	1.28	2.91	0.45
141	SLU 43	-26	-17	4094	0.47	4.32	0.73
141	SLU 44	-27	-34	4091	0.57	4.38	0.74
141	SLU 45	-26	-17	4094	0.47	4.32	0.73
141	SLU 46	-27	-27	4092	0.53	4.35	0.73
141	SLU 47	-27	-34	4091	0.57	4.38	0.74
141	SLU 48	-26	-17	4094	0.47	4.32	0.73
141	SLU 49	-27	-27	4092	0.53	4.35	0.73
141	SLU 50	-26	-17	4094	0.47	4.32	0.73
141	SLU 51	-27	-27	4092	0.53	4.35	0.73
141	SLU 52	-24	-34	4775	0.94	4.2	0.68
141	SLU 53	-24	-18	4778	0.84	4.15	0.67
141	SLU 54	-24	-27	4776	0.9	4.18	0.67
141	SLU 55	-24	-34	4775	0.94	4.2	0.68
141	SLU 56	-24	-18	4778	0.84	4.15	0.67
141	SLU 57	-24	-27	4776	0.9	4.18	0.67
141	SLU 58	-24	-18	4778	0.84	4.15	0.67
141	SLU 59	-24	-27	4776	0.9	4.18	0.67
141	SLU 60	-23	-18	5071	0.99	4.07	0.64
141	SLU 61	-24	-28	5069	1.06	4.1	0.65
141	SLU 62	-23	-18	5071	0.99	4.07	0.64
141	SLU 63	-24	-28	5069	1.06	4.1	0.65
141	SLU 64	-26	-18	4590	0.73	4.17	0.7
141	SLU 65	-26	-35	4587	0.83	4.22	0.72
141	SLU 66	-26	-18	4590	0.73	4.17	0.7
141	SLU 67	-26	-28	4588	0.79	4.2	0.71
141	SLU 68	-26	-35	4587	0.83	4.22	0.72
141	SLU 69	-26	-18	4590	0.73	4.17	0.7
141	SLU 70	-26	-28	4588	0.79	4.2	0.71
141	SLU 71	-26	-18	4590	0.73	4.17	0.7
141	SLU 72	-26	-28	4588	0.79	4.2	0.71
141	SLU 73	-24	-35	5271	1.2	4.04	0.66
141	SLU 74	-23	-18	5274	1.1	3.99	0.64
141	SLU 75	-24	-28	5272	1.16	4.02	0.65
141	SLU 76	-24	-35	5271	1.2	4.04	0.66
141	SLU 77	-23	-18	5274	1.1	3.99	0.64
141	SLU 78	-24	-28	5272	1.16	4.02	0.65
141	SLU 79	-23	-18	5274	1.1	3.99	0.64
141	SLU 80	-24	-28	5272	1.16	4.02	0.65
141	SLU 81	-23	-18	5567	1.25	3.92	0.62
141	SLU 82	-23	-28	5565	1.31	3.95	0.63
141	SLU 83	-23	-18	5567	1.25	3.92	0.62
141	SLU 84	-23	-28	5565	1.31	3.95	0.63
141	SLE RA 1	-20	-14	3422	0.5	3.24	0.55
141	SLE RA 2	-20	-25	3420	0.57	3.27	0.55
141	SLE RA 3	-20	-14	3422	0.5	3.24	0.55
141	SLE RA 4	-20	-20	3421	0.54	3.26	0.55
141	SLE RA 5	-20	-25	3420	0.57	3.27	0.55
141	SLE RA 6	-20	-14	3422	0.5	3.24	0.55



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
141	SLE RA 7	-20	-20	3421	0.54	3.26	0.55
141	SLE RA 8	-20	-14	3422	0.5	3.24	0.55
141	SLE RA 9	-20	-20	3421	0.54	3.26	0.55
141	SLE RA 10	-19	-25	3876	0.82	3.16	0.51
141	SLE RA 11	-18	-14	3878	0.75	3.12	0.51
141	SLE RA 12	-19	-20	3876	0.79	3.14	0.51
141	SLE RA 13	-19	-25	3876	0.82	3.16	0.51
141	SLE RA 14	-18	-14	3878	0.75	3.12	0.51
141	SLE RA 15	-19	-20	3876	0.79	3.14	0.51
141	SLE RA 16	-18	-14	3878	0.75	3.12	0.51
141	SLE RA 17	-19	-20	3876	0.79	3.14	0.51
141	SLE RA 18	-18	-14	4073	0.85	3.07	0.49
141	SLE RA 19	-18	-21	4072	0.89	3.09	0.49
141	SLE RA 20	-18	-14	4073	0.85	3.07	0.49
141	SLE RA 21	-18	-21	4072	0.89	3.09	0.49
141	SLE FR 1	-20	-14	3422	0.5	3.24	0.55
141	SLE FR 2	-20	-16	3421	0.52	3.25	0.55
141	SLE FR 3	-20	-14	3422	0.5	3.24	0.55
141	SLE FR 4	-19	-16	3617	0.62	3.2	0.53
141	SLE FR 5	-19	-14	3617	0.61	3.19	0.53
141	SLE FR 6	-19	-14	3747	0.68	3.16	0.52
141	SLE QP 1	-20	-14	3422	0.5	3.24	0.55
141	SLE QP 2	-19	-14	3617	0.61	3.19	0.53
141	SLD 1	250	82	3641	0.31	12.8	-0.05
141	SLD 2	264	84	3640	0.32	12.71	0.96
141	SLD 3	243	-89	3548	1.26	12.14	-0.23
141	SLD 4	257	-88	3547	1.26	12.05	0.78
141	SLD 5	67	275	3765	-0.92	7.11	0.26
141	SLD 6	81	276	3765	-0.92	7.02	1.31
141	SLD 7	44	-297	3455	2.24	4.9	-0.34
141	SLD 8	59	-295	3455	2.24	4.81	0.7
141	SLD 9	-97	268	3779	-1.03	1.57	0.36
141	SLD 10	-83	269	3779	-1.02	1.48	1.4
141	SLD 11	-119	-303	3469	2.13	-0.64	-0.25
141	SLD 12	-105	-302	3469	2.14	-0.73	0.8
141	SLD 13	-296	60	3687	-0.05	-5.67	0.28
141	SLD 14	-282	62	3687	-0.04	-5.76	1.29
141	SLD 15	-302	-111	3594	0.9	-6.33	0.1
141	SLD 16	-289	-110	3594	0.91	-6.42	1.11
141	SLV 1	594	210	3671	-0.07	25.17	-0.78
141	SLV 2	626	213	3671	-0.06	24.97	1.53
141	SLV 3	579	-190	3454	2.14	23.49	-1.21
141	SLV 4	610	-187	3454	2.15	23.29	1.1
141	SLV 5	176	660	3963	-2.96	12.41	-0.09
141	SLV 6	209	663	3963	-2.95	12.2	2.35
141	SLV 7	125	-675	3239	4.42	6.8	-1.51
141	SLV 8	158	-672	3239	4.43	6.6	0.93
141	SLV 9	-197	645	3996	-3.22	-0.22	0.13
141	SLV 10	-163	648	3996	-3.21	-0.42	2.57
141	SLV 11	-248	-690	3272	4.16	-5.82	-1.29
141	SLV 12	-215	-687	3271	4.17	-6.03	1.15
141	SLV 13	-649	160	3781	-0.93	-16.91	-0.04
141	SLV 14	-617	163	3780	-0.92	-17.11	2.27
141	SLV 15	-664	-241	3563	1.28	-18.59	-0.47
141	SLV 16	-633	-238	3563	1.29	-18.79	1.84
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
143	SLU 1	-20	0	1834	2.68	-798.69	0.14
143	SLU 2	-20	-10	1835	2.72	-799.84	-4.87
143	SLU 3	-20	0	1834	2.68	-798.69	0.14
143	SLU 4	-20	-6	1835	2.71	-799.38	-2.87
143	SLU 5	-20	-10	1835	2.72	-799.84	-4.87
143	SLU 6	-20	0	1834	2.68	-798.69	0.14
143	SLU 7	-20	-6	1835	2.71	-799.38	-2.87
143	SLU 8	-20	0	1834	2.68	-798.69	0.14
143	SLU 9	-20	-6	1835	2.71	-799.38	-2.87
143	SLU 10	-19	-11	2180	3.32	-950.29	-5.13
143	SLU 11	-19	0	2179	3.28	-949.14	-0.13
143	SLU 12	-19	-7	2180	3.3	-949.83	-3.13
143	SLU 13	-19	-11	2180	3.32	-950.29	-5.13
143	SLU 14	-19	0	2179	3.28	-949.14	-0.13
143	SLU 15	-19	-7	2180	3.3	-949.83	-3.13
143	SLU 16	-19	0	2179	3.28	-949.14	-0.13
143	SLU 17	-19	-7	2180	3.3	-949.83	-3.13
143	SLU 18	-19	-1	2326	3.54	-1013.63	-0.24
143	SLU 19	-19	-7	2327	3.56	-1014.31	-3.24
143	SLU 20	-19	-1	2326	3.54	-1013.63	-0.24
143	SLU 21	-19	-7	2327	3.56	-1014.31	-3.24
143	SLU 22	-20	0	2083	3.12	-907.6	0.07
143	SLU 23	-19	-11	2085	3.16	-908.75	-4.94
143	SLU 24	-20	0	2083	3.12	-907.6	0.07
143	SLU 25	-20	-6	2084	3.14	-908.29	-2.93
143	SLU 26	-19	-11	2085	3.16	-908.75	-4.94
143	SLU 27	-20	0	2083	3.12	-907.6	0.07
143	SLU 28	-20	-6	2084	3.14	-908.29	-2.93
143	SLU 29	-20	0	2083	3.12	-907.6	0.07
143	SLU 30	-20	-6	2084	3.14	-908.29	-2.93
143	SLU 31	-19	-11	2429	3.75	-1059.21	-5.2
143	SLU 32	-19	-1	2428	3.72	-1058.06	-0.19



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
143	SLU 33	-19	-7	2429	3.74	-1058.75	-3.2
143	SLU 34	-19	-11	2429	3.75	-1059.21	-5.2
143	SLU 35	-19	-1	2428	3.72	-1058.06	-0.19
143	SLU 36	-19	-7	2429	3.74	-1058.75	-3.2
143	SLU 37	-19	-1	2428	3.72	-1058.06	-0.19
143	SLU 38	-19	-7	2429	3.74	-1058.75	-3.2
143	SLU 39	-19	-1	2576	3.97	-1122.54	-0.31
143	SLU 40	-18	-7	2577	4	-1123.23	-3.31
143	SLU 41	-19	-1	2576	3.97	-1122.54	-0.31
143	SLU 42	-18	-7	2577	4	-1123.23	-3.31
143	SLU 43	-26	0	2298	3.34	-1000.96	0.2
143	SLU 44	-26	-10	2300	3.38	-1002.1	-4.8
143	SLU 45	-26	0	2298	3.34	-1000.96	0.2
143	SLU 46	-26	-6	2299	3.36	-1001.64	-2.8
143	SLU 47	-26	-10	2300	3.38	-1002.1	-4.8
143	SLU 48	-26	0	2298	3.34	-1000.96	0.2
143	SLU 49	-26	-6	2299	3.36	-1001.64	-2.8
143	SLU 50	-26	0	2298	3.34	-1000.96	0.2
143	SLU 51	-26	-6	2299	3.36	-1001.64	-2.8
143	SLU 52	-25	-11	2645	3.97	-1152.56	-5.07
143	SLU 53	-25	0	2643	3.94	-1151.41	-0.06
143	SLU 54	-25	-7	2644	3.96	-1152.1	-3.06
143	SLU 55	-25	-11	2645	3.97	-1152.56	-5.07
143	SLU 56	-25	0	2643	3.94	-1151.41	-0.06
143	SLU 57	-25	-7	2644	3.96	-1152.1	-3.06
143	SLU 58	-25	0	2643	3.94	-1151.41	-0.06
143	SLU 59	-25	-7	2644	3.96	-1152.1	-3.06
143	SLU 60	-25	-1	2791	4.19	-1215.89	-0.17
143	SLU 61	-25	-7	2792	4.21	-1216.58	-3.18
143	SLU 62	-25	-1	2791	4.19	-1215.89	-0.17
143	SLU 63	-25	-7	2792	4.21	-1216.58	-3.18
143	SLU 64	-26	0	2548	3.78	-1109.87	0.14
143	SLU 65	-26	-11	2549	3.81	-1111.02	-4.87
143	SLU 66	-26	0	2548	3.78	-1109.87	0.14
143	SLU 67	-26	-6	2549	3.8	-1110.56	-2.87
143	SLU 68	-26	-11	2549	3.81	-1111.02	-4.87
143	SLU 69	-26	0	2548	3.78	-1109.87	0.14
143	SLU 70	-26	-6	2549	3.8	-1110.56	-2.87
143	SLU 71	-26	0	2548	3.78	-1109.87	0.14
143	SLU 72	-26	-6	2549	3.8	-1110.56	-2.87
143	SLU 73	-25	-11	2894	4.41	-1261.47	-5.14
143	SLU 74	-25	-1	2893	4.37	-1260.32	-0.13
143	SLU 75	-25	-7	2893	4.4	-1261.01	-3.13
143	SLU 76	-25	-11	2894	4.41	-1261.47	-5.14
143	SLU 77	-25	-1	2893	4.37	-1260.32	-0.13
143	SLU 78	-25	-7	2893	4.4	-1261.01	-3.13
143	SLU 79	-25	-1	2893	4.37	-1260.32	-0.13
143	SLU 80	-25	-7	2893	4.4	-1261.01	-3.13
143	SLU 81	-25	-1	3040	4.63	-1324.8	-0.24
143	SLU 82	-25	-7	3041	4.65	-1325.49	-3.25
143	SLU 83	-25	-1	3040	4.63	-1324.8	-0.24
143	SLU 84	-25	-7	3041	4.65	-1325.49	-3.25
143	SLE RA 1	-20	0	1905	2.81	-829.81	0.12
143	SLE RA 2	-20	-7	1906	2.83	-830.57	-3.22
143	SLE RA 3	-20	0	1905	2.81	-829.81	0.12
143	SLE RA 4	-20	-4	1905	2.82	-830.27	-1.88
143	SLE RA 5	-20	-7	1906	2.83	-830.57	-3.22
143	SLE RA 6	-20	0	1905	2.81	-829.81	0.12
143	SLE RA 7	-20	-4	1905	2.82	-830.27	-1.88
143	SLE RA 8	-20	0	1905	2.81	-829.81	0.12
143	SLE RA 9	-20	-4	1905	2.82	-830.27	-1.88
143	SLE RA 10	-19	-7	2136	3.23	-930.88	-3.39
143	SLE RA 11	-19	0	2135	3.21	-930.11	-0.06
143	SLE RA 12	-19	-5	2135	3.22	-930.57	-2.06
143	SLE RA 13	-19	-7	2136	3.23	-930.88	-3.39
143	SLE RA 14	-19	0	2135	3.21	-930.11	-0.06
143	SLE RA 15	-19	-5	2135	3.22	-930.57	-2.06
143	SLE RA 16	-19	0	2135	3.21	-930.11	-0.06
143	SLE RA 17	-19	-5	2135	3.22	-930.57	-2.06
143	SLE RA 18	-19	-1	2233	3.38	-973.1	-0.13
143	SLE RA 19	-19	-5	2234	3.39	-973.56	-2.13
143	SLE RA 20	-19	-1	2233	3.38	-973.1	-0.13
143	SLE RA 21	-19	-5	2234	3.39	-973.56	-2.13
143	SLE FR 1	-20	0	1905	2.81	-829.81	0.12
143	SLE FR 2	-20	-1	1905	2.81	-829.96	-0.55
143	SLE FR 3	-20	0	1905	2.81	-829.81	0.12
143	SLE FR 4	-20	-2	2004	2.98	-872.95	-0.62
143	SLE FR 5	-20	0	2003	2.98	-872.8	0.04
143	SLE FR 6	-20	0	2069	3.09	-901.45	-0.01
143	SLE QP 1	-20	0	1905	2.81	-829.81	0.12
143	SLE QP 2	-20	0	2003	2.98	-872.8	0.04
143	SLD 1	111	58	2243	3.25	-968.95	27.79
143	SLD 2	116	23	2242	3.27	-968.93	11.08
143	SLD 3	116	-43	2223	3.55	-963.96	-20.18
143	SLD 4	121	-78	2222	3.57	-963.94	-36.89
143	SLD 5	11	184	2106	2.6	-909.22	87.3
143	SLD 6	16	147	2105	2.62	-909.2	69.94
143	SLD 7	26	-153	2039	3.6	-892.58	-72.61
143	SLD 8	31	-190	2038	3.62	-892.57	-89.97
143	SLD 9	-70	190	1969	2.34	-853.03	90.06
143	SLD 10	-65	153	1968	2.36	-853.01	72.7



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
143	SLD 11	-56	-147	1901	3.34	-836.39	-69.85
143	SLD 12	-51	-184	1900	3.36	-836.38	-87.21
143	SLD 13	-160	78	1785	2.39	-781.65	36.98
143	SLD 14	-155	42	1784	2.41	-781.63	20.27
143	SLD 15	-156	-23	1765	2.69	-776.66	-10.99
143	SLD 16	-151	-59	1764	2.71	-776.64	-27.7
143	SLV 1	279	136	2549	3.58	-1091.92	64.73
143	SLV 2	290	55	2547	3.63	-1091.89	26.42
143	SLV 3	289	-100	2502	4.28	-1080.23	-47.38
143	SLV 4	300	-181	2499	4.33	-1080.19	-85.7
143	SLV 5	50	430	2240	2.08	-956.28	203.92
143	SLV 6	62	344	2238	2.13	-956.25	163.57
143	SLV 7	84	-358	2082	4.41	-917.3	-169.8
143	SLV 8	96	-443	2079	4.46	-917.27	-210.15
143	SLV 9	-135	443	1928	1.5	-828.33	210.24
143	SLV 10	-124	357	1925	1.55	-828.29	169.88
143	SLV 11	-101	-344	1769	3.83	-789.34	-163.48
143	SLV 12	-90	-430	1767	3.88	-789.31	-203.83
143	SLV 13	-340	181	1507	1.63	-665.4	85.79
143	SLV 14	-328	100	1505	1.68	-665.36	47.47
143	SLV 15	-329	-56	1460	2.33	-653.7	-26.33
143	SLV 16	-318	-137	1458	2.38	-653.67	-64.65
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
146	SLU 1	-22	-11	3295	0.47	3.52	0.34
146	SLU 2	-23	-28	3295	0.56	3.57	0.35
146	SLU 3	-22	-11	3295	0.47	3.52	0.34
146	SLU 4	-23	-21	3295	0.52	3.55	0.35
146	SLU 5	-23	-28	3295	0.56	3.57	0.35
146	SLU 6	-22	-11	3295	0.47	3.52	0.34
146	SLU 7	-23	-21	3295	0.52	3.55	0.35
146	SLU 8	-22	-11	3295	0.47	3.52	0.34
146	SLU 9	-23	-21	3295	0.52	3.55	0.35
146	SLU 10	-20	-28	3991	0.89	3.37	0.31
146	SLU 11	-20	-11	3991	0.8	3.32	0.3
146	SLU 12	-20	-21	3991	0.85	3.35	0.31
146	SLU 13	-20	-28	3991	0.89	3.37	0.31
146	SLU 14	-20	-11	3991	0.8	3.32	0.3
146	SLU 15	-20	-21	3991	0.85	3.35	0.31
146	SLU 16	-20	-11	3991	0.8	3.32	0.3
146	SLU 17	-20	-21	3991	0.85	3.35	0.31
146	SLU 18	-19	-11	4289	0.94	3.23	0.28
146	SLU 19	-19	-21	4289	0.99	3.26	0.29
146	SLU 20	-19	-11	4289	0.94	3.23	0.28
146	SLU 21	-19	-21	4289	0.99	3.26	0.29
146	SLU 22	-21	-11	3799	0.7	3.35	0.32
146	SLU 23	-22	-28	3799	0.79	3.4	0.33
146	SLU 24	-21	-11	3799	0.7	3.35	0.32
146	SLU 25	-22	-21	3799	0.76	3.38	0.33
146	SLU 26	-22	-28	3799	0.79	3.4	0.33
146	SLU 27	-21	-11	3799	0.7	3.35	0.32
146	SLU 28	-22	-21	3799	0.76	3.38	0.33
146	SLU 29	-21	-11	3799	0.7	3.35	0.32
146	SLU 30	-22	-21	3799	0.76	3.38	0.33
146	SLU 31	-19	-28	4495	1.13	3.2	0.29
146	SLU 32	-19	-12	4495	1.03	3.15	0.28
146	SLU 33	-19	-21	4495	1.09	3.18	0.29
146	SLU 34	-19	-28	4495	1.13	3.2	0.29
146	SLU 35	-19	-12	4495	1.03	3.15	0.28
146	SLU 36	-19	-21	4495	1.09	3.18	0.29
146	SLU 37	-19	-12	4495	1.03	3.15	0.28
146	SLU 38	-19	-21	4495	1.09	3.18	0.29
146	SLU 39	-18	-12	4793	1.17	3.06	0.27
146	SLU 40	-18	-22	4793	1.23	3.09	0.27
146	SLU 41	-18	-12	4793	1.17	3.06	0.27
146	SLU 42	-18	-22	4793	1.23	3.09	0.27
146	SLU 43	-30	-14	4111	0.52	4.63	0.45
146	SLU 44	-30	-31	4111	0.62	4.68	0.46
146	SLU 45	-30	-14	4111	0.52	4.63	0.45
146	SLU 46	-30	-24	4111	0.58	4.66	0.45
146	SLU 47	-30	-31	4111	0.62	4.68	0.46
146	SLU 48	-30	-14	4111	0.52	4.63	0.45
146	SLU 49	-30	-24	4111	0.58	4.66	0.45
146	SLU 50	-30	-14	4111	0.52	4.63	0.45
146	SLU 51	-30	-24	4111	0.58	4.66	0.45
146	SLU 52	-27	-31	4806	0.95	4.48	0.42
146	SLU 53	-27	-14	4806	0.85	4.43	0.41
146	SLU 54	-27	-24	4806	0.91	4.46	0.41
146	SLU 55	-27	-31	4806	0.95	4.48	0.42
146	SLU 56	-27	-14	4806	0.85	4.43	0.41
146	SLU 57	-27	-24	4806	0.91	4.46	0.41
146	SLU 58	-27	-14	4806	0.85	4.43	0.41
146	SLU 59	-27	-24	4806	0.91	4.46	0.41
146	SLU 60	-26	-14	5104	1	4.34	0.39
146	SLU 61	-26	-24	5104	1.05	4.37	0.4
146	SLU 62	-26	-14	5104	1	4.34	0.39
146	SLU 63	-26	-24	5104	1.05	4.37	0.4
146	SLU 64	-29	-15	4615	0.76	4.46	0.43
146	SLU 65	-29	-31	4615	0.85	4.51	0.44



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
146	SLU 66	-29	-15	4615	0.76	4.46	0.43
146	SLU 67	-29	-25	4615	0.82	4.49	0.44
146	SLU 68	-29	-31	4615	0.85	4.51	0.44
146	SLU 69	-29	-15	4615	0.76	4.46	0.43
146	SLU 70	-29	-25	4615	0.82	4.49	0.44
146	SLU 71	-29	-15	4615	0.76	4.46	0.43
146	SLU 72	-29	-25	4615	0.82	4.49	0.44
146	SLU 73	-26	-31	5310	1.18	4.31	0.4
146	SLU 74	-26	-15	5310	1.09	4.26	0.39
146	SLU 75	-26	-25	5310	1.15	4.29	0.4
146	SLU 76	-26	-31	5310	1.18	4.31	0.4
146	SLU 77	-26	-15	5310	1.09	4.26	0.39
146	SLU 78	-26	-25	5310	1.15	4.29	0.4
146	SLU 79	-26	-15	5310	1.09	4.26	0.39
146	SLU 80	-26	-25	5310	1.15	4.29	0.4
146	SLU 81	-25	-15	5608	1.23	4.18	0.37
146	SLU 82	-25	-25	5608	1.29	4.2	0.38
146	SLU 83	-25	-15	5608	1.23	4.18	0.37
146	SLU 84	-25	-25	5608	1.29	4.2	0.38
146	SLE RA 1	-22	-11	3439	0.53	3.47	0.34
146	SLE RA 2	-22	-22	3439	0.6	3.5	0.34
146	SLE RA 3	-22	-11	3439	0.53	3.47	0.34
146	SLE RA 4	-22	-18	3439	0.57	3.49	0.34
146	SLE RA 5	-22	-22	3439	0.6	3.5	0.34
146	SLE RA 6	-22	-11	3439	0.53	3.47	0.34
146	SLE RA 7	-22	-18	3439	0.57	3.49	0.34
146	SLE RA 8	-22	-11	3439	0.53	3.47	0.34
146	SLE RA 9	-22	-18	3439	0.57	3.49	0.34
146	SLE RA 10	-21	-22	3903	0.82	3.37	0.31
146	SLE RA 11	-21	-11	3903	0.75	3.34	0.31
146	SLE RA 12	-21	-18	3903	0.79	3.36	0.31
146	SLE RA 13	-21	-22	3903	0.82	3.37	0.31
146	SLE RA 14	-21	-11	3903	0.75	3.34	0.31
146	SLE RA 15	-21	-18	3903	0.79	3.36	0.31
146	SLE RA 16	-21	-11	3903	0.75	3.34	0.31
146	SLE RA 17	-21	-18	3903	0.79	3.36	0.31
146	SLE RA 18	-20	-11	4102	0.85	3.28	0.3
146	SLE RA 19	-20	-18	4101	0.89	3.3	0.3
146	SLE RA 20	-20	-11	4102	0.85	3.28	0.3
146	SLE RA 21	-20	-18	4101	0.89	3.3	0.3
146	SLE FR 1	-22	-11	3439	0.53	3.47	0.34
146	SLE FR 2	-22	-13	3439	0.55	3.48	0.34
146	SLE FR 3	-22	-11	3439	0.53	3.47	0.34
146	SLE FR 4	-22	-13	3638	0.64	3.42	0.33
146	SLE FR 5	-22	-11	3638	0.63	3.41	0.32
146	SLE FR 6	-21	-11	3770	0.69	3.37	0.32
146	SLE QP 1	-22	-11	3439	0.53	3.47	0.34
146	SLE QP 2	-22	-11	3638	0.63	3.41	0.32
146	SLD 1	251	85	3651	0.33	13.3	-0.27
146	SLD 2	260	86	3651	0.33	13.23	0.67
146	SLD 3	245	-86	3588	1.26	12.59	-0.43
146	SLD 4	254	-85	3588	1.26	12.52	0.51
146	SLD 5	67	277	3737	-0.87	7.48	0.05
146	SLD 6	76	278	3737	-0.87	7.41	1.02
146	SLD 7	45	-294	3528	2.22	5.12	-0.49
146	SLD 8	55	-292	3528	2.23	5.04	0.48
146	SLD 9	-98	270	3748	-0.97	1.78	0.17
146	SLD 10	-88	271	3748	-0.97	1.71	1.14
146	SLD 11	-119	-300	3539	2.12	-0.58	-0.37
146	SLD 12	-110	-299	3539	2.13	-0.65	0.6
146	SLD 13	-297	63	3688	-0.01	-5.69	0.14
146	SLD 14	-288	64	3688	0	-5.77	1.08
146	SLD 15	-303	-108	3625	0.92	-6.4	-0.02
146	SLD 16	-294	-107	3625	0.93	-6.48	0.91
146	SLV 1	599	213	3669	-0.06	26.03	-1.02
146	SLV 2	620	215	3668	-0.05	25.87	1.12
146	SLV 3	585	-187	3522	2.11	24.24	-1.4
146	SLV 4	605	-184	3522	2.12	24.07	0.74
146	SLV 5	180	661	3869	-2.87	12.99	-0.31
146	SLV 6	201	664	3869	-2.86	12.81	1.95
146	SLV 7	130	-672	3381	4.36	7	-1.58
146	SLV 8	151	-669	3381	4.37	6.82	0.68
146	SLV 9	-194	646	3895	-3.12	0.01	-0.03
146	SLV 10	-173	649	3895	-3.11	-0.17	2.23
146	SLV 11	-244	-687	3407	4.12	-5.99	-1.3
146	SLV 12	-223	-684	3407	4.13	-6.16	0.96
146	SLV 13	-648	162	3754	-0.86	-17.24	-0.09
146	SLV 14	-628	165	3754	-0.85	-17.41	2.05
146	SLV 15	-663	-238	3608	1.31	-19.04	-0.47
146	SLV 16	-643	-235	3608	1.32	-19.21	1.67
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
148	SLU 1	-20	1	1617	-44.16	-724.7	-0.18
148	SLU 2	-19	-8	1619	-44.2	-725.89	-4.44
148	SLU 3	-20	1	1617	-44.16	-724.7	-0.18
148	SLU 4	-20	-5	1618	-44.18	-725.41	-2.74
148	SLU 5	-19	-8	1619	-44.2	-725.89	-4.44
148	SLU 6	-20	1	1617	-44.16	-724.7	-0.18
148	SLU 7	-20	-5	1618	-44.18	-725.41	-2.74



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
148	SLU 8	-20	1	1617		-44.16	-724.7	-0.18
148	SLU 9	-20	-5	1618		-44.18	-725.41	-2.74
148	SLU 10	-19	-9	1925		-52.53	-863.52	-4.57
148	SLU 11	-19	0	1923		-52.49	-862.33	-0.31
148	SLU 12	-19	-5	1924		-52.51	-863.04	-2.86
148	SLU 13	-19	-9	1925		-52.53	-863.52	-4.57
148	SLU 14	-19	0	1923		-52.49	-862.33	-0.31
148	SLU 15	-19	-5	1924		-52.51	-863.04	-2.86
148	SLU 16	-19	0	1923		-52.49	-862.33	-0.31
148	SLU 17	-19	-5	1924		-52.51	-863.04	-2.86
148	SLU 18	-19	0	2054		-56.06	-921.31	-0.36
148	SLU 19	-19	-5	2055		-56.08	-922.02	-2.92
148	SLU 20	-19	0	2054		-56.06	-921.31	-0.36
148	SLU 21	-19	-5	2055		-56.08	-922.02	-2.92
148	SLU 22	-19	1	1838		-50.18	-824.36	-0.18
148	SLU 23	-19	-8	1840		-50.22	-825.54	-4.44
148	SLU 24	-19	1	1838		-50.18	-824.36	-0.18
148	SLU 25	-19	-5	1839		-50.2	-825.07	-2.73
148	SLU 26	-19	-8	1840		-50.22	-825.54	-4.44
148	SLU 27	-19	1	1838		-50.18	-824.36	-0.18
148	SLU 28	-19	-5	1839		-50.2	-825.07	-2.73
148	SLU 29	-19	1	1838		-50.18	-824.36	-0.18
148	SLU 30	-19	-5	1839		-50.2	-825.07	-2.73
148	SLU 31	-19	-9	2146		-58.55	-963.17	-4.56
148	SLU 32	-19	0	2144		-58.51	-961.98	-0.3
148	SLU 33	-19	-5	2145		-58.53	-962.7	-2.86
148	SLU 34	-19	-9	2146		-58.55	-963.17	-4.56
148	SLU 35	-19	0	2144		-58.51	-961.98	-0.3
148	SLU 36	-19	-5	2145		-58.53	-962.7	-2.86
148	SLU 37	-19	0	2144		-58.51	-961.98	-0.3
148	SLU 38	-19	-5	2145		-58.53	-962.7	-2.86
148	SLU 39	-18	0	2275		-62.08	-1020.97	-0.36
148	SLU 40	-18	-5	2277		-62.1	-1021.68	-2.91
148	SLU 41	-18	0	2275		-62.08	-1020.97	-0.36
148	SLU 42	-18	-5	2277		-62.1	-1021.68	-2.91
148	SLU 43	-26	1	2026		-55.34	-907.94	-0.24
148	SLU 44	-25	-8	2028		-55.38	-909.13	-4.5
148	SLU 45	-26	1	2026		-55.34	-907.94	-0.24
148	SLU 46	-25	-5	2027		-55.37	-908.66	-2.79
148	SLU 47	-25	-8	2028		-55.38	-909.13	-4.5
148	SLU 48	-26	1	2026		-55.34	-907.94	-0.24
148	SLU 49	-25	-5	2027		-55.37	-908.66	-2.79
148	SLU 50	-26	1	2026		-55.34	-907.94	-0.24
148	SLU 51	-25	-5	2027		-55.37	-908.66	-2.79
148	SLU 52	-25	-8	2334		-63.71	-1046.76	-4.62
148	SLU 53	-25	1	2332		-63.67	-1045.57	-0.36
148	SLU 54	-25	-5	2333		-63.69	-1046.28	-2.92
148	SLU 55	-25	-8	2334		-63.71	-1046.76	-4.62
148	SLU 56	-25	1	2332		-63.67	-1045.57	-0.36
148	SLU 57	-25	-5	2333		-63.69	-1046.28	-2.92
148	SLU 58	-25	1	2332		-63.67	-1045.57	-0.36
148	SLU 59	-25	-5	2333		-63.69	-1046.28	-2.92
148	SLU 60	-25	0	2463		-67.24	-1104.55	-0.42
148	SLU 61	-25	-5	2464		-67.26	-1105.27	-2.97
148	SLU 62	-25	0	2463		-67.24	-1104.55	-0.42
148	SLU 63	-25	-5	2464		-67.26	-1105.27	-2.97
148	SLU 64	-25	1	2247		-61.36	-1007.6	-0.23
148	SLU 65	-25	-8	2249		-61.4	-1008.79	-4.49
148	SLU 66	-25	1	2247		-61.36	-1007.6	-0.23
148	SLU 67	-25	-5	2248		-61.39	-1008.31	-2.79
148	SLU 68	-25	-8	2249		-61.4	-1008.79	-4.49
148	SLU 69	-25	1	2247		-61.36	-1007.6	-0.23
148	SLU 70	-25	-5	2248		-61.39	-1008.31	-2.79
148	SLU 71	-25	1	2247		-61.36	-1007.6	-0.23
148	SLU 72	-25	-5	2248		-61.39	-1008.31	-2.79
148	SLU 73	-25	-8	2555		-69.73	-1146.41	-4.62
148	SLU 74	-25	1	2553		-69.69	-1145.23	-0.36
148	SLU 75	-25	-5	2555		-69.72	-1145.94	-2.91
148	SLU 76	-25	-8	2555		-69.73	-1146.41	-4.62
148	SLU 77	-25	1	2553		-69.69	-1145.23	-0.36
148	SLU 78	-25	-5	2555		-69.72	-1145.94	-2.91
148	SLU 79	-25	1	2553		-69.69	-1145.23	-0.36
148	SLU 80	-25	-5	2555		-69.72	-1145.94	-2.91
148	SLU 81	-24	0	2684		-73.26	-1204.21	-0.41
148	SLU 82	-24	-5	2686		-73.28	-1204.92	-2.97
148	SLU 83	-24	0	2684		-73.26	-1204.21	-0.41
148	SLU 84	-24	-5	2686		-73.28	-1204.92	-2.97
148	SLE RA 1	-20	1	1680		-45.88	-753.17	-0.18
148	SLE RA 2	-19	-5	1681		-45.91	-753.97	-3.02
148	SLE RA 3	-20	1	1680		-45.88	-753.17	-0.18
148	SLE RA 4	-19	-3	1681		-45.9	-753.65	-1.88
148	SLE RA 5	-19	-5	1681		-45.91	-753.97	-3.02
148	SLE RA 6	-20	1	1680		-45.88	-753.17	-0.18
148	SLE RA 7	-19	-3	1681		-45.9	-753.65	-1.88
148	SLE RA 8	-20	1	1680		-45.88	-753.17	-0.18
148	SLE RA 9	-19	-3	1681		-45.9	-753.65	-1.88
148	SLE RA 10	-19	-6	1885		-51.46	-845.72	-3.1
148	SLE RA 11	-19	0	1884		-51.43	-844.93	-0.26
148	SLE RA 12	-19	-3	1885		-51.45	-845.4	-1.97
148	SLE RA 13	-19	-6	1885		-51.46	-845.72	-3.1
148	SLE RA 14	-19	0	1884		-51.43	-844.93	-0.26



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
148	SLE RA 15	-19	-3	1885	-51.45	-845.4	-1.97
148	SLE RA 16	-19	0	1884	-51.43	-844.93	-0.26
148	SLE RA 17	-19	-3	1885	-51.45	-845.4	-1.97
148	SLE RA 18	-19	0	1971	-53.81	-884.25	-0.3
148	SLE RA 19	-19	-3	1972	-53.83	-884.72	-2
148	SLE RA 20	-19	0	1971	-53.81	-884.25	-0.3
148	SLE RA 21	-19	-3	1972	-53.83	-884.72	-2
148	SLE FR 1	-20	1	1680	-45.88	-753.17	-0.18
148	SLE FR 2	-20	-1	1680	-45.88	-753.33	-0.75
148	SLE FR 3	-20	1	1680	-45.88	-753.17	-0.18
148	SLE FR 4	-19	-1	1768	-48.26	-792.65	-0.78
148	SLE FR 5	-19	1	1767	-48.26	-792.5	-0.21
148	SLE FR 6	-19	1	1826	-49.84	-818.71	-0.24
148	SLE QP 1	-20	1	1680	-45.88	-753.17	-0.18
148	SLE QP 2	-19	1	1767	-48.26	-792.5	-0.21
148	SLD 1	94	50	1976	-54.03	-880.67	31.62
148	SLD 2	96	20	1976	-54.01	-880.71	17.48
148	SLD 3	97	-35	1966	-53.57	-877.58	-9.02
148	SLD 4	100	-65	1966	-53.55	-877.62	-23.17
148	SLD 5	9	157	1846	-50.69	-823.62	76.2
148	SLD 6	11	125	1846	-50.67	-823.66	61.51
148	SLD 7	20	-129	1811	-49.17	-813.32	-59.27
148	SLD 8	22	-160	1811	-49.15	-813.36	-73.97
148	SLD 9	-61	162	1724	-47.37	-771.63	73.54
148	SLD 10	-59	130	1723	-47.35	-771.67	58.84
148	SLD 11	-50	-124	1689	-45.85	-761.34	-61.94
148	SLD 12	-48	-156	1689	-45.83	-761.38	-76.63
148	SLD 13	-138	67	1569	-42.97	-707.37	22.74
148	SLD 14	-136	37	1569	-42.95	-707.41	8.59
148	SLD 15	-135	-19	1559	-42.51	-704.29	-17.9
148	SLD 16	-133	-49	1558	-42.49	-704.32	-32.05
148	SLV 1	239	117	2244	-61.41	-993.37	73.63
148	SLV 2	244	48	2243	-61.36	-993.46	41.2
148	SLV 3	246	-84	2219	-60.34	-986.12	-21.35
148	SLV 4	252	-153	2219	-60.29	-986.2	-53.79
148	SLV 5	44	365	1947	-53.84	-863.73	178.22
148	SLV 6	50	293	1947	-53.79	-863.82	144.06
148	SLV 7	70	-303	1866	-50.28	-839.54	-138.41
148	SLV 8	76	-375	1866	-50.23	-839.64	-172.57
148	SLV 9	-114	376	1669	-46.28	-745.36	172.14
148	SLV 10	-109	304	1668	-46.24	-745.45	137.98
148	SLV 11	-89	-292	1588	-42.73	-721.17	-144.49
148	SLV 12	-83	-364	1587	-42.68	-721.26	-178.65
148	SLV 13	-290	154	1316	-36.22	-598.79	53.36
148	SLV 14	-285	85	1315	-36.18	-598.88	20.92
148	SLV 15	-283	-47	1292	-35.16	-591.53	-41.63
148	SLV 16	-277	-115	1291	-35.11	-591.62	-74.06
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
151	SLU 1	-20	-7	2813	-78.39	3.2	-0.48
151	SLU 2	-20	-22	2815	-78.4	3.24	-0.48
151	SLU 3	-20	-7	2813	-78.39	3.2	-0.48
151	SLU 4	-20	-16	2815	-78.4	3.22	-0.48
151	SLU 5	-20	-22	2815	-78.4	3.24	-0.48
151	SLU 6	-20	-7	2813	-78.39	3.2	-0.48
151	SLU 7	-20	-16	2815	-78.4	3.22	-0.48
151	SLU 8	-20	-7	2813	-78.39	3.2	-0.48
151	SLU 9	-20	-16	2815	-78.4	3.22	-0.48
151	SLU 10	-18	-21	3414	-94.99	3.04	-0.43
151	SLU 11	-18	-7	3412	-94.98	3	-0.43
151	SLU 12	-18	-16	3413	-94.99	3.03	-0.43
151	SLU 13	-18	-21	3414	-94.99	3.04	-0.43
151	SLU 14	-18	-7	3412	-94.98	3	-0.43
151	SLU 15	-18	-16	3413	-94.99	3.03	-0.43
151	SLU 16	-18	-7	3412	-94.98	3	-0.43
151	SLU 17	-18	-16	3413	-94.99	3.03	-0.43
151	SLU 18	-17	-7	3668	-102.09	2.92	-0.42
151	SLU 19	-17	-16	3670	-102.1	2.94	-0.41
151	SLU 20	-17	-7	3668	-102.09	2.92	-0.42
151	SLU 21	-17	-16	3670	-102.1	2.94	-0.41
151	SLU 22	-19	-8	3247	-90.42	3.04	-0.46
151	SLU 23	-19	-22	3249	-90.43	3.08	-0.46
151	SLU 24	-19	-8	3247	-90.42	3.04	-0.46
151	SLU 25	-19	-16	3248	-90.42	3.07	-0.46
151	SLU 26	-19	-22	3249	-90.43	3.08	-0.46
151	SLU 27	-19	-8	3247	-90.42	3.04	-0.46
151	SLU 28	-19	-16	3248	-90.42	3.07	-0.46
151	SLU 29	-19	-8	3247	-90.42	3.04	-0.46
151	SLU 30	-19	-16	3248	-90.42	3.07	-0.46
151	SLU 31	-17	-22	3848	-107.02	2.89	-0.41
151	SLU 32	-17	-8	3846	-107.01	2.85	-0.42
151	SLU 33	-17	-16	3847	-107.01	2.87	-0.42
151	SLU 34	-17	-22	3848	-107.02	2.89	-0.41
151	SLU 35	-17	-8	3846	-107.01	2.85	-0.42
151	SLU 36	-17	-16	3847	-107.01	2.87	-0.42
151	SLU 37	-17	-8	3846	-107.01	2.85	-0.42
151	SLU 38	-17	-16	3847	-107.01	2.87	-0.42
151	SLU 39	-16	-8	4102	-114.12	2.77	-0.4
151	SLU 40	-16	-16	4103	-114.12	2.79	-0.4



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
151	SLU 41	-16	-8	4102	-114.12	2.77	-0.4
151	SLU 42	-16	-16	4103	-114.12	2.79	-0.4
151	SLU 43	-26	-10	3508	-97.79	4.21	-0.63
151	SLU 44	-27	-24	3511	-97.8	4.25	-0.63
151	SLU 45	-26	-10	3508	-97.79	4.21	-0.63
151	SLU 46	-27	-18	3510	-97.8	4.23	-0.63
151	SLU 47	-27	-24	3511	-97.8	4.25	-0.63
151	SLU 48	-26	-10	3508	-97.79	4.21	-0.63
151	SLU 49	-27	-18	3510	-97.8	4.23	-0.63
151	SLU 50	-26	-10	3508	-97.79	4.21	-0.63
151	SLU 51	-27	-18	3510	-97.8	4.23	-0.63
151	SLU 52	-24	-24	4109	-114.39	4.05	-0.58
151	SLU 53	-24	-9	4107	-114.38	4.01	-0.58
151	SLU 54	-24	-18	4108	-114.38	4.04	-0.58
151	SLU 55	-24	-24	4109	-114.39	4.05	-0.58
151	SLU 56	-24	-9	4107	-114.38	4.01	-0.58
151	SLU 57	-24	-18	4108	-114.38	4.04	-0.58
151	SLU 58	-24	-9	4107	-114.38	4.01	-0.58
151	SLU 59	-24	-18	4108	-114.38	4.04	-0.58
151	SLU 60	-23	-9	4363	-121.49	3.93	-0.57
151	SLU 61	-24	-18	4365	-121.49	3.96	-0.56
151	SLU 62	-23	-9	4363	-121.49	3.93	-0.57
151	SLU 63	-24	-18	4365	-121.49	3.96	-0.56
151	SLU 64	-26	-10	3942	-109.81	4.05	-0.61
151	SLU 65	-26	-24	3945	-109.82	4.09	-0.61
151	SLU 66	-26	-10	3942	-109.81	4.05	-0.61
151	SLU 67	-26	-18	3944	-109.82	4.08	-0.61
151	SLU 68	-26	-24	3945	-109.82	4.09	-0.61
151	SLU 69	-26	-10	3942	-109.81	4.05	-0.61
151	SLU 70	-26	-18	3944	-109.82	4.08	-0.61
151	SLU 71	-26	-10	3942	-109.81	4.05	-0.61
151	SLU 72	-26	-18	3944	-109.82	4.08	-0.61
151	SLU 73	-24	-24	4543	-126.41	3.9	-0.56
151	SLU 74	-23	-10	4541	-126.4	3.86	-0.57
151	SLU 75	-24	-18	4542	-126.41	3.88	-0.57
151	SLU 76	-24	-24	4543	-126.41	3.9	-0.56
151	SLU 77	-23	-10	4541	-126.4	3.86	-0.57
151	SLU 78	-24	-18	4542	-126.41	3.88	-0.57
151	SLU 79	-23	-10	4541	-126.4	3.86	-0.57
151	SLU 80	-24	-18	4542	-126.41	3.88	-0.57
151	SLU 81	-22	-10	4797	-133.51	3.78	-0.55
151	SLU 82	-23	-18	4799	-133.52	3.8	-0.55
151	SLU 83	-22	-10	4797	-133.51	3.78	-0.55
151	SLU 84	-23	-18	4799	-133.52	3.8	-0.55
151	SLE RA 1	-20	-8	2937	-81.83	3.15	-0.47
151	SLE RA 2	-20	-17	2939	-81.84	3.18	-0.47
151	SLE RA 3	-20	-8	2937	-81.83	3.15	-0.47
151	SLE RA 4	-20	-13	2938	-81.83	3.17	-0.47
151	SLE RA 5	-20	-17	2939	-81.84	3.18	-0.47
151	SLE RA 6	-20	-8	2937	-81.83	3.15	-0.47
151	SLE RA 7	-20	-13	2938	-81.83	3.17	-0.47
151	SLE RA 8	-20	-8	2937	-81.83	3.15	-0.47
151	SLE RA 9	-20	-13	2938	-81.83	3.17	-0.47
151	SLE RA 10	-19	-17	3338	-92.9	3.05	-0.44
151	SLE RA 11	-18	-7	3336	-92.89	3.02	-0.44
151	SLE RA 12	-18	-13	3337	-92.89	3.04	-0.44
151	SLE RA 13	-19	-17	3338	-92.9	3.05	-0.44
151	SLE RA 14	-18	-7	3336	-92.89	3.02	-0.44
151	SLE RA 15	-18	-13	3337	-92.89	3.04	-0.44
151	SLE RA 16	-18	-7	3336	-92.89	3.02	-0.44
151	SLE RA 17	-18	-13	3337	-92.89	3.04	-0.44
151	SLE RA 18	-18	-7	3507	-97.63	2.97	-0.43
151	SLE RA 19	-18	-13	3508	-97.63	2.98	-0.43
151	SLE RA 20	-18	-7	3507	-97.63	2.97	-0.43
151	SLE RA 21	-18	-13	3508	-97.63	2.98	-0.43
151	SLE FR 1	-20	-8	2937	-81.83	3.15	-0.47
151	SLE FR 2	-20	-9	2937	-81.83	3.16	-0.47
151	SLE FR 3	-20	-8	2937	-81.83	3.15	-0.47
151	SLE FR 4	-19	-9	3108	-86.57	3.1	-0.46
151	SLE FR 5	-19	-7	3108	-86.57	3.1	-0.46
151	SLE FR 6	-19	-7	3222	-89.73	3.06	-0.45
151	SLE QP 1	-20	-8	2937	-81.83	3.15	-0.47
151	SLE QP 2	-19	-7	3108	-86.57	3.1	-0.46
151	SLD 1	215	74	3110	-86.86	11.78	5.66
151	SLD 2	219	75	3111	-86.86	11.73	6.46
151	SLD 3	210	-71	3080	-85.47	11.14	5.47
151	SLD 4	214	-70	3080	-85.47	11.09	6.27
151	SLD 5	58	237	3155	-88.76	6.69	1.37
151	SLD 6	62	238	3155	-88.76	6.64	2.21
151	SLD 7	40	-247	3054	-84.13	4.55	0.73
151	SLD 8	44	-246	3054	-84.13	4.5	1.56
151	SLD 9	-82	231	3162	-89.01	1.69	-2.48
151	SLD 10	-78	232	3162	-89.01	1.64	-1.65
151	SLD 11	-100	-253	3062	-84.37	-0.45	-3.13
151	SLD 12	-96	-252	3062	-84.37	-0.5	-2.29
151	SLD 13	-252	55	3136	-87.67	-4.89	-7.19
151	SLD 14	-248	56	3136	-87.67	-4.94	-6.39
151	SLD 15	-258	-90	3106	-86.28	-5.53	-7.39
151	SLD 16	-254	-89	3106	-86.28	-5.58	-6.58
151	SLV 1	515	183	3114	-87.25	22.96	13.48
151	SLV 2	524	185	3114	-87.25	22.84	15.32



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
151	SLV 3	503	-157	3043	-84	21.33	13.02
151	SLV 4	511	-155	3043	-84	21.21	14.87
151	SLV 5	157	564	3217	-91.7	11.57	3.72
151	SLV 6	166	566	3217	-91.7	11.45	5.66
151	SLV 7	115	-568	2982	-80.87	6.14	2.2
151	SLV 8	124	-566	2982	-80.87	6.01	4.14
151	SLV 9	-163	551	3235	-92.27	0.18	-5.06
151	SLV 10	-153	553	3235	-92.27	0.05	-3.12
151	SLV 11	-204	-581	2999	-81.44	-5.25	-6.58
151	SLV 12	-195	-579	3000	-81.44	-5.38	-4.64
151	SLV 13	-550	140	3173	-89.14	-15.01	-15.79
151	SLV 14	-541	142	3173	-89.14	-15.13	-13.94
151	SLV 15	-562	-200	3102	-85.89	-16.64	-16.24
151	SLV 16	-553	-198	3103	-85.89	-16.76	-14.4
151	CRTFP Ux+	0	0	0	0	0	0
151	CRTFP Ux-	0	0	0	0	0	0
151	CRTFP Uy+	0	0	0	0	0	0
151	CRTFP Uy-	0	0	0	0	0	0
188	SLU 1	-64	4	5194	-3.63	-1482.79	1.29
188	SLU 2	-64	-24	5203	-3.09	-1485.48	-6.96
188	SLU 3	-64	4	5194	-3.63	-1482.79	1.29
188	SLU 4	-64	-13	5200	-3.31	-1484.4	-3.66
188	SLU 5	-64	-24	5203	-3.09	-1485.48	-6.96
188	SLU 6	-64	4	5194	-3.63	-1482.79	1.29
188	SLU 7	-64	-13	5200	-3.31	-1484.4	-3.66
188	SLU 8	-64	4	5194	-3.63	-1482.79	1.29
188	SLU 9	-64	-13	5200	-3.31	-1484.4	-3.66
188	SLU 10	-63	-25	6185	-3.74	-1767.32	-7.06
188	SLU 11	-63	4	6176	-4.28	-1764.63	1.18
188	SLU 12	-63	-13	6182	-3.96	-1766.24	-3.76
188	SLU 13	-63	-25	6185	-3.74	-1767.32	-7.06
188	SLU 14	-63	4	6176	-4.28	-1764.63	1.18
188	SLU 15	-63	-13	6182	-3.96	-1766.24	-3.76
188	SLU 16	-63	4	6176	-4.28	-1764.63	1.18
188	SLU 17	-63	-13	6182	-3.96	-1766.24	-3.76
188	SLU 18	-62	3	6597	-4.56	-1885.41	1.14
188	SLU 19	-62	-14	6603	-4.24	-1887.03	-3.81
188	SLU 20	-62	3	6597	-4.56	-1885.41	1.14
188	SLU 21	-62	-14	6603	-4.24	-1887.03	-3.81
188	SLU 22	-64	5	5904	-4.02	-1686.83	1.41
188	SLU 23	-64	-24	5914	-3.48	-1689.52	-6.84
188	SLU 24	-64	5	5904	-4.02	-1686.83	1.41
188	SLU 25	-64	-12	5910	-3.69	-1688.45	-3.54
188	SLU 26	-64	-24	5914	-3.48	-1689.52	-6.84
188	SLU 27	-64	5	5904	-4.02	-1686.83	1.41
188	SLU 28	-64	-12	5910	-3.69	-1688.45	-3.54
188	SLU 29	-64	5	5904	-4.02	-1686.83	1.41
188	SLU 30	-64	-12	5910	-3.69	-1688.45	-3.54
188	SLU 31	-63	-24	6896	-4.13	-1971.36	-6.94
188	SLU 32	-62	4	6887	-4.67	-1968.67	1.3
188	SLU 33	-62	-13	6892	-4.34	-1970.29	-3.64
188	SLU 34	-63	-24	6896	-4.13	-1971.36	-6.94
188	SLU 35	-62	4	6887	-4.67	-1968.67	1.3
188	SLU 36	-62	-13	6892	-4.34	-1970.29	-3.64
188	SLU 37	-62	4	6887	-4.67	-1968.67	1.3
188	SLU 38	-62	-13	6892	-4.34	-1970.29	-3.64
188	SLU 39	-62	4	7307	-4.95	-2089.46	1.26
188	SLU 40	-62	-13	7313	-4.62	-2091.08	-3.69
188	SLU 41	-62	4	7307	-4.95	-2089.46	1.26
188	SLU 42	-62	-13	7313	-4.62	-2091.08	-3.69
188	SLU 43	-84	5	6509	-4.59	-1857.66	1.63
188	SLU 44	-84	-23	6518	-4.05	-1860.35	-6.61
188	SLU 45	-84	5	6509	-4.59	-1857.66	1.63
188	SLU 46	-84	-12	6514	-4.26	-1859.28	-3.31
188	SLU 47	-84	-23	6518	-4.05	-1860.35	-6.61
188	SLU 48	-84	5	6509	-4.59	-1857.66	1.63
188	SLU 49	-84	-12	6514	-4.26	-1859.28	-3.31
188	SLU 50	-84	5	6509	-4.59	-1857.66	1.63
188	SLU 51	-84	-12	6514	-4.26	-1859.28	-3.31
188	SLU 52	-82	-23	7500	-4.7	-2142.19	-6.72
188	SLU 53	-82	5	7491	-5.24	-2139.5	1.53
188	SLU 54	-82	-12	7496	-4.91	-2141.12	-3.42
188	SLU 55	-82	-23	7500	-4.7	-2142.19	-6.72
188	SLU 56	-82	5	7491	-5.24	-2139.5	1.53
188	SLU 57	-82	-12	7496	-4.91	-2141.12	-3.42
188	SLU 58	-82	5	7491	-5.24	-2139.5	1.53
188	SLU 59	-82	-12	7496	-4.91	-2141.12	-3.42
188	SLU 60	-81	5	7912	-5.52	-2260.29	1.48
188	SLU 61	-81	-12	7917	-5.19	-2261.91	-3.46
188	SLU 62	-81	5	7912	-5.52	-2260.29	1.48
188	SLU 63	-81	-12	7917	-5.19	-2261.91	-3.46
188	SLU 64	-83	6	7219	-4.98	-2061.71	1.75
188	SLU 65	-83	-23	7228	-4.43	-2064.4	-6.49
188	SLU 66	-83	6	7219	-4.98	-2061.71	1.75
188	SLU 67	-83	-11	7225	-4.65	-2063.32	-3.19
188	SLU 68	-83	-23	7228	-4.43	-2064.4	-6.49
188	SLU 69	-83	6	7219	-4.98	-2061.71	1.75
188	SLU 70	-83	-11	7225	-4.65	-2063.32	-3.19
188	SLU 71	-83	6	7219	-4.98	-2061.71	1.75
188	SLU 72	-83	-11	7225	-4.65	-2063.32	-3.19
188	SLU 73	-82	-23	8210	-5.08	-2346.24	-6.6



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
188	SLU 74	-82	5	8201	-5.63	-2343.55	1.65
188	SLU 75	-82	-12	8207	-5.3	-2345.16	-3.3
188	SLU 76	-82	-23	8210	-5.08	-2346.24	-6.6
188	SLU 77	-82	5	8201	-5.63	-2343.55	1.65
188	SLU 78	-82	-12	8207	-5.3	-2345.16	-3.3
188	SLU 79	-82	5	8201	-5.63	-2343.55	1.65
188	SLU 80	-82	-12	8207	-5.3	-2345.16	-3.3
188	SLU 81	-81	5	8622	-5.91	-2464.34	1.6
188	SLU 82	-81	-12	8628	-5.58	-2465.95	-3.34
188	SLU 83	-81	5	8622	-5.91	-2464.34	1.6
188	SLU 84	-81	-12	8628	-5.58	-2465.95	-3.34
188	SLE RA 1	-64	4	5397	-3.74	-1541.08	1.32
188	SLE RA 2	-64	-14	5403	-3.38	-1542.88	-4.17
188	SLE RA 3	-64	4	5397	-3.74	-1541.08	1.32
188	SLE RA 4	-64	-7	5401	-3.52	-1542.16	-1.98
188	SLE RA 5	-64	-14	5403	-3.38	-1542.88	-4.17
188	SLE RA 6	-64	4	5397	-3.74	-1541.08	1.32
188	SLE RA 7	-64	-7	5401	-3.52	-1542.16	-1.98
188	SLE RA 8	-64	4	5397	-3.74	-1541.08	1.32
188	SLE RA 9	-64	-7	5401	-3.52	-1542.16	-1.98
188	SLE RA 10	-63	-15	6058	-3.81	-1730.77	-4.24
188	SLE RA 11	-63	4	6052	-4.18	-1728.98	1.25
188	SLE RA 12	-63	-7	6055	-3.96	-1730.05	-2.04
188	SLE RA 13	-63	-15	6058	-3.81	-1730.77	-4.24
188	SLE RA 14	-63	4	6052	-4.18	-1728.98	1.25
188	SLE RA 15	-63	-7	6055	-3.96	-1730.05	-2.04
188	SLE RA 16	-63	4	6052	-4.18	-1728.98	1.25
188	SLE RA 17	-63	-7	6055	-3.96	-1730.05	-2.04
188	SLE RA 18	-63	4	6332	-4.36	-1809.5	1.22
188	SLE RA 19	-63	-8	6336	-4.15	-1810.58	-2.07
188	SLE RA 20	-63	4	6332	-4.36	-1809.5	1.22
188	SLE RA 21	-63	-8	6336	-4.15	-1810.58	-2.07
188	SLE FR 1	-64	4	5397	-3.74	-1541.08	1.32
188	SLE FR 2	-64	1	5398	-3.67	-1541.44	0.22
188	SLE FR 3	-64	4	5397	-3.74	-1541.08	1.32
188	SLE FR 4	-64	0	5679	-3.86	-1621.97	0.19
188	SLE FR 5	-64	4	5678	-3.93	-1621.61	1.29
188	SLE FR 6	-63	4	5865	-4.05	-1675.29	1.27
188	SLE QP 1	-64	4	5397	-3.74	-1541.08	1.32
188	SLE QP 2	-64	4	5678	-3.93	-1621.61	1.29
188	SLD 1	301	161	6348	-7.98	-1802.81	46.77
188	SLD 2	301	65	6349	-7.66	-1802.93	19.54
188	SLD 3	293	-107	6367	-1.4	-1807.47	-31.72
188	SLD 4	293	-204	6367	-1.09	-1807.58	-58.95
188	SLD 5	58	494	5851	-15.23	-1668.87	144.04
188	SLD 6	58	394	5852	-14.9	-1668.99	115.75
188	SLD 7	31	-401	5911	6.68	-1684.38	-117.59
188	SLD 8	31	-501	5912	7.01	-1684.5	-145.89
188	SLD 9	-158	509	5443	-14.86	-1558.72	148.47
188	SLD 10	-158	409	5444	-14.54	-1558.84	120.18
188	SLD 11	-185	-386	5503	7.05	-1574.23	-113.16
188	SLD 12	-185	-486	5504	7.37	-1574.35	-141.46
188	SLD 13	-420	212	4988	-6.76	-1435.64	61.53
188	SLD 14	-420	116	4989	-6.45	-1435.75	34.3
188	SLD 15	-428	-56	5006	-0.19	-1440.29	-16.96
188	SLD 16	-429	-153	5007	0.12	-1440.41	-44.19
188	SLV 1	767	370	7204	-13.35	-2033.94	107.34
188	SLV 2	767	149	7205	-12.63	-2034.2	44.89
188	SLV 3	749	-258	7247	2	-2044.95	-76.11
188	SLV 4	748	-478	7248	2.71	-2045.21	-138.55
188	SLV 5	214	1148	6070	-30.3	-1728.52	334.84
188	SLV 6	214	916	6071	-29.55	-1728.79	269.08
188	SLV 7	152	-943	6213	20.86	-1765.21	-276.63
188	SLV 8	151	-1175	6214	21.61	-1765.48	-342.39
188	SLV 9	-279	1183	5141	-29.46	-1477.74	344.98
188	SLV 10	-279	951	5142	-28.71	-1478.01	279.21
188	SLV 11	-341	-908	5284	21.69	-1514.43	-266.49
188	SLV 12	-341	-1140	5285	22.44	-1514.71	-332.25
188	SLV 13	-876	487	4107	-10.57	-1198.01	141.13
188	SLV 14	-876	266	4108	-9.86	-1198.27	78.69
188	SLV 15	-895	-141	4150	4.78	-1209.02	-42.31
188	SLV 16	-895	-361	4151	5.49	-1209.28	-104.75
188	CRTFP Ux+	0	0	0	0	0.01	0
188	CRTFP Ux-	0	0	0	0	-0.01	0
188	CRTFP Uy+	0	0	0	0	0	0
188	CRTFP Uy-	0	0	0	0	0	0
189	SLU 1	-43	3	3508	-1.62	-95.19	0.13
189	SLU 2	-43	-16	3514	-0.97	-95.37	-0.27
189	SLU 3	-43	3	3508	-1.62	-95.19	0.13
189	SLU 4	-43	-8	3511	-1.23	-95.3	-0.11
189	SLU 5	-43	-16	3514	-0.97	-95.37	-0.27
189	SLU 6	-43	3	3508	-1.62	-95.19	0.13
189	SLU 7	-43	-8	3511	-1.23	-95.3	-0.11
189	SLU 8	-43	3	3508	-1.62	-95.19	0.13
189	SLU 9	-43	-8	3511	-1.23	-95.3	-0.11
189	SLU 10	-42	-16	4180	-1.24	-113.59	-0.23
189	SLU 11	-42	3	4173	-1.89	-113.42	0.17
189	SLU 12	-42	-9	4177	-1.5	-113.52	-0.07
189	SLU 13	-42	-16	4180	-1.24	-113.59	-0.23
189	SLU 14	-42	3	4173	-1.89	-113.42	0.17
189	SLU 15	-42	-9	4177	-1.5	-113.52	-0.07



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
189	SLU 16	-42	3	4173	-1.89	-113.42	0.17
189	SLU 17	-42	-9	4177	-1.5	-113.52	-0.07
189	SLU 18	-42	3	4459	-2.01	-121.23	0.18
189	SLU 19	-42	-9	4462	-1.62	-121.34	-0.06
189	SLU 20	-42	3	4459	-2.01	-121.23	0.18
189	SLU 21	-42	-9	4462	-1.62	-121.34	-0.06
189	SLU 22	-43	3	3989	-1.71	-108.4	0.16
189	SLU 23	-43	-16	3996	-1.07	-108.57	-0.24
189	SLU 24	-43	3	3989	-1.71	-108.4	0.16
189	SLU 25	-43	-8	3993	-1.33	-108.5	-0.08
189	SLU 26	-43	-16	3996	-1.07	-108.57	-0.24
189	SLU 27	-43	3	3989	-1.71	-108.4	0.16
189	SLU 28	-43	-8	3993	-1.33	-108.5	-0.08
189	SLU 29	-43	3	3989	-1.71	-108.4	0.16
189	SLU 30	-43	-8	3993	-1.33	-108.5	-0.08
189	SLU 31	-42	-16	4661	-1.34	-126.8	-0.2
189	SLU 32	-42	3	4655	-1.98	-126.62	0.2
189	SLU 33	-42	-8	4659	-1.59	-126.73	-0.04
189	SLU 34	-42	-16	4661	-1.34	-126.8	-0.2
189	SLU 35	-42	3	4655	-1.98	-126.62	0.2
189	SLU 36	-42	-8	4659	-1.59	-126.73	-0.04
189	SLU 37	-42	3	4655	-1.98	-126.62	0.2
189	SLU 38	-42	-8	4659	-1.59	-126.73	-0.04
189	SLU 39	-41	3	4940	-2.1	-134.43	0.22
189	SLU 40	-42	-9	4944	-1.71	-134.54	-0.02
189	SLU 41	-41	3	4940	-2.1	-134.43	0.22
189	SLU 42	-42	-9	4944	-1.71	-134.54	-0.02
189	SLU 43	-56	4	4395	-2.08	-119.22	0.15
189	SLU 44	-57	-15	4401	-1.43	-119.4	-0.25
189	SLU 45	-56	4	4395	-2.08	-119.22	0.15
189	SLU 46	-57	-8	4399	-1.69	-119.33	-0.09
189	SLU 47	-57	-15	4401	-1.43	-119.4	-0.25
189	SLU 48	-56	4	4395	-2.08	-119.22	0.15
189	SLU 49	-57	-8	4399	-1.69	-119.33	-0.09
189	SLU 50	-56	4	4395	-2.08	-119.22	0.15
189	SLU 51	-57	-8	4399	-1.69	-119.33	-0.09
189	SLU 52	-55	-15	5067	-1.7	-137.62	-0.21
189	SLU 53	-55	4	5060	-2.34	-137.45	0.19
189	SLU 54	-55	-8	5064	-1.96	-137.56	-0.05
189	SLU 55	-55	-15	5067	-1.7	-137.62	-0.21
189	SLU 56	-55	4	5060	-2.34	-137.45	0.19
189	SLU 57	-55	-8	5064	-1.96	-137.56	-0.05
189	SLU 58	-55	4	5060	-2.34	-137.45	0.19
189	SLU 59	-55	-8	5064	-1.96	-137.56	-0.05
189	SLU 60	-55	3	5346	-2.46	-145.26	0.21
189	SLU 61	-55	-8	5349	-2.07	-145.37	-0.03
189	SLU 62	-55	3	5346	-2.46	-145.26	0.21
189	SLU 63	-55	-8	5349	-2.07	-145.37	-0.03
189	SLU 64	-56	4	4876	-2.17	-132.43	0.19
189	SLU 65	-56	-15	4883	-1.52	-132.6	-0.21
189	SLU 66	-56	4	4876	-2.17	-132.43	0.19
189	SLU 67	-56	-7	4880	-1.78	-132.53	-0.05
189	SLU 68	-56	-15	4883	-1.52	-132.6	-0.21
189	SLU 69	-56	4	4876	-2.17	-132.43	0.19
189	SLU 70	-56	-7	4880	-1.78	-132.53	-0.05
189	SLU 71	-56	4	4876	-2.17	-132.43	0.19
189	SLU 72	-56	-7	4880	-1.78	-132.53	-0.05
189	SLU 73	-55	-15	5548	-1.79	-150.83	-0.17
189	SLU 74	-55	4	5542	-2.44	-150.65	0.23
189	SLU 75	-55	-8	5546	-2.05	-150.76	-0.01
189	SLU 76	-55	-15	5548	-1.79	-150.83	-0.17
189	SLU 77	-55	4	5542	-2.44	-150.65	0.23
189	SLU 78	-55	-8	5546	-2.05	-150.76	-0.01
189	SLU 79	-55	4	5542	-2.44	-150.65	0.23
189	SLU 80	-55	-8	5546	-2.05	-150.76	-0.01
189	SLU 81	-55	4	5827	-2.55	-158.47	0.24
189	SLU 82	-55	-8	5831	-2.16	-158.57	0
189	SLU 83	-55	4	5827	-2.55	-158.47	0.24
189	SLU 84	-55	-8	5831	-2.16	-158.57	0
189	SLE RA 1	-43	3	3645	-1.65	-98.97	0.14
189	SLE RA 2	-43	-10	3649	-1.22	-99.08	-0.13
189	SLE RA 3	-43	3	3645	-1.65	-98.97	0.14
189	SLE RA 4	-43	-5	3648	-1.39	-99.03	-0.02
189	SLE RA 5	-43	-10	3649	-1.22	-99.08	-0.13
189	SLE RA 6	-43	3	3645	-1.65	-98.97	0.14
189	SLE RA 7	-43	-5	3648	-1.39	-99.03	-0.02
189	SLE RA 8	-43	3	3645	-1.65	-98.97	0.14
189	SLE RA 9	-43	-5	3648	-1.39	-99.03	-0.02
189	SLE RA 10	-43	-10	4093	-1.4	-111.23	-0.1
189	SLE RA 11	-43	3	4089	-1.83	-111.12	0.16
189	SLE RA 12	-43	-5	4092	-1.57	-111.19	0
189	SLE RA 13	-43	-10	4093	-1.4	-111.23	-0.1
189	SLE RA 14	-43	3	4089	-1.83	-111.12	0.16
189	SLE RA 15	-43	-5	4092	-1.57	-111.19	0
189	SLE RA 16	-43	3	4089	-1.83	-111.12	0.16
189	SLE RA 17	-43	-5	4092	-1.57	-111.19	0
189	SLE RA 18	-42	3	4279	-1.9	-116.32	0.17
189	SLE RA 19	-42	-5	4282	-1.64	-116.39	0.01
189	SLE RA 20	-42	3	4279	-1.9	-116.32	0.17
189	SLE RA 21	-42	-5	4282	-1.64	-116.39	0.01
189	SLE FR 1	-43	3	3645	-1.65	-98.97	0.14



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
189	SLE FR 2	-43	1	3646	-1.56	-98.99	0.08
189	SLE FR 3	-43	3	3645	-1.65	-98.97	0.14
189	SLE FR 4	-43	0	3836	-1.64	-104.2	0.09
189	SLE FR 5	-43	3	3835	-1.72	-104.17	0.15
189	SLE FR 6	-43	3	3962	-1.78	-107.64	0.15
189	SLE QP 1	-43	3	3645	-1.65	-98.97	0.14
189	SLE QP 2	-43	3	3835	-1.72	-104.17	0.15
189	SLD 1	206	108	4279	-6.39	-115.73	2.21
189	SLD 2	206	44	4279	-6.03	-115.74	1.36
189	SLD 3	200	-72	4290	1.45	-115.44	-1.76
189	SLD 4	200	-136	4291	1.8	-115.45	-2.61
189	SLD 5	40	332	3951	-15.14	-108.07	7.1
189	SLD 6	40	266	3951	-14.77	-108.08	6.22
189	SLD 7	22	-270	3989	10.98	-107.12	-6.14
189	SLD 8	22	-336	3990	11.35	-107.13	-7.02
189	SLD 9	-107	342	3681	-14.8	-101.22	7.31
189	SLD 10	-108	276	3681	-14.43	-101.23	6.43
189	SLD 11	-126	-260	3720	11.32	-100.27	-5.93
189	SLD 12	-126	-326	3720	11.69	-100.28	-6.81
189	SLD 13	-286	142	3380	-5.25	-92.9	2.91
189	SLD 14	-286	78	3381	-4.9	-92.9	2.06
189	SLD 15	-292	-38	3392	2.58	-92.61	-1.06
189	SLD 16	-292	-102	3392	2.94	-92.62	-1.91
189	SLV 1	523	248	4844	-12.59	-130.49	4.96
189	SLV 2	523	102	4845	-11.77	-130.51	3.01
189	SLV 3	511	-174	4872	5.7	-129.82	-4.32
189	SLV 4	510	-320	4872	6.53	-129.84	-6.27
189	SLV 5	146	771	4096	-33.04	-113.09	16.4
189	SLV 6	146	617	4097	-32.17	-113.1	14.35
189	SLV 7	104	-635	4188	27.94	-110.84	-14.54
189	SLV 8	104	-789	4189	28.8	-110.86	-16.59
189	SLV 9	-190	795	3482	-32.25	-97.49	16.88
189	SLV 10	-190	641	3483	-31.39	-97.51	14.83
189	SLV 11	-232	-611	3574	28.72	-95.24	-14.06
189	SLV 12	-232	-765	3575	29.59	-95.26	-16.11
189	SLV 13	-596	326	2799	-9.97	-78.51	6.56
189	SLV 14	-596	180	2799	-9.15	-78.53	4.62
189	SLV 15	-609	-96	2826	8.32	-77.84	-2.72
189	SLV 16	-609	-242	2827	9.14	-77.85	-4.67
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
191	SLU 1	-50	4	3996	-2.11	2.43	0.06
191	SLU 2	-50	-17	4003	-1.35	2.43	0.24
191	SLU 3	-50	4	3996	-2.11	2.43	0.06
191	SLU 4	-50	-9	4001	-1.65	2.43	0.17
191	SLU 5	-50	-17	4003	-1.35	2.43	0.24
191	SLU 6	-50	4	3996	-2.11	2.43	0.06
191	SLU 7	-50	-9	4001	-1.65	2.43	0.17
191	SLU 8	-50	4	3996	-2.11	2.43	0.06
191	SLU 9	-50	-9	4001	-1.65	2.43	0.17
191	SLU 10	-48	-18	4770	-1.72	2.59	0.31
191	SLU 11	-48	4	4763	-2.48	2.59	0.12
191	SLU 12	-48	-9	4767	-2.02	2.59	0.23
191	SLU 13	-48	-18	4770	-1.72	2.59	0.31
191	SLU 14	-48	4	4763	-2.48	2.59	0.12
191	SLU 15	-48	-9	4767	-2.02	2.59	0.23
191	SLU 16	-48	4	4763	-2.48	2.59	0.12
191	SLU 17	-48	-9	4767	-2.02	2.59	0.23
191	SLU 18	-48	4	5091	-2.64	2.66	0.15
191	SLU 19	-48	-9	5095	-2.18	2.66	0.26
191	SLU 20	-48	4	5091	-2.64	2.66	0.15
191	SLU 21	-48	-9	5095	-2.18	2.66	0.26
191	SLU 22	-49	4	4551	-2.26	2.53	0.09
191	SLU 23	-49	-17	4559	-1.5	2.53	0.27
191	SLU 24	-49	4	4551	-2.26	2.53	0.09
191	SLU 25	-49	-9	4556	-1.8	2.53	0.2
191	SLU 26	-49	-17	4559	-1.5	2.53	0.27
191	SLU 27	-49	4	4551	-2.26	2.53	0.09
191	SLU 28	-49	-9	4556	-1.8	2.53	0.2
191	SLU 29	-49	4	4551	-2.26	2.53	0.09
191	SLU 30	-49	-9	4556	-1.8	2.53	0.2
191	SLU 31	-48	-17	5325	-1.86	2.69	0.34
191	SLU 32	-48	4	5318	-2.62	2.69	0.16
191	SLU 33	-48	-9	5322	-2.17	2.69	0.26
191	SLU 34	-48	-17	5325	-1.86	2.69	0.34
191	SLU 35	-48	4	5318	-2.62	2.69	0.16
191	SLU 36	-48	-9	5322	-2.17	2.69	0.26
191	SLU 37	-48	4	5318	-2.62	2.69	0.16
191	SLU 38	-48	-9	5322	-2.17	2.69	0.26
191	SLU 39	-47	4	5646	-2.78	2.76	0.18
191	SLU 40	-47	-9	5651	-2.33	2.76	0.29
191	SLU 41	-47	4	5646	-2.78	2.76	0.18
191	SLU 42	-47	-9	5651	-2.33	2.76	0.29
191	SLU 43	-65	5	5005	-2.69	3.12	0.07
191	SLU 44	-65	-16	5012	-1.93	3.12	0.25
191	SLU 45	-65	5	5005	-2.69	3.12	0.07
191	SLU 46	-65	-8	5009	-2.24	3.12	0.18
191	SLU 47	-65	-16	5012	-1.93	3.12	0.25
191	SLU 48	-65	5	5005	-2.69	3.12	0.07



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
191	SLU 49	-65	-8	5009	-2.24	3.12	0.18
191	SLU 50	-65	5	5005	-2.69	3.12	0.07
191	SLU 51	-65	-8	5009	-2.24	3.12	0.18
191	SLU 52	-63	-17	5778	-2.3	3.29	0.31
191	SLU 53	-63	5	5771	-3.06	3.29	0.13
191	SLU 54	-63	-8	5775	-2.61	3.29	0.24
191	SLU 55	-63	-17	5778	-2.3	3.29	0.31
191	SLU 56	-63	5	5771	-3.06	3.29	0.13
191	SLU 57	-63	-8	5775	-2.61	3.29	0.24
191	SLU 58	-63	5	5771	-3.06	3.29	0.13
191	SLU 59	-63	-8	5775	-2.61	3.29	0.24
191	SLU 60	-63	5	6100	-3.22	3.36	0.16
191	SLU 61	-63	-8	6104	-2.76	3.36	0.27
191	SLU 62	-63	5	6100	-3.22	3.36	0.16
191	SLU 63	-63	-8	6104	-2.76	3.36	0.27
191	SLU 64	-64	5	5560	-2.84	3.22	0.1
191	SLU 65	-64	-16	5567	-2.08	3.22	0.28
191	SLU 66	-64	5	5560	-2.84	3.22	0.1
191	SLU 67	-64	-8	5564	-2.38	3.22	0.21
191	SLU 68	-64	-16	5567	-2.08	3.22	0.28
191	SLU 69	-64	5	5560	-2.84	3.22	0.1
191	SLU 70	-64	-8	5564	-2.38	3.22	0.21
191	SLU 71	-64	5	5560	-2.84	3.22	0.1
191	SLU 72	-64	-8	5564	-2.38	3.22	0.21
191	SLU 73	-63	-16	6334	-2.45	3.38	0.34
191	SLU 74	-63	5	6326	-3.21	3.38	0.16
191	SLU 75	-63	-8	6331	-2.75	3.38	0.27
191	SLU 76	-63	-16	6334	-2.45	3.38	0.34
191	SLU 77	-63	5	6326	-3.21	3.38	0.16
191	SLU 78	-63	-8	6331	-2.75	3.38	0.27
191	SLU 79	-63	5	6326	-3.21	3.38	0.16
191	SLU 80	-63	-8	6331	-2.75	3.38	0.27
191	SLU 81	-62	5	6655	-3.36	3.45	0.19
191	SLU 82	-62	-8	6659	-2.91	3.45	0.3
191	SLU 83	-62	5	6655	-3.36	3.45	0.19
191	SLU 84	-62	-8	6659	-2.91	3.45	0.3
191	SLE RA 1	-50	4	4155	-2.15	2.46	0.07
191	SLE RA 2	-50	-10	4160	-1.65	2.46	0.19
191	SLE RA 3	-50	4	4155	-2.15	2.46	0.07
191	SLE RA 4	-50	-5	4158	-1.85	2.46	0.14
191	SLE RA 5	-50	-10	4160	-1.65	2.46	0.19
191	SLE RA 6	-50	4	4155	-2.15	2.46	0.07
191	SLE RA 7	-50	-5	4158	-1.85	2.46	0.14
191	SLE RA 8	-50	4	4155	-2.15	2.46	0.07
191	SLE RA 9	-50	-5	4158	-1.85	2.46	0.14
191	SLE RA 10	-49	-10	4671	-1.89	2.57	0.23
191	SLE RA 11	-49	4	4666	-2.4	2.56	0.11
191	SLE RA 12	-49	-5	4669	-2.09	2.56	0.18
191	SLE RA 13	-49	-10	4671	-1.89	2.57	0.23
191	SLE RA 14	-49	4	4666	-2.4	2.56	0.11
191	SLE RA 15	-49	-5	4669	-2.09	2.56	0.18
191	SLE RA 16	-49	4	4666	-2.4	2.56	0.11
191	SLE RA 17	-49	-5	4669	-2.09	2.56	0.18
191	SLE RA 18	-48	4	4885	-2.5	2.61	0.13
191	SLE RA 19	-48	-5	4888	-2.2	2.61	0.2
191	SLE RA 20	-48	4	4885	-2.5	2.61	0.13
191	SLE RA 21	-48	-5	4888	-2.2	2.61	0.2
191	SLE FR 1	-50	4	4155	-2.15	2.46	0.07
191	SLE FR 2	-50	1	4156	-2.05	2.46	0.09
191	SLE FR 3	-50	4	4155	-2.15	2.46	0.07
191	SLE FR 4	-49	1	4375	-2.16	2.5	0.11
191	SLE FR 5	-49	4	4374	-2.26	2.5	0.09
191	SLE FR 6	-49	4	4520	-2.33	2.53	0.1
191	SLE QP 1	-50	4	4155	-2.15	2.46	0.07
191	SLE QP 2	-49	4	4374	-2.26	2.5	0.09
191	SLD 1	241	121	4857	-7.78	3.89	-1.07
191	SLD 2	241	52	4857	-7.39	3.89	0.1
191	SLD 3	235	-83	4845	1.52	4.03	0.44
191	SLD 4	235	-151	4846	1.92	4.03	1.61
191	SLD 5	48	373	4537	-18.18	2.71	-2.98
191	SLD 6	48	302	4537	-17.77	2.71	-1.77
191	SLD 7	26	-305	4497	12.85	3.17	2.05
191	SLD 8	26	-376	4497	13.26	3.17	3.26
191	SLD 9	-125	384	4250	-17.77	1.83	-3.09
191	SLD 10	-125	313	4251	-17.36	1.84	-1.88
191	SLD 11	-146	-294	4211	13.25	2.29	1.94
191	SLD 12	-146	-365	4211	13.66	2.3	3.15
191	SLD 13	-333	159	3902	-6.43	0.97	-1.43
191	SLD 14	-333	90	3902	-6.04	0.98	-0.27
191	SLD 15	-340	-44	3890	2.87	1.11	0.08
191	SLD 16	-340	-113	3890	3.27	1.11	1.24
191	SLV 1	613	277	5475	-15.13	5.64	-2.59
191	SLV 2	612	119	5475	-14.22	5.65	0.07
191	SLV 3	598	-199	5447	6.6	5.99	0.94
191	SLV 4	598	-356	5447	7.51	5.99	3.6
191	SLV 5	172	866	4747	-39.42	2.92	-7.08
191	SLV 6	172	700	4747	-38.46	2.93	-4.27
191	SLV 7	122	-719	4653	33.02	4.07	4.69
191	SLV 8	122	-884	4653	33.97	4.07	7.5
191	SLV 9	-220	892	4094	-38.49	0.93	-7.33
191	SLV 10	-221	726	4095	-37.53	0.94	-4.52



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
191	SLV 11	-270	-692	4000	33.95	2.08	4.44
191	SLV 12	-270	-858	4001	34.9	2.08	7.25
191	SLV 13	-696	364	3300	-12.02	-0.99	-3.43
191	SLV 14	-696	207	3301	-11.12	-0.98	-0.76
191	SLV 15	-711	-111	3272	9.71	-0.65	0.1
191	SLV 16	-711	-269	3273	10.61	-0.64	2.77
191	CRTFP Ux+	0	0	0	0	0	0
191	CRTFP Ux-	0	0	0	0	0	0
191	CRTFP Uy+	0	0	0	0	0	0
191	CRTFP Uy-	0	0	0	0	0	0
192	SLU 1	-48	4	3938	-2.36	1.45	0.06
192	SLU 2	-49	-16	3945	-1.59	1.45	0.25
192	SLU 3	-48	4	3938	-2.36	1.45	0.06
192	SLU 4	-49	-8	3942	-1.89	1.45	0.17
192	SLU 5	-49	-16	3945	-1.59	1.45	0.25
192	SLU 6	-48	4	3938	-2.36	1.45	0.06
192	SLU 7	-49	-8	3942	-1.89	1.45	0.17
192	SLU 8	-48	4	3938	-2.36	1.45	0.06
192	SLU 9	-49	-8	3942	-1.89	1.45	0.17
192	SLU 10	-47	-16	4710	-2.01	1.41	0.31
192	SLU 11	-47	4	4702	-2.78	1.41	0.12
192	SLU 12	-47	-8	4707	-2.32	1.41	0.23
192	SLU 13	-47	-16	4710	-2.01	1.41	0.31
192	SLU 14	-47	4	4702	-2.78	1.41	0.12
192	SLU 15	-47	-8	4707	-2.32	1.41	0.23
192	SLU 16	-47	4	4702	-2.78	1.41	0.12
192	SLU 17	-47	-8	4707	-2.32	1.41	0.23
192	SLU 18	-46	5	5030	-2.97	1.4	0.15
192	SLU 19	-46	-8	5035	-2.5	1.4	0.26
192	SLU 20	-46	5	5030	-2.97	1.4	0.15
192	SLU 21	-46	-8	5035	-2.5	1.4	0.26
192	SLU 22	-48	5	4492	-2.54	1.4	0.09
192	SLU 23	-48	-16	4500	-1.77	1.4	0.28
192	SLU 24	-48	5	4492	-2.54	1.4	0.09
192	SLU 25	-48	-7	4497	-2.08	1.4	0.2
192	SLU 26	-48	-16	4500	-1.77	1.4	0.28
192	SLU 27	-48	5	4492	-2.54	1.4	0.09
192	SLU 28	-48	-7	4497	-2.08	1.4	0.2
192	SLU 29	-48	5	4492	-2.54	1.4	0.09
192	SLU 30	-48	-7	4497	-2.08	1.4	0.2
192	SLU 31	-46	-15	5264	-2.2	1.37	0.34
192	SLU 32	-46	5	5257	-2.97	1.37	0.15
192	SLU 33	-46	-7	5262	-2.51	1.37	0.27
192	SLU 34	-46	-15	5264	-2.2	1.37	0.34
192	SLU 35	-46	5	5257	-2.97	1.37	0.15
192	SLU 36	-46	-7	5262	-2.51	1.37	0.27
192	SLU 37	-46	5	5257	-2.97	1.37	0.15
192	SLU 38	-46	-7	5262	-2.51	1.37	0.27
192	SLU 39	-46	5	5585	-3.15	1.35	0.18
192	SLU 40	-46	-7	5589	-2.69	1.35	0.29
192	SLU 41	-46	5	5585	-3.15	1.35	0.18
192	SLU 42	-46	-7	5589	-2.69	1.35	0.29
192	SLU 43	-63	5	4929	-3	1.9	0.06
192	SLU 44	-63	-15	4936	-2.23	1.9	0.25
192	SLU 45	-63	5	4929	-3	1.9	0.06
192	SLU 46	-63	-7	4933	-2.54	1.9	0.18
192	SLU 47	-63	-15	4936	-2.23	1.9	0.25
192	SLU 48	-63	5	4929	-3	1.9	0.06
192	SLU 49	-63	-7	4933	-2.54	1.9	0.18
192	SLU 50	-63	5	4929	-3	1.9	0.06
192	SLU 51	-63	-7	4933	-2.54	1.9	0.18
192	SLU 52	-62	-15	5701	-2.66	1.86	0.32
192	SLU 53	-61	5	5694	-3.43	1.86	0.13
192	SLU 54	-62	-7	5698	-2.97	1.86	0.24
192	SLU 55	-62	-15	5701	-2.66	1.86	0.32
192	SLU 56	-61	5	5694	-3.43	1.86	0.13
192	SLU 57	-62	-7	5698	-2.97	1.86	0.24
192	SLU 58	-61	5	5694	-3.43	1.86	0.13
192	SLU 59	-62	-7	5698	-2.97	1.86	0.24
192	SLU 60	-61	6	6021	-3.61	1.85	0.15
192	SLU 61	-61	-7	6026	-3.15	1.85	0.27
192	SLU 62	-61	6	6021	-3.61	1.85	0.15
192	SLU 63	-61	-7	6026	-3.15	1.85	0.27
192	SLU 64	-63	6	5483	-3.19	1.85	0.09
192	SLU 65	-63	-15	5491	-2.41	1.85	0.28
192	SLU 66	-63	6	5483	-3.19	1.85	0.09
192	SLU 67	-63	-6	5488	-2.72	1.85	0.21
192	SLU 68	-63	-15	5491	-2.41	1.85	0.28
192	SLU 69	-63	6	5483	-3.19	1.85	0.09
192	SLU 70	-63	-6	5488	-2.72	1.85	0.21
192	SLU 71	-63	6	5483	-3.19	1.85	0.09
192	SLU 72	-63	-6	5488	-2.72	1.85	0.21
192	SLU 73	-61	-14	6256	-2.84	1.82	0.35
192	SLU 74	-61	6	6248	-3.61	1.82	0.16
192	SLU 75	-61	-6	6253	-3.15	1.82	0.27
192	SLU 76	-61	-14	6256	-2.84	1.82	0.35
192	SLU 77	-61	6	6248	-3.61	1.82	0.16
192	SLU 78	-61	-6	6253	-3.15	1.82	0.27
192	SLU 79	-61	6	6248	-3.61	1.82	0.16
192	SLU 80	-61	-6	6253	-3.15	1.82	0.27
192	SLU 81	-60	6	6576	-3.8	1.8	0.19



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
192	SLU 82	-60	-6	6580	-3.33	1.8	0.3
192	SLU 83	-60	6	6576	-3.8	1.8	0.19
192	SLU 84	-60	-6	6580	-3.33	1.8	0.3
192	SLE RA 1	-48	4	4096	-2.41	1.43	0.06
192	SLE RA 2	-48	-9	4101	-1.9	1.44	0.19
192	SLE RA 3	-48	4	4096	-2.41	1.43	0.06
192	SLE RA 4	-48	-4	4099	-2.1	1.44	0.14
192	SLE RA 5	-48	-9	4101	-1.9	1.44	0.19
192	SLE RA 6	-48	4	4096	-2.41	1.43	0.06
192	SLE RA 7	-48	-4	4099	-2.1	1.44	0.14
192	SLE RA 8	-48	4	4096	-2.41	1.43	0.06
192	SLE RA 9	-48	-4	4099	-2.1	1.44	0.14
192	SLE RA 10	-47	-9	4611	-2.18	1.41	0.23
192	SLE RA 11	-47	5	4606	-2.69	1.41	0.11
192	SLE RA 12	-47	-4	4609	-2.39	1.41	0.18
192	SLE RA 13	-47	-9	4611	-2.18	1.41	0.23
192	SLE RA 14	-47	5	4606	-2.69	1.41	0.11
192	SLE RA 15	-47	-4	4609	-2.39	1.41	0.18
192	SLE RA 16	-47	5	4606	-2.69	1.41	0.11
192	SLE RA 17	-47	-4	4609	-2.39	1.41	0.18
192	SLE RA 18	-47	5	4824	-2.82	1.4	0.13
192	SLE RA 19	-47	-4	4827	-2.51	1.4	0.2
192	SLE RA 20	-47	5	4824	-2.82	1.4	0.13
192	SLE RA 21	-47	-4	4827	-2.51	1.4	0.2
192	SLE FR 1	-48	4	4096	-2.41	1.43	0.06
192	SLE FR 2	-48	2	4097	-2.31	1.43	0.09
192	SLE FR 3	-48	4	4096	-2.41	1.43	0.06
192	SLE FR 4	-48	2	4316	-2.43	1.42	0.11
192	SLE FR 5	-48	4	4315	-2.53	1.42	0.08
192	SLE FR 6	-47	4	4460	-2.61	1.42	0.1
192	SLE QP 1	-48	4	4096	-2.41	1.43	0.06
192	SLE QP 2	-48	4	4315	-2.53	1.42	0.08
192	SLD 1	243	115	4756	-8.19	2.6	-1.1
192	SLD 2	243	53	4756	-7.82	2.61	0.06
192	SLD 3	237	-80	4745	1.37	2.73	0.49
192	SLD 4	237	-143	4745	1.74	2.74	1.65
192	SLD 5	49	357	4465	-18.86	1.58	-3.1
192	SLD 6	49	292	4465	-18.47	1.58	-1.9
192	SLD 7	28	-294	4426	12.99	2.01	2.18
192	SLD 8	28	-359	4426	13.38	2.02	3.38
192	SLD 9	-123	367	4203	-18.44	0.83	-3.22
192	SLD 10	-123	303	4203	-18.05	0.84	-2.01
192	SLD 11	-145	-283	4164	13.4	1.27	2.06
192	SLD 12	-145	-348	4164	13.79	1.27	3.27
192	SLD 13	-332	151	3884	-6.8	0.11	-1.48
192	SLD 14	-333	89	3885	-6.43	0.12	-0.32
192	SLD 15	-339	-44	3873	2.75	0.24	0.1
192	SLD 16	-339	-106	3873	3.12	0.25	1.26
192	SLV 1	615	262	5321	-15.71	4.09	-2.66
192	SLV 2	615	119	5321	-14.86	4.1	0
192	SLV 3	600	-193	5293	6.6	4.42	1.05
192	SLV 4	600	-337	5293	7.45	4.42	3.71
192	SLV 5	174	827	4658	-40.64	1.73	-7.36
192	SLV 6	174	676	4659	-39.74	1.74	-4.56
192	SLV 7	124	-693	4566	33.72	2.81	4.99
192	SLV 8	124	-843	4566	34.62	2.82	7.79
192	SLV 9	-220	852	4063	-39.68	0.03	-7.62
192	SLV 10	-220	701	4063	-38.78	0.04	-4.83
192	SLV 11	-269	-668	3970	34.68	1.11	4.73
192	SLV 12	-269	-819	3971	35.58	1.12	7.53
192	SLV 13	-696	346	3336	-12.52	-1.57	-3.54
192	SLV 14	-696	202	3336	-11.66	-1.57	-0.88
192	SLV 15	-711	-110	3308	9.79	-1.25	0.17
192	SLV 16	-711	-254	3308	10.65	-1.24	2.82
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
193	SLU 1	-47	4	3899	-2.59	1.07	0.04
193	SLU 2	-47	-15	3906	-1.81	1.07	0.23
193	SLU 3	-47	4	3899	-2.59	1.07	0.04
193	SLU 4	-47	-7	3904	-2.12	1.07	0.15
193	SLU 5	-47	-15	3906	-1.81	1.07	0.23
193	SLU 6	-47	4	3899	-2.59	1.07	0.04
193	SLU 7	-47	-7	3904	-2.12	1.07	0.15
193	SLU 8	-47	4	3899	-2.59	1.07	0.04
193	SLU 9	-47	-7	3904	-2.12	1.07	0.15
193	SLU 10	-45	-14	4674	-2.29	0.97	0.29
193	SLU 11	-45	5	4666	-3.07	0.97	0.1
193	SLU 12	-45	-7	4671	-2.6	0.97	0.21
193	SLU 13	-45	-14	4674	-2.29	0.97	0.29
193	SLU 14	-45	5	4666	-3.07	0.97	0.1
193	SLU 15	-45	-7	4671	-2.6	0.97	0.21
193	SLU 16	-45	5	4666	-3.07	0.97	0.1
193	SLU 17	-45	-7	4671	-2.6	0.97	0.21
193	SLU 18	-45	5	4995	-3.28	0.92	0.13
193	SLU 19	-45	-6	5000	-2.81	0.92	0.24
193	SLU 20	-45	5	4995	-3.28	0.92	0.13
193	SLU 21	-45	-6	5000	-2.81	0.92	0.24
193	SLU 22	-46	5	4456	-2.81	0.98	0.07
193	SLU 23	-47	-14	4463	-2.03	0.98	0.25



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
193	SLU 24	-46	5	4456	-2.81	0.98	0.07
193	SLU 25	-47	-6	4461	-2.34	0.98	0.18
193	SLU 26	-47	-14	4463	-2.03	0.98	0.25
193	SLU 27	-46	5	4456	-2.81	0.98	0.07
193	SLU 28	-47	-6	4461	-2.34	0.98	0.18
193	SLU 29	-46	5	4456	-2.81	0.98	0.07
193	SLU 30	-47	-6	4461	-2.34	0.98	0.18
193	SLU 31	-45	-13	5231	-2.51	0.88	0.32
193	SLU 32	-45	6	5223	-3.3	0.88	0.13
193	SLU 33	-45	-6	5228	-2.83	0.88	0.24
193	SLU 34	-45	-13	5231	-2.51	0.88	0.32
193	SLU 35	-45	6	5223	-3.3	0.88	0.13
193	SLU 36	-45	-6	5228	-2.83	0.88	0.24
193	SLU 37	-45	6	5223	-3.3	0.88	0.13
193	SLU 38	-45	-6	5228	-2.83	0.88	0.24
193	SLU 39	-44	6	5552	-3.5	0.83	0.16
193	SLU 40	-44	-5	5557	-3.03	0.83	0.27
193	SLU 41	-44	6	5552	-3.5	0.83	0.16
193	SLU 42	-44	-5	5557	-3.03	0.83	0.27
193	SLU 43	-61	5	4878	-3.29	1.42	0.04
193	SLU 44	-62	-14	4885	-2.51	1.42	0.23
193	SLU 45	-61	5	4878	-3.29	1.42	0.04
193	SLU 46	-62	-6	4882	-2.82	1.42	0.15
193	SLU 47	-62	-14	4885	-2.51	1.42	0.23
193	SLU 48	-61	5	4878	-3.29	1.42	0.04
193	SLU 49	-62	-6	4882	-2.82	1.42	0.15
193	SLU 50	-61	5	4878	-3.29	1.42	0.04
193	SLU 51	-62	-6	4882	-2.82	1.42	0.15
193	SLU 52	-60	-13	5653	-2.99	1.32	0.29
193	SLU 53	-60	6	5645	-3.78	1.32	0.1
193	SLU 54	-60	-5	5650	-3.31	1.32	0.22
193	SLU 55	-60	-13	5653	-2.99	1.32	0.29
193	SLU 56	-60	6	5645	-3.78	1.32	0.1
193	SLU 57	-60	-5	5650	-3.31	1.32	0.22
193	SLU 58	-60	6	5645	-3.78	1.32	0.1
193	SLU 59	-60	-5	5650	-3.31	1.32	0.22
193	SLU 60	-59	6	5974	-3.98	1.28	0.13
193	SLU 61	-59	-5	5978	-3.51	1.28	0.24
193	SLU 62	-59	6	5974	-3.98	1.28	0.13
193	SLU 63	-59	-5	5978	-3.51	1.28	0.24
193	SLU 64	-61	6	5435	-3.52	1.33	0.07
193	SLU 65	-61	-13	5442	-2.73	1.34	0.26
193	SLU 66	-61	6	5435	-3.52	1.33	0.07
193	SLU 67	-61	-5	5439	-3.05	1.33	0.18
193	SLU 68	-61	-13	5442	-2.73	1.34	0.26
193	SLU 69	-61	6	5435	-3.52	1.33	0.07
193	SLU 70	-61	-5	5439	-3.05	1.33	0.18
193	SLU 71	-61	6	5435	-3.52	1.33	0.07
193	SLU 72	-61	-5	5439	-3.05	1.33	0.18
193	SLU 73	-59	-12	6209	-3.22	1.23	0.32
193	SLU 74	-59	7	6202	-4	1.23	0.13
193	SLU 75	-59	-5	6207	-3.53	1.23	0.24
193	SLU 76	-59	-12	6209	-3.22	1.23	0.32
193	SLU 77	-59	7	6202	-4	1.23	0.13
193	SLU 78	-59	-5	6207	-3.53	1.23	0.24
193	SLU 79	-59	7	6202	-4	1.23	0.13
193	SLU 80	-59	-5	6207	-3.53	1.23	0.24
193	SLU 81	-58	7	6531	-4.2	1.19	0.16
193	SLU 82	-58	-4	6535	-3.73	1.19	0.27
193	SLU 83	-58	7	6531	-4.2	1.19	0.16
193	SLU 84	-58	-4	6535	-3.73	1.19	0.27
193	SLE RA 1	-47	5	4058	-2.66	1.05	0.05
193	SLE RA 2	-47	-8	4063	-2.13	1.05	0.17
193	SLE RA 3	-47	5	4058	-2.66	1.05	0.05
193	SLE RA 4	-47	-3	4061	-2.34	1.05	0.12
193	SLE RA 5	-47	-8	4063	-2.13	1.05	0.17
193	SLE RA 6	-47	5	4058	-2.66	1.05	0.05
193	SLE RA 7	-47	-3	4061	-2.34	1.05	0.12
193	SLE RA 8	-47	5	4058	-2.66	1.05	0.05
193	SLE RA 9	-47	-3	4061	-2.34	1.05	0.12
193	SLE RA 10	-46	-8	4575	-2.46	0.98	0.21
193	SLE RA 11	-46	5	4570	-2.98	0.98	0.09
193	SLE RA 12	-46	-3	4573	-2.66	0.98	0.16
193	SLE RA 13	-46	-8	4575	-2.46	0.98	0.21
193	SLE RA 14	-46	5	4570	-2.98	0.98	0.09
193	SLE RA 15	-46	-3	4573	-2.66	0.98	0.16
193	SLE RA 16	-46	5	4570	-2.98	0.98	0.09
193	SLE RA 17	-46	-3	4573	-2.66	0.98	0.16
193	SLE RA 18	-45	5	4789	-3.11	0.95	0.11
193	SLE RA 19	-45	-2	4792	-2.8	0.95	0.18
193	SLE RA 20	-45	5	4789	-3.11	0.95	0.11
193	SLE RA 21	-45	-2	4792	-2.8	0.95	0.18
193	SLE FR 1	-47	5	4058	-2.66	1.05	0.05
193	SLE FR 2	-47	2	4059	-2.55	1.05	0.07
193	SLE FR 3	-47	5	4058	-2.66	1.05	0.05
193	SLE FR 4	-46	2	4279	-2.69	1.02	0.09
193	SLE FR 5	-46	5	4278	-2.79	1.02	0.07
193	SLE FR 6	-46	5	4424	-2.89	1	0.08
193	SLE QP 1	-47	5	4058	-2.66	1.05	0.05
193	SLE QP 2	-46	5	4278	-2.79	1.02	0.07
193	SLD 1	245	109	4683	-8.58	2.07	-1.08



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
193	SLD 2	245	53	4683	-8.23	2.08	0.05
193	SLD 3	239	-77	4671	1.22	2.19	0.47
193	SLD 4	239	-134	4671	1.57	2.19	1.6
193	SLD 5	51	340	4419	-19.52	1.15	-3.03
193	SLD 6	51	282	4419	-19.16	1.16	-1.86
193	SLD 7	29	-282	4376	13.15	1.55	2.11
193	SLD 8	29	-341	4376	13.51	1.55	3.28
193	SLD 9	-122	351	4179	-19.1	0.48	-3.15
193	SLD 10	-122	292	4179	-18.73	0.49	-1.98
193	SLD 11	-144	-272	4136	13.57	0.88	2
193	SLD 12	-144	-331	4137	13.94	0.88	3.17
193	SLD 13	-332	144	3884	-7.16	-0.16	-1.46
193	SLD 14	-332	87	3885	-6.81	-0.16	-0.34
193	SLD 15	-338	-43	3872	2.64	-0.04	0.08
193	SLD 16	-338	-100	3872	3	-0.04	1.21
193	SLV 1	618	248	5202	-16.28	3.41	-2.59
193	SLV 2	618	119	5203	-15.48	3.41	0
193	SLV 3	603	-188	5172	6.6	3.7	1.03
193	SLV 4	603	-317	5172	7.41	3.71	3.61
193	SLV 5	176	789	4601	-41.85	1.29	-7.18
193	SLV 6	176	652	4602	-41	1.29	-4.46
193	SLV 7	126	-666	4499	34.43	2.26	4.86
193	SLV 8	126	-803	4499	35.28	2.27	7.58
193	SLV 9	-219	812	4056	-40.86	-0.24	-7.45
193	SLV 10	-219	676	4056	-40.02	-0.23	-4.73
193	SLV 11	-268	-643	3953	35.42	0.74	4.59
193	SLV 12	-268	-779	3954	36.26	0.75	7.32
193	SLV 13	-696	327	3383	-12.99	-1.67	-3.48
193	SLV 14	-696	198	3384	-12.19	-1.67	-0.89
193	SLV 15	-711	-109	3353	9.89	-1.38	0.14
193	SLV 16	-711	-239	3353	10.69	-1.37	2.72
193	CRTFP Ux+	0	0	0	0	0	0
193	CRTFP Ux-	0	0	0	0	0	0
193	CRTFP Uy+	0	0	0	0	0	0
193	CRTFP Uy-	0	0	0	0	0	0
194	SLU 1	-46	5	3868	-2.81	0.98	0.02
194	SLU 2	-46	-14	3875	-2.02	0.99	0.19
194	SLU 3	-46	5	3868	-2.81	0.98	0.02
194	SLU 4	-46	-6	3872	-2.33	0.99	0.12
194	SLU 5	-46	-14	3875	-2.02	0.99	0.19
194	SLU 6	-46	5	3868	-2.81	0.98	0.02
194	SLU 7	-46	-6	3872	-2.33	0.99	0.12
194	SLU 8	-46	5	3868	-2.81	0.98	0.02
194	SLU 9	-46	-6	3872	-2.33	0.99	0.12
194	SLU 10	-44	-13	4645	-2.55	0.88	0.24
194	SLU 11	-44	6	4638	-3.34	0.88	0.07
194	SLU 12	-44	-5	4642	-2.87	0.88	0.17
194	SLU 13	-44	-13	4645	-2.55	0.88	0.24
194	SLU 14	-44	6	4638	-3.34	0.88	0.07
194	SLU 15	-44	-5	4642	-2.87	0.88	0.17
194	SLU 16	-44	6	4638	-3.34	0.88	0.07
194	SLU 17	-44	-5	4642	-2.87	0.88	0.17
194	SLU 18	-43	6	4968	-3.57	0.83	0.09
194	SLU 19	-43	-5	4973	-3.09	0.83	0.19
194	SLU 20	-43	6	4968	-3.57	0.83	0.09
194	SLU 21	-43	-5	4973	-3.09	0.83	0.19
194	SLU 22	-45	5	4427	-3.07	0.9	0.04
194	SLU 23	-45	-13	4435	-2.27	0.9	0.21
194	SLU 24	-45	5	4427	-3.07	0.9	0.04
194	SLU 25	-45	-6	4432	-2.59	0.9	0.14
194	SLU 26	-45	-13	4435	-2.27	0.9	0.21
194	SLU 27	-45	5	4427	-3.07	0.9	0.04
194	SLU 28	-45	-6	4432	-2.59	0.9	0.14
194	SLU 29	-45	5	4427	-3.07	0.9	0.04
194	SLU 30	-45	-6	4432	-2.59	0.9	0.14
194	SLU 31	-43	-12	5205	-2.8	0.79	0.26
194	SLU 32	-43	6	5198	-3.6	0.79	0.09
194	SLU 33	-43	-5	5202	-3.12	0.79	0.19
194	SLU 34	-43	-12	5205	-2.8	0.79	0.26
194	SLU 35	-43	6	5198	-3.6	0.79	0.09
194	SLU 36	-43	-5	5202	-3.12	0.79	0.19
194	SLU 37	-43	6	5198	-3.6	0.79	0.09
194	SLU 38	-43	-5	5202	-3.12	0.79	0.19
194	SLU 39	-42	7	5528	-3.83	0.75	0.11
194	SLU 40	-42	-4	5532	-3.35	0.75	0.22
194	SLU 41	-42	7	5528	-3.83	0.75	0.11
194	SLU 42	-42	-4	5532	-3.35	0.75	0.22
194	SLU 43	-60	6	4836	-3.57	1.31	0.01
194	SLU 44	-60	-13	4843	-2.77	1.31	0.18
194	SLU 45	-60	6	4836	-3.57	1.31	0.01
194	SLU 46	-60	-5	4840	-3.09	1.31	0.12
194	SLU 47	-60	-13	4843	-2.77	1.31	0.18
194	SLU 48	-60	6	4836	-3.57	1.31	0.01
194	SLU 49	-60	-5	4840	-3.09	1.31	0.12
194	SLU 50	-60	6	4836	-3.57	1.31	0.01
194	SLU 51	-60	-5	4840	-3.09	1.31	0.12
194	SLU 52	-58	-12	5614	-3.3	1.21	0.24
194	SLU 53	-58	7	5607	-4.1	1.2	0.07
194	SLU 54	-58	-4	5611	-3.62	1.21	0.17
194	SLU 55	-58	-12	5614	-3.3	1.21	0.24
194	SLU 56	-58	7	5607	-4.1	1.2	0.07



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
194	SLU 57	-58	-4	5611	-3.62	1.21	0.17
194	SLU 58	-58	7	5607	-4.1	1.2	0.07
194	SLU 59	-58	-4	5611	-3.62	1.21	0.17
194	SLU 60	-57	7	5937	-4.33	1.16	0.09
194	SLU 61	-57	-4	5941	-3.85	1.16	0.19
194	SLU 62	-57	7	5937	-4.33	1.16	0.09
194	SLU 63	-57	-4	5941	-3.85	1.16	0.19
194	SLU 64	-59	7	5396	-3.82	1.22	0.03
194	SLU 65	-59	-12	5403	-3.03	1.22	0.21
194	SLU 66	-59	7	5396	-3.82	1.22	0.03
194	SLU 67	-59	-4	5400	-3.35	1.22	0.14
194	SLU 68	-59	-12	5403	-3.03	1.22	0.21
194	SLU 69	-59	7	5396	-3.82	1.22	0.03
194	SLU 70	-59	-4	5400	-3.35	1.22	0.14
194	SLU 71	-59	7	5396	-3.82	1.22	0.03
194	SLU 72	-59	-4	5400	-3.35	1.22	0.14
194	SLU 73	-57	-11	6173	-3.56	1.12	0.26
194	SLU 74	-57	7	6166	-4.35	1.12	0.09
194	SLU 75	-57	-4	6171	-3.88	1.12	0.19
194	SLU 76	-57	-11	6173	-3.56	1.12	0.26
194	SLU 77	-57	7	6166	-4.35	1.12	0.09
194	SLU 78	-57	-4	6171	-3.88	1.12	0.19
194	SLU 79	-57	7	6166	-4.35	1.12	0.09
194	SLU 80	-57	-4	6171	-3.88	1.12	0.19
194	SLU 81	-56	8	6497	-4.58	1.07	0.11
194	SLU 82	-56	-3	6501	-4.11	1.07	0.21
194	SLU 83	-56	8	6497	-4.58	1.07	0.11
194	SLU 84	-56	-3	6501	-4.11	1.07	0.21
194	SLE RA 1	-45	5	4028	-2.88	0.96	0.02
194	SLE RA 2	-46	-7	4032	-2.35	0.96	0.14
194	SLE RA 3	-45	5	4028	-2.88	0.96	0.02
194	SLE RA 4	-46	-3	4030	-2.57	0.96	0.09
194	SLE RA 5	-46	-7	4032	-2.35	0.96	0.14
194	SLE RA 6	-45	5	4028	-2.88	0.96	0.02
194	SLE RA 7	-46	-3	4030	-2.57	0.96	0.09
194	SLE RA 8	-45	5	4028	-2.88	0.96	0.02
194	SLE RA 9	-46	-3	4030	-2.57	0.96	0.09
194	SLE RA 10	-44	-7	4546	-2.71	0.89	0.17
194	SLE RA 11	-44	5	4541	-3.24	0.89	0.06
194	SLE RA 12	-44	-2	4544	-2.92	0.89	0.13
194	SLE RA 13	-44	-7	4546	-2.71	0.89	0.17
194	SLE RA 14	-44	5	4541	-3.24	0.89	0.06
194	SLE RA 15	-44	-2	4544	-2.92	0.89	0.13
194	SLE RA 16	-44	5	4541	-3.24	0.89	0.06
194	SLE RA 17	-44	-2	4544	-2.92	0.89	0.13
194	SLE RA 18	-44	6	4761	-3.39	0.86	0.07
194	SLE RA 19	-44	-2	4764	-3.07	0.86	0.14
194	SLE RA 20	-44	6	4761	-3.39	0.86	0.07
194	SLE RA 21	-44	-2	4764	-3.07	0.86	0.14
194	SLE FR 1	-45	5	4028	-2.88	0.96	0.02
194	SLE FR 2	-46	2	4028	-2.78	0.96	0.04
194	SLE FR 3	-45	5	4028	-2.88	0.96	0.02
194	SLE FR 4	-45	3	4249	-2.93	0.93	0.06
194	SLE FR 5	-45	5	4248	-3.04	0.93	0.04
194	SLE FR 6	-45	5	4394	-3.14	0.91	0.05
194	SLE QP 1	-45	5	4028	-2.88	0.96	0.02
194	SLE QP 2	-45	5	4248	-3.04	0.93	0.04
194	SLD 1	247	104	4621	-8.96	1.91	-1.02
194	SLD 2	247	53	4621	-8.63	1.91	0.06
194	SLD 3	241	-75	4607	1.09	2.01	0.4
194	SLD 4	241	-126	4607	1.42	2.02	1.47
194	SLD 5	53	325	4382	-20.17	1.07	-2.82
194	SLD 6	53	272	4382	-19.83	1.07	-1.7
194	SLD 7	31	-272	4333	13.31	1.41	1.89
194	SLD 8	31	-324	4334	13.66	1.41	3.01
194	SLD 9	-121	334	4162	-19.73	0.45	-2.93
194	SLD 10	-121	282	4162	-19.39	0.45	-1.82
194	SLD 11	-142	-262	4114	13.75	0.79	1.78
194	SLD 12	-142	-315	4114	14.1	0.79	2.89
194	SLD 13	-331	136	3889	-7.49	-0.16	-1.4
194	SLD 14	-331	85	3889	-7.16	-0.15	-0.32
194	SLD 15	-337	-43	3874	2.55	-0.05	0.02
194	SLD 16	-337	-94	3874	2.88	-0.05	1.09
194	SLV 1	621	235	5099	-16.83	3.15	-2.42
194	SLV 2	621	119	5099	-16.08	3.16	0.05
194	SLV 3	606	-183	5064	6.62	3.41	0.89
194	SLV 4	606	-299	5064	7.38	3.41	3.36
194	SLV 5	177	752	4556	-43.03	1.21	-6.64
194	SLV 6	177	630	4557	-42.24	1.21	-4.05
194	SLV 7	128	-642	4439	35.15	2.06	4.38
194	SLV 8	128	-764	4439	35.95	2.06	6.97
194	SLV 9	-217	774	4056	-42.02	-0.21	-6.9
194	SLV 10	-218	652	4056	-41.22	-0.2	-4.31
194	SLV 11	-267	-619	3939	36.16	0.65	4.12
194	SLV 12	-267	-742	3939	36.96	0.65	6.71
194	SLV 13	-696	309	3431	-13.45	-1.55	-3.28
194	SLV 14	-696	193	3432	-12.7	-1.55	-0.82
194	SLV 15	-711	-109	3396	10	-1.3	0.02
194	SLV 16	-711	-225	3396	10.76	-1.29	2.49
194	CRTFP Ux+	0	0	0	0	0	0
194	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
194	CRTFP Uy+	0	0	0	0	0	0
194	CRTFP Uy-	0	0	0	0	0	0
195	SLU 1	-44	5	3837	-3.01	1	-0.02
195	SLU 2	-44	-13	3844	-2.2	1	0.13
195	SLU 3	-44	5	3837	-3.01	1	-0.02
195	SLU 4	-44	-6	3841	-2.53	1	0.07
195	SLU 5	-44	-13	3844	-2.2	1	0.13
195	SLU 6	-44	5	3837	-3.01	1	-0.02
195	SLU 7	-44	-6	3841	-2.53	1	0.07
195	SLU 8	-44	5	3837	-3.01	1	-0.02
195	SLU 9	-44	-6	3841	-2.53	1	0.07
195	SLU 10	-42	-12	4618	-2.78	0.91	0.17
195	SLU 11	-42	6	4610	-3.59	0.91	0.02
195	SLU 12	-42	-5	4615	-3.1	0.91	0.11
195	SLU 13	-42	-12	4618	-2.78	0.91	0.17
195	SLU 14	-42	6	4610	-3.59	0.91	0.02
195	SLU 15	-42	-5	4615	-3.1	0.91	0.11
195	SLU 16	-42	6	4610	-3.59	0.91	0.02
195	SLU 17	-42	-5	4615	-3.1	0.91	0.11
195	SLU 18	-41	6	4942	-3.83	0.87	0.04
195	SLU 19	-41	-4	4946	-3.35	0.88	0.13
195	SLU 20	-41	6	4942	-3.83	0.87	0.04
195	SLU 21	-41	-4	4946	-3.35	0.88	0.13
195	SLU 22	-43	6	4399	-3.3	0.93	0
195	SLU 23	-44	-12	4406	-2.49	0.93	0.14
195	SLU 24	-43	6	4399	-3.3	0.93	0
195	SLU 25	-44	-5	4403	-2.81	0.93	0.09
195	SLU 26	-44	-12	4406	-2.49	0.93	0.14
195	SLU 27	-43	6	4399	-3.3	0.93	0
195	SLU 28	-44	-5	4403	-2.81	0.93	0.09
195	SLU 29	-43	6	4399	-3.3	0.93	0
195	SLU 30	-44	-5	4403	-2.81	0.93	0.09
195	SLU 31	-42	-11	5180	-3.06	0.85	0.19
195	SLU 32	-41	7	5173	-3.87	0.84	0.04
195	SLU 33	-42	-4	5177	-3.38	0.84	0.13
195	SLU 34	-42	-11	5180	-3.06	0.85	0.19
195	SLU 35	-41	7	5173	-3.87	0.84	0.04
195	SLU 36	-42	-4	5177	-3.38	0.84	0.13
195	SLU 37	-41	7	5173	-3.87	0.84	0.04
195	SLU 38	-42	-4	5177	-3.38	0.84	0.13
195	SLU 39	-41	7	5504	-4.12	0.81	0.06
195	SLU 40	-41	-3	5508	-3.63	0.81	0.15
195	SLU 41	-41	7	5504	-4.12	0.81	0.06
195	SLU 42	-41	-3	5508	-3.63	0.81	0.15
195	SLU 43	-58	6	4795	-3.82	1.32	-0.03
195	SLU 44	-58	-12	4802	-3.01	1.32	0.12
195	SLU 45	-58	6	4795	-3.82	1.32	-0.03
195	SLU 46	-58	-5	4799	-3.33	1.32	0.06
195	SLU 47	-58	-12	4802	-3.01	1.32	0.12
195	SLU 48	-58	6	4795	-3.82	1.32	-0.03
195	SLU 49	-58	-5	4799	-3.33	1.32	0.06
195	SLU 50	-58	6	4795	-3.82	1.32	-0.03
195	SLU 51	-58	-5	4799	-3.33	1.32	0.06
195	SLU 52	-56	-11	5576	-3.58	1.24	0.16
195	SLU 53	-56	7	5569	-4.39	1.23	0.01
195	SLU 54	-56	-4	5573	-3.91	1.23	0.1
195	SLU 55	-56	-11	5576	-3.58	1.24	0.16
195	SLU 56	-56	7	5569	-4.39	1.23	0.01
195	SLU 57	-56	-4	5573	-3.91	1.23	0.1
195	SLU 58	-56	7	5569	-4.39	1.23	0.01
195	SLU 59	-56	-4	5573	-3.91	1.23	0.1
195	SLU 60	-55	7	5900	-4.64	1.2	0.03
195	SLU 61	-55	-3	5905	-4.15	1.2	0.12
195	SLU 62	-55	7	5900	-4.64	1.2	0.03
195	SLU 63	-55	-3	5905	-4.15	1.2	0.12
195	SLU 64	-57	7	5357	-4.1	1.25	-0.01
195	SLU 65	-57	-11	5365	-3.29	1.25	0.13
195	SLU 66	-57	7	5357	-4.1	1.25	-0.01
195	SLU 67	-57	-4	5362	-3.62	1.25	0.08
195	SLU 68	-57	-11	5365	-3.29	1.25	0.13
195	SLU 69	-57	7	5357	-4.1	1.25	-0.01
195	SLU 70	-57	-4	5362	-3.62	1.25	0.08
195	SLU 71	-57	7	5357	-4.1	1.25	-0.01
195	SLU 72	-57	-4	5362	-3.62	1.25	0.08
195	SLU 73	-55	-10	6138	-3.87	1.17	0.18
195	SLU 74	-55	8	6131	-4.68	1.16	0.03
195	SLU 75	-55	-3	6135	-4.19	1.17	0.12
195	SLU 76	-55	-10	6138	-3.87	1.17	0.18
195	SLU 77	-55	8	6131	-4.68	1.16	0.03
195	SLU 78	-55	-3	6135	-4.19	1.17	0.12
195	SLU 79	-55	8	6131	-4.68	1.16	0.03
195	SLU 80	-55	-3	6135	-4.19	1.17	0.12
195	SLU 81	-54	8	6462	-4.92	1.13	0.05
195	SLU 82	-54	-2	6467	-4.44	1.13	0.14
195	SLU 83	-54	8	6462	-4.92	1.13	0.05
195	SLU 84	-54	-2	6467	-4.44	1.13	0.14
195	SLE RA 1	-44	5	3997	-3.09	0.98	-0.01
195	SLE RA 2	-44	-7	4002	-2.55	0.98	0.08
195	SLE RA 3	-44	5	3997	-3.09	0.98	-0.01
195	SLE RA 4	-44	-2	4000	-2.77	0.98	0.05
195	SLE RA 5	-44	-7	4002	-2.55	0.98	0.08



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
195	SLE RA 6	-44	5	3997	-3.09	0.98	-0.01
195	SLE RA 7	-44	-2	4000	-2.77	0.98	0.05
195	SLE RA 8	-44	5	3997	-3.09	0.98	-0.01
195	SLE RA 9	-44	-2	4000	-2.77	0.98	0.05
195	SLE RA 10	-43	-6	4518	-2.94	0.92	0.11
195	SLE RA 11	-43	6	4513	-3.48	0.92	0.01
195	SLE RA 12	-43	-1	4516	-3.15	0.92	0.07
195	SLE RA 13	-43	-6	4518	-2.94	0.92	0.11
195	SLE RA 14	-43	6	4513	-3.48	0.92	0.01
195	SLE RA 15	-43	-1	4516	-3.15	0.92	0.07
195	SLE RA 16	-43	6	4513	-3.48	0.92	0.01
195	SLE RA 17	-43	-1	4516	-3.15	0.92	0.07
195	SLE RA 18	-42	6	4734	-3.64	0.89	0.03
195	SLE RA 19	-42	-1	4737	-3.32	0.9	0.09
195	SLE RA 20	-42	6	4734	-3.64	0.89	0.03
195	SLE RA 21	-42	-1	4737	-3.32	0.9	0.09
195	SLE FR 1	-44	5	3997	-3.09	0.98	-0.01
195	SLE FR 2	-44	3	3998	-2.98	0.98	0.01
195	SLE FR 3	-44	5	3997	-3.09	0.98	-0.01
195	SLE FR 4	-43	3	4219	-3.15	0.95	0.02
195	SLE FR 5	-43	5	4219	-3.26	0.95	0
195	SLE FR 6	-43	5	4366	-3.37	0.94	0.01
195	SLE QP 1	-44	5	3997	-3.09	0.98	-0.01
195	SLE QP 2	-43	5	4219	-3.26	0.95	0
195	SLD 1	249	98	4562	-9.3	1.88	-0.93
195	SLD 2	249	53	4562	-9	1.89	0.08
195	SLD 3	243	-73	4545	0.98	1.97	0.28
195	SLD 4	243	-119	4545	1.29	1.97	1.29
195	SLD 5	54	311	4346	-20.78	1.1	-2.49
195	SLD 6	54	264	4346	-20.46	1.1	-1.44
195	SLD 7	33	-263	4292	13.5	1.39	1.55
195	SLD 8	33	-309	4292	13.82	1.39	2.59
195	SLD 9	-120	320	4145	-20.33	0.51	-2.6
195	SLD 10	-120	273	4145	-20.01	0.52	-1.55
195	SLD 11	-141	-253	4091	13.95	0.8	1.44
195	SLD 12	-141	-300	4091	14.27	0.8	2.49
195	SLD 13	-330	129	3892	-7.8	-0.07	-1.29
195	SLD 14	-330	84	3892	-7.49	-0.07	-0.28
195	SLD 15	-336	-43	3875	2.48	0.02	-0.08
195	SLD 16	-336	-88	3875	2.79	0.02	0.93
195	SLV 1	623	223	5001	-17.35	3.06	-2.16
195	SLV 2	623	119	5001	-16.64	3.07	0.15
195	SLV 3	608	-179	4961	6.66	3.28	0.67
195	SLV 4	608	-282	4961	7.37	3.29	2.99
195	SLV 5	179	719	4514	-44.17	1.26	-5.82
195	SLV 6	179	610	4514	-43.42	1.26	-3.38
195	SLV 7	130	-621	4381	35.87	1.98	3.63
195	SLV 8	129	-730	4381	36.61	1.98	6.06
195	SLV 9	-216	740	4056	-43.13	-0.08	-6.07
195	SLV 10	-216	631	4056	-42.38	-0.07	-3.63
195	SLV 11	-266	-600	3923	36.91	0.64	3.38
195	SLV 12	-266	-709	3923	37.65	0.65	5.82
195	SLV 13	-695	293	3476	-13.88	-1.38	-2.99
195	SLV 14	-695	189	3476	-13.18	-1.38	-0.67
195	SLV 15	-710	-109	3436	10.13	-1.17	-0.15
195	SLV 16	-710	-213	3436	10.84	-1.16	2.16
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
196	SLU 1	-43	4	3805	-3.19	1.02	-0.06
196	SLU 2	-43	-12	3813	-2.37	1.02	0.06
196	SLU 3	-43	4	3805	-3.19	1.02	-0.06
196	SLU 4	-43	-6	3810	-2.7	1.02	0.01
196	SLU 5	-43	-12	3813	-2.37	1.02	0.06
196	SLU 6	-43	4	3805	-3.19	1.02	-0.06
196	SLU 7	-43	-6	3810	-2.7	1.02	0.01
196	SLU 8	-43	4	3805	-3.19	1.02	-0.06
196	SLU 9	-43	-6	3810	-2.7	1.02	0.01
196	SLU 10	-41	-11	4588	-2.97	0.96	0.09
196	SLU 11	-41	6	4581	-3.8	0.96	-0.03
196	SLU 12	-41	-4	4586	-3.3	0.96	0.04
196	SLU 13	-41	-11	4588	-2.97	0.96	0.09
196	SLU 14	-41	6	4581	-3.8	0.96	-0.03
196	SLU 15	-41	-4	4586	-3.3	0.96	0.04
196	SLU 16	-41	6	4581	-3.8	0.96	-0.03
196	SLU 17	-41	-4	4586	-3.3	0.96	0.04
196	SLU 18	-40	6	4914	-4.06	0.94	-0.01
196	SLU 19	-40	-4	4918	-3.57	0.94	0.06
196	SLU 20	-40	6	4914	-4.06	0.94	-0.01
196	SLU 21	-40	-4	4918	-3.57	0.94	0.06
196	SLU 22	-42	5	4369	-3.5	0.98	-0.05
196	SLU 23	-42	-11	4376	-2.67	0.98	0.07
196	SLU 24	-42	5	4369	-3.5	0.98	-0.05
196	SLU 25	-42	-5	4374	-3	0.98	0.02
196	SLU 26	-42	-11	4376	-2.67	0.98	0.07
196	SLU 27	-42	5	4369	-3.5	0.98	-0.05
196	SLU 28	-42	-5	4374	-3	0.98	0.02
196	SLU 29	-42	5	4369	-3.5	0.98	-0.05
196	SLU 30	-42	-5	4374	-3	0.98	0.02
196	SLU 31	-40	-10	5152	-3.28	0.92	0.1



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
196	SLU 32	-40	7	5145	-4.11	0.92	-0.02
196	SLU 33	-40	-3	5149	-3.61	0.92	0.05
196	SLU 34	-40	-10	5152	-3.28	0.92	0.1
196	SLU 35	-40	7	5145	-4.11	0.92	-0.02
196	SLU 36	-40	-3	5149	-3.61	0.92	0.05
196	SLU 37	-40	7	5145	-4.11	0.92	-0.02
196	SLU 38	-40	-3	5149	-3.61	0.92	0.05
196	SLU 39	-39	7	5478	-4.37	0.89	-0.01
196	SLU 40	-39	-3	5482	-3.87	0.89	0.06
196	SLU 41	-39	7	5478	-4.37	0.89	-0.01
196	SLU 42	-39	-3	5482	-3.87	0.89	0.06
196	SLU 43	-56	5	4754	-4.04	1.34	-0.08
196	SLU 44	-56	-11	4761	-3.22	1.34	0.04
196	SLU 45	-56	5	4754	-4.04	1.34	-0.08
196	SLU 46	-56	-5	4758	-3.55	1.34	0
196	SLU 47	-56	-11	4761	-3.22	1.34	0.04
196	SLU 48	-56	5	4754	-4.04	1.34	-0.08
196	SLU 49	-56	-5	4758	-3.55	1.34	0
196	SLU 50	-56	5	4754	-4.04	1.34	-0.08
196	SLU 51	-56	-5	4758	-3.55	1.34	0
196	SLU 52	-54	-10	5537	-3.83	1.29	0.07
196	SLU 53	-54	7	5530	-4.65	1.28	-0.05
196	SLU 54	-54	-3	5534	-4.16	1.28	0.03
196	SLU 55	-54	-10	5537	-3.83	1.29	0.07
196	SLU 56	-54	7	5530	-4.65	1.28	-0.05
196	SLU 57	-54	-3	5534	-4.16	1.28	0.03
196	SLU 58	-54	7	5530	-4.65	1.28	-0.05
196	SLU 59	-54	-3	5534	-4.16	1.28	0.03
196	SLU 60	-53	7	5862	-4.91	1.26	-0.03
196	SLU 61	-53	-3	5866	-4.42	1.26	0.04
196	SLU 62	-53	7	5862	-4.91	1.26	-0.03
196	SLU 63	-53	-3	5866	-4.42	1.26	0.04
196	SLU 64	-55	6	5318	-4.35	1.3	-0.07
196	SLU 65	-55	-10	5325	-3.52	1.3	0.05
196	SLU 66	-55	6	5318	-4.35	1.3	-0.07
196	SLU 67	-55	-4	5322	-3.85	1.3	0
196	SLU 68	-55	-10	5325	-3.52	1.3	0.05
196	SLU 69	-55	6	5318	-4.35	1.3	-0.07
196	SLU 70	-55	-4	5322	-3.85	1.3	0
196	SLU 71	-55	6	5318	-4.35	1.3	-0.07
196	SLU 72	-55	-4	5322	-3.85	1.3	0
196	SLU 73	-53	-9	6101	-4.13	1.24	0.08
196	SLU 74	-53	8	6094	-4.96	1.24	-0.04
196	SLU 75	-53	-2	6098	-4.46	1.24	0.03
196	SLU 76	-53	-9	6101	-4.13	1.24	0.08
196	SLU 77	-53	8	6094	-4.96	1.24	-0.04
196	SLU 78	-53	-2	6098	-4.46	1.24	0.03
196	SLU 79	-53	8	6094	-4.96	1.24	-0.04
196	SLU 80	-53	-2	6098	-4.46	1.24	0.03
196	SLU 81	-52	8	6426	-5.22	1.21	-0.03
196	SLU 82	-52	-2	6430	-4.72	1.21	0.04
196	SLU 83	-52	8	6426	-5.22	1.21	-0.03
196	SLU 84	-52	-2	6430	-4.72	1.21	0.04
196	SLE RA 1	-42	5	3967	-3.28	1.01	-0.06
196	SLE RA 2	-43	-6	3971	-2.73	1.01	0.02
196	SLE RA 3	-42	5	3967	-3.28	1.01	-0.06
196	SLE RA 4	-43	-2	3969	-2.95	1.01	-0.01
196	SLE RA 5	-43	-6	3971	-2.73	1.01	0.02
196	SLE RA 6	-42	5	3967	-3.28	1.01	-0.06
196	SLE RA 7	-43	-2	3969	-2.95	1.01	-0.01
196	SLE RA 8	-42	5	3967	-3.28	1.01	-0.06
196	SLE RA 9	-43	-2	3969	-2.95	1.01	-0.01
196	SLE RA 10	-41	-6	4489	-3.13	0.97	0.04
196	SLE RA 11	-41	6	4484	-3.68	0.97	-0.04
196	SLE RA 12	-41	-1	4487	-3.35	0.97	0.01
196	SLE RA 13	-41	-6	4489	-3.13	0.97	0.04
196	SLE RA 14	-41	6	4484	-3.68	0.97	-0.04
196	SLE RA 15	-41	-1	4487	-3.35	0.97	0.01
196	SLE RA 16	-41	6	4484	-3.68	0.97	-0.04
196	SLE RA 17	-41	-1	4487	-3.35	0.97	0.01
196	SLE RA 18	-40	6	4705	-3.86	0.95	-0.03
196	SLE RA 19	-40	-1	4708	-3.53	0.95	0.02
196	SLE RA 20	-40	6	4705	-3.86	0.95	-0.03
196	SLE RA 21	-40	-1	4708	-3.53	0.95	0.02
196	SLE FR 1	-42	5	3967	-3.28	1.01	-0.06
196	SLE FR 2	-42	2	3968	-3.17	1.01	-0.04
196	SLE FR 3	-42	5	3967	-3.28	1.01	-0.06
196	SLE FR 4	-42	3	4189	-3.34	0.99	-0.03
196	SLE FR 5	-42	5	4188	-3.45	0.99	-0.05
196	SLE FR 6	-41	5	4336	-3.57	0.98	-0.04
196	SLE QP 1	-42	5	3967	-3.28	1.01	-0.06
196	SLE QP 2	-42	5	4188	-3.45	0.99	-0.05
196	SLD 1	251	94	4503	-9.62	1.89	-0.82
196	SLD 2	251	54	4502	-9.33	1.89	0.11
196	SLD 3	245	-72	4485	0.89	1.96	0.13
196	SLD 4	245	-113	4485	1.18	1.96	1.07
196	SLD 5	56	299	4310	-21.36	1.15	-2.08
196	SLD 6	56	257	4310	-21.06	1.15	-1.11
196	SLD 7	34	-256	4250	13.69	1.39	1.11
196	SLD 8	34	-297	4250	13.99	1.39	2.09
196	SLD 9	-118	307	4126	-20.89	0.59	-2.18



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
196	SLD 10	-118	266	4126	-20.6	0.59	-1.21
196	SLD 11	-140	-247	4067	14.15	0.83	1.01
196	SLD 12	-140	-289	4067	14.45	0.83	1.99
196	SLD 13	-329	123	3892	-8.08	0.02	-1.16
196	SLD 14	-329	83	3892	-7.8	0.02	-0.23
196	SLD 15	-335	-44	3874	2.43	0.09	-0.21
196	SLD 16	-335	-84	3874	2.72	0.09	0.73
196	SLV 1	626	212	4906	-17.83	3.03	-1.86
196	SLV 2	626	120	4906	-17.17	3.03	0.29
196	SLV 3	611	-176	4862	6.72	3.21	0.39
196	SLV 4	611	-268	4862	7.38	3.21	2.54
196	SLV 5	181	691	4471	-45.25	1.33	-4.8
196	SLV 6	181	594	4471	-44.55	1.34	-2.54
196	SLV 7	131	-604	4323	36.59	1.92	2.68
196	SLV 8	131	-701	4323	37.28	1.93	4.94
196	SLV 9	-215	711	4053	-44.18	0.05	-5.03
196	SLV 10	-215	614	4053	-43.49	0.06	-2.77
196	SLV 11	-265	-584	3906	37.65	0.65	2.44
196	SLV 12	-265	-681	3906	38.34	0.65	4.71
196	SLV 13	-695	278	3515	-14.28	-1.23	-2.63
196	SLV 14	-695	187	3515	-13.63	-1.23	-0.48
196	SLV 15	-710	-110	3471	10.27	-1.05	-0.39
196	SLV 16	-710	-202	3471	10.93	-1.05	1.76
196	CRTFP Ux+	0	0	0	0	0	0
196	CRTFP Ux-	0	0	0	0	0	0
196	CRTFP Uy+	0	0	0	0	0	0
196	CRTFP Uy-	0	0	0	0	0	0
197	SLU 1	-41	4	3774	-3.35	1.02	-0.1
197	SLU 2	-41	-12	3781	-2.51	1.02	-0.01
197	SLU 3	-41	4	3774	-3.35	1.02	-0.1
197	SLU 4	-41	-6	3778	-2.84	1.02	-0.05
197	SLU 5	-41	-12	3781	-2.51	1.02	-0.01
197	SLU 6	-41	4	3774	-3.35	1.02	-0.1
197	SLU 7	-41	-6	3778	-2.84	1.02	-0.05
197	SLU 8	-41	4	3774	-3.35	1.02	-0.1
197	SLU 9	-41	-6	3778	-2.84	1.02	-0.05
197	SLU 10	-39	-11	4558	-3.14	0.99	0
197	SLU 11	-39	6	4551	-3.98	0.99	-0.08
197	SLU 12	-39	-4	4555	-3.48	0.99	-0.03
197	SLU 13	-39	-11	4558	-3.14	0.99	0
197	SLU 14	-39	6	4551	-3.98	0.99	-0.08
197	SLU 15	-39	-4	4555	-3.48	0.99	-0.03
197	SLU 16	-39	6	4551	-3.98	0.99	-0.08
197	SLU 17	-39	-4	4555	-3.48	0.99	-0.03
197	SLU 18	-38	6	4884	-4.25	0.97	-0.08
197	SLU 19	-38	-4	4888	-3.75	0.97	-0.02
197	SLU 20	-38	6	4884	-4.25	0.97	-0.08
197	SLU 21	-38	-4	4888	-3.75	0.97	-0.02
197	SLU 22	-40	5	4339	-3.67	1	-0.1
197	SLU 23	-40	-11	4346	-2.83	1	-0.02
197	SLU 24	-40	5	4339	-3.67	1	-0.1
197	SLU 25	-40	-5	4343	-3.17	1	-0.05
197	SLU 26	-40	-11	4346	-2.83	1	-0.02
197	SLU 27	-40	5	4339	-3.67	1	-0.1
197	SLU 28	-40	-5	4343	-3.17	1	-0.05
197	SLU 29	-40	5	4339	-3.67	1	-0.1
197	SLU 30	-40	-5	4343	-3.17	1	-0.05
197	SLU 31	-38	-10	5123	-3.46	0.97	0
197	SLU 32	-38	7	5116	-4.3	0.96	-0.09
197	SLU 33	-38	-3	5120	-3.8	0.97	-0.03
197	SLU 34	-38	-10	5123	-3.46	0.97	0
197	SLU 35	-38	7	5116	-4.3	0.96	-0.09
197	SLU 36	-38	-3	5120	-3.8	0.97	-0.03
197	SLU 37	-38	7	5116	-4.3	0.96	-0.09
197	SLU 38	-38	-3	5120	-3.8	0.97	-0.03
197	SLU 39	-37	7	5449	-4.58	0.95	-0.08
197	SLU 40	-37	-2	5453	-4.07	0.95	-0.03
197	SLU 41	-37	7	5449	-4.58	0.95	-0.08
197	SLU 42	-37	-2	5453	-4.07	0.95	-0.03
197	SLU 43	-54	5	4712	-4.24	1.33	-0.13
197	SLU 44	-54	-11	4719	-3.4	1.34	-0.04
197	SLU 45	-54	5	4712	-4.24	1.33	-0.13
197	SLU 46	-54	-5	4716	-3.73	1.34	-0.08
197	SLU 47	-54	-11	4719	-3.4	1.34	-0.04
197	SLU 48	-54	5	4712	-4.24	1.33	-0.13
197	SLU 49	-54	-5	4716	-3.73	1.34	-0.08
197	SLU 50	-54	5	4712	-4.24	1.33	-0.13
197	SLU 51	-54	-5	4716	-3.73	1.34	-0.08
197	SLU 52	-52	-10	5496	-4.03	1.3	-0.03
197	SLU 53	-51	6	5489	-4.87	1.3	-0.11
197	SLU 54	-52	-3	5494	-4.37	1.3	-0.06
197	SLU 55	-52	-10	5496	-4.03	1.3	-0.03
197	SLU 56	-51	6	5489	-4.87	1.3	-0.11
197	SLU 57	-52	-3	5494	-4.37	1.3	-0.06
197	SLU 58	-51	6	5489	-4.87	1.3	-0.11
197	SLU 59	-52	-3	5494	-4.37	1.3	-0.06
197	SLU 60	-50	7	5822	-5.14	1.29	-0.11
197	SLU 61	-51	-3	5827	-4.64	1.29	-0.05
197	SLU 62	-50	7	5822	-5.14	1.29	-0.11
197	SLU 63	-51	-3	5827	-4.64	1.29	-0.05
197	SLU 64	-53	6	5277	-4.56	1.31	-0.13



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
197	SLU 65	-53	-10	5284	-3.72	1.31	-0.04
197	SLU 66	-53	6	5277	-4.56	1.31	-0.13
197	SLU 67	-53	-4	5281	-4.06	1.31	-0.08
197	SLU 68	-53	-10	5284	-3.72	1.31	-0.04
197	SLU 69	-53	6	5277	-4.56	1.31	-0.13
197	SLU 70	-53	-4	5281	-4.06	1.31	-0.08
197	SLU 71	-53	6	5277	-4.56	1.31	-0.13
197	SLU 72	-53	-4	5281	-4.06	1.31	-0.08
197	SLU 73	-51	-9	6061	-4.36	1.28	-0.03
197	SLU 74	-51	7	6054	-5.2	1.28	-0.12
197	SLU 75	-51	-2	6058	-4.69	1.28	-0.06
197	SLU 76	-51	-9	6061	-4.36	1.28	-0.03
197	SLU 77	-51	7	6054	-5.2	1.28	-0.12
197	SLU 78	-51	-2	6058	-4.69	1.28	-0.06
197	SLU 79	-51	7	6054	-5.2	1.28	-0.12
197	SLU 80	-51	-2	6058	-4.69	1.28	-0.06
197	SLU 81	-50	8	6387	-5.47	1.26	-0.11
197	SLU 82	-50	-2	6392	-4.96	1.27	-0.06
197	SLU 83	-50	8	6387	-5.47	1.26	-0.11
197	SLU 84	-50	-2	6392	-4.96	1.27	-0.06
197	SLE RA 1	-41	4	3935	-3.44	1.01	-0.1
197	SLE RA 2	-41	-7	3940	-2.88	1.02	-0.04
197	SLE RA 3	-41	4	3935	-3.44	1.01	-0.1
197	SLE RA 4	-41	-2	3938	-3.1	1.02	-0.07
197	SLE RA 5	-41	-7	3940	-2.88	1.02	-0.04
197	SLE RA 6	-41	4	3935	-3.44	1.01	-0.1
197	SLE RA 7	-41	-2	3938	-3.1	1.02	-0.07
197	SLE RA 8	-41	4	3935	-3.44	1.01	-0.1
197	SLE RA 9	-41	-2	3938	-3.1	1.02	-0.07
197	SLE RA 10	-40	-6	4458	-3.3	0.99	-0.03
197	SLE RA 11	-39	5	4453	-3.86	0.99	-0.09
197	SLE RA 12	-39	-1	4456	-3.52	0.99	-0.05
197	SLE RA 13	-40	-6	4458	-3.3	0.99	-0.03
197	SLE RA 14	-39	5	4453	-3.86	0.99	-0.09
197	SLE RA 15	-39	-1	4456	-3.52	0.99	-0.05
197	SLE RA 16	-39	5	4453	-3.86	0.99	-0.09
197	SLE RA 17	-39	-1	4456	-3.52	0.99	-0.05
197	SLE RA 18	-39	6	4675	-4.04	0.98	-0.09
197	SLE RA 19	-39	-1	4678	-3.71	0.98	-0.05
197	SLE RA 20	-39	6	4675	-4.04	0.98	-0.09
197	SLE RA 21	-39	-1	4678	-3.71	0.98	-0.05
197	SLE FR 1	-41	4	3935	-3.44	1.01	-0.1
197	SLE FR 2	-41	2	3936	-3.33	1.01	-0.09
197	SLE FR 3	-41	4	3935	-3.44	1.01	-0.1
197	SLE FR 4	-40	3	4158	-3.51	1	-0.08
197	SLE FR 5	-40	5	4157	-3.62	1	-0.1
197	SLE FR 6	-40	5	4305	-3.74	1	-0.09
197	SLE QP 1	-41	4	3935	-3.44	1.01	-0.1
197	SLE QP 2	-40	5	4157	-3.62	1	-0.1
197	SLD 1	253	90	4444	-9.9	1.88	-0.71
197	SLD 2	253	54	4443	-9.64	1.89	0.16
197	SLD 3	247	-72	4424	0.83	1.94	-0.03
197	SLD 4	247	-108	4424	1.1	1.94	0.83
197	SLD 5	58	289	4272	-21.89	1.18	-1.62
197	SLD 6	58	252	4272	-21.61	1.18	-0.72
197	SLD 7	36	-251	4208	13.9	1.37	0.63
197	SLD 8	36	-288	4208	14.18	1.37	1.53
197	SLD 9	-116	297	4106	-21.42	0.64	-1.72
197	SLD 10	-116	261	4106	-21.14	0.64	-0.82
197	SLD 11	-138	-243	4042	14.37	0.83	0.53
197	SLD 12	-138	-280	4042	14.65	0.83	1.43
197	SLD 13	-327	117	3890	-8.34	0.07	-1.02
197	SLD 14	-327	82	3890	-8.07	0.07	-0.16
197	SLD 15	-334	-45	3871	2.4	0.12	-0.35
197	SLD 16	-334	-80	3871	2.67	0.12	0.52
197	SLV 1	628	203	4812	-18.27	3	-1.51
197	SLV 2	628	122	4811	-17.66	3	0.47
197	SLV 3	613	-176	4764	6.8	3.14	0.07
197	SLV 4	613	-256	4764	7.41	3.15	2.05
197	SLV 5	183	669	4426	-46.26	1.38	-3.66
197	SLV 6	183	584	4425	-45.62	1.39	-1.58
197	SLV 7	133	-593	4267	37.3	1.86	1.61
197	SLV 8	133	-678	4267	37.94	1.87	3.69
197	SLV 9	-213	688	4048	-45.18	0.14	-3.88
197	SLV 10	-214	602	4047	-44.54	0.14	-1.8
197	SLV 11	-263	-574	3889	38.38	0.62	1.39
197	SLV 12	-263	-659	3889	39.02	0.63	3.47
197	SLV 13	-694	266	3551	-14.65	-1.14	-2.24
197	SLV 14	-694	185	3550	-14.04	-1.14	-0.26
197	SLV 15	-709	-113	3503	10.42	-1	-0.66
197	SLV 16	-709	-194	3503	11.03	-0.99	1.32
197	CRTFP Ux+	0	0	0	0	0	0
197	CRTFP Ux-	0	0	0	0	0	0
197	CRTFP Uy+	0	0	0	0	0	0
197	CRTFP Uy-	0	0	0	0	0	0
198	SLU 1	-39	3	3742	-3.48	1	-0.14
198	SLU 2	-40	-12	3749	-2.62	1.01	-0.09
198	SLU 3	-39	3	3742	-3.48	1	-0.14
198	SLU 4	-40	-6	3746	-2.96	1	-0.11
198	SLU 5	-40	-12	3749	-2.62	1.01	-0.09
198	SLU 6	-39	3	3742	-3.48	1	-0.14



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
198	SLU 7	-40	-6	3746	-2.96	1	-0.11
198	SLU 8	-39	3	3742	-3.48	1	-0.14
198	SLU 9	-40	-6	3746	-2.96	1	-0.11
198	SLU 10	-37	-11	4527	-3.27	1	-0.09
198	SLU 11	-37	5	4520	-4.13	0.99	-0.14
198	SLU 12	-37	-5	4524	-3.61	1	-0.11
198	SLU 13	-37	-11	4527	-3.27	1	-0.09
198	SLU 14	-37	5	4520	-4.13	0.99	-0.14
198	SLU 15	-37	-5	4524	-3.61	1	-0.11
198	SLU 16	-37	5	4520	-4.13	0.99	-0.14
198	SLU 17	-37	-5	4524	-3.61	1	-0.11
198	SLU 18	-36	6	4854	-4.41	0.99	-0.14
198	SLU 19	-36	-4	4858	-3.89	0.99	-0.11
198	SLU 20	-36	6	4854	-4.41	0.99	-0.14
198	SLU 21	-36	-4	4858	-3.89	0.99	-0.11
198	SLU 22	-39	4	4308	-3.81	1	-0.15
198	SLU 23	-39	-11	4314	-2.95	1	-0.1
198	SLU 24	-39	4	4308	-3.81	1	-0.15
198	SLU 25	-39	-5	4312	-3.3	1	-0.12
198	SLU 26	-39	-11	4314	-2.95	1	-0.1
198	SLU 27	-39	4	4308	-3.81	1	-0.15
198	SLU 28	-39	-5	4312	-3.3	1	-0.12
198	SLU 29	-39	4	4308	-3.81	1	-0.15
198	SLU 30	-39	-5	4312	-3.3	1	-0.12
198	SLU 31	-37	-10	5092	-3.6	1	-0.1
198	SLU 32	-36	6	5085	-4.46	0.99	-0.15
198	SLU 33	-36	-4	5090	-3.95	0.99	-0.12
198	SLU 34	-37	-10	5092	-3.6	1	-0.1
198	SLU 35	-36	6	5085	-4.46	0.99	-0.15
198	SLU 36	-36	-4	5090	-3.95	0.99	-0.12
198	SLU 37	-36	6	5085	-4.46	0.99	-0.15
198	SLU 38	-36	-4	5090	-3.95	0.99	-0.12
198	SLU 39	-35	7	5419	-4.74	0.99	-0.15
198	SLU 40	-36	-3	5423	-4.23	0.99	-0.12
198	SLU 41	-35	7	5419	-4.74	0.99	-0.15
198	SLU 42	-36	-3	5423	-4.23	0.99	-0.12
198	SLU 43	-51	4	4671	-4.41	1.3	-0.18
198	SLU 44	-52	-12	4678	-3.55	1.31	-0.13
198	SLU 45	-51	4	4671	-4.41	1.3	-0.18
198	SLU 46	-52	-6	4675	-3.89	1.3	-0.15
198	SLU 47	-52	-12	4678	-3.55	1.31	-0.13
198	SLU 48	-51	4	4671	-4.41	1.3	-0.18
198	SLU 49	-52	-6	4675	-3.89	1.3	-0.15
198	SLU 50	-51	4	4671	-4.41	1.3	-0.18
198	SLU 51	-52	-6	4675	-3.89	1.3	-0.15
198	SLU 52	-49	-10	5456	-4.2	1.3	-0.13
198	SLU 53	-49	6	5449	-5.06	1.29	-0.18
198	SLU 54	-49	-4	5453	-4.54	1.3	-0.15
198	SLU 55	-49	-10	5456	-4.2	1.3	-0.13
198	SLU 56	-49	6	5449	-5.06	1.29	-0.18
198	SLU 57	-49	-4	5453	-4.54	1.3	-0.15
198	SLU 58	-49	6	5449	-5.06	1.29	-0.18
198	SLU 59	-49	-4	5453	-4.54	1.3	-0.15
198	SLU 60	-48	6	5782	-5.34	1.29	-0.18
198	SLU 61	-48	-3	5786	-4.82	1.29	-0.15
198	SLU 62	-48	6	5782	-5.34	1.29	-0.18
198	SLU 63	-48	-3	5786	-4.82	1.29	-0.15
198	SLU 64	-51	5	5236	-4.74	1.3	-0.19
198	SLU 65	-51	-11	5243	-3.88	1.31	-0.14
198	SLU 66	-51	5	5236	-4.74	1.3	-0.19
198	SLU 67	-51	-4	5240	-4.23	1.3	-0.16
198	SLU 68	-51	-11	5243	-3.88	1.31	-0.14
198	SLU 69	-51	5	5236	-4.74	1.3	-0.19
198	SLU 70	-51	-4	5240	-4.23	1.3	-0.16
198	SLU 71	-51	5	5236	-4.74	1.3	-0.19
198	SLU 72	-51	-4	5240	-4.23	1.3	-0.16
198	SLU 73	-49	-9	6021	-4.53	1.3	-0.14
198	SLU 74	-48	7	6014	-5.39	1.29	-0.19
198	SLU 75	-49	-3	6018	-4.88	1.3	-0.16
198	SLU 76	-49	-9	6021	-4.53	1.3	-0.14
198	SLU 77	-48	7	6014	-5.39	1.29	-0.19
198	SLU 78	-49	-3	6018	-4.88	1.3	-0.16
198	SLU 79	-48	7	6014	-5.39	1.29	-0.19
198	SLU 80	-49	-3	6018	-4.88	1.3	-0.16
198	SLU 81	-47	7	6348	-5.67	1.29	-0.19
198	SLU 82	-48	-2	6352	-5.15	1.29	-0.16
198	SLU 83	-47	7	6348	-5.67	1.29	-0.19
198	SLU 84	-48	-2	6352	-5.15	1.29	-0.16
198	SLE RA 1	-39	4	3904	-3.57	1	-0.14
198	SLE RA 2	-39	-7	3908	-3	1	-0.11
198	SLE RA 3	-39	4	3904	-3.57	1	-0.14
198	SLE RA 4	-39	-3	3906	-3.23	1	-0.12
198	SLE RA 5	-39	-7	3908	-3	1	-0.11
198	SLE RA 6	-39	4	3904	-3.57	1	-0.14
198	SLE RA 7	-39	-3	3906	-3.23	1	-0.12
198	SLE RA 8	-39	4	3904	-3.57	1	-0.14
198	SLE RA 9	-39	-3	3906	-3.23	1	-0.12
198	SLE RA 10	-38	-6	4427	-3.43	1	-0.11
198	SLE RA 11	-38	5	4422	-4.01	1	-0.14
198	SLE RA 12	-38	-2	4425	-3.66	1	-0.12
198	SLE RA 13	-38	-6	4427	-3.43	1	-0.11



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
198	SLE RA 14	-38	5	4422	-4.01	1	-0.14
198	SLE RA 15	-38	-2	4425	-3.66	1	-0.12
198	SLE RA 16	-38	5	4422	-4.01	1	-0.14
198	SLE RA 17	-38	-2	4425	-3.66	1	-0.12
198	SLE RA 18	-37	5	4645	-4.19	0.99	-0.14
198	SLE RA 19	-37	-1	4647	-3.85	0.99	-0.12
198	SLE RA 20	-37	5	4645	-4.19	0.99	-0.14
198	SLE RA 21	-37	-1	4647	-3.85	0.99	-0.12
198	SLE FR 1	-39	4	3904	-3.57	1	-0.14
198	SLE FR 2	-39	2	3905	-3.46	1	-0.14
198	SLE FR 3	-39	4	3904	-3.57	1	-0.14
198	SLE FR 4	-39	2	4127	-3.64	1	-0.14
198	SLE FR 5	-39	4	4126	-3.76	1	-0.14
198	SLE FR 6	-38	4	4274	-3.88	1	-0.14
198	SLE QP 1	-39	4	3904	-3.57	1	-0.14
198	SLE QP 2	-39	4	4126	-3.76	1	-0.14
198	SLD 1	255	86	4385	-10.15	1.87	-0.58
198	SLD 2	255	55	4385	-9.91	1.87	0.21
198	SLD 3	249	-73	4365	0.79	1.92	-0.2
198	SLD 4	249	-104	4365	1.04	1.92	0.59
198	SLD 5	59	282	4234	-22.37	1.19	-1.15
198	SLD 6	59	250	4234	-22.12	1.19	-0.32
198	SLD 7	38	-249	4168	14.12	1.35	0.12
198	SLD 8	38	-281	4167	14.38	1.35	0.95
198	SLD 9	-115	290	4085	-21.89	0.65	-1.24
198	SLD 10	-115	257	4084	-21.64	0.65	-0.41
198	SLD 11	-136	-241	4018	14.6	0.81	0.03
198	SLD 12	-136	-274	4018	14.85	0.81	0.86
198	SLD 13	-326	112	3887	-8.56	0.08	-0.88
198	SLD 14	-326	81	3887	-8.31	0.08	-0.09
198	SLD 15	-332	-47	3867	2.39	0.13	-0.5
198	SLD 16	-332	-78	3867	2.63	0.13	0.29
198	SLV 1	630	196	4718	-18.66	2.97	-1.16
198	SLV 2	630	125	4717	-18.1	2.98	0.66
198	SLV 3	615	-177	4668	6.9	3.09	-0.26
198	SLV 4	615	-248	4668	7.47	3.1	1.55
198	SLV 5	185	653	4379	-47.21	1.41	-2.49
198	SLV 6	185	578	4379	-46.62	1.41	-0.58
198	SLV 7	135	-588	4213	38	1.81	0.49
198	SLV 8	135	-663	4213	38.59	1.81	2.41
198	SLV 9	-212	671	4039	-46.11	0.19	-2.7
198	SLV 10	-212	596	4039	-45.52	0.19	-0.78
198	SLV 11	-262	-570	3873	39.1	0.58	0.29
198	SLV 12	-262	-645	3873	39.7	0.59	2.2
198	SLV 13	-692	256	3584	-14.99	-1.1	-1.84
198	SLV 14	-692	185	3584	-14.42	-1.1	-0.03
198	SLV 15	-707	-116	3535	10.58	-0.98	-0.95
198	SLV 16	-707	-188	3534	11.14	-0.98	0.87
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
199	SLU 1	-38	2	3711	-3.59	0.98	-0.18
199	SLU 2	-38	-13	3718	-2.71	0.98	-0.16
199	SLU 3	-38	2	3711	-3.59	0.98	-0.18
199	SLU 4	-38	-7	3716	-3.06	0.98	-0.17
199	SLU 5	-38	-13	3718	-2.71	0.98	-0.16
199	SLU 6	-38	2	3711	-3.59	0.98	-0.18
199	SLU 7	-38	-7	3716	-3.06	0.98	-0.17
199	SLU 8	-38	2	3711	-3.59	0.98	-0.18
199	SLU 9	-38	-7	3716	-3.06	0.98	-0.17
199	SLU 10	-36	-12	4496	-3.37	1	-0.18
199	SLU 11	-35	4	4489	-4.24	1	-0.19
199	SLU 12	-36	-5	4493	-3.72	1	-0.18
199	SLU 13	-36	-12	4496	-3.37	1	-0.18
199	SLU 14	-35	4	4489	-4.24	1	-0.19
199	SLU 15	-36	-5	4493	-3.72	1	-0.18
199	SLU 16	-35	4	4489	-4.24	1	-0.19
199	SLU 17	-36	-5	4493	-3.72	1	-0.18
199	SLU 18	-34	5	4823	-4.52	1	-0.2
199	SLU 19	-35	-5	4827	-4	1.01	-0.19
199	SLU 20	-34	5	4823	-4.52	1	-0.2
199	SLU 21	-35	-5	4827	-4	1.01	-0.19
199	SLU 22	-37	3	4276	-3.93	1	-0.2
199	SLU 23	-37	-12	4283	-3.05	1	-0.18
199	SLU 24	-37	3	4276	-3.93	1	-0.2
199	SLU 25	-37	-6	4281	-3.4	1	-0.19
199	SLU 26	-37	-12	4283	-3.05	1	-0.18
199	SLU 27	-37	3	4276	-3.93	1	-0.2
199	SLU 28	-37	-6	4281	-3.4	1	-0.19
199	SLU 29	-37	3	4276	-3.93	1	-0.2
199	SLU 30	-37	-6	4281	-3.4	1	-0.19
199	SLU 31	-35	-11	5061	-3.71	1.02	-0.2
199	SLU 32	-35	5	5054	-4.58	1.02	-0.22
199	SLU 33	-35	-4	5058	-4.06	1.02	-0.2
199	SLU 34	-35	-11	5061	-3.71	1.02	-0.2
199	SLU 35	-35	5	5054	-4.58	1.02	-0.22
199	SLU 36	-35	-4	5058	-4.06	1.02	-0.2
199	SLU 37	-35	5	5054	-4.58	1.02	-0.22
199	SLU 38	-35	-4	5058	-4.06	1.02	-0.2
199	SLU 39	-34	6	5388	-4.86	1.03	-0.22



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
199	SLU 40	-34	-4	5392		-4.34	1.03	-0.21
199	SLU 41	-34	6	5388		-4.86	1.03	-0.22
199	SLU 42	-34	-4	5392		-4.34	1.03	-0.21
199	SLU 43	-49	3	4631		-4.55	1.26	-0.23
199	SLU 44	-50	-13	4638		-3.67	1.27	-0.21
199	SLU 45	-49	3	4631		-4.55	1.26	-0.23
199	SLU 46	-49	-6	4635		-4.02	1.26	-0.22
199	SLU 47	-50	-13	4638		-3.67	1.27	-0.21
199	SLU 48	-49	3	4631		-4.55	1.26	-0.23
199	SLU 49	-49	-6	4635		-4.02	1.26	-0.22
199	SLU 50	-49	3	4631		-4.55	1.26	-0.23
199	SLU 51	-49	-6	4635		-4.02	1.26	-0.22
199	SLU 52	-47	-11	5416		-4.33	1.29	-0.22
199	SLU 53	-47	4	5409		-5.2	1.28	-0.24
199	SLU 54	-47	-5	5413		-4.68	1.28	-0.23
199	SLU 55	-47	-11	5416		-4.33	1.29	-0.22
199	SLU 56	-47	4	5409		-5.2	1.28	-0.24
199	SLU 57	-47	-5	5413		-4.68	1.28	-0.23
199	SLU 58	-47	4	5409		-5.2	1.28	-0.24
199	SLU 59	-47	-5	5413		-4.68	1.28	-0.23
199	SLU 60	-46	5	5742		-5.48	1.29	-0.25
199	SLU 61	-46	-4	5746		-4.96	1.29	-0.24
199	SLU 62	-46	5	5742		-5.48	1.29	-0.25
199	SLU 63	-46	-4	5746		-4.96	1.29	-0.24
199	SLU 64	-48	4	5196		-4.89	1.28	-0.25
199	SLU 65	-49	-12	5203		-4.01	1.29	-0.23
199	SLU 66	-48	4	5196		-4.89	1.28	-0.25
199	SLU 67	-49	-6	5200		-4.36	1.29	-0.24
199	SLU 68	-49	-12	5203		-4.01	1.29	-0.23
199	SLU 69	-48	4	5196		-4.89	1.28	-0.25
199	SLU 70	-49	-6	5200		-4.36	1.29	-0.24
199	SLU 71	-48	4	5196		-4.89	1.28	-0.25
199	SLU 72	-49	-6	5200		-4.36	1.29	-0.24
199	SLU 73	-46	-10	5981		-4.67	1.31	-0.24
199	SLU 74	-46	5	5974		-5.54	1.3	-0.26
199	SLU 75	-46	-4	5978		-5.02	1.31	-0.25
199	SLU 76	-46	-10	5981		-4.67	1.31	-0.24
199	SLU 77	-46	5	5974		-5.54	1.3	-0.26
199	SLU 78	-46	-4	5978		-5.02	1.31	-0.25
199	SLU 79	-46	5	5974		-5.54	1.3	-0.26
199	SLU 80	-46	-4	5978		-5.02	1.31	-0.25
199	SLU 81	-45	6	6307		-5.82	1.31	-0.27
199	SLU 82	-45	-3	6311		-5.3	1.31	-0.26
199	SLU 83	-45	6	6307		-5.82	1.31	-0.27
199	SLU 84	-45	-3	6311		-5.3	1.31	-0.26
199	SLE RA 1	-37	3	3873		-3.68	0.98	-0.19
199	SLE RA 2	-38	-8	3877		-3.1	0.98	-0.17
199	SLE RA 3	-37	3	3873		-3.68	0.98	-0.19
199	SLE RA 4	-38	-4	3876		-3.33	0.98	-0.18
199	SLE RA 5	-38	-8	3877		-3.1	0.98	-0.17
199	SLE RA 6	-37	3	3873		-3.68	0.98	-0.19
199	SLE RA 7	-38	-4	3876		-3.33	0.98	-0.18
199	SLE RA 8	-37	3	3873		-3.68	0.98	-0.19
199	SLE RA 9	-38	-4	3876		-3.33	0.98	-0.18
199	SLE RA 10	-36	-7	4396		-3.54	1	-0.18
199	SLE RA 11	-36	4	4391		-4.12	1	-0.2
199	SLE RA 12	-36	-2	4394		-3.77	1	-0.19
199	SLE RA 13	-36	-7	4396		-3.54	1	-0.18
199	SLE RA 14	-36	4	4391		-4.12	1	-0.2
199	SLE RA 15	-36	-2	4394		-3.77	1	-0.19
199	SLE RA 16	-36	4	4391		-4.12	1	-0.2
199	SLE RA 17	-36	-2	4394		-3.77	1	-0.19
199	SLE RA 18	-35	4	4614		-4.31	1	-0.2
199	SLE RA 19	-35	-2	4616		-3.96	1	-0.19
199	SLE RA 20	-35	4	4614		-4.31	1	-0.2
199	SLE RA 21	-35	-2	4616		-3.96	1	-0.19
199	SLE FR 1	-37	3	3873		-3.68	0.98	-0.19
199	SLE FR 2	-37	1	3874		-3.57	0.98	-0.18
199	SLE FR 3	-37	3	3873		-3.68	0.98	-0.19
199	SLE FR 4	-37	1	4096		-3.76	0.99	-0.19
199	SLE FR 5	-37	3	4095		-3.87	0.99	-0.19
199	SLE FR 6	-36	3	4243		-4	0.99	-0.19
199	SLE QP 1	-37	3	3873		-3.68	0.98	-0.19
199	SLE QP 2	-37	3	4095		-3.87	0.99	-0.19
199	SLD 1	257	83	4326		-10.37	1.9	-0.47
199	SLD 2	257	56	4326		-10.14	1.9	0.26
199	SLD 3	251	-75	4306		0.78	1.86	-0.35
199	SLD 4	251	-102	4306		1.01	1.86	0.38
199	SLD 5	61	277	4195		-22.82	1.33	-0.73
199	SLD 6	61	249	4195		-22.58	1.33	0.03
199	SLD 7	40	-250	4128		14.35	1.18	-0.32
199	SLD 8	40	-278	4128		14.59	1.18	0.44
199	SLD 9	-113	285	4062		-22.33	0.8	-0.82
199	SLD 10	-113	257	4062		-22.1	0.8	-0.06
199	SLD 11	-135	-243	3995		14.84	0.64	-0.41
199	SLD 12	-135	-271	3995		15.07	0.64	0.35
199	SLD 13	-324	108	3884		-8.75	0.12	-0.76
199	SLD 14	-324	81	3884		-8.53	0.12	-0.03
199	SLD 15	-331	-50	3864		2.4	0.07	-0.64
199	SLD 16	-331	-77	3864		2.62	0.07	0.09
199	SLV 1	632	190	4624		-19.01	3.08	-0.85



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
199	SLV 2	632	128	4624	-18.49	3.08	0.83
199	SLV 3	617	-180	4574	7.03	2.96	-0.55
199	SLV 4	617	-241	4573	7.55	2.96	1.12
199	SLV 5	187	643	4331	-48.1	1.79	-1.47
199	SLV 6	187	578	4330	-47.56	1.79	0.3
199	SLV 7	137	-589	4162	38.7	1.41	-0.48
199	SLV 8	137	-654	4162	39.24	1.41	1.28
199	SLV 9	-210	660	4028	-46.99	0.57	-1.66
199	SLV 10	-210	595	4028	-46.44	0.57	0.1
199	SLV 11	-260	-572	3860	39.81	0.19	-0.68
199	SLV 12	-260	-637	3860	40.36	0.19	1.08
199	SLV 13	-691	248	3617	-15.29	-0.99	-1.5
199	SLV 14	-691	186	3616	-14.77	-0.99	0.17
199	SLV 15	-706	-122	3567	10.75	-1.1	-1.21
199	SLV 16	-706	-184	3566	11.27	-1.1	0.46
199	CRTFP Ux+	0	0	0	0	0	0
199	CRTFP Ux-	0	0	0	0	0	0
199	CRTFP Uy+	0	0	0	0	0	0
199	CRTFP Uy-	0	0	0	0	0	0
200	SLU 1	-36	1	3681	-3.68	0.97	-0.22
200	SLU 2	-36	-14	3688	-2.78	0.97	-0.23
200	SLU 3	-36	1	3681	-3.68	0.97	-0.22
200	SLU 4	-36	-8	3685	-3.14	0.97	-0.22
200	SLU 5	-36	-14	3688	-2.78	0.97	-0.23
200	SLU 6	-36	1	3681	-3.68	0.97	-0.22
200	SLU 7	-36	-8	3685	-3.14	0.97	-0.22
200	SLU 8	-36	1	3681	-3.68	0.97	-0.22
200	SLU 9	-36	-8	3685	-3.14	0.97	-0.22
200	SLU 10	-34	-13	4464	-3.43	1.03	-0.25
200	SLU 11	-34	3	4458	-4.33	1.02	-0.24
200	SLU 12	-34	-7	4462	-3.79	1.03	-0.25
200	SLU 13	-34	-13	4464	-3.43	1.03	-0.25
200	SLU 14	-34	3	4458	-4.33	1.02	-0.24
200	SLU 15	-34	-7	4462	-3.79	1.03	-0.25
200	SLU 16	-34	3	4458	-4.33	1.02	-0.24
200	SLU 17	-34	-7	4462	-3.79	1.03	-0.25
200	SLU 18	-33	3	4791	-4.61	1.05	-0.25
200	SLU 19	-33	-6	4795	-4.07	1.05	-0.26
200	SLU 20	-33	3	4791	-4.61	1.05	-0.25
200	SLU 21	-33	-6	4795	-4.07	1.05	-0.26
200	SLU 22	-35	2	4245	-4.01	1.02	-0.24
200	SLU 23	-35	-13	4252	-3.12	1.02	-0.26
200	SLU 24	-35	2	4245	-4.01	1.02	-0.24
200	SLU 25	-35	-7	4249	-3.48	1.02	-0.25
200	SLU 26	-35	-13	4252	-3.12	1.02	-0.26
200	SLU 27	-35	2	4245	-4.01	1.02	-0.24
200	SLU 28	-35	-7	4249	-3.48	1.02	-0.25
200	SLU 29	-35	2	4245	-4.01	1.02	-0.24
200	SLU 30	-35	-7	4249	-3.48	1.02	-0.25
200	SLU 31	-33	-12	5028	-3.77	1.08	-0.28
200	SLU 32	-33	4	5022	-4.67	1.07	-0.27
200	SLU 33	-33	-6	5026	-4.13	1.08	-0.28
200	SLU 34	-33	-12	5028	-3.77	1.08	-0.28
200	SLU 35	-33	4	5022	-4.67	1.07	-0.27
200	SLU 36	-33	-6	5026	-4.13	1.08	-0.28
200	SLU 37	-33	4	5022	-4.67	1.07	-0.27
200	SLU 38	-33	-6	5026	-4.13	1.08	-0.28
200	SLU 39	-32	4	5355	-4.94	1.1	-0.28
200	SLU 40	-32	-5	5359	-4.41	1.1	-0.29
200	SLU 41	-32	4	5355	-4.94	1.1	-0.28
200	SLU 42	-32	-5	5359	-4.41	1.1	-0.29
200	SLU 43	-47	2	4592	-4.66	1.24	-0.27
200	SLU 44	-47	-14	4599	-3.77	1.25	-0.28
200	SLU 45	-47	2	4592	-4.66	1.24	-0.27
200	SLU 46	-47	-8	4596	-4.13	1.24	-0.28
200	SLU 47	-47	-14	4599	-3.77	1.25	-0.28
200	SLU 48	-47	2	4592	-4.66	1.24	-0.27
200	SLU 49	-47	-8	4596	-4.13	1.24	-0.28
200	SLU 50	-47	2	4592	-4.66	1.24	-0.27
200	SLU 51	-47	-8	4596	-4.13	1.24	-0.28
200	SLU 52	-45	-13	5376	-4.42	1.3	-0.31
200	SLU 53	-45	3	5369	-5.32	1.3	-0.3
200	SLU 54	-45	-6	5373	-4.78	1.3	-0.3
200	SLU 55	-45	-13	5376	-4.42	1.3	-0.31
200	SLU 56	-45	3	5369	-5.32	1.3	-0.3
200	SLU 57	-45	-6	5373	-4.78	1.3	-0.3
200	SLU 58	-45	3	5369	-5.32	1.3	-0.3
200	SLU 59	-45	-6	5373	-4.78	1.3	-0.3
200	SLU 60	-44	4	5702	-5.59	1.32	-0.31
200	SLU 61	-44	-6	5706	-5.06	1.32	-0.31
200	SLU 62	-44	4	5702	-5.59	1.32	-0.31
200	SLU 63	-44	-6	5706	-5.06	1.32	-0.31
200	SLU 64	-46	2	5156	-5	1.29	-0.3
200	SLU 65	-46	-13	5163	-4.11	1.29	-0.31
200	SLU 66	-46	2	5156	-5	1.29	-0.3
200	SLU 67	-46	-7	5160	-4.46	1.29	-0.31
200	SLU 68	-46	-13	5163	-4.11	1.29	-0.31
200	SLU 69	-46	2	5156	-5	1.29	-0.3
200	SLU 70	-46	-7	5160	-4.46	1.29	-0.31
200	SLU 71	-46	2	5156	-5	1.29	-0.3
200	SLU 72	-46	-7	5160	-4.46	1.29	-0.31



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
200	SLU 73	-44	-12	5939	-4.76	1.35	-0.34
200	SLU 74	-44	4	5933	-5.65	1.35	-0.32
200	SLU 75	-44	-6	5937	-5.12	1.35	-0.33
200	SLU 76	-44	-12	5939	-4.76	1.35	-0.34
200	SLU 77	-44	4	5933	-5.65	1.35	-0.32
200	SLU 78	-44	-6	5937	-5.12	1.35	-0.33
200	SLU 79	-44	4	5933	-5.65	1.35	-0.32
200	SLU 80	-44	-6	5937	-5.12	1.35	-0.33
200	SLU 81	-43	4	6266	-5.93	1.37	-0.34
200	SLU 82	-43	-5	6270	-5.39	1.37	-0.34
200	SLU 83	-43	4	6266	-5.93	1.37	-0.34
200	SLU 84	-43	-5	6270	-5.39	1.37	-0.34
200	SLE RA 1	-36	2	3842	-3.77	0.98	-0.22
200	SLE RA 2	-36	-9	3847	-3.18	0.98	-0.23
200	SLE RA 3	-36	2	3842	-3.77	0.98	-0.22
200	SLE RA 4	-36	-5	3845	-3.41	0.98	-0.23
200	SLE RA 5	-36	-9	3847	-3.18	0.98	-0.23
200	SLE RA 6	-36	2	3842	-3.77	0.98	-0.22
200	SLE RA 7	-36	-5	3845	-3.41	0.98	-0.23
200	SLE RA 8	-36	2	3842	-3.77	0.98	-0.22
200	SLE RA 9	-36	-5	3845	-3.41	0.98	-0.23
200	SLE RA 10	-34	-8	4365	-3.61	1.02	-0.25
200	SLE RA 11	-34	3	4360	-4.21	1.02	-0.24
200	SLE RA 12	-34	-4	4363	-3.85	1.02	-0.25
200	SLE RA 13	-34	-8	4365	-3.61	1.02	-0.25
200	SLE RA 14	-34	3	4360	-4.21	1.02	-0.24
200	SLE RA 15	-34	-4	4363	-3.85	1.02	-0.25
200	SLE RA 16	-34	3	4360	-4.21	1.02	-0.24
200	SLE RA 17	-34	-4	4363	-3.85	1.02	-0.25
200	SLE RA 18	-34	3	4582	-4.39	1.04	-0.25
200	SLE RA 19	-34	-3	4585	-4.04	1.04	-0.25
200	SLE RA 20	-34	3	4582	-4.39	1.04	-0.25
200	SLE RA 21	-34	-3	4585	-4.04	1.04	-0.25
200	SLE FR 1	-36	2	3842	-3.77	0.98	-0.22
200	SLE FR 2	-36	0	3843	-3.65	0.98	-0.23
200	SLE FR 3	-36	2	3842	-3.77	0.98	-0.22
200	SLE FR 4	-35	0	4065	-3.84	1	-0.23
200	SLE FR 5	-35	2	4064	-3.96	1	-0.23
200	SLE FR 6	-35	2	4212	-4.08	1.01	-0.24
200	SLE QP 1	-36	2	3842	-3.77	0.98	-0.22
200	SLE QP 2	-35	2	4064	-3.96	1	-0.23
200	SLD 1	259	105	4267	-10.55	1.93	-0.32
200	SLD 2	259	82	4267	-10.34	1.93	0.36
200	SLD 3	252	-53	4248	0.8	1.87	-0.54
200	SLD 4	252	-77	4248	1	1.87	0.14
200	SLD 5	63	282	4155	-23.22	1.37	-0.17
200	SLD 6	63	258	4155	-23.01	1.37	0.53
200	SLD 7	41	-246	4090	14.6	1.17	-0.91
200	SLD 8	41	-271	4089	14.82	1.17	-0.21
200	SLD 9	-111	275	4039	-22.73	0.82	-0.26
200	SLD 10	-111	251	4039	-22.52	0.82	0.45
200	SLD 11	-133	-254	3974	15.09	0.63	-1
200	SLD 12	-133	-278	3973	15.31	0.63	-0.29
200	SLD 13	-322	81	3881	-8.92	0.13	-0.6
200	SLD 14	-322	57	3881	-8.72	0.13	0.08
200	SLD 15	-329	-78	3861	2.43	0.07	-0.82
200	SLD 16	-329	-101	3861	2.63	0.07	-0.14
200	SLV 1	634	242	4529	-19.32	3.12	-0.43
200	SLV 2	634	189	4529	-18.85	3.12	1.13
200	SLV 3	619	-128	4480	7.18	2.98	-0.95
200	SLV 4	619	-182	4480	7.65	2.98	0.61
200	SLV 5	189	656	4279	-48.93	1.85	-0.08
200	SLV 6	189	600	4278	-48.43	1.85	1.56
200	SLV 7	138	-579	4114	39.39	1.38	-1.83
200	SLV 8	138	-635	4114	39.89	1.38	-0.19
200	SLV 9	-208	639	4015	-47.81	0.62	-0.28
200	SLV 10	-208	583	4014	-47.31	0.62	1.36
200	SLV 11	-259	-596	3850	40.52	0.15	-2.02
200	SLV 12	-259	-652	3850	41.01	0.15	-0.38
200	SLV 13	-689	186	3649	-15.57	-0.99	-1.07
200	SLV 14	-689	133	3648	-15.1	-0.99	0.49
200	SLV 15	-704	-184	3600	10.93	-1.13	-1.59
200	SLV 16	-704	-238	3599	11.4	-1.13	-0.04
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	-34	0	3651	-3.75	0.99	-0.24
201	SLU 2	-35	-16	3657	-2.83	0.99	-0.28
201	SLU 3	-34	0	3651	-3.75	0.99	-0.24
201	SLU 4	-34	-9	3655	-3.2	0.99	-0.27
201	SLU 5	-35	-16	3657	-2.83	0.99	-0.28
201	SLU 6	-34	0	3651	-3.75	0.99	-0.24
201	SLU 7	-34	-9	3655	-3.2	0.99	-0.27
201	SLU 8	-34	0	3651	-3.75	0.99	-0.24
201	SLU 9	-34	-9	3655	-3.2	0.99	-0.27
201	SLU 10	-32	-14	4432	-3.47	1.1	-0.32
201	SLU 11	-32	1	4425	-4.39	1.09	-0.28
201	SLU 12	-32	-8	4429	-3.84	1.09	-0.3
201	SLU 13	-32	-14	4432	-3.47	1.1	-0.32
201	SLU 14	-32	1	4425	-4.39	1.09	-0.28



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
201	SLU 15	-32	-8	4429	-3.84	1.09	-0.3
201	SLU 16	-32	1	4425	-4.39	1.09	-0.28
201	SLU 17	-32	-8	4429	-3.84	1.09	-0.3
201	SLU 18	-31	2	4757	-4.66	1.14	-0.29
201	SLU 19	-31	-7	4761	-4.11	1.14	-0.32
201	SLU 20	-31	2	4757	-4.66	1.14	-0.29
201	SLU 21	-31	-7	4761	-4.11	1.14	-0.32
201	SLU 22	-33	1	4213	-4.08	1.07	-0.28
201	SLU 23	-34	-15	4219	-3.16	1.08	-0.31
201	SLU 24	-33	1	4213	-4.08	1.07	-0.28
201	SLU 25	-34	-9	4217	-3.53	1.07	-0.3
201	SLU 26	-34	-15	4219	-3.16	1.08	-0.31
201	SLU 27	-33	1	4213	-4.08	1.07	-0.28
201	SLU 28	-34	-9	4217	-3.53	1.07	-0.3
201	SLU 29	-33	1	4213	-4.08	1.07	-0.28
201	SLU 30	-34	-9	4217	-3.53	1.07	-0.3
201	SLU 31	-31	-14	4993	-3.8	1.18	-0.35
201	SLU 32	-31	2	4987	-4.72	1.17	-0.31
201	SLU 33	-31	-7	4991	-4.17	1.18	-0.33
201	SLU 34	-31	-14	4993	-3.8	1.18	-0.35
201	SLU 35	-31	2	4987	-4.72	1.17	-0.31
201	SLU 36	-31	-7	4991	-4.17	1.18	-0.33
201	SLU 37	-31	2	4987	-4.72	1.17	-0.31
201	SLU 38	-31	-7	4991	-4.17	1.18	-0.33
201	SLU 39	-30	3	5319	-4.99	1.22	-0.33
201	SLU 40	-30	-7	5323	-4.44	1.22	-0.35
201	SLU 41	-30	3	5319	-4.99	1.22	-0.33
201	SLU 42	-30	-7	5323	-4.44	1.22	-0.35
201	SLU 43	-45	0	4554	-4.76	1.26	-0.31
201	SLU 44	-45	-16	4560	-3.84	1.26	-0.34
201	SLU 45	-45	0	4554	-4.76	1.26	-0.31
201	SLU 46	-45	-9	4557	-4.21	1.26	-0.33
201	SLU 47	-45	-16	4560	-3.84	1.26	-0.34
201	SLU 48	-45	0	4554	-4.76	1.26	-0.31
201	SLU 49	-45	-9	4557	-4.21	1.26	-0.33
201	SLU 50	-45	0	4554	-4.76	1.26	-0.31
201	SLU 51	-45	-9	4557	-4.21	1.26	-0.33
201	SLU 52	-43	-14	5334	-4.48	1.36	-0.38
201	SLU 53	-43	1	5328	-5.4	1.36	-0.34
201	SLU 54	-43	-8	5332	-4.85	1.36	-0.36
201	SLU 55	-43	-14	5334	-4.48	1.36	-0.38
201	SLU 56	-43	1	5328	-5.4	1.36	-0.34
201	SLU 57	-43	-8	5332	-4.85	1.36	-0.36
201	SLU 58	-43	1	5328	-5.4	1.36	-0.34
201	SLU 59	-43	-8	5332	-4.85	1.36	-0.36
201	SLU 60	-42	2	5659	-5.67	1.4	-0.35
201	SLU 61	-42	-8	5663	-5.12	1.41	-0.38
201	SLU 62	-42	2	5659	-5.67	1.4	-0.35
201	SLU 63	-42	-8	5663	-5.12	1.41	-0.38
201	SLU 64	-44	1	5115	-5.09	1.34	-0.34
201	SLU 65	-44	-15	5122	-4.17	1.35	-0.38
201	SLU 66	-44	1	5115	-5.09	1.34	-0.34
201	SLU 67	-44	-9	5119	-4.54	1.34	-0.36
201	SLU 68	-44	-15	5122	-4.17	1.35	-0.38
201	SLU 69	-44	1	5115	-5.09	1.34	-0.34
201	SLU 70	-44	-9	5119	-4.54	1.34	-0.36
201	SLU 71	-44	1	5115	-5.09	1.34	-0.34
201	SLU 72	-44	-9	5119	-4.54	1.34	-0.36
201	SLU 73	-42	-14	5896	-4.81	1.45	-0.41
201	SLU 74	-42	2	5890	-5.73	1.44	-0.37
201	SLU 75	-42	-8	5893	-5.18	1.45	-0.4
201	SLU 76	-42	-14	5896	-4.81	1.45	-0.41
201	SLU 77	-42	2	5890	-5.73	1.44	-0.37
201	SLU 78	-42	-8	5893	-5.18	1.45	-0.4
201	SLU 79	-42	2	5890	-5.73	1.44	-0.37
201	SLU 80	-42	-8	5893	-5.18	1.45	-0.4
201	SLU 81	-41	2	6221	-6	1.49	-0.39
201	SLU 82	-41	-7	6225	-5.45	1.49	-0.41
201	SLU 83	-41	2	6221	-6	1.49	-0.39
201	SLU 84	-41	-7	6225	-5.45	1.49	-0.41
201	SLE RA 1	-34	0	3811	-3.84	1.01	-0.25
201	SLE RA 2	-34	-10	3816	-3.23	1.02	-0.28
201	SLE RA 3	-34	0	3811	-3.84	1.01	-0.25
201	SLE RA 4	-34	-6	3814	-3.47	1.02	-0.27
201	SLE RA 5	-34	-10	3816	-3.23	1.02	-0.28
201	SLE RA 6	-34	0	3811	-3.84	1.01	-0.25
201	SLE RA 7	-34	-6	3814	-3.47	1.02	-0.27
201	SLE RA 8	-34	0	3811	-3.84	1.01	-0.25
201	SLE RA 9	-34	-6	3814	-3.47	1.02	-0.27
201	SLE RA 10	-33	-9	4332	-3.66	1.08	-0.3
201	SLE RA 11	-33	1	4328	-4.27	1.08	-0.28
201	SLE RA 12	-33	-5	4330	-3.9	1.08	-0.29
201	SLE RA 13	-33	-9	4332	-3.66	1.08	-0.3
201	SLE RA 14	-33	1	4328	-4.27	1.08	-0.28
201	SLE RA 15	-33	-5	4330	-3.9	1.08	-0.29
201	SLE RA 16	-33	1	4328	-4.27	1.08	-0.28
201	SLE RA 17	-33	-5	4330	-3.9	1.08	-0.29
201	SLE RA 18	-32	2	4549	-4.45	1.11	-0.29
201	SLE RA 19	-32	-5	4551	-4.08	1.11	-0.3
201	SLE RA 20	-32	2	4549	-4.45	1.11	-0.29
201	SLE RA 21	-32	-5	4551	-4.08	1.11	-0.3



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
201	SLE FR 1	-34	0	3811	-3.84	1.01	-0.25
201	SLE FR 2	-34	-2	3812	-3.72	1.01	-0.26
201	SLE FR 3	-34	0	3811	-3.84	1.01	-0.25
201	SLE FR 4	-33	-1	4033	-3.9	1.04	-0.27
201	SLE FR 5	-33	1	4033	-4.02	1.04	-0.26
201	SLE FR 6	-33	1	4180	-4.14	1.06	-0.27
201	SLE QP 1	-34	0	3811	-3.84	1.01	-0.25
201	SLE QP 2	-33	1	4033	-4.02	1.04	-0.26
201	SLD 1	260	103	4207	-10.7	2	-0.22
201	SLD 2	260	83	4207	-10.52	2	0.42
201	SLD 3	254	-58	4188	0.83	1.92	-0.67
201	SLD 4	254	-77	4188	1.02	1.92	-0.03
201	SLD 5	65	282	4113	-23.6	1.45	0.19
201	SLD 6	65	261	4113	-23.4	1.45	0.85
201	SLD 7	43	-253	4052	14.87	1.19	-1.3
201	SLD 8	43	-273	4051	15.06	1.19	-0.63
201	SLD 9	-110	275	4014	-23.11	0.9	0.1
201	SLD 10	-110	254	4014	-22.91	0.9	0.77
201	SLD 11	-131	-260	3953	15.36	0.64	-1.38
201	SLD 12	-131	-280	3952	15.55	0.64	-0.71
201	SLD 13	-321	79	3877	-9.07	0.16	-0.5
201	SLD 14	-321	59	3877	-8.88	0.16	0.14
201	SLD 15	-327	-81	3859	2.47	0.08	-0.95
201	SLD 16	-327	-101	3858	2.66	0.08	-0.3
201	SLV 1	636	238	4432	-19.59	3.24	-0.16
201	SLV 2	636	193	4431	-19.17	3.23	1.31
201	SLV 3	620	-136	4386	7.35	3.04	-1.2
201	SLV 4	620	-182	4385	7.78	3.04	0.27
201	SLV 5	190	657	4223	-49.72	1.99	0.79
201	SLV 6	190	609	4222	-49.27	1.99	2.34
201	SLV 7	140	-591	4068	40.09	1.35	-2.68
201	SLV 8	140	-639	4068	40.54	1.35	-1.13
201	SLV 9	-207	641	3997	-48.59	0.74	0.6
201	SLV 10	-207	593	3997	-48.14	0.74	2.15
201	SLV 11	-257	-608	3843	41.22	0.09	-2.87
201	SLV 12	-257	-656	3842	41.67	0.09	-1.32
201	SLV 13	-687	183	3680	-15.82	-0.95	-0.8
201	SLV 14	-687	138	3680	-15.4	-0.96	0.67
201	SLV 15	-702	-191	3634	11.12	-1.15	-1.84
201	SLV 16	-702	-237	3633	11.55	-1.15	-0.37
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
202	SLU 1	-33	-1	3619	-3.8	1.05	-0.26
202	SLU 2	-33	-17	3626	-2.86	1.06	-0.32
202	SLU 3	-33	-1	3619	-3.8	1.05	-0.26
202	SLU 4	-33	-11	3623	-3.24	1.06	-0.3
202	SLU 5	-33	-17	3626	-2.86	1.06	-0.32
202	SLU 6	-33	-1	3619	-3.8	1.05	-0.26
202	SLU 7	-33	-11	3623	-3.24	1.06	-0.3
202	SLU 8	-33	-1	3619	-3.8	1.05	-0.26
202	SLU 9	-33	-11	3623	-3.24	1.06	-0.3
202	SLU 10	-31	-16	4396	-3.48	1.22	-0.36
202	SLU 11	-30	0	4389	-4.42	1.21	-0.3
202	SLU 12	-30	-10	4393	-3.85	1.22	-0.34
202	SLU 13	-31	-16	4396	-3.48	1.22	-0.36
202	SLU 14	-30	0	4389	-4.42	1.21	-0.3
202	SLU 15	-30	-10	4393	-3.85	1.22	-0.34
202	SLU 16	-30	0	4389	-4.42	1.21	-0.3
202	SLU 17	-30	-10	4393	-3.85	1.22	-0.34
202	SLU 18	-29	0	4719	-4.68	1.28	-0.32
202	SLU 19	-30	-9	4723	-4.12	1.28	-0.35
202	SLU 20	-29	0	4719	-4.68	1.28	-0.32
202	SLU 21	-30	-9	4723	-4.12	1.28	-0.35
202	SLU 22	-32	-1	4178	-4.12	1.18	-0.3
202	SLU 23	-32	-17	4184	-3.18	1.18	-0.35
202	SLU 24	-32	-1	4178	-4.12	1.18	-0.3
202	SLU 25	-32	-10	4182	-3.55	1.18	-0.33
202	SLU 26	-32	-17	4184	-3.18	1.18	-0.35
202	SLU 27	-32	-1	4178	-4.12	1.18	-0.3
202	SLU 28	-32	-10	4182	-3.55	1.18	-0.33
202	SLU 29	-32	-1	4178	-4.12	1.18	-0.3
202	SLU 30	-32	-10	4182	-3.55	1.18	-0.33
202	SLU 31	-30	-16	4954	-3.8	1.34	-0.39
202	SLU 32	-30	0	4948	-4.74	1.33	-0.34
202	SLU 33	-30	-9	4952	-4.17	1.34	-0.37
202	SLU 34	-30	-16	4954	-3.8	1.34	-0.39
202	SLU 35	-30	0	4948	-4.74	1.33	-0.34
202	SLU 36	-30	-9	4952	-4.17	1.34	-0.37
202	SLU 37	-30	0	4948	-4.74	1.33	-0.34
202	SLU 38	-30	-9	4952	-4.17	1.34	-0.37
202	SLU 39	-29	1	5278	-5	1.4	-0.35
202	SLU 40	-29	-9	5282	-4.44	1.41	-0.39
202	SLU 41	-29	1	5278	-5	1.4	-0.35
202	SLU 42	-29	-9	5282	-4.44	1.41	-0.39
202	SLU 43	-43	-2	4513	-4.83	1.33	-0.33
202	SLU 44	-43	-18	4520	-3.89	1.33	-0.38
202	SLU 45	-43	-2	4513	-4.83	1.33	-0.33
202	SLU 46	-43	-11	4517	-4.27	1.33	-0.36
202	SLU 47	-43	-18	4520	-3.89	1.33	-0.38



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
202	SLU 48	-43	-2	4513		-4.83	1.33	-0.33
202	SLU 49	-43	-11	4517		-4.27	1.33	-0.36
202	SLU 50	-43	-2	4513		-4.83	1.33	-0.33
202	SLU 51	-43	-11	4517		-4.27	1.33	-0.36
202	SLU 52	-41	-17	5290		-4.51	1.49	-0.42
202	SLU 53	-40	-1	5283		-5.45	1.49	-0.37
202	SLU 54	-41	-10	5287		-4.89	1.49	-0.4
202	SLU 55	-41	-17	5290		-4.51	1.49	-0.42
202	SLU 56	-40	-1	5283		-5.45	1.49	-0.37
202	SLU 57	-41	-10	5287		-4.89	1.49	-0.4
202	SLU 58	-40	-1	5283		-5.45	1.49	-0.37
202	SLU 59	-41	-10	5287		-4.89	1.49	-0.4
202	SLU 60	-39	0	5614		-5.71	1.55	-0.38
202	SLU 61	-40	-10	5617		-5.15	1.56	-0.42
202	SLU 62	-39	0	5614		-5.71	1.55	-0.38
202	SLU 63	-40	-10	5617		-5.15	1.56	-0.42
202	SLU 64	-42	-1	5072		-5.15	1.45	-0.36
202	SLU 65	-42	-17	5078		-4.21	1.45	-0.42
202	SLU 66	-42	-1	5072		-5.15	1.45	-0.36
202	SLU 67	-42	-11	5076		-4.58	1.45	-0.4
202	SLU 68	-42	-17	5078		-4.21	1.45	-0.42
202	SLU 69	-42	-1	5072		-5.15	1.45	-0.36
202	SLU 70	-42	-11	5076		-4.58	1.45	-0.4
202	SLU 71	-42	-1	5072		-5.15	1.45	-0.36
202	SLU 72	-42	-11	5076		-4.58	1.45	-0.4
202	SLU 73	-40	-16	5849		-4.83	1.61	-0.46
202	SLU 74	-40	0	5842		-5.77	1.61	-0.4
202	SLU 75	-40	-10	5846		-5.2	1.61	-0.44
202	SLU 76	-40	-16	5849		-4.83	1.61	-0.46
202	SLU 77	-40	0	5842		-5.77	1.61	-0.4
202	SLU 78	-40	-10	5846		-5.2	1.61	-0.44
202	SLU 79	-40	0	5842		-5.77	1.61	-0.4
202	SLU 80	-40	-10	5846		-5.2	1.61	-0.44
202	SLU 81	-39	0	6172		-6.03	1.68	-0.42
202	SLU 82	-39	-9	6176		-5.47	1.68	-0.45
202	SLU 83	-39	0	6172		-6.03	1.68	-0.42
202	SLU 84	-39	-9	6176		-5.47	1.68	-0.45
202	SLE RA 1	-32	-1	3779		-3.89	1.09	-0.27
202	SLE RA 2	-33	-12	3783		-3.26	1.09	-0.31
202	SLE RA 3	-32	-1	3779		-3.89	1.09	-0.27
202	SLE RA 4	-32	-7	3781		-3.51	1.09	-0.29
202	SLE RA 5	-33	-12	3783		-3.26	1.09	-0.31
202	SLE RA 6	-32	-1	3779		-3.89	1.09	-0.27
202	SLE RA 7	-32	-7	3781		-3.51	1.09	-0.29
202	SLE RA 8	-32	-1	3779		-3.89	1.09	-0.27
202	SLE RA 9	-32	-7	3781		-3.51	1.09	-0.29
202	SLE RA 10	-31	-11	4296		-3.68	1.2	-0.34
202	SLE RA 11	-31	0	4292		-4.3	1.19	-0.3
202	SLE RA 12	-31	-7	4295		-3.93	1.2	-0.32
202	SLE RA 13	-31	-11	4296		-3.68	1.2	-0.34
202	SLE RA 14	-31	0	4292		-4.3	1.19	-0.3
202	SLE RA 15	-31	-7	4295		-3.93	1.2	-0.32
202	SLE RA 16	-31	0	4292		-4.3	1.19	-0.3
202	SLE RA 17	-31	-7	4295		-3.93	1.2	-0.32
202	SLE RA 18	-30	0	4512		-4.48	1.24	-0.31
202	SLE RA 19	-30	-6	4515		-4.1	1.24	-0.33
202	SLE RA 20	-30	0	4512		-4.48	1.24	-0.31
202	SLE RA 21	-30	-6	4515		-4.1	1.24	-0.33
202	SLE FR 1	-32	-1	3779		-3.89	1.09	-0.27
202	SLE FR 2	-32	-3	3780		-3.77	1.09	-0.28
202	SLE FR 3	-32	-1	3779		-3.89	1.09	-0.27
202	SLE FR 4	-32	-3	4000		-3.94	1.13	-0.29
202	SLE FR 5	-32	-1	3999		-4.07	1.13	-0.28
202	SLE FR 6	-31	-1	4146		-4.19	1.16	-0.29
202	SLE QP 1	-32	-1	3779		-3.89	1.09	-0.27
202	SLE QP 2	-32	-1	3999		-4.07	1.13	-0.28
202	SLD 1	262	101	4143		-10.83	2.13	-0.15
202	SLD 2	262	84	4143		-10.67	2.13	0.47
202	SLD 3	255	-62	4127		0.89	2.03	-0.76
202	SLD 4	255	-79	4127		1.06	2.03	-0.14
202	SLD 5	66	283	4067		-23.94	1.59	0.47
202	SLD 6	66	266	4067		-23.77	1.59	1.11
202	SLD 7	44	-261	4012		15.14	1.25	-1.59
202	SLD 8	44	-278	4012		15.32	1.25	-0.95
202	SLD 9	-108	276	3986		-23.45	1.02	0.38
202	SLD 10	-108	259	3985		-23.28	1.02	1.03
202	SLD 11	-130	-268	3931		15.64	0.68	-1.68
202	SLD 12	-130	-285	3931		15.81	0.68	-1.03
202	SLD 13	-319	77	3871		-9.19	0.24	-0.42
202	SLD 14	-319	61	3871		-9.03	0.24	0.2
202	SLD 15	-325	-86	3855		2.53	0.14	-1.04
202	SLD 16	-325	-102	3855		2.7	0.14	-0.42
202	SLV 1	637	236	4330		-19.84	3.41	0.04
202	SLV 2	637	198	4329		-19.46	3.41	1.47
202	SLV 3	622	-145	4288		7.54	3.16	-1.4
202	SLV 4	622	-183	4288		7.92	3.15	0.02
202	SLV 5	192	663	4161		-50.47	2.2	1.47
202	SLV 6	192	623	4161		-50.07	2.2	2.97
202	SLV 7	141	-608	4023		40.8	1.36	-3.35
202	SLV 8	141	-648	4023		41.2	1.36	-1.85
202	SLV 9	-205	647	3975		-49.34	0.91	1.28



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
202	SLV 10	-205	607	3975	-48.93	0.91	2.78
202	SLV 11	-255	-624	3837	41.93	0.07	-3.54
202	SLV 12	-255	-664	3837	42.34	0.07	-2.03
202	SLV 13	-685	182	3710	-16.06	-0.89	-0.59
202	SLV 14	-685	144	3709	-15.68	-0.89	0.84
202	SLV 15	-700	-199	3668	11.32	-1.14	-2.03
202	SLV 16	-700	-237	3668	11.7	-1.14	-0.61
202	CRTFP Ux+	0	0	0	0	0	0
202	CRTFP Ux-	0	0	0	0	0	0
202	CRTFP Uy+	0	0	0	0	0	0
202	CRTFP Uy-	0	0	0	0	0	0
203	SLU 1	-31	-3	3585	-3.84	1.14	-0.27
203	SLU 2	-31	-19	3591	-2.88	1.15	-0.33
203	SLU 3	-31	-3	3585	-3.84	1.14	-0.27
203	SLU 4	-31	-12	3589	-3.26	1.15	-0.31
203	SLU 5	-31	-19	3591	-2.88	1.15	-0.33
203	SLU 6	-31	-3	3585	-3.84	1.14	-0.27
203	SLU 7	-31	-12	3589	-3.26	1.15	-0.31
203	SLU 8	-31	-3	3585	-3.84	1.14	-0.27
203	SLU 9	-31	-12	3589	-3.26	1.15	-0.31
203	SLU 10	-29	-18	4356	-3.47	1.37	-0.37
203	SLU 11	-29	-2	4349	-4.43	1.36	-0.31
203	SLU 12	-29	-12	4353	-3.85	1.36	-0.35
203	SLU 13	-29	-18	4356	-3.47	1.37	-0.37
203	SLU 14	-29	-2	4349	-4.43	1.36	-0.31
203	SLU 15	-29	-12	4353	-3.85	1.36	-0.35
203	SLU 16	-29	-2	4349	-4.43	1.36	-0.31
203	SLU 17	-29	-12	4353	-3.85	1.36	-0.35
203	SLU 18	-28	-1	4677	-4.69	1.45	-0.32
203	SLU 19	-28	-11	4681	-4.11	1.46	-0.36
203	SLU 20	-28	-1	4677	-4.69	1.45	-0.32
203	SLU 21	-28	-11	4681	-4.11	1.46	-0.36
203	SLU 22	-30	-2	4139	-4.14	1.31	-0.3
203	SLU 23	-30	-19	4146	-3.18	1.31	-0.37
203	SLU 24	-30	-2	4139	-4.14	1.31	-0.3
203	SLU 25	-30	-12	4143	-3.56	1.31	-0.34
203	SLU 26	-30	-19	4146	-3.18	1.31	-0.37
203	SLU 27	-30	-2	4139	-4.14	1.31	-0.3
203	SLU 28	-30	-12	4143	-3.56	1.31	-0.34
203	SLU 29	-30	-2	4139	-4.14	1.31	-0.3
203	SLU 30	-30	-12	4143	-3.56	1.31	-0.34
203	SLU 31	-28	-18	4910	-3.77	1.53	-0.41
203	SLU 32	-28	-1	4904	-4.73	1.52	-0.34
203	SLU 33	-28	-11	4907	-4.16	1.53	-0.38
203	SLU 34	-28	-18	4910	-3.77	1.53	-0.41
203	SLU 35	-28	-1	4904	-4.73	1.52	-0.34
203	SLU 36	-28	-11	4907	-4.16	1.53	-0.38
203	SLU 37	-28	-1	4904	-4.73	1.52	-0.34
203	SLU 38	-28	-11	4907	-4.16	1.53	-0.38
203	SLU 39	-27	-1	5231	-4.99	1.62	-0.36
203	SLU 40	-27	-11	5235	-4.41	1.62	-0.4
203	SLU 41	-27	-1	5231	-4.99	1.62	-0.36
203	SLU 42	-27	-11	5235	-4.41	1.62	-0.4
203	SLU 43	-41	-3	4471	-4.89	1.43	-0.33
203	SLU 44	-41	-20	4477	-3.93	1.43	-0.4
203	SLU 45	-41	-3	4471	-4.89	1.43	-0.33
203	SLU 46	-41	-13	4474	-4.31	1.43	-0.37
203	SLU 47	-41	-20	4477	-3.93	1.43	-0.4
203	SLU 48	-41	-3	4471	-4.89	1.43	-0.33
203	SLU 49	-41	-13	4474	-4.31	1.43	-0.37
203	SLU 50	-41	-3	4471	-4.89	1.43	-0.33
203	SLU 51	-41	-13	4474	-4.31	1.43	-0.37
203	SLU 52	-39	-19	5241	-4.52	1.65	-0.44
203	SLU 53	-38	-3	5235	-5.48	1.65	-0.37
203	SLU 54	-38	-12	5239	-4.9	1.65	-0.42
203	SLU 55	-39	-19	5241	-4.52	1.65	-0.44
203	SLU 56	-38	-3	5235	-5.48	1.65	-0.37
203	SLU 57	-38	-12	5239	-4.9	1.65	-0.42
203	SLU 58	-38	-3	5235	-5.48	1.65	-0.37
203	SLU 59	-38	-12	5239	-4.9	1.65	-0.42
203	SLU 60	-37	-2	5562	-5.73	1.74	-0.39
203	SLU 61	-37	-12	5566	-5.16	1.74	-0.43
203	SLU 62	-37	-2	5562	-5.73	1.74	-0.39
203	SLU 63	-37	-12	5566	-5.16	1.74	-0.43
203	SLU 64	-40	-3	5025	-5.19	1.59	-0.37
203	SLU 65	-40	-20	5031	-4.23	1.6	-0.44
203	SLU 66	-40	-3	5025	-5.19	1.59	-0.37
203	SLU 67	-40	-13	5029	-4.61	1.6	-0.41
203	SLU 68	-40	-20	5031	-4.23	1.6	-0.44
203	SLU 69	-40	-3	5025	-5.19	1.59	-0.37
203	SLU 70	-40	-13	5029	-4.61	1.6	-0.41
203	SLU 71	-40	-3	5025	-5.19	1.59	-0.37
203	SLU 72	-40	-13	5029	-4.61	1.6	-0.41
203	SLU 73	-38	-19	5795	-4.82	1.82	-0.48
203	SLU 74	-37	-2	5789	-5.78	1.81	-0.41
203	SLU 75	-38	-12	5793	-5.21	1.81	-0.45
203	SLU 76	-38	-19	5795	-4.82	1.82	-0.48
203	SLU 77	-37	-2	5789	-5.78	1.81	-0.41
203	SLU 78	-38	-12	5793	-5.21	1.81	-0.45
203	SLU 79	-37	-2	5789	-5.78	1.81	-0.41
203	SLU 80	-38	-12	5793	-5.21	1.81	-0.45



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
203	SLU 81	-36	-2	6117	-6.04	1.9	-0.43
203	SLU 82	-37	-12	6120	-5.46	1.91	-0.47
203	SLU 83	-36	-2	6117	-6.04	1.9	-0.43
203	SLU 84	-37	-12	6120	-5.46	1.91	-0.47
203	SLE RA 1	-31	-2	3743	-3.93	1.19	-0.28
203	SLE RA 2	-31	-13	3748	-3.28	1.19	-0.32
203	SLE RA 3	-31	-2	3743	-3.93	1.19	-0.28
203	SLE RA 4	-31	-9	3746	-3.54	1.19	-0.3
203	SLE RA 5	-31	-13	3748	-3.28	1.19	-0.32
203	SLE RA 6	-31	-2	3743	-3.93	1.19	-0.28
203	SLE RA 7	-31	-9	3746	-3.54	1.19	-0.3
203	SLE RA 8	-31	-2	3743	-3.93	1.19	-0.28
203	SLE RA 9	-31	-9	3746	-3.54	1.19	-0.3
203	SLE RA 10	-29	-13	4257	-3.68	1.34	-0.35
203	SLE RA 11	-29	-2	4253	-4.32	1.33	-0.3
203	SLE RA 12	-29	-8	4255	-3.94	1.34	-0.33
203	SLE RA 13	-29	-13	4257	-3.68	1.34	-0.35
203	SLE RA 14	-29	-2	4253	-4.32	1.33	-0.3
203	SLE RA 15	-29	-8	4255	-3.94	1.34	-0.33
203	SLE RA 16	-29	-2	4253	-4.32	1.33	-0.3
203	SLE RA 17	-29	-8	4255	-3.94	1.34	-0.33
203	SLE RA 18	-29	-2	4471	-4.49	1.4	-0.31
203	SLE RA 19	-29	-8	4474	-4.11	1.4	-0.34
203	SLE RA 20	-29	-2	4471	-4.49	1.4	-0.31
203	SLE RA 21	-29	-8	4474	-4.11	1.4	-0.34
203	SLE FR 1	-31	-2	3743	-3.93	1.19	-0.28
203	SLE FR 2	-31	-5	3744	-3.8	1.19	-0.28
203	SLE FR 3	-31	-2	3743	-3.93	1.19	-0.28
203	SLE FR 4	-30	-4	3963	-3.97	1.25	-0.3
203	SLE FR 5	-30	-2	3962	-4.1	1.25	-0.29
203	SLE FR 6	-30	-2	4107	-4.21	1.29	-0.29
203	SLE QP 1	-31	-2	3743	-3.93	1.19	-0.28
203	SLE QP 2	-30	-2	3962	-4.1	1.25	-0.29
203	SLD 1	263	100	4075	-10.95	2.28	-0.11
203	SLD 2	263	86	4075	-10.8	2.28	0.52
203	SLD 3	257	-67	4061	0.97	2.16	-0.82
203	SLD 4	257	-81	4061	1.11	2.16	-0.2
203	SLD 5	68	286	4017	-24.28	1.74	0.63
203	SLD 6	68	272	4017	-24.12	1.74	1.27
203	SLD 7	46	-270	3971	15.44	1.34	-1.77
203	SLD 8	46	-284	3970	15.59	1.34	-1.12
203	SLD 9	-106	279	3953	-23.78	1.16	0.55
203	SLD 10	-106	265	3953	-23.63	1.16	1.19
203	SLD 11	-128	-277	3907	15.93	0.76	-1.85
203	SLD 12	-128	-291	3907	16.08	0.76	-1.2
203	SLD 13	-317	76	3862	-9.3	0.35	-0.37
203	SLD 14	-317	63	3862	-9.16	0.35	0.25
203	SLD 15	-323	-91	3848	2.61	0.23	-1.09
203	SLD 16	-323	-104	3848	2.76	0.23	-0.47
203	SLV 1	638	235	4222	-20.07	3.61	0.14
203	SLV 2	638	204	4222	-19.73	3.6	1.57
203	SLV 3	622	-155	4187	7.75	3.3	-1.53
203	SLV 4	623	-186	4187	8.09	3.3	-0.11
203	SLV 5	193	672	4093	-51.21	2.42	1.85
203	SLV 6	194	639	4093	-50.85	2.41	3.35
203	SLV 7	142	-628	3976	41.53	1.41	-3.74
203	SLV 8	143	-660	3976	41.88	1.4	-2.24
203	SLV 9	-203	655	3947	-50.07	1.1	1.67
203	SLV 10	-203	623	3947	-49.72	1.1	3.17
203	SLV 11	-254	-644	3831	42.66	0.09	-3.93
203	SLV 12	-254	-676	3831	43.02	0.08	-2.42
203	SLV 13	-683	181	3737	-16.28	-0.79	-0.47
203	SLV 14	-683	150	3737	-15.94	-0.8	0.96
203	SLV 15	-698	-209	3702	11.54	-1.1	-2.14
203	SLV 16	-698	-239	3702	11.88	-1.1	-0.72
203	CRTFP Ux+	0	0	0	0	0	0
203	CRTFP Ux-	0	0	0	0	0	0
203	CRTFP Uy+	0	0	0	0	0	0
203	CRTFP Uy-	0	0	0	0	0	0
204	SLU 1	-29	-4	3548	-3.87	1.22	-0.26
204	SLU 2	-30	-21	3554	-2.88	1.22	-0.32
204	SLU 3	-29	-4	3548	-3.87	1.22	-0.26
204	SLU 4	-29	-14	3552	-3.28	1.22	-0.3
204	SLU 5	-30	-21	3554	-2.88	1.22	-0.32
204	SLU 6	-29	-4	3548	-3.87	1.22	-0.26
204	SLU 7	-29	-14	3552	-3.28	1.22	-0.3
204	SLU 8	-29	-4	3548	-3.87	1.22	-0.26
204	SLU 9	-29	-14	3552	-3.28	1.22	-0.3
204	SLU 10	-27	-20	4311	-3.44	1.49	-0.36
204	SLU 11	-27	-3	4305	-4.43	1.49	-0.29
204	SLU 12	-27	-13	4309	-3.84	1.49	-0.33
204	SLU 13	-27	-20	4311	-3.44	1.49	-0.36
204	SLU 14	-27	-3	4305	-4.43	1.49	-0.29
204	SLU 15	-27	-13	4309	-3.84	1.49	-0.33
204	SLU 16	-27	-3	4305	-4.43	1.49	-0.29
204	SLU 17	-27	-13	4309	-3.84	1.49	-0.33
204	SLU 18	-26	-3	4629	-4.67	1.6	-0.31
204	SLU 19	-26	-13	4633	-4.08	1.6	-0.35
204	SLU 20	-26	-3	4629	-4.67	1.6	-0.31
204	SLU 21	-26	-13	4633	-4.08	1.6	-0.35
204	SLU 22	-28	-4	4097	-4.16	1.41	-0.29



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
204	SLU 23	-29	-21	4103	-3.17	1.42	-0.35
204	SLU 24	-28	-4	4097	-4.16	1.41	-0.29
204	SLU 25	-29	-14	4101	-3.56	1.42	-0.33
204	SLU 26	-29	-21	4103	-3.17	1.42	-0.35
204	SLU 27	-28	-4	4097	-4.16	1.41	-0.29
204	SLU 28	-29	-14	4101	-3.56	1.42	-0.33
204	SLU 29	-28	-4	4097	-4.16	1.41	-0.29
204	SLU 30	-29	-14	4101	-3.56	1.42	-0.33
204	SLU 31	-26	-20	4860	-3.73	1.69	-0.39
204	SLU 32	-26	-3	4854	-4.72	1.68	-0.32
204	SLU 33	-26	-13	4857	-4.12	1.69	-0.36
204	SLU 34	-26	-20	4860	-3.73	1.69	-0.39
204	SLU 35	-26	-3	4854	-4.72	1.68	-0.32
204	SLU 36	-26	-13	4857	-4.12	1.69	-0.36
204	SLU 37	-26	-3	4854	-4.72	1.68	-0.32
204	SLU 38	-26	-13	4857	-4.12	1.69	-0.36
204	SLU 39	-25	-3	5178	-4.96	1.8	-0.34
204	SLU 40	-25	-13	5181	-4.36	1.8	-0.38
204	SLU 41	-25	-3	5178	-4.96	1.8	-0.34
204	SLU 42	-25	-13	5181	-4.36	1.8	-0.38
204	SLU 43	-38	-5	4425	-4.93	1.52	-0.32
204	SLU 44	-39	-22	4431	-3.95	1.52	-0.39
204	SLU 45	-38	-5	4425	-4.93	1.52	-0.32
204	SLU 46	-39	-15	4428	-4.34	1.52	-0.36
204	SLU 47	-39	-22	4431	-3.95	1.52	-0.39
204	SLU 48	-38	-5	4425	-4.93	1.52	-0.32
204	SLU 49	-39	-15	4428	-4.34	1.52	-0.36
204	SLU 50	-38	-5	4425	-4.93	1.52	-0.32
204	SLU 51	-39	-15	4428	-4.34	1.52	-0.36
204	SLU 52	-36	-21	5187	-4.51	1.79	-0.43
204	SLU 53	-36	-5	5181	-5.5	1.78	-0.36
204	SLU 54	-36	-15	5185	-4.9	1.79	-0.4
204	SLU 55	-36	-21	5187	-4.51	1.79	-0.43
204	SLU 56	-36	-5	5181	-5.5	1.78	-0.36
204	SLU 57	-36	-15	5185	-4.9	1.79	-0.4
204	SLU 58	-36	-5	5181	-5.5	1.78	-0.36
204	SLU 59	-36	-15	5185	-4.9	1.79	-0.4
204	SLU 60	-35	-4	5506	-5.74	1.9	-0.37
204	SLU 61	-35	-14	5509	-5.14	1.9	-0.42
204	SLU 62	-35	-4	5506	-5.74	1.9	-0.37
204	SLU 63	-35	-14	5509	-5.14	1.9	-0.42
204	SLU 64	-38	-5	4973	-5.22	1.71	-0.35
204	SLU 65	-38	-22	4979	-4.23	1.72	-0.42
204	SLU 66	-38	-5	4973	-5.22	1.71	-0.35
204	SLU 67	-38	-15	4977	-4.63	1.72	-0.39
204	SLU 68	-38	-22	4979	-4.23	1.72	-0.42
204	SLU 69	-38	-5	4973	-5.22	1.71	-0.35
204	SLU 70	-38	-15	4977	-4.63	1.72	-0.39
204	SLU 71	-38	-5	4973	-5.22	1.71	-0.35
204	SLU 72	-38	-15	4977	-4.63	1.72	-0.39
204	SLU 73	-35	-21	5736	-4.79	1.99	-0.46
204	SLU 74	-35	-4	5730	-5.78	1.98	-0.39
204	SLU 75	-35	-15	5734	-5.19	1.98	-0.43
204	SLU 76	-35	-21	5736	-4.79	1.99	-0.46
204	SLU 77	-35	-4	5730	-5.78	1.98	-0.39
204	SLU 78	-35	-15	5734	-5.19	1.98	-0.43
204	SLU 79	-35	-4	5730	-5.78	1.98	-0.39
204	SLU 80	-35	-15	5734	-5.19	1.98	-0.43
204	SLU 81	-34	-4	6054	-6.02	2.09	-0.41
204	SLU 82	-34	-14	6058	-5.43	2.1	-0.45
204	SLU 83	-34	-4	6054	-6.02	2.09	-0.41
204	SLU 84	-34	-14	6058	-5.43	2.1	-0.45
204	SLE RA 1	-29	-4	3705	-3.95	1.27	-0.26
204	SLE RA 2	-29	-15	3709	-3.29	1.28	-0.31
204	SLE RA 3	-29	-4	3705	-3.95	1.27	-0.26
204	SLE RA 4	-29	-11	3707	-3.56	1.28	-0.29
204	SLE RA 5	-29	-15	3709	-3.29	1.28	-0.31
204	SLE RA 6	-29	-4	3705	-3.95	1.27	-0.26
204	SLE RA 7	-29	-11	3707	-3.56	1.28	-0.29
204	SLE RA 8	-29	-4	3705	-3.95	1.27	-0.26
204	SLE RA 9	-29	-11	3707	-3.56	1.28	-0.29
204	SLE RA 10	-28	-15	4213	-3.67	1.46	-0.33
204	SLE RA 11	-27	-4	4209	-4.33	1.45	-0.29
204	SLE RA 12	-28	-10	4212	-3.93	1.45	-0.32
204	SLE RA 13	-28	-15	4213	-3.67	1.46	-0.33
204	SLE RA 14	-27	-4	4209	-4.33	1.45	-0.29
204	SLE RA 15	-28	-10	4212	-3.93	1.45	-0.32
204	SLE RA 16	-27	-4	4209	-4.33	1.45	-0.29
204	SLE RA 17	-28	-10	4212	-3.93	1.45	-0.32
204	SLE RA 18	-27	-3	4426	-4.49	1.53	-0.3
204	SLE RA 19	-27	-10	4428	-4.09	1.53	-0.33
204	SLE RA 20	-27	-3	4426	-4.49	1.53	-0.3
204	SLE RA 21	-27	-10	4428	-4.09	1.53	-0.33
204	SLE FR 1	-29	-4	3705	-3.95	1.27	-0.26
204	SLE FR 2	-29	-6	3706	-3.82	1.28	-0.27
204	SLE FR 3	-29	-4	3705	-3.95	1.27	-0.26
204	SLE FR 4	-28	-6	3922	-3.98	1.35	-0.28
204	SLE FR 5	-28	-4	3921	-4.11	1.35	-0.27
204	SLE FR 6	-28	-4	4065	-4.22	1.4	-0.28
204	SLE QP 1	-29	-4	3705	-3.95	1.27	-0.26
204	SLE QP 2	-28	-4	3921	-4.11	1.35	-0.27



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
204	SLD 1	264	98	4003	-11.05	2.39	-0.11
204	SLD 2	265	88	4003	-10.93	2.39	0.53
204	SLD 3	258	-72	3992	1.05	2.26	-0.83
204	SLD 4	258	-82	3992	1.18	2.26	-0.19
204	SLD 5	69	290	3963	-24.6	1.86	0.63
204	SLD 6	70	279	3963	-24.47	1.86	1.3
204	SLD 7	47	-280	3925	15.75	1.43	-1.78
204	SLD 8	47	-290	3925	15.88	1.43	-1.11
204	SLD 9	-104	283	3917	-24.11	1.28	0.56
204	SLD 10	-104	272	3917	-23.98	1.27	1.23
204	SLD 11	-126	-287	3879	16.24	0.84	-1.85
204	SLD 12	-126	-297	3879	16.38	0.84	-1.18
204	SLD 13	-315	75	3850	-9.4	0.44	-0.36
204	SLD 14	-315	65	3850	-9.28	0.44	0.28
204	SLD 15	-321	-96	3839	2.7	0.31	-1.08
204	SLD 16	-321	-106	3839	2.83	0.31	-0.44
204	SLV 1	639	234	4110	-20.29	3.75	0.12
204	SLV 2	639	211	4110	-20	3.74	1.6
204	SLV 3	623	-165	4081	7.98	3.42	-1.57
204	SLV 4	623	-188	4081	8.27	3.41	-0.09
204	SLV 5	195	681	4021	-51.95	2.57	1.85
204	SLV 6	195	657	4021	-51.64	2.56	3.41
204	SLV 7	144	-648	3926	42.28	1.48	-3.78
204	SLV 8	144	-673	3926	42.58	1.47	-2.23
204	SLV 9	-201	665	3916	-50.81	1.23	1.68
204	SLV 10	-201	641	3916	-50.5	1.23	3.23
204	SLV 11	-252	-664	3822	43.41	0.14	-3.96
204	SLV 12	-252	-689	3821	43.72	0.13	-2.4
204	SLV 13	-680	181	3761	-16.5	-0.71	-0.46
204	SLV 14	-680	157	3761	-16.2	-0.72	1.02
204	SLV 15	-695	-218	3733	11.77	-1.04	-2.15
204	SLV 16	-695	-242	3733	12.07	-1.04	-0.67
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
205	SLU 1	-28	-5	3510	-3.9	1.19	-0.23
205	SLU 2	-28	-22	3516	-2.89	1.19	-0.28
205	SLU 3	-28	-5	3510	-3.9	1.19	-0.23
205	SLU 4	-28	-16	3514	-3.29	1.19	-0.26
205	SLU 5	-28	-22	3516	-2.89	1.19	-0.28
205	SLU 6	-28	-5	3510	-3.9	1.19	-0.23
205	SLU 7	-28	-16	3514	-3.29	1.19	-0.26
205	SLU 8	-28	-5	3510	-3.9	1.19	-0.23
205	SLU 9	-28	-16	3514	-3.29	1.19	-0.26
205	SLU 10	-25	-22	4265	-3.41	1.46	-0.31
205	SLU 11	-25	-5	4259	-4.43	1.46	-0.26
205	SLU 12	-25	-15	4262	-3.82	1.46	-0.29
205	SLU 13	-25	-22	4265	-3.41	1.46	-0.31
205	SLU 14	-25	-5	4259	-4.43	1.46	-0.26
205	SLU 15	-25	-15	4262	-3.82	1.46	-0.29
205	SLU 16	-25	-5	4259	-4.43	1.46	-0.26
205	SLU 17	-25	-15	4262	-3.82	1.46	-0.29
205	SLU 18	-24	-5	4579	-4.65	1.57	-0.27
205	SLU 19	-24	-15	4583	-4.04	1.58	-0.3
205	SLU 20	-24	-5	4579	-4.65	1.57	-0.27
205	SLU 21	-24	-15	4583	-4.04	1.58	-0.3
205	SLU 22	-27	-5	4053	-4.16	1.38	-0.25
205	SLU 23	-27	-22	4059	-3.15	1.39	-0.31
205	SLU 24	-27	-5	4053	-4.16	1.38	-0.25
205	SLU 25	-27	-16	4056	-3.55	1.39	-0.29
205	SLU 26	-27	-22	4059	-3.15	1.39	-0.31
205	SLU 27	-27	-5	4053	-4.16	1.38	-0.25
205	SLU 28	-27	-16	4056	-3.55	1.39	-0.29
205	SLU 29	-27	-5	4053	-4.16	1.38	-0.25
205	SLU 30	-27	-16	4056	-3.55	1.39	-0.29
205	SLU 31	-25	-22	4807	-3.68	1.66	-0.34
205	SLU 32	-24	-5	4801	-4.69	1.65	-0.28
205	SLU 33	-24	-15	4805	-4.08	1.66	-0.31
205	SLU 34	-25	-22	4807	-3.68	1.66	-0.34
205	SLU 35	-24	-5	4801	-4.69	1.65	-0.28
205	SLU 36	-24	-15	4805	-4.08	1.66	-0.31
205	SLU 37	-24	-5	4801	-4.69	1.65	-0.28
205	SLU 38	-24	-15	4805	-4.08	1.66	-0.31
205	SLU 39	-23	-5	5122	-4.92	1.77	-0.29
205	SLU 40	-23	-15	5125	-4.31	1.77	-0.32
205	SLU 41	-23	-5	5122	-4.92	1.77	-0.29
205	SLU 42	-23	-15	5125	-4.31	1.77	-0.32
205	SLU 43	-36	-7	4378	-4.98	1.48	-0.29
205	SLU 44	-37	-24	4384	-3.96	1.48	-0.35
205	SLU 45	-36	-7	4378	-4.98	1.48	-0.29
205	SLU 46	-36	-17	4381	-4.37	1.48	-0.32
205	SLU 47	-37	-24	4384	-3.96	1.48	-0.35
205	SLU 48	-36	-7	4378	-4.98	1.48	-0.29
205	SLU 49	-36	-17	4381	-4.37	1.48	-0.32
205	SLU 50	-36	-7	4378	-4.98	1.48	-0.29
205	SLU 51	-36	-17	4381	-4.37	1.48	-0.32
205	SLU 52	-34	-23	5132	-4.49	1.75	-0.37
205	SLU 53	-34	-6	5126	-5.5	1.75	-0.32
205	SLU 54	-34	-17	5129	-4.9	1.75	-0.35
205	SLU 55	-34	-23	5132	-4.49	1.75	-0.37



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
205	SLU 56	-34	-6	5126	-5.5	1.75	-0.32
205	SLU 57	-34	-17	5129	-4.9	1.75	-0.35
205	SLU 58	-34	-6	5126	-5.5	1.75	-0.32
205	SLU 59	-34	-17	5129	-4.9	1.75	-0.35
205	SLU 60	-33	-6	5446	-5.73	1.86	-0.33
205	SLU 61	-33	-16	5450	-5.12	1.86	-0.36
205	SLU 62	-33	-6	5446	-5.73	1.86	-0.33
205	SLU 63	-33	-16	5450	-5.12	1.86	-0.36
205	SLU 64	-35	-7	4920	-5.24	1.67	-0.31
205	SLU 65	-36	-24	4926	-4.23	1.68	-0.37
205	SLU 66	-35	-7	4920	-5.24	1.67	-0.31
205	SLU 67	-35	-17	4924	-4.63	1.67	-0.35
205	SLU 68	-36	-24	4926	-4.23	1.68	-0.37
205	SLU 69	-35	-7	4920	-5.24	1.67	-0.31
205	SLU 70	-35	-17	4924	-4.63	1.67	-0.35
205	SLU 71	-35	-7	4920	-5.24	1.67	-0.31
205	SLU 72	-35	-17	4924	-4.63	1.67	-0.35
205	SLU 73	-33	-24	5674	-4.76	1.95	-0.4
205	SLU 74	-33	-6	5668	-5.77	1.94	-0.34
205	SLU 75	-33	-17	5672	-5.16	1.94	-0.37
205	SLU 76	-33	-24	5674	-4.76	1.95	-0.4
205	SLU 77	-33	-6	5668	-5.77	1.94	-0.34
205	SLU 78	-33	-17	5672	-5.16	1.94	-0.37
205	SLU 79	-33	-6	5668	-5.77	1.94	-0.34
205	SLU 80	-33	-17	5672	-5.16	1.94	-0.37
205	SLU 81	-32	-6	5989	-5.99	2.06	-0.35
205	SLU 82	-32	-16	5992	-5.39	2.06	-0.39
205	SLU 83	-32	-6	5989	-5.99	2.06	-0.35
205	SLU 84	-32	-16	5992	-5.39	2.06	-0.39
205	SLE RA 1	-27	-5	3665	-3.97	1.24	-0.24
205	SLE RA 2	-28	-17	3669	-3.3	1.25	-0.27
205	SLE RA 3	-27	-5	3665	-3.97	1.24	-0.24
205	SLE RA 4	-27	-12	3668	-3.57	1.24	-0.26
205	SLE RA 5	-28	-17	3669	-3.3	1.25	-0.27
205	SLE RA 6	-27	-5	3665	-3.97	1.24	-0.24
205	SLE RA 7	-27	-12	3668	-3.57	1.24	-0.26
205	SLE RA 8	-27	-5	3665	-3.97	1.24	-0.24
205	SLE RA 9	-27	-12	3668	-3.57	1.24	-0.26
205	SLE RA 10	-26	-16	4168	-3.65	1.43	-0.29
205	SLE RA 11	-26	-5	4164	-4.33	1.42	-0.25
205	SLE RA 12	-26	-12	4167	-3.92	1.42	-0.28
205	SLE RA 13	-26	-16	4168	-3.65	1.43	-0.29
205	SLE RA 14	-26	-5	4164	-4.33	1.42	-0.25
205	SLE RA 15	-26	-12	4167	-3.92	1.42	-0.28
205	SLE RA 16	-26	-5	4164	-4.33	1.42	-0.25
205	SLE RA 17	-26	-12	4167	-3.92	1.42	-0.28
205	SLE RA 18	-25	-5	4378	-4.48	1.5	-0.26
205	SLE RA 19	-25	-12	4380	-4.07	1.5	-0.28
205	SLE RA 20	-25	-5	4378	-4.48	1.5	-0.26
205	SLE RA 21	-25	-12	4380	-4.07	1.5	-0.28
205	SLE FR 1	-27	-5	3665	-3.97	1.24	-0.24
205	SLE FR 2	-27	-8	3666	-3.84	1.24	-0.24
205	SLE FR 3	-27	-5	3665	-3.97	1.24	-0.24
205	SLE FR 4	-27	-7	3880	-3.99	1.32	-0.25
205	SLE FR 5	-27	-5	3879	-4.12	1.32	-0.24
205	SLE FR 6	-26	-5	4022	-4.23	1.37	-0.25
205	SLE QP 1	-27	-5	3665	-3.97	1.24	-0.24
205	SLE QP 2	-27	-5	3879	-4.12	1.32	-0.24
205	SLD 1	266	97	3921	-9.5	2.35	-0.4
205	SLD 2	266	90	3922	-9.39	2.34	0.29
205	SLD 3	259	-77	3931	2.8	2.22	-1.01
205	SLD 4	259	-84	3931	2.91	2.22	-0.32
205	SLD 5	71	293	3878	-24.44	1.82	0.39
205	SLD 6	71	286	3878	-24.33	1.81	1.1
205	SLD 7	49	-289	3909	16.58	1.4	-1.66
205	SLD 8	49	-296	3909	16.69	1.4	-0.94
205	SLD 9	-102	286	3849	-24.94	1.24	0.46
205	SLD 10	-102	279	3849	-24.83	1.24	1.17
205	SLD 11	-124	-296	3881	16.08	0.83	-1.59
205	SLD 12	-124	-303	3881	16.19	0.82	-0.87
205	SLD 13	-313	74	3827	-11.16	0.42	-0.16
205	SLD 14	-312	67	3828	-11.05	0.42	0.52
205	SLD 15	-319	-101	3837	1.14	0.29	-0.78
205	SLD 16	-319	-107	3837	1.25	0.29	-0.09
205	SLV 1	639	233	3975	-16.71	3.68	-0.58
205	SLV 2	639	218	3975	-16.46	3.67	1
205	SLV 3	624	-175	3998	12.02	3.37	-2.02
205	SLV 4	624	-190	3998	12.27	3.36	-0.44
205	SLV 5	196	690	3872	-51.57	2.51	1.24
205	SLV 6	196	674	3872	-51.31	2.5	2.9
205	SLV 7	145	-668	3950	44.21	1.46	-3.55
205	SLV 8	145	-684	3950	44.47	1.45	-1.88
205	SLV 9	-199	674	3808	-52.72	1.19	1.4
205	SLV 10	-199	658	3808	-52.46	1.18	3.06
205	SLV 11	-250	-684	3886	43.06	0.14	-3.39
205	SLV 12	-250	-701	3886	43.32	0.13	-1.73
205	SLV 13	-677	180	3760	-20.52	-0.72	-0.05
205	SLV 14	-677	164	3760	-20.27	-0.73	1.53
205	SLV 15	-693	-228	3784	8.21	-1.03	-1.49
205	SLV 16	-693	-243	3784	8.46	-1.04	0.09
205	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
205	CRTFP Ux-	0	0	0	0	0	0
205	CRTFP Uy+	0	0	0	0	0	0
205	CRTFP Uy-	0	0	0	0	0	0
206	SLU 1	-24	-6	3170	-3.59	55.75	-0.07
206	SLU 2	-24	-22	3175	-2.64	55.85	0.18
206	SLU 3	-24	-6	3170	-3.59	55.75	-0.07
206	SLU 4	-24	-15	3173	-3.02	55.81	0.08
206	SLU 5	-24	-22	3175	-2.64	55.85	0.18
206	SLU 6	-24	-6	3170	-3.59	55.75	-0.07
206	SLU 7	-24	-15	3173	-3.02	55.81	0.08
206	SLU 8	-24	-6	3170	-3.59	55.75	-0.07
206	SLU 9	-24	-15	3173	-3.02	55.81	0.08
206	SLU 10	-22	-21	3851	-3.09	67.72	0.17
206	SLU 11	-21	-5	3845	-4.04	67.63	-0.08
206	SLU 12	-22	-15	3849	-3.47	67.68	0.07
206	SLU 13	-22	-21	3851	-3.09	67.72	0.17
206	SLU 14	-21	-5	3845	-4.04	67.63	-0.08
206	SLU 15	-22	-15	3849	-3.47	67.68	0.07
206	SLU 16	-21	-5	3845	-4.04	67.63	-0.08
206	SLU 17	-22	-15	3849	-3.47	67.68	0.07
206	SLU 18	-20	-5	4135	-4.24	72.71	-0.09
206	SLU 19	-21	-15	4138	-3.67	72.77	0.06
206	SLU 20	-20	-5	4135	-4.24	72.71	-0.09
206	SLU 21	-21	-15	4138	-3.67	72.77	0.06
206	SLU 22	-23	-6	3660	-3.81	64.36	-0.07
206	SLU 23	-23	-22	3665	-2.86	64.45	0.17
206	SLU 24	-23	-6	3660	-3.81	64.36	-0.07
206	SLU 25	-23	-15	3663	-3.24	64.42	0.07
206	SLU 26	-23	-22	3665	-2.86	64.45	0.17
206	SLU 27	-23	-6	3660	-3.81	64.36	-0.07
206	SLU 28	-23	-15	3663	-3.24	64.42	0.07
206	SLU 29	-23	-6	3660	-3.81	64.36	-0.07
206	SLU 30	-23	-15	3663	-3.24	64.42	0.07
206	SLU 31	-21	-21	4340	-3.32	76.33	0.16
206	SLU 32	-20	-6	4335	-4.27	76.23	-0.09
206	SLU 33	-21	-15	4338	-3.7	76.29	0.06
206	SLU 34	-21	-21	4340	-3.32	76.33	0.16
206	SLU 35	-20	-6	4335	-4.27	76.23	-0.09
206	SLU 36	-21	-15	4338	-3.7	76.29	0.06
206	SLU 37	-20	-6	4335	-4.27	76.23	-0.09
206	SLU 38	-21	-15	4338	-3.7	76.29	0.06
206	SLU 39	-19	-5	4625	-4.46	81.32	-0.1
206	SLU 40	-20	-15	4628	-3.89	81.38	0.05
206	SLU 41	-19	-5	4625	-4.46	81.32	-0.1
206	SLU 42	-20	-15	4628	-3.89	81.38	0.05
206	SLU 43	-31	-7	3953	-4.59	69.53	-0.08
206	SLU 44	-31	-23	3958	-3.64	69.62	0.17
206	SLU 45	-31	-7	3953	-4.59	69.53	-0.08
206	SLU 46	-31	-17	3956	-4.02	69.59	0.07
206	SLU 47	-31	-23	3958	-3.64	69.62	0.17
206	SLU 48	-31	-7	3953	-4.59	69.53	-0.08
206	SLU 49	-31	-17	3956	-4.02	69.59	0.07
206	SLU 50	-31	-7	3953	-4.59	69.53	-0.08
206	SLU 51	-31	-17	3956	-4.02	69.59	0.07
206	SLU 52	-29	-23	4634	-4.09	81.5	0.15
206	SLU 53	-29	-7	4629	-5.04	81.4	-0.1
206	SLU 54	-29	-17	4632	-4.47	81.46	0.05
206	SLU 55	-29	-23	4634	-4.09	81.5	0.15
206	SLU 56	-29	-7	4629	-5.04	81.4	-0.1
206	SLU 57	-29	-17	4632	-4.47	81.46	0.05
206	SLU 58	-29	-7	4629	-5.04	81.4	-0.1
206	SLU 59	-29	-17	4632	-4.47	81.46	0.05
206	SLU 60	-28	-7	4918	-5.24	86.49	-0.11
206	SLU 61	-28	-16	4921	-4.67	86.54	0.04
206	SLU 62	-28	-7	4918	-5.24	86.49	-0.11
206	SLU 63	-28	-16	4921	-4.67	86.54	0.04
206	SLU 64	-30	-8	4443	-4.82	78.14	-0.09
206	SLU 65	-30	-23	4448	-3.86	78.23	0.16
206	SLU 66	-30	-8	4443	-4.82	78.14	-0.09
206	SLU 67	-30	-17	4446	-4.24	78.19	0.06
206	SLU 68	-30	-23	4448	-3.86	78.23	0.16
206	SLU 69	-30	-8	4443	-4.82	78.14	-0.09
206	SLU 70	-30	-17	4446	-4.24	78.19	0.06
206	SLU 71	-30	-8	4443	-4.82	78.14	-0.09
206	SLU 72	-30	-17	4446	-4.24	78.19	0.06
206	SLU 73	-28	-23	5124	-4.32	90.1	0.14
206	SLU 74	-28	-7	5118	-5.27	90.01	-0.11
206	SLU 75	-28	-17	5121	-4.7	90.06	0.04
206	SLU 76	-28	-23	5124	-4.32	90.1	0.14
206	SLU 77	-28	-7	5118	-5.27	90.01	-0.11
206	SLU 78	-28	-17	5121	-4.7	90.06	0.04
206	SLU 79	-28	-7	5118	-5.27	90.01	-0.11
206	SLU 80	-28	-17	5121	-4.7	90.06	0.04
206	SLU 81	-27	-7	5408	-5.46	95.09	-0.12
206	SLU 82	-27	-17	5411	-4.89	95.15	0.03
206	SLU 83	-27	-7	5408	-5.46	95.09	-0.12
206	SLU 84	-27	-17	5411	-4.89	95.15	0.03
206	SLE RA 1	-23	-6	3310	-3.65	58.21	-0.07
206	SLE RA 2	-24	-16	3313	-3.02	58.28	0.1
206	SLE RA 3	-23	-6	3310	-3.65	58.21	-0.07
206	SLE RA 4	-24	-12	3312	-3.27	58.25	0.03



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
206	SLE RA 5	-24	-16	3313	-3.02	58.28	0.1
206	SLE RA 6	-23	-6	3310	-3.65	58.21	-0.07
206	SLE RA 7	-24	-12	3312	-3.27	58.25	0.03
206	SLE RA 8	-23	-6	3310	-3.65	58.21	-0.07
206	SLE RA 9	-24	-12	3312	-3.27	58.25	0.03
206	SLE RA 10	-22	-16	3764	-3.32	66.19	0.09
206	SLE RA 11	-22	-6	3760	-3.96	66.13	-0.08
206	SLE RA 12	-22	-12	3762	-3.58	66.16	0.02
206	SLE RA 13	-22	-16	3764	-3.32	66.19	0.09
206	SLE RA 14	-22	-6	3760	-3.96	66.13	-0.08
206	SLE RA 15	-22	-12	3762	-3.58	66.16	0.02
206	SLE RA 16	-22	-6	3760	-3.96	66.13	-0.08
206	SLE RA 17	-22	-12	3762	-3.58	66.16	0.02
206	SLE RA 18	-21	-6	3953	-4.08	69.52	-0.08
206	SLE RA 19	-21	-12	3955	-3.7	69.56	0.01
206	SLE RA 20	-21	-6	3953	-4.08	69.52	-0.08
206	SLE RA 21	-21	-12	3955	-3.7	69.56	0.01
206	SLE FR 1	-23	-6	3310	-3.65	58.21	-0.07
206	SLE FR 2	-23	-8	3311	-3.53	58.23	-0.04
206	SLE FR 3	-23	-6	3310	-3.65	58.21	-0.07
206	SLE FR 4	-23	-8	3504	-3.66	61.62	-0.04
206	SLE FR 5	-23	-6	3503	-3.78	61.6	-0.07
206	SLE FR 6	-22	-6	3632	-3.87	63.87	-0.08
206	SLE QP 1	-23	-6	3310	-3.65	58.21	-0.07
206	SLE QP 2	-23	-6	3503	-3.78	61.6	-0.07
206	SLD 1	243	87	3518	-8.78	62.67	-1.89
206	SLD 2	243	84	3518	-8.7	62.67	-1.18
206	SLD 3	237	-74	3526	2.66	62.51	0.58
206	SLD 4	237	-77	3526	2.74	62.51	1.3
206	SLD 5	66	268	3495	-22.66	62.17	-4.64
206	SLD 6	66	265	3496	-22.57	62.17	-3.89
206	SLD 7	46	-270	3522	15.47	61.63	3.61
206	SLD 8	46	-273	3522	15.55	61.63	4.36
206	SLD 9	-92	262	3484	-23.12	61.58	-4.5
206	SLD 10	-92	259	3484	-23.03	61.58	-3.76
206	SLD 11	-112	-277	3510	15.01	61.04	3.75
206	SLD 12	-112	-279	3510	15.09	61.04	4.49
206	SLD 13	-283	66	3479	-10.31	60.7	-1.45
206	SLD 14	-283	63	3480	-10.23	60.7	-0.73
206	SLD 15	-289	-96	3487	1.13	60.54	1.03
206	SLD 16	-289	-98	3488	1.21	60.54	1.74
206	SLV 1	583	210	3537	-15.47	64.06	-4.3
206	SLV 2	583	204	3538	-15.28	64.06	-2.65
206	SLV 3	569	-167	3557	11.24	63.66	1.49
206	SLV 4	569	-173	3557	11.43	63.66	3.13
206	SLV 5	180	634	3483	-47.87	62.95	-10.73
206	SLV 6	180	627	3484	-47.67	62.95	-9
206	SLV 7	133	-624	3549	41.16	61.61	8.55
206	SLV 8	134	-631	3549	41.36	61.61	10.28
206	SLV 9	-179	619	3457	-48.93	61.6	-10.43
206	SLV 10	-179	612	3457	-48.73	61.6	-8.7
206	SLV 11	-226	-638	3522	40.1	60.26	8.85
206	SLV 12	-226	-645	3523	40.3	60.26	10.58
206	SLV 13	-615	162	3448	-18.99	59.55	-3.28
206	SLV 14	-615	155	3449	-18.8	59.55	-1.63
206	SLV 15	-629	-215	3468	7.72	59.15	2.51
206	SLV 16	-629	-222	3468	7.91	59.15	4.15
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
208	SLU 1	-60	-18	8409	-9.47	-9.38	-0.42
208	SLU 2	-60	-60	8422	-8.03	-9.33	-0.48
208	SLU 3	-60	-18	8409	-9.47	-9.38	-0.42
208	SLU 4	-60	-43	8417	-8.61	-9.35	-0.45
208	SLU 5	-60	-60	8422	-8.03	-9.33	-0.48
208	SLU 6	-60	-18	8409	-9.47	-9.38	-0.42
208	SLU 7	-60	-43	8417	-8.61	-9.35	-0.45
208	SLU 8	-60	-18	8409	-9.47	-9.38	-0.42
208	SLU 9	-60	-43	8417	-8.61	-9.35	-0.45
208	SLU 10	-54	-59	10218	-9.55	-12.89	-0.46
208	SLU 11	-53	-17	10205	-10.98	-12.93	-0.41
208	SLU 12	-54	-42	10213	-10.12	-12.9	-0.44
208	SLU 13	-54	-59	10218	-9.55	-12.89	-0.46
208	SLU 14	-53	-17	10205	-10.98	-12.93	-0.41
208	SLU 15	-54	-42	10213	-10.12	-12.9	-0.44
208	SLU 16	-53	-17	10205	-10.98	-12.93	-0.41
208	SLU 17	-54	-42	10213	-10.12	-12.9	-0.44
208	SLU 18	-50	-16	10974	-11.63	-14.45	-0.4
208	SLU 19	-51	-42	10982	-10.77	-14.42	-0.43
208	SLU 20	-50	-16	10974	-11.63	-14.45	-0.4
208	SLU 21	-51	-42	10982	-10.77	-14.42	-0.43
208	SLU 22	-57	-18	9711	-10.42	-11.97	-0.42
208	SLU 23	-58	-60	9725	-8.98	-11.93	-0.48
208	SLU 24	-57	-18	9711	-10.42	-11.97	-0.42
208	SLU 25	-57	-44	9719	-9.56	-11.94	-0.45
208	SLU 26	-58	-60	9725	-8.98	-11.93	-0.48
208	SLU 27	-57	-18	9711	-10.42	-11.97	-0.42
208	SLU 28	-57	-44	9719	-9.56	-11.94	-0.45
208	SLU 29	-57	-18	9711	-10.42	-11.97	-0.42
208	SLU 30	-57	-44	9719	-9.56	-11.94	-0.45



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
208	SLU 31	-51	-60	11520	-10.5	-15.48	-0.46
208	SLU 32	-50	-17	11507	-11.93	-15.52	-0.41
208	SLU 33	-51	-43	11515	-11.07	-15.49	-0.44
208	SLU 34	-51	-60	11520	-10.5	-15.48	-0.46
208	SLU 35	-50	-17	11507	-11.93	-15.52	-0.41
208	SLU 36	-51	-43	11515	-11.07	-15.49	-0.44
208	SLU 37	-50	-17	11507	-11.93	-15.52	-0.41
208	SLU 38	-51	-43	11515	-11.07	-15.49	-0.44
208	SLU 39	-48	-17	12276	-12.58	-17.04	-0.4
208	SLU 40	-48	-42	12284	-11.72	-17.02	-0.43
208	SLU 41	-48	-17	12276	-12.58	-17.04	-0.4
208	SLU 42	-48	-42	12284	-11.72	-17.02	-0.43
208	SLU 43	-78	-23	10485	-11.98	-11.3	-0.55
208	SLU 44	-79	-65	10499	-10.55	-11.26	-0.6
208	SLU 45	-78	-23	10485	-11.98	-11.3	-0.55
208	SLU 46	-79	-48	10493	-11.12	-11.27	-0.58
208	SLU 47	-79	-65	10499	-10.55	-11.26	-0.6
208	SLU 48	-78	-23	10485	-11.98	-11.3	-0.55
208	SLU 49	-79	-48	10493	-11.12	-11.27	-0.58
208	SLU 50	-78	-23	10485	-11.98	-11.3	-0.55
208	SLU 51	-79	-48	10493	-11.12	-11.27	-0.58
208	SLU 52	-73	-64	12294	-12.07	-14.81	-0.59
208	SLU 53	-72	-22	12281	-13.5	-14.85	-0.53
208	SLU 54	-72	-47	12289	-12.64	-14.83	-0.57
208	SLU 55	-73	-64	12294	-12.07	-14.81	-0.59
208	SLU 56	-72	-22	12281	-13.5	-14.85	-0.53
208	SLU 57	-72	-47	12289	-12.64	-14.83	-0.57
208	SLU 58	-72	-22	12281	-13.5	-14.85	-0.53
208	SLU 59	-72	-47	12289	-12.64	-14.83	-0.57
208	SLU 60	-69	-22	13050	-14.15	-16.37	-0.53
208	SLU 61	-70	-47	13059	-13.29	-16.35	-0.56
208	SLU 62	-69	-22	13050	-14.15	-16.37	-0.53
208	SLU 63	-70	-47	13059	-13.29	-16.35	-0.56
208	SLU 64	-76	-23	11787	-12.93	-13.89	-0.55
208	SLU 65	-76	-66	11801	-11.5	-13.85	-0.6
208	SLU 66	-76	-23	11787	-12.93	-13.89	-0.55
208	SLU 67	-76	-49	11795	-12.07	-13.87	-0.58
208	SLU 68	-76	-66	11801	-11.5	-13.85	-0.6
208	SLU 69	-76	-23	11787	-12.93	-13.89	-0.55
208	SLU 70	-76	-49	11795	-12.07	-13.87	-0.58
208	SLU 71	-76	-23	11787	-12.93	-13.89	-0.55
208	SLU 72	-76	-49	11795	-12.07	-13.87	-0.58
208	SLU 73	-70	-65	13597	-13.01	-17.4	-0.59
208	SLU 74	-69	-22	13583	-14.45	-17.44	-0.53
208	SLU 75	-70	-48	13591	-13.59	-17.42	-0.57
208	SLU 76	-70	-65	13597	-13.01	-17.4	-0.59
208	SLU 77	-69	-22	13583	-14.45	-17.44	-0.53
208	SLU 78	-70	-48	13591	-13.59	-17.42	-0.57
208	SLU 79	-69	-22	13583	-14.45	-17.44	-0.53
208	SLU 80	-70	-48	13591	-13.59	-17.42	-0.57
208	SLU 81	-67	-22	14353	-15.1	-18.97	-0.53
208	SLU 82	-67	-48	14361	-14.24	-18.94	-0.56
208	SLU 83	-67	-22	14353	-15.1	-18.97	-0.53
208	SLU 84	-67	-48	14361	-14.24	-18.94	-0.56
208	SLE RA 1	-59	-18	8781	-9.74	-10.12	-0.42
208	SLE RA 2	-59	-46	8790	-8.78	-10.09	-0.46
208	SLE RA 3	-59	-18	8781	-9.74	-10.12	-0.42
208	SLE RA 4	-59	-35	8786	-9.17	-10.1	-0.44
208	SLE RA 5	-59	-46	8790	-8.78	-10.09	-0.46
208	SLE RA 6	-59	-18	8781	-9.74	-10.12	-0.42
208	SLE RA 7	-59	-35	8786	-9.17	-10.1	-0.44
208	SLE RA 8	-59	-18	8781	-9.74	-10.12	-0.42
208	SLE RA 9	-59	-35	8786	-9.17	-10.1	-0.44
208	SLE RA 10	-55	-45	9987	-9.79	-12.46	-0.45
208	SLE RA 11	-55	-17	9978	-10.75	-12.48	-0.41
208	SLE RA 12	-55	-34	9983	-10.18	-12.47	-0.43
208	SLE RA 13	-55	-45	9987	-9.79	-12.46	-0.45
208	SLE RA 14	-55	-17	9978	-10.75	-12.48	-0.41
208	SLE RA 15	-55	-34	9983	-10.18	-12.47	-0.43
208	SLE RA 16	-55	-17	9978	-10.75	-12.48	-0.41
208	SLE RA 17	-55	-34	9983	-10.18	-12.47	-0.43
208	SLE RA 18	-53	-17	10491	-11.18	-13.5	-0.41
208	SLE RA 19	-53	-34	10497	-10.61	-13.48	-0.43
208	SLE RA 20	-53	-17	10491	-11.18	-13.5	-0.41
208	SLE RA 21	-53	-34	10497	-10.61	-13.48	-0.43
208	SLE FR 1	-59	-18	8781	-9.74	-10.12	-0.42
208	SLE FR 2	-59	-23	8783	-9.55	-10.11	-0.43
208	SLE FR 3	-59	-18	8781	-9.74	-10.12	-0.42
208	SLE FR 4	-57	-23	9296	-9.98	-11.13	-0.42
208	SLE FR 5	-57	-18	9294	-10.17	-11.13	-0.42
208	SLE FR 6	-56	-17	9636	-10.46	-11.81	-0.41
208	SLE QP 1	-59	-18	8781	-9.74	-10.12	-0.42
208	SLE QP 2	-57	-18	9294	-10.17	-11.13	-0.42
208	SLD 1	651	226	9247	-17.7	3.94	-0.59
208	SLD 2	651	229	9248	-17.6	3.86	1.6
208	SLD 3	635	-208	9268	-0.45	2.81	-1.54
208	SLD 4	635	-205	9269	-0.34	2.73	0.65
208	SLD 5	180	712	9247	-38.64	-4.86	0.16
208	SLD 6	180	715	9248	-38.52	-4.95	2.44
208	SLD 7	126	-734	9319	18.87	-8.64	-3.01
208	SLD 8	126	-731	9320	18.98	-8.72	-0.73



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
208	SLD 9	-240	696	9268	-39.33	-13.54	-0.1
208	SLD 10	-240	699	9269	-39.21	-13.63	2.17
208	SLD 11	-294	-751	9340	18.18	-17.32	-3.27
208	SLD 12	-294	-747	9341	18.29	-17.4	-0.99
208	SLD 13	-749	170	9319	-20	-24.99	-1.48
208	SLD 14	-749	173	9319	-19.89	-25.07	0.71
208	SLD 15	-766	-264	9340	-2.75	-26.12	-2.43
208	SLD 16	-765	-261	9341	-2.64	-26.21	-0.24
208	SLV 1	1556	550	9184	-27.8	23.35	-0.8
208	SLV 2	1557	557	9185	-27.55	23.17	4.22
208	SLV 3	1519	-464	9237	12.49	20.48	-3.03
208	SLV 4	1519	-457	9239	12.74	20.29	2
208	SLV 5	483	1687	9180	-76.65	3.65	0.95
208	SLV 6	484	1695	9181	-76.39	3.45	6.24
208	SLV 7	359	-1692	9357	57.63	-5.94	-6.46
208	SLV 8	359	-1684	9359	57.89	-6.14	-1.17
208	SLV 9	-473	1649	9229	-78.24	-16.13	0.34
208	SLV 10	-473	1657	9231	-77.98	-16.32	5.63
208	SLV 11	-598	-1730	9407	56.05	-25.71	-7.07
208	SLV 12	-597	-1722	9408	56.31	-25.91	-1.78
208	SLV 13	-1633	422	9349	-33.08	-42.55	-2.83
208	SLV 14	-1633	429	9351	-32.83	-42.74	2.2
208	SLV 15	-1671	-592	9403	7.2	-45.43	-5.05
208	SLV 16	-1670	-585	9404	7.45	-45.62	-0.03
208	CRTFP Ux+	0	0	0	0	0	0
208	CRTFP Ux-	0	0	0	0	0	0
208	CRTFP Uy+	0	0	0	0	0	0
208	CRTFP Uy-	0	0	0	0	0	0
210	SLU 1	-22	-7	3277	-4.53	-57.03	-0.17
210	SLU 2	-22	-24	3282	-3.54	-57.12	-0.41
210	SLU 3	-22	-7	3277	-4.53	-57.03	-0.17
210	SLU 4	-22	-17	3280	-3.93	-57.08	-0.32
210	SLU 5	-22	-24	3282	-3.54	-57.12	-0.41
210	SLU 6	-22	-7	3277	-4.53	-57.03	-0.17
210	SLU 7	-22	-17	3280	-3.93	-57.08	-0.32
210	SLU 8	-22	-7	3277	-4.53	-57.03	-0.17
210	SLU 9	-22	-17	3280	-3.93	-57.08	-0.32
210	SLU 10	-20	-23	3986	-4.12	-69.57	-0.39
210	SLU 11	-20	-7	3981	-5.11	-69.48	-0.15
210	SLU 12	-20	-17	3984	-4.52	-69.53	-0.3
210	SLU 13	-20	-23	3986	-4.12	-69.57	-0.39
210	SLU 14	-20	-7	3981	-5.11	-69.48	-0.15
210	SLU 15	-20	-17	3984	-4.52	-69.53	-0.3
210	SLU 16	-20	-7	3981	-5.11	-69.48	-0.15
210	SLU 17	-20	-17	3984	-4.52	-69.53	-0.3
210	SLU 18	-18	-7	4283	-5.36	-74.81	-0.14
210	SLU 19	-19	-17	4286	-4.77	-74.86	-0.29
210	SLU 20	-18	-7	4283	-5.36	-74.81	-0.14
210	SLU 21	-19	-17	4286	-4.77	-74.86	-0.29
210	SLU 22	-21	-8	3788	-4.85	-66.05	-0.17
210	SLU 23	-21	-24	3793	-3.86	-66.14	-0.41
210	SLU 24	-21	-8	3788	-4.85	-66.05	-0.17
210	SLU 25	-21	-17	3791	-4.25	-66.11	-0.31
210	SLU 26	-21	-24	3793	-3.86	-66.14	-0.41
210	SLU 27	-21	-8	3788	-4.85	-66.05	-0.17
210	SLU 28	-21	-17	3791	-4.25	-66.11	-0.31
210	SLU 29	-21	-8	3788	-4.85	-66.05	-0.17
210	SLU 30	-21	-17	3791	-4.25	-66.11	-0.31
210	SLU 31	-19	-24	4497	-4.44	-78.59	-0.39
210	SLU 32	-18	-7	4492	-5.43	-78.5	-0.15
210	SLU 33	-19	-17	4495	-4.84	-78.55	-0.29
210	SLU 34	-19	-24	4497	-4.44	-78.59	-0.39
210	SLU 35	-18	-7	4492	-5.43	-78.5	-0.15
210	SLU 36	-19	-17	4495	-4.84	-78.55	-0.29
210	SLU 37	-18	-7	4492	-5.43	-78.5	-0.15
210	SLU 38	-19	-17	4495	-4.84	-78.55	-0.29
210	SLU 39	-17	-7	4794	-5.68	-83.83	-0.14
210	SLU 40	-17	-17	4797	-5.09	-83.89	-0.28
210	SLU 41	-17	-7	4794	-5.68	-83.83	-0.14
210	SLU 42	-17	-17	4797	-5.09	-83.89	-0.28
210	SLU 43	-29	-10	4085	-5.77	-71.04	-0.23
210	SLU 44	-29	-26	4090	-4.79	-71.13	-0.47
210	SLU 45	-29	-10	4085	-5.77	-71.04	-0.23
210	SLU 46	-29	-19	4088	-5.18	-71.1	-0.37
210	SLU 47	-29	-26	4090	-4.79	-71.13	-0.47
210	SLU 48	-29	-10	4085	-5.77	-71.04	-0.23
210	SLU 49	-29	-19	4088	-5.18	-71.1	-0.37
210	SLU 50	-29	-10	4085	-5.77	-71.04	-0.23
210	SLU 51	-29	-19	4088	-5.18	-71.1	-0.37
210	SLU 52	-27	-26	4794	-5.37	-83.58	-0.45
210	SLU 53	-27	-9	4789	-6.36	-83.49	-0.21
210	SLU 54	-27	-19	4792	-5.77	-83.55	-0.35
210	SLU 55	-27	-26	4794	-5.37	-83.58	-0.45
210	SLU 56	-27	-9	4789	-6.36	-83.49	-0.21
210	SLU 57	-27	-19	4792	-5.77	-83.55	-0.35
210	SLU 58	-27	-9	4789	-6.36	-83.49	-0.21
210	SLU 59	-27	-19	4792	-5.77	-83.55	-0.35
210	SLU 60	-25	-9	5091	-6.61	-88.83	-0.2
210	SLU 61	-26	-19	5094	-6.02	-88.88	-0.34
210	SLU 62	-25	-9	5091	-6.61	-88.83	-0.2
210	SLU 63	-26	-19	5094	-6.02	-88.88	-0.34



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
210	SLU 64	-28	-10	4595	-6.09	-80.07	-0.22
210	SLU 65	-28	-26	4601	-5.11	-80.16	-0.46
210	SLU 66	-28	-10	4595	-6.09	-80.07	-0.22
210	SLU 67	-28	-20	4598	-5.5	-80.12	-0.37
210	SLU 68	-28	-26	4601	-5.11	-80.16	-0.46
210	SLU 69	-28	-10	4595	-6.09	-80.07	-0.22
210	SLU 70	-28	-20	4598	-5.5	-80.12	-0.37
210	SLU 71	-28	-10	4595	-6.09	-80.07	-0.22
210	SLU 72	-28	-20	4598	-5.5	-80.12	-0.37
210	SLU 73	-26	-26	5305	-5.69	-92.6	-0.44
210	SLU 74	-25	-9	5300	-6.68	-92.52	-0.2
210	SLU 75	-26	-19	5303	-6.09	-92.57	-0.34
210	SLU 76	-26	-26	5305	-5.69	-92.6	-0.44
210	SLU 77	-25	-9	5300	-6.68	-92.52	-0.2
210	SLU 78	-26	-19	5303	-6.09	-92.57	-0.34
210	SLU 79	-25	-9	5300	-6.68	-92.52	-0.2
210	SLU 80	-26	-19	5303	-6.09	-92.57	-0.34
210	SLU 81	-24	-9	5602	-6.93	-97.85	-0.19
210	SLU 82	-24	-19	5605	-6.34	-97.9	-0.34
210	SLU 83	-24	-9	5602	-6.93	-97.85	-0.19
210	SLU 84	-24	-19	5605	-6.34	-97.9	-0.34
210	SLE RA 1	-22	-7	3423	-4.62	-59.61	-0.17
210	SLE RA 2	-22	-18	3426	-3.96	-59.67	-0.33
210	SLE RA 3	-22	-7	3423	-4.62	-59.61	-0.17
210	SLE RA 4	-22	-14	3425	-4.22	-59.64	-0.27
210	SLE RA 5	-22	-18	3426	-3.96	-59.67	-0.33
210	SLE RA 6	-22	-7	3423	-4.62	-59.61	-0.17
210	SLE RA 7	-22	-14	3425	-4.22	-59.64	-0.27
210	SLE RA 8	-22	-7	3423	-4.62	-59.61	-0.17
210	SLE RA 9	-22	-14	3425	-4.22	-59.64	-0.27
210	SLE RA 10	-20	-18	3896	-4.35	-67.96	-0.32
210	SLE RA 11	-20	-7	3892	-5.01	-67.91	-0.16
210	SLE RA 12	-20	-14	3894	-4.61	-67.94	-0.25
210	SLE RA 13	-20	-18	3896	-4.35	-67.96	-0.32
210	SLE RA 14	-20	-7	3892	-5.01	-67.91	-0.16
210	SLE RA 15	-20	-14	3894	-4.61	-67.94	-0.25
210	SLE RA 16	-20	-7	3892	-5.01	-67.91	-0.16
210	SLE RA 17	-20	-14	3894	-4.61	-67.94	-0.25
210	SLE RA 18	-19	-7	4094	-5.18	-71.46	-0.15
210	SLE RA 19	-19	-14	4096	-4.78	-71.5	-0.25
210	SLE RA 20	-19	-7	4094	-5.18	-71.46	-0.15
210	SLE RA 21	-19	-14	4096	-4.78	-71.5	-0.25
210	SLE FR 1	-22	-7	3423	-4.62	-59.61	-0.17
210	SLE FR 2	-22	-10	3423	-4.48	-59.62	-0.2
210	SLE FR 3	-22	-7	3423	-4.62	-59.61	-0.17
210	SLE FR 4	-21	-9	3625	-4.65	-63.18	-0.2
210	SLE FR 5	-21	-7	3624	-4.78	-63.16	-0.17
210	SLE FR 6	-21	-7	3758	-4.9	-65.53	-0.16
210	SLE QP 1	-22	-7	3423	-4.62	-59.61	-0.17
210	SLE QP 2	-21	-7	3624	-4.78	-63.16	-0.17
210	SLD 1	255	85	3582	-10.02	-61.65	0.91
210	SLD 2	256	90	3582	-9.95	-61.67	1.68
210	SLD 3	249	-84	3590	1.97	-61.83	-1.69
210	SLD 4	249	-78	3591	2.04	-61.85	-0.91
210	SLD 5	71	274	3598	-24.56	-62.44	3.81
210	SLD 6	71	279	3598	-24.48	-62.45	4.62
210	SLD 7	50	-287	3627	15.39	-63.03	-4.85
210	SLD 8	51	-282	3627	15.47	-63.04	-4.04
210	SLD 9	-93	267	3620	-25.04	-63.28	3.71
210	SLD 10	-93	273	3621	-24.96	-63.3	4.52
210	SLD 11	-114	-294	3650	14.92	-63.88	-4.95
210	SLD 12	-114	-288	3650	14.99	-63.89	-4.14
210	SLD 13	-291	64	3657	-11.61	-64.48	0.58
210	SLD 14	-291	69	3657	-11.54	-64.49	1.35
210	SLD 15	-298	-105	3666	0.38	-64.66	-2.02
210	SLD 16	-298	-99	3666	0.45	-64.67	-1.24
210	SLV 1	609	207	3527	-17.03	-59.71	2.36
210	SLV 2	609	220	3528	-16.86	-59.74	4.14
210	SLV 3	594	-186	3548	10.96	-60.15	-3.71
210	SLV 4	594	-173	3550	11.13	-60.18	-1.93
210	SLV 5	190	649	3562	-50.97	-61.44	9.13
210	SLV 6	190	662	3563	-50.8	-61.47	11
210	SLV 7	141	-662	3634	42.33	-62.92	-11.11
210	SLV 8	141	-649	3635	42.5	-62.95	-9.23
210	SLV 9	-184	634	3613	-52.07	-63.37	8.9
210	SLV 10	-183	647	3614	-51.9	-63.4	10.77
210	SLV 11	-232	-676	3685	41.23	-64.85	-11.33
210	SLV 12	-232	-663	3686	41.41	-64.88	-9.46
210	SLV 13	-636	159	3698	-20.7	-66.14	1.6
210	SLV 14	-636	171	3699	-20.53	-66.17	3.38
210	SLV 15	-651	-234	3720	7.3	-66.59	-4.47
210	SLV 16	-651	-222	3721	7.46	-66.62	-2.69
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
211	SLU 1	-23	-8	3591	-6.19	-0.33	0.03
211	SLU 2	-23	-26	3596	-5.14	-0.33	0.11
211	SLU 3	-23	-8	3591	-6.19	-0.33	0.03
211	SLU 4	-23	-19	3594	-5.56	-0.33	0.08
211	SLU 5	-23	-26	3596	-5.14	-0.33	0.11



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
211	SLU 6	-23	-8	3591		-6.19	-0.33	0.03
211	SLU 7	-23	-19	3594		-5.56	-0.33	0.08
211	SLU 8	-23	-8	3591		-6.19	-0.33	0.03
211	SLU 9	-23	-19	3594		-5.56	-0.33	0.08
211	SLU 10	-20	-25	4377		-6	-0.71	0.14
211	SLU 11	-20	-8	4371		-7.06	-0.72	0.06
211	SLU 12	-20	-18	4374		-6.42	-0.71	0.11
211	SLU 13	-20	-25	4377		-6	-0.71	0.14
211	SLU 14	-20	-8	4371		-7.06	-0.72	0.06
211	SLU 15	-20	-18	4374		-6.42	-0.71	0.11
211	SLU 16	-20	-8	4371		-7.06	-0.72	0.06
211	SLU 17	-20	-18	4374		-6.42	-0.71	0.11
211	SLU 18	-19	-7	4705		-7.43	-0.88	0.07
211	SLU 19	-19	-18	4709		-6.8	-0.88	0.12
211	SLU 20	-19	-7	4705		-7.43	-0.88	0.07
211	SLU 21	-19	-18	4709		-6.8	-0.88	0.12
211	SLU 22	-22	-8	4156		-6.7	-0.61	0.05
211	SLU 23	-22	-26	4162		-5.65	-0.61	0.13
211	SLU 24	-22	-8	4156		-6.7	-0.61	0.05
211	SLU 25	-22	-19	4160		-6.07	-0.61	0.1
211	SLU 26	-22	-26	4162		-5.65	-0.61	0.13
211	SLU 27	-22	-8	4156		-6.7	-0.61	0.05
211	SLU 28	-22	-19	4160		-6.07	-0.61	0.1
211	SLU 29	-22	-8	4156		-6.7	-0.61	0.05
211	SLU 30	-22	-19	4160		-6.07	-0.61	0.1
211	SLU 31	-19	-25	4942		-6.52	-0.99	0.16
211	SLU 32	-19	-8	4937		-7.57	-0.99	0.08
211	SLU 33	-19	-18	4940		-6.94	-0.99	0.13
211	SLU 34	-19	-25	4942		-6.52	-0.99	0.16
211	SLU 35	-19	-8	4937		-7.57	-0.99	0.08
211	SLU 36	-19	-18	4940		-6.94	-0.99	0.13
211	SLU 37	-19	-8	4937		-7.57	-0.99	0.08
211	SLU 38	-19	-18	4940		-6.94	-0.99	0.13
211	SLU 39	-17	-7	5271		-7.94	-1.15	0.09
211	SLU 40	-18	-18	5274		-7.31	-1.15	0.14
211	SLU 41	-17	-7	5271		-7.94	-1.15	0.09
211	SLU 42	-18	-18	5274		-7.31	-1.15	0.14
211	SLU 43	-31	-10	4474		-7.87	-0.34	0.04
211	SLU 44	-31	-28	4480		-6.82	-0.34	0.12
211	SLU 45	-31	-10	4474		-7.87	-0.34	0.04
211	SLU 46	-31	-21	4477		-7.24	-0.34	0.09
211	SLU 47	-31	-28	4480		-6.82	-0.34	0.12
211	SLU 48	-31	-10	4474		-7.87	-0.34	0.04
211	SLU 49	-31	-21	4477		-7.24	-0.34	0.09
211	SLU 50	-31	-10	4474		-7.87	-0.34	0.04
211	SLU 51	-31	-21	4477		-7.24	-0.34	0.09
211	SLU 52	-28	-27	5260		-7.69	-0.72	0.15
211	SLU 53	-28	-10	5254		-8.74	-0.72	0.07
211	SLU 54	-28	-20	5258		-8.11	-0.72	0.11
211	SLU 55	-28	-27	5260		-7.69	-0.72	0.15
211	SLU 56	-28	-10	5254		-8.74	-0.72	0.07
211	SLU 57	-28	-20	5258		-8.11	-0.72	0.11
211	SLU 58	-28	-10	5254		-8.74	-0.72	0.07
211	SLU 59	-28	-20	5258		-8.11	-0.72	0.11
211	SLU 60	-26	-10	5589		-9.11	-0.88	0.08
211	SLU 61	-26	-20	5592		-8.48	-0.88	0.13
211	SLU 62	-26	-10	5589		-9.11	-0.88	0.08
211	SLU 63	-26	-20	5592		-8.48	-0.88	0.13
211	SLU 64	-29	-11	5040		-8.38	-0.61	0.06
211	SLU 65	-29	-28	5045		-7.33	-0.61	0.14
211	SLU 66	-29	-11	5040		-8.38	-0.61	0.06
211	SLU 67	-29	-21	5043		-7.75	-0.61	0.1
211	SLU 68	-29	-28	5045		-7.33	-0.61	0.14
211	SLU 69	-29	-11	5040		-8.38	-0.61	0.06
211	SLU 70	-29	-21	5043		-7.75	-0.61	0.1
211	SLU 71	-29	-11	5040		-8.38	-0.61	0.06
211	SLU 72	-29	-21	5043		-7.75	-0.61	0.1
211	SLU 73	-26	-28	5825		-8.2	-0.99	0.16
211	SLU 74	-26	-10	5820		-9.25	-0.99	0.08
211	SLU 75	-26	-21	5823		-8.62	-0.99	0.13
211	SLU 76	-26	-28	5825		-8.2	-0.99	0.16
211	SLU 77	-26	-10	5820		-9.25	-0.99	0.08
211	SLU 78	-26	-21	5823		-8.62	-0.99	0.13
211	SLU 79	-26	-10	5820		-9.25	-0.99	0.08
211	SLU 80	-26	-21	5823		-8.62	-0.99	0.13
211	SLU 81	-25	-10	6154		-9.62	-1.16	0.1
211	SLU 82	-25	-20	6158		-8.99	-1.16	0.14
211	SLU 83	-25	-10	6154		-9.62	-1.16	0.1
211	SLU 84	-25	-20	6158		-8.99	-1.16	0.14
211	SLE RA 1	-23	-8	3752		-6.34	-0.41	0.04
211	SLE RA 2	-23	-20	3756		-5.64	-0.41	0.09
211	SLE RA 3	-23	-8	3752		-6.34	-0.41	0.04
211	SLE RA 4	-23	-15	3755		-5.92	-0.41	0.07
211	SLE RA 5	-23	-20	3756		-5.64	-0.41	0.09
211	SLE RA 6	-23	-8	3752		-6.34	-0.41	0.04
211	SLE RA 7	-23	-15	3755		-5.92	-0.41	0.07
211	SLE RA 8	-23	-8	3752		-6.34	-0.41	0.04
211	SLE RA 9	-23	-15	3755		-5.92	-0.41	0.07
211	SLE RA 10	-21	-19	4276		-6.21	-0.66	0.11
211	SLE RA 11	-21	-8	4272		-6.91	-0.67	0.06
211	SLE RA 12	-21	-15	4275		-6.49	-0.67	0.09



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
211	SLE RA 13	-21	-19	4276	-6.21	-0.66	0.11
211	SLE RA 14	-21	-8	4272	-6.91	-0.67	0.06
211	SLE RA 15	-21	-15	4275	-6.49	-0.67	0.09
211	SLE RA 16	-21	-8	4272	-6.91	-0.67	0.06
211	SLE RA 17	-21	-15	4275	-6.49	-0.67	0.09
211	SLE RA 18	-20	-8	4495	-7.16	-0.78	0.07
211	SLE RA 19	-20	-15	4498	-6.74	-0.77	0.1
211	SLE RA 20	-20	-8	4495	-7.16	-0.78	0.07
211	SLE RA 21	-20	-15	4498	-6.74	-0.77	0.1
211	SLE FR 1	-23	-8	3752	-6.34	-0.41	0.04
211	SLE FR 2	-23	-10	3753	-6.2	-0.41	0.05
211	SLE FR 3	-23	-8	3752	-6.34	-0.41	0.04
211	SLE FR 4	-22	-10	3976	-6.44	-0.52	0.06
211	SLE FR 5	-22	-8	3975	-6.58	-0.52	0.05
211	SLE FR 6	-21	-8	4124	-6.75	-0.59	0.05
211	SLE QP 1	-23	-8	3752	-6.34	-0.41	0.04
211	SLE QP 2	-22	-8	3975	-6.58	-0.52	0.05
211	SLD 1	281	89	3899	-12.27	0.51	-0.48
211	SLD 2	281	99	3900	-12.2	0.51	0.19
211	SLD 3	274	-92	3910	0.76	0.62	0.21
211	SLD 4	274	-82	3910	0.83	0.61	0.88
211	SLD 5	79	292	3937	-28.08	-0.37	-1.41
211	SLD 6	79	302	3937	-28	-0.37	-0.71
211	SLD 7	56	-311	3971	15.35	-0.02	0.89
211	SLD 8	56	-301	3972	15.43	-0.03	1.59
211	SLD 9	-100	285	3979	-28.6	-1.01	-1.5
211	SLD 10	-100	295	3980	-28.52	-1.02	-0.8
211	SLD 11	-123	-318	4013	14.83	-0.67	0.8
211	SLD 12	-123	-308	4014	14.91	-0.68	1.5
211	SLD 13	-318	67	4040	-14	-1.65	-0.79
211	SLD 14	-318	76	4041	-13.92	-1.66	-0.11
211	SLD 15	-325	-114	4050	-0.97	-1.55	-0.1
211	SLD 16	-325	-105	4051	-0.9	-1.55	0.58
211	SLV 1	667	218	3801	-19.89	1.82	-1.19
211	SLV 2	668	240	3803	-19.72	1.81	0.36
211	SLV 3	651	-205	3827	10.54	2.08	0.43
211	SLV 4	652	-183	3829	10.71	2.06	1.98
211	SLV 5	209	693	3884	-56.79	-0.2	-3.35
211	SLV 6	209	716	3885	-56.6	-0.22	-1.72
211	SLV 7	156	-717	3969	44.63	0.66	2.02
211	SLV 8	156	-693	3971	44.82	0.64	3.65
211	SLV 9	-200	678	3980	-57.98	-1.68	-3.56
211	SLV 10	-200	701	3981	-57.8	-1.7	-1.93
211	SLV 11	-253	-732	4065	43.44	-0.82	1.81
211	SLV 12	-253	-709	4067	43.62	-0.84	3.44
211	SLV 13	-695	167	4122	-23.88	-3.1	-1.88
211	SLV 14	-695	189	4123	-23.7	-3.12	-0.33
211	SLV 15	-711	-256	4147	6.55	-2.85	-0.27
211	SLV 16	-711	-234	4149	6.72	-2.86	1.28
211	CRTFP Ux+	0	0	0	0	0	0
211	CRTFP Ux-	0	0	0	0	0	0
211	CRTFP Uy+	0	0	0	0	0	0
211	CRTFP Uy-	0	0	0	0	0	0
212	SLU 1	-22	-8	3600	-7.54	-0.28	0.1
212	SLU 2	-22	-25	3606	-6.51	-0.27	0.2
212	SLU 3	-22	-8	3600	-7.54	-0.28	0.1
212	SLU 4	-22	-18	3604	-6.92	-0.27	0.16
212	SLU 5	-22	-25	3606	-6.51	-0.27	0.2
212	SLU 6	-22	-8	3600	-7.54	-0.28	0.1
212	SLU 7	-22	-18	3604	-6.92	-0.27	0.16
212	SLU 8	-22	-8	3600	-7.54	-0.28	0.1
212	SLU 9	-22	-18	3604	-6.92	-0.27	0.16
212	SLU 10	-19	-24	4398	-7.62	-0.65	0.24
212	SLU 11	-19	-7	4392	-8.64	-0.66	0.14
212	SLU 12	-19	-17	4395	-8.03	-0.65	0.2
212	SLU 13	-19	-24	4398	-7.62	-0.65	0.24
212	SLU 14	-19	-7	4392	-8.64	-0.66	0.14
212	SLU 15	-19	-17	4395	-8.03	-0.65	0.2
212	SLU 16	-19	-7	4392	-8.64	-0.66	0.14
212	SLU 17	-19	-17	4395	-8.03	-0.65	0.2
212	SLU 18	-18	-7	4731	-9.11	-0.82	0.15
212	SLU 19	-18	-17	4735	-8.5	-0.82	0.21
212	SLU 20	-18	-7	4731	-9.11	-0.82	0.15
212	SLU 21	-18	-17	4735	-8.5	-0.82	0.21
212	SLU 22	-21	-8	4174	-8.22	-0.55	0.13
212	SLU 23	-21	-25	4180	-7.2	-0.55	0.22
212	SLU 24	-21	-8	4174	-8.22	-0.55	0.13
212	SLU 25	-21	-18	4177	-7.61	-0.55	0.19
212	SLU 26	-21	-25	4180	-7.2	-0.55	0.22
212	SLU 27	-21	-8	4174	-8.22	-0.55	0.13
212	SLU 28	-21	-18	4177	-7.61	-0.55	0.19
212	SLU 29	-21	-8	4174	-8.22	-0.55	0.13
212	SLU 30	-21	-18	4177	-7.61	-0.55	0.19
212	SLU 31	-18	-24	4971	-8.3	-0.93	0.26
212	SLU 32	-18	-7	4966	-9.32	-0.93	0.16
212	SLU 33	-18	-17	4969	-8.71	-0.93	0.22
212	SLU 34	-18	-24	4971	-8.3	-0.93	0.26
212	SLU 35	-18	-7	4966	-9.32	-0.93	0.16
212	SLU 36	-18	-17	4969	-8.71	-0.93	0.22
212	SLU 37	-18	-7	4966	-9.32	-0.93	0.16
212	SLU 38	-18	-17	4969	-8.71	-0.93	0.22



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
212	SLU 39	-16	-7	5305	-9.8	-1.09	0.18
212	SLU 40	-17	-17	5309	-9.18	-1.09	0.23
212	SLU 41	-16	-7	5305	-9.8	-1.09	0.18
212	SLU 42	-17	-17	5309	-9.18	-1.09	0.23
212	SLU 43	-29	-10	4483	-9.57	-0.26	0.13
212	SLU 44	-30	-27	4489	-8.54	-0.26	0.23
212	SLU 45	-29	-10	4483	-9.57	-0.26	0.13
212	SLU 46	-29	-20	4487	-8.95	-0.26	0.19
212	SLU 47	-30	-27	4489	-8.54	-0.26	0.23
212	SLU 48	-29	-10	4483	-9.57	-0.26	0.13
212	SLU 49	-29	-20	4487	-8.95	-0.26	0.19
212	SLU 50	-29	-10	4483	-9.57	-0.26	0.13
212	SLU 51	-29	-20	4487	-8.95	-0.26	0.19
212	SLU 52	-26	-26	5281	-9.64	-0.64	0.26
212	SLU 53	-26	-9	5275	-10.67	-0.64	0.16
212	SLU 54	-26	-19	5279	-10.05	-0.64	0.22
212	SLU 55	-26	-26	5281	-9.64	-0.64	0.26
212	SLU 56	-26	-9	5275	-10.67	-0.64	0.16
212	SLU 57	-26	-19	5279	-10.05	-0.64	0.22
212	SLU 58	-26	-9	5275	-10.67	-0.64	0.16
212	SLU 59	-26	-19	5279	-10.05	-0.64	0.22
212	SLU 60	-25	-9	5615	-11.14	-0.81	0.18
212	SLU 61	-25	-19	5618	-10.53	-0.81	0.24
212	SLU 62	-25	-9	5615	-11.14	-0.81	0.18
212	SLU 63	-25	-19	5618	-10.53	-0.81	0.24
212	SLU 64	-28	-10	5057	-10.25	-0.54	0.15
212	SLU 65	-28	-27	5063	-9.22	-0.54	0.25
212	SLU 66	-28	-10	5057	-10.25	-0.54	0.15
212	SLU 67	-28	-20	5061	-9.63	-0.54	0.21
212	SLU 68	-28	-27	5063	-9.22	-0.54	0.25
212	SLU 69	-28	-10	5057	-10.25	-0.54	0.15
212	SLU 70	-28	-20	5061	-9.63	-0.54	0.21
212	SLU 71	-28	-10	5057	-10.25	-0.54	0.15
212	SLU 72	-28	-20	5061	-9.63	-0.54	0.21
212	SLU 73	-25	-26	5855	-10.33	-0.92	0.28
212	SLU 74	-25	-9	5849	-11.35	-0.92	0.19
212	SLU 75	-25	-19	5852	-10.74	-0.92	0.24
212	SLU 76	-25	-26	5855	-10.33	-0.92	0.28
212	SLU 77	-25	-9	5849	-11.35	-0.92	0.19
212	SLU 78	-25	-19	5852	-10.74	-0.92	0.24
212	SLU 79	-25	-9	5849	-11.35	-0.92	0.19
212	SLU 80	-25	-19	5852	-10.74	-0.92	0.24
212	SLU 81	-23	-9	6188	-11.82	-1.08	0.2
212	SLU 82	-24	-19	6192	-11.21	-1.08	0.26
212	SLU 83	-23	-9	6188	-11.82	-1.08	0.2
212	SLU 84	-24	-19	6192	-11.21	-1.08	0.26
212	SLE RA 1	-22	-8	3764	-7.73	-0.35	0.11
212	SLE RA 2	-22	-19	3768	-7.05	-0.35	0.18
212	SLE RA 3	-22	-8	3764	-7.73	-0.35	0.11
212	SLE RA 4	-22	-14	3766	-7.32	-0.35	0.15
212	SLE RA 5	-22	-19	3768	-7.05	-0.35	0.18
212	SLE RA 6	-22	-8	3764	-7.73	-0.35	0.11
212	SLE RA 7	-22	-14	3766	-7.32	-0.35	0.15
212	SLE RA 8	-22	-8	3764	-7.73	-0.35	0.11
212	SLE RA 9	-22	-14	3766	-7.32	-0.35	0.15
212	SLE RA 10	-20	-19	4296	-7.79	-0.61	0.2
212	SLE RA 11	-20	-7	4292	-8.47	-0.61	0.13
212	SLE RA 12	-20	-14	4294	-8.06	-0.61	0.17
212	SLE RA 13	-20	-19	4296	-7.79	-0.61	0.2
212	SLE RA 14	-20	-7	4292	-8.47	-0.61	0.13
212	SLE RA 15	-20	-14	4294	-8.06	-0.61	0.17
212	SLE RA 16	-20	-7	4292	-8.47	-0.61	0.13
212	SLE RA 17	-20	-14	4294	-8.06	-0.61	0.17
212	SLE RA 18	-19	-7	4518	-8.78	-0.72	0.14
212	SLE RA 19	-19	-14	4520	-8.37	-0.72	0.18
212	SLE RA 20	-19	-7	4518	-8.78	-0.72	0.14
212	SLE RA 21	-19	-14	4520	-8.37	-0.72	0.18
212	SLE FR 1	-22	-8	3764	-7.73	-0.35	0.11
212	SLE FR 2	-22	-10	3765	-7.6	-0.35	0.12
212	SLE FR 3	-22	-8	3764	-7.73	-0.35	0.11
212	SLE FR 4	-21	-10	3991	-7.91	-0.46	0.13
212	SLE FR 5	-21	-7	3990	-8.05	-0.46	0.12
212	SLE FR 6	-20	-7	4141	-8.26	-0.53	0.13
212	SLE QP 1	-22	-8	3764	-7.73	-0.35	0.11
212	SLE QP 2	-21	-7	3990	-8.05	-0.46	0.12
212	SLD 1	282	85	3893	-13.72	0.59	-0.44
212	SLD 2	282	98	3894	-13.65	0.59	0.17
212	SLD 3	275	-91	3881	-0.71	0.7	0.41
212	SLD 4	275	-78	3882	-0.64	0.7	1.02
212	SLD 5	80	283	3978	-29.52	-0.31	-1.57
212	SLD 6	81	297	3979	-29.44	-0.32	-0.94
212	SLD 7	57	-305	3940	13.87	0.05	1.28
212	SLD 8	58	-292	3941	13.94	0.05	1.91
212	SLD 9	-99	277	4040	-30.04	-0.97	-1.67
212	SLD 10	-99	290	4041	-29.96	-0.98	-1.04
212	SLD 11	-122	-312	4001	13.34	-0.61	1.18
212	SLD 12	-122	-298	4002	13.42	-0.62	1.81
212	SLD 13	-317	64	4099	-15.46	-1.62	-0.78
212	SLD 14	-317	76	4099	-15.39	-1.63	-0.17
212	SLD 15	-324	-113	4087	-2.45	-1.51	0.08
212	SLD 16	-324	-100	4088	-2.37	-1.52	0.69



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
212	SLV 1	669	209	3770	-21.32	1.93	-1.19
212	SLV 2	669	239	3772	-21.16	1.92	0.2
212	SLV 3	653	-204	3741	9.07	2.2	0.81
212	SLV 4	653	-174	3743	9.24	2.19	2.2
212	SLV 5	210	672	3967	-58.2	-0.14	-3.83
212	SLV 6	211	703	3969	-58.02	-0.16	-2.36
212	SLV 7	157	-703	3871	43.13	0.75	2.83
212	SLV 8	157	-672	3873	43.3	0.73	4.3
212	SLV 9	-199	657	4108	-59.4	-1.66	-4.06
212	SLV 10	-199	688	4110	-59.22	-1.68	-2.59
212	SLV 11	-252	-718	4011	41.92	-0.76	2.6
212	SLV 12	-252	-687	4014	42.1	-0.78	4.07
212	SLV 13	-695	159	4238	-25.34	-3.11	-1.96
212	SLV 14	-694	189	4240	-25.17	-3.13	-0.56
212	SLV 15	-711	-253	4209	5.06	-2.84	0.04
212	SLV 16	-710	-224	4211	5.22	-2.86	1.44
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	-21	-7	3606	-8.89	-0.13	0.16
213	SLU 2	-22	-23	3612	-7.89	-0.13	0.26
213	SLU 3	-21	-7	3606	-8.89	-0.13	0.16
213	SLU 4	-21	-17	3610	-8.29	-0.13	0.22
213	SLU 5	-22	-23	3612	-7.89	-0.13	0.26
213	SLU 6	-21	-7	3606	-8.89	-0.13	0.16
213	SLU 7	-21	-17	3610	-8.29	-0.13	0.22
213	SLU 8	-21	-7	3606	-8.89	-0.13	0.16
213	SLU 9	-21	-17	3610	-8.29	-0.13	0.22
213	SLU 10	-19	-22	4414	-9.22	-0.45	0.29
213	SLU 11	-18	-6	4409	-10.22	-0.46	0.19
213	SLU 12	-18	-16	4412	-9.62	-0.46	0.25
213	SLU 13	-19	-22	4414	-9.22	-0.45	0.29
213	SLU 14	-18	-6	4409	-10.22	-0.46	0.19
213	SLU 15	-18	-16	4412	-9.62	-0.46	0.25
213	SLU 16	-18	-6	4409	-10.22	-0.46	0.19
213	SLU 17	-18	-16	4412	-9.62	-0.46	0.25
213	SLU 18	-17	-6	4753	-10.8	-0.6	0.21
213	SLU 19	-17	-16	4756	-10.2	-0.6	0.27
213	SLU 20	-17	-6	4753	-10.8	-0.6	0.21
213	SLU 21	-17	-16	4756	-10.2	-0.6	0.27
213	SLU 22	-20	-7	4188	-9.74	-0.37	0.18
213	SLU 23	-20	-23	4193	-8.74	-0.36	0.28
213	SLU 24	-20	-7	4188	-9.74	-0.37	0.18
213	SLU 25	-20	-17	4191	-9.14	-0.37	0.24
213	SLU 26	-20	-23	4193	-8.74	-0.36	0.28
213	SLU 27	-20	-7	4188	-9.74	-0.37	0.18
213	SLU 28	-20	-17	4191	-9.14	-0.37	0.24
213	SLU 29	-20	-7	4188	-9.74	-0.37	0.18
213	SLU 30	-20	-17	4191	-9.14	-0.37	0.24
213	SLU 31	-17	-22	4996	-10.08	-0.69	0.32
213	SLU 32	-17	-6	4990	-11.08	-0.7	0.22
213	SLU 33	-17	-16	4994	-10.48	-0.69	0.28
213	SLU 34	-17	-22	4996	-10.08	-0.69	0.32
213	SLU 35	-17	-6	4990	-11.08	-0.7	0.22
213	SLU 36	-17	-16	4994	-10.48	-0.69	0.28
213	SLU 37	-17	-6	4990	-11.08	-0.7	0.22
213	SLU 38	-17	-16	4994	-10.48	-0.69	0.28
213	SLU 39	-16	-5	5334	-11.65	-0.84	0.23
213	SLU 40	-16	-15	5338	-11.05	-0.84	0.29
213	SLU 41	-16	-5	5334	-11.65	-0.84	0.23
213	SLU 42	-16	-15	5338	-11.05	-0.84	0.29
213	SLU 43	-28	-9	4489	-11.26	-0.09	0.2
213	SLU 44	-28	-26	4494	-10.26	-0.08	0.3
213	SLU 45	-28	-9	4489	-11.26	-0.09	0.2
213	SLU 46	-28	-19	4492	-10.66	-0.08	0.26
213	SLU 47	-28	-26	4494	-10.26	-0.08	0.3
213	SLU 48	-28	-9	4489	-11.26	-0.09	0.2
213	SLU 49	-28	-19	4492	-10.66	-0.08	0.26
213	SLU 50	-28	-9	4489	-11.26	-0.09	0.2
213	SLU 51	-28	-19	4492	-10.66	-0.08	0.26
213	SLU 52	-25	-25	5297	-11.6	-0.41	0.33
213	SLU 53	-25	-8	5291	-12.6	-0.41	0.23
213	SLU 54	-25	-18	5295	-12	-0.41	0.29
213	SLU 55	-25	-25	5297	-11.6	-0.41	0.33
213	SLU 56	-25	-8	5291	-12.6	-0.41	0.23
213	SLU 57	-25	-18	5295	-12	-0.41	0.29
213	SLU 58	-25	-8	5291	-12.6	-0.41	0.23
213	SLU 59	-25	-18	5295	-12	-0.41	0.29
213	SLU 60	-24	-8	5635	-13.17	-0.56	0.25
213	SLU 61	-24	-18	5638	-12.57	-0.55	0.31
213	SLU 62	-24	-8	5635	-13.17	-0.56	0.25
213	SLU 63	-24	-18	5638	-12.57	-0.55	0.31
213	SLU 64	-27	-9	5070	-12.11	-0.32	0.22
213	SLU 65	-27	-25	5076	-11.11	-0.32	0.32
213	SLU 66	-27	-9	5070	-12.11	-0.32	0.22
213	SLU 67	-27	-19	5074	-11.51	-0.32	0.28
213	SLU 68	-27	-25	5076	-11.11	-0.32	0.32
213	SLU 69	-27	-9	5070	-12.11	-0.32	0.22
213	SLU 70	-27	-19	5074	-11.51	-0.32	0.28
213	SLU 71	-27	-9	5070	-12.11	-0.32	0.22



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
213	SLU 72	-27	-19	5074	-11.51	-0.32	0.28
213	SLU 73	-24	-24	5878	-12.45	-0.65	0.36
213	SLU 74	-24	-8	5873	-13.45	-0.65	0.26
213	SLU 75	-24	-18	5876	-12.85	-0.65	0.32
213	SLU 76	-24	-24	5878	-12.45	-0.65	0.36
213	SLU 77	-24	-8	5873	-13.45	-0.65	0.26
213	SLU 78	-24	-18	5876	-12.85	-0.65	0.32
213	SLU 79	-24	-8	5873	-13.45	-0.65	0.26
213	SLU 80	-24	-18	5876	-12.85	-0.65	0.32
213	SLU 81	-22	-8	6217	-14.02	-0.79	0.27
213	SLU 82	-23	-17	6220	-13.42	-0.79	0.33
213	SLU 83	-22	-8	6217	-14.02	-0.79	0.27
213	SLU 84	-23	-17	6220	-13.42	-0.79	0.33
213	SLE RA 1	-21	-7	3773	-9.13	-0.2	0.17
213	SLE RA 2	-21	-18	3776	-8.46	-0.19	0.23
213	SLE RA 3	-21	-7	3773	-9.13	-0.2	0.17
213	SLE RA 4	-21	-13	3775	-8.73	-0.2	0.21
213	SLE RA 5	-21	-18	3776	-8.46	-0.19	0.23
213	SLE RA 6	-21	-7	3773	-9.13	-0.2	0.17
213	SLE RA 7	-21	-13	3775	-8.73	-0.2	0.21
213	SLE RA 8	-21	-7	3773	-9.13	-0.2	0.17
213	SLE RA 9	-21	-13	3775	-8.73	-0.2	0.21
213	SLE RA 10	-19	-17	4311	-9.35	-0.41	0.25
213	SLE RA 11	-19	-6	4307	-10.02	-0.42	0.19
213	SLE RA 12	-19	-13	4310	-9.62	-0.41	0.23
213	SLE RA 13	-19	-17	4311	-9.35	-0.41	0.25
213	SLE RA 14	-19	-6	4307	-10.02	-0.42	0.19
213	SLE RA 15	-19	-13	4310	-9.62	-0.41	0.23
213	SLE RA 16	-19	-6	4307	-10.02	-0.42	0.19
213	SLE RA 17	-19	-13	4310	-9.62	-0.41	0.23
213	SLE RA 18	-18	-6	4537	-10.4	-0.51	0.2
213	SLE RA 19	-18	-13	4539	-10	-0.51	0.24
213	SLE RA 20	-18	-6	4537	-10.4	-0.51	0.2
213	SLE RA 21	-18	-13	4539	-10	-0.51	0.24
213	SLE FR 1	-21	-7	3773	-9.13	-0.2	0.17
213	SLE FR 2	-21	-9	3773	-9	-0.2	0.18
213	SLE FR 3	-21	-7	3773	-9.13	-0.2	0.17
213	SLE FR 4	-20	-9	4003	-9.38	-0.29	0.19
213	SLE FR 5	-20	-7	4002	-9.51	-0.29	0.18
213	SLE FR 6	-19	-6	4155	-9.77	-0.35	0.18
213	SLE QP 1	-21	-7	3773	-9.13	-0.2	0.17
213	SLE QP 2	-20	-7	4002	-9.51	-0.29	0.18
213	SLD 1	283	82	3872	-15.17	0.78	-0.38
213	SLD 2	283	98	3873	-15.1	0.77	0.19
213	SLD 3	276	-90	3859	-2.16	0.88	0.51
213	SLD 4	276	-74	3860	-2.09	0.87	1.08
213	SLD 5	81	274	3983	-30.97	-0.13	-1.54
213	SLD 6	81	291	3984	-30.9	-0.13	-0.95
213	SLD 7	58	-298	3938	12.4	0.22	1.4
213	SLD 8	58	-281	3939	12.48	0.21	2
213	SLD 9	-98	268	4064	-31.5	-0.8	-1.65
213	SLD 10	-98	285	4065	-31.43	-0.8	-1.05
213	SLD 11	-121	-304	4020	11.87	-0.45	1.3
213	SLD 12	-121	-288	4021	11.95	-0.45	1.89
213	SLD 13	-316	61	4144	-16.93	-1.45	-0.73
213	SLD 14	-316	77	4145	-16.86	-1.46	-0.15
213	SLD 15	-323	-111	4131	-3.92	-1.35	0.16
213	SLD 16	-323	-95	4132	-3.85	-1.36	0.73
213	SLV 1	670	200	3707	-22.75	2.13	-1.11
213	SLV 2	670	237	3710	-22.59	2.11	0.2
213	SLV 3	654	-201	3675	7.64	2.38	0.95
213	SLV 4	654	-165	3677	7.8	2.37	2.26
213	SLV 5	211	650	3962	-59.64	0.05	-3.83
213	SLV 6	211	689	3965	-59.47	0.04	-2.45
213	SLV 7	158	-687	3853	41.67	0.91	3.04
213	SLV 8	158	-649	3856	41.84	0.89	4.43
213	SLV 9	-198	635	4148	-60.86	-1.47	-4.07
213	SLV 10	-198	674	4151	-60.7	-1.49	-2.69
213	SLV 11	-251	-702	4039	40.45	-0.62	2.81
213	SLV 12	-251	-663	4041	40.62	-0.63	4.19
213	SLV 13	-694	151	4326	-26.83	-2.95	-1.91
213	SLV 14	-694	188	4329	-26.67	-2.97	-0.6
213	SLV 15	-710	-250	4294	3.57	-2.69	0.16
213	SLV 16	-710	-213	4296	3.73	-2.71	1.47
213	CRTFP Ux+	0	0	0	0	0	0
213	CRTFP Ux-	0	0	0	0	0	0
213	CRTFP Uy+	0	0	0	0	0	0
213	CRTFP Uy-	0	0	0	0	0	0
214	SLU 1	-21	-6	3608	-10.23	0.03	0.2
214	SLU 2	-21	-22	3613	-9.25	0.04	0.29
214	SLU 3	-21	-6	3608	-10.23	0.03	0.2
214	SLU 4	-21	-16	3611	-9.64	0.04	0.25
214	SLU 5	-21	-22	3613	-9.25	0.04	0.29
214	SLU 6	-21	-6	3608	-10.23	0.03	0.2
214	SLU 7	-21	-16	3611	-9.64	0.04	0.25
214	SLU 8	-21	-6	3608	-10.23	0.03	0.2
214	SLU 9	-21	-16	3611	-9.64	0.04	0.25
214	SLU 10	-18	-21	4424	-10.82	-0.22	0.32
214	SLU 11	-18	-5	4419	-11.8	-0.23	0.23
214	SLU 12	-18	-14	4422	-11.21	-0.23	0.28
214	SLU 13	-18	-21	4424	-10.82	-0.22	0.32



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
214	SLU 14	-18	-5	4419	-11.8	-0.23	0.23
214	SLU 15	-18	-14	4422	-11.21	-0.23	0.28
214	SLU 16	-18	-5	4419	-11.8	-0.23	0.23
214	SLU 17	-18	-14	4422	-11.21	-0.23	0.28
214	SLU 18	-16	-4	4767	-12.47	-0.34	0.24
214	SLU 19	-17	-14	4770	-11.88	-0.34	0.3
214	SLU 20	-16	-4	4767	-12.47	-0.34	0.24
214	SLU 21	-17	-14	4770	-11.88	-0.34	0.3
214	SLU 22	-19	-6	4196	-11.25	-0.16	0.22
214	SLU 23	-20	-22	4201	-10.27	-0.15	0.31
214	SLU 24	-19	-6	4196	-11.25	-0.16	0.22
214	SLU 25	-19	-15	4199	-10.66	-0.16	0.27
214	SLU 26	-20	-22	4201	-10.27	-0.15	0.31
214	SLU 27	-19	-6	4196	-11.25	-0.16	0.22
214	SLU 28	-19	-15	4199	-10.66	-0.16	0.27
214	SLU 29	-19	-6	4196	-11.25	-0.16	0.22
214	SLU 30	-19	-15	4199	-10.66	-0.16	0.27
214	SLU 31	-17	-21	5013	-11.84	-0.42	0.34
214	SLU 32	-16	-5	5007	-12.82	-0.42	0.25
214	SLU 33	-16	-14	5010	-12.23	-0.42	0.3
214	SLU 34	-17	-21	5013	-11.84	-0.42	0.34
214	SLU 35	-16	-5	5007	-12.82	-0.42	0.25
214	SLU 36	-16	-14	5010	-12.23	-0.42	0.3
214	SLU 37	-16	-5	5007	-12.82	-0.42	0.25
214	SLU 38	-16	-14	5010	-12.23	-0.42	0.3
214	SLU 39	-15	-4	5355	-13.49	-0.53	0.27
214	SLU 40	-15	-14	5358	-12.9	-0.53	0.32
214	SLU 41	-15	-4	5355	-13.49	-0.53	0.27
214	SLU 42	-15	-14	5358	-12.9	-0.53	0.32
214	SLU 43	-27	-8	4488	-12.95	0.11	0.25
214	SLU 44	-27	-24	4494	-11.97	0.12	0.34
214	SLU 45	-27	-8	4488	-12.95	0.11	0.25
214	SLU 46	-27	-17	4492	-12.36	0.11	0.3
214	SLU 47	-27	-24	4494	-11.97	0.12	0.34
214	SLU 48	-27	-8	4488	-12.95	0.11	0.25
214	SLU 49	-27	-17	4492	-12.36	0.11	0.3
214	SLU 50	-27	-8	4488	-12.95	0.11	0.25
214	SLU 51	-27	-17	4492	-12.36	0.11	0.3
214	SLU 52	-25	-23	5305	-13.54	-0.15	0.37
214	SLU 53	-24	-7	5300	-14.51	-0.15	0.28
214	SLU 54	-24	-16	5303	-13.93	-0.15	0.34
214	SLU 55	-25	-23	5305	-13.54	-0.15	0.37
214	SLU 56	-24	-7	5300	-14.51	-0.15	0.28
214	SLU 57	-24	-16	5303	-13.93	-0.15	0.34
214	SLU 58	-24	-7	5300	-14.51	-0.15	0.28
214	SLU 59	-24	-16	5303	-13.93	-0.15	0.34
214	SLU 60	-23	-6	5647	-15.19	-0.26	0.3
214	SLU 61	-23	-16	5651	-14.6	-0.26	0.35
214	SLU 62	-23	-6	5647	-15.19	-0.26	0.3
214	SLU 63	-23	-16	5651	-14.6	-0.26	0.35
214	SLU 64	-26	-8	5077	-13.97	-0.08	0.28
214	SLU 65	-26	-23	5082	-12.99	-0.08	0.36
214	SLU 66	-26	-8	5077	-13.97	-0.08	0.28
214	SLU 67	-26	-17	5080	-13.38	-0.08	0.33
214	SLU 68	-26	-23	5082	-12.99	-0.08	0.36
214	SLU 69	-26	-8	5077	-13.97	-0.08	0.28
214	SLU 70	-26	-17	5080	-13.38	-0.08	0.33
214	SLU 71	-26	-8	5077	-13.97	-0.08	0.28
214	SLU 72	-26	-17	5080	-13.38	-0.08	0.33
214	SLU 73	-23	-22	5893	-14.56	-0.34	0.39
214	SLU 74	-23	-6	5888	-15.53	-0.34	0.31
214	SLU 75	-23	-16	5891	-14.95	-0.34	0.36
214	SLU 76	-23	-22	5893	-14.56	-0.34	0.39
214	SLU 77	-23	-6	5888	-15.53	-0.34	0.31
214	SLU 78	-23	-16	5891	-14.95	-0.34	0.36
214	SLU 79	-23	-6	5888	-15.53	-0.34	0.31
214	SLU 80	-23	-16	5891	-14.95	-0.34	0.36
214	SLU 81	-22	-6	6236	-16.21	-0.46	0.32
214	SLU 82	-22	-16	6239	-15.62	-0.45	0.37
214	SLU 83	-22	-6	6236	-16.21	-0.46	0.32
214	SLU 84	-22	-16	6239	-15.62	-0.45	0.37
214	SLE RA 1	-20	-6	3776	-10.52	-0.02	0.21
214	SLE RA 2	-20	-16	3779	-9.87	-0.02	0.26
214	SLE RA 3	-20	-6	3776	-10.52	-0.02	0.21
214	SLE RA 4	-20	-12	3778	-10.13	-0.02	0.24
214	SLE RA 5	-20	-16	3779	-9.87	-0.02	0.26
214	SLE RA 6	-20	-6	3776	-10.52	-0.02	0.21
214	SLE RA 7	-20	-12	3778	-10.13	-0.02	0.24
214	SLE RA 8	-20	-6	3776	-10.52	-0.02	0.21
214	SLE RA 9	-20	-12	3778	-10.13	-0.02	0.24
214	SLE RA 10	-18	-16	4320	-10.91	-0.19	0.28
214	SLE RA 11	-18	-5	4317	-11.56	-0.2	0.23
214	SLE RA 12	-18	-12	4319	-11.17	-0.19	0.26
214	SLE RA 13	-18	-16	4320	-10.91	-0.19	0.28
214	SLE RA 14	-18	-5	4317	-11.56	-0.2	0.23
214	SLE RA 15	-18	-12	4319	-11.17	-0.19	0.26
214	SLE RA 16	-18	-5	4317	-11.56	-0.2	0.23
214	SLE RA 17	-18	-12	4319	-11.17	-0.19	0.26
214	SLE RA 18	-17	-5	4548	-12.01	-0.27	0.24
214	SLE RA 19	-18	-11	4551	-11.62	-0.27	0.27
214	SLE RA 20	-17	-5	4548	-12.01	-0.27	0.24



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
214	SLE RA 21	-18	-11	4551	-11.62	-0.27	0.27
214	SLE FR 1	-20	-6	3776	-10.52	-0.02	0.21
214	SLE FR 2	-20	-8	3776	-10.39	-0.02	0.22
214	SLE FR 3	-20	-6	3776	-10.52	-0.02	0.21
214	SLE FR 4	-19	-8	4008	-10.84	-0.09	0.23
214	SLE FR 5	-19	-6	4008	-10.97	-0.1	0.22
214	SLE FR 6	-19	-5	4162	-11.27	-0.15	0.22
214	SLE QP 1	-20	-6	3776	-10.52	-0.02	0.21
214	SLE QP 2	-19	-6	4008	-10.97	-0.1	0.22
214	SLD 1	284	79	3845	-16.61	0.98	-0.29
214	SLD 2	284	98	3846	-16.55	0.97	0.27
214	SLD 3	277	-88	3830	-3.6	1.07	0.5
214	SLD 4	277	-69	3831	-3.53	1.07	1.06
214	SLD 5	82	266	3981	-32.43	0.08	-1.35
214	SLD 6	82	286	3982	-32.36	0.08	-0.77
214	SLD 7	59	-291	3931	10.96	0.4	1.3
214	SLD 8	59	-271	3933	11.03	0.4	1.88
214	SLD 9	-98	260	4083	-32.96	-0.59	-1.45
214	SLD 10	-98	280	4084	-32.89	-0.59	-0.87
214	SLD 11	-121	-297	4033	10.42	-0.27	1.2
214	SLD 12	-121	-277	4034	10.49	-0.27	1.78
214	SLD 13	-315	58	4184	-18.4	-1.26	-0.63
214	SLD 14	-315	77	4185	-18.34	-1.26	-0.07
214	SLD 15	-322	-109	4169	-5.39	-1.16	0.16
214	SLD 16	-322	-90	4170	-5.32	-1.17	0.72
214	SLV 1	671	191	3639	-24.17	2.34	-0.97
214	SLV 2	671	235	3642	-24.01	2.32	0.32
214	SLV 3	654	-199	3602	6.24	2.57	0.89
214	SLV 4	655	-155	3605	6.39	2.56	2.18
214	SLV 5	212	629	3952	-61.1	0.28	-3.44
214	SLV 6	212	675	3955	-60.94	0.27	-2.09
214	SLV 7	158	-672	3829	40.25	1.07	2.75
214	SLV 8	159	-626	3832	40.41	1.05	4.1
214	SLV 9	-197	615	4183	-62.35	-1.24	-3.67
214	SLV 10	-197	661	4186	-62.19	-1.26	-2.32
214	SLV 11	-251	-686	4060	39	-0.46	2.52
214	SLV 12	-251	-640	4063	39.16	-0.47	3.87
214	SLV 13	-693	144	4410	-28.33	-2.75	-1.75
214	SLV 14	-693	188	4413	-28.17	-2.76	-0.46
214	SLV 15	-709	-246	4373	2.08	-2.51	0.11
214	SLV 16	-709	-202	4376	2.23	-2.53	1.4
214	CRTFP Ux+	0	0	0	0	0	0
214	CRTFP Ux-	0	0	0	0	0	0
214	CRTFP Uy+	0	0	0	0	0	0
214	CRTFP Uy-	0	0	0	0	0	0
215	SLU 1	-20	-5	3604	-11.56	0.18	0.23
215	SLU 2	-20	-20	3610	-10.61	0.18	0.3
215	SLU 3	-20	-5	3604	-11.56	0.18	0.23
215	SLU 4	-20	-14	3608	-10.99	0.18	0.27
215	SLU 5	-20	-20	3610	-10.61	0.18	0.3
215	SLU 6	-20	-5	3604	-11.56	0.18	0.23
215	SLU 7	-20	-14	3608	-10.99	0.18	0.27
215	SLU 8	-20	-5	3604	-11.56	0.18	0.23
215	SLU 9	-20	-14	3608	-10.99	0.18	0.27
215	SLU 10	-18	-19	4428	-12.4	-0.02	0.32
215	SLU 11	-17	-4	4423	-13.35	-0.02	0.25
215	SLU 12	-17	-13	4426	-12.78	-0.02	0.29
215	SLU 13	-18	-19	4428	-12.4	-0.02	0.32
215	SLU 14	-17	-4	4423	-13.35	-0.02	0.25
215	SLU 15	-17	-13	4426	-12.78	-0.02	0.29
215	SLU 16	-17	-4	4423	-13.35	-0.02	0.25
215	SLU 17	-17	-13	4426	-12.78	-0.02	0.29
215	SLU 18	-16	-3	4773	-14.12	-0.11	0.26
215	SLU 19	-16	-12	4777	-13.55	-0.1	0.3
215	SLU 20	-16	-3	4773	-14.12	-0.11	0.26
215	SLU 21	-16	-12	4777	-13.55	-0.1	0.3
215	SLU 22	-19	-4	4198	-12.74	0.03	0.25
215	SLU 23	-19	-20	4203	-11.79	0.04	0.31
215	SLU 24	-19	-4	4198	-12.74	0.03	0.25
215	SLU 25	-19	-14	4201	-12.17	0.04	0.29
215	SLU 26	-19	-20	4203	-11.79	0.04	0.31
215	SLU 27	-19	-4	4198	-12.74	0.03	0.25
215	SLU 28	-19	-14	4201	-12.17	0.04	0.29
215	SLU 29	-19	-4	4198	-12.74	0.03	0.25
215	SLU 30	-19	-14	4201	-12.17	0.04	0.29
215	SLU 31	-16	-19	5021	-13.58	-0.16	0.33
215	SLU 32	-16	-3	5016	-14.53	-0.17	0.27
215	SLU 33	-16	-12	5019	-13.96	-0.17	0.31
215	SLU 34	-16	-19	5021	-13.58	-0.16	0.33
215	SLU 35	-16	-3	5016	-14.53	-0.17	0.27
215	SLU 36	-16	-12	5019	-13.96	-0.17	0.31
215	SLU 37	-16	-3	5016	-14.53	-0.17	0.27
215	SLU 38	-16	-12	5019	-13.96	-0.17	0.31
215	SLU 39	-15	-3	5367	-15.3	-0.25	0.28
215	SLU 40	-15	-12	5370	-14.73	-0.25	0.32
215	SLU 41	-15	-3	5367	-15.3	-0.25	0.28
215	SLU 42	-15	-12	5370	-14.73	-0.25	0.32
215	SLU 43	-26	-6	4482	-14.63	0.29	0.29
215	SLU 44	-27	-22	4488	-13.67	0.29	0.36
215	SLU 45	-26	-6	4482	-14.63	0.29	0.29
215	SLU 46	-27	-16	4486	-14.05	0.29	0.33



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
215	SLU 47	-27	-22	4488	-13.67	0.29	0.36
215	SLU 48	-26	-6	4482	-14.63	0.29	0.29
215	SLU 49	-27	-16	4486	-14.05	0.29	0.33
215	SLU 50	-26	-6	4482	-14.63	0.29	0.29
215	SLU 51	-27	-16	4486	-14.05	0.29	0.33
215	SLU 52	-24	-21	5306	-15.46	0.09	0.38
215	SLU 53	-24	-5	5301	-16.42	0.08	0.32
215	SLU 54	-24	-14	5304	-15.84	0.09	0.35
215	SLU 55	-24	-21	5306	-15.46	0.09	0.38
215	SLU 56	-24	-5	5301	-16.42	0.08	0.32
215	SLU 57	-24	-14	5304	-15.84	0.09	0.35
215	SLU 58	-24	-5	5301	-16.42	0.08	0.32
215	SLU 59	-24	-14	5304	-15.84	0.09	0.35
215	SLU 60	-22	-5	5651	-17.18	0	0.33
215	SLU 61	-23	-14	5655	-16.61	0	0.36
215	SLU 62	-22	-5	5651	-17.18	0	0.33
215	SLU 63	-23	-14	5655	-16.61	0	0.36
215	SLU 64	-25	-6	5076	-15.81	0.14	0.31
215	SLU 65	-25	-21	5081	-14.85	0.14	0.38
215	SLU 66	-25	-6	5076	-15.81	0.14	0.31
215	SLU 67	-25	-15	5079	-15.23	0.14	0.35
215	SLU 68	-25	-21	5081	-14.85	0.14	0.38
215	SLU 69	-25	-6	5076	-15.81	0.14	0.31
215	SLU 70	-25	-15	5079	-15.23	0.14	0.35
215	SLU 71	-25	-6	5076	-15.81	0.14	0.31
215	SLU 72	-25	-15	5079	-15.23	0.14	0.35
215	SLU 73	-23	-20	5899	-16.64	-0.06	0.4
215	SLU 74	-22	-5	5894	-17.6	-0.06	0.33
215	SLU 75	-23	-14	5897	-17.02	-0.06	0.37
215	SLU 76	-23	-20	5899	-16.64	-0.06	0.4
215	SLU 77	-22	-5	5894	-17.6	-0.06	0.33
215	SLU 78	-23	-14	5897	-17.02	-0.06	0.37
215	SLU 79	-22	-5	5894	-17.6	-0.06	0.33
215	SLU 80	-23	-14	5897	-17.02	-0.06	0.37
215	SLU 81	-21	-4	6245	-18.37	-0.15	0.34
215	SLU 82	-21	-13	6248	-17.79	-0.15	0.38
215	SLU 83	-21	-4	6245	-18.37	-0.15	0.34
215	SLU 84	-21	-13	6248	-17.79	-0.15	0.38
215	SLE RA 1	-20	-5	3774	-11.9	0.14	0.24
215	SLE RA 2	-20	-15	3777	-11.26	0.14	0.28
215	SLE RA 3	-20	-5	3774	-11.9	0.14	0.24
215	SLE RA 4	-20	-11	3776	-11.52	0.14	0.26
215	SLE RA 5	-20	-15	3777	-11.26	0.14	0.28
215	SLE RA 6	-20	-5	3774	-11.9	0.14	0.24
215	SLE RA 7	-20	-11	3776	-11.52	0.14	0.26
215	SLE RA 8	-20	-5	3774	-11.9	0.14	0.24
215	SLE RA 9	-20	-11	3776	-11.52	0.14	0.26
215	SLE RA 10	-18	-14	4323	-12.46	0.01	0.29
215	SLE RA 11	-18	-4	4319	-13.09	0	0.25
215	SLE RA 12	-18	-10	4322	-12.71	0.01	0.28
215	SLE RA 13	-18	-14	4323	-12.46	0.01	0.29
215	SLE RA 14	-18	-4	4319	-13.09	0	0.25
215	SLE RA 15	-18	-10	4322	-12.71	0.01	0.28
215	SLE RA 16	-18	-4	4319	-13.09	0	0.25
215	SLE RA 17	-18	-10	4322	-12.71	0.01	0.28
215	SLE RA 18	-17	-3	4553	-13.6	-0.05	0.26
215	SLE RA 19	-17	-10	4555	-13.22	-0.05	0.28
215	SLE RA 20	-17	-3	4553	-13.6	-0.05	0.26
215	SLE RA 21	-17	-10	4555	-13.22	-0.05	0.28
215	SLE FR 1	-20	-5	3774	-11.9	0.14	0.24
215	SLE FR 2	-20	-7	3775	-11.77	0.14	0.24
215	SLE FR 3	-20	-5	3774	-11.9	0.14	0.24
215	SLE FR 4	-19	-6	4008	-12.28	0.08	0.25
215	SLE FR 5	-19	-4	4008	-12.41	0.08	0.24
215	SLE FR 6	-18	-4	4164	-12.75	0.04	0.25
215	SLE QP 1	-20	-5	3774	-11.9	0.14	0.24
215	SLE QP 2	-19	-4	4008	-12.41	0.08	0.24
215	SLD 1	284	76	3812	-18.04	1.16	-0.19
215	SLD 2	284	99	3814	-17.97	1.15	0.38
215	SLD 3	277	-87	3796	-5.02	1.25	0.42
215	SLD 4	277	-65	3797	-4.95	1.24	1
215	SLD 5	82	259	3973	-33.87	0.27	-1.03
215	SLD 6	83	282	3975	-33.81	0.26	-0.44
215	SLD 7	59	-285	3919	9.53	0.57	1.02
215	SLD 8	60	-262	3920	9.6	0.56	1.61
215	SLD 9	-97	253	4095	-34.42	-0.4	-1.13
215	SLD 10	-97	276	4097	-34.36	-0.41	-0.53
215	SLD 11	-120	-291	4041	8.98	-0.1	0.92
215	SLD 12	-120	-268	4042	9.05	-0.11	1.51
215	SLD 13	-315	56	4218	-19.87	-1.08	-0.51
215	SLD 14	-315	78	4220	-19.81	-1.09	0.06
215	SLD 15	-322	-107	4202	-6.85	-0.99	0.1
215	SLD 16	-322	-85	4203	-6.79	-1	0.67
215	SLV 1	671	184	3565	-25.56	2.53	-0.76
215	SLV 2	671	235	3568	-25.42	2.52	0.55
215	SLV 3	655	-197	3524	4.86	2.74	0.67
215	SLV 4	655	-146	3528	5.01	2.73	1.98
215	SLV 5	212	611	3935	-62.56	0.49	-2.73
215	SLV 6	213	665	3938	-62.4	0.48	-1.35
215	SLV 7	159	-659	3800	38.86	1.21	2.05
215	SLV 8	159	-606	3804	39.01	1.2	3.43



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
215	SLV 9	-197	597	4212	-63.83	-1.04	-2.95
215	SLV 10	-196	651	4215	-63.68	-1.05	-1.57
215	SLV 11	-250	-673	4077	37.58	-0.32	1.83
215	SLV 12	-250	-620	4081	37.73	-0.33	3.21
215	SLV 13	-693	138	4488	-29.83	-2.57	-1.5
215	SLV 14	-692	188	4491	-29.68	-2.58	-0.18
215	SLV 15	-709	-244	4448	0.59	-2.35	-0.06
215	SLV 16	-708	-193	4451	0.74	-2.37	1.25
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	-19	-3	3597	-12.89	0.32	0.26
216	SLU 2	-20	-19	3602	-11.95	0.32	0.29
216	SLU 3	-19	-3	3597	-12.89	0.32	0.26
216	SLU 4	-20	-13	3600	-12.32	0.32	0.28
216	SLU 5	-20	-19	3602	-11.95	0.32	0.29
216	SLU 6	-19	-3	3597	-12.89	0.32	0.26
216	SLU 7	-20	-13	3600	-12.32	0.32	0.28
216	SLU 8	-19	-3	3597	-12.89	0.32	0.26
216	SLU 9	-20	-13	3600	-12.32	0.32	0.28
216	SLU 10	-17	-17	4425	-13.95	0.18	0.3
216	SLU 11	-17	-2	4420	-14.89	0.18	0.26
216	SLU 12	-17	-11	4423	-14.33	0.18	0.29
216	SLU 13	-17	-17	4425	-13.95	0.18	0.3
216	SLU 14	-17	-2	4420	-14.89	0.18	0.26
216	SLU 15	-17	-11	4423	-14.33	0.18	0.29
216	SLU 16	-17	-2	4420	-14.89	0.18	0.26
216	SLU 17	-17	-11	4423	-14.33	0.18	0.29
216	SLU 18	-16	-2	4773	-15.75	0.12	0.27
216	SLU 19	-16	-11	4776	-15.19	0.12	0.29
216	SLU 20	-16	-2	4773	-15.75	0.12	0.27
216	SLU 21	-16	-11	4776	-15.19	0.12	0.29
216	SLU 22	-18	-3	4194	-14.23	0.21	0.27
216	SLU 23	-19	-18	4199	-13.29	0.22	0.3
216	SLU 24	-18	-3	4194	-14.23	0.21	0.27
216	SLU 25	-19	-12	4197	-13.66	0.22	0.29
216	SLU 26	-19	-18	4199	-13.29	0.22	0.3
216	SLU 27	-18	-3	4194	-14.23	0.21	0.27
216	SLU 28	-19	-12	4197	-13.66	0.22	0.29
216	SLU 29	-18	-3	4194	-14.23	0.21	0.27
216	SLU 30	-19	-12	4197	-13.66	0.22	0.29
216	SLU 31	-16	-17	5023	-15.29	0.08	0.31
216	SLU 32	-16	-2	5017	-16.23	0.07	0.28
216	SLU 33	-16	-11	5020	-15.67	0.08	0.3
216	SLU 34	-16	-17	5023	-15.29	0.08	0.31
216	SLU 35	-16	-2	5017	-16.23	0.07	0.28
216	SLU 36	-16	-11	5020	-15.67	0.08	0.3
216	SLU 37	-16	-2	5017	-16.23	0.07	0.28
216	SLU 38	-16	-11	5020	-15.67	0.08	0.3
216	SLU 39	-15	-1	5370	-17.09	0.01	0.28
216	SLU 40	-15	-10	5373	-16.53	0.02	0.3
216	SLU 41	-15	-1	5370	-17.09	0.01	0.28
216	SLU 42	-15	-10	5373	-16.53	0.02	0.3
216	SLU 43	-26	-5	4471	-16.29	0.45	0.33
216	SLU 44	-26	-20	4476	-15.36	0.46	0.36
216	SLU 45	-26	-5	4471	-16.29	0.45	0.33
216	SLU 46	-26	-14	4474	-15.73	0.45	0.35
216	SLU 47	-26	-20	4476	-15.36	0.46	0.36
216	SLU 48	-26	-5	4471	-16.29	0.45	0.33
216	SLU 49	-26	-14	4474	-15.73	0.45	0.35
216	SLU 50	-26	-5	4471	-16.29	0.45	0.33
216	SLU 51	-26	-14	4474	-15.73	0.45	0.35
216	SLU 52	-23	-19	5300	-17.36	0.32	0.37
216	SLU 53	-23	-3	5295	-18.3	0.31	0.34
216	SLU 54	-23	-12	5298	-17.73	0.31	0.36
216	SLU 55	-23	-19	5300	-17.36	0.32	0.37
216	SLU 56	-23	-3	5295	-18.3	0.31	0.34
216	SLU 57	-23	-12	5298	-17.73	0.31	0.36
216	SLU 58	-23	-3	5295	-18.3	0.31	0.34
216	SLU 59	-23	-12	5298	-17.73	0.31	0.36
216	SLU 60	-22	-3	5648	-19.16	0.25	0.34
216	SLU 61	-22	-12	5651	-18.59	0.25	0.36
216	SLU 62	-22	-3	5648	-19.16	0.25	0.34
216	SLU 63	-22	-12	5651	-18.59	0.25	0.36
216	SLU 64	-25	-4	5068	-17.63	0.35	0.34
216	SLU 65	-25	-19	5073	-16.7	0.35	0.37
216	SLU 66	-25	-4	5068	-17.63	0.35	0.34
216	SLU 67	-25	-13	5071	-17.07	0.35	0.36
216	SLU 68	-25	-19	5073	-16.7	0.35	0.37
216	SLU 69	-25	-4	5068	-17.63	0.35	0.34
216	SLU 70	-25	-13	5071	-17.07	0.35	0.36
216	SLU 71	-25	-4	5068	-17.63	0.35	0.34
216	SLU 72	-25	-13	5071	-17.07	0.35	0.36
216	SLU 73	-22	-18	5897	-18.7	0.21	0.38
216	SLU 74	-22	-3	5892	-19.64	0.21	0.35
216	SLU 75	-22	-12	5895	-19.07	0.21	0.37
216	SLU 76	-22	-18	5897	-18.7	0.21	0.38
216	SLU 77	-22	-3	5892	-19.64	0.21	0.35
216	SLU 78	-22	-12	5895	-19.07	0.21	0.37
216	SLU 79	-22	-3	5892	-19.64	0.21	0.35



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
216	SLU 80	-22	-12	5895	-19.07	0.21	0.37
216	SLU 81	-21	-2	6245	-20.5	0.15	0.35
216	SLU 82	-21	-11	6248	-19.93	0.15	0.37
216	SLU 83	-21	-2	6245	-20.5	0.15	0.35
216	SLU 84	-21	-11	6248	-19.93	0.15	0.37
216	SLE RA 1	-19	-3	3768	-13.27	0.29	0.26
216	SLE RA 2	-19	-13	3771	-12.65	0.29	0.28
216	SLE RA 3	-19	-3	3768	-13.27	0.29	0.26
216	SLE RA 4	-19	-9	3770	-12.89	0.29	0.27
216	SLE RA 5	-19	-13	3771	-12.65	0.29	0.28
216	SLE RA 6	-19	-3	3768	-13.27	0.29	0.26
216	SLE RA 7	-19	-9	3770	-12.89	0.29	0.27
216	SLE RA 8	-19	-3	3768	-13.27	0.29	0.26
216	SLE RA 9	-19	-9	3770	-12.89	0.29	0.27
216	SLE RA 10	-18	-13	4320	-13.98	0.2	0.29
216	SLE RA 11	-17	-2	4316	-14.61	0.2	0.26
216	SLE RA 12	-18	-9	4319	-14.23	0.2	0.28
216	SLE RA 13	-18	-13	4320	-13.98	0.2	0.29
216	SLE RA 14	-17	-2	4316	-14.61	0.2	0.26
216	SLE RA 15	-18	-9	4319	-14.23	0.2	0.28
216	SLE RA 16	-17	-2	4316	-14.61	0.2	0.26
216	SLE RA 17	-18	-9	4319	-14.23	0.2	0.28
216	SLE RA 18	-17	-2	4552	-15.18	0.16	0.27
216	SLE RA 19	-17	-8	4554	-14.8	0.16	0.28
216	SLE RA 20	-17	-2	4552	-15.18	0.16	0.27
216	SLE RA 21	-17	-8	4554	-14.8	0.16	0.28
216	SLE FR 1	-19	-3	3768	-13.27	0.29	0.26
216	SLE FR 2	-19	-5	3768	-13.14	0.29	0.26
216	SLE FR 3	-19	-3	3768	-13.27	0.29	0.26
216	SLE FR 4	-18	-5	4003	-13.72	0.25	0.27
216	SLE FR 5	-18	-3	4003	-13.84	0.25	0.26
216	SLE FR 6	-18	-3	4160	-14.22	0.22	0.26
216	SLE QP 1	-19	-3	3768	-13.27	0.29	0.26
216	SLE QP 2	-18	-3	4003	-13.84	0.25	0.26
216	SLD 1	284	75	3774	-19.45	1.34	-0.08
216	SLD 2	284	100	3776	-19.38	1.33	0.53
216	SLD 3	277	-86	3757	-6.42	1.42	0.28
216	SLD 4	277	-60	3758	-6.36	1.42	0.89
216	SLD 5	83	255	3960	-35.3	0.45	-0.61
216	SLD 6	83	281	3962	-35.24	0.44	0.02
216	SLD 7	60	-280	3902	8.12	0.73	0.59
216	SLD 8	60	-254	3903	8.18	0.73	1.22
216	SLD 9	-97	248	4102	-35.87	-0.23	-0.7
216	SLD 10	-97	275	4104	-35.8	-0.23	-0.07
216	SLD 11	-120	-287	4044	7.56	0.06	0.51
216	SLD 12	-120	-260	4045	7.62	0.05	1.14
216	SLD 13	-314	54	4247	-21.33	-0.92	-0.37
216	SLD 14	-314	80	4249	-21.27	-0.92	0.24
216	SLD 15	-321	-106	4230	-8.3	-0.83	0
216	SLD 16	-321	-81	4231	-8.24	-0.84	0.6
216	SLV 1	671	179	3484	-26.94	2.72	-0.53
216	SLV 2	671	237	3488	-26.8	2.71	0.86
216	SLV 3	655	-196	3441	3.5	2.93	0.32
216	SLV 4	655	-138	3445	3.64	2.92	1.71
216	SLV 5	213	599	3911	-63.99	0.68	-1.78
216	SLV 6	213	660	3915	-63.85	0.67	-0.32
216	SLV 7	159	-651	3767	37.48	1.37	1.04
216	SLV 8	159	-590	3771	37.62	1.36	2.5
216	SLV 9	-196	585	4234	-65.31	-0.86	-1.98
216	SLV 10	-196	645	4238	-65.16	-0.87	-0.52
216	SLV 11	-250	-665	4090	36.16	-0.17	0.84
216	SLV 12	-250	-605	4094	36.31	-0.18	2.3
216	SLV 13	-692	132	4561	-31.32	-2.42	-1.18
216	SLV 14	-692	190	4565	-31.18	-2.43	0.2
216	SLV 15	-708	-243	4518	-0.88	-2.21	-0.34
216	SLV 16	-708	-185	4521	-0.74	-2.22	1.05
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	-19	-2	3585	-14.2	0.47	0.28
217	SLU 2	-19	-17	3590	-13.28	0.48	0.28
217	SLU 3	-19	-2	3585	-14.2	0.47	0.28
217	SLU 4	-19	-11	3588	-13.65	0.47	0.28
217	SLU 5	-19	-17	3590	-13.28	0.48	0.28
217	SLU 6	-19	-2	3585	-14.2	0.47	0.28
217	SLU 7	-19	-11	3588	-13.65	0.47	0.28
217	SLU 8	-19	-2	3585	-14.2	0.47	0.28
217	SLU 9	-19	-11	3588	-13.65	0.47	0.28
217	SLU 10	-17	-16	4417	-15.49	0.4	0.27
217	SLU 11	-17	-1	4412	-16.41	0.4	0.27
217	SLU 12	-17	-10	4415	-15.86	0.4	0.27
217	SLU 13	-17	-16	4417	-15.49	0.4	0.27
217	SLU 14	-17	-1	4412	-16.41	0.4	0.27
217	SLU 15	-17	-10	4415	-15.86	0.4	0.27
217	SLU 16	-17	-1	4412	-16.41	0.4	0.27
217	SLU 17	-17	-10	4415	-15.86	0.4	0.27
217	SLU 18	-16	0	4766	-17.35	0.37	0.27
217	SLU 19	-16	-9	4769	-16.8	0.37	0.27
217	SLU 20	-16	0	4766	-17.35	0.37	0.27
217	SLU 21	-16	-9	4769	-16.8	0.37	0.27



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
217	SLU 22	-18	-2	4185	-15.69	0.41	0.28
217	SLU 23	-19	-17	4190	-14.77	0.42	0.28
217	SLU 24	-18	-2	4185	-15.69	0.41	0.28
217	SLU 25	-18	-11	4188	-15.14	0.42	0.28
217	SLU 26	-19	-17	4190	-14.77	0.42	0.28
217	SLU 27	-18	-2	4185	-15.69	0.41	0.28
217	SLU 28	-18	-11	4188	-15.14	0.42	0.28
217	SLU 29	-18	-2	4185	-15.69	0.41	0.28
217	SLU 30	-18	-11	4188	-15.14	0.42	0.28
217	SLU 31	-16	-15	5016	-16.98	0.35	0.28
217	SLU 32	-16	0	5011	-17.9	0.34	0.28
217	SLU 33	-16	-9	5014	-17.35	0.34	0.28
217	SLU 34	-16	-15	5016	-16.98	0.35	0.28
217	SLU 35	-16	0	5011	-17.9	0.34	0.28
217	SLU 36	-16	-9	5014	-17.35	0.34	0.28
217	SLU 37	-16	0	5011	-17.9	0.34	0.28
217	SLU 38	-16	-9	5014	-17.35	0.34	0.28
217	SLU 39	-15	0	5366	-18.84	0.31	0.27
217	SLU 40	-15	-9	5369	-18.29	0.31	0.27
217	SLU 41	-15	0	5366	-18.84	0.31	0.27
217	SLU 42	-15	-9	5369	-18.29	0.31	0.27
217	SLU 43	-25	-3	4455	-17.95	0.63	0.36
217	SLU 44	-26	-18	4460	-17.03	0.64	0.36
217	SLU 45	-25	-3	4455	-17.95	0.63	0.36
217	SLU 46	-25	-12	4458	-17.4	0.63	0.36
217	SLU 47	-26	-18	4460	-17.03	0.64	0.36
217	SLU 48	-25	-3	4455	-17.95	0.63	0.36
217	SLU 49	-25	-12	4458	-17.4	0.63	0.36
217	SLU 50	-25	-3	4455	-17.95	0.63	0.36
217	SLU 51	-25	-12	4458	-17.4	0.63	0.36
217	SLU 52	-23	-17	5287	-19.24	0.56	0.35
217	SLU 53	-23	-1	5282	-20.15	0.56	0.35
217	SLU 54	-23	-11	5285	-19.6	0.56	0.35
217	SLU 55	-23	-17	5287	-19.24	0.56	0.35
217	SLU 56	-23	-1	5282	-20.15	0.56	0.35
217	SLU 57	-23	-11	5285	-19.6	0.56	0.35
217	SLU 58	-23	-1	5282	-20.15	0.56	0.35
217	SLU 59	-23	-11	5285	-19.6	0.56	0.35
217	SLU 60	-22	-1	5636	-21.1	0.53	0.35
217	SLU 61	-22	-10	5639	-20.55	0.53	0.35
217	SLU 62	-22	-1	5636	-21.1	0.53	0.35
217	SLU 63	-22	-10	5639	-20.55	0.53	0.35
217	SLU 64	-24	-2	5055	-19.44	0.58	0.36
217	SLU 65	-25	-17	5060	-18.52	0.58	0.36
217	SLU 66	-24	-2	5055	-19.44	0.58	0.36
217	SLU 67	-24	-11	5058	-18.89	0.58	0.36
217	SLU 68	-25	-17	5060	-18.52	0.58	0.36
217	SLU 69	-24	-2	5055	-19.44	0.58	0.36
217	SLU 70	-24	-11	5058	-18.89	0.58	0.36
217	SLU 71	-24	-2	5055	-19.44	0.58	0.36
217	SLU 72	-24	-11	5058	-18.89	0.58	0.36
217	SLU 73	-22	-16	5886	-20.73	0.51	0.36
217	SLU 74	-22	-1	5881	-21.65	0.5	0.36
217	SLU 75	-22	-10	5884	-21.1	0.5	0.36
217	SLU 76	-22	-16	5886	-20.73	0.51	0.36
217	SLU 77	-22	-1	5881	-21.65	0.5	0.36
217	SLU 78	-22	-10	5884	-21.1	0.5	0.36
217	SLU 79	-22	-1	5881	-21.65	0.5	0.36
217	SLU 80	-22	-10	5884	-21.1	0.5	0.36
217	SLU 81	-21	0	6236	-22.59	0.47	0.36
217	SLU 82	-21	-9	6239	-22.04	0.47	0.36
217	SLU 83	-21	0	6236	-22.59	0.47	0.36
217	SLU 84	-21	-9	6239	-22.04	0.47	0.36
217	SLE RA 1	-19	-2	3756	-14.63	0.45	0.28
217	SLE RA 2	-19	-12	3760	-14.01	0.46	0.28
217	SLE RA 3	-19	-2	3756	-14.63	0.45	0.28
217	SLE RA 4	-19	-8	3758	-14.26	0.46	0.28
217	SLE RA 5	-19	-12	3760	-14.01	0.46	0.28
217	SLE RA 6	-19	-2	3756	-14.63	0.45	0.28
217	SLE RA 7	-19	-8	3758	-14.26	0.46	0.28
217	SLE RA 8	-19	-2	3756	-14.63	0.45	0.28
217	SLE RA 9	-19	-8	3758	-14.26	0.46	0.28
217	SLE RA 10	-18	-11	4311	-15.48	0.41	0.27
217	SLE RA 11	-17	-1	4308	-16.1	0.41	0.27
217	SLE RA 12	-17	-7	4310	-15.73	0.41	0.27
217	SLE RA 13	-18	-11	4311	-15.48	0.41	0.27
217	SLE RA 14	-17	-1	4308	-16.1	0.41	0.27
217	SLE RA 15	-17	-7	4310	-15.73	0.41	0.27
217	SLE RA 16	-17	-1	4308	-16.1	0.41	0.27
217	SLE RA 17	-17	-7	4310	-15.73	0.41	0.27
217	SLE RA 18	-17	-1	4544	-16.73	0.38	0.27
217	SLE RA 19	-17	-7	4546	-16.36	0.39	0.27
217	SLE RA 20	-17	-1	4544	-16.73	0.38	0.27
217	SLE RA 21	-17	-7	4546	-16.36	0.39	0.27
217	SLE FR 1	-19	-2	3756	-14.63	0.45	0.28
217	SLE FR 2	-19	-4	3757	-14.5	0.46	0.28
217	SLE FR 3	-19	-2	3756	-14.63	0.45	0.28
217	SLE FR 4	-18	-3	3993	-15.13	0.43	0.28
217	SLE FR 5	-18	-1	3993	-15.26	0.43	0.28
217	SLE FR 6	-18	-1	4150	-15.68	0.42	0.28
217	SLE QP 1	-19	-2	3756	-14.63	0.45	0.28



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
217	SLE QP 2	-18	-1	3993	-15.26	0.43	0.28
217	SLD 1	284	74	3731	-20.83	1.53	0.03
217	SLD 2	284	103	3732	-20.77	1.53	0.68
217	SLD 3	277	-85	3712	-7.8	1.62	0.12
217	SLD 4	277	-56	3714	-7.74	1.62	0.77
217	SLD 5	83	252	3942	-36.71	0.64	-0.18
217	SLD 6	83	282	3943	-36.65	0.63	0.5
217	SLD 7	60	-279	3880	6.72	0.92	0.13
217	SLD 8	60	-249	3881	6.78	0.92	0.81
217	SLD 9	-96	246	4104	-37.29	-0.05	-0.25
217	SLD 10	-96	276	4106	-37.23	-0.05	0.43
217	SLD 11	-120	-285	4042	6.14	0.23	0.05
217	SLD 12	-119	-255	4044	6.2	0.23	0.73
217	SLD 13	-314	54	4272	-22.77	-0.75	-0.22
217	SLD 14	-314	82	4273	-22.71	-0.75	0.43
217	SLD 15	-321	-106	4253	-9.74	-0.66	-0.13
217	SLD 16	-321	-77	4255	-9.68	-0.67	0.52
217	SLV 1	670	176	3398	-28.29	2.93	-0.3
217	SLV 2	671	241	3402	-28.16	2.92	1.2
217	SLV 3	654	-196	3352	2.16	3.14	-0.08
217	SLV 4	655	-131	3356	2.29	3.13	1.42
217	SLV 5	213	592	3882	-65.4	0.87	-0.79
217	SLV 6	213	661	3886	-65.26	0.87	0.79
217	SLV 7	159	-649	3730	36.1	1.56	-0.07
217	SLV 8	159	-580	3734	36.24	1.55	1.51
217	SLV 9	-196	577	4251	-66.76	-0.68	-0.96
217	SLV 10	-195	646	4255	-66.61	-0.69	0.62
217	SLV 11	-250	-664	4099	34.75	0	-0.24
217	SLV 12	-249	-595	4104	34.89	-0.01	1.34
217	SLV 13	-691	128	4629	-32.8	-2.26	-0.87
217	SLV 14	-691	194	4633	-32.67	-2.27	0.63
217	SLV 15	-707	-244	4584	-2.35	-2.06	-0.65
217	SLV 16	-707	-179	4588	-2.22	-2.06	0.85
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	-19	0	3568	-15.5	0.67	0.3
218	SLU 2	-19	-16	3573	-14.6	0.67	0.26
218	SLU 3	-19	0	3568	-15.5	0.67	0.3
218	SLU 4	-19	-10	3571	-14.96	0.67	0.28
218	SLU 5	-19	-16	3573	-14.6	0.67	0.26
218	SLU 6	-19	0	3568	-15.5	0.67	0.3
218	SLU 7	-19	-10	3571	-14.96	0.67	0.28
218	SLU 8	-19	0	3568	-15.5	0.67	0.3
218	SLU 9	-19	-10	3571	-14.96	0.67	0.28
218	SLU 10	-17	-14	4401	-17	0.69	0.24
218	SLU 11	-17	1	4396	-17.9	0.68	0.28
218	SLU 12	-17	-8	4399	-17.36	0.69	0.26
218	SLU 13	-17	-14	4401	-17	0.69	0.24
218	SLU 14	-17	1	4396	-17.9	0.68	0.28
218	SLU 15	-17	-8	4399	-17.36	0.69	0.26
218	SLU 16	-17	1	4396	-17.9	0.68	0.28
218	SLU 17	-17	-8	4399	-17.36	0.69	0.26
218	SLU 18	-16	1	4750	-18.93	0.69	0.27
218	SLU 19	-16	-8	4753	-18.39	0.69	0.25
218	SLU 20	-16	1	4750	-18.93	0.69	0.27
218	SLU 21	-16	-8	4753	-18.39	0.69	0.25
218	SLU 22	-18	0	4168	-17.14	0.68	0.3
218	SLU 23	-18	-15	4173	-16.23	0.68	0.26
218	SLU 24	-18	0	4168	-17.14	0.68	0.3
218	SLU 25	-18	-9	4171	-16.6	0.68	0.27
218	SLU 26	-18	-15	4173	-16.23	0.68	0.26
218	SLU 27	-18	0	4168	-17.14	0.68	0.3
218	SLU 28	-18	-9	4171	-16.6	0.68	0.27
218	SLU 29	-18	0	4168	-17.14	0.68	0.3
218	SLU 30	-18	-9	4171	-16.6	0.68	0.27
218	SLU 31	-16	-14	5001	-18.63	0.7	0.24
218	SLU 32	-16	1	4996	-19.54	0.69	0.28
218	SLU 33	-16	-8	4999	-19	0.69	0.25
218	SLU 34	-16	-14	5001	-18.63	0.7	0.24
218	SLU 35	-16	1	4996	-19.54	0.69	0.28
218	SLU 36	-16	-8	4999	-19	0.69	0.25
218	SLU 37	-16	1	4996	-19.54	0.69	0.28
218	SLU 38	-16	-8	4999	-19	0.69	0.25
218	SLU 39	-15	2	5351	-20.56	0.7	0.27
218	SLU 40	-15	-7	5354	-20.02	0.7	0.25
218	SLU 41	-15	2	5351	-20.56	0.7	0.27
218	SLU 42	-15	-7	5354	-20.02	0.7	0.25
218	SLU 43	-25	-1	4433	-19.59	0.87	0.39
218	SLU 44	-25	-16	4438	-18.69	0.87	0.35
218	SLU 45	-25	-1	4433	-19.59	0.87	0.39
218	SLU 46	-25	-10	4436	-19.05	0.87	0.37
218	SLU 47	-25	-16	4438	-18.69	0.87	0.35
218	SLU 48	-25	-1	4433	-19.59	0.87	0.39
218	SLU 49	-25	-10	4436	-19.05	0.87	0.37
218	SLU 50	-25	-1	4433	-19.59	0.87	0.39
218	SLU 51	-25	-10	4436	-19.05	0.87	0.37
218	SLU 52	-23	-15	5265	-21.09	0.89	0.33
218	SLU 53	-23	1	5260	-21.99	0.88	0.37
218	SLU 54	-23	-9	5263	-21.45	0.89	0.35



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
218	SLU 55	-23	-15	5265	-21.09	0.89	0.33
218	SLU 56	-23	1	5260	-21.99	0.88	0.37
218	SLU 57	-23	-9	5263	-21.45	0.89	0.35
218	SLU 58	-23	1	5260	-21.99	0.88	0.37
218	SLU 59	-23	-9	5263	-21.45	0.89	0.35
218	SLU 60	-22	1	5615	-23.02	0.89	0.36
218	SLU 61	-22	-8	5618	-22.48	0.89	0.34
218	SLU 62	-22	1	5615	-23.02	0.89	0.36
218	SLU 63	-22	-8	5618	-22.48	0.89	0.34
218	SLU 64	-24	0	5033	-21.23	0.87	0.39
218	SLU 65	-24	-16	5038	-20.32	0.88	0.35
218	SLU 66	-24	0	5033	-21.23	0.87	0.39
218	SLU 67	-24	-9	5036	-20.68	0.88	0.36
218	SLU 68	-24	-16	5038	-20.32	0.88	0.35
218	SLU 69	-24	0	5033	-21.23	0.87	0.39
218	SLU 70	-24	-9	5036	-20.68	0.88	0.36
218	SLU 71	-24	0	5033	-21.23	0.87	0.39
218	SLU 72	-24	-9	5036	-20.68	0.88	0.36
218	SLU 73	-22	-14	5866	-22.72	0.89	0.33
218	SLU 74	-22	1	5861	-23.63	0.89	0.37
218	SLU 75	-22	-8	5864	-23.08	0.89	0.34
218	SLU 76	-22	-14	5866	-22.72	0.89	0.33
218	SLU 77	-22	1	5861	-23.63	0.89	0.37
218	SLU 78	-22	-8	5864	-23.08	0.89	0.34
218	SLU 79	-22	1	5861	-23.63	0.89	0.37
218	SLU 80	-22	-8	5864	-23.08	0.89	0.34
218	SLU 81	-21	2	6215	-24.65	0.9	0.36
218	SLU 82	-21	-8	6218	-24.11	0.9	0.34
218	SLU 83	-21	2	6215	-24.65	0.9	0.36
218	SLU 84	-21	-8	6218	-24.11	0.9	0.34
218	SLE RA 1	-19	0	3740	-15.97	0.67	0.3
218	SLE RA 2	-19	-10	3743	-15.37	0.67	0.27
218	SLE RA 3	-19	0	3740	-15.97	0.67	0.3
218	SLE RA 4	-19	-6	3742	-15.61	0.67	0.28
218	SLE RA 5	-19	-10	3743	-15.37	0.67	0.27
218	SLE RA 6	-19	0	3740	-15.97	0.67	0.3
218	SLE RA 7	-19	-6	3742	-15.61	0.67	0.28
218	SLE RA 8	-19	0	3740	-15.97	0.67	0.3
218	SLE RA 9	-19	-6	3742	-15.61	0.67	0.28
218	SLE RA 10	-18	-10	4295	-16.97	0.68	0.26
218	SLE RA 11	-17	1	4291	-17.57	0.68	0.29
218	SLE RA 12	-17	-6	4293	-17.21	0.68	0.27
218	SLE RA 13	-18	-10	4295	-16.97	0.68	0.26
218	SLE RA 14	-17	1	4291	-17.57	0.68	0.29
218	SLE RA 15	-17	-6	4293	-17.21	0.68	0.27
218	SLE RA 16	-17	1	4291	-17.57	0.68	0.29
218	SLE RA 17	-17	-6	4293	-17.21	0.68	0.27
218	SLE RA 18	-17	1	4528	-18.25	0.69	0.28
218	SLE RA 19	-17	-5	4530	-17.89	0.69	0.26
218	SLE RA 20	-17	1	4528	-18.25	0.69	0.28
218	SLE RA 21	-17	-5	4530	-17.89	0.69	0.26
218	SLE FR 1	-19	0	3740	-15.97	0.67	0.3
218	SLE FR 2	-19	-2	3740	-15.85	0.67	0.29
218	SLE FR 3	-19	0	3740	-15.97	0.67	0.3
218	SLE FR 4	-18	-2	3977	-16.53	0.68	0.29
218	SLE FR 5	-18	0	3976	-16.65	0.68	0.29
218	SLE FR 6	-18	0	4134	-17.11	0.68	0.29
218	SLE QP 1	-19	0	3740	-15.97	0.67	0.3
218	SLE QP 2	-18	0	3976	-16.65	0.68	0.29
218	SLD 1	284	75	3680	-22.2	1.78	0.2
218	SLD 2	284	107	3682	-22.14	1.78	0.91
218	SLD 3	277	-85	3661	-9.17	1.86	-0.11
218	SLD 4	277	-53	3662	-9.12	1.86	0.61
218	SLD 5	83	253	3916	-38.1	0.88	0.46
218	SLD 6	83	287	3918	-38.04	0.88	1.21
218	SLD 7	60	-280	3851	5.33	1.16	-0.56
218	SLD 8	60	-247	3853	5.39	1.16	0.19
218	SLD 9	-96	247	4099	-38.69	0.19	0.4
218	SLD 10	-96	280	4101	-38.64	0.19	1.14
218	SLD 11	-119	-286	4034	4.73	0.47	-0.62
218	SLD 12	-119	-253	4036	4.79	0.47	0.12
218	SLD 13	-313	53	4290	-24.19	-0.51	-0.02
218	SLD 14	-313	86	4292	-24.13	-0.51	0.7
218	SLD 15	-320	-107	4270	-11.16	-0.43	-0.33
218	SLD 16	-320	-74	4272	-11.11	-0.43	0.39
218	SLV 1	670	174	3304	-29.62	3.19	0.08
218	SLV 2	670	248	3308	-29.49	3.18	1.72
218	SLV 3	654	-199	3256	0.83	3.39	-0.64
218	SLV 4	654	-126	3260	0.96	3.39	1.01
218	SLV 5	213	592	3845	-66.78	1.12	0.69
218	SLV 6	213	669	3850	-66.64	1.11	2.42
218	SLV 7	159	-655	3686	34.73	1.8	-1.69
218	SLV 8	159	-577	3691	34.86	1.8	0.04
218	SLV 9	-195	577	4262	-68.17	-0.45	0.54
218	SLV 10	-195	655	4266	-68.03	-0.45	2.28
218	SLV 11	-249	-669	4103	33.33	0.24	-1.84
218	SLV 12	-249	-591	4107	33.47	0.23	-0.11
218	SLV 13	-690	126	4692	-34.27	-2.04	-0.42
218	SLV 14	-690	199	4696	-34.14	-2.04	1.23
218	SLV 15	-706	-248	4644	-3.82	-1.83	-1.13
218	SLV 16	-706	-174	4648	-3.69	-1.84	0.51



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
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	-19	1	3544	-16.79	0.92	0.33
219	SLU 2	-19	-14	3549	-15.9	0.93	0.25
219	SLU 3	-19	1	3544	-16.79	0.92	0.33
219	SLU 4	-19	-8	3547	-16.26	0.92	0.28
219	SLU 5	-19	-14	3549	-15.9	0.93	0.25
219	SLU 6	-19	1	3544	-16.79	0.92	0.33
219	SLU 7	-19	-8	3547	-16.26	0.92	0.28
219	SLU 8	-19	1	3544	-16.79	0.92	0.33
219	SLU 9	-19	-8	3547	-16.26	0.92	0.28
219	SLU 10	-17	-13	4374	-18.48	1.08	0.22
219	SLU 11	-17	2	4370	-19.37	1.07	0.3
219	SLU 12	-17	-7	4372	-18.84	1.08	0.25
219	SLU 13	-17	-13	4374	-18.48	1.08	0.22
219	SLU 14	-17	2	4370	-19.37	1.07	0.3
219	SLU 15	-17	-7	4372	-18.84	1.08	0.25
219	SLU 16	-17	2	4370	-19.37	1.07	0.3
219	SLU 17	-17	-7	4372	-18.84	1.08	0.25
219	SLU 18	-16	3	4723	-20.48	1.14	0.28
219	SLU 19	-16	-7	4726	-19.94	1.14	0.23
219	SLU 20	-16	3	4723	-20.48	1.14	0.28
219	SLU 21	-16	-7	4726	-19.94	1.14	0.23
219	SLU 22	-18	2	4143	-18.56	1.02	0.32
219	SLU 23	-19	-14	4148	-17.68	1.03	0.24
219	SLU 24	-18	2	4143	-18.56	1.02	0.32
219	SLU 25	-18	-8	4146	-18.03	1.03	0.27
219	SLU 26	-19	-14	4148	-17.68	1.03	0.24
219	SLU 27	-18	2	4143	-18.56	1.02	0.32
219	SLU 28	-18	-8	4146	-18.03	1.03	0.27
219	SLU 29	-18	2	4143	-18.56	1.02	0.32
219	SLU 30	-18	-8	4146	-18.03	1.03	0.27
219	SLU 31	-17	-13	4973	-20.26	1.18	0.21
219	SLU 32	-16	3	4968	-21.14	1.17	0.28
219	SLU 33	-17	-7	4971	-20.61	1.18	0.24
219	SLU 34	-17	-13	4973	-20.26	1.18	0.21
219	SLU 35	-16	3	4968	-21.14	1.17	0.28
219	SLU 36	-17	-7	4971	-20.61	1.18	0.24
219	SLU 37	-16	3	4968	-21.14	1.17	0.28
219	SLU 38	-17	-7	4971	-20.61	1.18	0.24
219	SLU 39	-16	3	5322	-22.25	1.24	0.27
219	SLU 40	-16	-6	5325	-21.72	1.24	0.22
219	SLU 41	-16	3	5322	-22.25	1.24	0.27
219	SLU 42	-16	-6	5325	-21.72	1.24	0.22
219	SLU 43	-25	1	4403	-21.22	1.16	0.43
219	SLU 44	-25	-14	4407	-20.33	1.17	0.35
219	SLU 45	-25	1	4403	-21.22	1.16	0.43
219	SLU 46	-25	-8	4405	-20.69	1.17	0.38
219	SLU 47	-25	-14	4407	-20.33	1.17	0.35
219	SLU 48	-25	1	4403	-21.22	1.16	0.43
219	SLU 49	-25	-8	4405	-20.69	1.17	0.38
219	SLU 50	-25	1	4403	-21.22	1.16	0.43
219	SLU 51	-25	-8	4405	-20.69	1.17	0.38
219	SLU 52	-23	-13	5232	-22.91	1.32	0.32
219	SLU 53	-23	3	5228	-23.8	1.31	0.4
219	SLU 54	-23	-7	5231	-23.27	1.32	0.35
219	SLU 55	-23	-13	5232	-22.91	1.32	0.32
219	SLU 56	-23	3	5228	-23.8	1.31	0.4
219	SLU 57	-23	-7	5231	-23.27	1.32	0.35
219	SLU 58	-23	3	5228	-23.8	1.31	0.4
219	SLU 59	-23	-7	5231	-23.27	1.32	0.35
219	SLU 60	-22	3	5581	-24.9	1.38	0.38
219	SLU 61	-22	-6	5584	-24.37	1.38	0.34
219	SLU 62	-22	3	5581	-24.9	1.38	0.38
219	SLU 63	-22	-6	5584	-24.37	1.38	0.34
219	SLU 64	-24	2	5001	-22.99	1.26	0.42
219	SLU 65	-24	-14	5006	-22.11	1.27	0.34
219	SLU 66	-24	2	5001	-22.99	1.26	0.42
219	SLU 67	-24	-7	5004	-22.46	1.27	0.37
219	SLU 68	-24	-14	5006	-22.11	1.27	0.34
219	SLU 69	-24	2	5001	-22.99	1.26	0.42
219	SLU 70	-24	-7	5004	-22.46	1.27	0.37
219	SLU 71	-24	2	5001	-22.99	1.26	0.42
219	SLU 72	-24	-7	5004	-22.46	1.27	0.37
219	SLU 73	-23	-13	5831	-24.69	1.42	0.31
219	SLU 74	-22	3	5826	-25.57	1.42	0.39
219	SLU 75	-22	-6	5829	-25.04	1.42	0.34
219	SLU 76	-23	-13	5831	-24.69	1.42	0.31
219	SLU 77	-22	3	5826	-25.57	1.42	0.39
219	SLU 78	-22	-6	5829	-25.04	1.42	0.34
219	SLU 79	-22	3	5826	-25.57	1.42	0.39
219	SLU 80	-22	-6	5829	-25.04	1.42	0.34
219	SLU 81	-21	3	6180	-26.68	1.48	0.37
219	SLU 82	-22	-6	6183	-26.15	1.48	0.33
219	SLU 83	-21	3	6180	-26.68	1.48	0.37
219	SLU 84	-22	-6	6183	-26.15	1.48	0.33
219	SLE RA 1	-19	1	3716	-17.3	0.95	0.33
219	SLE RA 2	-19	-9	3719	-16.7	0.95	0.27
219	SLE RA 3	-19	1	3716	-17.3	0.95	0.33



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
219	SLE RA 4	-19	-5	3717	-16.94	0.95	0.29
219	SLE RA 5	-19	-9	3719	-16.7	0.95	0.27
219	SLE RA 6	-19	1	3716	-17.3	0.95	0.33
219	SLE RA 7	-19	-5	3717	-16.94	0.95	0.29
219	SLE RA 8	-19	1	3716	-17.3	0.95	0.33
219	SLE RA 9	-19	-5	3717	-16.94	0.95	0.29
219	SLE RA 10	-18	-8	4269	-18.43	1.05	0.25
219	SLE RA 11	-17	2	4266	-19.02	1.05	0.3
219	SLE RA 12	-18	-4	4268	-18.66	1.05	0.27
219	SLE RA 13	-18	-8	4269	-18.43	1.05	0.25
219	SLE RA 14	-17	2	4266	-19.02	1.05	0.3
219	SLE RA 15	-18	-4	4268	-18.66	1.05	0.27
219	SLE RA 16	-17	2	4266	-19.02	1.05	0.3
219	SLE RA 17	-18	-4	4268	-18.66	1.05	0.27
219	SLE RA 18	-17	2	4501	-19.75	1.09	0.29
219	SLE RA 19	-17	-4	4503	-19.4	1.1	0.26
219	SLE RA 20	-17	2	4501	-19.75	1.09	0.29
219	SLE RA 21	-17	-4	4503	-19.4	1.1	0.26
219	SLE FR 1	-19	1	3716	-17.3	0.95	0.33
219	SLE FR 2	-19	-1	3716	-17.18	0.95	0.31
219	SLE FR 3	-19	1	3716	-17.3	0.95	0.33
219	SLE FR 4	-18	0	3952	-17.91	0.99	0.31
219	SLE FR 5	-18	2	3951	-18.03	0.99	0.32
219	SLE FR 6	-18	2	4108	-18.52	1.02	0.31
219	SLE QP 1	-19	1	3716	-17.3	0.95	0.33
219	SLE QP 2	-18	2	3951	-18.03	0.99	0.32
219	SLD 1	283	76	3622	-23.55	2.08	0.14
219	SLD 2	284	112	3623	-23.49	2.08	0.93
219	SLD 3	277	-87	3601	-10.53	2.16	-0.51
219	SLD 4	277	-51	3603	-10.47	2.16	0.28
219	SLD 5	83	257	3883	-39.45	1.2	0.96
219	SLD 6	83	295	3885	-39.4	1.2	1.78
219	SLD 7	60	-285	3815	3.95	1.47	-1.21
219	SLD 8	60	-247	3817	4	1.46	-0.39
219	SLD 9	-96	250	4086	-40.07	0.52	1.02
219	SLD 10	-96	288	4088	-40.01	0.52	1.84
219	SLD 11	-119	-291	4018	3.33	0.79	-1.15
219	SLD 12	-119	-254	4020	3.39	0.79	-0.33
219	SLD 13	-313	54	4300	-25.6	-0.17	0.35
219	SLD 14	-313	90	4301	-25.54	-0.17	1.14
219	SLD 15	-320	-109	4279	-12.58	-0.09	-0.3
219	SLD 16	-320	-72	4281	-12.52	-0.09	0.49
219	SLV 1	669	175	3202	-30.92	3.46	-0.06
219	SLV 2	669	258	3207	-30.79	3.46	1.75
219	SLV 3	653	-205	3153	-0.48	3.66	-1.59
219	SLV 4	653	-122	3157	-0.35	3.66	0.22
219	SLV 5	212	598	3800	-68.1	1.43	1.83
219	SLV 6	213	686	3805	-67.97	1.43	3.74
219	SLV 7	158	-667	3635	33.34	2.1	-3.25
219	SLV 8	159	-580	3639	33.48	2.09	-1.34
219	SLV 9	-195	583	4263	-69.54	-0.1	1.97
219	SLV 10	-195	671	4268	-69.41	-0.11	3.88
219	SLV 11	-249	-682	4098	31.9	0.56	-3.1
219	SLV 12	-249	-595	4102	32.04	0.55	-1.2
219	SLV 13	-689	125	4746	-35.71	-1.67	0.41
219	SLV 14	-689	208	4750	-35.58	-1.67	2.22
219	SLV 15	-705	-255	4696	-5.28	-1.47	-1.11
219	SLV 16	-705	-172	4700	-5.15	-1.47	0.7
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	-19	3	3513	-18.07	1.21	0.37
220	SLU 2	-19	-13	3517	-17.19	1.21	0.25
220	SLU 3	-19	3	3513	-18.07	1.21	0.37
220	SLU 4	-19	-7	3515	-17.54	1.21	0.3
220	SLU 5	-19	-13	3517	-17.19	1.21	0.25
220	SLU 6	-19	3	3513	-18.07	1.21	0.37
220	SLU 7	-19	-7	3515	-17.54	1.21	0.3
220	SLU 8	-19	3	3513	-18.07	1.21	0.37
220	SLU 9	-19	-7	3515	-17.54	1.21	0.3
220	SLU 10	-18	-12	4335	-19.94	1.56	0.21
220	SLU 11	-17	4	4330	-20.82	1.56	0.32
220	SLU 12	-17	-6	4333	-20.29	1.56	0.25
220	SLU 13	-18	-12	4335	-19.94	1.56	0.21
220	SLU 14	-17	4	4330	-20.82	1.56	0.32
220	SLU 15	-17	-6	4333	-20.29	1.56	0.25
220	SLU 16	-17	4	4330	-20.82	1.56	0.32
220	SLU 17	-17	-6	4333	-20.29	1.56	0.25
220	SLU 18	-17	4	4681	-22	1.71	0.3
220	SLU 19	-17	-5	4684	-21.47	1.71	0.23
220	SLU 20	-17	4	4681	-22	1.71	0.3
220	SLU 21	-17	-5	4684	-21.47	1.71	0.23
220	SLU 22	-18	3	4106	-19.97	1.44	0.35
220	SLU 23	-19	-13	4111	-19.1	1.45	0.23
220	SLU 24	-18	3	4106	-19.97	1.44	0.35
220	SLU 25	-19	-6	4109	-19.45	1.45	0.28
220	SLU 26	-19	-13	4111	-19.1	1.45	0.23
220	SLU 27	-18	3	4106	-19.97	1.44	0.35
220	SLU 28	-19	-6	4109	-19.45	1.45	0.28
220	SLU 29	-18	3	4106	-19.97	1.44	0.35



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
220	SLU 30	-19	-6	4109	-19.45	1.45	0.28
220	SLU 31	-17	-12	4929	-21.85	1.8	0.19
220	SLU 32	-17	4	4924	-22.72	1.79	0.31
220	SLU 33	-17	-5	4927	-22.2	1.8	0.24
220	SLU 34	-17	-12	4929	-21.85	1.8	0.19
220	SLU 35	-17	4	4924	-22.72	1.79	0.31
220	SLU 36	-17	-5	4927	-22.2	1.8	0.24
220	SLU 37	-17	4	4924	-22.72	1.79	0.31
220	SLU 38	-17	-5	4927	-22.2	1.8	0.24
220	SLU 39	-16	5	5275	-23.9	1.94	0.29
220	SLU 40	-16	-5	5277	-23.38	1.95	0.22
220	SLU 41	-16	5	5275	-23.9	1.94	0.29
220	SLU 42	-16	-5	5277	-23.38	1.95	0.22
220	SLU 43	-25	4	4363	-22.83	1.49	0.48
220	SLU 44	-25	-12	4367	-21.96	1.49	0.37
220	SLU 45	-25	4	4363	-22.83	1.49	0.48
220	SLU 46	-25	-6	4365	-22.31	1.49	0.41
220	SLU 47	-25	-12	4367	-21.96	1.49	0.37
220	SLU 48	-25	4	4363	-22.83	1.49	0.48
220	SLU 49	-25	-6	4365	-22.31	1.49	0.41
220	SLU 50	-25	4	4363	-22.83	1.49	0.48
220	SLU 51	-25	-6	4365	-22.31	1.49	0.41
220	SLU 52	-23	-11	5185	-24.71	1.84	0.32
220	SLU 53	-23	5	5181	-25.58	1.84	0.44
220	SLU 54	-23	-5	5183	-25.06	1.84	0.37
220	SLU 55	-23	-11	5185	-24.71	1.84	0.32
220	SLU 56	-23	5	5181	-25.58	1.84	0.44
220	SLU 57	-23	-5	5183	-25.06	1.84	0.37
220	SLU 58	-23	5	5181	-25.58	1.84	0.44
220	SLU 59	-23	-5	5183	-25.06	1.84	0.37
220	SLU 60	-22	5	5531	-26.76	1.99	0.42
220	SLU 61	-23	-5	5534	-26.24	1.99	0.35
220	SLU 62	-22	5	5531	-26.76	1.99	0.42
220	SLU 63	-23	-5	5534	-26.24	1.99	0.35
220	SLU 64	-24	4	4956	-24.74	1.73	0.47
220	SLU 65	-25	-12	4961	-23.87	1.73	0.35
220	SLU 66	-24	4	4956	-24.74	1.73	0.47
220	SLU 67	-24	-5	4959	-24.22	1.73	0.4
220	SLU 68	-25	-12	4961	-23.87	1.73	0.35
220	SLU 69	-24	4	4956	-24.74	1.73	0.47
220	SLU 70	-24	-5	4959	-24.22	1.73	0.4
220	SLU 71	-24	4	4956	-24.74	1.73	0.47
220	SLU 72	-24	-5	4959	-24.22	1.73	0.4
220	SLU 73	-23	-11	5779	-26.62	2.08	0.31
220	SLU 74	-23	5	5774	-27.49	2.07	0.42
220	SLU 75	-23	-5	5777	-26.97	2.08	0.35
220	SLU 76	-23	-11	5779	-26.62	2.08	0.31
220	SLU 77	-23	5	5774	-27.49	2.07	0.42
220	SLU 78	-23	-5	5777	-26.97	2.08	0.35
220	SLU 79	-23	5	5774	-27.49	2.07	0.42
220	SLU 80	-23	-5	5777	-26.97	2.08	0.35
220	SLU 81	-22	6	6125	-28.67	2.22	0.4
220	SLU 82	-22	-4	6128	-28.14	2.23	0.33
220	SLU 83	-22	6	6125	-28.67	2.22	0.4
220	SLU 84	-22	-4	6128	-28.14	2.23	0.33
220	SLE RA 1	-19	3	3682	-18.61	1.28	0.36
220	SLE RA 2	-19	-8	3685	-18.03	1.28	0.28
220	SLE RA 3	-19	3	3682	-18.61	1.28	0.36
220	SLE RA 4	-19	-3	3684	-18.26	1.28	0.32
220	SLE RA 5	-19	-8	3685	-18.03	1.28	0.28
220	SLE RA 6	-19	3	3682	-18.61	1.28	0.36
220	SLE RA 7	-19	-3	3684	-18.26	1.28	0.32
220	SLE RA 8	-19	3	3682	-18.61	1.28	0.36
220	SLE RA 9	-19	-3	3684	-18.26	1.28	0.32
220	SLE RA 10	-18	-7	4230	-19.86	1.51	0.25
220	SLE RA 11	-18	4	4227	-20.44	1.51	0.33
220	SLE RA 12	-18	-3	4229	-20.1	1.51	0.29
220	SLE RA 13	-18	-7	4230	-19.86	1.51	0.25
220	SLE RA 14	-18	4	4227	-20.44	1.51	0.33
220	SLE RA 15	-18	-3	4229	-20.1	1.51	0.29
220	SLE RA 16	-18	4	4227	-20.44	1.51	0.33
220	SLE RA 17	-18	-3	4229	-20.1	1.51	0.29
220	SLE RA 18	-17	4	4461	-21.23	1.61	0.32
220	SLE RA 19	-17	-2	4463	-20.88	1.61	0.27
220	SLE RA 20	-17	4	4461	-21.23	1.61	0.32
220	SLE RA 21	-17	-2	4463	-20.88	1.61	0.27
220	SLE FR 1	-19	3	3682	-18.61	1.28	0.36
220	SLE FR 2	-19	1	3683	-18.49	1.28	0.35
220	SLE FR 3	-19	3	3682	-18.61	1.28	0.36
220	SLE FR 4	-18	1	3916	-19.28	1.38	0.33
220	SLE FR 5	-18	3	3916	-19.4	1.38	0.35
220	SLE FR 6	-18	4	4072	-19.92	1.44	0.34
220	SLE QP 1	-19	3	3682	-18.61	1.28	0.36
220	SLE QP 2	-18	3	3916	-19.4	1.38	0.35
220	SLD 1	283	78	3554	-24.87	2.39	0.29
220	SLD 2	283	118	3556	-24.82	2.39	1.16
220	SLD 3	276	-89	3533	-11.86	2.46	-0.7
220	SLD 4	276	-49	3535	-11.81	2.46	0.17
220	SLD 5	83	264	3838	-40.78	1.57	1.52
220	SLD 6	83	306	3840	-40.73	1.56	2.42
220	SLD 7	59	-293	3768	2.57	1.82	-1.79



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
220	SLD 8	60	-250	3770	2.62	1.81	-0.89
220	SLD 9	-96	257	4061	-41.42	0.94	1.59
220	SLD 10	-96	299	4063	-41.36	0.93	2.49
220	SLD 11	-119	-299	3991	1.93	1.19	-1.72
220	SLD 12	-119	-257	3993	1.99	1.18	-0.82
220	SLD 13	-312	55	4297	-26.98	0.29	0.53
220	SLD 14	-312	96	4299	-26.93	0.29	1.4
220	SLD 15	-319	-112	4276	-13.98	0.36	-0.46
220	SLD 16	-319	-71	4278	-13.92	0.36	0.41
220	SLV 1	667	177	3093	-32.19	3.68	0.24
220	SLV 2	668	271	3097	-32.06	3.67	2.23
220	SLV 3	651	-213	3042	-1.78	3.86	-2.08
220	SLV 4	652	-119	3046	-1.66	3.86	-0.09
220	SLV 5	212	612	3745	-69.39	1.78	3.09
220	SLV 6	212	710	3749	-69.26	1.78	5.18
220	SLV 7	158	-688	3575	31.95	2.41	-4.65
220	SLV 8	158	-590	3579	32.08	2.4	-2.56
220	SLV 9	-195	597	4252	-70.88	0.35	3.26
220	SLV 10	-194	695	4257	-70.74	0.34	5.35
220	SLV 11	-249	-704	4082	30.47	0.97	-4.48
220	SLV 12	-248	-605	4087	30.6	0.97	-2.39
220	SLV 13	-688	126	4785	-37.13	-1.11	0.79
220	SLV 14	-688	219	4790	-37.01	-1.11	2.78
220	SLV 15	-704	-264	4734	-6.73	-0.92	-1.53
220	SLV 16	-704	-171	4739	-6.61	-0.92	0.46
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
221	SLU 1	-19	5	3473	-19.34	1.42	0.42
221	SLU 2	-19	-12	3477	-18.48	1.42	0.27
221	SLU 3	-19	5	3473	-19.34	1.42	0.42
221	SLU 4	-19	-5	3475	-18.82	1.42	0.33
221	SLU 5	-19	-12	3477	-18.48	1.42	0.27
221	SLU 6	-19	5	3473	-19.34	1.42	0.42
221	SLU 7	-19	-5	3475	-18.82	1.42	0.33
221	SLU 8	-19	5	3473	-19.34	1.42	0.42
221	SLU 9	-19	-5	3475	-18.82	1.42	0.33
221	SLU 10	-18	-11	4281	-21.38	2.04	0.22
221	SLU 11	-18	6	4276	-22.24	2.04	0.37
221	SLU 12	-18	-4	4279	-21.73	2.04	0.28
221	SLU 13	-18	-11	4281	-21.38	2.04	0.22
221	SLU 14	-18	6	4276	-22.24	2.04	0.37
221	SLU 15	-18	-4	4279	-21.73	2.04	0.28
221	SLU 16	-18	6	4276	-22.24	2.04	0.37
221	SLU 17	-18	-4	4279	-21.73	2.04	0.28
221	SLU 18	-17	6	4621	-23.49	2.3	0.35
221	SLU 19	-17	-4	4623	-22.97	2.3	0.25
221	SLU 20	-17	6	4621	-23.49	2.3	0.35
221	SLU 21	-17	-4	4623	-22.97	2.3	0.25
221	SLU 22	-19	5	4057	-21.36	1.84	0.4
221	SLU 23	-19	-11	4061	-20.5	1.84	0.25
221	SLU 24	-19	5	4057	-21.36	1.84	0.4
221	SLU 25	-19	-5	4060	-20.85	1.84	0.31
221	SLU 26	-19	-11	4061	-20.5	1.84	0.25
221	SLU 27	-19	5	4057	-21.36	1.84	0.4
221	SLU 28	-19	-5	4060	-20.85	1.84	0.31
221	SLU 29	-19	5	4057	-21.36	1.84	0.4
221	SLU 30	-19	-5	4060	-20.85	1.84	0.31
221	SLU 31	-18	-11	4865	-23.41	2.46	0.2
221	SLU 32	-17	6	4860	-24.27	2.45	0.35
221	SLU 33	-18	-4	4863	-23.75	2.46	0.26
221	SLU 34	-18	-11	4865	-23.41	2.46	0.2
221	SLU 35	-17	6	4860	-24.27	2.45	0.35
221	SLU 36	-18	-4	4863	-23.75	2.46	0.26
221	SLU 37	-17	6	4860	-24.27	2.45	0.35
221	SLU 38	-18	-4	4863	-23.75	2.46	0.26
221	SLU 39	-17	6	5205	-25.51	2.72	0.33
221	SLU 40	-17	-4	5207	-25	2.72	0.24
221	SLU 41	-17	6	5205	-25.51	2.72	0.33
221	SLU 42	-17	-4	5207	-25	2.72	0.24
221	SLU 43	-25	7	4314	-24.44	1.7	0.55
221	SLU 44	-25	-10	4319	-23.58	1.71	0.4
221	SLU 45	-25	7	4314	-24.44	1.7	0.55
221	SLU 46	-25	-4	4317	-23.93	1.71	0.46
221	SLU 47	-25	-10	4319	-23.58	1.71	0.4
221	SLU 48	-25	7	4314	-24.44	1.7	0.55
221	SLU 49	-25	-4	4317	-23.93	1.71	0.46
221	SLU 50	-25	7	4314	-24.44	1.7	0.55
221	SLU 51	-25	-4	4317	-23.93	1.71	0.46
221	SLU 52	-24	-10	5122	-26.49	2.32	0.35
221	SLU 53	-23	7	5118	-27.35	2.32	0.5
221	SLU 54	-24	-3	5121	-26.83	2.32	0.41
221	SLU 55	-24	-10	5122	-26.49	2.32	0.35
221	SLU 56	-23	7	5118	-27.35	2.32	0.5
221	SLU 57	-24	-3	5121	-26.83	2.32	0.41
221	SLU 58	-23	7	5118	-27.35	2.32	0.5
221	SLU 59	-24	-3	5121	-26.83	2.32	0.41
221	SLU 60	-23	8	5462	-28.59	2.58	0.48
221	SLU 61	-23	-3	5465	-28.08	2.59	0.39
221	SLU 62	-23	8	5462	-28.59	2.58	0.48



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
221	SLU 63	-23	-3	5465	-28.08	2.59	0.39
221	SLU 64	-24	7	4898	-26.47	2.12	0.53
221	SLU 65	-25	-10	4903	-25.61	2.12	0.38
221	SLU 66	-24	7	4898	-26.47	2.12	0.53
221	SLU 67	-25	-3	4901	-25.95	2.12	0.44
221	SLU 68	-25	-10	4903	-25.61	2.12	0.38
221	SLU 69	-24	7	4898	-26.47	2.12	0.53
221	SLU 70	-25	-3	4901	-25.95	2.12	0.44
221	SLU 71	-24	7	4898	-26.47	2.12	0.53
221	SLU 72	-25	-3	4901	-25.95	2.12	0.44
221	SLU 73	-23	-9	5706	-28.52	2.74	0.33
221	SLU 74	-23	8	5702	-29.37	2.74	0.48
221	SLU 75	-23	-3	5705	-28.86	2.74	0.39
221	SLU 76	-23	-9	5706	-28.52	2.74	0.33
221	SLU 77	-23	8	5702	-29.37	2.74	0.48
221	SLU 78	-23	-3	5705	-28.86	2.74	0.39
221	SLU 79	-23	8	5702	-29.37	2.74	0.48
221	SLU 80	-23	-3	5705	-28.86	2.74	0.39
221	SLU 81	-23	8	6046	-30.62	3	0.46
221	SLU 82	-23	-2	6049	-30.1	3	0.37
221	SLU 83	-23	8	6046	-30.62	3	0.46
221	SLU 84	-23	-2	6049	-30.1	3	0.37
221	SLE RA 1	-19	5	3640	-19.91	1.54	0.41
221	SLE RA 2	-19	-6	3643	-19.34	1.54	0.31
221	SLE RA 3	-19	5	3640	-19.91	1.54	0.41
221	SLE RA 4	-19	-2	3641	-19.57	1.54	0.35
221	SLE RA 5	-19	-6	3643	-19.34	1.54	0.31
221	SLE RA 6	-19	5	3640	-19.91	1.54	0.41
221	SLE RA 7	-19	-2	3641	-19.57	1.54	0.35
221	SLE RA 8	-19	5	3640	-19.91	1.54	0.41
221	SLE RA 9	-19	-2	3641	-19.57	1.54	0.35
221	SLE RA 10	-18	-6	4178	-21.28	1.95	0.28
221	SLE RA 11	-18	6	4175	-21.85	1.95	0.38
221	SLE RA 12	-18	-1	4177	-21.51	1.95	0.32
221	SLE RA 13	-18	-6	4178	-21.28	1.95	0.28
221	SLE RA 14	-18	6	4175	-21.85	1.95	0.38
221	SLE RA 15	-18	-1	4177	-21.51	1.95	0.32
221	SLE RA 16	-18	6	4175	-21.85	1.95	0.38
221	SLE RA 17	-18	-1	4177	-21.51	1.95	0.32
221	SLE RA 18	-18	6	4405	-22.68	2.13	0.37
221	SLE RA 19	-18	-1	4407	-22.34	2.13	0.3
221	SLE RA 20	-18	6	4405	-22.68	2.13	0.37
221	SLE RA 21	-18	-1	4407	-22.34	2.13	0.3
221	SLE FR 1	-19	5	3640	-19.91	1.54	0.41
221	SLE FR 2	-19	3	3640	-19.8	1.54	0.39
221	SLE FR 3	-19	5	3640	-19.91	1.54	0.41
221	SLE FR 4	-18	3	3870	-20.63	1.72	0.38
221	SLE FR 5	-18	5	3869	-20.74	1.72	0.4
221	SLE FR 6	-18	6	4022	-21.3	1.83	0.39
221	SLE QP 1	-19	5	3640	-19.91	1.54	0.41
221	SLE QP 2	-18	5	3869	-20.74	1.72	0.4
221	SLD 1	282	81	3478	-26.17	2.56	0.43
221	SLD 2	282	126	3480	-26.12	2.56	1.36
221	SLD 3	275	-92	3457	-13.19	2.64	-0.88
221	SLD 4	275	-47	3459	-13.14	2.64	0.06
221	SLD 5	82	274	3783	-42.09	1.85	2.04
221	SLD 6	82	321	3785	-42.03	1.84	3.02
221	SLD 7	59	-303	3713	1.19	2.12	-2.31
221	SLD 8	59	-256	3715	1.25	2.11	-1.34
221	SLD 9	-96	267	4024	-42.74	1.32	2.14
221	SLD 10	-96	314	4026	-42.68	1.31	3.11
221	SLD 11	-119	-310	3953	0.54	1.59	-2.22
221	SLD 12	-119	-263	3955	0.6	1.58	-1.24
221	SLD 13	-312	58	4280	-28.35	0.79	0.74
221	SLD 14	-312	103	4282	-28.3	0.79	1.68
221	SLD 15	-319	-115	4258	-15.37	0.88	-0.57
221	SLD 16	-319	-70	4260	-15.31	0.87	0.37
221	SLV 1	666	182	2980	-33.43	3.63	0.49
221	SLV 2	666	286	2985	-33.31	3.62	2.64
221	SLV 3	650	-223	2929	-3.08	3.84	-2.57
221	SLV 4	650	-118	2933	-2.96	3.82	-0.41
221	SLV 5	211	633	3678	-70.64	1.99	4.25
221	SLV 6	212	743	3683	-70.51	1.98	6.51
221	SLV 7	157	-716	3508	30.55	2.66	-5.93
221	SLV 8	158	-606	3513	30.68	2.65	-3.66
221	SLV 9	-194	617	4226	-72.17	0.78	4.46
221	SLV 10	-194	727	4231	-72.04	0.77	6.73
221	SLV 11	-249	-732	4055	29.02	1.45	-5.72
221	SLV 12	-248	-622	4060	29.15	1.44	-3.45
221	SLV 13	-687	129	4805	-38.53	-0.39	1.21
221	SLV 14	-686	234	4810	-38.41	-0.4	3.37
221	SLV 15	-703	-275	4754	-8.18	-0.19	-1.84
221	SLV 16	-703	-171	4759	-8.06	-0.2	0.31
221	CRTFP Ux+	0	0	0	0	0	0
221	CRTFP Ux-	0	0	0	0	0	0
221	CRTFP Uy+	0	0	0	0	0	0
221	CRTFP Uy-	0	0	0	0	0	0
222	SLU 1	-19	8	3430	-20.6	1.34	0.49
222	SLU 2	-19	-10	3435	-19.75	1.34	0.31
222	SLU 3	-19	8	3430	-20.6	1.34	0.49
222	SLU 4	-19	-3	3433	-20.09	1.34	0.38



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
222	SLU 5	-19	-10	3435	-19.75	1.34	0.31
222	SLU 6	-19	8	3430	-20.6	1.34	0.49
222	SLU 7	-19	-3	3433	-20.09	1.34	0.38
222	SLU 8	-19	8	3430	-20.6	1.34	0.49
222	SLU 9	-19	-3	3433	-20.09	1.34	0.38
222	SLU 10	-18	-10	4215	-22.8	2.27	0.25
222	SLU 11	-18	8	4211	-23.65	2.26	0.44
222	SLU 12	-18	-3	4214	-23.14	2.27	0.33
222	SLU 13	-18	-10	4215	-22.8	2.27	0.25
222	SLU 14	-18	8	4211	-23.65	2.26	0.44
222	SLU 15	-18	-3	4214	-23.14	2.27	0.33
222	SLU 16	-18	8	4211	-23.65	2.26	0.44
222	SLU 17	-18	-3	4214	-23.14	2.27	0.33
222	SLU 18	-17	8	4545	-24.95	2.66	0.41
222	SLU 19	-18	-3	4548	-24.44	2.66	0.3
222	SLU 20	-17	8	4545	-24.95	2.66	0.41
222	SLU 21	-18	-3	4548	-24.44	2.66	0.3
222	SLU 22	-19	8	3999	-22.74	1.96	0.47
222	SLU 23	-19	-10	4003	-21.89	1.96	0.29
222	SLU 24	-19	8	3999	-22.74	1.96	0.47
222	SLU 25	-19	-3	4002	-22.23	1.96	0.36
222	SLU 26	-19	-10	4003	-21.89	1.96	0.29
222	SLU 27	-19	8	3999	-22.74	1.96	0.47
222	SLU 28	-19	-3	4002	-22.23	1.96	0.36
222	SLU 29	-19	8	3999	-22.74	1.96	0.47
222	SLU 30	-19	-3	4002	-22.23	1.96	0.36
222	SLU 31	-18	-10	4784	-24.94	2.88	0.24
222	SLU 32	-18	8	4779	-25.79	2.88	0.42
222	SLU 33	-18	-3	4782	-25.28	2.88	0.31
222	SLU 34	-18	-10	4784	-24.94	2.88	0.24
222	SLU 35	-18	8	4779	-25.79	2.88	0.42
222	SLU 36	-18	-3	4782	-25.28	2.88	0.31
222	SLU 37	-18	8	4779	-25.79	2.88	0.42
222	SLU 38	-18	-3	4782	-25.28	2.88	0.31
222	SLU 39	-17	8	5114	-27.09	3.27	0.4
222	SLU 40	-18	-2	5117	-26.59	3.28	0.29
222	SLU 41	-17	8	5114	-27.09	3.27	0.4
222	SLU 42	-18	-2	5117	-26.59	3.28	0.29
222	SLU 43	-25	10	4265	-26.04	1.53	0.64
222	SLU 44	-25	-8	4269	-25.19	1.54	0.46
222	SLU 45	-25	10	4265	-26.04	1.53	0.64
222	SLU 46	-25	-1	4267	-25.53	1.53	0.53
222	SLU 47	-25	-8	4269	-25.19	1.54	0.46
222	SLU 48	-25	10	4265	-26.04	1.53	0.64
222	SLU 49	-25	-1	4267	-25.53	1.53	0.53
222	SLU 50	-25	10	4265	-26.04	1.53	0.64
222	SLU 51	-25	-1	4267	-25.53	1.53	0.53
222	SLU 52	-24	-8	5049	-28.24	2.46	0.41
222	SLU 53	-24	10	5045	-29.09	2.46	0.59
222	SLU 54	-24	-1	5048	-28.58	2.46	0.48
222	SLU 55	-24	-8	5049	-28.24	2.46	0.41
222	SLU 56	-24	10	5045	-29.09	2.46	0.59
222	SLU 57	-24	-1	5048	-28.58	2.46	0.48
222	SLU 58	-24	10	5045	-29.09	2.46	0.59
222	SLU 59	-24	-1	5048	-28.58	2.46	0.48
222	SLU 60	-23	10	5380	-30.4	2.85	0.57
222	SLU 61	-23	0	5382	-29.89	2.85	0.46
222	SLU 62	-23	10	5380	-30.4	2.85	0.57
222	SLU 63	-23	0	5382	-29.89	2.85	0.46
222	SLU 64	-24	10	4833	-28.18	2.15	0.63
222	SLU 65	-25	-8	4838	-27.34	2.15	0.44
222	SLU 66	-24	10	4833	-28.18	2.15	0.63
222	SLU 67	-25	-1	4836	-27.67	2.15	0.52
222	SLU 68	-25	-8	4838	-27.34	2.15	0.44
222	SLU 69	-24	10	4833	-28.18	2.15	0.63
222	SLU 70	-25	-1	4836	-27.67	2.15	0.52
222	SLU 71	-24	10	4833	-28.18	2.15	0.63
222	SLU 72	-25	-1	4836	-27.67	2.15	0.52
222	SLU 73	-24	-7	5618	-30.38	3.07	0.39
222	SLU 74	-23	10	5614	-31.23	3.07	0.57
222	SLU 75	-24	0	5616	-30.72	3.07	0.46
222	SLU 76	-24	-7	5618	-30.38	3.07	0.39
222	SLU 77	-23	10	5614	-31.23	3.07	0.57
222	SLU 78	-24	0	5616	-30.72	3.07	0.46
222	SLU 79	-23	10	5614	-31.23	3.07	0.57
222	SLU 80	-24	0	5616	-30.72	3.07	0.46
222	SLU 81	-23	10	5948	-32.54	3.47	0.55
222	SLU 82	-23	0	5951	-32.03	3.47	0.44
222	SLU 83	-23	10	5948	-32.54	3.47	0.55
222	SLU 84	-23	0	5951	-32.03	3.47	0.44
222	SLE RA 1	-19	8	3593	-21.21	1.52	0.49
222	SLE RA 2	-19	-4	3596	-20.64	1.52	0.36
222	SLE RA 3	-19	8	3593	-21.21	1.52	0.49
222	SLE RA 4	-19	0	3595	-20.87	1.52	0.41
222	SLE RA 5	-19	-4	3596	-20.64	1.52	0.36
222	SLE RA 6	-19	8	3593	-21.21	1.52	0.49
222	SLE RA 7	-19	0	3595	-20.87	1.52	0.41
222	SLE RA 8	-19	8	3593	-21.21	1.52	0.49
222	SLE RA 9	-19	0	3595	-20.87	1.52	0.41
222	SLE RA 10	-18	-4	4116	-22.68	2.13	0.33
222	SLE RA 11	-18	8	4113	-23.24	2.13	0.45



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
222	SLE RA 12	-18	1	4115	-22.9	2.13	0.38
222	SLE RA 13	-18	-4	4116	-22.68	2.13	0.33
222	SLE RA 14	-18	8	4113	-23.24	2.13	0.45
222	SLE RA 15	-18	1	4115	-22.9	2.13	0.38
222	SLE RA 16	-18	8	4113	-23.24	2.13	0.45
222	SLE RA 17	-18	1	4115	-22.9	2.13	0.38
222	SLE RA 18	-18	8	4336	-24.11	2.4	0.43
222	SLE RA 19	-18	1	4338	-23.77	2.4	0.36
222	SLE RA 20	-18	8	4336	-24.11	2.4	0.43
222	SLE RA 21	-18	1	4338	-23.77	2.4	0.36
222	SLE FR 1	-19	8	3593	-21.21	1.52	0.49
222	SLE FR 2	-19	5	3594	-21.1	1.52	0.46
222	SLE FR 3	-19	8	3593	-21.21	1.52	0.49
222	SLE FR 4	-19	5	3816	-21.97	1.78	0.45
222	SLE FR 5	-19	8	3816	-22.08	1.78	0.47
222	SLE FR 6	-18	8	3965	-22.66	1.96	0.46
222	SLE QP 1	-19	8	3593	-21.21	1.52	0.49
222	SLE QP 2	-19	8	3816	-22.08	1.78	0.47
222	SLD 1	281	84	3402	-27.46	2.34	0.54
222	SLD 2	281	135	3404	-27.41	2.33	1.54
222	SLD 3	274	-96	3381	-14.51	2.46	-1.03
222	SLD 4	274	-46	3384	-14.46	2.45	-0.02
222	SLD 5	82	286	3722	-43.36	1.77	2.5
222	SLD 6	82	339	3724	-43.31	1.76	3.54
222	SLD 7	59	-317	3654	-0.18	2.17	-2.73
222	SLD 8	59	-264	3656	-0.12	2.16	-1.68
222	SLD 9	-96	279	3976	-44.04	1.4	2.62
222	SLD 10	-96	332	3978	-43.98	1.39	3.67
222	SLD 11	-119	-324	3908	-0.85	1.8	-2.6
222	SLD 12	-119	-271	3910	-0.79	1.79	-1.56
222	SLD 13	-311	61	4248	-29.7	1.11	0.96
222	SLD 14	-311	112	4251	-29.65	1.1	1.97
222	SLD 15	-318	-120	4228	-16.75	1.23	-0.6
222	SLD 16	-318	-69	4230	-16.7	1.22	0.4
222	SLV 1	664	188	2874	-34.66	3.05	0.66
222	SLV 2	665	304	2879	-34.54	3.02	2.97
222	SLV 3	648	-235	2825	-4.37	3.34	-3
222	SLV 4	648	-118	2830	-4.25	3.32	-0.7
222	SLV 5	211	659	3606	-71.85	1.73	5.22
222	SLV 6	211	782	3612	-71.72	1.7	7.65
222	SLV 7	157	-750	3442	29.13	2.7	-7
222	SLV 8	157	-628	3447	29.26	2.68	-4.57
222	SLV 9	-194	643	4185	-73.42	0.88	5.51
222	SLV 10	-194	766	4190	-73.29	0.86	7.94
222	SLV 11	-248	-766	4020	27.56	1.86	-6.71
222	SLV 12	-248	-644	4025	27.69	1.84	-4.28
222	SLV 13	-685	134	4802	-39.91	0.24	1.64
222	SLV 14	-685	250	4807	-39.79	0.22	3.94
222	SLV 15	-702	-289	4753	-9.62	0.54	-2.03
222	SLV 16	-701	-172	4758	-9.5	0.51	0.28
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
223	SLU 1	-39	25	7170	-26.64	-1618.23	8.1
223	SLU 2	-40	-16	7179	-25.09	-1620.22	-1.91
223	SLU 3	-39	25	7170	-26.64	-1618.23	8.1
223	SLU 4	-40	1	7175	-25.71	-1619.42	2.09
223	SLU 5	-40	-16	7179	-25.09	-1620.22	-1.91
223	SLU 6	-39	25	7170	-26.64	-1618.23	8.1
223	SLU 7	-40	1	7175	-25.71	-1619.42	2.09
223	SLU 8	-39	25	7170	-26.64	-1618.23	8.1
223	SLU 9	-40	1	7175	-25.71	-1619.42	2.09
223	SLU 10	-38	-16	8719	-26.92	-1957.01	-2.18
223	SLU 11	-37	25	8710	-28.46	-1955.02	7.84
223	SLU 12	-38	0	8715	-27.54	-1956.22	1.83
223	SLU 13	-38	-16	8719	-26.92	-1957.01	-2.18
223	SLU 14	-37	25	8710	-28.46	-1955.02	7.84
223	SLU 15	-38	0	8715	-27.54	-1956.22	1.83
223	SLU 16	-37	25	8710	-28.46	-1955.02	7.84
223	SLU 17	-38	0	8715	-27.54	-1956.22	1.83
223	SLU 18	-37	25	9370	-29.25	-2099.36	7.72
223	SLU 19	-37	0	9375	-28.32	-2100.55	1.72
223	SLU 20	-37	25	9370	-29.25	-2099.36	7.72
223	SLU 21	-37	0	9375	-28.32	-2100.55	1.72
223	SLU 22	-39	25	8300	-28.01	-1866.38	8.06
223	SLU 23	-40	-16	8309	-26.46	-1868.37	-1.95
223	SLU 24	-39	25	8300	-28.01	-1866.38	8.06
223	SLU 25	-40	1	8305	-27.08	-1867.57	2.05
223	SLU 26	-40	-16	8309	-26.46	-1868.37	-1.95
223	SLU 27	-39	25	8300	-28.01	-1866.38	8.06
223	SLU 28	-40	1	8305	-27.08	-1867.57	2.05
223	SLU 29	-39	25	8300	-28.01	-1866.38	8.06
223	SLU 30	-40	1	8305	-27.08	-1867.57	2.05
223	SLU 31	-38	-16	9848	-28.29	-2205.16	-2.21
223	SLU 32	-37	25	9840	-29.83	-2203.17	7.8
223	SLU 33	-38	0	9845	-28.91	-2204.36	1.79
223	SLU 34	-38	-16	9848	-28.29	-2205.16	-2.21
223	SLU 35	-37	25	9840	-29.83	-2203.17	7.8
223	SLU 36	-38	0	9845	-28.91	-2204.36	1.79
223	SLU 37	-37	25	9840	-29.83	-2203.17	7.8



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
223	SLU 38	-38	0	9845	-28.91	-2204.36	1.79
223	SLU 39	-37	25	10499	-30.62	-2347.51	7.69
223	SLU 40	-37	0	10505	-29.69	-2348.7	1.68
223	SLU 41	-37	25	10499	-30.62	-2347.51	7.69
223	SLU 42	-37	0	10505	-29.69	-2348.7	1.68
223	SLU 43	-51	33	8934	-34.16	-2018.62	10.54
223	SLU 44	-52	-8	8943	-32.62	-2020.61	0.53
223	SLU 45	-51	33	8934	-34.16	-2018.62	10.54
223	SLU 46	-52	8	8939	-33.23	-2019.82	4.53
223	SLU 47	-52	-8	8943	-32.62	-2020.61	0.53
223	SLU 48	-51	33	8934	-34.16	-2018.62	10.54
223	SLU 49	-52	8	8939	-33.23	-2019.82	4.53
223	SLU 50	-51	33	8934	-34.16	-2018.62	10.54
223	SLU 51	-52	8	8939	-33.23	-2019.82	4.53
223	SLU 52	-50	-9	10482	-34.44	-2357.4	0.27
223	SLU 53	-49	33	10473	-35.99	-2355.41	10.28
223	SLU 54	-50	8	10479	-35.06	-2356.61	4.27
223	SLU 55	-50	-9	10482	-34.44	-2357.4	0.27
223	SLU 56	-49	33	10473	-35.99	-2355.41	10.28
223	SLU 57	-50	8	10479	-35.06	-2356.61	4.27
223	SLU 58	-49	33	10473	-35.99	-2355.41	10.28
223	SLU 59	-50	8	10479	-35.06	-2356.61	4.27
223	SLU 60	-48	32	11133	-36.77	-2499.75	10.17
223	SLU 61	-49	8	11139	-35.84	-2500.94	4.16
223	SLU 62	-48	32	11133	-36.77	-2499.75	10.17
223	SLU 63	-49	8	11139	-35.84	-2500.94	4.16
223	SLU 64	-51	33	10064	-35.53	-2266.77	10.5
223	SLU 65	-52	-8	10072	-33.99	-2268.76	0.49
223	SLU 66	-51	33	10064	-35.53	-2266.77	10.5
223	SLU 67	-52	8	10069	-34.6	-2267.96	4.5
223	SLU 68	-52	-8	10072	-33.99	-2268.76	0.49
223	SLU 69	-51	33	10064	-35.53	-2266.77	10.5
223	SLU 70	-52	8	10069	-34.6	-2267.96	4.5
223	SLU 71	-51	33	10064	-35.53	-2266.77	10.5
223	SLU 72	-52	8	10069	-34.6	-2267.96	4.5
223	SLU 73	-50	-9	11612	-35.81	-2605.55	0.23
223	SLU 74	-49	33	11603	-37.35	-2603.56	10.24
223	SLU 75	-50	8	11609	-36.43	-2604.75	4.23
223	SLU 76	-50	-9	11612	-35.81	-2605.55	0.23
223	SLU 77	-49	33	11603	-37.35	-2603.56	10.24
223	SLU 78	-50	8	11609	-36.43	-2604.75	4.23
223	SLU 79	-49	33	11603	-37.35	-2603.56	10.24
223	SLU 80	-50	8	11609	-36.43	-2604.75	4.23
223	SLU 81	-48	32	12263	-38.14	-2747.9	10.13
223	SLU 82	-49	8	12268	-37.21	-2749.09	4.12
223	SLU 83	-48	32	12263	-38.14	-2747.9	10.13
223	SLU 84	-49	8	12268	-37.21	-2749.09	4.12
223	SLE RA 1	-39	25	7493	-27.03	-1689.13	8.09
223	SLE RA 2	-40	-2	7499	-26	-1690.46	1.41
223	SLE RA 3	-39	25	7493	-27.03	-1689.13	8.09
223	SLE RA 4	-40	9	7496	-26.41	-1689.93	4.08
223	SLE RA 5	-40	-2	7499	-26	-1690.46	1.41
223	SLE RA 6	-39	25	7493	-27.03	-1689.13	8.09
223	SLE RA 7	-40	9	7496	-26.41	-1689.93	4.08
223	SLE RA 8	-39	25	7493	-27.03	-1689.13	8.09
223	SLE RA 9	-40	9	7496	-26.41	-1689.93	4.08
223	SLE RA 10	-39	-2	8525	-27.22	-1914.98	1.24
223	SLE RA 11	-38	25	8519	-28.25	-1913.66	7.91
223	SLE RA 12	-38	9	8523	-27.63	-1914.45	3.91
223	SLE RA 13	-39	-2	8525	-27.22	-1914.98	1.24
223	SLE RA 14	-38	25	8519	-28.25	-1913.66	7.91
223	SLE RA 15	-38	9	8523	-27.63	-1914.45	3.91
223	SLE RA 16	-38	25	8519	-28.25	-1913.66	7.91
223	SLE RA 17	-38	9	8523	-27.63	-1914.45	3.91
223	SLE RA 18	-38	25	8959	-28.77	-2009.88	7.84
223	SLE RA 19	-38	9	8963	-28.15	-2010.68	3.83
223	SLE RA 20	-38	25	8959	-28.77	-2009.88	7.84
223	SLE RA 21	-38	9	8963	-28.15	-2010.68	3.83
223	SLE FR 1	-39	25	7493	-27.03	-1689.13	8.09
223	SLE FR 2	-40	20	7494	-26.82	-1689.39	6.75
223	SLE FR 3	-39	25	7493	-27.03	-1689.13	8.09
223	SLE FR 4	-39	20	7934	-27.35	-1785.62	6.68
223	SLE FR 5	-39	25	7933	-27.55	-1785.36	8.01
223	SLE FR 6	-38	25	8226	-27.9	-1849.51	7.96
223	SLE QP 1	-39	25	7493	-27.03	-1689.13	8.09
223	SLE QP 2	-39	25	7933	-27.55	-1785.36	8.01
223	SLD 1	591	143	7018	-44.29	-1576.26	33.7
223	SLD 2	592	269	7025	-44.32	-1578.01	65.85
223	SLD 3	577	-270	6979	-20.27	-1567.53	-65.98
223	SLD 4	577	-145	6986	-20.3	-1569.28	-33.82
223	SLD 5	172	641	7715	-69	-1735.22	155.01
223	SLD 6	173	772	7722	-69.02	-1737.04	188.42
223	SLD 7	124	-737	7586	11.07	-1706.12	-177.24
223	SLD 8	124	-606	7593	11.05	-1707.94	-143.83
223	SLD 9	-201	657	8273	-66.15	-1862.77	159.86
223	SLD 10	-201	787	8280	-66.17	-1864.59	193.27
223	SLD 11	-250	-721	8144	13.92	-1833.67	-172.39
223	SLD 12	-250	-590	8151	13.89	-1835.5	-138.98
223	SLD 13	-655	195	8880	-34.81	-2001.43	49.85
223	SLD 14	-655	321	8886	-34.83	-2003.18	82
223	SLD 15	-669	-218	8841	-10.79	-1992.7	-49.83



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
223	SLD 16	-669	-92	8848	-10.81	-1994.45	-17.67
223	SLV 1	1397	304	5853	-66.46	-1309.92	69.06
223	SLV 2	1397	593	5868	-66.51	-1313.94	142.8
223	SLV 3	1362	-662	5758	-10.28	-1288.53	-163.88
223	SLV 4	1363	-373	5774	-10.34	-1292.55	-90.14
223	SLV 5	444	1465	7447	-124.41	-1673.65	351.85
223	SLV 6	444	1769	7463	-124.46	-1677.89	429.51
223	SLV 7	330	-1755	7131	62.85	-1602.35	-424.61
223	SLV 8	330	-1451	7147	62.8	-1606.59	-346.96
223	SLV 9	-408	1501	8718	-117.9	-1964.12	362.98
223	SLV 10	-407	1805	8735	-117.95	-1968.36	440.64
223	SLV 11	-522	-1719	8403	69.36	-1892.83	-413.48
223	SLV 12	-521	-1415	8419	69.3	-1897.06	-335.83
223	SLV 13	-1440	424	10092	-44.77	-2278.16	106.17
223	SLV 14	-1440	713	10107	-44.82	-2282.18	179.91
223	SLV 15	-1475	-542	9997	11.41	-2256.77	-126.77
223	SLV 16	-1474	-253	10013	11.36	-2260.79	-53.03
223	CRTFP Ux+	0	0	0	0	-0.01	0
223	CRTFP Ux-	0	0	0	0	0.01	0
223	CRTFP Uy+	0	0	0	0	0	0
223	CRTFP Uy-	0	0	0	0	0	0
225	SLU 1	-25	43	6865	-1893.12	281.47	-7.73
225	SLU 2	-27	2	6869	-1893.87	281.49	-5.95
225	SLU 3	-25	43	6865	-1893.12	281.47	-7.73
225	SLU 4	-26	18	6867	-1893.57	281.48	-6.66
225	SLU 5	-27	2	6869	-1893.87	281.49	-5.95
225	SLU 6	-25	43	6865	-1893.12	281.47	-7.73
225	SLU 7	-26	18	6867	-1893.57	281.48	-6.66
225	SLU 8	-25	43	6865	-1893.12	281.47	-7.73
225	SLU 9	-26	18	6867	-1893.57	281.48	-6.66
225	SLU 10	-25	2	8139	-2243.48	349.01	-5.21
225	SLU 11	-23	44	8135	-2242.72	349	-6.99
225	SLU 12	-24	19	8137	-2243.18	349.01	-5.92
225	SLU 13	-25	2	8139	-2243.48	349.01	-5.21
225	SLU 14	-23	44	8135	-2242.72	349	-6.99
225	SLU 15	-24	19	8137	-2243.18	349.01	-5.92
225	SLU 16	-23	44	8135	-2242.72	349	-6.99
225	SLU 17	-24	19	8137	-2243.18	349.01	-5.92
225	SLU 18	-22	44	8679	-2392.56	377.94	-6.67
225	SLU 19	-23	19	8681	-2393.01	377.95	-5.6
225	SLU 20	-22	44	8679	-2392.56	377.94	-6.67
225	SLU 21	-23	19	8681	-2393.01	377.95	-5.6
225	SLU 22	-25	44	7816	-2154.91	330.16	-7.48
225	SLU 23	-26	3	7820	-2155.66	330.17	-5.7
225	SLU 24	-25	44	7816	-2154.91	330.16	-7.48
225	SLU 25	-26	20	7818	-2155.36	330.17	-6.41
225	SLU 26	-26	3	7820	-2155.66	330.17	-5.7
225	SLU 27	-25	44	7816	-2154.91	330.16	-7.48
225	SLU 28	-26	20	7818	-2155.36	330.17	-6.41
225	SLU 29	-25	44	7816	-2154.91	330.16	-7.48
225	SLU 30	-26	20	7818	-2155.36	330.17	-6.41
225	SLU 31	-24	4	9090	-2505.27	397.7	-4.95
225	SLU 32	-23	45	9086	-2504.51	397.68	-6.74
225	SLU 33	-24	20	9088	-2504.96	397.69	-5.67
225	SLU 34	-24	4	9090	-2505.27	397.7	-4.95
225	SLU 35	-23	45	9086	-2504.51	397.68	-6.74
225	SLU 36	-24	20	9088	-2504.96	397.69	-5.67
225	SLU 37	-23	45	9086	-2504.51	397.68	-6.74
225	SLU 38	-24	20	9088	-2504.96	397.69	-5.67
225	SLU 39	-22	45	9630	-2654.34	426.62	-6.42
225	SLU 40	-23	21	9633	-2654.8	426.63	-5.35
225	SLU 41	-22	45	9630	-2654.34	426.62	-6.42
225	SLU 42	-23	21	9633	-2654.8	426.63	-5.35
225	SLU 43	-33	56	8598	-2371.3	349.22	-10.14
225	SLU 44	-35	14	8602	-2372.05	349.24	-8.35
225	SLU 45	-33	56	8598	-2371.3	349.22	-10.14
225	SLU 46	-34	31	8601	-2371.75	349.23	-9.07
225	SLU 47	-35	14	8602	-2372.05	349.24	-8.35
225	SLU 48	-33	56	8598	-2371.3	349.22	-10.14
225	SLU 49	-34	31	8601	-2371.75	349.23	-9.07
225	SLU 50	-33	56	8598	-2371.3	349.22	-10.14
225	SLU 51	-34	31	8601	-2371.75	349.23	-9.07
225	SLU 52	-33	15	9872	-2721.66	416.76	-7.61
225	SLU 53	-31	56	9868	-2720.9	416.75	-9.39
225	SLU 54	-32	31	9871	-2721.36	416.76	-8.32
225	SLU 55	-33	15	9872	-2721.66	416.76	-7.61
225	SLU 56	-31	56	9868	-2720.9	416.75	-9.39
225	SLU 57	-32	31	9871	-2721.36	416.76	-8.32
225	SLU 58	-31	56	9868	-2720.9	416.75	-9.39
225	SLU 59	-32	31	9871	-2721.36	416.76	-8.32
225	SLU 60	-30	57	10412	-2870.73	445.69	-9.08
225	SLU 61	-31	32	10415	-2871.19	445.7	-8.01
225	SLU 62	-30	57	10412	-2870.73	445.69	-9.08
225	SLU 63	-31	32	10415	-2871.19	445.7	-8.01
225	SLU 64	-32	57	9549	-2633.09	397.91	-9.88
225	SLU 65	-34	16	9553	-2633.84	397.92	-8.1
225	SLU 66	-32	57	9549	-2633.09	397.91	-9.88
225	SLU 67	-33	32	9552	-2633.54	397.92	-8.81
225	SLU 68	-34	16	9553	-2633.84	397.92	-8.1
225	SLU 69	-32	57	9549	-2633.09	397.91	-9.88
225	SLU 70	-33	32	9552	-2633.54	397.92	-8.81



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
225	SLU 71	-32	57	9549	-2633.09	397.91	-9.88
225	SLU 72	-33	32	9552	-2633.54	397.92	-8.81
225	SLU 73	-32	16	10823	-2983.45	465.45	-7.36
225	SLU 74	-30	58	10819	-2982.69	465.43	-9.14
225	SLU 75	-31	33	10822	-2983.14	465.44	-8.07
225	SLU 76	-32	16	10823	-2983.45	465.45	-7.36
225	SLU 77	-30	58	10819	-2982.69	465.43	-9.14
225	SLU 78	-31	33	10822	-2983.14	465.44	-8.07
225	SLU 79	-30	58	10819	-2982.69	465.43	-9.14
225	SLU 80	-31	33	10822	-2983.14	465.44	-8.07
225	SLU 81	-29	58	11363	-3132.52	494.37	-8.82
225	SLU 82	-31	33	11366	-3132.98	494.38	-7.75
225	SLU 83	-29	58	11363	-3132.52	494.37	-8.82
225	SLU 84	-31	33	11366	-3132.98	494.38	-7.75
225	SLE RA 1	-25	44	7137	-1967.92	295.38	-7.66
225	SLE RA 2	-26	16	7139	-1968.42	295.39	-6.47
225	SLE RA 3	-25	44	7137	-1967.92	295.38	-7.66
225	SLE RA 4	-26	27	7138	-1968.22	295.39	-6.95
225	SLE RA 5	-26	16	7139	-1968.42	295.39	-6.47
225	SLE RA 6	-25	44	7137	-1967.92	295.38	-7.66
225	SLE RA 7	-26	27	7138	-1968.22	295.39	-6.95
225	SLE RA 8	-25	44	7137	-1967.92	295.38	-7.66
225	SLE RA 9	-26	27	7138	-1968.22	295.39	-6.95
225	SLE RA 10	-25	16	7986	-2201.49	340.41	-5.98
225	SLE RA 11	-24	44	7983	-2200.99	340.4	-7.16
225	SLE RA 12	-24	27	7985	-2201.29	340.41	-6.45
225	SLE RA 13	-25	16	7986	-2201.49	340.41	-5.98
225	SLE RA 14	-24	44	7983	-2200.99	340.4	-7.16
225	SLE RA 15	-24	27	7985	-2201.29	340.41	-6.45
225	SLE RA 16	-24	44	7983	-2200.99	340.4	-7.16
225	SLE RA 17	-24	27	7985	-2201.29	340.41	-6.45
225	SLE RA 18	-23	44	8346	-2300.87	359.69	-6.95
225	SLE RA 19	-24	28	8348	-2301.17	359.7	-6.24
225	SLE RA 20	-23	44	8346	-2300.87	359.69	-6.95
225	SLE RA 21	-24	28	8348	-2301.17	359.7	-6.24
225	SLE FR 1	-25	44	7137	-1967.92	295.38	-7.66
225	SLE FR 2	-25	38	7137	-1968.02	295.38	-7.42
225	SLE FR 3	-25	44	7137	-1967.92	295.38	-7.66
225	SLE FR 4	-25	38	7500	-2067.9	314.68	-7.21
225	SLE FR 5	-24	44	7499	-2067.8	314.67	-7.45
225	SLE FR 6	-24	44	7741	-2134.39	327.54	-7.31
225	SLE QP 1	-25	44	7137	-1967.92	295.38	-7.66
225	SLE QP 2	-24	44	7499	-2067.8	314.67	-7.45
225	SLD 1	503	209	6694	-1848.56	277.41	128.85
225	SLD 2	510	346	6707	-1852.48	278.06	123.92
225	SLD 3	488	-202	6607	-1817.99	274.86	149.43
225	SLD 4	495	-65	6620	-1821.91	275.51	144.5
225	SLD 5	155	666	7384	-2046.95	307.12	4.06
225	SLD 6	162	808	7398	-2051.02	307.8	-1.06
225	SLD 7	103	-703	7096	-1945.04	298.62	72.64
225	SLD 8	110	-561	7109	-1949.11	299.3	67.52
225	SLD 9	-159	649	7889	-2186.49	330.05	-82.42
225	SLD 10	-152	791	7903	-2190.56	330.73	-87.54
225	SLD 11	-211	-720	7601	-2084.58	321.55	-13.83
225	SLD 12	-204	-578	7615	-2088.65	322.23	-18.95
225	SLD 13	-544	152	8379	-2313.7	353.84	-159.39
225	SLD 14	-537	289	8392	-2317.62	354.49	-164.32
225	SLD 15	-559	-259	8292	-2283.12	351.29	-138.82
225	SLD 16	-552	-122	8305	-2287.04	351.94	-143.75
225	SLV 1	1177	433	5667	-1569.46	229.89	302.28
225	SLV 2	1194	746	5697	-1578.45	231.38	290.98
225	SLV 3	1141	-527	5464	-1497.8	223.68	350.38
225	SLV 4	1157	-214	5494	-1506.79	225.16	339.07
225	SLV 5	385	1498	7247	-2023.6	298.1	16.79
225	SLV 6	402	1828	7279	-2033.06	299.67	4.89
225	SLV 7	264	-1702	6569	-1784.73	277.39	177.09
225	SLV 8	281	-1371	6601	-1794.2	278.96	165.19
225	SLV 9	-330	1459	8398	-2341.41	350.39	-180.08
225	SLV 10	-313	1789	8430	-2350.87	351.96	-191.99
225	SLV 11	-451	-1741	7720	-2102.54	329.68	-19.78
225	SLV 12	-434	-1411	7752	-2112.01	331.25	-31.69
225	SLV 13	-1206	301	9505	-2628.82	404.18	-353.96
225	SLV 14	-1190	615	9535	-2637.81	405.67	-365.27
225	SLV 15	-1242	-659	9302	-2557.16	397.97	-305.87
225	SLV 16	-1226	-345	9332	-2566.15	399.46	-317.18
225	CRTFP Ux+	0	0	0	-0.01	0	0
225	CRTFP Ux-	0	0	0	0.01	0	0
225	CRTFP Uy+	0	0	0	0	0	0
225	CRTFP Uy-	0	0	0	0	0	0
226	SLU 1	-18	11	2707	511.16	927.85	0.58
226	SLU 2	-18	-6	2711	512.32	929.3	6.49
226	SLU 3	-18	11	2707	511.16	927.85	0.58
226	SLU 4	-18	1	2709	511.86	928.72	4.13
226	SLU 5	-18	-6	2711	512.32	929.3	6.49
226	SLU 6	-18	11	2707	511.16	927.85	0.58
226	SLU 7	-18	1	2709	511.86	928.72	4.13
226	SLU 8	-18	11	2707	511.16	927.85	0.58
226	SLU 9	-18	1	2709	511.86	928.72	4.13
226	SLU 10	-17	-8	3246	613.22	1115.02	6.82
226	SLU 11	-17	9	3242	612.05	1113.57	0.9
226	SLU 12	-17	-1	3244	612.75	1114.44	4.45



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
226	SLU 13	-17	-8	3246	613.22	1115.02	6.82
226	SLU 14	-17	9	3242	612.05	1113.57	0.9
226	SLU 15	-17	-1	3244	612.75	1114.44	4.45
226	SLU 16	-17	9	3242	612.05	1113.57	0.9
226	SLU 17	-17	-1	3244	612.75	1114.44	4.45
226	SLU 18	-17	9	3471	655.29	1193.17	1.04
226	SLU 19	-17	-2	3473	655.99	1194.04	4.59
226	SLU 20	-17	9	3471	655.29	1193.17	1.04
226	SLU 21	-17	-2	3473	655.99	1194.04	4.59
226	SLU 22	-18	10	3104	585.86	1065.41	0.86
226	SLU 23	-18	-7	3108	587.02	1066.86	6.78
226	SLU 24	-18	10	3104	585.86	1065.41	0.86
226	SLU 25	-18	0	3106	586.56	1066.28	4.41
226	SLU 26	-18	-7	3108	587.02	1066.86	6.78
226	SLU 27	-18	10	3104	585.86	1065.41	0.86
226	SLU 28	-18	0	3106	586.56	1066.28	4.41
226	SLU 29	-18	10	3104	585.86	1065.41	0.86
226	SLU 30	-18	0	3106	586.56	1066.28	4.41
226	SLU 31	-17	-9	3643	687.92	1252.58	7.1
226	SLU 32	-17	9	3638	686.75	1251.13	1.18
226	SLU 33	-17	-2	3641	687.45	1252	4.73
226	SLU 34	-17	-9	3643	687.92	1252.58	7.1
226	SLU 35	-17	9	3638	686.75	1251.13	1.18
226	SLU 36	-17	-2	3641	687.45	1252	4.73
226	SLU 37	-17	9	3638	686.75	1251.13	1.18
226	SLU 38	-17	-2	3641	687.45	1252	4.73
226	SLU 39	-17	8	3868	729.99	1330.73	1.32
226	SLU 40	-17	-3	3870	730.69	1331.6	4.87
226	SLU 41	-17	8	3868	729.99	1330.73	1.32
226	SLU 42	-17	-3	3870	730.69	1331.6	4.87
226	SLU 43	-23	15	3383	638.89	1159.05	0.65
226	SLU 44	-23	-3	3387	640.06	1160.49	6.57
226	SLU 45	-23	15	3383	638.89	1159.05	0.65
226	SLU 46	-23	4	3385	639.59	1159.91	4.2
226	SLU 47	-23	-3	3387	640.06	1160.49	6.57
226	SLU 48	-23	15	3383	638.89	1159.05	0.65
226	SLU 49	-23	4	3385	639.59	1159.91	4.2
226	SLU 50	-23	15	3383	638.89	1159.05	0.65
226	SLU 51	-23	4	3385	639.59	1159.91	4.2
226	SLU 52	-22	-5	3922	740.95	1346.21	6.89
226	SLU 53	-22	13	3918	739.79	1344.77	0.97
226	SLU 54	-22	3	3920	740.49	1345.63	4.52
226	SLU 55	-22	-5	3922	740.95	1346.21	6.89
226	SLU 56	-22	13	3918	739.79	1344.77	0.97
226	SLU 57	-22	3	3920	740.49	1345.63	4.52
226	SLU 58	-22	13	3918	739.79	1344.77	0.97
226	SLU 59	-22	3	3920	740.49	1345.63	4.52
226	SLU 60	-22	12	4147	783.03	1424.36	1.11
226	SLU 61	-22	2	4149	783.73	1425.23	4.66
226	SLU 62	-22	12	4147	783.03	1424.36	1.11
226	SLU 63	-22	2	4149	783.73	1425.23	4.66
226	SLU 64	-23	14	3780	713.59	1296.61	0.94
226	SLU 65	-23	-4	3784	714.76	1298.05	6.85
226	SLU 66	-23	14	3780	713.59	1296.61	0.94
226	SLU 67	-23	3	3782	714.29	1297.47	4.49
226	SLU 68	-23	-4	3784	714.76	1298.05	6.85
226	SLU 69	-23	14	3780	713.59	1296.61	0.94
226	SLU 70	-23	3	3782	714.29	1297.47	4.49
226	SLU 71	-23	14	3780	713.59	1296.61	0.94
226	SLU 72	-23	3	3782	714.29	1297.47	4.49
226	SLU 73	-22	-5	4319	815.65	1483.77	7.17
226	SLU 74	-22	12	4314	814.49	1482.33	1.26
226	SLU 75	-22	2	4317	815.19	1483.19	4.81
226	SLU 76	-22	-5	4319	815.65	1483.77	7.17
226	SLU 77	-22	12	4314	814.49	1482.33	1.26
226	SLU 78	-22	2	4317	815.19	1483.19	4.81
226	SLU 79	-22	12	4314	814.49	1482.33	1.26
226	SLU 80	-22	2	4317	815.19	1483.19	4.81
226	SLU 81	-22	11	4544	857.73	1561.92	1.4
226	SLU 82	-22	1	4546	858.43	1562.79	4.95
226	SLU 83	-22	11	4544	857.73	1561.92	1.4
226	SLU 84	-22	1	4546	858.43	1562.79	4.95
226	SLE RA 1	-18	11	2820	532.5	967.16	0.66
226	SLE RA 2	-18	-1	2823	533.28	968.12	4.6
226	SLE RA 3	-18	11	2820	532.5	967.16	0.66
226	SLE RA 4	-18	4	2822	532.97	967.73	3.02
226	SLE RA 5	-18	-1	2823	533.28	968.12	4.6
226	SLE RA 6	-18	11	2820	532.5	967.16	0.66
226	SLE RA 7	-18	4	2822	532.97	967.73	3.02
226	SLE RA 8	-18	11	2820	532.5	967.16	0.66
226	SLE RA 9	-18	4	2822	532.97	967.73	3.02
226	SLE RA 10	-17	-2	3180	600.54	1091.93	4.82
226	SLE RA 11	-17	10	3177	599.76	1090.97	0.87
226	SLE RA 12	-17	3	3178	600.23	1091.55	3.24
226	SLE RA 13	-17	-2	3180	600.54	1091.93	4.82
226	SLE RA 14	-17	10	3177	599.76	1090.97	0.87
226	SLE RA 15	-17	3	3178	600.23	1091.55	3.24
226	SLE RA 16	-17	10	3177	599.76	1090.97	0.87
226	SLE RA 17	-17	3	3178	600.23	1091.55	3.24
226	SLE RA 18	-17	9	3330	628.59	1144.03	0.96
226	SLE RA 19	-17	2	3331	629.06	1144.61	3.33



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
226	SLE RA 20	-17	9	3330	628.59	1144.03	0.96
226	SLE RA 21	-17	2	3331	629.06	1144.61	3.33
226	SLE FR 1	-18	11	2820	532.5	967.16	0.66
226	SLE FR 2	-18	9	2821	532.65	967.35	1.45
226	SLE FR 3	-18	11	2820	532.5	967.16	0.66
226	SLE FR 4	-18	8	2974	561.48	1020.41	1.54
226	SLE FR 5	-18	10	2973	561.33	1020.22	0.75
226	SLE FR 6	-17	10	3075	580.54	1055.59	0.81
226	SLE QP 1	-18	11	2820	532.5	967.16	0.66
226	SLE QP 2	-18	10	2973	561.33	1020.22	0.75
226	SLD 1	228	58	2606	479.79	895.22	-80.85
226	SLD 2	226	116	2609	480.32	896.33	-99.5
226	SLD 3	236	-117	2587	489.13	888.95	-22.8
226	SLD 4	233	-59	2591	489.66	890.06	-41.46
226	SLD 5	46	269	2889	522.49	991.82	-104.87
226	SLD 6	43	329	2893	523.05	992.97	-124.26
226	SLD 7	71	-315	2828	553.64	970.92	88.61
226	SLD 8	68	-255	2832	554.2	972.07	69.23
226	SLD 9	-103	276	3114	568.45	1068.37	-67.73
226	SLD 10	-106	336	3118	569.01	1069.52	-87.12
226	SLD 11	-78	-308	3053	599.6	1047.46	125.76
226	SLD 12	-81	-248	3057	600.16	1048.61	106.37
226	SLD 13	-268	80	3355	632.99	1150.38	42.96
226	SLD 14	-271	138	3358	633.52	1151.49	24.3
226	SLD 15	-261	-95	3337	642.33	1144.11	101
226	SLD 16	-264	-37	3340	642.87	1145.21	82.35
226	SLV 1	542	124	2139	375.11	736.18	-186.6
226	SLV 2	536	256	2146	376.33	738.72	-229.38
226	SLV 3	560	-286	2093	397.36	720.67	-50.95
226	SLV 4	553	-153	2101	398.58	723.2	-93.73
226	SLV 5	126	615	2789	471.25	957.58	-245.08
226	SLV 6	119	755	2797	472.54	960.25	-290.14
226	SLV 7	185	-749	2637	545.42	905.87	207.09
226	SLV 8	178	-610	2645	546.71	908.54	162.03
226	SLV 9	-213	631	3301	575.94	1131.9	-160.53
226	SLV 10	-220	770	3309	577.23	1134.57	-205.59
226	SLV 11	-154	-734	3149	650.11	1080.18	291.64
226	SLV 12	-161	-595	3157	651.4	1082.86	246.58
226	SLV 13	-589	174	3845	724.07	1317.23	95.23
226	SLV 14	-595	307	3853	725.29	1319.77	52.45
226	SLV 15	-571	-235	3800	746.32	1301.72	230.88
226	SLV 16	-577	-103	3807	747.54	1304.26	188.1
226	CRTFP Ux+	0	0	0	0	0.01	0
226	CRTFP Ux-	0	0	0	0	-0.01	0
226	CRTFP Uy+	0	0	0	0	0	0
226	CRTFP Uy-	0	0	0	0	0	0
228	SLU 1	-8	8	1218	82.95	228.84	-1.41
228	SLU 2	-8	0	1219	83.05	229.01	0.45
228	SLU 3	-8	8	1218	82.95	228.84	-1.41
228	SLU 4	-8	3	1219	83.01	228.94	-0.29
228	SLU 5	-8	0	1219	83.05	229.01	0.45
228	SLU 6	-8	8	1218	82.95	228.84	-1.41
228	SLU 7	-8	3	1219	83.01	228.94	-0.29
228	SLU 8	-8	8	1218	82.95	228.84	-1.41
228	SLU 9	-8	3	1219	83.01	228.94	-0.29
228	SLU 10	-8	1	1442	98.19	274.85	0.43
228	SLU 11	-8	8	1440	98.09	274.67	-1.43
228	SLU 12	-8	4	1441	98.15	274.78	-0.32
228	SLU 13	-8	1	1442	98.19	274.85	0.43
228	SLU 14	-8	8	1440	98.09	274.67	-1.43
228	SLU 15	-8	4	1441	98.15	274.78	-0.32
228	SLU 16	-8	8	1440	98.09	274.67	-1.43
228	SLU 17	-8	4	1441	98.15	274.78	-0.32
228	SLU 18	-8	8	1536	104.58	294.31	-1.44
228	SLU 19	-8	4	1537	104.64	294.42	-0.33
228	SLU 20	-8	8	1536	104.58	294.31	-1.44
228	SLU 21	-8	4	1537	104.64	294.42	-0.33
228	SLU 22	-8	8	1385	94.33	262.61	-1.45
228	SLU 23	-8	1	1386	94.43	262.78	0.41
228	SLU 24	-8	8	1385	94.33	262.61	-1.45
228	SLU 25	-8	4	1386	94.39	262.71	-0.33
228	SLU 26	-8	1	1386	94.43	262.78	0.41
228	SLU 27	-8	8	1385	94.33	262.61	-1.45
228	SLU 28	-8	4	1386	94.39	262.71	-0.33
228	SLU 29	-8	8	1385	94.33	262.61	-1.45
228	SLU 30	-8	4	1386	94.39	262.71	-0.33
228	SLU 31	-8	1	1609	109.57	308.62	0.39
228	SLU 32	-8	8	1608	109.47	308.44	-1.47
228	SLU 33	-8	4	1608	109.53	308.55	-0.35
228	SLU 34	-8	1	1609	109.57	308.62	0.39
228	SLU 35	-8	8	1608	109.47	308.44	-1.47
228	SLU 36	-8	4	1608	109.53	308.55	-0.35
228	SLU 37	-8	8	1608	109.47	308.44	-1.47
228	SLU 38	-8	4	1608	109.53	308.55	-0.35
228	SLU 39	-8	8	1703	115.95	328.08	-1.48
228	SLU 40	-8	4	1704	116.01	328.19	-0.36
228	SLU 41	-8	8	1703	115.95	328.08	-1.48
228	SLU 42	-8	4	1704	116.01	328.19	-0.36
228	SLU 43	-10	10	1526	103.94	285.91	-1.82
228	SLU 44	-10	3	1527	104.04	286.08	0.04
228	SLU 45	-10	10	1526	103.94	285.91	-1.82



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
228	SLU 46	-10	6	1527	104	286.01	-0.7
228	SLU 47	-10	3	1527	104.04	286.08	0.04
228	SLU 48	-10	10	1526	103.94	285.91	-1.82
228	SLU 49	-10	6	1527	104	286.01	-0.7
228	SLU 50	-10	10	1526	103.94	285.91	-1.82
228	SLU 51	-10	6	1527	104	286.01	-0.7
228	SLU 52	-10	3	1750	119.18	331.92	0.02
228	SLU 53	-10	10	1749	119.08	331.74	-1.84
228	SLU 54	-10	6	1749	119.14	331.85	-0.73
228	SLU 55	-10	3	1750	119.18	331.92	0.02
228	SLU 56	-10	10	1749	119.08	331.74	-1.84
228	SLU 57	-10	6	1749	119.14	331.85	-0.73
228	SLU 58	-10	10	1749	119.08	331.74	-1.84
228	SLU 59	-10	6	1749	119.14	331.85	-0.73
228	SLU 60	-10	10	1844	125.57	351.38	-1.85
228	SLU 61	-10	6	1845	125.63	351.49	-0.73
228	SLU 62	-10	10	1844	125.57	351.38	-1.85
228	SLU 63	-10	6	1845	125.63	351.49	-0.73
228	SLU 64	-10	10	1693	115.31	319.68	-1.85
228	SLU 65	-10	3	1694	115.41	319.86	0
228	SLU 66	-10	10	1693	115.31	319.68	-1.85
228	SLU 67	-10	6	1694	115.37	319.79	-0.74
228	SLU 68	-10	3	1694	115.41	319.86	0
228	SLU 69	-10	10	1693	115.31	319.68	-1.85
228	SLU 70	-10	6	1694	115.37	319.79	-0.74
228	SLU 71	-10	10	1693	115.31	319.68	-1.85
228	SLU 72	-10	6	1694	115.37	319.79	-0.74
228	SLU 73	-11	3	1917	130.55	365.69	-0.02
228	SLU 74	-10	11	1916	130.45	365.51	-1.88
228	SLU 75	-10	6	1916	130.51	365.62	-0.76
228	SLU 76	-11	3	1917	130.55	365.69	-0.02
228	SLU 77	-10	11	1916	130.45	365.51	-1.88
228	SLU 78	-10	6	1916	130.51	365.62	-0.76
228	SLU 79	-10	11	1916	130.45	365.51	-1.88
228	SLU 80	-10	6	1916	130.51	365.62	-0.76
228	SLU 81	-10	11	2011	136.94	385.16	-1.89
228	SLU 82	-11	6	2012	137	385.26	-0.77
228	SLU 83	-10	11	2011	136.94	385.16	-1.89
228	SLU 84	-11	6	2012	137	385.26	-0.77
228	SLE RA 1	-8	8	1266	86.2	238.48	-1.42
228	SLE RA 2	-8	3	1267	86.27	238.6	-0.18
228	SLE RA 3	-8	8	1266	86.2	238.48	-1.42
228	SLE RA 4	-8	5	1266	86.24	238.56	-0.68
228	SLE RA 5	-8	3	1267	86.27	238.6	-0.18
228	SLE RA 6	-8	8	1266	86.2	238.48	-1.42
228	SLE RA 7	-8	5	1266	86.24	238.56	-0.68
228	SLE RA 8	-8	8	1266	86.2	238.48	-1.42
228	SLE RA 9	-8	5	1266	86.24	238.56	-0.68
228	SLE RA 10	-8	3	1415	96.36	269.16	-0.2
228	SLE RA 11	-8	8	1414	96.3	269.04	-1.43
228	SLE RA 12	-8	5	1415	96.34	269.11	-0.69
228	SLE RA 13	-8	3	1415	96.36	269.16	-0.2
228	SLE RA 14	-8	8	1414	96.3	269.04	-1.43
228	SLE RA 15	-8	5	1415	96.34	269.11	-0.69
228	SLE RA 16	-8	8	1414	96.3	269.04	-1.43
228	SLE RA 17	-8	5	1415	96.34	269.11	-0.69
228	SLE RA 18	-8	8	1478	100.62	282.14	-1.44
228	SLE RA 19	-8	5	1478	100.66	282.21	-0.7
228	SLE RA 20	-8	8	1478	100.62	282.14	-1.44
228	SLE RA 21	-8	5	1478	100.66	282.21	-0.7
228	SLE FR 1	-8	8	1266	86.2	238.48	-1.42
228	SLE FR 2	-8	7	1266	86.22	238.51	-1.17
228	SLE FR 3	-8	8	1266	86.2	238.48	-1.42
228	SLE FR 4	-8	7	1329	90.54	251.6	-1.18
228	SLE FR 5	-8	8	1329	90.53	251.58	-1.42
228	SLE FR 6	-8	8	1372	93.41	260.31	-1.43
228	SLE QP 1	-8	8	1266	86.2	238.48	-1.42
228	SLE QP 2	-8	8	1329	90.53	251.58	-1.42
228	SLD 1	85	37	1184	80.65	223.43	-14.05
228	SLD 2	84	62	1186	80.77	223.76	-20.08
228	SLD 3	83	-36	1177	80.23	221.46	4.16
228	SLD 4	82	-11	1179	80.35	221.79	-1.87
228	SLD 5	24	119	1296	88.16	246	-30.61
228	SLD 6	23	144	1298	88.29	246.34	-36.87
228	SLD 7	16	-125	1272	86.75	239.43	30.1
228	SLD 8	15	-100	1274	86.88	239.77	23.84
228	SLD 9	-31	116	1385	94.18	263.39	-26.68
228	SLD 10	-32	141	1387	94.31	263.73	-32.95
228	SLD 11	-39	-128	1360	92.77	256.82	34.02
228	SLD 12	-40	-103	1362	92.89	257.16	27.76
228	SLD 13	-98	27	1480	100.71	281.37	-0.98
228	SLD 14	-99	52	1481	100.83	281.7	-7.01
228	SLD 15	-100	-46	1472	100.28	279.4	17.23
228	SLD 16	-101	-21	1474	100.4	279.73	11.2
228	SLV 1	204	77	1000	68.06	187.43	-30.68
228	SLV 2	202	133	1004	68.34	188.18	-44.51
228	SLV 3	199	-94	982	67.04	182.69	11.88
228	SLV 4	197	-38	986	67.31	183.44	-1.94
228	SLV 5	64	267	1256	85.25	239.23	-69.55
228	SLV 6	62	326	1260	85.54	240.02	-84.11
228	SLV 7	47	-303	1197	81.82	223.45	72.33



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
228	SLV 8	45	-244	1201	82.11	224.24	57.77
228	SLV 9	-60	260	1457	98.95	278.92	-60.62
228	SLV 10	-63	319	1462	99.24	279.71	-75.18
228	SLV 11	-78	-310	1398	95.52	263.13	81.26
228	SLV 12	-80	-251	1403	95.81	263.93	66.7
228	SLV 13	-212	54	1672	113.75	319.72	-0.91
228	SLV 14	-214	110	1676	114.02	320.47	-14.73
228	SLV 15	-218	-117	1654	112.72	314.98	41.66
228	SLV 16	-220	-61	1659	113	315.73	27.83
228	CRTFP Ux+	0	0	0	0	0	0
228	CRTFP Ux-	0	0	0	0	0	0
228	CRTFP Uy+	0	0	0	0	0	0
228	CRTFP Uy-	0	0	0	0	0	0
263	SLU 1	-19	2	1595	43.56	-715.34	1.5
263	SLU 2	-20	-7	1599	43.67	-716.81	-2.73
263	SLU 3	-19	2	1595	43.56	-715.34	1.5
263	SLU 4	-20	-3	1597	43.63	-716.22	-1.04
263	SLU 5	-20	-7	1599	43.67	-716.81	-2.73
263	SLU 6	-19	2	1595	43.56	-715.34	1.5
263	SLU 7	-20	-3	1597	43.63	-716.22	-1.04
263	SLU 8	-19	2	1595	43.56	-715.34	1.5
263	SLU 9	-20	-3	1597	43.63	-716.22	-1.04
263	SLU 10	-19	-7	1901	51.9	-852.62	-2.73
263	SLU 11	-19	2	1897	51.78	-851.16	1.5
263	SLU 12	-19	-3	1899	51.85	-852.03	-1.04
263	SLU 13	-19	-7	1901	51.9	-852.62	-2.73
263	SLU 14	-19	2	1897	51.78	-851.16	1.5
263	SLU 15	-19	-3	1899	51.85	-852.03	-1.04
263	SLU 16	-19	2	1897	51.78	-851.16	1.5
263	SLU 17	-19	-3	1899	51.85	-852.03	-1.04
263	SLU 18	-19	2	2027	55.31	-909.36	1.5
263	SLU 19	-19	-3	2029	55.37	-910.24	-1.04
263	SLU 20	-19	2	2027	55.31	-909.36	1.5
263	SLU 21	-19	-3	2029	55.37	-910.24	-1.04
263	SLU 22	-19	2	1814	49.51	-813.74	1.61
263	SLU 23	-20	-7	1818	49.63	-815.2	-2.62
263	SLU 24	-19	2	1814	49.51	-813.74	1.61
263	SLU 25	-20	-3	1816	49.58	-814.62	-0.93
263	SLU 26	-20	-7	1818	49.63	-815.2	-2.62
263	SLU 27	-19	2	1814	49.51	-813.74	1.61
263	SLU 28	-20	-3	1816	49.58	-814.62	-0.93
263	SLU 29	-19	2	1814	49.51	-813.74	1.61
263	SLU 30	-20	-3	1816	49.58	-814.62	-0.93
263	SLU 31	-19	-7	2120	57.85	-951.02	-2.62
263	SLU 32	-19	2	2116	57.74	-949.55	1.61
263	SLU 33	-19	-3	2118	57.81	-950.43	-0.93
263	SLU 34	-19	-7	2120	57.85	-951.02	-2.62
263	SLU 35	-19	2	2116	57.74	-949.55	1.61
263	SLU 36	-19	-3	2118	57.81	-950.43	-0.93
263	SLU 37	-19	2	2116	57.74	-949.55	1.61
263	SLU 38	-19	-3	2118	57.81	-950.43	-0.93
263	SLU 39	-19	2	2246	61.26	-1007.76	1.61
263	SLU 40	-19	-3	2248	61.33	-1008.64	-0.93
263	SLU 41	-19	2	2246	61.26	-1007.76	1.61
263	SLU 42	-19	-3	2248	61.33	-1008.64	-0.93
263	SLU 43	-25	3	1999	54.58	-896.21	1.91
263	SLU 44	-26	-6	2002	54.7	-897.67	-2.32
263	SLU 45	-25	3	1999	54.58	-896.21	1.91
263	SLU 46	-26	-3	2001	54.65	-897.09	-0.63
263	SLU 47	-26	-6	2002	54.7	-897.67	-2.32
263	SLU 48	-25	3	1999	54.58	-896.21	1.91
263	SLU 49	-26	-3	2001	54.65	-897.09	-0.63
263	SLU 50	-25	3	1999	54.58	-896.21	1.91
263	SLU 51	-26	-3	2001	54.65	-897.09	-0.63
263	SLU 52	-25	-6	2304	62.92	-1033.49	-2.32
263	SLU 53	-25	3	2301	62.81	-1032.02	1.91
263	SLU 54	-25	-3	2303	62.88	-1032.9	-0.63
263	SLU 55	-25	-6	2304	62.92	-1033.49	-2.32
263	SLU 56	-25	3	2301	62.81	-1032.02	1.91
263	SLU 57	-25	-3	2303	62.88	-1032.9	-0.63
263	SLU 58	-25	3	2301	62.81	-1032.02	1.91
263	SLU 59	-25	-3	2303	62.88	-1032.9	-0.63
263	SLU 60	-25	3	2430	66.33	-1090.23	1.91
263	SLU 61	-25	-3	2432	66.4	-1091.11	-0.63
263	SLU 62	-25	3	2430	66.33	-1090.23	1.91
263	SLU 63	-25	-3	2432	66.4	-1091.11	-0.63
263	SLU 64	-25	3	2217	60.54	-994.61	2.02
263	SLU 65	-26	-6	2221	60.65	-996.07	-2.21
263	SLU 66	-25	3	2217	60.54	-994.61	2.02
263	SLU 67	-25	-2	2220	60.61	-995.49	-0.52
263	SLU 68	-26	-6	2221	60.65	-996.07	-2.21
263	SLU 69	-25	3	2217	60.54	-994.61	2.02
263	SLU 70	-25	-2	2220	60.61	-995.49	-0.52
263	SLU 71	-25	3	2217	60.54	-994.61	2.02
263	SLU 72	-25	-2	2220	60.61	-995.49	-0.52
263	SLU 73	-25	-6	2523	68.88	-1131.88	-2.21
263	SLU 74	-25	3	2520	68.76	-1130.42	2.02
263	SLU 75	-25	-2	2522	68.83	-1131.3	-0.52
263	SLU 76	-25	-6	2523	68.88	-1131.88	-2.21
263	SLU 77	-25	3	2520	68.76	-1130.42	2.02
263	SLU 78	-25	-2	2522	68.83	-1131.3	-0.52



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
263	SLU 79	-25	3	2520	68.76	-1130.42	2.02
263	SLU 80	-25	-2	2522	68.83	-1131.3	-0.52
263	SLU 81	-25	3	2649	72.29	-1188.63	2.02
263	SLU 82	-25	-2	2651	72.36	-1189.5	-0.52
263	SLU 83	-25	3	2649	72.29	-1188.63	2.02
263	SLU 84	-25	-2	2651	72.36	-1189.5	-0.52
263	SLE RA 1	-19	2	1658	45.26	-743.46	1.53
263	SLE RA 2	-20	-4	1660	45.34	-744.43	-1.29
263	SLE RA 3	-19	2	1658	45.26	-743.46	1.53
263	SLE RA 4	-20	-1	1659	45.31	-744.04	-0.16
263	SLE RA 5	-20	-4	1660	45.34	-744.43	-1.29
263	SLE RA 6	-19	2	1658	45.26	-743.46	1.53
263	SLE RA 7	-20	-1	1659	45.31	-744.04	-0.16
263	SLE RA 8	-19	2	1658	45.26	-743.46	1.53
263	SLE RA 9	-20	-1	1659	45.31	-744.04	-0.16
263	SLE RA 10	-19	-4	1861	50.82	-834.97	-1.29
263	SLE RA 11	-19	2	1859	50.74	-834	1.53
263	SLE RA 12	-19	-1	1860	50.79	-834.58	-0.16
263	SLE RA 13	-19	-4	1861	50.82	-834.97	-1.29
263	SLE RA 14	-19	2	1859	50.74	-834	1.53
263	SLE RA 15	-19	-1	1860	50.79	-834.58	-0.16
263	SLE RA 16	-19	2	1859	50.74	-834	1.53
263	SLE RA 17	-19	-1	1860	50.79	-834.58	-0.16
263	SLE RA 18	-19	2	1945	53.09	-872.8	1.53
263	SLE RA 19	-19	-1	1947	53.14	-873.39	-0.16
263	SLE RA 20	-19	2	1945	53.09	-872.8	1.53
263	SLE RA 21	-19	-1	1947	53.14	-873.39	-0.16
263	SLE FR 1	-19	2	1658	45.26	-743.46	1.53
263	SLE FR 2	-20	1	1658	45.28	-743.65	0.96
263	SLE FR 3	-19	2	1658	45.26	-743.46	1.53
263	SLE FR 4	-19	1	1744	47.62	-782.46	0.97
263	SLE FR 5	-19	2	1744	47.61	-782.26	1.53
263	SLE FR 6	-19	2	1801	49.18	-808.13	1.53
263	SLE QP 1	-19	2	1658	45.26	-743.46	1.53
263	SLE QP 2	-19	2	1744	47.61	-782.26	1.53
263	SLD 1	98	51	1940	52.83	-866.54	23.19
263	SLD 2	96	22	1940	52.85	-866.59	9.22
263	SLD 3	95	-33	1950	53.28	-869.64	-16.96
263	SLD 4	93	-63	1951	53.31	-869.69	-30.93
263	SLD 5	21	156	1787	48.48	-802.82	74.09
263	SLD 6	19	126	1787	48.5	-802.88	59.57
263	SLD 7	11	-126	1821	49.99	-813.16	-59.76
263	SLD 8	9	-157	1822	50.02	-813.22	-74.27
263	SLD 9	-47	161	1666	45.2	-751.3	77.33
263	SLD 10	-50	130	1667	45.23	-751.36	62.81
263	SLD 11	-58	-121	1701	46.72	-761.65	-56.52
263	SLD 12	-60	-152	1701	46.74	-761.71	-71.03
263	SLD 13	-131	67	1537	41.91	-694.83	33.99
263	SLD 14	-134	38	1538	41.94	-694.88	20.02
263	SLD 15	-134	-17	1548	42.36	-697.93	-6.16
263	SLD 16	-137	-47	1548	42.39	-697.99	-20.14
263	SLV 1	248	117	2189	59.47	-974.04	52.13
263	SLV 2	243	49	2190	59.54	-974.17	20.09
263	SLV 3	241	-81	2213	60.54	-981.32	-41.72
263	SLV 4	236	-149	2215	60.6	-981.45	-73.76
263	SLV 5	74	362	1840	49.53	-828.7	171.11
263	SLV 6	68	291	1841	49.6	-828.84	137.36
263	SLV 7	50	-297	1921	53.08	-852.97	-141.71
263	SLV 8	44	-369	1923	53.14	-853.11	-175.45
263	SLV 9	-83	373	1565	42.08	-711.41	178.51
263	SLV 10	-89	302	1566	42.14	-711.55	144.77
263	SLV 11	-107	-286	1647	45.62	-735.68	-134.3
263	SLV 12	-112	-358	1648	45.69	-735.82	-168.05
263	SLV 13	-274	153	1273	34.62	-583.07	76.82
263	SLV 14	-280	85	1275	34.68	-583.2	44.77
263	SLV 15	-282	-45	1298	35.68	-590.35	-17.03
263	SLV 16	-287	-113	1299	35.75	-590.48	-49.07
263	CRTFP Ux+	0	0	0	0	0	0
263	CRTFP Ux-	0	0	0	0	0	0
263	CRTFP Uy+	0	0	0	0	0	0
263	CRTFP Uy-	0	0	0	0	0	0
266	SLU 1	-19	-4	2767	76.9	3.16	0.21
266	SLU 2	-19	-18	2773	77.13	3.2	0.22
266	SLU 3	-19	-4	2767	76.9	3.16	0.21
266	SLU 4	-19	-13	2771	77.03	3.19	0.22
266	SLU 5	-19	-18	2773	77.13	3.2	0.22
266	SLU 6	-19	-4	2767	76.9	3.16	0.21
266	SLU 7	-19	-13	2771	77.03	3.19	0.22
266	SLU 8	-19	-4	2767	76.9	3.16	0.21
266	SLU 9	-19	-13	2771	77.03	3.19	0.22
266	SLU 10	-17	-18	3363	93.47	3.01	0.19
266	SLU 11	-17	-4	3357	93.24	2.97	0.18
266	SLU 12	-17	-12	3361	93.38	2.99	0.18
266	SLU 13	-17	-18	3363	93.47	3.01	0.19
266	SLU 14	-17	-4	3357	93.24	2.97	0.18
266	SLU 15	-17	-12	3361	93.38	2.99	0.18
266	SLU 16	-17	-4	3357	93.24	2.97	0.18
266	SLU 17	-17	-12	3361	93.38	2.99	0.18
266	SLU 18	-16	-4	3610	100.25	2.89	0.16
266	SLU 19	-16	-12	3614	100.39	2.91	0.17
266	SLU 20	-16	-4	3610	100.25	2.89	0.16



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
266	SLU 21	-16	-12	3614	100.39	2.91	0.17
266	SLU 22	-18	-4	3195	88.77	3.01	0.2
266	SLU 23	-18	-18	3201	89	3.05	0.21
266	SLU 24	-18	-4	3195	88.77	3.01	0.2
266	SLU 25	-18	-13	3199	88.9	3.04	0.2
266	SLU 26	-18	-18	3201	89	3.05	0.21
266	SLU 27	-18	-4	3195	88.77	3.01	0.2
266	SLU 28	-18	-13	3199	88.9	3.04	0.2
266	SLU 29	-18	-4	3195	88.77	3.01	0.2
266	SLU 30	-18	-13	3199	88.9	3.04	0.2
266	SLU 31	-16	-18	3792	105.34	2.86	0.17
266	SLU 32	-16	-4	3785	105.11	2.82	0.16
266	SLU 33	-16	-12	3789	105.25	2.84	0.17
266	SLU 34	-16	-18	3792	105.34	2.86	0.17
266	SLU 35	-16	-4	3785	105.11	2.82	0.16
266	SLU 36	-16	-12	3789	105.25	2.84	0.17
266	SLU 37	-16	-4	3785	105.11	2.82	0.16
266	SLU 38	-16	-12	3789	105.25	2.84	0.17
266	SLU 39	-15	-4	4038	112.12	2.74	0.15
266	SLU 40	-15	-12	4042	112.26	2.76	0.15
266	SLU 41	-15	-4	4038	112.12	2.74	0.15
266	SLU 42	-15	-12	4042	112.26	2.76	0.15
266	SLU 43	-25	-6	3450	95.89	4.16	0.28
266	SLU 44	-25	-20	3456	96.12	4.2	0.29
266	SLU 45	-25	-6	3450	95.89	4.16	0.28
266	SLU 46	-25	-14	3454	96.03	4.19	0.29
266	SLU 47	-25	-20	3456	96.12	4.2	0.29
266	SLU 48	-25	-6	3450	95.89	4.16	0.28
266	SLU 49	-25	-14	3454	96.03	4.19	0.29
266	SLU 50	-25	-6	3450	95.89	4.16	0.28
266	SLU 51	-25	-14	3454	96.03	4.19	0.29
266	SLU 52	-23	-19	4047	112.47	4.01	0.26
266	SLU 53	-22	-5	4040	112.24	3.97	0.25
266	SLU 54	-23	-14	4044	112.38	4	0.25
266	SLU 55	-23	-19	4047	112.47	4.01	0.26
266	SLU 56	-22	-5	4040	112.24	3.97	0.25
266	SLU 57	-23	-14	4044	112.38	4	0.25
266	SLU 58	-22	-5	4040	112.24	3.97	0.25
266	SLU 59	-23	-14	4044	112.38	4	0.25
266	SLU 60	-22	-5	4293	119.25	3.89	0.23
266	SLU 61	-22	-14	4297	119.39	3.91	0.24
266	SLU 62	-22	-5	4293	119.25	3.89	0.23
266	SLU 63	-22	-14	4297	119.39	3.91	0.24
266	SLU 64	-24	-6	3878	107.77	4.01	0.27
266	SLU 65	-24	-20	3885	107.99	4.05	0.28
266	SLU 66	-24	-6	3878	107.77	4.01	0.27
266	SLU 67	-24	-14	3882	107.9	4.04	0.27
266	SLU 68	-24	-20	3885	107.99	4.05	0.28
266	SLU 69	-24	-6	3878	107.77	4.01	0.27
266	SLU 70	-24	-14	3882	107.9	4.04	0.27
266	SLU 71	-24	-6	3878	107.77	4.01	0.27
266	SLU 72	-24	-14	3882	107.9	4.04	0.27
266	SLU 73	-22	-19	4475	124.34	3.86	0.24
266	SLU 74	-22	-5	4468	124.11	3.82	0.23
266	SLU 75	-22	-14	4472	124.25	3.85	0.24
266	SLU 76	-22	-19	4475	124.34	3.86	0.24
266	SLU 77	-22	-5	4468	124.11	3.82	0.23
266	SLU 78	-22	-14	4472	124.25	3.85	0.24
266	SLU 79	-22	-5	4468	124.11	3.82	0.23
266	SLU 80	-22	-14	4472	124.25	3.85	0.24
266	SLU 81	-21	-5	4721	131.12	3.74	0.22
266	SLU 82	-21	-14	4725	131.26	3.76	0.22
266	SLU 83	-21	-5	4721	131.12	3.74	0.22
266	SLU 84	-21	-14	4725	131.26	3.76	0.22
266	SLE RA 1	-18	-4	2889	80.29	3.12	0.21
266	SLE RA 2	-19	-14	2893	80.44	3.15	0.22
266	SLE RA 3	-18	-4	2889	80.29	3.12	0.21
266	SLE RA 4	-18	-10	2892	80.38	3.14	0.21
266	SLE RA 5	-19	-14	2893	80.44	3.15	0.22
266	SLE RA 6	-18	-4	2889	80.29	3.12	0.21
266	SLE RA 7	-18	-10	2892	80.38	3.14	0.21
266	SLE RA 8	-18	-4	2889	80.29	3.12	0.21
266	SLE RA 9	-18	-10	2892	80.38	3.14	0.21
266	SLE RA 10	-17	-13	3287	91.34	3.02	0.19
266	SLE RA 11	-17	-4	3282	91.19	2.99	0.19
266	SLE RA 12	-17	-10	3285	91.28	3.01	0.19
266	SLE RA 13	-17	-13	3287	91.34	3.02	0.19
266	SLE RA 14	-17	-4	3282	91.19	2.99	0.19
266	SLE RA 15	-17	-10	3285	91.28	3.01	0.19
266	SLE RA 16	-17	-4	3282	91.19	2.99	0.19
266	SLE RA 17	-17	-10	3285	91.28	3.01	0.19
266	SLE RA 18	-16	-4	3451	95.86	2.94	0.18
266	SLE RA 19	-17	-10	3454	95.95	2.95	0.18
266	SLE RA 20	-16	-4	3451	95.86	2.94	0.18
266	SLE RA 21	-17	-10	3454	95.95	2.95	0.18
266	SLE FR 1	-18	-4	2889	80.29	3.12	0.21
266	SLE FR 2	-18	-6	2890	80.32	3.13	0.21
266	SLE FR 3	-18	-4	2889	80.29	3.12	0.21
266	SLE FR 4	-18	-6	3058	84.99	3.07	0.2
266	SLE FR 5	-18	-4	3058	84.96	3.07	0.2
266	SLE FR 6	-17	-4	3170	88.07	3.03	0.19



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
266	SLE QP 1	-18	-4	2889	80.29	3.12	0.21
266	SLE QP 2	-18	-4	3058	84.96	3.07	0.2
266	SLD 1	218	76	3033	83.95	11.64	-6.66
266	SLD 2	214	77	3033	83.96	11.6	-5.87
266	SLD 3	212	-67	3057	85.15	11.01	-6.46
266	SLD 4	209	-66	3057	85.16	10.97	-5.67
266	SLD 5	62	237	3013	82.83	6.62	-2.46
266	SLD 6	59	238	3014	82.84	6.57	-1.63
266	SLD 7	45	-241	3094	86.83	4.5	-1.79
266	SLD 8	41	-240	3094	86.84	4.46	-0.96
266	SLD 9	-76	232	3021	83.07	1.67	1.36
266	SLD 10	-80	233	3022	83.09	1.63	2.19
266	SLD 11	-94	-247	3101	87.07	-0.44	2.03
266	SLD 12	-98	-246	3102	87.09	-0.48	2.86
266	SLD 13	-244	58	3058	84.76	-4.84	6.07
266	SLD 14	-248	59	3059	84.77	-4.88	6.86
266	SLD 15	-250	-86	3082	85.96	-5.47	6.27
266	SLD 16	-253	-85	3083	85.97	-5.51	7.06
266	SLV 1	519	184	2999	82.6	22.69	-15.44
266	SLV 2	510	186	3000	82.63	22.6	-13.62
266	SLV 3	506	-152	3056	85.41	21.08	-14.97
266	SLV 4	498	-150	3057	85.44	20.99	-13.16
266	SLV 5	165	560	2954	79.98	11.43	-5.89
266	SLV 6	156	562	2955	80.01	11.33	-3.97
266	SLV 7	124	-558	3142	89.34	6.07	-4.33
266	SLV 8	115	-556	3143	89.37	5.97	-2.41
266	SLV 9	-150	547	2972	80.54	0.16	2.81
266	SLV 10	-159	550	2973	80.57	0.07	4.73
266	SLV 11	-192	-571	3160	89.91	-5.2	4.37
266	SLV 12	-201	-568	3161	89.94	-5.3	6.29
266	SLV 13	-534	141	3059	84.48	-14.86	13.56
266	SLV 14	-542	143	3059	84.51	-14.95	15.37
266	SLV 15	-546	-194	3115	87.29	-16.47	14.02
266	SLV 16	-554	-192	3116	87.32	-16.56	15.84
266	CRTFP Ux+	0	0	0	0	0	0
266	CRTFP Ux-	0	0	0	0	0	0
266	CRTFP Uy+	0	0	0	0	0	0
266	CRTFP Uy-	0	0	0	0	0	0
269	SLU 1	-14	11	1841	-1.24	312.78	-2.82
269	SLU 2	-14	0	1844	-1.2	312.76	0.03
269	SLU 3	-14	11	1841	-1.24	312.78	-2.82
269	SLU 4	-14	5	1843	-1.21	312.77	-1.11
269	SLU 5	-14	0	1844	-1.2	312.76	0.03
269	SLU 6	-14	11	1841	-1.24	312.78	-2.82
269	SLU 7	-14	5	1843	-1.21	312.77	-1.11
269	SLU 8	-14	11	1841	-1.24	312.78	-2.82
269	SLU 9	-14	5	1843	-1.21	312.77	-1.11
269	SLU 10	-15	0	2178	-1.54	374.94	-0.01
269	SLU 11	-15	12	2175	-1.58	374.96	-2.86
269	SLU 12	-15	5	2177	-1.56	374.95	-1.15
269	SLU 13	-15	0	2178	-1.54	374.94	-0.01
269	SLU 14	-15	12	2175	-1.58	374.96	-2.86
269	SLU 15	-15	5	2177	-1.56	374.95	-1.15
269	SLU 16	-15	12	2175	-1.58	374.96	-2.86
269	SLU 17	-15	5	2177	-1.56	374.95	-1.15
269	SLU 18	-15	12	2318	-1.73	401.61	-2.87
269	SLU 19	-15	5	2320	-1.71	401.6	-1.16
269	SLU 20	-15	12	2318	-1.73	401.61	-2.87
269	SLU 21	-15	5	2320	-1.71	401.6	-1.16
269	SLU 22	-15	12	2092	-1.48	358.51	-2.9
269	SLU 23	-15	0	2095	-1.44	358.49	-0.05
269	SLU 24	-15	12	2092	-1.48	358.51	-2.9
269	SLU 25	-15	5	2094	-1.46	358.5	-1.19
269	SLU 26	-15	0	2095	-1.44	358.49	-0.05
269	SLU 27	-15	12	2092	-1.48	358.51	-2.9
269	SLU 28	-15	5	2094	-1.46	358.5	-1.19
269	SLU 29	-15	12	2092	-1.48	358.51	-2.9
269	SLU 30	-15	5	2094	-1.46	358.5	-1.19
269	SLU 31	-15	1	2429	-1.79	420.67	-0.09
269	SLU 32	-15	12	2426	-1.83	420.69	-2.94
269	SLU 33	-15	5	2428	-1.8	420.68	-1.23
269	SLU 34	-15	1	2429	-1.79	420.67	-0.09
269	SLU 35	-15	12	2426	-1.83	420.69	-2.94
269	SLU 36	-15	5	2428	-1.8	420.68	-1.23
269	SLU 37	-15	12	2426	-1.83	420.69	-2.94
269	SLU 38	-15	5	2428	-1.8	420.68	-1.23
269	SLU 39	-16	12	2569	-1.97	447.34	-2.95
269	SLU 40	-16	5	2571	-1.95	447.33	-1.24
269	SLU 41	-16	12	2569	-1.97	447.34	-2.95
269	SLU 42	-16	5	2571	-1.95	447.33	-1.24
269	SLU 43	-18	15	2307	-1.52	390.93	-3.65
269	SLU 44	-18	3	2310	-1.48	390.92	-0.8
269	SLU 45	-18	15	2307	-1.52	390.93	-3.65
269	SLU 46	-18	8	2309	-1.5	390.92	-1.94
269	SLU 47	-18	3	2310	-1.48	390.92	-0.8
269	SLU 48	-18	15	2307	-1.52	390.93	-3.65
269	SLU 49	-18	8	2309	-1.5	390.92	-1.94
269	SLU 50	-18	15	2307	-1.52	390.93	-3.65
269	SLU 51	-18	8	2309	-1.5	390.92	-1.94
269	SLU 52	-19	4	2644	-1.83	453.1	-0.83
269	SLU 53	-18	15	2641	-1.87	453.11	-3.68



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
269	SLU 54	-18	8	2643	-1.84	453.1	-1.97
269	SLU 55	-19	4	2644	-1.83	453.1	-0.83
269	SLU 56	-18	15	2641	-1.87	453.11	-3.68
269	SLU 57	-18	8	2643	-1.84	453.1	-1.97
269	SLU 58	-18	15	2641	-1.87	453.11	-3.68
269	SLU 59	-18	8	2643	-1.84	453.1	-1.97
269	SLU 60	-19	15	2784	-2.02	479.76	-3.69
269	SLU 61	-19	8	2786	-1.99	479.75	-1.98
269	SLU 62	-19	15	2784	-2.02	479.76	-3.69
269	SLU 63	-19	8	2786	-1.99	479.75	-1.98
269	SLU 64	-19	15	2558	-1.77	436.66	-3.72
269	SLU 65	-19	4	2561	-1.73	436.65	-0.87
269	SLU 66	-19	15	2558	-1.77	436.66	-3.72
269	SLU 67	-19	8	2560	-1.74	436.65	-2.01
269	SLU 68	-19	4	2561	-1.73	436.65	-0.87
269	SLU 69	-19	15	2558	-1.77	436.66	-3.72
269	SLU 70	-19	8	2560	-1.74	436.65	-2.01
269	SLU 71	-19	15	2558	-1.77	436.66	-3.72
269	SLU 72	-19	8	2560	-1.74	436.65	-2.01
269	SLU 73	-19	4	2895	-2.07	498.83	-0.91
269	SLU 74	-19	15	2892	-2.11	498.84	-3.76
269	SLU 75	-19	9	2894	-2.09	498.83	-2.05
269	SLU 76	-19	4	2895	-2.07	498.83	-0.91
269	SLU 77	-19	15	2892	-2.11	498.84	-3.76
269	SLU 78	-19	9	2894	-2.09	498.83	-2.05
269	SLU 79	-19	15	2892	-2.11	498.84	-3.76
269	SLU 80	-19	9	2894	-2.09	498.83	-2.05
269	SLU 81	-20	15	3035	-2.26	525.49	-3.77
269	SLU 82	-20	9	3037	-2.24	525.48	-2.06
269	SLU 83	-20	15	3035	-2.26	525.49	-3.77
269	SLU 84	-20	9	3037	-2.24	525.48	-2.06
269	SLE RA 1	-14	12	1913	-1.31	325.85	-2.85
269	SLE RA 2	-14	4	1915	-1.28	325.83	-0.95
269	SLE RA 3	-14	12	1913	-1.31	325.85	-2.85
269	SLE RA 4	-14	7	1914	-1.29	325.84	-1.71
269	SLE RA 5	-14	4	1915	-1.28	325.83	-0.95
269	SLE RA 6	-14	12	1913	-1.31	325.85	-2.85
269	SLE RA 7	-14	7	1914	-1.29	325.84	-1.71
269	SLE RA 8	-14	12	1913	-1.31	325.85	-2.85
269	SLE RA 9	-14	7	1914	-1.29	325.84	-1.71
269	SLE RA 10	-15	4	2137	-1.51	367.29	-0.97
269	SLE RA 11	-15	12	2135	-1.54	367.3	-2.87
269	SLE RA 12	-15	7	2136	-1.52	367.29	-1.73
269	SLE RA 13	-15	4	2137	-1.51	367.29	-0.97
269	SLE RA 14	-15	12	2135	-1.54	367.3	-2.87
269	SLE RA 15	-15	7	2136	-1.52	367.29	-1.73
269	SLE RA 16	-15	12	2135	-1.54	367.3	-2.87
269	SLE RA 17	-15	7	2136	-1.52	367.29	-1.73
269	SLE RA 18	-15	12	2231	-1.63	385.06	-2.88
269	SLE RA 19	-15	7	2232	-1.62	385.06	-1.74
269	SLE RA 20	-15	12	2231	-1.63	385.06	-2.88
269	SLE RA 21	-15	7	2232	-1.62	385.06	-1.74
269	SLE FR 1	-14	12	1913	-1.31	325.85	-2.85
269	SLE FR 2	-14	10	1913	-1.3	325.84	-2.47
269	SLE FR 3	-14	12	1913	-1.31	325.85	-2.85
269	SLE FR 4	-14	10	2008	-1.4	343.61	-2.48
269	SLE FR 5	-14	12	2008	-1.4	343.61	-2.86
269	SLE FR 6	-14	12	2072	-1.47	355.45	-2.86
269	SLE QP 1	-14	12	1913	-1.31	325.85	-2.85
269	SLE QP 2	-14	12	2008	-1.4	343.61	-2.86
269	SLD 1	124	57	1782	-1.25	304.94	-10.32
269	SLD 2	120	94	1784	-1.3	305.81	-19.62
269	SLD 3	128	-55	1791	-0.75	300.91	17.69
269	SLD 4	125	-18	1793	-0.8	301.78	8.39
269	SLD 5	22	181	1926	-2.1	337.79	-44.14
269	SLD 6	19	220	1928	-2.15	338.7	-53.8
269	SLD 7	36	-193	1956	-0.43	324.37	49.23
269	SLD 8	32	-154	1958	-0.48	325.28	39.56
269	SLD 9	-61	177	2058	-2.33	361.94	-45.27
269	SLD 10	-65	216	2060	-2.38	362.85	-54.94
269	SLD 11	-47	-197	2088	-0.66	348.52	48.09
269	SLD 12	-51	-158	2090	-0.71	349.43	38.42
269	SLD 13	-153	41	2223	-2.01	385.44	-14.1
269	SLD 14	-157	79	2225	-2.05	386.31	-23.41
269	SLD 15	-149	-71	2232	-1.51	381.41	13.91
269	SLD 16	-153	-33	2234	-1.55	382.28	4.6
269	SLV 1	300	118	1493	-1.08	255.32	-20.56
269	SLV 2	292	204	1498	-1.18	257.32	-41.89
269	SLV 3	310	-145	1515	0.09	245.71	44.9
269	SLV 4	302	-59	1519	-0.01	247.71	23.57
269	SLV 5	68	409	1819	-3.04	330.95	-99.41
269	SLV 6	60	499	1824	-3.15	333.05	-121.88
269	SLV 7	100	-465	1891	0.86	298.91	118.78
269	SLV 8	92	-375	1896	0.75	301.02	96.32
269	SLV 9	-121	398	2121	-3.56	386.2	-102.03
269	SLV 10	-129	489	2125	-3.67	388.31	-124.5
269	SLV 11	-89	-476	2192	0.34	354.17	116.17
269	SLV 12	-97	-385	2197	0.23	356.27	93.7
269	SLV 13	-331	82	2497	-2.79	439.51	-29.28
269	SLV 14	-339	168	2501	-2.9	441.51	-50.61
269	SLV 15	-321	-180	2519	-1.62	429.9	36.18



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
269	SLV 16	-329	-94	2523	-1.73	431.9	14.85
269	CRTFP Ux+	0	0	0	0	0	0
269	CRTFP Ux-	0	0	0	0	0	0
269	CRTFP Uy+	0	0	0	0	0	0
269	CRTFP Uy-	0	0	0	0	0	0
270	SLU 1	-20	3	1812	-2.61	-790.24	1.39
270	SLU 2	-20	-7	1817	-2.59	-792	-3.63
270	SLU 3	-20	3	1812	-2.61	-790.24	1.39
270	SLU 4	-20	-3	1815	-2.6	-791.3	-1.62
270	SLU 5	-20	-7	1817	-2.59	-792	-3.63
270	SLU 6	-20	3	1812	-2.61	-790.24	1.39
270	SLU 7	-20	-3	1815	-2.6	-791.3	-1.62
270	SLU 8	-20	3	1812	-2.61	-790.24	1.39
270	SLU 9	-20	-3	1815	-2.6	-791.3	-1.62
270	SLU 10	-20	-7	2158	-3.16	-940.86	-3.52
270	SLU 11	-19	3	2154	-3.18	-939.09	1.5
270	SLU 12	-20	-3	2156	-3.17	-940.15	-1.51
270	SLU 13	-20	-7	2158	-3.16	-940.86	-3.52
270	SLU 14	-19	3	2154	-3.18	-939.09	1.5
270	SLU 15	-20	-3	2156	-3.17	-940.15	-1.51
270	SLU 16	-19	3	2154	-3.18	-939.09	1.5
270	SLU 17	-20	-3	2156	-3.17	-940.15	-1.51
270	SLU 18	-19	3	2300	-3.43	-1002.89	1.54
270	SLU 19	-20	-3	2303	-3.42	-1003.95	-1.47
270	SLU 20	-19	3	2300	-3.43	-1002.89	1.54
270	SLU 21	-20	-3	2303	-3.42	-1003.95	-1.47
270	SLU 22	-20	4	2059	-3.02	-898.11	1.59
270	SLU 23	-20	-7	2064	-3	-899.87	-3.43
270	SLU 24	-20	4	2059	-3.02	-898.11	1.59
270	SLU 25	-20	-3	2062	-3.01	-899.17	-1.42
270	SLU 26	-20	-7	2064	-3	-899.87	-3.43
270	SLU 27	-20	4	2059	-3.02	-898.11	1.59
270	SLU 28	-20	-3	2062	-3.01	-899.17	-1.42
270	SLU 29	-20	4	2059	-3.02	-898.11	1.59
270	SLU 30	-20	-3	2062	-3.01	-899.17	-1.42
270	SLU 31	-20	-7	2406	-3.58	-1048.73	-3.33
270	SLU 32	-19	4	2401	-3.6	-1046.97	1.69
270	SLU 33	-20	-3	2404	-3.58	-1048.03	-1.32
270	SLU 34	-20	-7	2406	-3.58	-1048.73	-3.33
270	SLU 35	-19	4	2401	-3.6	-1046.97	1.69
270	SLU 36	-20	-3	2404	-3.58	-1048.03	-1.32
270	SLU 37	-19	4	2401	-3.6	-1046.97	1.69
270	SLU 38	-20	-3	2404	-3.58	-1048.03	-1.32
270	SLU 39	-19	4	2547	-3.84	-1110.76	1.74
270	SLU 40	-19	-2	2550	-3.83	-1111.82	-1.27
270	SLU 41	-19	4	2547	-3.84	-1110.76	1.74
270	SLU 42	-19	-2	2550	-3.83	-1111.82	-1.27
270	SLU 43	-26	4	2271	-3.26	-990.32	1.74
270	SLU 44	-26	-7	2276	-3.24	-992.09	-3.28
270	SLU 45	-26	4	2271	-3.26	-990.32	1.74
270	SLU 46	-26	-2	2274	-3.25	-991.38	-1.27
270	SLU 47	-26	-7	2276	-3.24	-992.09	-3.28
270	SLU 48	-26	4	2271	-3.26	-990.32	1.74
270	SLU 49	-26	-2	2274	-3.25	-991.38	-1.27
270	SLU 50	-26	4	2271	-3.26	-990.32	1.74
270	SLU 51	-26	-2	2274	-3.25	-991.38	-1.27
270	SLU 52	-26	-6	2617	-3.81	-1140.94	-3.17
270	SLU 53	-25	4	2612	-3.83	-1139.18	1.85
270	SLU 54	-26	-2	2615	-3.82	-1140.24	-1.16
270	SLU 55	-26	-6	2617	-3.81	-1140.94	-3.17
270	SLU 56	-25	4	2612	-3.83	-1139.18	1.85
270	SLU 57	-26	-2	2615	-3.82	-1140.24	-1.16
270	SLU 58	-25	4	2612	-3.83	-1139.18	1.85
270	SLU 59	-26	-2	2615	-3.82	-1140.24	-1.16
270	SLU 60	-25	4	2759	-4.07	-1202.97	1.9
270	SLU 61	-26	-2	2762	-4.06	-1204.03	-1.12
270	SLU 62	-25	4	2759	-4.07	-1202.97	1.9
270	SLU 63	-26	-2	2762	-4.06	-1204.03	-1.12
270	SLU 64	-26	4	2518	-3.67	-1098.2	1.94
270	SLU 65	-26	-6	2523	-3.65	-1099.96	-3.08
270	SLU 66	-26	4	2518	-3.67	-1098.2	1.94
270	SLU 67	-26	-2	2521	-3.66	-1099.25	-1.07
270	SLU 68	-26	-6	2523	-3.65	-1099.96	-3.08
270	SLU 69	-26	4	2518	-3.67	-1098.2	1.94
270	SLU 70	-26	-2	2521	-3.66	-1099.25	-1.07
270	SLU 71	-26	4	2518	-3.67	-1098.2	1.94
270	SLU 72	-26	-2	2521	-3.66	-1099.25	-1.07
270	SLU 73	-26	-6	2865	-4.22	-1248.82	-2.98
270	SLU 74	-25	5	2860	-4.24	-1247.05	2.04
270	SLU 75	-26	-2	2863	-4.23	-1248.11	-0.97
270	SLU 76	-26	-6	2865	-4.22	-1248.82	-2.98
270	SLU 77	-25	5	2860	-4.24	-1247.05	2.04
270	SLU 78	-26	-2	2863	-4.23	-1248.11	-0.97
270	SLU 79	-25	5	2860	-4.24	-1247.05	2.04
270	SLU 80	-26	-2	2863	-4.23	-1248.11	-0.97
270	SLU 81	-25	5	3006	-4.48	-1310.85	2.09
270	SLU 82	-25	-2	3009	-4.47	-1311.91	-0.92
270	SLU 83	-25	5	3006	-4.48	-1310.85	2.09
270	SLU 84	-25	-2	3009	-4.47	-1311.91	-0.92
270	SLE RA 1	-20	3	1883	-2.73	-821.06	1.45
270	SLE RA 2	-20	-4	1886	-2.72	-822.23	-1.9



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
270	SLE RA 3	-20	3	1883	-2.73	-821.06	1.45
270	SLE RA 4	-20	-1	1885	-2.72	-821.76	-0.56
270	SLE RA 5	-20	-4	1886	-2.72	-822.23	-1.9
270	SLE RA 6	-20	3	1883	-2.73	-821.06	1.45
270	SLE RA 7	-20	-1	1885	-2.72	-821.76	-0.56
270	SLE RA 8	-20	3	1883	-2.73	-821.06	1.45
270	SLE RA 9	-20	-1	1885	-2.72	-821.76	-0.56
270	SLE RA 10	-20	-4	2114	-3.1	-921.47	-1.83
270	SLE RA 11	-20	3	2110	-3.11	-920.3	1.52
270	SLE RA 12	-20	-1	2112	-3.1	-921	-0.49
270	SLE RA 13	-20	-4	2114	-3.1	-921.47	-1.83
270	SLE RA 14	-20	3	2110	-3.11	-920.3	1.52
270	SLE RA 15	-20	-1	2112	-3.1	-921	-0.49
270	SLE RA 16	-20	3	2110	-3.11	-920.3	1.52
270	SLE RA 17	-20	-1	2112	-3.1	-921	-0.49
270	SLE RA 18	-19	3	2208	-3.28	-962.83	1.55
270	SLE RA 19	-20	-1	2210	-3.27	-963.53	-0.46
270	SLE RA 20	-19	3	2208	-3.28	-962.83	1.55
270	SLE RA 21	-20	-1	2210	-3.27	-963.53	-0.46
270	SLE FR 1	-20	3	1883	-2.73	-821.06	1.45
270	SLE FR 2	-20	2	1883	-2.73	-821.29	0.78
270	SLE FR 3	-20	3	1883	-2.73	-821.06	1.45
270	SLE FR 4	-20	2	1981	-2.89	-863.82	0.81
270	SLE FR 5	-20	3	1980	-2.89	-863.59	1.48
270	SLE FR 6	-20	3	2045	-3	-891.94	1.5
270	SLE QP 1	-20	3	1883	-2.73	-821.06	1.45
270	SLE QP 2	-20	3	1980	-2.89	-863.59	1.48
270	SLD 1	119	61	2196	-3.48	-954.21	29.04
270	SLD 2	114	26	2197	-3.46	-954.33	12.51
270	SLD 3	115	-38	2216	-3.19	-959.29	-18.4
270	SLD 4	110	-73	2217	-3.17	-959.41	-34.93
270	SLD 5	30	185	2013	-3.52	-883.03	87.8
270	SLD 6	25	149	2015	-3.5	-883.15	70.63
270	SLD 7	16	-148	2081	-2.55	-899.95	-70.33
270	SLD 8	11	-184	2083	-2.53	-900.07	-87.5
270	SLD 9	-51	191	1878	-3.26	-827.1	90.46
270	SLD 10	-56	155	1879	-3.24	-827.22	73.28
270	SLD 11	-64	-142	1946	-2.29	-844.02	-67.67
270	SLD 12	-69	-179	1947	-2.27	-844.14	-84.84
270	SLD 13	-150	80	1743	-2.62	-767.77	37.89
270	SLD 14	-155	45	1745	-2.6	-767.89	21.36
270	SLD 15	-154	-20	1764	-2.33	-772.85	-9.55
270	SLD 16	-159	-55	1765	-2.31	-772.96	-26.08
270	SLV 1	297	139	2470	-4.23	-1069.81	65.72
270	SLV 2	286	59	2473	-4.19	-1070.07	27.82
270	SLV 3	287	-95	2517	-3.55	-1081.68	-45.14
270	SLV 4	276	-175	2520	-3.5	-1081.95	-83.05
270	SLV 5	94	428	2054	-4.35	-907.34	203.18
270	SLV 6	82	344	2057	-4.3	-907.62	163.26
270	SLV 7	62	-350	2213	-2.07	-946.92	-166.39
270	SLV 8	50	-435	2216	-2.02	-947.2	-206.3
270	SLV 9	-90	441	1745	-3.77	-779.97	209.26
270	SLV 10	-102	357	1748	-3.72	-780.25	169.34
270	SLV 11	-122	-337	1904	-1.49	-819.55	-160.3
270	SLV 12	-133	-422	1907	-1.44	-819.83	-200.22
270	SLV 13	-316	182	1440	-2.29	-645.23	86
270	SLV 14	-327	101	1443	-2.24	-645.49	48.1
270	SLV 15	-325	-52	1488	-1.6	-657.1	-24.86
270	SLV 16	-336	-132	1491	-1.55	-657.37	-62.77
270	CRTFP Ux+	0	0	0	0	0	0
270	CRTFP Ux-	0	0	0	0	0	0
270	CRTFP Uy+	0	0	0	0	0	0
270	CRTFP Uy-	0	0	0	0	0	0
273	SLU 1	-19	-3	3239	-0.62	3.5	-0.63
273	SLU 2	-20	-20	3249	-0.54	3.54	-0.64
273	SLU 3	-19	-3	3239	-0.62	3.5	-0.63
273	SLU 4	-20	-13	3245	-0.57	3.52	-0.64
273	SLU 5	-20	-20	3249	-0.54	3.54	-0.64
273	SLU 6	-19	-3	3239	-0.62	3.5	-0.63
273	SLU 7	-20	-13	3245	-0.57	3.52	-0.64
273	SLU 8	-19	-3	3239	-0.62	3.5	-0.63
273	SLU 9	-20	-13	3245	-0.57	3.52	-0.64
273	SLU 10	-18	-19	3936	-0.85	3.34	-0.58
273	SLU 11	-17	-2	3926	-0.92	3.3	-0.58
273	SLU 12	-17	-12	3932	-0.88	3.32	-0.58
273	SLU 13	-18	-19	3936	-0.85	3.34	-0.58
273	SLU 14	-17	-2	3926	-0.92	3.3	-0.58
273	SLU 15	-17	-12	3932	-0.88	3.32	-0.58
273	SLU 16	-17	-2	3926	-0.92	3.3	-0.58
273	SLU 17	-17	-12	3932	-0.88	3.32	-0.58
273	SLU 18	-16	-2	4221	-1.05	3.21	-0.56
273	SLU 19	-16	-12	4227	-1.01	3.24	-0.56
273	SLU 20	-16	-2	4221	-1.05	3.21	-0.56
273	SLU 21	-16	-12	4227	-1.01	3.24	-0.56
273	SLU 22	-19	-3	3738	-0.82	3.34	-0.61
273	SLU 23	-19	-19	3748	-0.75	3.38	-0.62
273	SLU 24	-19	-3	3738	-0.82	3.34	-0.61
273	SLU 25	-19	-13	3744	-0.78	3.36	-0.61
273	SLU 26	-19	-19	3748	-0.75	3.38	-0.62
273	SLU 27	-19	-3	3738	-0.82	3.34	-0.61
273	SLU 28	-19	-13	3744	-0.78	3.36	-0.61



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
273	SLU 29	-19	-3	3738	-0.82	3.34	-0.61
273	SLU 30	-19	-13	3744	-0.78	3.36	-0.61
273	SLU 31	-17	-19	4435	-1.05	3.18	-0.56
273	SLU 32	-16	-2	4425	-1.12	3.14	-0.56
273	SLU 33	-16	-12	4431	-1.08	3.16	-0.56
273	SLU 34	-17	-19	4435	-1.05	3.18	-0.56
273	SLU 35	-16	-2	4425	-1.12	3.14	-0.56
273	SLU 36	-16	-12	4431	-1.08	3.16	-0.56
273	SLU 37	-16	-2	4425	-1.12	3.14	-0.56
273	SLU 38	-16	-12	4431	-1.08	3.16	-0.56
273	SLU 39	-15	-2	4719	-1.25	3.05	-0.54
273	SLU 40	-15	-12	4725	-1.21	3.07	-0.54
273	SLU 41	-15	-2	4719	-1.25	3.05	-0.54
273	SLU 42	-15	-12	4725	-1.21	3.07	-0.54
273	SLU 43	-26	-4	4040	-0.73	4.6	-0.83
273	SLU 44	-26	-20	4050	-0.66	4.64	-0.83
273	SLU 45	-26	-4	4040	-0.73	4.6	-0.83
273	SLU 46	-26	-14	4046	-0.69	4.63	-0.83
273	SLU 47	-26	-20	4050	-0.66	4.64	-0.83
273	SLU 48	-26	-4	4040	-0.73	4.6	-0.83
273	SLU 49	-26	-14	4046	-0.69	4.63	-0.83
273	SLU 50	-26	-4	4040	-0.73	4.6	-0.83
273	SLU 51	-26	-14	4046	-0.69	4.63	-0.83
273	SLU 52	-24	-20	4737	-0.96	4.44	-0.78
273	SLU 53	-23	-3	4727	-1.04	4.4	-0.78
273	SLU 54	-24	-13	4733	-0.99	4.43	-0.78
273	SLU 55	-24	-20	4737	-0.96	4.44	-0.78
273	SLU 56	-23	-3	4727	-1.04	4.4	-0.78
273	SLU 57	-24	-13	4733	-0.99	4.43	-0.78
273	SLU 58	-23	-3	4727	-1.04	4.4	-0.78
273	SLU 59	-24	-13	4733	-0.99	4.43	-0.78
273	SLU 60	-22	-3	5021	-1.17	4.31	-0.76
273	SLU 61	-23	-13	5027	-1.12	4.34	-0.76
273	SLU 62	-22	-3	5021	-1.17	4.31	-0.76
273	SLU 63	-23	-13	5027	-1.12	4.34	-0.76
273	SLU 64	-25	-4	4539	-0.94	4.44	-0.81
273	SLU 65	-25	-20	4549	-0.86	4.48	-0.81
273	SLU 66	-25	-4	4539	-0.94	4.44	-0.81
273	SLU 67	-25	-14	4545	-0.89	4.47	-0.81
273	SLU 68	-25	-20	4549	-0.86	4.48	-0.81
273	SLU 69	-25	-4	4539	-0.94	4.44	-0.81
273	SLU 70	-25	-14	4545	-0.89	4.47	-0.81
273	SLU 71	-25	-4	4539	-0.94	4.44	-0.81
273	SLU 72	-25	-14	4545	-0.89	4.47	-0.81
273	SLU 73	-23	-20	5236	-1.16	4.28	-0.76
273	SLU 74	-22	-3	5226	-1.24	4.24	-0.76
273	SLU 75	-23	-13	5232	-1.19	4.27	-0.76
273	SLU 76	-23	-20	5236	-1.16	4.28	-0.76
273	SLU 77	-22	-3	5226	-1.24	4.24	-0.76
273	SLU 78	-23	-13	5232	-1.19	4.27	-0.76
273	SLU 79	-22	-3	5226	-1.24	4.24	-0.76
273	SLU 80	-23	-13	5232	-1.19	4.27	-0.76
273	SLU 81	-21	-3	5520	-1.37	4.15	-0.74
273	SLU 82	-22	-13	5526	-1.32	4.18	-0.74
273	SLU 83	-21	-3	5520	-1.37	4.15	-0.74
273	SLU 84	-22	-13	5526	-1.32	4.18	-0.74
273	SLE RA 1	-19	-3	3382	-0.68	3.45	-0.63
273	SLE RA 2	-19	-14	3389	-0.63	3.48	-0.63
273	SLE RA 3	-19	-3	3382	-0.68	3.45	-0.63
273	SLE RA 4	-19	-10	3386	-0.65	3.47	-0.63
273	SLE RA 5	-19	-14	3389	-0.63	3.48	-0.63
273	SLE RA 6	-19	-3	3382	-0.68	3.45	-0.63
273	SLE RA 7	-19	-10	3386	-0.65	3.47	-0.63
273	SLE RA 8	-19	-3	3382	-0.68	3.45	-0.63
273	SLE RA 9	-19	-10	3386	-0.65	3.47	-0.63
273	SLE RA 10	-18	-14	3846	-0.83	3.35	-0.6
273	SLE RA 11	-18	-2	3840	-0.88	3.32	-0.59
273	SLE RA 12	-18	-9	3844	-0.85	3.33	-0.59
273	SLE RA 13	-18	-14	3846	-0.83	3.35	-0.6
273	SLE RA 14	-18	-2	3840	-0.88	3.32	-0.59
273	SLE RA 15	-18	-9	3844	-0.85	3.33	-0.59
273	SLE RA 16	-18	-2	3840	-0.88	3.32	-0.59
273	SLE RA 17	-18	-9	3844	-0.85	3.33	-0.59
273	SLE RA 18	-17	-2	4036	-0.96	3.26	-0.58
273	SLE RA 19	-17	-9	4040	-0.93	3.28	-0.58
273	SLE RA 20	-17	-2	4036	-0.96	3.26	-0.58
273	SLE RA 21	-17	-9	4040	-0.93	3.28	-0.58
273	SLE FR 1	-19	-3	3382	-0.68	3.45	-0.63
273	SLE FR 2	-19	-5	3383	-0.67	3.46	-0.63
273	SLE FR 3	-19	-3	3382	-0.68	3.45	-0.63
273	SLE FR 4	-19	-5	3579	-0.75	3.4	-0.61
273	SLE FR 5	-19	-3	3578	-0.76	3.39	-0.61
273	SLE FR 6	-18	-3	3709	-0.82	3.36	-0.6
273	SLE QP 1	-19	-3	3382	-0.68	3.45	-0.63
273	SLE QP 2	-19	-3	3578	-0.76	3.39	-0.61
273	SLD 1	260	92	3532	-1.37	13.17	-0.84
273	SLD 2	252	93	3533	-1.37	13.14	0.09
273	SLD 3	254	-77	3587	-0.46	12.47	-1.01
273	SLD 4	245	-76	3588	-0.45	12.44	-0.08
273	SLD 5	78	282	3480	-2.33	7.4	-0.76
273	SLD 6	69	283	3481	-2.32	7.36	0.21



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
273	SLD 7	57	-282	3664	0.71	5.07	-1.34
273	SLD 8	48	-281	3665	0.71	5.04	-0.37
273	SLD 9	-85	276	3491	-2.24	1.75	-0.85
273	SLD 10	-94	277	3492	-2.23	1.72	0.12
273	SLD 11	-106	-289	3675	0.8	-0.58	-1.43
273	SLD 12	-115	-288	3676	0.8	-0.61	-0.46
273	SLD 13	-282	70	3569	-1.07	-5.65	-1.15
273	SLD 14	-291	72	3569	-1.07	-5.69	-0.21
273	SLD 15	-289	-99	3624	-0.16	-6.35	-1.32
273	SLD 16	-297	-98	3624	-0.16	-6.38	-0.39
273	SLV 1	616	219	3471	-2.19	25.76	-1.13
273	SLV 2	597	221	3472	-2.18	25.68	1.02
273	SLV 3	602	-177	3600	-0.06	23.99	-1.54
273	SLV 4	582	-174	3601	-0.05	23.91	0.6
273	SLV 5	202	663	3350	-4.42	12.82	-0.94
273	SLV 6	181	665	3351	-4.42	12.74	1.31
273	SLV 7	152	-656	3780	2.68	6.91	-2.33
273	SLV 8	132	-653	3781	2.68	6.83	-0.07
273	SLV 9	-169	648	3375	-4.21	-0.05	-1.15
273	SLV 10	-189	650	3376	-4.2	-0.13	1.1
273	SLV 11	-219	-671	3805	2.89	-5.95	-2.54
273	SLV 12	-239	-668	3806	2.9	-6.03	-0.28
273	SLV 13	-619	169	3555	-1.47	-17.12	-1.83
273	SLV 14	-639	171	3557	-1.47	-17.2	0.32
273	SLV 15	-634	-227	3684	0.66	-18.89	-2.24
273	SLV 16	-654	-224	3686	0.66	-18.97	-0.1
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
276	SLU 1	-14	11	1796	-1.56	270.54	-2.72
276	SLU 2	-14	-1	1801	-1.52	270.36	0.16
276	SLU 3	-14	11	1796	-1.56	270.54	-2.72
276	SLU 4	-14	4	1799	-1.54	270.43	-0.99
276	SLU 5	-14	-1	1801	-1.52	270.36	0.16
276	SLU 6	-14	11	1796	-1.56	270.54	-2.72
276	SLU 7	-14	4	1799	-1.54	270.43	-0.99
276	SLU 8	-14	11	1796	-1.56	270.54	-2.72
276	SLU 9	-14	4	1799	-1.54	270.43	-0.99
276	SLU 10	-15	-1	2122	-1.95	322.8	0.14
276	SLU 11	-15	11	2118	-2	322.98	-2.74
276	SLU 12	-15	4	2121	-1.97	322.87	-1.01
276	SLU 13	-15	-1	2122	-1.95	322.8	0.14
276	SLU 14	-15	11	2118	-2	322.98	-2.74
276	SLU 15	-15	4	2121	-1.97	322.87	-1.01
276	SLU 16	-15	11	2118	-2	322.98	-2.74
276	SLU 17	-15	4	2121	-1.97	322.87	-1.01
276	SLU 18	-16	11	2256	-2.18	345.46	-2.75
276	SLU 19	-16	4	2258	-2.16	345.35	-1.02
276	SLU 20	-16	11	2256	-2.18	345.46	-2.75
276	SLU 21	-16	4	2258	-2.16	345.35	-1.02
276	SLU 22	-15	11	2039	-1.87	309.07	-2.79
276	SLU 23	-15	0	2043	-1.83	308.88	0.09
276	SLU 24	-15	11	2039	-1.87	309.07	-2.79
276	SLU 25	-15	4	2041	-1.85	308.96	-1.06
276	SLU 26	-15	0	2043	-1.83	308.88	0.09
276	SLU 27	-15	11	2039	-1.87	309.07	-2.79
276	SLU 28	-15	4	2041	-1.85	308.96	-1.06
276	SLU 29	-15	11	2039	-1.87	309.07	-2.79
276	SLU 30	-15	4	2041	-1.85	308.96	-1.06
276	SLU 31	-16	0	2365	-2.26	361.32	0.06
276	SLU 32	-16	11	2360	-2.31	361.51	-2.81
276	SLU 33	-16	4	2363	-2.28	361.4	-1.09
276	SLU 34	-16	0	2365	-2.26	361.32	0.06
276	SLU 35	-16	11	2360	-2.31	361.51	-2.81
276	SLU 36	-16	4	2363	-2.28	361.4	-1.09
276	SLU 37	-16	11	2360	-2.31	361.51	-2.81
276	SLU 38	-16	4	2363	-2.28	361.4	-1.09
276	SLU 39	-17	11	2498	-2.49	383.98	-2.82
276	SLU 40	-17	4	2501	-2.47	383.87	-1.1
276	SLU 41	-17	11	2498	-2.49	383.98	-2.82
276	SLU 42	-17	4	2501	-2.47	383.87	-1.1
276	SLU 43	-18	14	2252	-1.93	338.49	-3.51
276	SLU 44	-18	2	2257	-1.88	338.31	-0.63
276	SLU 45	-18	14	2252	-1.93	338.49	-3.51
276	SLU 46	-18	7	2255	-1.9	338.38	-1.78
276	SLU 47	-18	2	2257	-1.88	338.31	-0.63
276	SLU 48	-18	14	2252	-1.93	338.49	-3.51
276	SLU 49	-18	7	2255	-1.9	338.38	-1.78
276	SLU 50	-18	14	2252	-1.93	338.49	-3.51
276	SLU 51	-18	7	2255	-1.9	338.38	-1.78
276	SLU 52	-19	2	2578	-2.32	390.75	-0.66
276	SLU 53	-19	14	2574	-2.36	390.93	-3.53
276	SLU 54	-19	7	2576	-2.33	390.82	-1.81
276	SLU 55	-19	2	2578	-2.32	390.75	-0.66
276	SLU 56	-19	14	2574	-2.36	390.93	-3.53
276	SLU 57	-19	7	2576	-2.33	390.82	-1.81
276	SLU 58	-19	14	2574	-2.36	390.93	-3.53
276	SLU 59	-19	7	2576	-2.33	390.82	-1.81
276	SLU 60	-19	14	2712	-2.55	413.41	-3.54
276	SLU 61	-19	7	2714	-2.52	413.3	-1.82



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
276	SLU 62	-19	14	2712	-2.55	413.41	-3.54
276	SLU 63	-19	7	2714	-2.52	413.3	-1.82
276	SLU 64	-19	14	2495	-2.24	377.02	-3.58
276	SLU 65	-19	3	2499	-2.19	376.84	-0.7
276	SLU 66	-19	14	2495	-2.24	377.02	-3.58
276	SLU 67	-19	7	2497	-2.21	376.91	-1.85
276	SLU 68	-19	3	2499	-2.19	376.84	-0.7
276	SLU 69	-19	14	2495	-2.24	377.02	-3.58
276	SLU 70	-19	7	2497	-2.21	376.91	-1.85
276	SLU 71	-19	14	2495	-2.24	377.02	-3.58
276	SLU 72	-19	7	2497	-2.21	376.91	-1.85
276	SLU 73	-20	3	2820	-2.63	429.28	-0.73
276	SLU 74	-20	14	2816	-2.67	429.46	-3.6
276	SLU 75	-20	7	2819	-2.64	429.35	-1.88
276	SLU 76	-20	3	2820	-2.63	429.28	-0.73
276	SLU 77	-20	14	2816	-2.67	429.46	-3.6
276	SLU 78	-20	7	2819	-2.64	429.35	-1.88
276	SLU 79	-20	14	2816	-2.67	429.46	-3.6
276	SLU 80	-20	7	2819	-2.64	429.35	-1.88
276	SLU 81	-21	14	2954	-2.86	451.94	-3.61
276	SLU 82	-20	7	2957	-2.83	451.83	-1.89
276	SLU 83	-21	14	2954	-2.86	451.94	-3.61
276	SLU 84	-20	7	2957	-2.83	451.83	-1.89
276	SLE RA 1	-14	11	1866	-1.65	281.55	-2.74
276	SLE RA 2	-14	3	1868	-1.62	281.43	-0.82
276	SLE RA 3	-14	11	1866	-1.65	281.55	-2.74
276	SLE RA 4	-14	6	1867	-1.63	281.47	-1.59
276	SLE RA 5	-14	3	1868	-1.62	281.43	-0.82
276	SLE RA 6	-14	11	1866	-1.65	281.55	-2.74
276	SLE RA 7	-14	6	1867	-1.63	281.47	-1.59
276	SLE RA 8	-14	11	1866	-1.65	281.55	-2.74
276	SLE RA 9	-14	6	1867	-1.63	281.47	-1.59
276	SLE RA 10	-15	3	2083	-1.91	316.39	-0.84
276	SLE RA 11	-15	11	2080	-1.94	316.51	-2.75
276	SLE RA 12	-15	6	2082	-1.92	316.43	-1.6
276	SLE RA 13	-15	3	2083	-1.91	316.39	-0.84
276	SLE RA 14	-15	11	2080	-1.94	316.51	-2.75
276	SLE RA 15	-15	6	2082	-1.92	316.43	-1.6
276	SLE RA 16	-15	11	2080	-1.94	316.51	-2.75
276	SLE RA 17	-15	6	2082	-1.92	316.43	-1.6
276	SLE RA 18	-15	11	2172	-2.06	331.49	-2.76
276	SLE RA 19	-15	6	2174	-2.05	331.42	-1.61
276	SLE RA 20	-15	11	2172	-2.06	331.49	-2.76
276	SLE RA 21	-15	6	2174	-2.05	331.42	-1.61
276	SLE FR 1	-14	11	1866	-1.65	281.55	-2.74
276	SLE FR 2	-14	9	1866	-1.65	281.52	-2.35
276	SLE FR 3	-14	11	1866	-1.65	281.55	-2.74
276	SLE FR 4	-15	9	1958	-1.77	296.51	-2.36
276	SLE FR 5	-15	11	1958	-1.78	296.53	-2.74
276	SLE FR 6	-15	11	2019	-1.86	306.52	-2.75
276	SLE QP 1	-14	11	1866	-1.65	281.55	-2.74
276	SLE QP 2	-15	11	1958	-1.78	296.53	-2.74
276	SLD 1	122	56	1736	-1.61	261.41	-10.24
276	SLD 2	117	94	1736	-1.67	262.45	-19.57
276	SLD 3	127	-56	1757	-1.06	257.11	17.87
276	SLD 4	121	-19	1758	-1.11	258.14	8.55
276	SLD 5	22	181	1858	-2.54	292.14	-44.19
276	SLD 6	15	220	1858	-2.6	293.22	-53.89
276	SLD 7	37	-194	1931	-0.7	277.79	49.54
276	SLD 8	31	-155	1931	-0.76	278.87	39.84
276	SLD 9	-60	176	1984	-2.79	314.19	-45.33
276	SLD 10	-67	216	1985	-2.85	315.27	-55.02
276	SLD 11	-45	-199	2057	-0.95	299.84	48.4
276	SLD 12	-51	-159	2057	-1.01	300.92	38.71
276	SLD 13	-151	41	2157	-2.44	334.92	-14.03
276	SLD 14	-157	78	2158	-2.49	335.95	-23.36
276	SLD 15	-146	-72	2179	-1.89	330.61	14.08
276	SLD 16	-152	-34	2180	-1.94	331.65	4.76
276	SLV 1	297	117	1451	-1.41	216.14	-20.54
276	SLV 2	284	203	1452	-1.54	218.51	-41.93
276	SLV 3	308	-146	1502	-0.12	205.88	45.17
276	SLV 4	295	-60	1503	-0.26	208.25	23.78
276	SLV 5	67	409	1728	-3.57	287.08	-99.7
276	SLV 6	53	500	1729	-3.71	289.58	-122.23
276	SLV 7	104	-467	1898	0.72	252.88	119.36
276	SLV 8	90	-377	1899	0.58	255.38	96.83
276	SLV 9	-119	398	2016	-4.13	337.68	-102.31
276	SLV 10	-133	489	2017	-4.27	340.18	-124.84
276	SLV 11	-83	-478	2187	0.16	303.48	116.74
276	SLV 12	-97	-387	2187	0.02	305.98	94.21
276	SLV 13	-324	81	2413	-3.3	384.81	-29.27
276	SLV 14	-338	168	2413	-3.43	387.18	-50.66
276	SLV 15	-313	-182	2464	-2.01	374.55	36.45
276	SLV 16	-327	-95	2464	-2.14	376.92	15.05
276	CRTFP Ux+	0	0	0	0	0	0
276	CRTFP Ux-	0	0	0	0	0	0
276	CRTFP Uy+	0	0	0	0	0	0
276	CRTFP Uy-	0	0	0	0	0	0
277	SLU 1	-16	4	1719	-2.96	-722.31	1.65
277	SLU 2	-17	-7	1724	-2.94	-724.13	-3.4
277	SLU 3	-16	4	1719	-2.96	-722.31	1.65



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
277	SLU 4	-17	-3	1722		-2.95	-723.4	-1.38
277	SLU 5	-17	-7	1724		-2.94	-724.13	-3.4
277	SLU 6	-16	4	1719		-2.96	-722.31	1.65
277	SLU 7	-17	-3	1722		-2.95	-723.4	-1.38
277	SLU 8	-16	4	1719		-2.96	-722.31	1.65
277	SLU 9	-17	-3	1722		-2.95	-723.4	-1.38
277	SLU 10	-16	-7	2045		-3.59	-858.41	-3.21
277	SLU 11	-16	4	2040		-3.61	-856.59	1.84
277	SLU 12	-16	-2	2043		-3.6	-857.68	-1.19
277	SLU 13	-16	-7	2045		-3.59	-858.41	-3.21
277	SLU 14	-16	4	2040		-3.61	-856.59	1.84
277	SLU 15	-16	-2	2043		-3.6	-857.68	-1.19
277	SLU 16	-16	4	2040		-3.61	-856.59	1.84
277	SLU 17	-16	-2	2043		-3.6	-857.68	-1.19
277	SLU 18	-16	4	2177		-3.89	-914.14	1.92
277	SLU 19	-16	-2	2181		-3.88	-915.23	-1.11
277	SLU 20	-16	4	2177		-3.89	-914.14	1.92
277	SLU 21	-16	-2	2181		-3.88	-915.23	-1.11
277	SLU 22	-16	4	1951		-3.43	-819.64	1.9
277	SLU 23	-17	-6	1957		-3.41	-821.46	-3.14
277	SLU 24	-16	4	1951		-3.43	-819.64	1.9
277	SLU 25	-16	-2	1955		-3.42	-820.73	-1.13
277	SLU 26	-17	-6	1957		-3.41	-821.46	-3.14
277	SLU 27	-16	4	1951		-3.43	-819.64	1.9
277	SLU 28	-16	-2	1955		-3.42	-820.73	-1.13
277	SLU 29	-16	4	1951		-3.43	-819.64	1.9
277	SLU 30	-16	-2	1955		-3.42	-820.73	-1.13
277	SLU 31	-16	-6	2278		-4.06	-955.74	-2.96
277	SLU 32	-16	5	2272		-4.08	-953.92	2.09
277	SLU 33	-16	-2	2276		-4.07	-955.01	-0.94
277	SLU 34	-16	-6	2278		-4.06	-955.74	-2.96
277	SLU 35	-16	5	2272		-4.08	-953.92	2.09
277	SLU 36	-16	-2	2276		-4.07	-955.01	-0.94
277	SLU 37	-16	5	2272		-4.08	-953.92	2.09
277	SLU 38	-16	-2	2276		-4.07	-955.01	-0.94
277	SLU 39	-16	5	2410		-4.36	-1011.47	2.17
277	SLU 40	-16	-2	2413		-4.34	-1012.56	-0.86
277	SLU 41	-16	5	2410		-4.36	-1011.47	2.17
277	SLU 42	-16	-2	2413		-4.34	-1012.56	-0.86
277	SLU 43	-21	5	2155		-3.69	-905.63	2.06
277	SLU 44	-22	-6	2160		-3.67	-907.46	-2.99
277	SLU 45	-21	5	2155		-3.69	-905.63	2.06
277	SLU 46	-21	-2	2158		-3.68	-906.73	-0.97
277	SLU 47	-22	-6	2160		-3.67	-907.46	-2.99
277	SLU 48	-21	5	2155		-3.69	-905.63	2.06
277	SLU 49	-21	-2	2158		-3.68	-906.73	-0.97
277	SLU 50	-21	5	2155		-3.69	-905.63	2.06
277	SLU 51	-21	-2	2158		-3.68	-906.73	-0.97
277	SLU 52	-21	-6	2481		-4.32	-1041.74	-2.8
277	SLU 53	-21	5	2476		-4.34	-1039.91	2.24
277	SLU 54	-21	-1	2479		-4.33	-1041.01	-0.78
277	SLU 55	-21	-6	2481		-4.32	-1041.74	-2.8
277	SLU 56	-21	5	2476		-4.34	-1039.91	2.24
277	SLU 57	-21	-1	2479		-4.33	-1041.01	-0.78
277	SLU 58	-21	5	2476		-4.34	-1039.91	2.24
277	SLU 59	-21	-1	2479		-4.33	-1041.01	-0.78
277	SLU 60	-21	5	2613		-4.62	-1097.46	2.32
277	SLU 61	-21	-1	2617		-4.61	-1098.56	-0.7
277	SLU 62	-21	5	2613		-4.62	-1097.46	2.32
277	SLU 63	-21	-1	2617		-4.61	-1098.56	-0.7
277	SLU 64	-21	5	2387		-4.16	-1002.96	2.31
277	SLU 65	-22	-5	2393		-4.14	-1004.78	-2.74
277	SLU 66	-21	5	2387		-4.16	-1002.96	2.31
277	SLU 67	-21	-1	2391		-4.15	-1004.05	-0.72
277	SLU 68	-22	-5	2393		-4.14	-1004.78	-2.74
277	SLU 69	-21	5	2387		-4.16	-1002.96	2.31
277	SLU 70	-21	-1	2391		-4.15	-1004.05	-0.72
277	SLU 71	-21	5	2387		-4.16	-1002.96	2.31
277	SLU 72	-21	-1	2391		-4.15	-1004.05	-0.72
277	SLU 73	-21	-5	2714		-4.79	-1139.07	-2.55
277	SLU 74	-21	6	2708		-4.81	-1137.24	2.5
277	SLU 75	-21	-1	2712		-4.79	-1138.34	-0.53
277	SLU 76	-21	-5	2714		-4.79	-1139.07	-2.55
277	SLU 77	-21	6	2708		-4.81	-1137.24	2.5
277	SLU 78	-21	-1	2712		-4.79	-1138.34	-0.53
277	SLU 79	-21	6	2708		-4.81	-1137.24	2.5
277	SLU 80	-21	-1	2712		-4.79	-1138.34	-0.53
277	SLU 81	-21	6	2846		-5.09	-1194.79	2.58
277	SLU 82	-21	-1	2849		-5.07	-1195.88	-0.45
277	SLU 83	-21	6	2846		-5.09	-1194.79	2.58
277	SLU 84	-21	-1	2849		-5.07	-1195.88	-0.45
277	SLE RA 1	-16	4	1785		-3.1	-750.12	1.72
277	SLE RA 2	-17	-3	1789		-3.08	-751.33	-1.64
277	SLE RA 3	-16	4	1785		-3.1	-750.12	1.72
277	SLE RA 4	-16	0	1788		-3.09	-750.85	-0.3
277	SLE RA 5	-17	-3	1789		-3.08	-751.33	-1.64
277	SLE RA 6	-16	4	1785		-3.1	-750.12	1.72
277	SLE RA 7	-16	0	1788		-3.09	-750.85	-0.3
277	SLE RA 8	-16	4	1785		-3.1	-750.12	1.72
277	SLE RA 9	-16	0	1788		-3.09	-750.85	-0.3
277	SLE RA 10	-16	-3	2003		-3.51	-840.85	-1.52



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
277	SLE RA 11	-16	4	1999	-3.53	-839.64	1.85
277	SLE RA 12	-16	0	2002	-3.52	-840.37	-0.17
277	SLE RA 13	-16	-3	2003	-3.51	-840.85	-1.52
277	SLE RA 14	-16	4	1999	-3.53	-839.64	1.85
277	SLE RA 15	-16	0	2002	-3.52	-840.37	-0.17
277	SLE RA 16	-16	4	1999	-3.53	-839.64	1.85
277	SLE RA 17	-16	0	2002	-3.52	-840.37	-0.17
277	SLE RA 18	-16	4	2091	-3.71	-878	1.9
277	SLE RA 19	-16	0	2093	-3.71	-878.73	-0.12
277	SLE RA 20	-16	4	2091	-3.71	-878	1.9
277	SLE RA 21	-16	0	2093	-3.71	-878.73	-0.12
277	SLE FR 1	-16	4	1785	-3.1	-750.12	1.72
277	SLE FR 2	-16	2	1786	-3.09	-750.36	1.05
277	SLE FR 3	-16	4	1785	-3.1	-750.12	1.72
277	SLE FR 4	-16	3	1878	-3.28	-788.73	1.1
277	SLE FR 5	-16	4	1877	-3.28	-788.48	1.78
277	SLE FR 6	-16	4	1938	-3.41	-814.06	1.81
277	SLE QP 1	-16	4	1785	-3.1	-750.12	1.72
277	SLE QP 2	-16	4	1877	-3.28	-788.48	1.78
277	SLD 1	123	62	2072	-3.94	-867.42	29.4
277	SLD 2	116	27	2074	-3.92	-867.67	12.86
277	SLD 3	119	-38	2102	-3.63	-874.51	-18.14
277	SLD 4	112	-73	2104	-3.6	-874.76	-34.68
277	SLD 5	35	186	1889	-3.96	-801.33	88.27
277	SLD 6	27	150	1891	-3.94	-801.59	71.08
277	SLD 7	21	-147	1989	-2.92	-824.94	-70.18
277	SLD 8	13	-184	1991	-2.89	-825.2	-87.37
277	SLD 9	-46	192	1763	-3.67	-751.76	90.92
277	SLD 10	-53	155	1765	-3.64	-752.02	73.73
277	SLD 11	-59	-142	1863	-2.63	-775.38	-67.53
277	SLD 12	-67	-178	1865	-2.6	-775.64	-84.72
277	SLD 13	-144	81	1650	-2.96	-702.21	38.23
277	SLD 14	-151	46	1652	-2.94	-702.46	21.69
277	SLD 15	-148	-19	1680	-2.65	-709.29	-9.3
277	SLD 16	-156	-54	1682	-2.62	-709.54	-25.85
277	SLV 1	302	140	2320	-4.79	-968.08	66.17
277	SLV 2	285	59	2324	-4.73	-968.65	28.24
277	SLV 3	292	-94	2390	-4.06	-984.63	-44.93
277	SLV 4	275	-174	2394	-4	-985.2	-82.86
277	SLV 5	100	430	1902	-4.87	-817.04	203.88
277	SLV 6	83	345	1907	-4.81	-817.65	163.93
277	SLV 7	68	-350	2135	-2.43	-872.21	-166.45
277	SLV 8	50	-435	2140	-2.37	-872.82	-206.4
277	SLV 9	-83	443	1614	-4.2	-704.15	209.95
277	SLV 10	-100	358	1619	-4.14	-704.75	170
277	SLV 11	-115	-337	1847	-1.76	-759.32	-160.38
277	SLV 12	-132	-422	1852	-1.7	-759.92	-200.33
277	SLV 13	-308	182	1360	-2.56	-591.76	86.41
277	SLV 14	-324	102	1364	-2.51	-592.34	48.48
277	SLV 15	-317	-52	1430	-1.83	-608.32	-24.69
277	SLV 16	-334	-132	1434	-1.77	-608.89	-62.62
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
280	SLU 1	-16	-1	3221	-0.48	3.27	-0.86
280	SLU 2	-16	-17	3233	-0.41	3.31	-0.87
280	SLU 3	-16	-1	3221	-0.48	3.27	-0.86
280	SLU 4	-16	-11	3228	-0.44	3.3	-0.87
280	SLU 5	-16	-17	3233	-0.41	3.31	-0.87
280	SLU 6	-16	-1	3221	-0.48	3.27	-0.86
280	SLU 7	-16	-11	3228	-0.44	3.3	-0.87
280	SLU 8	-16	-1	3221	-0.48	3.27	-0.86
280	SLU 9	-16	-11	3228	-0.44	3.3	-0.87
280	SLU 10	-14	-16	3910	-0.72	3.14	-0.8
280	SLU 11	-14	0	3897	-0.8	3.1	-0.79
280	SLU 12	-14	-10	3905	-0.75	3.12	-0.8
280	SLU 13	-14	-16	3910	-0.72	3.14	-0.8
280	SLU 14	-14	0	3897	-0.8	3.1	-0.79
280	SLU 15	-14	-10	3905	-0.75	3.12	-0.8
280	SLU 16	-14	0	3897	-0.8	3.1	-0.79
280	SLU 17	-14	-10	3905	-0.75	3.12	-0.8
280	SLU 18	-13	1	4187	-0.93	3.02	-0.76
280	SLU 19	-13	-9	4195	-0.89	3.05	-0.77
280	SLU 20	-13	1	4187	-0.93	3.02	-0.76
280	SLU 21	-13	-9	4195	-0.89	3.05	-0.77
280	SLU 22	-15	0	3713	-0.69	3.13	-0.83
280	SLU 23	-15	-17	3725	-0.62	3.17	-0.84
280	SLU 24	-15	0	3713	-0.69	3.13	-0.83
280	SLU 25	-15	-10	3720	-0.65	3.15	-0.84
280	SLU 26	-15	-17	3725	-0.62	3.17	-0.84
280	SLU 27	-15	0	3713	-0.69	3.13	-0.83
280	SLU 28	-15	-10	3720	-0.65	3.15	-0.84
280	SLU 29	-15	0	3713	-0.69	3.13	-0.83
280	SLU 30	-15	-10	3720	-0.65	3.15	-0.84
280	SLU 31	-13	-16	4402	-0.93	2.99	-0.77
280	SLU 32	-13	1	4389	-1.01	2.95	-0.76
280	SLU 33	-13	-9	4397	-0.96	2.98	-0.77
280	SLU 34	-13	-16	4402	-0.93	2.99	-0.77
280	SLU 35	-13	1	4389	-1.01	2.95	-0.76
280	SLU 36	-13	-9	4397	-0.96	2.98	-0.77



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
280	SLU 37	-13	1	4389	-1.01	2.95	-0.76
280	SLU 38	-13	-9	4397	-0.96	2.98	-0.77
280	SLU 39	-12	1	4679	-1.14	2.88	-0.73
280	SLU 40	-12	-9	4687	-1.1	2.9	-0.73
280	SLU 41	-12	1	4679	-1.14	2.88	-0.73
280	SLU 42	-12	-9	4687	-1.1	2.9	-0.73
280	SLU 43	-21	-1	4018	-0.56	4.3	-1.13
280	SLU 44	-21	-17	4031	-0.48	4.34	-1.14
280	SLU 45	-21	-1	4018	-0.56	4.3	-1.13
280	SLU 46	-21	-11	4026	-0.51	4.33	-1.14
280	SLU 47	-21	-17	4031	-0.48	4.34	-1.14
280	SLU 48	-21	-1	4018	-0.56	4.3	-1.13
280	SLU 49	-21	-11	4026	-0.51	4.33	-1.14
280	SLU 50	-21	-1	4018	-0.56	4.3	-1.13
280	SLU 51	-21	-11	4026	-0.51	4.33	-1.14
280	SLU 52	-19	-17	4707	-0.8	4.17	-1.07
280	SLU 53	-19	0	4695	-0.87	4.13	-1.06
280	SLU 54	-19	-10	4702	-0.83	4.15	-1.07
280	SLU 55	-19	-17	4707	-0.8	4.17	-1.07
280	SLU 56	-19	0	4695	-0.87	4.13	-1.06
280	SLU 57	-19	-10	4702	-0.83	4.15	-1.07
280	SLU 58	-19	0	4695	-0.87	4.13	-1.06
280	SLU 59	-19	-10	4702	-0.83	4.15	-1.07
280	SLU 60	-18	0	4985	-1.01	4.05	-1.03
280	SLU 61	-18	-10	4992	-0.96	4.08	-1.03
280	SLU 62	-18	0	4985	-1.01	4.05	-1.03
280	SLU 63	-18	-10	4992	-0.96	4.08	-1.03
280	SLU 64	-20	0	4510	-0.77	4.16	-1.1
280	SLU 65	-20	-17	4523	-0.69	4.2	-1.11
280	SLU 66	-20	0	4510	-0.77	4.16	-1.1
280	SLU 67	-20	-11	4518	-0.72	4.18	-1.11
280	SLU 68	-20	-17	4523	-0.69	4.2	-1.11
280	SLU 69	-20	0	4510	-0.77	4.16	-1.1
280	SLU 70	-20	-11	4518	-0.72	4.18	-1.11
280	SLU 71	-20	0	4510	-0.77	4.16	-1.1
280	SLU 72	-20	-11	4518	-0.72	4.18	-1.11
280	SLU 73	-18	-16	5199	-1.01	4.02	-1.04
280	SLU 74	-18	0	5187	-1.08	3.98	-1.03
280	SLU 75	-18	-10	5194	-1.04	4.01	-1.04
280	SLU 76	-18	-16	5199	-1.01	4.02	-1.04
280	SLU 77	-18	0	5187	-1.08	3.98	-1.03
280	SLU 78	-18	-10	5194	-1.04	4.01	-1.04
280	SLU 79	-18	0	5187	-1.08	3.98	-1.03
280	SLU 80	-18	-10	5194	-1.04	4.01	-1.04
280	SLU 81	-17	1	5477	-1.22	3.91	-1
280	SLU 82	-17	-9	5484	-1.17	3.93	-1
280	SLU 83	-17	1	5477	-1.22	3.91	-1
280	SLU 84	-17	-9	5484	-1.17	3.93	-1
280	SLE RA 1	-15	0	3361	-0.54	3.23	-0.86
280	SLE RA 2	-16	-12	3370	-0.49	3.26	-0.86
280	SLE RA 3	-15	0	3361	-0.54	3.23	-0.86
280	SLE RA 4	-15	-7	3366	-0.51	3.25	-0.86
280	SLE RA 5	-16	-12	3370	-0.49	3.26	-0.86
280	SLE RA 6	-15	0	3361	-0.54	3.23	-0.86
280	SLE RA 7	-15	-7	3366	-0.51	3.25	-0.86
280	SLE RA 8	-15	0	3361	-0.54	3.23	-0.86
280	SLE RA 9	-15	-7	3366	-0.51	3.25	-0.86
280	SLE RA 10	-14	-11	3821	-0.7	3.14	-0.81
280	SLE RA 11	-14	0	3812	-0.75	3.11	-0.81
280	SLE RA 12	-14	-7	3817	-0.72	3.13	-0.81
280	SLE RA 13	-14	-11	3821	-0.7	3.14	-0.81
280	SLE RA 14	-14	0	3812	-0.75	3.11	-0.81
280	SLE RA 15	-14	-7	3817	-0.72	3.13	-0.81
280	SLE RA 16	-14	0	3812	-0.75	3.11	-0.81
280	SLE RA 17	-14	-7	3817	-0.72	3.13	-0.81
280	SLE RA 18	-14	0	4006	-0.84	3.06	-0.79
280	SLE RA 19	-14	-6	4011	-0.81	3.08	-0.79
280	SLE RA 20	-14	0	4006	-0.84	3.06	-0.79
280	SLE RA 21	-14	-6	4011	-0.81	3.08	-0.79
280	SLE FR 1	-15	0	3361	-0.54	3.23	-0.86
280	SLE FR 2	-15	-3	3363	-0.53	3.24	-0.86
280	SLE FR 3	-15	0	3361	-0.54	3.23	-0.86
280	SLE FR 4	-15	-2	3556	-0.62	3.19	-0.84
280	SLE FR 5	-15	0	3555	-0.63	3.18	-0.83
280	SLE FR 6	-14	0	3684	-0.69	3.15	-0.82
280	SLE QP 1	-15	0	3361	-0.54	3.23	-0.86
280	SLE QP 2	-15	0	3555	-0.63	3.18	-0.83
280	SLD 1	266	95	3489	-1.26	12.67	-1.14
280	SLD 2	253	96	3490	-1.26	12.65	-0.13
280	SLD 3	259	-75	3574	-0.33	12.02	-1.34
280	SLD 4	246	-73	3575	-0.33	12	-0.33
280	SLD 5	85	285	3405	-2.24	7.02	-0.99
280	SLD 6	71	286	3406	-2.24	7	0.06
280	SLD 7	62	-280	3690	0.88	4.85	-1.67
280	SLD 8	48	-279	3690	0.88	4.83	-0.62
280	SLD 9	-78	278	3419	-2.14	1.53	-1.05
280	SLD 10	-92	280	3420	-2.14	1.51	0
280	SLD 11	-100	-286	3703	0.97	-0.64	-1.73
280	SLD 12	-114	-285	3704	0.97	-0.66	-0.68
280	SLD 13	-275	73	3534	-0.94	-5.64	-1.34
280	SLD 14	-289	74	3535	-0.94	-5.66	-0.32



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
280	SLD 15	-282	-96	3620	-0.01	-6.29	-1.54
280	SLD 16	-296	-95	3620	-0.01	-6.31	-0.53
280	SLV 1	625	221	3401	-2.11	24.88	-1.52
280	SLV 2	594	224	3402	-2.11	24.84	0.79
280	SLV 3	609	-175	3601	0.08	23.23	-2.01
280	SLV 4	578	-172	3602	0.08	23.19	0.31
280	SLV 5	212	666	3206	-4.39	12.21	-1.18
280	SLV 6	180	669	3207	-4.39	12.16	1.27
280	SLV 7	160	-654	3870	2.89	6.71	-2.8
280	SLV 8	128	-651	3872	2.89	6.67	-0.36
280	SLV 9	-157	651	3238	-4.16	-0.3	-1.31
280	SLV 10	-190	654	3239	-4.16	-0.35	1.13
280	SLV 11	-210	-669	3902	3.12	-5.8	-2.94
280	SLV 12	-242	-666	3904	3.12	-5.85	-0.49
280	SLV 13	-608	171	3507	-1.34	-16.83	-1.98
280	SLV 14	-639	174	3509	-1.34	-16.87	0.34
280	SLV 15	-624	-224	3707	0.84	-18.48	-2.46
280	SLV 16	-655	-222	3708	0.84	-18.52	-0.15
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	-12	10	1749	-1.46	232.3	-2.59
283	SLU 2	-12	-2	1755	-1.41	232.1	0.31
283	SLU 3	-12	10	1749	-1.46	232.3	-2.59
283	SLU 4	-12	3	1752	-1.43	232.18	-0.85
283	SLU 5	-12	-2	1755	-1.41	232.1	0.31
283	SLU 6	-12	10	1749	-1.46	232.3	-2.59
283	SLU 7	-12	3	1752	-1.43	232.18	-0.85
283	SLU 8	-12	10	1749	-1.46	232.3	-2.59
283	SLU 9	-12	3	1752	-1.43	232.18	-0.85
283	SLU 10	-13	-2	2063	-1.82	275.22	0.29
283	SLU 11	-13	10	2057	-1.87	275.41	-2.6
283	SLU 12	-13	3	2061	-1.84	275.3	-0.87
283	SLU 13	-13	-2	2063	-1.82	275.22	0.29
283	SLU 14	-13	10	2057	-1.87	275.41	-2.6
283	SLU 15	-13	3	2061	-1.84	275.3	-0.87
283	SLU 16	-13	10	2057	-1.87	275.41	-2.6
283	SLU 17	-13	3	2061	-1.84	275.3	-0.87
283	SLU 18	-14	10	2189	-2.04	293.89	-2.61
283	SLU 19	-14	3	2193	-2.01	293.78	-0.87
283	SLU 20	-14	10	2189	-2.04	293.89	-2.61
283	SLU 21	-14	3	2193	-2.01	293.78	-0.87
283	SLU 22	-13	10	1982	-1.75	263.98	-2.65
283	SLU 23	-13	-1	1987	-1.7	263.78	0.25
283	SLU 24	-13	10	1982	-1.75	263.98	-2.65
283	SLU 25	-13	3	1985	-1.72	263.86	-0.91
283	SLU 26	-13	-1	1987	-1.7	263.78	0.25
283	SLU 27	-13	10	1982	-1.75	263.98	-2.65
283	SLU 28	-13	3	1985	-1.72	263.86	-0.91
283	SLU 29	-13	10	1982	-1.75	263.98	-2.65
283	SLU 30	-13	3	1985	-1.72	263.86	-0.91
283	SLU 31	-14	-1	2296	-2.11	306.9	0.23
283	SLU 32	-14	10	2290	-2.16	307.09	-2.67
283	SLU 33	-14	3	2293	-2.13	306.97	-0.93
283	SLU 34	-14	-1	2296	-2.11	306.9	0.23
283	SLU 35	-14	10	2290	-2.16	307.09	-2.67
283	SLU 36	-14	3	2293	-2.13	306.97	-0.93
283	SLU 37	-14	10	2290	-2.16	307.09	-2.67
283	SLU 38	-14	3	2293	-2.13	306.97	-0.93
283	SLU 39	-15	10	2422	-2.34	325.57	-2.67
283	SLU 40	-15	3	2425	-2.31	325.45	-0.93
283	SLU 41	-15	10	2422	-2.34	325.57	-2.67
283	SLU 42	-15	3	2425	-2.31	325.45	-0.93
283	SLU 43	-15	13	2194	-1.79	291.13	-3.35
283	SLU 44	-15	1	2199	-1.74	290.93	-0.45
283	SLU 45	-15	13	2194	-1.79	291.13	-3.35
283	SLU 46	-15	6	2197	-1.76	291.01	-1.61
283	SLU 47	-15	1	2199	-1.74	290.93	-0.45
283	SLU 48	-15	13	2194	-1.79	291.13	-3.35
283	SLU 49	-15	6	2197	-1.76	291.01	-1.61
283	SLU 50	-15	13	2194	-1.79	291.13	-3.35
283	SLU 51	-15	6	2197	-1.76	291.01	-1.61
283	SLU 52	-16	1	2508	-2.15	334.05	-0.46
283	SLU 53	-16	13	2502	-2.2	334.24	-3.36
283	SLU 54	-16	6	2505	-2.17	334.13	-1.62
283	SLU 55	-16	1	2508	-2.15	334.05	-0.46
283	SLU 56	-16	13	2502	-2.2	334.24	-3.36
283	SLU 57	-16	6	2505	-2.17	334.13	-1.62
283	SLU 58	-16	13	2502	-2.2	334.24	-3.36
283	SLU 59	-16	6	2505	-2.17	334.13	-1.62
283	SLU 60	-17	13	2634	-2.38	352.72	-3.37
283	SLU 61	-17	6	2638	-2.35	352.6	-1.63
283	SLU 62	-17	13	2634	-2.38	352.72	-3.37
283	SLU 63	-17	6	2638	-2.35	352.6	-1.63
283	SLU 64	-16	13	2427	-2.08	322.8	-3.41
283	SLU 65	-16	2	2432	-2.04	322.61	-0.51
283	SLU 66	-16	13	2427	-2.08	322.8	-3.41
283	SLU 67	-16	6	2430	-2.06	322.69	-1.67
283	SLU 68	-16	2	2432	-2.04	322.61	-0.51
283	SLU 69	-16	13	2427	-2.08	322.8	-3.41



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
283	SLU 70	-16	6	2430	-2.06	322.69	-1.67
283	SLU 71	-16	13	2427	-2.08	322.8	-3.41
283	SLU 72	-16	6	2430	-2.06	322.69	-1.67
283	SLU 73	-17	2	2740	-2.45	365.73	-0.52
283	SLU 74	-17	13	2735	-2.5	365.92	-3.42
283	SLU 75	-17	6	2738	-2.47	365.8	-1.68
283	SLU 76	-17	2	2740	-2.45	365.73	-0.52
283	SLU 77	-17	13	2735	-2.5	365.92	-3.42
283	SLU 78	-17	6	2738	-2.47	365.8	-1.68
283	SLU 79	-17	13	2735	-2.5	365.92	-3.42
283	SLU 80	-17	6	2738	-2.47	365.8	-1.68
283	SLU 81	-18	13	2867	-2.67	384.4	-3.43
283	SLU 82	-18	6	2870	-2.64	384.28	-1.69
283	SLU 83	-18	13	2867	-2.67	384.4	-3.43
283	SLU 84	-18	6	2870	-2.64	384.28	-1.69
283	SLE RA 1	-12	10	1815	-1.54	241.35	-2.61
283	SLE RA 2	-12	2	1819	-1.51	241.22	-0.68
283	SLE RA 3	-12	10	1815	-1.54	241.35	-2.61
283	SLE RA 4	-12	5	1818	-1.52	241.27	-1.45
283	SLE RA 5	-12	2	1819	-1.51	241.22	-0.68
283	SLE RA 6	-12	10	1815	-1.54	241.35	-2.61
283	SLE RA 7	-12	5	1818	-1.52	241.27	-1.45
283	SLE RA 8	-12	10	1815	-1.54	241.35	-2.61
283	SLE RA 9	-12	5	1818	-1.52	241.27	-1.45
283	SLE RA 10	-13	2	2025	-1.78	269.96	-0.69
283	SLE RA 11	-13	10	2021	-1.81	270.09	-2.62
283	SLE RA 12	-13	5	2023	-1.79	270.02	-1.46
283	SLE RA 13	-13	2	2025	-1.78	269.96	-0.69
283	SLE RA 14	-13	10	2021	-1.81	270.09	-2.62
283	SLE RA 15	-13	5	2023	-1.79	270.02	-1.46
283	SLE RA 16	-13	10	2021	-1.81	270.09	-2.62
283	SLE RA 17	-13	5	2023	-1.79	270.02	-1.46
283	SLE RA 18	-13	10	2109	-1.93	282.41	-2.62
283	SLE RA 19	-13	5	2111	-1.91	282.33	-1.46
283	SLE RA 20	-13	10	2109	-1.93	282.41	-2.62
283	SLE RA 21	-13	5	2111	-1.91	282.33	-1.46
283	SLE FR 1	-12	10	1815	-1.54	241.35	-2.61
283	SLE FR 2	-12	8	1816	-1.53	241.32	-2.22
283	SLE FR 3	-12	10	1815	-1.54	241.35	-2.61
283	SLE FR 4	-13	8	1904	-1.65	253.64	-2.23
283	SLE FR 5	-13	10	1904	-1.66	253.67	-2.61
283	SLE FR 6	-13	10	1962	-1.74	261.88	-2.61
283	SLE QP 1	-12	10	1815	-1.54	241.35	-2.61
283	SLE QP 2	-13	10	1904	-1.66	253.67	-2.61
283	SLD 1	124	40	1683	-1.56	220.21	-10.13
283	SLD 2	116	78	1682	-1.63	221.18	-19.48
283	SLD 3	129	-73	1722	-0.97	216.45	18.07
283	SLD 4	121	-35	1721	-1.03	217.42	8.72
283	SLD 5	24	176	1779	-2.51	248.97	-44.19
283	SLD 6	16	215	1777	-2.58	249.98	-53.9
283	SLD 7	40	-200	1909	-0.52	236.44	49.82
283	SLD 8	32	-161	1907	-0.59	237.45	40.11
283	SLD 9	-57	181	1900	-2.72	269.88	-45.33
283	SLD 10	-65	220	1898	-2.79	270.89	-55.04
283	SLD 11	-41	-195	2030	-0.74	257.35	48.67
283	SLD 12	-49	-156	2028	-0.81	258.36	38.96
283	SLD 13	-146	55	2086	-2.28	289.91	-13.95
283	SLD 14	-154	93	2085	-2.34	290.89	-23.29
283	SLD 15	-141	-57	2125	-1.69	286.15	14.25
283	SLD 16	-149	-20	2124	-1.75	287.13	4.91
283	SLV 1	298	81	1401	-1.47	176.87	-20.45
283	SLV 2	279	167	1397	-1.61	179.1	-41.89
283	SLV 3	309	-183	1491	-0.07	167.9	45.45
283	SLV 4	290	-96	1488	-0.22	170.13	24.02
283	SLV 5	71	398	1617	-3.65	243.41	-99.85
283	SLV 6	51	489	1613	-3.81	245.75	-122.42
283	SLV 7	108	-480	1919	0.98	213.48	119.84
283	SLV 8	88	-389	1915	0.83	215.83	97.27
283	SLV 9	-113	409	1892	-4.14	291.51	-102.49
283	SLV 10	-133	500	1888	-4.3	293.86	-125.06
283	SLV 11	-76	-469	2194	0.49	261.58	117.2
283	SLV 12	-96	-378	2190	0.34	263.93	94.63
283	SLV 13	-316	116	2319	-3.09	337.21	-29.24
283	SLV 14	-335	203	2316	-3.24	339.44	-50.68
283	SLV 15	-304	-147	2410	-1.7	328.23	36.66
283	SLV 16	-323	-61	2406	-1.85	330.46	15.23
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
284	SLU 1	-12	4	1624	-2.73	-654.87	1.86
284	SLU 2	-13	-7	1631	-2.7	-656.82	-3.21
284	SLU 3	-12	4	1624	-2.73	-654.87	1.86
284	SLU 4	-13	-2	1628	-2.71	-656.04	-1.18
284	SLU 5	-13	-7	1631	-2.7	-656.82	-3.21
284	SLU 6	-12	4	1624	-2.73	-654.87	1.86
284	SLU 7	-13	-2	1628	-2.71	-656.04	-1.18
284	SLU 8	-12	4	1624	-2.73	-654.87	1.86
284	SLU 9	-13	-2	1628	-2.71	-656.04	-1.18
284	SLU 10	-13	-6	1931	-3.3	-776.52	-2.95
284	SLU 11	-12	5	1924	-3.33	-774.57	2.12



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
284	SLU 12	-13	-2	1928		-3.31	-775.74	-0.93
284	SLU 13	-13	-6	1931		-3.3	-776.52	-2.95
284	SLU 14	-12	5	1924		-3.33	-774.57	2.12
284	SLU 15	-13	-2	1928		-3.31	-775.74	-0.93
284	SLU 16	-12	5	1924		-3.33	-774.57	2.12
284	SLU 17	-13	-2	1928		-3.31	-775.74	-0.93
284	SLU 18	-12	5	2053		-3.59	-825.87	2.23
284	SLU 19	-13	-1	2057		-3.57	-827.04	-0.82
284	SLU 20	-12	5	2053		-3.59	-825.87	2.23
284	SLU 21	-13	-1	2057		-3.57	-827.04	-0.82
284	SLU 22	-13	5	1842		-3.16	-741.65	2.17
284	SLU 23	-13	-6	1848		-3.13	-743.6	-2.9
284	SLU 24	-13	5	1842		-3.16	-741.65	2.17
284	SLU 25	-13	-2	1846		-3.15	-742.82	-0.88
284	SLU 26	-13	-6	1848		-3.13	-743.6	-2.9
284	SLU 27	-13	5	1842		-3.16	-741.65	2.17
284	SLU 28	-13	-2	1846		-3.15	-742.82	-0.88
284	SLU 29	-13	5	1842		-3.16	-741.65	2.17
284	SLU 30	-13	-2	1846		-3.15	-742.82	-0.88
284	SLU 31	-13	-5	2148		-3.74	-863.3	-2.65
284	SLU 32	-12	5	2142		-3.76	-861.35	2.42
284	SLU 33	-13	-1	2146		-3.75	-862.52	-0.62
284	SLU 34	-13	-5	2148		-3.74	-863.3	-2.65
284	SLU 35	-12	5	2142		-3.76	-861.35	2.42
284	SLU 36	-13	-1	2146		-3.75	-862.52	-0.62
284	SLU 37	-12	5	2142		-3.76	-861.35	2.42
284	SLU 38	-13	-1	2146		-3.75	-862.52	-0.62
284	SLU 39	-12	6	2271		-4.02	-912.65	2.53
284	SLU 40	-13	-1	2274		-4	-913.82	-0.51
284	SLU 41	-12	6	2271		-4.02	-912.65	2.53
284	SLU 42	-13	-1	2274		-4	-913.82	-0.51
284	SLU 43	-16	5	2037		-3.4	-821.57	2.32
284	SLU 44	-17	-5	2043		-3.37	-823.52	-2.75
284	SLU 45	-16	5	2037		-3.4	-821.57	2.32
284	SLU 46	-16	-1	2041		-3.38	-822.74	-0.73
284	SLU 47	-17	-5	2043		-3.37	-823.52	-2.75
284	SLU 48	-16	5	2037		-3.4	-821.57	2.32
284	SLU 49	-16	-1	2041		-3.38	-822.74	-0.73
284	SLU 50	-16	5	2037		-3.4	-821.57	2.32
284	SLU 51	-16	-1	2041		-3.38	-822.74	-0.73
284	SLU 52	-16	-5	2343		-3.97	-943.23	-2.5
284	SLU 53	-16	6	2337		-4	-941.28	2.57
284	SLU 54	-16	-1	2341		-3.98	-942.45	-0.47
284	SLU 55	-16	-5	2343		-3.97	-943.23	-2.5
284	SLU 56	-16	6	2337		-4	-941.28	2.57
284	SLU 57	-16	-1	2341		-3.98	-942.45	-0.47
284	SLU 58	-16	6	2337		-4	-941.28	2.57
284	SLU 59	-16	-1	2341		-3.98	-942.45	-0.47
284	SLU 60	-16	6	2466		-4.26	-992.58	2.68
284	SLU 61	-16	0	2469		-4.24	-993.75	-0.36
284	SLU 62	-16	6	2466		-4.26	-992.58	2.68
284	SLU 63	-16	0	2469		-4.24	-993.75	-0.36
284	SLU 64	-16	6	2254		-3.83	-908.35	2.62
284	SLU 65	-17	-5	2261		-3.81	-910.3	-2.45
284	SLU 66	-16	6	2254		-3.83	-908.35	2.62
284	SLU 67	-16	-1	2258		-3.82	-909.52	-0.42
284	SLU 68	-17	-5	2261		-3.81	-910.3	-2.45
284	SLU 69	-16	6	2254		-3.83	-908.35	2.62
284	SLU 70	-16	-1	2258		-3.82	-909.52	-0.42
284	SLU 71	-16	6	2254		-3.83	-908.35	2.62
284	SLU 72	-16	-1	2258		-3.82	-909.52	-0.42
284	SLU 73	-17	-4	2561		-4.41	-1030.01	-2.2
284	SLU 74	-16	6	2555		-4.43	-1028.06	2.88
284	SLU 75	-16	0	2558		-4.42	-1029.23	-0.17
284	SLU 76	-17	-4	2561		-4.41	-1030.01	-2.2
284	SLU 77	-16	6	2555		-4.43	-1028.06	2.88
284	SLU 78	-16	0	2558		-4.42	-1029.23	-0.17
284	SLU 79	-16	6	2555		-4.43	-1028.06	2.88
284	SLU 80	-16	0	2558		-4.42	-1029.23	-0.17
284	SLU 81	-16	7	2683		-4.69	-1079.36	2.98
284	SLU 82	-16	0	2687		-4.67	-1080.53	-0.06
284	SLU 83	-16	7	2683		-4.69	-1079.36	2.98
284	SLU 84	-16	0	2687		-4.67	-1080.53	-0.06
284	SLE RA 1	-12	4	1686		-2.85	-679.66	1.95
284	SLE RA 2	-13	-3	1691		-2.83	-680.96	-1.43
284	SLE RA 3	-12	4	1686		-2.85	-679.66	1.95
284	SLE RA 4	-13	0	1689		-2.84	-680.44	-0.08
284	SLE RA 5	-13	-3	1691		-2.83	-680.96	-1.43
284	SLE RA 6	-12	4	1686		-2.85	-679.66	1.95
284	SLE RA 7	-13	0	1689		-2.84	-680.44	-0.08
284	SLE RA 8	-12	4	1686		-2.85	-679.66	1.95
284	SLE RA 9	-13	0	1689		-2.84	-680.44	-0.08
284	SLE RA 10	-13	-2	1891		-3.24	-760.76	-1.26
284	SLE RA 11	-12	5	1886		-3.25	-759.46	2.12
284	SLE RA 12	-13	0	1889		-3.24	-760.24	0.09
284	SLE RA 13	-13	-2	1891		-3.24	-760.76	-1.26
284	SLE RA 14	-12	5	1886		-3.25	-759.46	2.12
284	SLE RA 15	-13	0	1889		-3.24	-760.24	0.09
284	SLE RA 16	-12	5	1886		-3.25	-759.46	2.12
284	SLE RA 17	-13	0	1889		-3.24	-760.24	0.09
284	SLE RA 18	-12	5	1972		-3.42	-793.66	2.19



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
284	SLE RA 19	-13	1	1975	-3.41	-794.44	0.16
284	SLE RA 20	-12	5	1972	-3.42	-793.66	2.19
284	SLE RA 21	-13	1	1975	-3.41	-794.44	0.16
284	SLE FR 1	-12	4	1686	-2.85	-679.66	1.95
284	SLE FR 2	-13	3	1687	-2.85	-679.92	1.27
284	SLE FR 3	-12	4	1686	-2.85	-679.66	1.95
284	SLE FR 4	-12	3	1773	-3.02	-714.12	1.35
284	SLE FR 5	-12	4	1772	-3.02	-713.86	2.02
284	SLE FR 6	-12	5	1829	-3.14	-736.66	2.07
284	SLE QP 1	-12	4	1686	-2.85	-679.66	1.95
284	SLE QP 2	-12	4	1772	-3.02	-713.86	2.02
284	SLD 1	128	63	1945	-3.67	-780.66	29.68
284	SLD 2	118	28	1948	-3.64	-781.13	13.14
284	SLD 3	124	-37	1986	-3.32	-790.49	-17.92
284	SLD 4	114	-72	1989	-3.29	-790.96	-34.46
284	SLD 5	39	187	1761	-3.76	-718.83	88.63
284	SLD 6	29	151	1764	-3.73	-719.31	71.44
284	SLD 7	26	-147	1897	-2.59	-751.58	-70.04
284	SLD 8	16	-183	1900	-2.56	-752.07	-87.23
284	SLD 9	-41	192	1644	-3.49	-675.66	91.28
284	SLD 10	-51	156	1647	-3.46	-676.14	74.08
284	SLD 11	-54	-142	1780	-2.32	-708.41	-67.39
284	SLD 12	-64	-178	1783	-2.29	-708.9	-84.59
284	SLD 13	-139	81	1555	-2.76	-636.76	38.51
284	SLD 14	-149	46	1558	-2.73	-637.23	21.96
284	SLD 15	-143	-19	1596	-2.41	-646.59	-9.09
284	SLD 16	-153	-54	1599	-2.38	-647.06	-25.64
284	SLV 1	307	140	2166	-4.5	-865.78	66.51
284	SLV 2	285	60	2172	-4.43	-866.86	28.57
284	SLV 3	298	-94	2261	-3.68	-888.73	-44.74
284	SLV 4	276	-174	2268	-3.61	-889.8	-82.69
284	SLV 5	105	431	1743	-4.74	-724.23	204.39
284	SLV 6	82	346	1750	-4.67	-725.37	164.43
284	SLV 7	75	-350	2061	-2	-800.72	-166.45
284	SLV 8	52	-434	2068	-1.93	-801.85	-206.41
284	SLV 9	-77	443	1477	-4.12	-625.87	210.45
284	SLV 10	-100	359	1484	-4.05	-627.01	170.49
284	SLV 11	-107	-337	1794	-1.38	-702.36	-160.38
284	SLV 12	-130	-422	1801	-1.31	-703.49	-200.35
284	SLV 13	-301	183	1277	-2.44	-537.92	86.73
284	SLV 14	-323	103	1283	-2.37	-539	48.78
284	SLV 15	-310	-51	1372	-1.61	-560.87	-24.52
284	SLV 16	-332	-131	1378	-1.55	-561.94	-62.47
284	CRTFP Ux+	0	0	0	0	0	0
284	CRTFP Ux-	0	0	0	0	0	0
284	CRTFP Uy+	0	0	0	0	0	0
284	CRTFP Uy-	0	0	0	0	0	0
287	SLU 1	-11	2	3209	-0.2	3.05	-1.04
287	SLU 2	-11	-15	3224	-0.12	3.09	-1.05
287	SLU 3	-11	2	3209	-0.2	3.05	-1.04
287	SLU 4	-11	-8	3218	-0.15	3.08	-1.05
287	SLU 5	-11	-15	3224	-0.12	3.09	-1.05
287	SLU 6	-11	2	3209	-0.2	3.05	-1.04
287	SLU 7	-11	-8	3218	-0.15	3.08	-1.05
287	SLU 8	-11	2	3209	-0.2	3.05	-1.04
287	SLU 9	-11	-8	3218	-0.15	3.08	-1.05
287	SLU 10	-9	-14	3891	-0.38	2.95	-0.97
287	SLU 11	-9	3	3876	-0.46	2.91	-0.96
287	SLU 12	-9	-7	3885	-0.42	2.93	-0.96
287	SLU 13	-9	-14	3891	-0.38	2.95	-0.97
287	SLU 14	-9	3	3876	-0.46	2.91	-0.96
287	SLU 15	-9	-7	3885	-0.42	2.93	-0.96
287	SLU 16	-9	3	3876	-0.46	2.91	-0.96
287	SLU 17	-9	-7	3885	-0.42	2.93	-0.96
287	SLU 18	-9	4	4162	-0.57	2.84	-0.92
287	SLU 19	-9	-6	4171	-0.53	2.87	-0.93
287	SLU 20	-9	4	4162	-0.57	2.84	-0.92
287	SLU 21	-9	-6	4171	-0.53	2.87	-0.93
287	SLU 22	-10	2	3695	-0.37	2.93	-1.01
287	SLU 23	-10	-14	3710	-0.29	2.97	-1.02
287	SLU 24	-10	2	3695	-0.37	2.93	-1.01
287	SLU 25	-10	-8	3704	-0.32	2.95	-1.01
287	SLU 26	-10	-14	3710	-0.29	2.97	-1.02
287	SLU 27	-10	2	3695	-0.37	2.93	-1.01
287	SLU 28	-10	-8	3704	-0.32	2.95	-1.01
287	SLU 29	-10	2	3695	-0.37	2.93	-1.01
287	SLU 30	-10	-8	3704	-0.32	2.95	-1.01
287	SLU 31	-9	-13	4377	-0.56	2.82	-0.93
287	SLU 32	-9	4	4362	-0.63	2.78	-0.92
287	SLU 33	-9	-6	4371	-0.59	2.8	-0.93
287	SLU 34	-9	-13	4377	-0.56	2.82	-0.93
287	SLU 35	-9	4	4362	-0.63	2.78	-0.92
287	SLU 36	-9	-6	4371	-0.59	2.8	-0.93
287	SLU 37	-9	4	4362	-0.63	2.78	-0.92
287	SLU 38	-9	-6	4371	-0.59	2.8	-0.93
287	SLU 39	-8	4	4648	-0.75	2.72	-0.88
287	SLU 40	-8	-6	4657	-0.7	2.74	-0.89
287	SLU 41	-8	4	4648	-0.75	2.72	-0.88
287	SLU 42	-8	-6	4657	-0.7	2.74	-0.89
287	SLU 43	-14	2	4006	-0.2	4.02	-1.37
287	SLU 44	-14	-14	4021	-0.12	4.05	-1.38



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
287	SLU 45	-14	2	4006	-0.2	4.02	-1.37
287	SLU 46	-14	-8	4015	-0.15	4.04	-1.38
287	SLU 47	-14	-14	4021	-0.12	4.05	-1.38
287	SLU 48	-14	2	4006	-0.2	4.02	-1.37
287	SLU 49	-14	-8	4015	-0.15	4.04	-1.38
287	SLU 50	-14	2	4006	-0.2	4.02	-1.37
287	SLU 51	-14	-8	4015	-0.15	4.04	-1.38
287	SLU 52	-13	-13	4688	-0.39	3.91	-1.29
287	SLU 53	-13	4	4673	-0.46	3.87	-1.28
287	SLU 54	-13	-6	4682	-0.42	3.89	-1.29
287	SLU 55	-13	-13	4688	-0.39	3.91	-1.29
287	SLU 56	-13	4	4673	-0.46	3.87	-1.28
287	SLU 57	-13	-6	4682	-0.42	3.89	-1.29
287	SLU 58	-13	4	4673	-0.46	3.87	-1.28
287	SLU 59	-13	-6	4682	-0.42	3.89	-1.29
287	SLU 60	-12	4	4958	-0.58	3.8	-1.25
287	SLU 61	-12	-6	4967	-0.53	3.83	-1.25
287	SLU 62	-12	4	4958	-0.58	3.8	-1.25
287	SLU 63	-12	-6	4967	-0.53	3.83	-1.25
287	SLU 64	-13	3	4491	-0.37	3.89	-1.33
287	SLU 65	-14	-14	4506	-0.29	3.93	-1.34
287	SLU 66	-13	3	4491	-0.37	3.89	-1.33
287	SLU 67	-14	-7	4500	-0.33	3.91	-1.34
287	SLU 68	-14	-14	4506	-0.29	3.93	-1.34
287	SLU 69	-13	3	4491	-0.37	3.89	-1.33
287	SLU 70	-14	-7	4500	-0.33	3.91	-1.34
287	SLU 71	-13	3	4491	-0.37	3.89	-1.33
287	SLU 72	-14	-7	4500	-0.33	3.91	-1.34
287	SLU 73	-12	-13	5173	-0.56	3.78	-1.26
287	SLU 74	-12	4	5158	-0.63	3.74	-1.25
287	SLU 75	-12	-6	5167	-0.59	3.76	-1.25
287	SLU 76	-12	-13	5173	-0.56	3.78	-1.26
287	SLU 77	-12	4	5158	-0.63	3.74	-1.25
287	SLU 78	-12	-6	5167	-0.59	3.76	-1.25
287	SLU 79	-12	4	5158	-0.63	3.74	-1.25
287	SLU 80	-12	-6	5167	-0.59	3.76	-1.25
287	SLU 81	-11	5	5444	-0.75	3.68	-1.21
287	SLU 82	-11	-5	5453	-0.7	3.7	-1.22
287	SLU 83	-11	5	5444	-0.75	3.68	-1.21
287	SLU 84	-11	-5	5453	-0.7	3.7	-1.22
287	SLE RA 1	-10	2	3348	-0.25	3.02	-1.03
287	SLE RA 2	-11	-9	3358	-0.2	3.04	-1.04
287	SLE RA 3	-10	2	3348	-0.25	3.02	-1.03
287	SLE RA 4	-11	-5	3354	-0.22	3.03	-1.04
287	SLE RA 5	-11	-9	3358	-0.2	3.04	-1.04
287	SLE RA 6	-10	2	3348	-0.25	3.02	-1.03
287	SLE RA 7	-11	-5	3354	-0.22	3.03	-1.04
287	SLE RA 8	-10	2	3348	-0.25	3.02	-1.03
287	SLE RA 9	-11	-5	3354	-0.22	3.03	-1.04
287	SLE RA 10	-10	-8	3803	-0.37	2.95	-0.98
287	SLE RA 11	-9	3	3793	-0.42	2.92	-0.98
287	SLE RA 12	-10	-4	3799	-0.39	2.94	-0.98
287	SLE RA 13	-10	-8	3803	-0.37	2.95	-0.98
287	SLE RA 14	-9	3	3793	-0.42	2.92	-0.98
287	SLE RA 15	-10	-4	3799	-0.39	2.94	-0.98
287	SLE RA 16	-9	3	3793	-0.42	2.92	-0.98
287	SLE RA 17	-10	-4	3799	-0.39	2.94	-0.98
287	SLE RA 18	-9	3	3983	-0.5	2.88	-0.95
287	SLE RA 19	-9	-3	3989	-0.47	2.89	-0.96
287	SLE RA 20	-9	3	3983	-0.5	2.88	-0.95
287	SLE RA 21	-9	-3	3989	-0.47	2.89	-0.96
287	SLE FR 1	-10	2	3348	-0.25	3.02	-1.03
287	SLE FR 2	-11	0	3350	-0.24	3.02	-1.04
287	SLE FR 3	-10	2	3348	-0.25	3.02	-1.03
287	SLE FR 4	-10	0	3541	-0.31	2.98	-1.01
287	SLE FR 5	-10	2	3539	-0.32	2.98	-1.01
287	SLE FR 6	-10	3	3666	-0.37	2.95	-0.99
287	SLE QP 1	-10	2	3348	-0.25	3.02	-1.03
287	SLE QP 2	-10	2	3539	-0.32	2.98	-1.01
287	SLD 1	267	97	3453	-0.94	12.19	-1.57
287	SLD 2	248	99	3454	-0.94	12.18	-0.5
287	SLD 3	274	-72	3569	0.02	11.58	-1.8
287	SLD 4	255	-71	3570	0.02	11.58	-0.72
287	SLD 5	69	288	3336	-1.96	6.66	-1.23
287	SLD 6	49	289	3337	-1.96	6.66	-0.11
287	SLD 7	93	-277	3724	1.23	4.64	-1.99
287	SLD 8	73	-276	3725	1.23	4.64	-0.87
287	SLD 9	-94	281	3353	-1.88	1.32	-1.15
287	SLD 10	-113	282	3353	-1.88	1.31	-0.03
287	SLD 11	-70	-284	3740	1.31	-0.7	-1.91
287	SLD 12	-89	-283	3741	1.31	-0.71	-0.79
287	SLD 13	-275	76	3507	-0.67	-5.63	-1.29
287	SLD 14	-294	77	3508	-0.67	-5.63	-0.22
287	SLD 15	-268	-94	3624	0.29	-6.23	-1.52
287	SLD 16	-287	-93	3624	0.29	-6.23	-0.45
287	SLV 1	620	224	3338	-1.77	24.04	-2.29
287	SLV 2	577	227	3339	-1.77	24.03	0.18
287	SLV 3	636	-172	3610	0.47	22.51	-2.83
287	SLV 4	593	-169	3611	0.47	22.5	-0.37
287	SLV 5	170	669	3066	-4.15	11.62	-1.5
287	SLV 6	124	671	3067	-4.15	11.61	1.1



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
287	SLV 7	225	-652	3972	3.3	6.52	-3.31
287	SLV 8	180	-649	3973	3.3	6.51	-0.72
287	SLV 9	-200	654	3104	-3.95	-0.56	-1.3
287	SLV 10	-246	656	3105	-3.95	-0.56	1.29
287	SLV 11	-145	-667	4010	3.5	-5.66	-3.12
287	SLV 12	-190	-664	4012	3.5	-5.67	-0.52
287	SLV 13	-614	174	3466	-1.11	-16.55	-1.65
287	SLV 14	-657	177	3467	-1.11	-16.55	0.82
287	SLV 15	-597	-222	3738	1.12	-18.08	-2.19
287	SLV 16	-640	-219	3739	1.12	-18.09	0.27
287	CRTFP Ux+	0	0	0	0	0	0
287	CRTFP Ux-	0	0	0	0	0	0
287	CRTFP Uy+	0	0	0	0	0	0
287	CRTFP Uy-	0	0	0	0	0	0
290	SLU 1	-8	9	1710	-1.04	202.49	-2.45
290	SLU 2	-8	-2	1717	-0.98	202.43	0.46
290	SLU 3	-8	9	1710	-1.04	202.49	-2.45
290	SLU 4	-8	2	1714	-1	202.45	-0.7
290	SLU 5	-8	-2	1717	-0.98	202.43	0.46
290	SLU 6	-8	9	1710	-1.04	202.49	-2.45
290	SLU 7	-8	2	1714	-1	202.45	-0.7
290	SLU 8	-8	9	1710	-1.04	202.49	-2.45
290	SLU 9	-8	2	1714	-1	202.45	-0.7
290	SLU 10	-9	-2	2014	-1.3	237.86	0.46
290	SLU 11	-9	9	2007	-1.35	237.92	-2.46
290	SLU 12	-9	2	2011	-1.32	237.88	-0.71
290	SLU 13	-9	-2	2014	-1.3	237.86	0.46
290	SLU 14	-9	9	2007	-1.35	237.92	-2.46
290	SLU 15	-9	2	2011	-1.32	237.88	-0.71
290	SLU 16	-9	9	2007	-1.35	237.92	-2.46
290	SLU 17	-9	2	2011	-1.32	237.88	-0.71
290	SLU 18	-10	9	2134	-1.49	253.11	-2.46
290	SLU 19	-10	2	2138	-1.46	253.07	-0.71
290	SLU 20	-10	9	2134	-1.49	253.11	-2.46
290	SLU 21	-10	2	2138	-1.46	253.07	-0.71
290	SLU 22	-9	9	1934	-1.26	228.56	-2.5
290	SLU 23	-9	-2	1942	-1.2	228.5	0.41
290	SLU 24	-9	9	1934	-1.26	228.56	-2.5
290	SLU 25	-9	2	1939	-1.23	228.53	-0.75
290	SLU 26	-9	-2	1942	-1.2	228.5	0.41
290	SLU 27	-9	9	1934	-1.26	228.56	-2.5
290	SLU 28	-9	2	1939	-1.23	228.53	-0.75
290	SLU 29	-9	9	1934	-1.26	228.56	-2.5
290	SLU 30	-9	2	1939	-1.23	228.53	-0.75
290	SLU 31	-10	-2	2239	-1.52	263.93	0.41
290	SLU 32	-10	9	2231	-1.58	263.99	-2.51
290	SLU 33	-10	2	2236	-1.54	263.96	-0.76
290	SLU 34	-10	-2	2239	-1.52	263.93	0.41
290	SLU 35	-10	9	2231	-1.58	263.99	-2.51
290	SLU 36	-10	2	2236	-1.54	263.96	-0.76
290	SLU 37	-10	9	2231	-1.58	263.99	-2.51
290	SLU 38	-10	2	2236	-1.54	263.96	-0.76
290	SLU 39	-11	9	2358	-1.71	279.18	-2.51
290	SLU 40	-11	2	2363	-1.68	279.14	-0.76
290	SLU 41	-11	9	2358	-1.71	279.18	-2.51
290	SLU 42	-11	2	2363	-1.68	279.14	-0.76
290	SLU 43	-10	12	2146	-1.27	254.3	-3.17
290	SLU 44	-10	0	2153	-1.22	254.24	-0.25
290	SLU 45	-10	12	2146	-1.27	254.3	-3.17
290	SLU 46	-10	5	2150	-1.24	254.26	-1.42
290	SLU 47	-10	0	2153	-1.22	254.24	-0.25
290	SLU 48	-10	12	2146	-1.27	254.3	-3.17
290	SLU 49	-10	5	2150	-1.24	254.26	-1.42
290	SLU 50	-10	12	2146	-1.27	254.3	-3.17
290	SLU 51	-10	5	2150	-1.24	254.26	-1.42
290	SLU 52	-11	0	2450	-1.53	289.67	-0.26
290	SLU 53	-11	12	2442	-1.59	289.73	-3.17
290	SLU 54	-11	5	2447	-1.56	289.69	-1.42
290	SLU 55	-11	0	2450	-1.53	289.67	-0.26
290	SLU 56	-11	12	2442	-1.59	289.73	-3.17
290	SLU 57	-11	5	2447	-1.56	289.69	-1.42
290	SLU 58	-11	12	2442	-1.59	289.73	-3.17
290	SLU 59	-11	5	2447	-1.56	289.69	-1.42
290	SLU 60	-12	12	2570	-1.72	304.91	-3.17
290	SLU 61	-12	5	2574	-1.69	304.88	-1.43
290	SLU 62	-12	12	2570	-1.72	304.91	-3.17
290	SLU 63	-12	5	2574	-1.69	304.88	-1.43
290	SLU 64	-11	12	2370	-1.49	280.37	-3.22
290	SLU 65	-11	0	2378	-1.44	280.31	-0.31
290	SLU 66	-11	12	2370	-1.49	280.37	-3.22
290	SLU 67	-11	5	2375	-1.46	280.33	-1.47
290	SLU 68	-11	0	2378	-1.44	280.31	-0.31
290	SLU 69	-11	12	2370	-1.49	280.37	-3.22
290	SLU 70	-11	5	2375	-1.46	280.33	-1.47
290	SLU 71	-11	12	2370	-1.49	280.37	-3.22
290	SLU 72	-11	5	2375	-1.46	280.33	-1.47
290	SLU 73	-12	0	2674	-1.76	315.74	-0.31
290	SLU 74	-12	12	2667	-1.81	315.8	-3.23
290	SLU 75	-12	5	2672	-1.78	315.76	-1.48
290	SLU 76	-12	0	2674	-1.76	315.74	-0.31
290	SLU 77	-12	12	2667	-1.81	315.8	-3.23



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
290	SLU 78	-12	5	2672	-1.78	315.76	-1.48
290	SLU 79	-12	12	2667	-1.81	315.8	-3.23
290	SLU 80	-12	5	2672	-1.78	315.76	-1.48
290	SLU 81	-13	12	2794	-1.95	330.99	-3.23
290	SLU 82	-13	5	2799	-1.91	330.95	-1.48
290	SLU 83	-13	12	2794	-1.95	330.99	-3.23
290	SLU 84	-13	5	2799	-1.91	330.95	-1.48
290	SLE RA 1	-8	9	1774	-1.1	209.94	-2.46
290	SLE RA 2	-8	1	1779	-1.06	209.9	-0.52
290	SLE RA 3	-8	9	1774	-1.1	209.94	-2.46
290	SLE RA 4	-8	5	1777	-1.08	209.92	-1.3
290	SLE RA 5	-8	1	1779	-1.06	209.9	-0.52
290	SLE RA 6	-8	9	1774	-1.1	209.94	-2.46
290	SLE RA 7	-8	5	1777	-1.08	209.92	-1.3
290	SLE RA 8	-8	9	1774	-1.1	209.94	-2.46
290	SLE RA 9	-8	5	1777	-1.08	209.92	-1.3
290	SLE RA 10	-9	2	1977	-1.27	233.52	-0.53
290	SLE RA 11	-9	9	1972	-1.31	233.56	-2.47
290	SLE RA 12	-9	5	1975	-1.29	233.54	-1.3
290	SLE RA 13	-9	2	1977	-1.27	233.52	-0.53
290	SLE RA 14	-9	9	1972	-1.31	233.56	-2.47
290	SLE RA 15	-9	5	1975	-1.29	233.54	-1.3
290	SLE RA 16	-9	9	1972	-1.31	233.56	-2.47
290	SLE RA 17	-9	5	1975	-1.29	233.54	-1.3
290	SLE RA 18	-9	9	2057	-1.4	243.68	-2.47
290	SLE RA 19	-9	5	2060	-1.38	243.66	-1.3
290	SLE RA 20	-9	9	2057	-1.4	243.68	-2.47
290	SLE RA 21	-9	5	2060	-1.38	243.66	-1.3
290	SLE FR 1	-8	9	1774	-1.1	209.94	-2.46
290	SLE FR 2	-8	8	1775	-1.09	209.93	-2.08
290	SLE FR 3	-8	9	1774	-1.1	209.94	-2.46
290	SLE FR 4	-9	8	1860	-1.18	220.06	-2.08
290	SLE FR 5	-9	9	1859	-1.19	220.06	-2.47
290	SLE FR 6	-9	9	1915	-1.25	226.81	-2.47
290	SLE QP 1	-8	9	1774	-1.1	209.94	-2.46
290	SLE QP 2	-9	9	1859	-1.19	220.06	-2.47
290	SLD 1	129	39	1638	-1.23	187.13	-9.99
290	SLD 2	118	77	1634	-1.3	187.86	-19.34
290	SLD 3	133	-74	1696	-0.59	184.48	18.27
290	SLD 4	123	-36	1692	-0.66	185.21	8.91
290	SLD 5	29	176	1706	-2.15	213.93	-44.12
290	SLD 6	18	215	1703	-2.22	214.69	-53.84
290	SLD 7	45	-201	1899	-0.01	205.1	50.06
290	SLD 8	34	-162	1895	-0.08	205.86	40.34
290	SLD 9	-51	180	1823	-2.3	234.26	-45.28
290	SLD 10	-62	219	1819	-2.37	235.02	-55
290	SLD 11	-35	-196	2015	-0.16	225.44	48.9
290	SLD 12	-47	-157	2011	-0.23	226.2	39.19
290	SLD 13	-140	55	2025	-1.72	254.91	-13.85
290	SLD 14	-151	92	2022	-1.79	255.64	-23.2
290	SLD 15	-135	-58	2083	-1.08	252.26	14.41
290	SLD 16	-146	-21	2079	-1.15	252.99	5.05
290	SLV 1	304	80	1354	-1.31	144.38	-20.31
290	SLV 2	279	167	1346	-1.46	146.05	-41.76
290	SLV 3	315	-184	1489	0.19	138.01	45.72
290	SLV 4	290	-97	1480	0.04	139.68	24.27
290	SLV 5	78	398	1506	-3.44	206.39	-99.89
290	SLV 6	52	489	1497	-3.61	208.15	-122.48
290	SLV 7	114	-482	1955	1.56	185.15	120.22
290	SLV 8	88	-390	1946	1.39	186.92	97.63
290	SLV 9	-106	409	1771	-3.78	253.21	-102.56
290	SLV 10	-132	500	1762	-3.94	254.97	-125.15
290	SLV 11	-69	-471	2220	1.23	231.97	117.55
290	SLV 12	-95	-380	2211	1.06	233.74	94.96
290	SLV 13	-307	116	2237	-2.42	300.45	-29.2
290	SLV 14	-332	202	2229	-2.58	302.12	-50.65
290	SLV 15	-296	-148	2372	-0.92	294.08	36.83
290	SLV 16	-321	-62	2363	-1.08	295.75	15.38
290	CRTFP Ux+	0	0	0	0	0	0
290	CRTFP Ux-	0	0	0	0	0	0
290	CRTFP Uy+	0	0	0	0	0	0
290	CRTFP Uy-	0	0	0	0	0	0
291	SLU 1	-9	5	1544	-2.09	-598.16	2.03
291	SLU 2	-9	-6	1551	-2.06	-600.36	-3.05
291	SLU 3	-9	5	1544	-2.09	-598.16	2.03
291	SLU 4	-9	-2	1549	-2.07	-599.48	-1.02
291	SLU 5	-9	-6	1551	-2.06	-600.36	-3.05
291	SLU 6	-9	5	1544	-2.09	-598.16	2.03
291	SLU 7	-9	-2	1549	-2.07	-599.48	-1.02
291	SLU 8	-9	5	1544	-2.09	-598.16	2.03
291	SLU 9	-9	-2	1549	-2.07	-599.48	-1.02
291	SLU 10	-9	-6	1834	-2.52	-707.7	-2.74
291	SLU 11	-9	5	1827	-2.55	-705.51	2.35
291	SLU 12	-9	-1	1831	-2.53	-706.83	-0.7
291	SLU 13	-9	-6	1834	-2.52	-707.7	-2.74
291	SLU 14	-9	5	1827	-2.55	-705.51	2.35
291	SLU 15	-9	-1	1831	-2.53	-706.83	-0.7
291	SLU 16	-9	5	1827	-2.55	-705.51	2.35
291	SLU 17	-9	-1	1831	-2.53	-706.83	-0.7
291	SLU 18	-9	5	1948	-2.75	-751.51	2.48
291	SLU 19	-9	-1	1952	-2.73	-752.83	-0.57



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
291	SLU 20	-9	5	1948	-2.75	-751.51	2.48
291	SLU 21	-9	-1	1952	-2.73	-752.83	-0.57
291	SLU 22	-9	5	1749	-2.42	-676.01	2.38
291	SLU 23	-9	-5	1756	-2.39	-678.21	-2.7
291	SLU 24	-9	5	1749	-2.42	-676.01	2.38
291	SLU 25	-9	-1	1753	-2.4	-677.33	-0.67
291	SLU 26	-9	-5	1756	-2.39	-678.21	-2.7
291	SLU 27	-9	5	1749	-2.42	-676.01	2.38
291	SLU 28	-9	-1	1753	-2.4	-677.33	-0.67
291	SLU 29	-9	5	1749	-2.42	-676.01	2.38
291	SLU 30	-9	-1	1753	-2.4	-677.33	-0.67
291	SLU 31	-9	-5	2039	-2.85	-785.56	-2.39
291	SLU 32	-9	6	2031	-2.89	-783.36	2.7
291	SLU 33	-9	-1	2036	-2.87	-784.68	-0.36
291	SLU 34	-9	-5	2039	-2.85	-785.56	-2.39
291	SLU 35	-9	6	2031	-2.89	-783.36	2.7
291	SLU 36	-9	-1	2036	-2.87	-784.68	-0.36
291	SLU 37	-9	6	2031	-2.89	-783.36	2.7
291	SLU 38	-9	-1	2036	-2.87	-784.68	-0.36
291	SLU 39	-9	6	2153	-3.08	-829.37	2.83
291	SLU 40	-9	0	2157	-3.07	-830.68	-0.22
291	SLU 41	-9	6	2153	-3.08	-829.37	2.83
291	SLU 42	-9	0	2157	-3.07	-830.68	-0.22
291	SLU 43	-11	6	1937	-2.6	-750.92	2.53
291	SLU 44	-11	-5	1944	-2.57	-753.11	-2.56
291	SLU 45	-11	6	1937	-2.6	-750.92	2.53
291	SLU 46	-11	-1	1941	-2.58	-752.23	-0.53
291	SLU 47	-11	-5	1944	-2.57	-753.11	-2.56
291	SLU 48	-11	6	1937	-2.6	-750.92	2.53
291	SLU 49	-11	-1	1941	-2.58	-752.23	-0.53
291	SLU 50	-11	6	1937	-2.6	-750.92	2.53
291	SLU 51	-11	-1	1941	-2.58	-752.23	-0.53
291	SLU 52	-12	-4	2227	-3.03	-860.46	-2.25
291	SLU 53	-11	6	2220	-3.07	-858.26	2.84
291	SLU 54	-11	0	2224	-3.05	-859.58	-0.21
291	SLU 55	-12	-4	2227	-3.03	-860.46	-2.25
291	SLU 56	-11	6	2220	-3.07	-858.26	2.84
291	SLU 57	-11	0	2224	-3.05	-859.58	-0.21
291	SLU 58	-11	6	2220	-3.07	-858.26	2.84
291	SLU 59	-11	0	2224	-3.05	-859.58	-0.21
291	SLU 60	-11	7	2341	-3.27	-904.27	2.98
291	SLU 61	-12	0	2345	-3.25	-905.59	-0.08
291	SLU 62	-11	7	2341	-3.27	-904.27	2.98
291	SLU 63	-12	0	2345	-3.25	-905.59	-0.08
291	SLU 64	-11	6	2142	-2.93	-828.77	2.87
291	SLU 65	-12	-4	2149	-2.9	-830.96	-2.21
291	SLU 66	-11	6	2142	-2.93	-828.77	2.87
291	SLU 67	-12	0	2146	-2.92	-830.09	-0.18
291	SLU 68	-12	-4	2149	-2.9	-830.96	-2.21
291	SLU 69	-11	6	2142	-2.93	-828.77	2.87
291	SLU 70	-12	0	2146	-2.92	-830.09	-0.18
291	SLU 71	-11	6	2142	-2.93	-828.77	2.87
291	SLU 72	-12	0	2146	-2.92	-830.09	-0.18
291	SLU 73	-12	-4	2432	-3.37	-938.31	-1.9
291	SLU 74	-12	7	2424	-3.4	-936.12	3.19
291	SLU 75	-12	1	2429	-3.38	-937.43	0.14
291	SLU 76	-12	-4	2432	-3.37	-938.31	-1.9
291	SLU 77	-12	7	2424	-3.4	-936.12	3.19
291	SLU 78	-12	1	2429	-3.38	-937.43	0.14
291	SLU 79	-12	7	2424	-3.4	-936.12	3.19
291	SLU 80	-12	1	2429	-3.38	-937.43	0.14
291	SLU 81	-12	7	2546	-3.6	-982.12	3.32
291	SLU 82	-12	1	2550	-3.58	-983.44	0.27
291	SLU 83	-12	7	2546	-3.6	-982.12	3.32
291	SLU 84	-12	1	2550	-3.58	-983.44	0.27
291	SLE RA 1	-9	5	1603	-2.18	-620.4	2.13
291	SLE RA 2	-9	-2	1608	-2.16	-621.87	-1.26
291	SLE RA 3	-9	5	1603	-2.18	-620.4	2.13
291	SLE RA 4	-9	0	1606	-2.17	-621.28	0.1
291	SLE RA 5	-9	-2	1608	-2.16	-621.87	-1.26
291	SLE RA 6	-9	5	1603	-2.18	-620.4	2.13
291	SLE RA 7	-9	0	1606	-2.17	-621.28	0.1
291	SLE RA 8	-9	5	1603	-2.18	-620.4	2.13
291	SLE RA 9	-9	0	1606	-2.17	-621.28	0.1
291	SLE RA 10	-9	-2	1796	-2.47	-693.43	-1.05
291	SLE RA 11	-9	5	1791	-2.49	-691.97	2.34
291	SLE RA 12	-9	1	1794	-2.48	-692.85	0.31
291	SLE RA 13	-9	-2	1796	-2.47	-693.43	-1.05
291	SLE RA 14	-9	5	1791	-2.49	-691.97	2.34
291	SLE RA 15	-9	1	1794	-2.48	-692.85	0.31
291	SLE RA 16	-9	5	1791	-2.49	-691.97	2.34
291	SLE RA 17	-9	1	1794	-2.48	-692.85	0.31
291	SLE RA 18	-9	5	1872	-2.63	-722.64	2.43
291	SLE RA 19	-9	1	1875	-2.61	-723.52	0.4
291	SLE RA 20	-9	5	1872	-2.63	-722.64	2.43
291	SLE RA 21	-9	1	1875	-2.61	-723.52	0.4
291	SLE FR 1	-9	5	1603	-2.18	-620.4	2.13
291	SLE FR 2	-9	3	1604	-2.18	-620.7	1.46
291	SLE FR 3	-9	5	1603	-2.18	-620.4	2.13
291	SLE FR 4	-9	3	1684	-2.31	-651.37	1.55
291	SLE FR 5	-9	5	1683	-2.32	-651.07	2.22



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
291	SLE FR 6	-9	5	1737	-2.41	-671.52	2.28
291	SLE QP 1	-9	5	1603	-2.18	-620.4	2.13
291	SLE QP 2	-9	5	1683	-2.32	-651.07	2.22
291	SLD 1	133	63	1837	-2.89	-706.85	29.9
291	SLD 2	121	28	1841	-2.85	-707.64	13.36
291	SLD 3	129	-37	1890	-2.48	-720.51	-17.73
291	SLD 4	117	-72	1894	-2.44	-721.29	-34.27
291	SLD 5	43	187	1647	-3.12	-646.81	88.88
291	SLD 6	31	151	1652	-3.08	-647.63	71.69
291	SLD 7	32	-147	1824	-1.76	-692.32	-69.89
291	SLD 8	19	-183	1828	-1.72	-693.14	-87.08
291	SLD 9	-37	193	1538	-2.91	-609.01	91.53
291	SLD 10	-49	157	1542	-2.87	-609.83	74.34
291	SLD 11	-49	-141	1715	-1.55	-654.52	-67.25
291	SLD 12	-61	-178	1719	-1.52	-655.34	-84.44
291	SLD 13	-135	82	1473	-2.19	-580.86	38.72
291	SLD 14	-147	47	1477	-2.16	-581.64	22.18
291	SLD 15	-138	-18	1526	-1.78	-594.51	-8.91
291	SLD 16	-150	-53	1530	-1.75	-595.3	-25.46
291	SLV 1	314	141	2031	-3.62	-777.81	66.75
291	SLV 2	286	61	2040	-3.55	-779.61	28.81
291	SLV 3	305	-93	2155	-2.67	-809.7	-44.58
291	SLV 4	278	-174	2164	-2.59	-811.5	-82.51
291	SLV 5	111	431	1596	-4.18	-640.05	204.71
291	SLV 6	82	347	1606	-4.1	-641.95	164.76
291	SLV 7	83	-350	2010	-1.01	-746.35	-166.37
291	SLV 8	54	-434	2019	-0.93	-748.25	-206.32
291	SLV 9	-72	444	1347	-3.71	-553.9	210.77
291	SLV 10	-100	360	1357	-3.63	-555.8	170.82
291	SLV 11	-100	-337	1761	-0.53	-660.2	-160.31
291	SLV 12	-128	-421	1770	-0.45	-662.1	-200.26
291	SLV 13	-295	183	1202	-2.04	-490.65	86.96
291	SLV 14	-323	103	1211	-1.96	-492.45	49.02
291	SLV 15	-304	-51	1326	-1.09	-522.54	-24.37
291	SLV 16	-331	-131	1335	-1.01	-524.34	-62.3
291	CRTFP Ux+	0	0	0	0	0	0
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
294	SLU 1	-5	4	3209	0.18	2.85	-1.18
294	SLU 2	-5	-12	3226	0.26	2.88	-1.19
294	SLU 3	-5	4	3209	0.18	2.85	-1.18
294	SLU 4	-5	-6	3219	0.23	2.87	-1.18
294	SLU 5	-5	-12	3226	0.26	2.88	-1.19
294	SLU 6	-5	4	3209	0.18	2.85	-1.18
294	SLU 7	-5	-6	3219	0.23	2.87	-1.18
294	SLU 8	-5	4	3209	0.18	2.85	-1.18
294	SLU 9	-5	-6	3219	0.23	2.87	-1.18
294	SLU 10	-4	-11	3886	0.09	2.76	-1.09
294	SLU 11	-4	6	3869	0.01	2.73	-1.08
294	SLU 12	-4	-4	3879	0.06	2.75	-1.09
294	SLU 13	-4	-11	3886	0.09	2.76	-1.09
294	SLU 14	-4	6	3869	0.01	2.73	-1.08
294	SLU 15	-4	-4	3879	0.06	2.75	-1.09
294	SLU 16	-4	6	3869	0.01	2.73	-1.08
294	SLU 17	-4	-4	3879	0.06	2.75	-1.09
294	SLU 18	-4	7	4151	-0.06	2.68	-1.04
294	SLU 19	-4	-3	4162	-0.01	2.7	-1.04
294	SLU 20	-4	7	4151	-0.06	2.68	-1.04
294	SLU 21	-4	-3	4162	-0.01	2.7	-1.04
294	SLU 22	-5	5	3690	0.07	2.74	-1.14
294	SLU 23	-5	-12	3707	0.15	2.77	-1.15
294	SLU 24	-5	5	3690	0.07	2.74	-1.14
294	SLU 25	-5	-5	3700	0.12	2.76	-1.14
294	SLU 26	-5	-12	3707	0.15	2.77	-1.15
294	SLU 27	-5	5	3690	0.07	2.74	-1.14
294	SLU 28	-5	-5	3700	0.12	2.76	-1.14
294	SLU 29	-5	5	3690	0.07	2.74	-1.14
294	SLU 30	-5	-5	3700	0.12	2.76	-1.14
294	SLU 31	-4	-10	4367	-0.01	2.65	-1.05
294	SLU 32	-3	7	4350	-0.09	2.62	-1.04
294	SLU 33	-4	-3	4360	-0.05	2.64	-1.04
294	SLU 34	-4	-10	4367	-0.01	2.65	-1.05
294	SLU 35	-3	7	4350	-0.09	2.62	-1.04
294	SLU 36	-4	-3	4360	-0.05	2.64	-1.04
294	SLU 37	-3	7	4350	-0.09	2.62	-1.04
294	SLU 38	-4	-3	4360	-0.05	2.64	-1.04
294	SLU 39	-3	7	4632	-0.17	2.57	-1
294	SLU 40	-3	-3	4643	-0.12	2.59	-1
294	SLU 41	-3	7	4632	-0.17	2.57	-1
294	SLU 42	-3	-3	4643	-0.12	2.59	-1
294	SLU 43	-7	5	4007	0.27	3.74	-1.54
294	SLU 44	-7	-11	4024	0.35	3.78	-1.56
294	SLU 45	-7	5	4007	0.27	3.74	-1.54
294	SLU 46	-7	-5	4017	0.31	3.76	-1.55
294	SLU 47	-7	-11	4024	0.35	3.78	-1.56
294	SLU 48	-7	5	4007	0.27	3.74	-1.54
294	SLU 49	-7	-5	4017	0.31	3.76	-1.55
294	SLU 50	-7	5	4007	0.27	3.74	-1.54
294	SLU 51	-7	-5	4017	0.31	3.76	-1.55
294	SLU 52	-6	-10	4684	0.18	3.66	-1.46



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
294	SLU 53	-6	7	4666	0.1	3.62	-1.45
294	SLU 54	-6	-3	4677	0.15	3.64	-1.45
294	SLU 55	-6	-10	4684	0.18	3.66	-1.46
294	SLU 56	-6	7	4666	0.1	3.62	-1.45
294	SLU 57	-6	-3	4677	0.15	3.64	-1.45
294	SLU 58	-6	7	4666	0.1	3.62	-1.45
294	SLU 59	-6	-3	4677	0.15	3.64	-1.45
294	SLU 60	-5	8	4949	0.03	3.57	-1.41
294	SLU 61	-5	-2	4960	0.08	3.59	-1.41
294	SLU 62	-5	8	4949	0.03	3.57	-1.41
294	SLU 63	-5	-2	4960	0.08	3.59	-1.41
294	SLU 64	-6	6	4488	0.16	3.63	-1.5
294	SLU 65	-6	-10	4505	0.24	3.67	-1.51
294	SLU 66	-6	6	4488	0.16	3.63	-1.5
294	SLU 67	-6	-4	4498	0.21	3.65	-1.51
294	SLU 68	-6	-10	4505	0.24	3.67	-1.51
294	SLU 69	-6	6	4488	0.16	3.63	-1.5
294	SLU 70	-6	-4	4498	0.21	3.65	-1.51
294	SLU 71	-6	6	4488	0.16	3.63	-1.5
294	SLU 72	-6	-4	4498	0.21	3.65	-1.51
294	SLU 73	-5	-9	5165	0.08	3.55	-1.42
294	SLU 74	-5	8	5147	0	3.51	-1.41
294	SLU 75	-5	-2	5158	0.04	3.53	-1.41
294	SLU 76	-5	-9	5165	0.08	3.55	-1.42
294	SLU 77	-5	8	5147	0	3.51	-1.41
294	SLU 78	-5	-2	5158	0.04	3.53	-1.41
294	SLU 79	-5	8	5147	0	3.51	-1.41
294	SLU 80	-5	-2	5158	0.04	3.53	-1.41
294	SLU 81	-5	9	5430	-0.08	3.46	-1.36
294	SLU 82	-5	-2	5441	-0.03	3.48	-1.37
294	SLU 83	-5	9	5430	-0.08	3.46	-1.36
294	SLU 84	-5	-2	5441	-0.03	3.48	-1.37
294	SLE RA 1	-5	5	3346	0.15	2.82	-1.17
294	SLE RA 2	-5	-7	3358	0.2	2.84	-1.17
294	SLE RA 3	-5	5	3346	0.15	2.82	-1.17
294	SLE RA 4	-5	-2	3353	0.18	2.83	-1.17
294	SLE RA 5	-5	-7	3358	0.2	2.84	-1.17
294	SLE RA 6	-5	5	3346	0.15	2.82	-1.17
294	SLE RA 7	-5	-2	3353	0.18	2.83	-1.17
294	SLE RA 8	-5	5	3346	0.15	2.82	-1.17
294	SLE RA 9	-5	-2	3353	0.18	2.83	-1.17
294	SLE RA 10	-4	-5	3798	0.09	2.76	-1.11
294	SLE RA 11	-4	6	3786	0.04	2.74	-1.1
294	SLE RA 12	-4	-1	3793	0.07	2.75	-1.1
294	SLE RA 13	-4	-5	3798	0.09	2.76	-1.11
294	SLE RA 14	-4	6	3786	0.04	2.74	-1.1
294	SLE RA 15	-4	-1	3793	0.07	2.75	-1.1
294	SLE RA 16	-4	6	3786	0.04	2.74	-1.1
294	SLE RA 17	-4	-1	3793	0.07	2.75	-1.1
294	SLE RA 18	-4	6	3975	-0.01	2.7	-1.07
294	SLE RA 19	-4	-1	3982	0.02	2.72	-1.08
294	SLE RA 20	-4	6	3975	-0.01	2.7	-1.07
294	SLE RA 21	-4	-1	3982	0.02	2.72	-1.08
294	SLE FR 1	-5	5	3346	0.15	2.82	-1.17
294	SLE FR 2	-5	2	3349	0.16	2.82	-1.17
294	SLE FR 3	-5	5	3346	0.15	2.82	-1.17
294	SLE FR 4	-5	3	3537	0.11	2.79	-1.14
294	SLE FR 5	-5	5	3535	0.1	2.78	-1.14
294	SLE FR 6	-4	5	3660	0.07	2.76	-1.12
294	SLE QP 1	-5	5	3346	0.15	2.82	-1.17
294	SLE QP 2	-5	5	3535	0.1	2.78	-1.14
294	SLD 1	276	100	3430	-0.49	11.73	-1.91
294	SLD 2	251	101	3430	-0.49	11.74	-0.78
294	SLD 3	283	-69	3578	0.49	11.17	-2.15
294	SLD 4	259	-68	3579	0.49	11.18	-1.03
294	SLD 5	77	290	3278	-1.56	6.31	-1.41
294	SLD 6	51	291	3279	-1.56	6.32	-0.25
294	SLD 7	103	-275	3772	1.71	4.44	-2.23
294	SLD 8	77	-273	3773	1.71	4.45	-1.06
294	SLD 9	-87	284	3297	-1.51	1.11	-1.21
294	SLD 10	-112	285	3297	-1.51	1.12	-0.05
294	SLD 11	-60	-281	3790	1.77	-0.76	-2.03
294	SLD 12	-86	-280	3791	1.77	-0.75	-0.86
294	SLD 13	-268	78	3491	-0.29	-5.61	-1.25
294	SLD 14	-292	80	3492	-0.29	-5.6	-0.12
294	SLD 15	-260	-91	3639	0.69	-6.18	-1.49
294	SLD 16	-285	-90	3640	0.69	-6.16	-0.37
294	SLV 1	633	227	3289	-1.28	23.23	-2.88
294	SLV 2	577	229	3290	-1.28	23.26	-0.31
294	SLV 3	651	-169	3635	1.02	21.82	-3.47
294	SLV 4	596	-167	3636	1.02	21.85	-0.89
294	SLV 5	180	671	2936	-3.79	11.05	-1.74
294	SLV 6	121	674	2937	-3.79	11.08	0.97
294	SLV 7	241	-649	4089	3.85	6.34	-3.7
294	SLV 8	182	-646	4091	3.85	6.36	-0.98
294	SLV 9	-191	656	2979	-3.65	-0.8	-1.29
294	SLV 10	-250	659	2980	-3.65	-0.77	1.42
294	SLV 11	-130	-664	4133	3.99	-5.52	-3.24
294	SLV 12	-189	-661	4134	3.99	-5.49	-0.53
294	SLV 13	-605	177	3433	-0.82	-16.28	-1.38
294	SLV 14	-661	179	3434	-0.82	-16.26	1.19



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
294	SLV 15	-586	-219	3779	1.48	-17.7	-1.97
294	SLV 16	-642	-216	3780	1.48	-17.67	0.61
294	CRTFP Ux+	0	0	0	0	0	0
294	CRTFP Ux-	0	0	0	0	0	0
294	CRTFP Uy+	0	0	0	0	0	0
294	CRTFP Uy-	0	0	0	0	0	0
297	SLU 1	-3	8	1687	-0.39	184.92	-2.3
297	SLU 2	-3	-3	1696	-0.33	185.13	0.63
297	SLU 3	-3	8	1687	-0.39	184.92	-2.3
297	SLU 4	-3	1	1693	-0.36	185.04	-0.54
297	SLU 5	-3	-3	1696	-0.33	185.13	0.63
297	SLU 6	-3	8	1687	-0.39	184.92	-2.3
297	SLU 7	-3	1	1693	-0.36	185.04	-0.54
297	SLU 8	-3	8	1687	-0.39	184.92	-2.3
297	SLU 9	-3	1	1693	-0.36	185.04	-0.54
297	SLU 10	-4	-3	1985	-0.5	215.43	0.63
297	SLU 11	-4	8	1976	-0.56	215.23	-2.3
297	SLU 12	-4	1	1982	-0.52	215.35	-0.54
297	SLU 13	-4	-3	1985	-0.5	215.43	0.63
297	SLU 14	-4	8	1976	-0.56	215.23	-2.3
297	SLU 15	-4	1	1982	-0.52	215.35	-0.54
297	SLU 16	-4	8	1976	-0.56	215.23	-2.3
297	SLU 17	-4	1	1982	-0.52	215.35	-0.54
297	SLU 18	-4	8	2100	-0.63	228.22	-2.3
297	SLU 19	-5	1	2106	-0.6	228.34	-0.54
297	SLU 20	-4	8	2100	-0.63	228.22	-2.3
297	SLU 21	-5	1	2106	-0.6	228.34	-0.54
297	SLU 22	-4	9	1907	-0.51	207.32	-2.35
297	SLU 23	-4	-3	1916	-0.44	207.52	0.58
297	SLU 24	-4	9	1907	-0.51	207.32	-2.35
297	SLU 25	-4	2	1912	-0.47	207.44	-0.59
297	SLU 26	-4	-3	1916	-0.44	207.52	0.58
297	SLU 27	-4	9	1907	-0.51	207.32	-2.35
297	SLU 28	-4	2	1912	-0.47	207.44	-0.59
297	SLU 29	-4	9	1907	-0.51	207.32	-2.35
297	SLU 30	-4	2	1912	-0.47	207.44	-0.59
297	SLU 31	-5	-3	2205	-0.61	237.83	0.58
297	SLU 32	-5	9	2196	-0.67	237.62	-2.34
297	SLU 33	-5	2	2201	-0.64	237.75	-0.59
297	SLU 34	-5	-3	2205	-0.61	237.83	0.58
297	SLU 35	-5	9	2196	-0.67	237.62	-2.34
297	SLU 36	-5	2	2201	-0.64	237.75	-0.59
297	SLU 37	-5	9	2196	-0.67	237.62	-2.34
297	SLU 38	-5	2	2201	-0.64	237.75	-0.59
297	SLU 39	-5	9	2320	-0.75	250.61	-2.34
297	SLU 40	-5	2	2325	-0.71	250.74	-0.59
297	SLU 41	-5	9	2320	-0.75	250.61	-2.34
297	SLU 42	-5	2	2325	-0.71	250.74	-0.59
297	SLU 43	-3	11	2118	-0.47	232.72	-2.97
297	SLU 44	-3	-1	2127	-0.41	232.92	-0.05
297	SLU 45	-3	11	2118	-0.47	232.72	-2.97
297	SLU 46	-3	4	2123	-0.44	232.84	-1.22
297	SLU 47	-3	-1	2127	-0.41	232.92	-0.05
297	SLU 48	-3	11	2118	-0.47	232.72	-2.97
297	SLU 49	-3	4	2123	-0.44	232.84	-1.22
297	SLU 50	-3	11	2118	-0.47	232.72	-2.97
297	SLU 51	-3	4	2123	-0.44	232.84	-1.22
297	SLU 52	-5	-1	2416	-0.58	263.23	-0.05
297	SLU 53	-5	11	2407	-0.64	263.03	-2.97
297	SLU 54	-5	4	2413	-0.6	263.15	-1.22
297	SLU 55	-5	-1	2416	-0.58	263.23	-0.05
297	SLU 56	-5	11	2407	-0.64	263.03	-2.97
297	SLU 57	-5	4	2413	-0.6	263.15	-1.22
297	SLU 58	-5	11	2407	-0.64	263.03	-2.97
297	SLU 59	-5	4	2413	-0.6	263.15	-1.22
297	SLU 60	-5	11	2531	-0.71	276.02	-2.97
297	SLU 61	-5	4	2537	-0.68	276.14	-1.22
297	SLU 62	-5	11	2531	-0.71	276.02	-2.97
297	SLU 63	-5	4	2537	-0.68	276.14	-1.22
297	SLU 64	-4	11	2337	-0.59	255.11	-3.02
297	SLU 65	-4	-1	2347	-0.52	255.32	-0.09
297	SLU 66	-4	11	2337	-0.59	255.11	-3.02
297	SLU 67	-4	4	2343	-0.55	255.24	-1.26
297	SLU 68	-4	-1	2347	-0.52	255.32	-0.09
297	SLU 69	-4	11	2337	-0.59	255.11	-3.02
297	SLU 70	-4	4	2343	-0.55	255.24	-1.26
297	SLU 71	-4	11	2337	-0.59	255.11	-3.02
297	SLU 72	-4	4	2343	-0.55	255.24	-1.26
297	SLU 73	-6	-1	2636	-0.69	285.63	-0.09
297	SLU 74	-5	11	2627	-0.75	285.42	-3.02
297	SLU 75	-6	4	2632	-0.72	285.55	-1.26
297	SLU 76	-6	-1	2636	-0.69	285.63	-0.09
297	SLU 77	-5	11	2627	-0.75	285.42	-3.02
297	SLU 78	-6	4	2632	-0.72	285.55	-1.26
297	SLU 79	-5	11	2627	-0.75	285.42	-3.02
297	SLU 80	-6	4	2632	-0.72	285.55	-1.26
297	SLU 81	-6	11	2751	-0.82	298.41	-3.02
297	SLU 82	-6	4	2756	-0.79	298.53	-1.26
297	SLU 83	-6	11	2751	-0.82	298.41	-3.02
297	SLU 84	-6	4	2756	-0.79	298.53	-1.26
297	SLE RA 1	-3	9	1750	-0.43	191.32	-2.31



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
297	SLE RA 2	-3	1	1756	-0.38	191.46	-0.36
297	SLE RA 3	-3	9	1750	-0.43	191.32	-2.31
297	SLE RA 4	-3	4	1753	-0.4	191.4	-1.14
297	SLE RA 5	-3	1	1756	-0.38	191.46	-0.36
297	SLE RA 6	-3	9	1750	-0.43	191.32	-2.31
297	SLE RA 7	-3	4	1753	-0.4	191.4	-1.14
297	SLE RA 8	-3	9	1750	-0.43	191.32	-2.31
297	SLE RA 9	-3	4	1753	-0.4	191.4	-1.14
297	SLE RA 10	-4	1	1949	-0.5	211.66	-0.36
297	SLE RA 11	-4	9	1943	-0.54	211.53	-2.31
297	SLE RA 12	-4	4	1946	-0.51	211.61	-1.14
297	SLE RA 13	-4	1	1949	-0.5	211.66	-0.36
297	SLE RA 14	-4	9	1943	-0.54	211.53	-2.31
297	SLE RA 15	-4	4	1946	-0.51	211.61	-1.14
297	SLE RA 16	-4	9	1943	-0.54	211.53	-2.31
297	SLE RA 17	-4	4	1946	-0.51	211.61	-1.14
297	SLE RA 18	-4	9	2025	-0.59	220.19	-2.31
297	SLE RA 19	-4	4	2029	-0.56	220.27	-1.14
297	SLE RA 20	-4	9	2025	-0.59	220.19	-2.31
297	SLE RA 21	-4	4	2029	-0.56	220.27	-1.14
297	SLE FR 1	-3	9	1750	-0.43	191.32	-2.31
297	SLE FR 2	-3	7	1751	-0.42	191.35	-1.92
297	SLE FR 3	-3	9	1750	-0.43	191.32	-2.31
297	SLE FR 4	-3	7	1834	-0.47	200.01	-1.92
297	SLE FR 5	-3	9	1832	-0.47	199.98	-2.31
297	SLE FR 6	-4	9	1888	-0.51	205.75	-2.31
297	SLE QP 1	-3	9	1750	-0.43	191.32	-2.31
297	SLE QP 2	-3	9	1832	-0.47	199.98	-2.31
297	SLD 1	141	38	1608	-0.66	165.62	-13.73
297	SLD 2	127	76	1602	-0.74	165.97	-23.08
297	SLD 3	136	-75	1686	0.03	168.49	14.55
297	SLD 4	123	-37	1680	-0.04	168.85	5.2
297	SLD 5	52	175	1649	-1.56	185.18	-45.17
297	SLD 6	38	214	1642	-1.64	185.55	-54.89
297	SLD 7	36	-202	1909	0.76	194.76	49.09
297	SLD 8	22	-163	1903	0.69	195.13	39.37
297	SLD 9	-29	180	1762	-1.64	204.83	-44
297	SLD 10	-43	219	1756	-1.71	205.2	-53.72
297	SLD 11	-45	-197	2023	0.69	214.41	50.27
297	SLD 12	-59	-158	2016	0.62	214.78	40.55
297	SLD 13	-130	54	1985	-0.91	231.11	-9.82
297	SLD 14	-143	92	1979	-0.98	231.47	-19.17
297	SLD 15	-134	-59	2063	-0.21	233.99	18.46
297	SLD 16	-148	-21	2057	-0.28	234.34	9.11
297	SLV 1	325	79	1318	-0.93	120.76	-29.13
297	SLV 2	294	166	1304	-1.09	121.57	-50.58
297	SLV 3	314	-185	1501	0.7	127.54	36.96
297	SLV 4	283	-98	1487	0.54	128.35	15.51
297	SLV 5	123	398	1406	-3.02	165.63	-102.52
297	SLV 6	91	489	1392	-3.2	166.48	-125.11
297	SLV 7	87	-483	2015	2.42	188.23	117.78
297	SLV 8	54	-392	2001	2.24	189.08	95.19
297	SLV 9	-61	409	1664	-3.19	210.88	-99.82
297	SLV 10	-94	500	1650	-3.36	211.73	-122.41
297	SLV 11	-98	-472	2273	2.25	233.48	120.48
297	SLV 12	-130	-381	2259	2.07	234.33	97.89
297	SLV 13	-290	115	2178	-1.48	271.61	-20.13
297	SLV 14	-321	202	2164	-1.65	272.42	-41.58
297	SLV 15	-301	-149	2361	0.15	278.39	45.96
297	SLV 16	-332	-62	2347	-0.02	279.2	24.51
297	CRTFP Ux+	0	0	0	0	0	0
297	CRTFP Ux-	0	0	0	0	0	0
297	CRTFP Uy+	0	0	0	0	0	0
297	CRTFP Uy-	0	0	0	0	0	0
298	SLU 1	-5	5	1490	-1.18	-559.38	2.17
298	SLU 2	-5	-6	1498	-1.14	-561.98	-2.93
298	SLU 3	-5	5	1490	-1.18	-559.38	2.17
298	SLU 4	-5	-2	1495	-1.15	-560.94	-0.89
298	SLU 5	-5	-6	1498	-1.14	-561.98	-2.93
298	SLU 6	-5	5	1490	-1.18	-559.38	2.17
298	SLU 7	-5	-2	1495	-1.15	-560.94	-0.89
298	SLU 8	-5	5	1490	-1.18	-559.38	2.17
298	SLU 9	-5	-2	1495	-1.15	-560.94	-0.89
298	SLU 10	-5	-5	1769	-1.4	-660.76	-2.56
298	SLU 11	-5	6	1760	-1.44	-658.16	2.53
298	SLU 12	-5	-1	1765	-1.42	-659.72	-0.52
298	SLU 13	-5	-5	1769	-1.4	-660.76	-2.56
298	SLU 14	-5	6	1760	-1.44	-658.16	2.53
298	SLU 15	-5	-1	1765	-1.42	-659.72	-0.52
298	SLU 16	-5	6	1760	-1.44	-658.16	2.53
298	SLU 17	-5	-1	1765	-1.42	-659.72	-0.52
298	SLU 18	-5	6	1876	-1.56	-700.49	2.69
298	SLU 19	-5	-1	1881	-1.53	-702.05	-0.37
298	SLU 20	-5	6	1876	-1.56	-700.49	2.69
298	SLU 21	-5	-1	1881	-1.53	-702.05	-0.37
298	SLU 22	-5	6	1686	-1.37	-631.06	2.55
298	SLU 23	-5	-5	1695	-1.33	-633.66	-2.54
298	SLU 24	-5	6	1686	-1.37	-631.06	2.55
298	SLU 25	-5	-1	1691	-1.34	-632.62	-0.5
298	SLU 26	-5	-5	1695	-1.33	-633.66	-2.54
298	SLU 27	-5	6	1686	-1.37	-631.06	2.55



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
298	SLU 28	-5	-1	1691		-1.34	-632.62	-0.5
298	SLU 29	-5	6	1686		-1.37	-631.06	2.55
298	SLU 30	-5	-1	1691		-1.34	-632.62	-0.5
298	SLU 31	-6	-4	1965		-1.59	-732.44	-2.18
298	SLU 32	-5	6	1956		-1.63	-729.84	2.92
298	SLU 33	-6	0	1962		-1.61	-731.4	-0.14
298	SLU 34	-6	-4	1965		-1.59	-732.44	-2.18
298	SLU 35	-5	6	1956		-1.63	-729.84	2.92
298	SLU 36	-6	0	1962		-1.61	-731.4	-0.14
298	SLU 37	-5	6	1956		-1.63	-729.84	2.92
298	SLU 38	-6	0	1962		-1.61	-731.4	-0.14
298	SLU 39	-6	7	2072		-1.75	-772.17	3.07
298	SLU 40	-6	0	2077		-1.72	-773.73	0.02
298	SLU 41	-6	7	2072		-1.75	-772.17	3.07
298	SLU 42	-6	0	2077		-1.72	-773.73	0.02
298	SLU 43	-6	6	1870		-1.47	-702.62	2.69
298	SLU 44	-6	-5	1878		-1.43	-705.22	-2.4
298	SLU 45	-6	6	1870		-1.47	-702.62	2.69
298	SLU 46	-6	0	1875		-1.44	-704.18	-0.37
298	SLU 47	-6	-5	1878		-1.43	-705.22	-2.4
298	SLU 48	-6	6	1870		-1.47	-702.62	2.69
298	SLU 49	-6	0	1875		-1.44	-704.18	-0.37
298	SLU 50	-6	6	1870		-1.47	-702.62	2.69
298	SLU 51	-6	0	1875		-1.44	-704.18	-0.37
298	SLU 52	-7	-4	2148		-1.69	-804	-2.04
298	SLU 53	-6	7	2140		-1.73	-801.4	3.05
298	SLU 54	-6	0	2145		-1.71	-802.96	0
298	SLU 55	-7	-4	2148		-1.69	-804	-2.04
298	SLU 56	-6	7	2140		-1.73	-801.4	3.05
298	SLU 57	-6	0	2145		-1.71	-802.96	0
298	SLU 58	-6	7	2140		-1.73	-801.4	3.05
298	SLU 59	-6	0	2145		-1.71	-802.96	0
298	SLU 60	-6	7	2256		-1.85	-843.73	3.21
298	SLU 61	-7	1	2261		-1.82	-845.29	0.15
298	SLU 62	-6	7	2256		-1.85	-843.73	3.21
298	SLU 63	-7	1	2261		-1.82	-845.29	0.15
298	SLU 64	-6	7	2066		-1.66	-774.3	3.07
298	SLU 65	-7	-4	2074		-1.61	-776.9	-2.02
298	SLU 66	-6	7	2066		-1.66	-774.3	3.07
298	SLU 67	-7	0	2071		-1.63	-775.86	0.02
298	SLU 68	-7	-4	2074		-1.61	-776.9	-2.02
298	SLU 69	-6	7	2066		-1.66	-774.3	3.07
298	SLU 70	-7	0	2071		-1.63	-775.86	0.02
298	SLU 71	-6	7	2066		-1.66	-774.3	3.07
298	SLU 72	-7	0	2071		-1.63	-775.86	0.02
298	SLU 73	-7	-3	2345		-1.88	-875.68	-1.66
298	SLU 74	-7	8	2336		-1.92	-873.08	3.44
298	SLU 75	-7	1	2341		-1.9	-874.64	0.38
298	SLU 76	-7	-3	2345		-1.88	-875.68	-1.66
298	SLU 77	-7	8	2336		-1.92	-873.08	3.44
298	SLU 78	-7	1	2341		-1.9	-874.64	0.38
298	SLU 79	-7	8	2336		-1.92	-873.08	3.44
298	SLU 80	-7	1	2341		-1.9	-874.64	0.38
298	SLU 81	-7	8	2452		-2.04	-915.41	3.59
298	SLU 82	-7	1	2457		-2.01	-916.97	0.54
298	SLU 83	-7	8	2452		-2.04	-915.41	3.59
298	SLU 84	-7	1	2457		-2.01	-916.97	0.54
298	SLE RA 1	-5	5	1546		-1.23	-579.86	2.28
298	SLE RA 2	-5	-2	1552		-1.2	-581.6	-1.12
298	SLE RA 3	-5	5	1546		-1.23	-579.86	2.28
298	SLE RA 4	-5	1	1549		-1.22	-580.9	0.24
298	SLE RA 5	-5	-2	1552		-1.2	-581.6	-1.12
298	SLE RA 6	-5	5	1546		-1.23	-579.86	2.28
298	SLE RA 7	-5	1	1549		-1.22	-580.9	0.24
298	SLE RA 8	-5	5	1546		-1.23	-579.86	2.28
298	SLE RA 9	-5	1	1549		-1.22	-580.9	0.24
298	SLE RA 10	-5	-2	1732		-1.38	-647.45	-0.87
298	SLE RA 11	-5	6	1726		-1.41	-645.71	2.52
298	SLE RA 12	-5	1	1730		-1.39	-646.75	0.48
298	SLE RA 13	-5	-2	1732		-1.38	-647.45	-0.87
298	SLE RA 14	-5	6	1726		-1.41	-645.71	2.52
298	SLE RA 15	-5	1	1730		-1.39	-646.75	0.48
298	SLE RA 16	-5	6	1726		-1.41	-645.71	2.52
298	SLE RA 17	-5	1	1730		-1.39	-646.75	0.48
298	SLE RA 18	-5	6	1803		-1.49	-673.93	2.63
298	SLE RA 19	-5	1	1807		-1.47	-674.97	0.59
298	SLE RA 20	-5	6	1803		-1.49	-673.93	2.63
298	SLE RA 21	-5	1	1807		-1.47	-674.97	0.59
298	SLE FR 1	-5	5	1546		-1.23	-579.86	2.28
298	SLE FR 2	-5	4	1547		-1.23	-580.21	1.6
298	SLE FR 3	-5	5	1546		-1.23	-579.86	2.28
298	SLE FR 4	-5	4	1624		-1.3	-608.43	1.7
298	SLE FR 5	-5	5	1623		-1.31	-608.08	2.38
298	SLE FR 6	-5	5	1675		-1.36	-626.9	2.45
298	SLE QP 1	-5	5	1546		-1.23	-579.86	2.28
298	SLE QP 2	-5	5	1623		-1.31	-608.08	2.38
298	SLD 1	139	64	1760		-1.77	-654.98	30.06
298	SLD 2	124	29	1765		-1.73	-656.19	13.53
298	SLD 3	135	-37	1828		-1.29	-673.9	-17.57
298	SLD 4	121	-72	1833		-1.25	-675.11	-34.1
298	SLD 5	49	188	1560		-2.19	-593.01	89.03



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
298	SLD 6	34	151	1565	-2.15	-594.27	71.86
298	SLD 7	37	-146	1785	-0.59	-656.07	-69.73
298	SLD 8	22	-183	1790	-0.55	-657.33	-86.91
298	SLD 9	-32	193	1456	-2.07	-558.83	91.68
298	SLD 10	-47	157	1461	-2.03	-560.1	74.5
298	SLD 11	-44	-141	1681	-0.47	-621.89	-67.09
298	SLD 12	-59	-177	1686	-0.43	-623.16	-84.27
298	SLD 13	-131	82	1414	-1.37	-541.06	38.87
298	SLD 14	-145	47	1419	-1.33	-542.27	22.34
298	SLD 15	-134	-18	1481	-0.89	-559.97	-8.76
298	SLD 16	-149	-53	1486	-0.85	-561.19	-25.29
298	SLV 1	323	141	1933	-2.36	-714.45	66.9
298	SLV 2	290	61	1944	-2.28	-717.24	28.99
298	SLV 3	314	-93	2091	-1.24	-758.64	-44.42
298	SLV 4	281	-173	2102	-1.16	-761.43	-82.33
298	SLV 5	118	432	1472	-3.36	-571.92	204.85
298	SLV 6	84	347	1484	-3.26	-574.86	164.93
298	SLV 7	91	-349	1998	0.38	-719.22	-166.22
298	SLV 8	56	-434	2011	0.47	-722.16	-206.14
298	SLV 9	-66	444	1236	-3.09	-494.01	210.91
298	SLV 10	-101	360	1248	-2.99	-496.94	170.99
298	SLV 11	-93	-337	1762	0.65	-641.31	-160.16
298	SLV 12	-128	-421	1774	0.74	-644.24	-200.08
298	SLV 13	-291	184	1144	-1.46	-454.74	87.09
298	SLV 14	-324	104	1156	-1.37	-457.53	49.19
298	SLV 15	-299	-51	1302	-0.34	-498.93	-24.23
298	SLV 16	-332	-131	1314	-0.25	-501.72	-62.13
298	CRTFP Ux+	0	0	0	0	0	0
298	CRTFP Ux-	0	0	0	0	0	0
298	CRTFP Uy+	0	0	0	0	0	0
298	CRTFP Uy-	0	0	0	0	0	0
301	SLU 1	1	7	3222	0.62	2.65	-1.26
301	SLU 2	1	-10	3242	0.71	2.69	-1.27
301	SLU 3	1	7	3222	0.62	2.65	-1.26
301	SLU 4	1	-3	3234	0.67	2.67	-1.27
301	SLU 5	1	-10	3242	0.71	2.69	-1.27
301	SLU 6	1	7	3222	0.62	2.65	-1.26
301	SLU 7	1	-3	3234	0.67	2.67	-1.27
301	SLU 8	1	7	3222	0.62	2.65	-1.26
301	SLU 9	1	-3	3234	0.67	2.67	-1.27
301	SLU 10	2	-8	3898	0.66	2.6	-1.17
301	SLU 11	2	9	3878	0.58	2.56	-1.16
301	SLU 12	2	-1	3890	0.63	2.58	-1.17
301	SLU 13	2	-8	3898	0.66	2.6	-1.17
301	SLU 14	2	9	3878	0.58	2.56	-1.16
301	SLU 15	2	-1	3890	0.63	2.58	-1.17
301	SLU 16	2	9	3878	0.58	2.56	-1.16
301	SLU 17	2	-1	3890	0.63	2.58	-1.17
301	SLU 18	2	10	4159	0.55	2.52	-1.11
301	SLU 19	2	0	4171	0.61	2.54	-1.12
301	SLU 20	2	10	4159	0.55	2.52	-1.11
301	SLU 21	2	0	4171	0.61	2.54	-1.12
301	SLU 22	2	8	3701	0.6	2.56	-1.22
301	SLU 23	1	-9	3721	0.69	2.59	-1.23
301	SLU 24	2	8	3701	0.6	2.56	-1.22
301	SLU 25	1	-2	3713	0.65	2.58	-1.22
301	SLU 26	1	-9	3721	0.69	2.59	-1.23
301	SLU 27	2	8	3701	0.6	2.56	-1.22
301	SLU 28	1	-2	3713	0.65	2.58	-1.22
301	SLU 29	2	8	3701	0.6	2.56	-1.22
301	SLU 30	1	-2	3713	0.65	2.58	-1.22
301	SLU 31	2	-7	4377	0.64	2.5	-1.13
301	SLU 32	2	10	4357	0.56	2.47	-1.11
301	SLU 33	2	0	4369	0.61	2.49	-1.12
301	SLU 34	2	-7	4377	0.64	2.5	-1.13
301	SLU 35	2	10	4357	0.56	2.47	-1.11
301	SLU 36	2	0	4369	0.61	2.49	-1.12
301	SLU 37	2	10	4357	0.56	2.47	-1.11
301	SLU 38	2	0	4369	0.61	2.49	-1.12
301	SLU 39	2	11	4638	0.54	2.43	-1.07
301	SLU 40	2	1	4650	0.59	2.45	-1.08
301	SLU 41	2	11	4638	0.54	2.43	-1.07
301	SLU 42	2	1	4650	0.59	2.45	-1.08
301	SLU 43	2	9	4024	0.82	3.48	-1.65
301	SLU 44	2	-8	4044	0.9	3.51	-1.67
301	SLU 45	2	9	4024	0.82	3.48	-1.65
301	SLU 46	2	-2	4036	0.87	3.5	-1.66
301	SLU 47	2	-8	4044	0.9	3.51	-1.67
301	SLU 48	2	9	4024	0.82	3.48	-1.65
301	SLU 49	2	-2	4036	0.87	3.5	-1.66
301	SLU 50	2	9	4024	0.82	3.48	-1.65
301	SLU 51	2	-2	4036	0.87	3.5	-1.66
301	SLU 52	2	-6	4701	0.85	3.42	-1.56
301	SLU 53	2	10	4680	0.77	3.39	-1.55
301	SLU 54	2	0	4693	0.82	3.41	-1.56
301	SLU 55	2	-6	4701	0.85	3.42	-1.56
301	SLU 56	2	10	4680	0.77	3.39	-1.55
301	SLU 57	2	0	4693	0.82	3.41	-1.56
301	SLU 58	2	10	4680	0.77	3.39	-1.55
301	SLU 59	2	0	4693	0.82	3.41	-1.56
301	SLU 60	2	11	4962	0.75	3.35	-1.51



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
301	SLU 61	2	1	4974	0.8	3.37	-1.51
301	SLU 62	2	11	4962	0.75	3.35	-1.51
301	SLU 63	2	1	4974	0.8	3.37	-1.51
301	SLU 64	2	10	4503	0.8	3.38	-1.61
301	SLU 65	2	-7	4523	0.88	3.42	-1.62
301	SLU 66	2	10	4503	0.8	3.38	-1.61
301	SLU 67	2	0	4515	0.85	3.41	-1.62
301	SLU 68	2	-7	4523	0.88	3.42	-1.62
301	SLU 69	2	10	4503	0.8	3.38	-1.61
301	SLU 70	2	0	4515	0.85	3.41	-1.62
301	SLU 71	2	10	4503	0.8	3.38	-1.61
301	SLU 72	2	0	4515	0.85	3.41	-1.62
301	SLU 73	2	-5	5180	0.83	3.33	-1.52
301	SLU 74	2	12	5159	0.75	3.3	-1.51
301	SLU 75	2	2	5171	0.8	3.32	-1.51
301	SLU 76	2	-5	5180	0.83	3.33	-1.52
301	SLU 77	2	12	5159	0.75	3.3	-1.51
301	SLU 78	2	2	5171	0.8	3.32	-1.51
301	SLU 79	2	12	5159	0.75	3.3	-1.51
301	SLU 80	2	2	5171	0.8	3.32	-1.51
301	SLU 81	3	12	5441	0.73	3.26	-1.46
301	SLU 82	2	2	5453	0.78	3.28	-1.47
301	SLU 83	3	12	5441	0.73	3.26	-1.46
301	SLU 84	2	2	5453	0.78	3.28	-1.47
301	SLE RA 1	1	7	3359	0.62	2.62	-1.25
301	SLE RA 2	1	-4	3372	0.67	2.65	-1.26
301	SLE RA 3	1	7	3359	0.62	2.62	-1.25
301	SLE RA 4	1	0	3367	0.65	2.64	-1.25
301	SLE RA 5	1	-4	3372	0.67	2.65	-1.26
301	SLE RA 6	1	7	3359	0.62	2.62	-1.25
301	SLE RA 7	1	0	3367	0.65	2.64	-1.25
301	SLE RA 8	1	7	3359	0.62	2.62	-1.25
301	SLE RA 9	1	0	3367	0.65	2.64	-1.25
301	SLE RA 10	2	-3	3810	0.64	2.59	-1.19
301	SLE RA 11	2	8	3796	0.59	2.56	-1.18
301	SLE RA 12	2	2	3804	0.62	2.58	-1.18
301	SLE RA 13	2	-3	3810	0.64	2.59	-1.19
301	SLE RA 14	2	8	3796	0.59	2.56	-1.18
301	SLE RA 15	2	2	3804	0.62	2.58	-1.18
301	SLE RA 16	2	8	3796	0.59	2.56	-1.18
301	SLE RA 17	2	2	3804	0.62	2.58	-1.18
301	SLE RA 18	2	9	3984	0.57	2.54	-1.15
301	SLE RA 19	2	2	3992	0.61	2.55	-1.15
301	SLE RA 20	2	9	3984	0.57	2.54	-1.15
301	SLE RA 21	2	2	3992	0.61	2.55	-1.15
301	SLE FR 1	1	7	3359	0.62	2.62	-1.25
301	SLE FR 2	1	5	3361	0.63	2.63	-1.25
301	SLE FR 3	1	7	3359	0.62	2.62	-1.25
301	SLE FR 4	1	5	3549	0.62	2.6	-1.22
301	SLE FR 5	2	8	3546	0.6	2.6	-1.22
301	SLE FR 6	2	8	3671	0.59	2.58	-1.2
301	SLE QP 1	1	7	3359	0.62	2.62	-1.25
301	SLE QP 2	2	8	3546	0.6	2.6	-1.22
301	SLD 1	286	103	3423	0.17	11.29	-2.22
301	SLD 2	256	104	3424	0.17	11.32	-1.07
301	SLD 3	295	-67	3604	1.19	10.77	-2.47
301	SLD 4	265	-66	3604	1.19	10.8	-1.32
301	SLD 5	85	293	3235	-1.06	5.98	-1.56
301	SLD 6	54	294	3235	-1.06	6.01	-0.36
301	SLD 7	114	-272	3838	2.32	4.26	-2.41
301	SLD 8	83	-271	3838	2.32	4.28	-1.21
301	SLD 9	-80	286	3254	-1.11	0.91	-1.23
301	SLD 10	-111	287	3255	-1.11	0.94	-0.03
301	SLD 11	-51	-278	3857	2.27	-0.81	-2.07
301	SLD 12	-82	-277	3858	2.27	-0.78	-0.88
301	SLD 13	-262	81	3488	0.02	-5.6	-1.11
301	SLD 14	-292	82	3488	0.02	-5.58	0.04
301	SLD 15	-253	-88	3669	1.04	-6.12	-1.37
301	SLD 16	-283	-87	3669	1.04	-6.09	-0.22
301	SLV 1	650	229	3258	-0.41	22.47	-3.49
301	SLV 2	581	232	3259	-0.41	22.53	-0.85
301	SLV 3	670	-167	3681	1.96	21.17	-4.1
301	SLV 4	601	-164	3682	1.96	21.23	-1.46
301	SLV 5	191	673	2818	-3.29	10.51	-1.97
301	SLV 6	119	676	2819	-3.29	10.57	0.81
301	SLV 7	259	-646	4227	4.6	6.17	-4
301	SLV 8	186	-643	4228	4.6	6.24	-1.22
301	SLV 9	-183	658	2864	-3.4	-1.04	-1.21
301	SLV 10	-256	661	2865	-3.4	-0.98	1.57
301	SLV 11	-116	-661	4273	4.5	-5.38	-3.25
301	SLV 12	-188	-658	4274	4.5	-5.31	-0.47
301	SLV 13	-598	179	3410	-0.75	-16.03	-0.97
301	SLV 14	-667	182	3412	-0.75	-15.97	1.67
301	SLV 15	-578	-216	3833	1.62	-17.33	-1.58
301	SLV 16	-647	-214	3834	1.62	-17.27	1.06
301	CRTFP Ux+	0	0	0	0	0	0
301	CRTFP Ux-	0	0	0	0	0	0
301	CRTFP Uy+	0	0	0	0	0	0
301	CRTFP Uy-	0	0	0	0	0	0
304	SLU 1	3	8	1687	0.43	182.74	-2.14
304	SLU 2	3	-4	1698	0.49	183.35	0.79



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
304	SLU 3	3	8	1687	0.43	182.74	-2.14
304	SLU 4	3	1	1694	0.47	183.11	-0.38
304	SLU 5	3	-4	1698	0.49	183.35	0.79
304	SLU 6	3	8	1687	0.43	182.74	-2.14
304	SLU 7	3	1	1694	0.47	183.11	-0.38
304	SLU 8	3	8	1687	0.43	182.74	-2.14
304	SLU 9	3	1	1694	0.47	183.11	-0.38
304	SLU 10	1	-4	1985	0.51	211.81	0.8
304	SLU 11	1	8	1974	0.44	211.2	-2.13
304	SLU 12	1	1	1981	0.48	211.56	-0.37
304	SLU 13	1	-4	1985	0.51	211.81	0.8
304	SLU 14	1	8	1974	0.44	211.2	-2.13
304	SLU 15	1	1	1981	0.48	211.56	-0.37
304	SLU 16	1	8	1974	0.44	211.2	-2.13
304	SLU 17	1	1	1981	0.48	211.56	-0.37
304	SLU 18	1	8	2097	0.45	223.39	-2.13
304	SLU 19	1	1	2104	0.49	223.76	-0.37
304	SLU 20	1	8	2097	0.45	223.39	-2.13
304	SLU 21	1	1	2104	0.49	223.76	-0.37
304	SLU 22	2	8	1905	0.45	203.91	-2.18
304	SLU 23	2	-4	1916	0.52	204.52	0.75
304	SLU 24	2	8	1905	0.45	203.91	-2.18
304	SLU 25	2	1	1912	0.49	204.28	-0.42
304	SLU 26	2	-4	1916	0.52	204.52	0.75
304	SLU 27	2	8	1905	0.45	203.91	-2.18
304	SLU 28	2	1	1912	0.49	204.28	-0.42
304	SLU 29	2	8	1905	0.45	203.91	-2.18
304	SLU 30	2	1	1912	0.49	204.28	-0.42
304	SLU 31	0	-4	2203	0.54	232.98	0.76
304	SLU 32	1	8	2192	0.47	232.37	-2.17
304	SLU 33	0	1	2199	0.51	232.73	-0.41
304	SLU 34	0	-4	2203	0.54	232.98	0.76
304	SLU 35	1	8	2192	0.47	232.37	-2.17
304	SLU 36	0	1	2199	0.51	232.73	-0.41
304	SLU 37	1	8	2192	0.47	232.37	-2.17
304	SLU 38	0	1	2199	0.51	232.73	-0.41
304	SLU 39	0	8	2315	0.47	244.56	-2.17
304	SLU 40	0	1	2322	0.52	244.93	-0.41
304	SLU 41	0	8	2315	0.47	244.56	-2.17
304	SLU 42	0	1	2322	0.52	244.93	-0.41
304	SLU 43	4	10	2119	0.54	230.31	-2.77
304	SLU 44	4	-2	2130	0.61	230.92	0.16
304	SLU 45	4	10	2119	0.54	230.31	-2.77
304	SLU 46	4	3	2125	0.59	230.67	-1.01
304	SLU 47	4	-2	2130	0.61	230.92	0.16
304	SLU 48	4	10	2119	0.54	230.31	-2.77
304	SLU 49	4	3	2125	0.59	230.67	-1.01
304	SLU 50	4	10	2119	0.54	230.31	-2.77
304	SLU 51	4	3	2125	0.59	230.67	-1.01
304	SLU 52	2	-2	2417	0.63	259.37	0.17
304	SLU 53	3	10	2406	0.56	258.76	-2.76
304	SLU 54	3	3	2412	0.6	259.13	-1
304	SLU 55	2	-2	2417	0.63	259.37	0.17
304	SLU 56	3	10	2406	0.56	258.76	-2.76
304	SLU 57	3	3	2412	0.6	259.13	-1
304	SLU 58	3	10	2406	0.56	258.76	-2.76
304	SLU 59	3	3	2412	0.6	259.13	-1
304	SLU 60	2	10	2529	0.57	270.95	-2.76
304	SLU 61	2	3	2535	0.61	271.32	-1
304	SLU 62	2	10	2529	0.57	270.95	-2.76
304	SLU 63	2	3	2535	0.61	271.32	-1
304	SLU 64	3	10	2337	0.57	251.48	-2.81
304	SLU 65	3	-1	2348	0.64	252.09	0.12
304	SLU 66	3	10	2337	0.57	251.48	-2.81
304	SLU 67	3	3	2343	0.61	251.84	-1.05
304	SLU 68	3	-1	2348	0.64	252.09	0.12
304	SLU 69	3	10	2337	0.57	251.48	-2.81
304	SLU 70	3	3	2343	0.61	251.84	-1.05
304	SLU 71	3	10	2337	0.57	251.48	-2.81
304	SLU 72	3	3	2343	0.61	251.84	-1.05
304	SLU 73	2	-1	2635	0.65	280.54	0.13
304	SLU 74	2	10	2624	0.59	279.93	-2.8
304	SLU 75	2	3	2630	0.63	280.3	-1.04
304	SLU 76	2	-1	2635	0.65	280.54	0.13
304	SLU 77	2	10	2624	0.59	279.93	-2.8
304	SLU 78	2	3	2630	0.63	280.3	-1.04
304	SLU 79	2	10	2624	0.59	279.93	-2.8
304	SLU 80	2	3	2630	0.63	280.3	-1.04
304	SLU 81	1	10	2747	0.59	292.12	-2.8
304	SLU 82	1	3	2753	0.63	292.49	-1.04
304	SLU 83	1	10	2747	0.59	292.12	-2.8
304	SLU 84	1	3	2753	0.63	292.49	-1.04
304	SLE RA 1	3	8	1750	0.43	188.79	-2.15
304	SLE RA 2	2	0	1757	0.48	189.2	-0.2
304	SLE RA 3	3	8	1750	0.43	188.79	-2.15
304	SLE RA 4	3	3	1754	0.46	189.04	-0.98
304	SLE RA 5	2	0	1757	0.48	189.2	-0.2
304	SLE RA 6	3	8	1750	0.43	188.79	-2.15
304	SLE RA 7	3	3	1754	0.46	189.04	-0.98
304	SLE RA 8	3	8	1750	0.43	188.79	-2.15
304	SLE RA 9	3	3	1754	0.46	189.04	-0.98



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
304	SLE RA 10	2	0	1948	0.49	208.17	-0.19
304	SLE RA 11	2	8	1941	0.44	207.76	-2.15
304	SLE RA 12	2	3	1945	0.47	208	-0.97
304	SLE RA 13	2	0	1948	0.49	208.17	-0.19
304	SLE RA 14	2	8	1941	0.44	207.76	-2.15
304	SLE RA 15	2	3	1945	0.47	208	-0.97
304	SLE RA 16	2	8	1941	0.44	207.76	-2.15
304	SLE RA 17	2	3	1945	0.47	208	-0.97
304	SLE RA 18	1	8	2023	0.45	215.89	-2.14
304	SLE RA 19	1	3	2027	0.48	216.13	-0.97
304	SLE RA 20	1	8	2023	0.45	215.89	-2.14
304	SLE RA 21	1	3	2027	0.48	216.13	-0.97
304	SLE FR 1	3	8	1750	0.43	188.79	-2.15
304	SLE FR 2	3	6	1751	0.44	188.87	-1.76
304	SLE FR 3	3	8	1750	0.43	188.79	-2.15
304	SLE FR 4	2	6	1833	0.45	197	-1.76
304	SLE FR 5	2	8	1832	0.44	196.92	-2.15
304	SLE FR 6	2	8	1886	0.44	202.34	-2.15
304	SLE QP 1	3	8	1750	0.43	188.79	-2.15
304	SLE QP 2	2	8	1832	0.44	196.92	-2.15
304	SLD 1	151	38	1598	0.25	163.16	-13.59
304	SLD 2	134	76	1590	0.17	163.02	-22.94
304	SLD 3	146	-75	1699	1.02	169.37	14.68
304	SLD 4	129	-38	1691	0.94	169.23	5.34
304	SLD 5	60	174	1612	-0.76	177.43	-45.01
304	SLD 6	43	214	1603	-0.84	177.28	-54.72
304	SLD 7	44	-203	1948	1.81	198.12	49.24
304	SLD 8	27	-163	1939	1.72	197.98	39.53
304	SLD 9	-23	179	1724	-0.85	195.87	-43.83
304	SLD 10	-40	218	1715	-0.93	195.72	-53.54
304	SLD 11	-39	-198	2060	1.71	216.56	50.42
304	SLD 12	-56	-159	2052	1.63	216.41	40.71
304	SLD 13	-125	53	1972	-0.07	224.61	-9.64
304	SLD 14	-141	91	1964	-0.14	224.47	-18.98
304	SLD 15	-130	-60	2073	0.7	230.82	18.64
304	SLD 16	-146	-22	2065	0.63	230.68	9.29
304	SLV 1	340	79	1297	-0.01	119.08	-29.02
304	SLV 2	303	165	1278	-0.19	118.75	-50.46
304	SLV 3	329	-185	1532	1.78	133.56	37.06
304	SLV 4	291	-99	1513	1.61	133.23	15.62
304	SLV 5	135	397	1321	-2.35	151.73	-102.36
304	SLV 6	95	489	1301	-2.54	151.39	-124.94
304	SLV 7	97	-484	2106	3.63	200	117.91
304	SLV 8	58	-392	2086	3.44	199.65	95.33
304	SLV 9	-53	408	1577	-2.57	194.19	-99.63
304	SLV 10	-93	499	1557	-2.76	193.85	-122.21
304	SLV 11	-91	-473	2362	3.42	242.46	120.64
304	SLV 12	-131	-382	2342	3.23	242.11	98.06
304	SLV 13	-287	115	2150	-0.73	260.61	-19.92
304	SLV 14	-324	201	2131	-0.91	260.28	-41.36
304	SLV 15	-298	-150	2385	1.06	275.09	46.16
304	SLV 16	-336	-63	2367	0.89	274.76	24.73
304	CRTFP Ux+	0	0	0	0	0	0
304	CRTFP Ux-	0	0	0	0	0	0
304	CRTFP Uy+	0	0	0	0	0	0
304	CRTFP Uy-	0	0	0	0	0	0
305	SLU 1	-1	5	1469	-0.09	-543.33	2.27
305	SLU 2	-1	-6	1479	-0.04	-546.53	-2.83
305	SLU 3	-1	5	1469	-0.09	-543.33	2.27
305	SLU 4	-1	-1	1475	-0.06	-545.25	-0.79
305	SLU 5	-1	-6	1479	-0.04	-546.53	-2.83
305	SLU 6	-1	5	1469	-0.09	-543.33	2.27
305	SLU 7	-1	-1	1475	-0.06	-545.25	-0.79
305	SLU 8	-1	5	1469	-0.09	-543.33	2.27
305	SLU 9	-1	-1	1475	-0.06	-545.25	-0.79
305	SLU 10	-1	-5	1744	-0.08	-641.56	-2.43
305	SLU 11	-1	6	1734	-0.13	-638.36	2.67
305	SLU 12	-1	-1	1740	-0.1	-640.28	-0.39
305	SLU 13	-1	-5	1744	-0.08	-641.56	-2.43
305	SLU 14	-1	6	1734	-0.13	-638.36	2.67
305	SLU 15	-1	-1	1740	-0.1	-640.28	-0.39
305	SLU 16	-1	6	1734	-0.13	-638.36	2.67
305	SLU 17	-1	-1	1740	-0.1	-640.28	-0.39
305	SLU 18	-1	6	1848	-0.14	-679.08	2.85
305	SLU 19	-1	0	1854	-0.11	-681	-0.21
305	SLU 20	-1	6	1848	-0.14	-679.08	2.85
305	SLU 21	-1	0	1854	-0.11	-681	-0.21
305	SLU 22	-1	6	1661	-0.11	-612.36	2.68
305	SLU 23	-1	-5	1671	-0.06	-615.56	-2.42
305	SLU 24	-1	6	1661	-0.11	-612.36	2.68
305	SLU 25	-1	-1	1667	-0.08	-614.28	-0.38
305	SLU 26	-1	-5	1671	-0.06	-615.56	-2.42
305	SLU 27	-1	6	1661	-0.11	-612.36	2.68
305	SLU 28	-1	-1	1667	-0.08	-614.28	-0.38
305	SLU 29	-1	6	1661	-0.11	-612.36	2.68
305	SLU 30	-1	-1	1667	-0.08	-614.28	-0.38
305	SLU 31	-1	-4	1937	-0.09	-710.59	-2.02
305	SLU 32	-1	7	1927	-0.14	-707.38	3.08
305	SLU 33	-1	0	1933	-0.11	-709.3	0.02
305	SLU 34	-1	-4	1937	-0.09	-710.59	-2.02
305	SLU 35	-1	7	1927	-0.14	-707.38	3.08



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
305	SLU 36	-1	0	1933	-0.11	-709.3	0.02
305	SLU 37	-1	7	1927	-0.14	-707.38	3.08
305	SLU 38	-1	0	1933	-0.11	-709.3	0.02
305	SLU 39	-1	7	2041	-0.16	-748.11	3.26
305	SLU 40	-1	1	2047	-0.13	-750.03	0.2
305	SLU 41	-1	7	2041	-0.16	-748.11	3.26
305	SLU 42	-1	1	2047	-0.13	-750.03	0.2
305	SLU 43	-1	6	1843	-0.12	-682.66	2.81
305	SLU 44	-1	-4	1853	-0.06	-685.86	-2.29
305	SLU 45	-1	6	1843	-0.12	-682.66	2.81
305	SLU 46	-1	0	1849	-0.09	-684.58	-0.25
305	SLU 47	-1	-4	1853	-0.06	-685.86	-2.29
305	SLU 48	-1	6	1843	-0.12	-682.66	2.81
305	SLU 49	-1	0	1849	-0.09	-684.58	-0.25
305	SLU 50	-1	6	1843	-0.12	-682.66	2.81
305	SLU 51	-1	0	1849	-0.09	-684.58	-0.25
305	SLU 52	-1	-4	2119	-0.1	-780.89	-1.89
305	SLU 53	-1	7	2109	-0.15	-777.69	3.21
305	SLU 54	-1	1	2115	-0.12	-779.61	0.15
305	SLU 55	-1	-4	2119	-0.1	-780.89	-1.89
305	SLU 56	-1	7	2109	-0.15	-777.69	3.21
305	SLU 57	-1	1	2115	-0.12	-779.61	0.15
305	SLU 58	-1	7	2109	-0.15	-777.69	3.21
305	SLU 59	-1	1	2115	-0.12	-779.61	0.15
305	SLU 60	-1	7	2222	-0.16	-818.42	3.39
305	SLU 61	-1	1	2228	-0.13	-820.34	0.33
305	SLU 62	-1	7	2222	-0.16	-818.42	3.39
305	SLU 63	-1	1	2228	-0.13	-820.34	0.33
305	SLU 64	-1	7	2036	-0.13	-751.69	3.22
305	SLU 65	-1	-4	2046	-0.08	-754.89	-1.88
305	SLU 66	-1	7	2036	-0.13	-751.69	3.22
305	SLU 67	-1	1	2042	-0.1	-753.61	0.16
305	SLU 68	-1	-4	2046	-0.08	-754.89	-1.88
305	SLU 69	-1	7	2036	-0.13	-751.69	3.22
305	SLU 70	-1	1	2042	-0.1	-753.61	0.16
305	SLU 71	-1	7	2036	-0.13	-751.69	3.22
305	SLU 72	-1	1	2042	-0.1	-753.61	0.16
305	SLU 73	-2	-3	2311	-0.11	-849.92	-1.48
305	SLU 74	-1	8	2301	-0.16	-846.72	3.62
305	SLU 75	-1	2	2307	-0.13	-848.64	0.56
305	SLU 76	-2	-3	2311	-0.11	-849.92	-1.48
305	SLU 77	-1	8	2301	-0.16	-846.72	3.62
305	SLU 78	-1	2	2307	-0.13	-848.64	0.56
305	SLU 79	-1	8	2301	-0.16	-846.72	3.62
305	SLU 80	-1	2	2307	-0.13	-848.64	0.56
305	SLU 81	-2	8	2415	-0.18	-887.44	3.8
305	SLU 82	-2	2	2421	-0.15	-889.36	0.74
305	SLU 83	-2	8	2415	-0.18	-887.44	3.8
305	SLU 84	-2	2	2421	-0.15	-889.36	0.74
305	SLE RA 1	-1	5	1524	-0.1	-563.05	2.39
305	SLE RA 2	-1	-2	1530	-0.06	-565.19	-1.01
305	SLE RA 3	-1	5	1524	-0.1	-563.05	2.39
305	SLE RA 4	-1	1	1528	-0.08	-564.33	0.35
305	SLE RA 5	-1	-2	1530	-0.06	-565.19	-1.01
305	SLE RA 6	-1	5	1524	-0.1	-563.05	2.39
305	SLE RA 7	-1	1	1528	-0.08	-564.33	0.35
305	SLE RA 8	-1	5	1524	-0.1	-563.05	2.39
305	SLE RA 9	-1	1	1528	-0.08	-564.33	0.35
305	SLE RA 10	-1	-1	1707	-0.09	-628.54	-0.74
305	SLE RA 11	-1	6	1701	-0.12	-626.4	2.66
305	SLE RA 12	-1	2	1705	-0.1	-627.68	0.62
305	SLE RA 13	-1	-1	1707	-0.09	-628.54	-0.74
305	SLE RA 14	-1	6	1701	-0.12	-626.4	2.66
305	SLE RA 15	-1	2	1705	-0.1	-627.68	0.62
305	SLE RA 16	-1	6	1701	-0.12	-626.4	2.66
305	SLE RA 17	-1	2	1705	-0.1	-627.68	0.62
305	SLE RA 18	-1	6	1776	-0.13	-653.55	2.77
305	SLE RA 19	-1	2	1780	-0.11	-654.83	0.73
305	SLE RA 20	-1	6	1776	-0.13	-653.55	2.77
305	SLE RA 21	-1	2	1780	-0.11	-654.83	0.73
305	SLE FR 1	-1	5	1524	-0.1	-563.05	2.39
305	SLE FR 2	-1	4	1525	-0.09	-563.48	1.71
305	SLE FR 3	-1	5	1524	-0.1	-563.05	2.39
305	SLE FR 4	-1	4	1601	-0.1	-590.63	1.82
305	SLE FR 5	-1	6	1600	-0.11	-590.2	2.5
305	SLE FR 6	-1	6	1650	-0.11	-608.3	2.58
305	SLE QP 1	-1	5	1524	-0.1	-563.05	2.39
305	SLE QP 2	-1	6	1600	-0.11	-590.2	2.5
305	SLD 1	146	64	1724	-0.46	-630.95	30.16
305	SLD 2	129	29	1730	-0.41	-632.71	13.64
305	SLD 3	142	-36	1808	0.11	-656.9	-17.44
305	SLD 4	125	-71	1815	0.15	-658.67	-33.95
305	SLD 5	55	188	1506	-1.09	-562.41	89.09
305	SLD 6	38	152	1513	-1.04	-564.25	71.93
305	SLD 7	43	-146	1788	0.8	-648.92	-69.57
305	SLD 8	25	-182	1795	0.84	-650.75	-86.72
305	SLD 9	-27	193	1404	-1.06	-529.65	91.73
305	SLD 10	-44	157	1411	-1.01	-531.49	74.57
305	SLD 11	-39	-140	1686	0.83	-616.15	-66.93
305	SLD 12	-57	-177	1693	0.87	-617.99	-84.08
305	SLD 13	-127	82	1384	-0.37	-521.74	38.96



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
305	SLD 14	-144	47	1391	-0.32	-523.51	22.44
305	SLD 15	-131	-18	1469	0.2	-547.69	-8.64
305	SLD 16	-148	-53	1475	0.24	-549.46	-25.15
305	SLV 1	334	141	1880	-0.92	-682.36	66.96
305	SLV 2	295	61	1894	-0.82	-686.41	29.1
305	SLV 3	325	-93	2078	0.4	-742.98	-44.27
305	SLV 4	286	-173	2092	0.5	-747.04	-82.13
305	SLV 5	128	432	1378	-2.4	-524.37	204.81
305	SLV 6	87	347	1393	-2.29	-528.64	164.93
305	SLV 7	98	-349	2038	2.01	-726.46	-165.98
305	SLV 8	57	-433	2053	2.12	-730.73	-205.86
305	SLV 9	-59	444	1146	-2.33	-449.67	210.86
305	SLV 10	-100	360	1162	-2.23	-453.94	170.99
305	SLV 11	-89	-336	1806	2.08	-651.76	-159.93
305	SLV 12	-130	-420	1821	2.18	-656.04	-199.8
305	SLV 13	-288	184	1107	-0.71	-433.36	87.14
305	SLV 14	-327	104	1122	-0.61	-437.42	49.28
305	SLV 15	-297	-50	1305	0.61	-493.99	-24.1
305	SLV 16	-336	-130	1319	0.71	-498.05	-61.96
305	CRTFP Ux+	0	0	0	0	0	0
305	CRTFP Ux-	0	0	0	0	0	0
305	CRTFP Uy+	0	0	0	0	0	0
305	CRTFP Uy-	0	0	0	0	0	0
308	SLU 1	8	9	3251	1.14	2.46	-1.29
308	SLU 2	8	-8	3274	1.23	2.5	-1.31
308	SLU 3	8	9	3251	1.14	2.46	-1.29
308	SLU 4	8	-1	3264	1.19	2.48	-1.3
308	SLU 5	8	-8	3274	1.23	2.5	-1.31
308	SLU 6	8	9	3251	1.14	2.46	-1.29
308	SLU 7	8	-1	3264	1.19	2.48	-1.3
308	SLU 8	8	9	3251	1.14	2.46	-1.29
308	SLU 9	8	-1	3264	1.19	2.48	-1.3
308	SLU 10	8	-5	3931	1.32	2.44	-1.2
308	SLU 11	8	12	3907	1.23	2.41	-1.19
308	SLU 12	8	1	3921	1.28	2.43	-1.2
308	SLU 13	8	-5	3931	1.32	2.44	-1.2
308	SLU 14	8	12	3907	1.23	2.41	-1.19
308	SLU 15	8	1	3921	1.28	2.43	-1.2
308	SLU 16	8	12	3907	1.23	2.41	-1.19
308	SLU 17	8	1	3921	1.28	2.43	-1.2
308	SLU 18	8	13	4189	1.27	2.38	-1.15
308	SLU 19	8	2	4203	1.32	2.4	-1.15
308	SLU 20	8	13	4189	1.27	2.38	-1.15
308	SLU 21	8	2	4203	1.32	2.4	-1.15
308	SLU 22	8	11	3731	1.22	2.39	-1.25
308	SLU 23	8	-6	3754	1.31	2.43	-1.26
308	SLU 24	8	11	3731	1.22	2.39	-1.25
308	SLU 25	8	1	3744	1.27	2.41	-1.26
308	SLU 26	8	-6	3754	1.31	2.43	-1.26
308	SLU 27	8	11	3731	1.22	2.39	-1.25
308	SLU 28	8	1	3744	1.27	2.41	-1.26
308	SLU 29	8	11	3731	1.22	2.39	-1.25
308	SLU 30	8	1	3744	1.27	2.41	-1.26
308	SLU 31	8	-4	4411	1.4	2.37	-1.16
308	SLU 32	8	13	4387	1.31	2.34	-1.14
308	SLU 33	8	3	4401	1.36	2.36	-1.15
308	SLU 34	8	-4	4411	1.4	2.37	-1.16
308	SLU 35	8	13	4387	1.31	2.34	-1.14
308	SLU 36	8	3	4401	1.36	2.36	-1.15
308	SLU 37	8	13	4387	1.31	2.34	-1.14
308	SLU 38	8	3	4401	1.36	2.36	-1.15
308	SLU 39	8	14	4669	1.35	2.31	-1.1
308	SLU 40	8	4	4683	1.4	2.33	-1.11
308	SLU 41	8	14	4669	1.35	2.31	-1.1
308	SLU 42	8	4	4683	1.4	2.33	-1.11
308	SLU 43	10	11	4061	1.45	3.23	-1.7
308	SLU 44	10	-5	4084	1.54	3.26	-1.71
308	SLU 45	10	11	4061	1.45	3.23	-1.7
308	SLU 46	10	1	4075	1.51	3.25	-1.71
308	SLU 47	10	-5	4084	1.54	3.26	-1.71
308	SLU 48	10	11	4061	1.45	3.23	-1.7
308	SLU 49	10	1	4075	1.51	3.25	-1.71
308	SLU 50	10	11	4061	1.45	3.23	-1.7
308	SLU 51	10	1	4075	1.51	3.25	-1.71
308	SLU 52	10	-3	4741	1.63	3.2	-1.61
308	SLU 53	10	14	4718	1.54	3.17	-1.59
308	SLU 54	10	4	4732	1.6	3.19	-1.6
308	SLU 55	10	-3	4741	1.63	3.2	-1.61
308	SLU 56	10	14	4718	1.54	3.17	-1.59
308	SLU 57	10	4	4732	1.6	3.19	-1.6
308	SLU 58	10	14	4718	1.54	3.17	-1.59
308	SLU 59	10	4	4732	1.6	3.19	-1.6
308	SLU 60	10	15	5000	1.58	3.15	-1.55
308	SLU 61	10	5	5014	1.64	3.17	-1.56
308	SLU 62	10	15	5000	1.58	3.15	-1.55
308	SLU 63	10	5	5014	1.64	3.17	-1.56
308	SLU 64	10	13	4541	1.53	3.15	-1.65
308	SLU 65	10	-4	4564	1.62	3.19	-1.67
308	SLU 66	10	13	4541	1.53	3.15	-1.65
308	SLU 67	10	3	4555	1.59	3.18	-1.66
308	SLU 68	10	-4	4564	1.62	3.19	-1.67



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
308	SLU 69	10	13	4541	1.53	3.15	-1.65
308	SLU 70	10	3	4555	1.59	3.18	-1.66
308	SLU 71	10	13	4541	1.53	3.15	-1.65
308	SLU 72	10	3	4555	1.59	3.18	-1.66
308	SLU 73	10	-2	5221	1.71	3.13	-1.56
308	SLU 74	10	15	5198	1.62	3.1	-1.55
308	SLU 75	10	5	5212	1.68	3.12	-1.56
308	SLU 76	10	-2	5221	1.71	3.13	-1.56
308	SLU 77	10	15	5198	1.62	3.1	-1.55
308	SLU 78	10	5	5212	1.68	3.12	-1.56
308	SLU 79	10	15	5198	1.62	3.1	-1.55
308	SLU 80	10	5	5212	1.68	3.12	-1.56
308	SLU 81	10	16	5480	1.66	3.07	-1.5
308	SLU 82	10	6	5493	1.72	3.09	-1.51
308	SLU 83	10	16	5480	1.66	3.07	-1.5
308	SLU 84	10	6	5493	1.72	3.09	-1.51
308	SLE RA 1	8	10	3388	1.16	2.44	-1.28
308	SLE RA 2	8	-2	3403	1.22	2.47	-1.29
308	SLE RA 3	8	10	3388	1.16	2.44	-1.28
308	SLE RA 4	8	3	3397	1.2	2.46	-1.29
308	SLE RA 5	8	-2	3403	1.22	2.47	-1.29
308	SLE RA 6	8	10	3388	1.16	2.44	-1.28
308	SLE RA 7	8	3	3397	1.2	2.46	-1.29
308	SLE RA 8	8	10	3388	1.16	2.44	-1.28
308	SLE RA 9	8	3	3397	1.2	2.46	-1.29
308	SLE RA 10	8	0	3841	1.28	2.43	-1.22
308	SLE RA 11	8	11	3826	1.22	2.4	-1.21
308	SLE RA 12	8	4	3835	1.26	2.42	-1.22
308	SLE RA 13	8	0	3841	1.28	2.43	-1.22
308	SLE RA 14	8	11	3826	1.22	2.4	-1.21
308	SLE RA 15	8	4	3835	1.26	2.42	-1.22
308	SLE RA 16	8	11	3826	1.22	2.4	-1.21
308	SLE RA 17	8	4	3835	1.26	2.42	-1.22
308	SLE RA 18	8	12	4013	1.25	2.39	-1.18
308	SLE RA 19	8	5	4023	1.28	2.4	-1.19
308	SLE RA 20	8	12	4013	1.25	2.39	-1.18
308	SLE RA 21	8	5	4023	1.28	2.4	-1.19
308	SLE FR 1	8	10	3388	1.16	2.44	-1.28
308	SLE FR 2	8	7	3391	1.17	2.45	-1.28
308	SLE FR 3	8	10	3388	1.16	2.44	-1.28
308	SLE FR 4	8	8	3578	1.2	2.43	-1.25
308	SLE FR 5	8	10	3575	1.19	2.43	-1.25
308	SLE FR 6	8	11	3701	1.2	2.42	-1.23
308	SLE QP 1	8	10	3388	1.16	2.44	-1.28
308	SLE QP 2	8	10	3575	1.19	2.43	-1.25
308	SLD 1	298	105	3435	0.76	10.88	-2.47
308	SLD 2	262	106	3436	0.76	10.92	-1.31
308	SLD 3	308	-64	3650	1.82	10.41	-2.73
308	SLD 4	272	-63	3651	1.82	10.45	-1.57
308	SLD 5	94	295	3207	-0.55	5.67	-1.66
308	SLD 6	56	296	3208	-0.55	5.71	-0.45
308	SLD 7	126	-269	3924	2.98	4.09	-2.51
308	SLD 8	88	-268	3924	2.98	4.13	-1.31
308	SLD 9	-73	288	3227	-0.61	0.72	-1.2
308	SLD 10	-110	289	3227	-0.61	0.77	0.01
308	SLD 11	-41	-276	3943	2.92	-0.86	-2.05
308	SLD 12	-78	-274	3944	2.92	-0.81	-0.84
308	SLD 13	-256	83	3500	0.55	-5.59	-0.93
308	SLD 14	-292	85	3501	0.55	-5.55	0.23
308	SLD 15	-247	-86	3715	1.61	-6.07	-1.19
308	SLD 16	-283	-85	3716	1.61	-6.03	-0.03
308	SLV 1	669	231	3247	0.19	21.74	-4.03
308	SLV 2	587	234	3249	0.19	21.84	-1.37
308	SLV 3	692	-164	3749	2.67	20.55	-4.64
308	SLV 4	609	-161	3751	2.67	20.65	-1.98
308	SLV 5	203	675	2715	-2.87	9.99	-2.15
308	SLV 6	116	678	2716	-2.87	10.09	0.65
308	SLV 7	278	-642	4389	5.38	6.03	-4.2
308	SLV 8	191	-640	4390	5.39	6.13	-1.4
308	SLV 9	-176	660	2761	-3.01	-1.27	-1.1
308	SLV 10	-263	663	2762	-3.01	-1.17	1.7
308	SLV 11	-101	-657	4435	5.24	-5.24	-3.15
308	SLV 12	-188	-655	4436	5.24	-5.14	-0.35
308	SLV 13	-594	182	3400	-0.29	-15.8	-0.52
308	SLV 14	-676	184	3401	-0.29	-15.7	2.14
308	SLV 15	-571	-214	3902	2.18	-16.99	-1.13
308	SLV 16	-654	-211	3904	2.18	-16.89	1.53
308	CRTFP Ux+	0	0	0	0	0	0
308	CRTFP Ux-	0	0	0	0	0	0
308	CRTFP Uy+	0	0	0	0	0	0
308	CRTFP Uy-	0	0	0	0	0	0
311	SLU 1	8	7	1715	1.39	198.78	-1.98
311	SLU 2	8	-5	1728	1.47	199.96	0.96
311	SLU 3	8	7	1715	1.39	198.78	-1.98
311	SLU 4	8	0	1723	1.44	199.49	-0.22
311	SLU 5	8	-5	1728	1.47	199.96	0.96
311	SLU 6	8	7	1715	1.39	198.78	-1.98
311	SLU 7	8	0	1723	1.44	199.49	-0.22
311	SLU 8	8	7	1715	1.39	198.78	-1.98
311	SLU 9	8	0	1723	1.44	199.49	-0.22
311	SLU 10	7	-5	2019	1.7	230.39	0.97



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
311	SLU 11	7	7	2006	1.62	229.21	-1.96
311	SLU 12	7	0	2014	1.66	229.92	-0.2
311	SLU 13	7	-5	2019	1.7	230.39	0.97
311	SLU 14	7	7	2006	1.62	229.21	-1.96
311	SLU 15	7	0	2014	1.66	229.92	-0.2
311	SLU 16	7	7	2006	1.62	229.21	-1.96
311	SLU 17	7	0	2014	1.66	229.92	-0.2
311	SLU 18	6	7	2130	1.72	242.25	-1.95
311	SLU 19	6	0	2138	1.76	242.96	-0.19
311	SLU 20	6	7	2130	1.72	242.25	-1.95
311	SLU 21	6	0	2138	1.76	242.96	-0.19
311	SLU 22	7	7	1936	1.57	221.61	-2.01
311	SLU 23	7	-4	1950	1.65	222.79	0.93
311	SLU 24	7	7	1936	1.57	221.61	-2.01
311	SLU 25	7	0	1944	1.62	222.31	-0.25
311	SLU 26	7	-4	1950	1.65	222.79	0.93
311	SLU 27	7	7	1936	1.57	221.61	-2.01
311	SLU 28	7	0	1944	1.62	222.31	-0.25
311	SLU 29	7	7	1936	1.57	221.61	-2.01
311	SLU 30	7	0	1944	1.62	222.31	-0.25
311	SLU 31	5	-4	2240	1.88	253.21	0.94
311	SLU 32	6	7	2227	1.8	252.03	-1.99
311	SLU 33	6	0	2235	1.85	252.74	-0.23
311	SLU 34	5	-4	2240	1.88	253.21	0.94
311	SLU 35	6	7	2227	1.8	252.03	-1.99
311	SLU 36	6	0	2235	1.85	252.74	-0.23
311	SLU 37	6	7	2227	1.8	252.03	-1.99
311	SLU 38	6	0	2235	1.85	252.74	-0.23
311	SLU 39	5	7	2352	1.9	265.07	-1.98
311	SLU 40	5	0	2360	1.95	265.78	-0.22
311	SLU 41	5	7	2352	1.9	265.07	-1.98
311	SLU 42	5	0	2360	1.95	265.78	-0.22
311	SLU 43	11	9	2154	1.74	250.59	-2.56
311	SLU 44	11	-2	2167	1.82	251.77	0.37
311	SLU 45	11	9	2154	1.74	250.59	-2.56
311	SLU 46	11	2	2162	1.79	251.3	-0.8
311	SLU 47	11	-2	2167	1.82	251.77	0.37
311	SLU 48	11	9	2154	1.74	250.59	-2.56
311	SLU 49	11	2	2162	1.79	251.3	-0.8
311	SLU 50	11	9	2154	1.74	250.59	-2.56
311	SLU 51	11	2	2162	1.79	251.3	-0.8
311	SLU 52	9	-2	2458	2.05	282.2	0.39
311	SLU 53	10	9	2444	1.97	281.02	-2.54
311	SLU 54	9	2	2452	2.02	281.73	-0.78
311	SLU 55	9	-2	2458	2.05	282.2	0.39
311	SLU 56	10	9	2444	1.97	281.02	-2.54
311	SLU 57	9	2	2452	2.02	281.73	-0.78
311	SLU 58	10	9	2444	1.97	281.02	-2.54
311	SLU 59	9	2	2452	2.02	281.73	-0.78
311	SLU 60	9	9	2569	2.07	294.06	-2.54
311	SLU 61	9	2	2577	2.12	294.77	-0.78
311	SLU 62	9	9	2569	2.07	294.06	-2.54
311	SLU 63	9	2	2577	2.12	294.77	-0.78
311	SLU 64	10	9	2375	1.93	273.42	-2.59
311	SLU 65	10	-2	2388	2	274.6	0.35
311	SLU 66	10	9	2375	1.93	273.42	-2.59
311	SLU 67	10	2	2383	1.97	274.12	-0.83
311	SLU 68	10	-2	2388	2	274.6	0.35
311	SLU 69	10	9	2375	1.93	273.42	-2.59
311	SLU 70	10	2	2383	1.97	274.12	-0.83
311	SLU 71	10	9	2375	1.93	273.42	-2.59
311	SLU 72	10	2	2383	1.97	274.12	-0.83
311	SLU 73	8	-2	2679	2.23	305.02	0.36
311	SLU 74	9	9	2666	2.16	303.84	-2.57
311	SLU 75	8	2	2674	2.2	304.55	-0.81
311	SLU 76	8	-2	2679	2.23	305.02	0.36
311	SLU 77	9	9	2666	2.16	303.84	-2.57
311	SLU 78	8	2	2674	2.2	304.55	-0.81
311	SLU 79	9	9	2666	2.16	303.84	-2.57
311	SLU 80	8	2	2674	2.2	304.55	-0.81
311	SLU 81	8	9	2790	2.25	316.88	-2.56
311	SLU 82	8	2	2798	2.3	317.59	-0.8
311	SLU 83	8	9	2790	2.25	316.88	-2.56
311	SLU 84	8	2	2798	2.3	317.59	-0.8
311	SLE RA 1	8	7	1778	1.44	205.3	-1.98
311	SLE RA 2	8	-1	1787	1.49	206.09	-0.03
311	SLE RA 3	8	7	1778	1.44	205.3	-1.98
311	SLE RA 4	8	3	1784	1.47	205.78	-0.81
311	SLE RA 5	8	-1	1787	1.49	206.09	-0.03
311	SLE RA 6	8	7	1778	1.44	205.3	-1.98
311	SLE RA 7	8	3	1784	1.47	205.78	-0.81
311	SLE RA 8	8	7	1778	1.44	205.3	-1.98
311	SLE RA 9	8	3	1784	1.47	205.78	-0.81
311	SLE RA 10	7	-1	1981	1.65	226.37	-0.02
311	SLE RA 11	7	7	1972	1.59	225.59	-1.97
311	SLE RA 12	7	3	1977	1.63	226.06	-0.8
311	SLE RA 13	7	-1	1981	1.65	226.37	-0.02
311	SLE RA 14	7	7	1972	1.59	225.59	-1.97
311	SLE RA 15	7	3	1977	1.63	226.06	-0.8
311	SLE RA 16	7	7	1972	1.59	225.59	-1.97
311	SLE RA 17	7	3	1977	1.63	226.06	-0.8



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
311	SLE RA 18	6	7	2055	1.66	234.28	-1.97
311	SLE RA 19	6	3	2060	1.69	234.75	-0.8
311	SLE RA 20	6	7	2055	1.66	234.28	-1.97
311	SLE RA 21	6	3	2060	1.69	234.75	-0.8
311	SLE FR 1	8	7	1778	1.44	205.3	-1.98
311	SLE FR 2	8	6	1780	1.45	205.46	-1.59
311	SLE FR 3	8	7	1778	1.44	205.3	-1.98
311	SLE FR 4	8	6	1863	1.52	214.15	-1.59
311	SLE FR 5	8	7	1861	1.51	214	-1.98
311	SLE FR 6	7	7	1917	1.55	219.79	-1.98
311	SLE QP 1	8	7	1778	1.44	205.3	-1.98
311	SLE QP 2	8	7	1861	1.51	214	-1.98
311	SLD 1	162	37	1614	0.8	180.44	-13.43
311	SLD 2	142	75	1603	0.72	179.67	-22.76
311	SLD 3	157	-76	1740	1.66	192.1	14.82
311	SLD 4	137	-38	1729	1.57	191.33	5.48
311	SLD 5	69	174	1600	0.03	186.53	-44.8
311	SLD 6	49	213	1589	-0.06	185.73	-54.5
311	SLD 7	52	-203	2020	2.88	225.39	49.34
311	SLD 8	32	-164	2009	2.8	224.6	39.64
311	SLD 9	-16	178	1714	0.22	203.4	-43.6
311	SLD 10	-37	218	1703	0.13	202.6	-53.3
311	SLD 11	-33	-198	2134	3.08	242.26	50.54
311	SLD 12	-54	-159	2123	2.99	241.46	40.84
311	SLD 13	-122	53	1994	1.44	236.66	-9.44
311	SLD 14	-141	90	1983	1.36	235.9	-18.78
311	SLD 15	-127	-60	2120	2.3	248.32	18.8
311	SLD 16	-146	-23	2109	2.21	247.55	9.47
311	SLV 1	359	78	1293	-0.13	136.56	-28.86
311	SLV 2	314	165	1269	-0.32	134.8	-50.27
311	SLV 3	347	-186	1587	1.88	163.75	37.14
311	SLV 4	302	-99	1563	1.68	161.99	15.74
311	SLV 5	148	397	1254	-1.95	150.19	-102.09
311	SLV 6	101	488	1228	-2.15	148.33	-124.63
311	SLV 7	108	-484	2234	4.73	240.83	117.92
311	SLV 8	61	-393	2208	4.52	238.98	95.38
311	SLV 9	-45	407	1514	-1.51	189.02	-99.34
311	SLV 10	-93	498	1488	-1.71	187.17	-121.88
311	SLV 11	-86	-473	2494	5.17	279.66	120.68
311	SLV 12	-133	-382	2468	4.96	277.81	98.13
311	SLV 13	-287	114	2160	1.33	266	-19.69
311	SLV 14	-332	200	2136	1.14	264.24	-41.1
311	SLV 15	-299	-150	2454	3.34	293.2	46.31
311	SLV 16	-344	-64	2430	3.14	291.44	24.9
311	CRTFP Ux+	0	0	0	0	0	0
311	CRTFP Ux-	0	0	0	0	0	0
311	CRTFP Uy+	0	0	0	0	0	0
311	CRTFP Uy-	0	0	0	0	0	0
312	SLU 1	3	5	1485	1.08	-552.94	2.33
312	SLU 2	3	-6	1497	1.14	-556.97	-2.76
312	SLU 3	3	5	1485	1.08	-552.94	2.33
312	SLU 4	3	-1	1492	1.12	-555.36	-0.73
312	SLU 5	3	-6	1497	1.14	-556.97	-2.76
312	SLU 6	3	5	1485	1.08	-552.94	2.33
312	SLU 7	3	-1	1492	1.12	-555.36	-0.73
312	SLU 8	3	5	1485	1.08	-552.94	2.33
312	SLU 9	3	-1	1492	1.12	-555.36	-0.73
312	SLU 10	3	-5	1765	1.37	-653.73	-2.33
312	SLU 11	3	6	1753	1.31	-649.69	2.76
312	SLU 12	3	0	1760	1.34	-652.11	-0.29
312	SLU 13	3	-5	1765	1.37	-653.73	-2.33
312	SLU 14	3	6	1753	1.31	-649.69	2.76
312	SLU 15	3	0	1760	1.34	-652.11	-0.29
312	SLU 16	3	6	1753	1.31	-649.69	2.76
312	SLU 17	3	0	1760	1.34	-652.11	-0.29
312	SLU 18	3	7	1868	1.4	-691.16	2.95
312	SLU 19	3	0	1875	1.44	-693.58	-0.11
312	SLU 20	3	7	1868	1.4	-691.16	2.95
312	SLU 21	3	0	1875	1.44	-693.58	-0.11
312	SLU 22	3	6	1680	1.25	-623.3	2.76
312	SLU 23	3	-5	1692	1.31	-627.34	-2.33
312	SLU 24	3	6	1680	1.25	-623.3	2.76
312	SLU 25	3	0	1687	1.29	-625.72	-0.3
312	SLU 26	3	-5	1692	1.31	-627.34	-2.33
312	SLU 27	3	6	1680	1.25	-623.3	2.76
312	SLU 28	3	0	1687	1.29	-625.72	-0.3
312	SLU 29	3	6	1680	1.25	-623.3	2.76
312	SLU 30	3	0	1687	1.29	-625.72	-0.3
312	SLU 31	3	-4	1960	1.54	-724.09	-1.9
312	SLU 32	3	7	1949	1.48	-720.05	3.2
312	SLU 33	3	1	1956	1.51	-722.47	0.14
312	SLU 34	3	-4	1960	1.54	-724.09	-1.9
312	SLU 35	3	7	1949	1.48	-720.05	3.2
312	SLU 36	3	1	1956	1.51	-722.47	0.14
312	SLU 37	3	7	1949	1.48	-720.05	3.2
312	SLU 38	3	1	1956	1.51	-722.47	0.14
312	SLU 39	3	7	2064	1.57	-761.52	3.38
312	SLU 40	3	1	2071	1.61	-763.94	0.32
312	SLU 41	3	7	2064	1.57	-761.52	3.38
312	SLU 42	3	1	2071	1.61	-763.94	0.32
312	SLU 43	4	6	1863	1.35	-694.7	2.89



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
312	SLU 44	4	-4	1875	1.41	-698.73	-2.21
312	SLU 45	4	6	1863	1.35	-694.7	2.89
312	SLU 46	4	0	1870	1.39	-697.12	-0.17
312	SLU 47	4	-4	1875	1.41	-698.73	-2.21
312	SLU 48	4	6	1863	1.35	-694.7	2.89
312	SLU 49	4	0	1870	1.39	-697.12	-0.17
312	SLU 50	4	6	1863	1.35	-694.7	2.89
312	SLU 51	4	0	1870	1.39	-697.12	-0.17
312	SLU 52	4	-3	2144	1.64	-795.48	-1.78
312	SLU 53	4	7	2132	1.57	-791.45	3.32
312	SLU 54	4	1	2139	1.61	-793.87	0.26
312	SLU 55	4	-3	2144	1.64	-795.48	-1.78
312	SLU 56	4	7	2132	1.57	-791.45	3.32
312	SLU 57	4	1	2139	1.61	-793.87	0.26
312	SLU 58	4	7	2132	1.57	-791.45	3.32
312	SLU 59	4	1	2139	1.61	-793.87	0.26
312	SLU 60	4	8	2247	1.67	-832.91	3.5
312	SLU 61	4	1	2254	1.71	-835.33	0.44
312	SLU 62	4	8	2247	1.67	-832.91	3.5
312	SLU 63	4	1	2254	1.71	-835.33	0.44
312	SLU 64	4	7	2059	1.52	-765.06	3.32
312	SLU 65	4	-3	2070	1.58	-769.09	-1.78
312	SLU 66	4	7	2059	1.52	-765.06	3.32
312	SLU 67	4	1	2066	1.56	-767.48	0.26
312	SLU 68	4	-3	2070	1.58	-769.09	-1.78
312	SLU 69	4	7	2059	1.52	-765.06	3.32
312	SLU 70	4	1	2066	1.56	-767.48	0.26
312	SLU 71	4	7	2059	1.52	-765.06	3.32
312	SLU 72	4	1	2066	1.56	-767.48	0.26
312	SLU 73	4	-2	2339	1.8	-865.84	-1.35
312	SLU 74	4	8	2327	1.74	-861.81	3.75
312	SLU 75	4	2	2334	1.78	-864.23	0.69
312	SLU 76	4	-2	2339	1.8	-865.84	-1.35
312	SLU 77	4	8	2327	1.74	-861.81	3.75
312	SLU 78	4	2	2334	1.78	-864.23	0.69
312	SLU 79	4	8	2327	1.74	-861.81	3.75
312	SLU 80	4	2	2334	1.78	-864.23	0.69
312	SLU 81	4	9	2442	1.84	-903.27	3.93
312	SLU 82	4	2	2449	1.87	-905.7	0.87
312	SLU 83	4	9	2442	1.84	-903.27	3.93
312	SLU 84	4	2	2449	1.87	-905.7	0.87
312	SLE RA 1	3	5	1541	1.13	-573.04	2.46
312	SLE RA 2	3	-2	1549	1.17	-575.73	-0.94
312	SLE RA 3	3	5	1541	1.13	-573.04	2.46
312	SLE RA 4	3	1	1545	1.16	-574.66	0.42
312	SLE RA 5	3	-2	1549	1.17	-575.73	-0.94
312	SLE RA 6	3	5	1541	1.13	-573.04	2.46
312	SLE RA 7	3	1	1545	1.16	-574.66	0.42
312	SLE RA 8	3	5	1541	1.13	-573.04	2.46
312	SLE RA 9	3	1	1545	1.16	-574.66	0.42
312	SLE RA 10	3	-1	1727	1.32	-640.23	-0.65
312	SLE RA 11	3	6	1720	1.28	-637.54	2.74
312	SLE RA 12	3	2	1724	1.31	-639.16	0.7
312	SLE RA 13	3	-1	1727	1.32	-640.23	-0.65
312	SLE RA 14	3	6	1720	1.28	-637.54	2.74
312	SLE RA 15	3	2	1724	1.31	-639.16	0.7
312	SLE RA 16	3	6	1720	1.28	-637.54	2.74
312	SLE RA 17	3	2	1724	1.31	-639.16	0.7
312	SLE RA 18	3	6	1796	1.34	-665.19	2.87
312	SLE RA 19	3	2	1801	1.37	-666.8	0.83
312	SLE RA 20	3	6	1796	1.34	-665.19	2.87
312	SLE RA 21	3	2	1801	1.37	-666.8	0.83
312	SLE FR 1	3	5	1541	1.13	-573.04	2.46
312	SLE FR 2	3	4	1542	1.14	-573.58	1.78
312	SLE FR 3	3	5	1541	1.13	-573.04	2.46
312	SLE FR 4	3	4	1619	1.2	-601.22	1.9
312	SLE FR 5	3	6	1617	1.2	-600.69	2.58
312	SLE FR 6	3	6	1668	1.24	-619.12	2.66
312	SLE QP 1	3	5	1541	1.13	-573.04	2.46
312	SLE QP 2	3	6	1617	1.2	-600.69	2.58
312	SLD 1	150	64	1733	1.02	-638.26	30.2
312	SLD 2	130	29	1741	1.07	-640.72	13.71
312	SLD 3	155	-36	1838	1.68	-673.32	-17.33
312	SLD 4	135	-71	1846	1.73	-675.79	-33.82
312	SLD 5	48	188	1490	0.11	-557.86	89.04
312	SLD 6	27	152	1498	0.17	-560.42	71.91
312	SLD 7	63	-146	1840	2.33	-674.75	-69.38
312	SLD 8	42	-182	1848	2.39	-677.32	-86.51
312	SLD 9	-35	193	1387	0.01	-524.06	91.67
312	SLD 10	-56	157	1395	0.06	-526.62	74.54
312	SLD 11	-21	-140	1736	2.22	-640.95	-66.75
312	SLD 12	-41	-176	1745	2.28	-643.51	-83.88
312	SLD 13	-128	82	1389	0.66	-525.58	38.98
312	SLD 14	-148	47	1397	0.71	-528.05	22.49
312	SLD 15	-124	-18	1493	1.32	-560.65	-8.55
312	SLD 16	-144	-53	1501	1.37	-563.12	-25.04
312	SLV 1	338	142	1878	0.77	-685.33	66.96
312	SLV 2	292	61	1896	0.89	-690.99	29.15
312	SLV 3	348	-92	2123	2.33	-767.26	-44.12
312	SLV 4	303	-172	2142	2.44	-772.92	-81.93
312	SLV 5	105	431	1317	-1.33	-499.68	204.6



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
312	SLV 6	57	347	1336	-1.21	-505.64	164.78
312	SLV 7	140	-348	2134	3.85	-772.8	-165.66
312	SLV 8	92	-432	2153	3.97	-778.75	-205.48
312	SLV 9	-85	444	1081	-1.58	-422.62	210.64
312	SLV 10	-133	360	1101	-1.46	-428.58	170.82
312	SLV 11	-50	-336	1898	3.6	-695.73	-159.62
312	SLV 12	-98	-420	1918	3.72	-701.69	-199.44
312	SLV 13	-296	184	1093	-0.05	-428.45	87.09
312	SLV 14	-341	104	1111	0.06	-434.11	49.28
312	SLV 15	-285	-50	1338	1.5	-510.39	-23.99
312	SLV 16	-331	-130	1357	1.62	-516.04	-61.8
312	CRTFP Ux+	0	0	0	0	0	0
312	CRTFP Ux-	0	0	0	0	0	0
312	CRTFP Uy+	0	0	0	0	0	0
312	CRTFP Uy-	0	0	0	0	0	0
315	SLU 1	14	11	3298	1.75	2.29	-1.28
315	SLU 2	14	-5	3324	1.85	2.32	-1.29
315	SLU 3	14	11	3298	1.75	2.29	-1.28
315	SLU 4	14	1	3314	1.81	2.3	-1.29
315	SLU 5	14	-5	3324	1.85	2.32	-1.29
315	SLU 6	14	11	3298	1.75	2.29	-1.28
315	SLU 7	14	1	3314	1.81	2.3	-1.29
315	SLU 8	14	11	3298	1.75	2.29	-1.28
315	SLU 9	14	1	3314	1.81	2.3	-1.29
315	SLU 10	14	-3	3987	2.1	2.3	-1.19
315	SLU 11	14	14	3960	2.01	2.26	-1.18
315	SLU 12	14	4	3976	2.07	2.28	-1.18
315	SLU 13	14	-3	3987	2.1	2.3	-1.19
315	SLU 14	14	14	3960	2.01	2.26	-1.18
315	SLU 15	14	4	3976	2.07	2.28	-1.18
315	SLU 16	14	14	3960	2.01	2.26	-1.18
315	SLU 17	14	4	3976	2.07	2.28	-1.18
315	SLU 18	14	15	4244	2.12	2.25	-1.13
315	SLU 19	14	5	4260	2.17	2.27	-1.14
315	SLU 20	14	15	4244	2.12	2.25	-1.13
315	SLU 21	14	5	4260	2.17	2.27	-1.14
315	SLU 22	14	13	3782	1.95	2.24	-1.23
315	SLU 23	14	-4	3809	2.05	2.27	-1.25
315	SLU 24	14	13	3782	1.95	2.24	-1.23
315	SLU 25	14	3	3798	2.01	2.26	-1.24
315	SLU 26	14	-4	3809	2.05	2.27	-1.25
315	SLU 27	14	13	3782	1.95	2.24	-1.23
315	SLU 28	14	3	3798	2.01	2.26	-1.24
315	SLU 29	14	13	3782	1.95	2.24	-1.23
315	SLU 30	14	3	3798	2.01	2.26	-1.24
315	SLU 31	14	-1	4471	2.3	2.25	-1.14
315	SLU 32	14	16	4445	2.2	2.21	-1.13
315	SLU 33	14	6	4461	2.26	2.23	-1.14
315	SLU 34	14	-1	4471	2.3	2.25	-1.14
315	SLU 35	14	16	4445	2.2	2.21	-1.13
315	SLU 36	14	6	4461	2.26	2.23	-1.14
315	SLU 37	14	16	4445	2.2	2.21	-1.13
315	SLU 38	14	6	4461	2.26	2.23	-1.14
315	SLU 39	13	17	4729	2.31	2.2	-1.09
315	SLU 40	13	7	4744	2.37	2.22	-1.1
315	SLU 41	13	17	4729	2.31	2.2	-1.09
315	SLU 42	13	7	4744	2.37	2.22	-1.1
315	SLU 43	19	14	4121	2.21	2.99	-1.68
315	SLU 44	19	-3	4147	2.31	3.02	-1.69
315	SLU 45	19	14	4121	2.21	2.99	-1.68
315	SLU 46	19	4	4137	2.27	3.01	-1.68
315	SLU 47	19	-3	4147	2.31	3.02	-1.69
315	SLU 48	19	14	4121	2.21	2.99	-1.68
315	SLU 49	19	4	4137	2.27	3.01	-1.68
315	SLU 50	19	14	4121	2.21	2.99	-1.68
315	SLU 51	19	4	4137	2.27	3.01	-1.68
315	SLU 52	18	0	4810	2.56	3	-1.59
315	SLU 53	18	17	4784	2.47	2.97	-1.57
315	SLU 54	18	7	4799	2.53	2.99	-1.58
315	SLU 55	18	0	4810	2.56	3	-1.59
315	SLU 56	18	17	4784	2.47	2.97	-1.57
315	SLU 57	18	7	4799	2.53	2.99	-1.58
315	SLU 58	18	17	4784	2.47	2.97	-1.57
315	SLU 59	18	7	4799	2.53	2.99	-1.58
315	SLU 60	18	18	5068	2.58	2.96	-1.53
315	SLU 61	18	8	5083	2.63	2.98	-1.54
315	SLU 62	18	18	5068	2.58	2.96	-1.53
315	SLU 63	18	8	5083	2.63	2.98	-1.54
315	SLU 64	19	16	4606	2.41	2.94	-1.63
315	SLU 65	19	-1	4632	2.51	2.97	-1.64
315	SLU 66	19	16	4606	2.41	2.94	-1.63
315	SLU 67	19	6	4621	2.47	2.96	-1.64
315	SLU 68	19	-1	4632	2.51	2.97	-1.64
315	SLU 69	19	16	4606	2.41	2.94	-1.63
315	SLU 70	19	6	4621	2.47	2.96	-1.64
315	SLU 71	19	16	4606	2.41	2.94	-1.63
315	SLU 72	19	6	4621	2.47	2.96	-1.64
315	SLU 73	18	2	5294	2.76	2.95	-1.54
315	SLU 74	18	19	5268	2.66	2.92	-1.53
315	SLU 75	18	8	5284	2.72	2.94	-1.54
315	SLU 76	18	2	5294	2.76	2.95	-1.54



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
315	SLU 77	18	19	5268	2.66	2.92	-1.53
315	SLU 78	18	8	5284	2.72	2.94	-1.54
315	SLU 79	18	19	5268	2.66	2.92	-1.53
315	SLU 80	18	8	5284	2.72	2.94	-1.54
315	SLU 81	18	20	5552	2.77	2.91	-1.49
315	SLU 82	18	10	5568	2.83	2.93	-1.49
315	SLU 83	18	20	5552	2.77	2.91	-1.49
315	SLU 84	18	10	5568	2.83	2.93	-1.49
315	SLE RA 1	14	12	3436	1.81	2.27	-1.26
315	SLE RA 2	14	1	3454	1.87	2.29	-1.27
315	SLE RA 3	14	12	3436	1.81	2.27	-1.26
315	SLE RA 4	14	5	3447	1.85	2.28	-1.27
315	SLE RA 5	14	1	3454	1.87	2.29	-1.27
315	SLE RA 6	14	12	3436	1.81	2.27	-1.26
315	SLE RA 7	14	5	3447	1.85	2.28	-1.27
315	SLE RA 8	14	12	3436	1.81	2.27	-1.26
315	SLE RA 9	14	5	3447	1.85	2.28	-1.27
315	SLE RA 10	14	2	3895	2.04	2.28	-1.21
315	SLE RA 11	14	14	3878	1.98	2.26	-1.2
315	SLE RA 12	14	7	3888	2.02	2.27	-1.2
315	SLE RA 13	14	2	3895	2.04	2.28	-1.21
315	SLE RA 14	14	14	3878	1.98	2.26	-1.2
315	SLE RA 15	14	7	3888	2.02	2.27	-1.2
315	SLE RA 16	14	14	3878	1.98	2.26	-1.2
315	SLE RA 17	14	7	3888	2.02	2.27	-1.2
315	SLE RA 18	14	14	4067	2.05	2.25	-1.17
315	SLE RA 19	14	8	4078	2.09	2.26	-1.17
315	SLE RA 20	14	14	4067	2.05	2.25	-1.17
315	SLE RA 21	14	8	4078	2.09	2.26	-1.17
315	SLE FR 1	14	12	3436	1.81	2.27	-1.26
315	SLE FR 2	14	10	3440	1.82	2.28	-1.27
315	SLE FR 3	14	12	3436	1.81	2.27	-1.26
315	SLE FR 4	14	10	3629	1.9	2.27	-1.24
315	SLE FR 5	14	13	3626	1.88	2.26	-1.24
315	SLE FR 6	14	13	3752	1.93	2.26	-1.22
315	SLE QP 1	14	12	3436	1.81	2.27	-1.26
315	SLE QP 2	14	13	3626	1.88	2.26	-1.24
315	SLD 1	312	107	3469	1.47	10.49	-2.63
315	SLD 2	270	108	3469	1.47	10.55	-1.49
315	SLD 3	322	-62	3719	2.6	10.06	-2.88
315	SLD 4	280	-60	3720	2.6	10.12	-1.74
315	SLD 5	103	297	3198	0.05	5.37	-1.7
315	SLD 6	59	298	3199	0.05	5.43	-0.51
315	SLD 7	138	-266	4034	3.8	3.93	-2.53
315	SLD 8	95	-265	4034	3.8	3.99	-1.34
315	SLD 9	-66	290	3217	-0.04	0.54	-1.13
315	SLD 10	-110	291	3217	-0.04	0.6	0.06
315	SLD 11	-31	-273	4053	3.71	-0.9	-1.96
315	SLD 12	-74	-272	4053	3.71	-0.84	-0.77
315	SLD 13	-252	86	3531	1.17	-5.59	-0.73
315	SLD 14	-294	87	3532	1.17	-5.53	0.41
315	SLD 15	-241	-83	3782	2.29	-6.02	-0.98
315	SLD 16	-283	-82	3782	2.29	-5.96	0.16
315	SLV 1	691	233	3259	0.93	21.06	-4.41
315	SLV 2	595	236	3260	0.94	21.19	-1.79
315	SLV 3	716	-161	3845	3.56	19.98	-5.01
315	SLV 4	620	-159	3846	3.56	20.11	-2.39
315	SLV 5	216	676	2627	-2.39	9.49	-2.26
315	SLV 6	114	679	2628	-2.39	9.63	0.5
315	SLV 7	299	-639	4579	6.37	5.89	-4.27
315	SLV 8	198	-636	4581	6.37	6.03	-1.51
315	SLV 9	-169	661	2670	-2.61	-1.5	-0.96
315	SLV 10	-271	664	2672	-2.61	-1.36	1.8
315	SLV 11	-86	-654	4623	6.15	-5.1	-2.97
315	SLV 12	-187	-651	4625	6.15	-4.96	-0.21
315	SLV 13	-592	184	3405	0.2	-15.58	-0.08
315	SLV 14	-688	186	3406	0.2	-15.45	2.54
315	SLV 15	-567	-211	3991	2.83	-16.66	-0.68
315	SLV 16	-663	-208	3992	2.83	-16.53	1.94
315	CRTFP Ux+	0	0	0	0	0	0
315	CRTFP Ux-	0	0	0	0	0	0
315	CRTFP Uy+	0	0	0	0	0	0
315	CRTFP Uy-	0	0	0	0	0	0
318	SLU 1	14	7	1775	2.47	235.6	-1.8
318	SLU 2	13	-5	1791	2.56	237.54	1.13
318	SLU 3	14	7	1775	2.47	235.6	-1.8
318	SLU 4	13	0	1784	2.53	236.77	-0.04
318	SLU 5	13	-5	1791	2.56	237.54	1.13
318	SLU 6	14	7	1775	2.47	235.6	-1.8
318	SLU 7	13	0	1784	2.53	236.77	-0.04
318	SLU 8	14	7	1775	2.47	235.6	-1.8
318	SLU 9	13	0	1784	2.53	236.77	-0.04
318	SLU 10	11	-5	2092	3.02	274.27	1.15
318	SLU 11	11	7	2076	2.93	272.33	-1.78
318	SLU 12	11	0	2086	2.99	273.49	-0.02
318	SLU 13	11	-5	2092	3.02	274.27	1.15
318	SLU 14	11	7	2076	2.93	272.33	-1.78
318	SLU 15	11	0	2086	2.99	273.49	-0.02
318	SLU 16	11	7	2076	2.93	272.33	-1.78
318	SLU 17	11	0	2086	2.99	273.49	-0.02
318	SLU 18	10	7	2205	3.13	288.07	-1.77



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
318	SLU 19	10	0	2215	3.18	289.23	-0.01
318	SLU 20	10	7	2205	3.13	288.07	-1.77
318	SLU 21	10	0	2215	3.18	289.23	-0.01
318	SLU 22	12	7	2004	2.83	263.34	-1.82
318	SLU 23	12	-5	2020	2.92	265.28	1.11
318	SLU 24	12	7	2004	2.83	263.34	-1.82
318	SLU 25	12	0	2014	2.88	264.5	-0.07
318	SLU 26	12	-5	2020	2.92	265.28	1.11
318	SLU 27	12	7	2004	2.83	263.34	-1.82
318	SLU 28	12	0	2014	2.88	264.5	-0.07
318	SLU 29	12	7	2004	2.83	263.34	-1.82
318	SLU 30	12	0	2014	2.88	264.5	-0.07
318	SLU 31	10	-5	2322	3.38	302	1.13
318	SLU 32	10	7	2306	3.29	300.06	-1.8
318	SLU 33	10	0	2315	3.34	301.23	-0.04
318	SLU 34	10	-5	2322	3.38	302	1.13
318	SLU 35	10	7	2306	3.29	300.06	-1.8
318	SLU 36	10	0	2315	3.34	301.23	-0.04
318	SLU 37	10	7	2306	3.29	300.06	-1.8
318	SLU 38	10	0	2315	3.34	301.23	-0.04
318	SLU 39	9	7	2435	3.49	315.8	-1.79
318	SLU 40	9	0	2444	3.54	316.96	-0.03
318	SLU 41	9	7	2435	3.49	315.8	-1.79
318	SLU 42	9	0	2444	3.54	316.96	-0.03
318	SLU 43	18	9	2229	3.09	296.78	-2.34
318	SLU 44	18	-3	2244	3.18	298.71	0.59
318	SLU 45	18	9	2229	3.09	296.78	-2.34
318	SLU 46	18	2	2238	3.15	297.94	-0.58
318	SLU 47	18	-3	2244	3.18	298.71	0.59
318	SLU 48	18	9	2229	3.09	296.78	-2.34
318	SLU 49	18	2	2238	3.15	297.94	-0.58
318	SLU 50	18	9	2229	3.09	296.78	-2.34
318	SLU 51	18	2	2238	3.15	297.94	-0.58
318	SLU 52	15	-3	2546	3.64	335.44	0.62
318	SLU 53	16	9	2530	3.55	333.5	-2.31
318	SLU 54	16	2	2539	3.61	334.66	-0.56
318	SLU 55	15	-3	2546	3.64	335.44	0.62
318	SLU 56	16	9	2530	3.55	333.5	-2.31
318	SLU 57	16	2	2539	3.61	334.66	-0.56
318	SLU 58	16	9	2530	3.55	333.5	-2.31
318	SLU 59	16	2	2539	3.61	334.66	-0.56
318	SLU 60	15	9	2659	3.75	349.24	-2.3
318	SLU 61	14	2	2668	3.8	350.4	-0.55
318	SLU 62	15	9	2659	3.75	349.24	-2.3
318	SLU 63	14	2	2668	3.8	350.4	-0.55
318	SLU 64	17	9	2458	3.45	324.51	-2.36
318	SLU 65	17	-3	2474	3.54	326.45	0.57
318	SLU 66	17	9	2458	3.45	324.51	-2.36
318	SLU 67	17	2	2468	3.5	325.67	-0.6
318	SLU 68	17	-3	2474	3.54	326.45	0.57
318	SLU 69	17	9	2458	3.45	324.51	-2.36
318	SLU 70	17	2	2468	3.5	325.67	-0.6
318	SLU 71	17	9	2458	3.45	324.51	-2.36
318	SLU 72	17	2	2468	3.5	325.67	-0.6
318	SLU 73	14	-3	2775	4	363.17	0.59
318	SLU 74	14	9	2759	3.91	361.23	-2.33
318	SLU 75	14	2	2769	3.96	362.4	-0.58
318	SLU 76	14	-3	2775	4	363.17	0.59
318	SLU 77	14	9	2759	3.91	361.23	-2.33
318	SLU 78	14	2	2769	3.96	362.4	-0.58
318	SLU 79	14	9	2759	3.91	361.23	-2.33
318	SLU 80	14	2	2769	3.96	362.4	-0.58
318	SLU 81	13	9	2889	4.11	376.97	-2.32
318	SLU 82	13	2	2898	4.16	378.14	-0.57
318	SLU 83	13	9	2889	4.11	376.97	-2.32
318	SLU 84	13	2	2898	4.16	378.14	-0.57
318	SLE RA 1	13	7	1840	2.57	243.53	-1.81
318	SLE RA 2	13	-1	1851	2.63	244.82	0.14
318	SLE RA 3	13	7	1840	2.57	243.53	-1.81
318	SLE RA 4	13	2	1847	2.61	244.3	-0.64
318	SLE RA 5	13	-1	1851	2.63	244.82	0.14
318	SLE RA 6	13	7	1840	2.57	243.53	-1.81
318	SLE RA 7	13	2	1847	2.61	244.3	-0.64
318	SLE RA 8	13	7	1840	2.57	243.53	-1.81
318	SLE RA 9	13	2	1847	2.61	244.3	-0.64
318	SLE RA 10	11	-1	2052	2.94	269.3	0.16
318	SLE RA 11	12	7	2041	2.88	268.01	-1.79
318	SLE RA 12	11	2	2048	2.92	268.79	-0.62
318	SLE RA 13	11	-1	2052	2.94	269.3	0.16
318	SLE RA 14	12	7	2041	2.88	268.01	-1.79
318	SLE RA 15	11	2	2048	2.92	268.79	-0.62
318	SLE RA 16	12	7	2041	2.88	268.01	-1.79
318	SLE RA 17	11	2	2048	2.92	268.79	-0.62
318	SLE RA 18	11	7	2127	3.01	278.5	-1.79
318	SLE RA 19	11	2	2134	3.05	279.28	-0.61
318	SLE RA 20	11	7	2127	3.01	278.5	-1.79
318	SLE RA 21	11	2	2134	3.05	279.28	-0.61
318	SLE FR 1	13	7	1840	2.57	243.53	-1.81
318	SLE FR 2	13	5	1843	2.59	243.79	-1.42
318	SLE FR 3	13	7	1840	2.57	243.53	-1.81
318	SLE FR 4	12	5	1929	2.72	254.28	-1.41



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
318	SLE FR 5	12	7	1927	2.71	254.02	-1.8
318	SLE FR 6	12	7	1984	2.79	261.01	-1.8
318	SLE QP 1	13	7	1840	2.57	243.53	-1.81
318	SLE QP 2	12	7	1927	2.71	254.02	-1.8
318	SLD 1	168	37	1658	1.77	218.45	-13.23
318	SLD 2	145	74	1644	1.68	216.91	-22.55
318	SLD 3	174	-76	1812	2.74	237.62	14.95
318	SLD 4	151	-39	1798	2.65	236.08	5.64
318	SLD 5	59	173	1617	0.99	214.83	-44.53
318	SLD 6	35	212	1603	0.9	213.23	-54.21
318	SLD 7	78	-203	2131	4.22	278.75	49.41
318	SLD 8	54	-164	2117	4.12	277.15	39.73
318	SLD 9	-29	178	1736	1.29	230.89	-43.33
318	SLD 10	-53	217	1722	1.2	229.29	-53.01
318	SLD 11	-10	-199	2250	4.51	294.8	50.61
318	SLD 12	-34	-160	2236	4.42	293.21	40.92
318	SLD 13	-126	52	2055	2.77	271.95	-9.24
318	SLD 14	-149	90	2041	2.67	270.42	-18.56
318	SLD 15	-120	-61	2209	3.73	291.13	18.94
318	SLD 16	-143	-23	2195	3.64	289.59	9.62
318	SLV 1	367	78	1310	0.55	171.93	-28.64
318	SLV 2	314	164	1279	0.34	168.4	-50.01
318	SLV 3	380	-186	1670	2.81	216.68	37.23
318	SLV 4	327	-100	1639	2.6	213.15	15.86
318	SLV 5	119	396	1208	-1.28	162.85	-101.7
318	SLV 6	63	487	1175	-1.51	159.14	-124.2
318	SLV 7	163	-484	2407	6.24	312.01	117.85
318	SLV 8	107	-393	2374	6.02	308.3	95.34
318	SLV 9	-82	406	1479	-0.6	199.74	-98.94
318	SLV 10	-138	497	1446	-0.83	196.03	-121.45
318	SLV 11	-38	-473	2678	6.92	348.9	120.6
318	SLV 12	-94	-382	2645	6.7	345.19	98.09
318	SLV 13	-302	113	2214	2.82	294.89	-19.46
318	SLV 14	-355	200	2183	2.6	291.36	-40.83
318	SLV 15	-289	-151	2574	5.07	339.64	46.4
318	SLV 16	-342	-64	2543	4.86	336.11	25.03
318	CRTFP Ux+	0	0	0	0	0	0
318	CRTFP Ux-	0	0	0	0	0	0
318	CRTFP Uy+	0	0	0	0	0	0
318	CRTFP Uy-	0	0	0	0	0	0
319	SLU 1	7	5	1540	2.28	-589.62	2.36
319	SLU 2	7	-5	1554	2.35	-594.74	-2.73
319	SLU 3	7	5	1540	2.28	-589.62	2.36
319	SLU 4	7	-1	1549	2.32	-592.7	-0.7
319	SLU 5	7	-5	1554	2.35	-594.74	-2.73
319	SLU 6	7	5	1540	2.28	-589.62	2.36
319	SLU 7	7	-1	1549	2.32	-592.7	-0.7
319	SLU 8	7	5	1540	2.28	-589.62	2.36
319	SLU 9	7	-1	1549	2.32	-592.7	-0.7
319	SLU 10	8	-5	1834	2.84	-699	-2.28
319	SLU 11	8	6	1820	2.76	-693.88	2.81
319	SLU 12	8	0	1829	2.81	-696.95	-0.25
319	SLU 13	8	-5	1834	2.84	-699	-2.28
319	SLU 14	8	6	1820	2.76	-693.88	2.81
319	SLU 15	8	0	1829	2.81	-696.95	-0.25
319	SLU 16	8	6	1820	2.76	-693.88	2.81
319	SLU 17	8	0	1829	2.81	-696.95	-0.25
319	SLU 18	8	7	1940	2.97	-738.56	3
319	SLU 19	8	0	1949	3.01	-741.63	-0.05
319	SLU 20	8	7	1940	2.97	-738.56	3
319	SLU 21	8	0	1949	3.01	-741.63	-0.05
319	SLU 22	8	6	1744	2.64	-665.53	2.8
319	SLU 23	8	-5	1758	2.71	-670.65	-2.29
319	SLU 24	8	6	1744	2.64	-665.53	2.8
319	SLU 25	8	0	1753	2.68	-668.61	-0.25
319	SLU 26	8	-5	1758	2.71	-670.65	-2.29
319	SLU 27	8	6	1744	2.64	-665.53	2.8
319	SLU 28	8	0	1753	2.68	-668.61	-0.25
319	SLU 29	8	6	1744	2.64	-665.53	2.8
319	SLU 30	8	0	1753	2.68	-668.61	-0.25
319	SLU 31	8	-4	2038	3.19	-774.91	-1.84
319	SLU 32	8	7	2024	3.12	-769.79	3.25
319	SLU 33	8	1	2033	3.17	-772.86	0.2
319	SLU 34	8	-4	2038	3.19	-774.91	-1.84
319	SLU 35	8	7	2024	3.12	-769.79	3.25
319	SLU 36	8	1	2033	3.17	-772.86	0.2
319	SLU 37	8	7	2024	3.12	-769.79	3.25
319	SLU 38	8	1	2033	3.17	-772.86	0.2
319	SLU 39	8	8	2144	3.33	-814.47	3.44
319	SLU 40	8	1	2153	3.37	-817.54	0.39
319	SLU 41	8	8	2144	3.33	-814.47	3.44
319	SLU 42	8	1	2153	3.37	-817.54	0.39
319	SLU 43	10	6	1932	2.84	-740.48	2.91
319	SLU 44	10	-4	1946	2.92	-745.6	-2.18
319	SLU 45	10	6	1932	2.84	-740.48	2.91
319	SLU 46	10	0	1941	2.89	-743.56	-0.14
319	SLU 47	10	-4	1946	2.92	-745.6	-2.18
319	SLU 48	10	6	1932	2.84	-740.48	2.91
319	SLU 49	10	0	1941	2.89	-743.56	-0.14
319	SLU 50	10	6	1932	2.84	-740.48	2.91
319	SLU 51	10	0	1941	2.89	-743.56	-0.14



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
319	SLU 52	10	-3	2227	3.4	-849.86	-1.73
319	SLU 53	10	7	2212	3.33	-844.74	3.36
319	SLU 54	10	1	2221	3.37	-847.81	0.31
319	SLU 55	10	-3	2227	3.4	-849.86	-1.73
319	SLU 56	10	7	2212	3.33	-844.74	3.36
319	SLU 57	10	1	2221	3.37	-847.81	0.31
319	SLU 58	10	7	2212	3.33	-844.74	3.36
319	SLU 59	10	1	2221	3.37	-847.81	0.31
319	SLU 60	10	8	2333	3.53	-889.42	3.56
319	SLU 61	10	1	2341	3.58	-892.49	0.5
319	SLU 62	10	8	2333	3.53	-889.42	3.56
319	SLU 63	10	1	2341	3.58	-892.49	0.5
319	SLU 64	10	7	2136	3.2	-816.39	3.36
319	SLU 65	10	-3	2150	3.27	-821.51	-1.73
319	SLU 66	10	7	2136	3.2	-816.39	3.36
319	SLU 67	10	1	2145	3.24	-819.47	0.3
319	SLU 68	10	-3	2150	3.27	-821.51	-1.73
319	SLU 69	10	7	2136	3.2	-816.39	3.36
319	SLU 70	10	1	2145	3.24	-819.47	0.3
319	SLU 71	10	7	2136	3.2	-816.39	3.36
319	SLU 72	10	1	2145	3.24	-819.47	0.3
319	SLU 73	10	-2	2430	3.76	-925.77	-1.28
319	SLU 74	10	8	2416	3.68	-920.65	3.81
319	SLU 75	10	2	2425	3.73	-923.72	0.75
319	SLU 76	10	-2	2430	3.76	-925.77	-1.28
319	SLU 77	10	8	2416	3.68	-920.65	3.81
319	SLU 78	10	2	2425	3.73	-923.72	0.75
319	SLU 79	10	8	2416	3.68	-920.65	3.81
319	SLU 80	10	2	2425	3.73	-923.72	0.75
319	SLU 81	11	9	2536	3.89	-965.33	4
319	SLU 82	11	2	2545	3.93	-968.4	0.94
319	SLU 83	11	9	2536	3.89	-965.33	4
319	SLU 84	11	2	2545	3.93	-968.4	0.94
319	SLE RA 1	8	5	1598	2.38	-611.31	2.48
319	SLE RA 2	8	-2	1608	2.43	-614.73	-0.91
319	SLE RA 3	8	5	1598	2.38	-611.31	2.48
319	SLE RA 4	8	1	1604	2.41	-613.36	0.45
319	SLE RA 5	8	-2	1608	2.43	-614.73	-0.91
319	SLE RA 6	8	5	1598	2.38	-611.31	2.48
319	SLE RA 7	8	1	1604	2.41	-613.36	0.45
319	SLE RA 8	8	5	1598	2.38	-611.31	2.48
319	SLE RA 9	8	1	1604	2.41	-613.36	0.45
319	SLE RA 10	8	-1	1795	2.75	-684.23	-0.61
319	SLE RA 11	8	6	1785	2.71	-680.82	2.78
319	SLE RA 12	8	2	1791	2.73	-682.86	0.75
319	SLE RA 13	8	-1	1795	2.75	-684.23	-0.61
319	SLE RA 14	8	6	1785	2.71	-680.82	2.78
319	SLE RA 15	8	2	1791	2.73	-682.86	0.75
319	SLE RA 16	8	6	1785	2.71	-680.82	2.78
319	SLE RA 17	8	2	1791	2.73	-682.86	0.75
319	SLE RA 18	8	6	1865	2.84	-710.6	2.91
319	SLE RA 19	8	2	1871	2.87	-712.65	0.88
319	SLE RA 20	8	6	1865	2.84	-710.6	2.91
319	SLE RA 21	8	2	1871	2.87	-712.65	0.88
319	SLE FR 1	8	5	1598	2.38	-611.31	2.48
319	SLE FR 2	8	4	1600	2.39	-611.99	1.81
319	SLE FR 3	8	5	1598	2.38	-611.31	2.48
319	SLE FR 4	8	4	1680	2.53	-641.78	1.93
319	SLE FR 5	8	6	1679	2.52	-641.1	2.61
319	SLE FR 6	8	6	1732	2.61	-660.96	2.7
319	SLE QP 1	8	5	1598	2.38	-611.31	2.48
319	SLE QP 2	8	6	1679	2.52	-641.1	2.61
319	SLD 1	159	64	1791	2.47	-678.46	30.18
319	SLD 2	136	29	1800	2.53	-681.79	13.72
319	SLD 3	164	-36	1919	3.25	-725	-17.24
319	SLD 4	141	-71	1929	3.3	-728.33	-33.7
319	SLD 5	54	188	1514	1.31	-580.49	88.9
319	SLD 6	30	151	1524	1.37	-583.95	71.8
319	SLD 7	71	-145	1942	3.89	-735.62	-69.19
319	SLD 8	47	-182	1952	3.95	-739.08	-86.29
319	SLD 9	-31	193	1405	1.09	-543.12	91.52
319	SLD 10	-55	157	1415	1.15	-546.57	74.42
319	SLD 11	-15	-140	1833	3.67	-698.25	-66.57
319	SLD 12	-39	-176	1843	3.73	-701.7	-83.67
319	SLD 13	-126	82	1428	1.74	-553.87	38.93
319	SLD 14	-148	47	1438	1.8	-557.2	22.47
319	SLD 15	-121	-18	1557	2.51	-600.41	-8.5
319	SLD 16	-144	-52	1566	2.57	-603.74	-24.96
319	SLV 1	352	141	1930	2.39	-724.9	66.88
319	SLV 2	299	61	1952	2.52	-732.53	29.14
319	SLV 3	364	-92	2230	4.2	-833.64	-43.97
319	SLV 4	311	-172	2253	4.33	-841.27	-81.71
319	SLV 5	113	431	1290	-0.31	-498.44	204.22
319	SLV 6	58	346	1314	-0.17	-506.48	164.47
319	SLV 7	152	-347	2291	5.72	-860.91	-165.26
319	SLV 8	97	-432	2315	5.86	-868.95	-205.01
319	SLV 9	-81	443	1042	-0.81	-413.25	210.24
319	SLV 10	-137	359	1066	-0.68	-421.29	170.49
319	SLV 11	-42	-335	2044	5.22	-775.72	-159.25
319	SLV 12	-98	-419	2067	5.36	-783.76	-198.99
319	SLV 13	-296	183	1104	0.71	-440.93	86.93



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
319	SLV 14	-348	104	1127	0.85	-448.56	49.19
319	SLV 15	-284	-50	1405	2.52	-549.67	-23.91
319	SLV 16	-336	-130	1427	2.66	-557.3	-61.65
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	0	0
319	CRTFP Uy-	0	0	0	0	0	0
322	SLU 1	21	13	3368	2.54	2.12	-1.21
322	SLU 2	21	-3	3398	2.65	2.15	-1.22
322	SLU 3	21	13	3368	2.54	2.12	-1.21
322	SLU 4	21	3	3386	2.6	2.14	-1.21
322	SLU 5	21	-3	3398	2.65	2.15	-1.22
322	SLU 6	21	13	3368	2.54	2.12	-1.21
322	SLU 7	21	3	3386	2.6	2.14	-1.21
322	SLU 8	21	13	3368	2.54	2.12	-1.21
322	SLU 9	21	3	3386	2.6	2.14	-1.21
322	SLU 10	20	0	4072	3.1	2.16	-1.12
322	SLU 11	20	16	4042	2.99	2.13	-1.11
322	SLU 12	20	6	4060	3.05	2.15	-1.12
322	SLU 13	20	0	4072	3.1	2.16	-1.12
322	SLU 14	20	16	4042	2.99	2.13	-1.11
322	SLU 15	20	6	4060	3.05	2.15	-1.12
322	SLU 16	20	16	4042	2.99	2.13	-1.11
322	SLU 17	20	6	4060	3.05	2.15	-1.12
322	SLU 18	19	18	4331	3.18	2.14	-1.07
322	SLU 19	19	8	4349	3.25	2.15	-1.08
322	SLU 20	19	18	4331	3.18	2.14	-1.07
322	SLU 21	19	8	4349	3.25	2.15	-1.08
322	SLU 22	20	15	3861	2.88	2.09	-1.16
322	SLU 23	20	-2	3891	2.98	2.12	-1.18
322	SLU 24	20	15	3861	2.88	2.09	-1.16
322	SLU 25	20	5	3879	2.94	2.11	-1.17
322	SLU 26	20	-2	3891	2.98	2.12	-1.18
322	SLU 27	20	15	3861	2.88	2.09	-1.16
322	SLU 28	20	5	3879	2.94	2.11	-1.17
322	SLU 29	20	15	3861	2.88	2.09	-1.16
322	SLU 30	20	5	3879	2.94	2.11	-1.17
322	SLU 31	19	1	4565	3.43	2.13	-1.08
322	SLU 32	19	18	4535	3.33	2.1	-1.07
322	SLU 33	19	8	4553	3.39	2.12	-1.08
322	SLU 34	19	1	4565	3.43	2.13	-1.08
322	SLU 35	19	18	4535	3.33	2.1	-1.07
322	SLU 36	19	8	4553	3.39	2.12	-1.08
322	SLU 37	19	18	4535	3.33	2.1	-1.07
322	SLU 38	19	8	4553	3.39	2.12	-1.08
322	SLU 39	19	19	4824	3.52	2.11	-1.03
322	SLU 40	19	9	4842	3.58	2.13	-1.04
322	SLU 41	19	19	4824	3.52	2.11	-1.03
322	SLU 42	19	9	4842	3.58	2.13	-1.04
322	SLU 43	27	17	4209	3.19	2.76	-1.58
322	SLU 44	27	0	4239	3.29	2.79	-1.6
322	SLU 45	27	17	4209	3.19	2.76	-1.58
322	SLU 46	27	7	4227	3.25	2.78	-1.59
322	SLU 47	27	0	4239	3.29	2.79	-1.6
322	SLU 48	27	17	4209	3.19	2.76	-1.58
322	SLU 49	27	7	4227	3.25	2.78	-1.59
322	SLU 50	27	17	4209	3.19	2.76	-1.58
322	SLU 51	27	7	4227	3.25	2.78	-1.59
322	SLU 52	26	3	4913	3.74	2.81	-1.5
322	SLU 53	26	20	4883	3.64	2.77	-1.49
322	SLU 54	26	10	4901	3.7	2.79	-1.5
322	SLU 55	26	3	4913	3.74	2.81	-1.5
322	SLU 56	26	20	4883	3.64	2.77	-1.49
322	SLU 57	26	10	4901	3.7	2.79	-1.5
322	SLU 58	26	20	4883	3.64	2.77	-1.49
322	SLU 59	26	10	4901	3.7	2.79	-1.5
322	SLU 60	26	21	5172	3.83	2.78	-1.45
322	SLU 61	26	11	5190	3.89	2.8	-1.46
322	SLU 62	26	21	5172	3.83	2.78	-1.45
322	SLU 63	26	11	5190	3.89	2.8	-1.46
322	SLU 64	27	18	4703	3.52	2.73	-1.54
322	SLU 65	27	2	4732	3.63	2.76	-1.55
322	SLU 66	27	18	4703	3.52	2.73	-1.54
322	SLU 67	27	8	4720	3.59	2.75	-1.55
322	SLU 68	27	2	4732	3.63	2.76	-1.55
322	SLU 69	27	18	4703	3.52	2.73	-1.54
322	SLU 70	27	8	4720	3.59	2.75	-1.55
322	SLU 71	27	18	4703	3.52	2.73	-1.54
322	SLU 72	27	8	4720	3.59	2.75	-1.55
322	SLU 73	26	5	5406	4.08	2.78	-1.46
322	SLU 74	26	21	5376	3.97	2.75	-1.45
322	SLU 75	26	11	5394	4.04	2.77	-1.45
322	SLU 76	26	5	5406	4.08	2.78	-1.46
322	SLU 77	26	21	5376	3.97	2.75	-1.45
322	SLU 78	26	11	5394	4.04	2.77	-1.45
322	SLU 79	26	21	5376	3.97	2.75	-1.45
322	SLU 80	26	11	5394	4.04	2.77	-1.45
322	SLU 81	25	23	5665	4.17	2.75	-1.4
322	SLU 82	25	13	5683	4.23	2.77	-1.41
322	SLU 83	25	23	5665	4.17	2.75	-1.4
322	SLU 84	25	13	5683	4.23	2.77	-1.41



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
322	SLE RA 1	21	14	3509	2.64	2.11	-1.19
322	SLE RA 2	21	3	3529	2.71	2.13	-1.2
322	SLE RA 3	21	14	3509	2.64	2.11	-1.19
322	SLE RA 4	21	7	3521	2.68	2.12	-1.2
322	SLE RA 5	21	3	3529	2.71	2.13	-1.2
322	SLE RA 6	21	14	3509	2.64	2.11	-1.19
322	SLE RA 7	21	7	3521	2.68	2.12	-1.2
322	SLE RA 8	21	14	3509	2.64	2.11	-1.19
322	SLE RA 9	21	7	3521	2.68	2.12	-1.2
322	SLE RA 10	20	5	3978	3.01	2.14	-1.14
322	SLE RA 11	20	16	3958	2.94	2.12	-1.13
322	SLE RA 12	20	9	3970	2.98	2.13	-1.14
322	SLE RA 13	20	5	3978	3.01	2.14	-1.14
322	SLE RA 14	20	16	3958	2.94	2.12	-1.13
322	SLE RA 15	20	9	3970	2.98	2.13	-1.14
322	SLE RA 16	20	16	3958	2.94	2.12	-1.13
322	SLE RA 17	20	9	3970	2.98	2.13	-1.14
322	SLE RA 18	20	17	4151	3.07	2.12	-1.1
322	SLE RA 19	20	10	4163	3.11	2.13	-1.11
322	SLE RA 20	20	17	4151	3.07	2.12	-1.1
322	SLE RA 21	20	10	4163	3.11	2.13	-1.11
322	SLE FR 1	21	14	3509	2.64	2.11	-1.19
322	SLE FR 2	21	12	3513	2.65	2.11	-1.2
322	SLE FR 3	21	14	3509	2.64	2.11	-1.19
322	SLE FR 4	20	12	3705	2.78	2.12	-1.17
322	SLE FR 5	20	15	3702	2.77	2.11	-1.17
322	SLE FR 6	20	15	3830	2.85	2.12	-1.15
322	SLE QP 1	21	14	3509	2.64	2.11	-1.19
322	SLE QP 2	20	15	3702	2.77	2.11	-1.17
322	SLD 1	325	109	3527	2.36	10.12	-2.66
322	SLD 2	278	110	3528	2.36	10.19	-1.56
322	SLD 3	337	-59	3816	3.58	9.73	-2.89
322	SLD 4	289	-58	3817	3.58	9.8	-1.79
322	SLD 5	112	298	3210	0.79	5.08	-1.66
322	SLD 6	62	299	3211	0.79	5.15	-0.52
322	SLD 7	151	-264	4174	4.86	3.78	-2.45
322	SLD 8	101	-262	4175	4.86	3.86	-1.31
322	SLD 9	-60	292	3228	0.67	0.37	-1.03
322	SLD 10	-110	293	3229	0.67	0.45	0.11
322	SLD 11	-22	-270	4192	4.74	-0.93	-1.81
322	SLD 12	-71	-269	4193	4.74	-0.85	-0.67
322	SLD 13	-249	87	3586	1.95	-5.58	-0.54
322	SLD 14	-296	89	3587	1.95	-5.5	0.56
322	SLD 15	-237	-81	3875	3.17	-5.97	-0.77
322	SLD 16	-285	-80	3876	3.17	-5.89	0.32
322	SLV 1	715	235	3295	1.82	20.4	-4.55
322	SLV 2	606	238	3296	1.82	20.57	-2.04
322	SLV 3	742	-159	3970	4.67	19.43	-5.12
322	SLV 4	633	-156	3972	4.67	19.6	-2.6
322	SLV 5	228	677	2554	-1.84	9.01	-2.27
322	SLV 6	113	680	2556	-1.84	9.18	0.38
322	SLV 7	320	-636	4806	7.66	5.77	-4.16
322	SLV 8	205	-633	4808	7.66	5.95	-1.51
322	SLV 9	-164	662	2595	-2.13	-1.72	-0.83
322	SLV 10	-279	665	2597	-2.12	-1.55	1.82
322	SLV 11	-72	-650	4847	7.37	-4.96	-2.71
322	SLV 12	-187	-648	4849	7.37	-4.78	-0.06
322	SLV 13	-592	185	3431	0.86	-15.37	0.27
322	SLV 14	-702	188	3433	0.86	-15.2	2.78
322	SLV 15	-565	-208	4107	3.71	-16.34	-0.3
322	SLV 16	-674	-206	4108	3.71	-16.18	2.22
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
325	SLU 1	17	6	1869	3.64	295.66	-1.62
325	SLU 2	18	-6	1888	3.74	298.59	1.3
325	SLU 3	17	6	1869	3.64	295.66	-1.62
325	SLU 4	18	-1	1881	3.7	297.42	0.13
325	SLU 5	18	-6	1888	3.74	298.59	1.3
325	SLU 6	17	6	1869	3.64	295.66	-1.62
325	SLU 7	18	-1	1881	3.7	297.42	0.13
325	SLU 8	17	6	1869	3.64	295.66	-1.62
325	SLU 9	18	-1	1881	3.7	297.42	0.13
325	SLU 10	14	-6	2208	4.44	346.37	1.33
325	SLU 11	14	6	2189	4.34	343.44	-1.59
325	SLU 12	14	-1	2200	4.4	345.2	0.16
325	SLU 13	14	-6	2208	4.44	346.37	1.33
325	SLU 14	14	6	2189	4.34	343.44	-1.59
325	SLU 15	14	-1	2200	4.4	345.2	0.16
325	SLU 16	14	6	2189	4.34	343.44	-1.59
325	SLU 17	14	-1	2200	4.4	345.2	0.16
325	SLU 18	13	6	2326	4.64	363.92	-1.58
325	SLU 19	13	-1	2337	4.7	365.68	0.17
325	SLU 20	13	6	2326	4.64	363.92	-1.58
325	SLU 21	13	-1	2337	4.7	365.68	0.17
325	SLU 22	16	6	2113	4.18	331.9	-1.64
325	SLU 23	16	-6	2132	4.28	334.83	1.29
325	SLU 24	16	6	2113	4.18	331.9	-1.64
325	SLU 25	16	-1	2124	4.24	333.65	0.12
325	SLU 26	16	-6	2132	4.28	334.83	1.29



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
325	SLU 27	16	6	2113	4.18	331.9	-1.64
325	SLU 28	16	-1	2124	4.24	333.65	0.12
325	SLU 29	16	6	2113	4.18	331.9	-1.64
325	SLU 30	16	-1	2124	4.24	333.65	0.12
325	SLU 31	13	-6	2451	4.98	382.61	1.31
325	SLU 32	12	6	2432	4.88	379.68	-1.61
325	SLU 33	12	-1	2444	4.94	381.44	0.15
325	SLU 34	13	-6	2451	4.98	382.61	1.31
325	SLU 35	12	6	2432	4.88	379.68	-1.61
325	SLU 36	12	-1	2444	4.94	381.44	0.15
325	SLU 37	12	6	2432	4.88	379.68	-1.61
325	SLU 38	12	-1	2444	4.94	381.44	0.15
325	SLU 39	11	6	2569	5.18	400.16	-1.59
325	SLU 40	11	-1	2580	5.24	401.92	0.16
325	SLU 41	11	6	2569	5.18	400.16	-1.59
325	SLU 42	11	-1	2580	5.24	401.92	0.16
325	SLU 43	23	8	2347	4.54	371.93	-2.1
325	SLU 44	23	-4	2366	4.64	374.86	0.82
325	SLU 45	23	8	2347	4.54	371.93	-2.1
325	SLU 46	23	1	2358	4.6	373.69	-0.35
325	SLU 47	23	-4	2366	4.64	374.86	0.82
325	SLU 48	23	8	2347	4.54	371.93	-2.1
325	SLU 49	23	1	2358	4.6	373.69	-0.35
325	SLU 50	23	8	2347	4.54	371.93	-2.1
325	SLU 51	23	1	2358	4.6	373.69	-0.35
325	SLU 52	20	-4	2685	5.35	422.64	0.85
325	SLU 53	20	8	2666	5.24	419.71	-2.08
325	SLU 54	20	1	2677	5.31	421.47	-0.32
325	SLU 55	20	-4	2685	5.35	422.64	0.85
325	SLU 56	20	8	2666	5.24	419.71	-2.08
325	SLU 57	20	1	2677	5.31	421.47	-0.32
325	SLU 58	20	8	2666	5.24	419.71	-2.08
325	SLU 59	20	1	2677	5.31	421.47	-0.32
325	SLU 60	19	8	2803	5.55	440.19	-2.06
325	SLU 61	19	1	2814	5.61	441.95	-0.31
325	SLU 62	19	8	2803	5.55	440.19	-2.06
325	SLU 63	19	1	2814	5.61	441.95	-0.31
325	SLU 64	22	8	2590	5.08	408.17	-2.12
325	SLU 65	22	-4	2609	5.18	411.1	0.8
325	SLU 66	22	8	2590	5.08	408.17	-2.12
325	SLU 67	22	1	2602	5.14	409.93	-0.37
325	SLU 68	22	-4	2609	5.18	411.1	0.8
325	SLU 69	22	8	2590	5.08	408.17	-2.12
325	SLU 70	22	1	2602	5.14	409.93	-0.37
325	SLU 71	22	8	2590	5.08	408.17	-2.12
325	SLU 72	22	1	2602	5.14	409.93	-0.37
325	SLU 73	18	-4	2928	5.89	458.88	0.83
325	SLU 74	18	8	2910	5.79	455.95	-2.09
325	SLU 75	18	1	2921	5.85	457.71	-0.34
325	SLU 76	18	-4	2928	5.89	458.88	0.83
325	SLU 77	18	8	2910	5.79	455.95	-2.09
325	SLU 78	18	1	2921	5.85	457.71	-0.34
325	SLU 79	18	8	2910	5.79	455.95	-2.09
325	SLU 80	18	1	2921	5.85	457.71	-0.34
325	SLU 81	17	8	3046	6.09	476.43	-2.08
325	SLU 82	17	1	3058	6.15	478.19	-0.32
325	SLU 83	17	8	3046	6.09	476.43	-2.08
325	SLU 84	17	1	3058	6.15	478.19	-0.32
325	SLE RA 1	17	6	1939	3.79	306.01	-1.63
325	SLE RA 2	17	-2	1952	3.86	307.96	0.32
325	SLE RA 3	17	6	1939	3.79	306.01	-1.63
325	SLE RA 4	17	1	1947	3.83	307.18	-0.46
325	SLE RA 5	17	-2	1952	3.86	307.96	0.32
325	SLE RA 6	17	6	1939	3.79	306.01	-1.63
325	SLE RA 7	17	1	1947	3.83	307.18	-0.46
325	SLE RA 8	17	6	1939	3.79	306.01	-1.63
325	SLE RA 9	17	1	1947	3.83	307.18	-0.46
325	SLE RA 10	15	-2	2164	4.33	339.82	0.34
325	SLE RA 11	15	6	2152	4.26	337.87	-1.61
325	SLE RA 12	15	1	2159	4.3	339.04	-0.44
325	SLE RA 13	15	-2	2164	4.33	339.82	0.34
325	SLE RA 14	15	6	2152	4.26	337.87	-1.61
325	SLE RA 15	15	1	2159	4.3	339.04	-0.44
325	SLE RA 16	15	6	2152	4.26	337.87	-1.61
325	SLE RA 17	15	1	2159	4.3	339.04	-0.44
325	SLE RA 18	14	6	2243	4.46	351.52	-1.6
325	SLE RA 19	14	1	2251	4.5	352.69	-0.43
325	SLE RA 20	14	6	2243	4.46	351.52	-1.6
325	SLE RA 21	14	1	2251	4.5	352.69	-0.43
325	SLE FR 1	17	6	1939	3.79	306.01	-1.63
325	SLE FR 2	17	5	1941	3.8	306.4	-1.24
325	SLE FR 3	17	6	1939	3.79	306.01	-1.63
325	SLE FR 4	16	5	2033	4	320.05	-1.23
325	SLE FR 5	16	6	2030	3.99	319.66	-1.62
325	SLE FR 6	15	6	2091	4.13	328.77	-1.61
325	SLE QP 1	17	6	1939	3.79	306.01	-1.63
325	SLE QP 2	16	6	2030	3.99	319.66	-1.62
325	SLD 1	179	36	1733	2.83	276.38	-12.99
325	SLD 2	152	74	1717	2.73	273.89	-22.29
325	SLD 3	186	-77	1919	3.92	305.48	15.1
325	SLD 4	159	-39	1903	3.82	302.99	5.8



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
325	SLD 5	64	172	1665	2.02	263.46	-44.2
325	SLD 6	36	211	1648	1.92	260.88	-53.87
325	SLD 7	87	-204	2285	5.67	360.46	49.44
325	SLD 8	59	-164	2268	5.56	357.88	39.78
325	SLD 9	-27	177	1793	2.42	281.45	-43.01
325	SLD 10	-55	216	1775	2.31	278.87	-52.68
325	SLD 11	-4	-199	2412	6.07	378.45	50.63
325	SLD 12	-32	-160	2395	5.96	375.87	40.96
325	SLD 13	-127	51	2158	4.16	336.34	-9.04
325	SLD 14	-154	89	2141	4.06	333.85	-18.34
325	SLD 15	-120	-61	2344	5.25	365.44	19.06
325	SLD 16	-147	-24	2327	5.15	362.95	9.75
325	SLV 1	387	77	1349	1.32	219.96	-28.33
325	SLV 2	325	163	1311	1.08	214.26	-49.66
325	SLV 3	403	-187	1783	3.88	287.89	37.33
325	SLV 4	341	-100	1745	3.64	282.19	16
325	SLV 5	126	394	1181	-0.59	188.87	-101.18
325	SLV 6	61	485	1142	-0.84	182.87	-123.64
325	SLV 7	180	-484	2629	7.92	415.31	117.68
325	SLV 8	114	-393	2589	7.67	409.3	95.21
325	SLV 9	-82	405	1472	0.31	230.02	-98.45
325	SLV 10	-148	496	1432	0.06	224.02	-120.91
325	SLV 11	-29	-473	2919	8.82	456.46	120.41
325	SLV 12	-94	-382	2879	8.57	450.46	97.94
325	SLV 13	-309	112	2316	4.34	357.13	-19.23
325	SLV 14	-371	199	2278	4.11	351.44	-40.56
325	SLV 15	-293	-151	2750	6.9	425.07	46.42
325	SLV 16	-355	-65	2712	6.66	419.37	25.09
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	11	5	1634	3.42	-653.49	2.35
326	SLU 2	11	-6	1651	3.51	-659.97	-2.73
326	SLU 3	11	5	1634	3.42	-653.49	2.35
326	SLU 4	11	-1	1644	3.47	-657.38	-0.7
326	SLU 5	11	-6	1651	3.51	-659.97	-2.73
326	SLU 6	11	5	1634	3.42	-653.49	2.35
326	SLU 7	11	-1	1644	3.47	-657.38	-0.7
326	SLU 8	11	5	1634	3.42	-653.49	2.35
326	SLU 9	11	-1	1644	3.47	-657.38	-0.7
326	SLU 10	12	-5	1951	4.24	-777.53	-2.27
326	SLU 11	12	6	1934	4.15	-771.06	2.8
326	SLU 12	12	0	1944	4.2	-774.94	-0.24
326	SLU 13	12	-5	1951	4.24	-777.53	-2.27
326	SLU 14	12	6	1934	4.15	-771.06	2.8
326	SLU 15	12	0	1944	4.2	-774.94	-0.24
326	SLU 16	12	6	1934	4.15	-771.06	2.8
326	SLU 17	12	0	1944	4.2	-774.94	-0.24
326	SLU 18	13	7	2063	4.47	-821.44	3
326	SLU 19	13	0	2073	4.52	-825.33	-0.05
326	SLU 20	13	7	2063	4.47	-821.44	3
326	SLU 21	13	0	2073	4.52	-825.33	-0.05
326	SLU 22	12	6	1853	3.96	-739.19	2.79
326	SLU 23	12	-5	1870	4.04	-745.66	-2.28
326	SLU 24	12	6	1853	3.96	-739.19	2.79
326	SLU 25	12	0	1863	4.01	-743.07	-0.25
326	SLU 26	12	-5	1870	4.04	-745.66	-2.28
326	SLU 27	12	6	1853	3.96	-739.19	2.79
326	SLU 28	12	0	1863	4.01	-743.07	-0.25
326	SLU 29	12	6	1853	3.96	-739.19	2.79
326	SLU 30	12	0	1863	4.01	-743.07	-0.25
326	SLU 31	13	-4	2170	4.78	-863.23	-1.83
326	SLU 32	13	7	2153	4.69	-856.75	3.25
326	SLU 33	13	1	2163	4.74	-860.64	0.2
326	SLU 34	13	-4	2170	4.78	-863.23	-1.83
326	SLU 35	13	7	2153	4.69	-856.75	3.25
326	SLU 36	13	1	2163	4.74	-860.64	0.2
326	SLU 37	13	7	2153	4.69	-856.75	3.25
326	SLU 38	13	1	2163	4.74	-860.64	0.2
326	SLU 39	14	8	2282	5	-907.14	3.44
326	SLU 40	14	1	2292	5.05	-911.02	0.4
326	SLU 41	14	8	2282	5	-907.14	3.44
326	SLU 42	14	1	2292	5.05	-911.02	0.4
326	SLU 43	14	6	2050	4.26	-820.16	2.9
326	SLU 44	14	-4	2066	4.35	-826.63	-2.18
326	SLU 45	14	6	2050	4.26	-820.16	2.9
326	SLU 46	14	0	2060	4.31	-824.04	-0.15
326	SLU 47	14	-4	2066	4.35	-826.63	-2.18
326	SLU 48	14	6	2050	4.26	-820.16	2.9
326	SLU 49	14	0	2060	4.31	-824.04	-0.15
326	SLU 50	14	6	2050	4.26	-820.16	2.9
326	SLU 51	14	0	2060	4.31	-824.04	-0.15
326	SLU 52	15	-3	2366	5.08	-944.2	-1.72
326	SLU 53	16	7	2350	4.99	-937.72	3.35
326	SLU 54	15	1	2360	5.04	-941.61	0.31
326	SLU 55	15	-3	2366	5.08	-944.2	-1.72
326	SLU 56	16	7	2350	4.99	-937.72	3.35
326	SLU 57	15	1	2360	5.04	-941.61	0.31
326	SLU 58	16	7	2350	4.99	-937.72	3.35
326	SLU 59	15	1	2360	5.04	-941.61	0.31



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
326	SLU 60	16	8	2478	5.31	-988.11	3.55
326	SLU 61	16	1	2488	5.36	-992	0.5
326	SLU 62	16	8	2478	5.31	-988.11	3.55
326	SLU 63	16	1	2488	5.36	-992	0.5
326	SLU 64	15	7	2268	4.8	-905.85	3.34
326	SLU 65	15	-3	2285	4.89	-912.33	-1.73
326	SLU 66	15	7	2268	4.8	-905.85	3.34
326	SLU 67	15	1	2278	4.85	-909.74	0.3
326	SLU 68	15	-3	2285	4.89	-912.33	-1.73
326	SLU 69	15	7	2268	4.8	-905.85	3.34
326	SLU 70	15	1	2278	4.85	-909.74	0.3
326	SLU 71	15	7	2268	4.8	-905.85	3.34
326	SLU 72	15	1	2278	4.85	-909.74	0.3
326	SLU 73	16	-2	2585	5.62	-1029.9	-1.28
326	SLU 74	16	8	2568	5.53	-1023.42	3.8
326	SLU 75	16	2	2578	5.58	-1027.3	0.75
326	SLU 76	16	-2	2585	5.62	-1029.9	-1.28
326	SLU 77	16	8	2568	5.53	-1023.42	3.8
326	SLU 78	16	2	2578	5.58	-1027.3	0.75
326	SLU 79	16	8	2568	5.53	-1023.42	3.8
326	SLU 80	16	2	2578	5.58	-1027.3	0.75
326	SLU 81	17	9	2697	5.85	-1073.8	3.99
326	SLU 82	17	2	2707	5.9	-1077.69	0.95
326	SLU 83	17	9	2697	5.85	-1073.8	3.99
326	SLU 84	17	2	2707	5.9	-1077.69	0.95
326	SLE RA 1	11	5	1697	3.58	-677.98	2.47
326	SLE RA 2	11	-2	1708	3.63	-682.29	-0.91
326	SLE RA 3	11	5	1697	3.58	-677.98	2.47
326	SLE RA 4	11	1	1703	3.61	-680.57	0.44
326	SLE RA 5	11	-2	1708	3.63	-682.29	-0.91
326	SLE RA 6	11	5	1697	3.58	-677.98	2.47
326	SLE RA 7	11	1	1703	3.61	-680.57	0.44
326	SLE RA 8	11	5	1697	3.58	-677.98	2.47
326	SLE RA 9	11	1	1703	3.61	-680.57	0.44
326	SLE RA 10	12	-1	1908	4.12	-760.67	-0.61
326	SLE RA 11	12	6	1897	4.06	-756.35	2.78
326	SLE RA 12	12	2	1903	4.1	-758.94	0.75
326	SLE RA 13	12	-1	1908	4.12	-760.67	-0.61
326	SLE RA 14	12	6	1897	4.06	-756.35	2.78
326	SLE RA 15	12	2	1903	4.1	-758.94	0.75
326	SLE RA 16	12	6	1897	4.06	-756.35	2.78
326	SLE RA 17	12	2	1903	4.1	-758.94	0.75
326	SLE RA 18	13	6	1983	4.27	-789.94	2.91
326	SLE RA 19	13	2	1989	4.31	-792.53	0.88
326	SLE RA 20	13	6	1983	4.27	-789.94	2.91
326	SLE RA 21	13	2	1989	4.31	-792.53	0.88
326	SLE FR 1	11	5	1697	3.58	-677.98	2.47
326	SLE FR 2	11	4	1699	3.59	-678.84	1.8
326	SLE FR 3	11	5	1697	3.58	-677.98	2.47
326	SLE FR 4	12	4	1785	3.8	-712.43	1.93
326	SLE FR 5	12	6	1783	3.78	-711.57	2.6
326	SLE FR 6	12	6	1840	3.92	-733.96	2.69
326	SLE QP 1	11	5	1697	3.58	-677.98	2.47
326	SLE QP 2	12	6	1783	3.78	-711.57	2.6
326	SLD 1	168	64	1895	3.85	-751.45	30.12
326	SLD 2	142	29	1907	3.91	-755.82	13.69
326	SLD 3	173	-36	2051	4.73	-812.04	-17.18
326	SLD 4	147	-71	2062	4.8	-816.41	-33.61
326	SLD 5	60	187	1575	2.43	-630.02	88.66
326	SLD 6	33	151	1588	2.5	-634.56	71.59
326	SLD 7	78	-145	2095	5.39	-831.99	-68.99
326	SLD 8	51	-181	2107	5.46	-836.53	-86.06
326	SLD 9	-27	193	1458	2.11	-586.6	91.27
326	SLD 10	-54	156	1470	2.18	-591.14	74.2
326	SLD 11	-9	-140	1977	5.07	-788.57	-66.39
326	SLD 12	-37	-176	1990	5.13	-793.12	-83.46
326	SLD 13	-123	82	1503	2.77	-606.72	38.81
326	SLD 14	-149	47	1514	2.83	-611.09	22.38
326	SLD 15	-118	-18	1658	3.66	-667.31	-8.48
326	SLD 16	-144	-52	1670	3.72	-671.68	-24.91
326	SLV 1	367	141	2033	3.9	-800.65	66.74
326	SLV 2	307	61	2061	4.05	-810.67	29.07
326	SLV 3	379	-92	2398	5.97	-942.23	-43.8
326	SLV 4	319	-172	2425	6.12	-952.26	-81.47
326	SLV 5	122	430	1295	0.62	-519.78	203.68
326	SLV 6	59	346	1324	0.78	-530.34	164.01
326	SLV 7	164	-347	2509	7.53	-991.73	-164.78
326	SLV 8	101	-431	2538	7.68	-1002.29	-204.46
326	SLV 9	-77	442	1027	-0.12	-420.85	209.67
326	SLV 10	-140	358	1056	0.04	-431.4	169.99
326	SLV 11	-35	-334	2241	6.79	-892.8	-158.8
326	SLV 12	-98	-418	2270	6.95	-903.35	-198.48
326	SLV 13	-296	183	1140	1.45	-470.87	86.68
326	SLV 14	-356	103	1167	1.6	-480.9	49.01
326	SLV 15	-283	-50	1504	3.52	-612.46	-23.86
326	SLV 16	-343	-130	1532	3.67	-622.48	-61.53
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
329	SLU 1	27	15	3468	3.6	1.95	-1.08



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
329	SLU 2	27	-2	3502	3.72	1.98	-1.09
329	SLU 3	27	15	3468	3.6	1.95	-1.08
329	SLU 4	27	5	3488	3.67	1.97	-1.09
329	SLU 5	27	-2	3502	3.72	1.98	-1.09
329	SLU 6	27	15	3468	3.6	1.95	-1.08
329	SLU 7	27	5	3488	3.67	1.97	-1.09
329	SLU 8	27	15	3468	3.6	1.95	-1.08
329	SLU 9	27	5	3488	3.67	1.97	-1.09
329	SLU 10	25	1	4194	4.43	2.03	-1.01
329	SLU 11	25	18	4161	4.31	2	-1
329	SLU 12	25	8	4181	4.38	2.02	-1
329	SLU 13	25	1	4194	4.43	2.03	-1.01
329	SLU 14	25	18	4161	4.31	2	-1
329	SLU 15	25	8	4181	4.38	2.02	-1
329	SLU 16	25	18	4161	4.31	2	-1
329	SLU 17	25	8	4181	4.38	2.02	-1
329	SLU 18	25	19	4458	4.61	2.03	-0.96
329	SLU 19	25	9	4478	4.68	2.04	-0.97
329	SLU 20	25	19	4458	4.61	2.03	-0.96
329	SLU 21	25	9	4478	4.68	2.04	-0.97
329	SLU 22	26	17	3975	4.12	1.95	-1.04
329	SLU 23	26	0	4009	4.24	1.98	-1.05
329	SLU 24	26	17	3975	4.12	1.95	-1.04
329	SLU 25	26	7	3995	4.19	1.97	-1.05
329	SLU 26	26	0	4009	4.24	1.98	-1.05
329	SLU 27	26	17	3975	4.12	1.95	-1.04
329	SLU 28	26	7	3995	4.19	1.97	-1.05
329	SLU 29	26	17	3975	4.12	1.95	-1.04
329	SLU 30	26	7	3995	4.19	1.97	-1.05
329	SLU 31	25	4	4701	4.95	2.03	-0.97
329	SLU 32	25	20	4668	4.83	2	-0.96
329	SLU 33	25	10	4688	4.9	2.02	-0.96
329	SLU 34	25	4	4701	4.95	2.03	-0.97
329	SLU 35	25	20	4668	4.83	2	-0.96
329	SLU 36	25	10	4688	4.9	2.02	-0.96
329	SLU 37	25	20	4668	4.83	2	-0.96
329	SLU 38	25	10	4688	4.9	2.02	-0.96
329	SLU 39	24	22	4965	5.13	2.02	-0.92
329	SLU 40	24	12	4985	5.2	2.04	-0.93
329	SLU 41	24	22	4965	5.13	2.02	-0.92
329	SLU 42	24	12	4985	5.2	2.04	-0.93
329	SLU 43	35	18	4335	4.5	2.54	-1.42
329	SLU 44	35	2	4368	4.62	2.57	-1.43
329	SLU 45	35	18	4335	4.5	2.54	-1.42
329	SLU 46	35	8	4355	4.57	2.56	-1.43
329	SLU 47	35	2	4368	4.62	2.57	-1.43
329	SLU 48	35	18	4335	4.5	2.54	-1.42
329	SLU 49	35	8	4355	4.57	2.56	-1.43
329	SLU 50	35	18	4335	4.5	2.54	-1.42
329	SLU 51	35	8	4355	4.57	2.56	-1.43
329	SLU 52	34	5	5061	5.33	2.62	-1.35
329	SLU 53	33	22	5028	5.21	2.59	-1.33
329	SLU 54	34	12	5048	5.28	2.61	-1.34
329	SLU 55	34	5	5061	5.33	2.62	-1.35
329	SLU 56	33	22	5028	5.21	2.59	-1.33
329	SLU 57	34	12	5048	5.28	2.61	-1.34
329	SLU 58	33	22	5028	5.21	2.59	-1.33
329	SLU 59	34	12	5048	5.28	2.61	-1.34
329	SLU 60	33	23	5325	5.51	2.61	-1.3
329	SLU 61	33	13	5345	5.58	2.63	-1.3
329	SLU 62	33	23	5325	5.51	2.61	-1.3
329	SLU 63	33	13	5345	5.58	2.63	-1.3
329	SLU 64	34	21	4842	5.02	2.54	-1.38
329	SLU 65	34	4	4875	5.14	2.57	-1.39
329	SLU 66	34	21	4842	5.02	2.54	-1.38
329	SLU 67	34	11	4862	5.1	2.56	-1.38
329	SLU 68	34	4	4875	5.14	2.57	-1.39
329	SLU 69	34	21	4842	5.02	2.54	-1.38
329	SLU 70	34	11	4862	5.1	2.56	-1.38
329	SLU 71	34	21	4842	5.02	2.54	-1.38
329	SLU 72	34	11	4862	5.1	2.56	-1.38
329	SLU 73	33	7	5568	5.85	2.62	-1.3
329	SLU 74	33	24	5535	5.73	2.59	-1.29
329	SLU 75	33	14	5555	5.8	2.61	-1.3
329	SLU 76	33	7	5568	5.85	2.62	-1.3
329	SLU 77	33	24	5535	5.73	2.59	-1.29
329	SLU 78	33	14	5555	5.8	2.61	-1.3
329	SLU 79	33	24	5535	5.73	2.59	-1.29
329	SLU 80	33	14	5555	5.8	2.61	-1.3
329	SLU 81	32	25	5832	6.03	2.61	-1.26
329	SLU 82	32	15	5852	6.1	2.63	-1.26
329	SLU 83	32	25	5832	6.03	2.61	-1.26
329	SLU 84	32	15	5852	6.1	2.63	-1.26
329	SLE RA 1	27	15	3613	3.75	1.95	-1.07
329	SLE RA 2	27	4	3635	3.83	1.97	-1.08
329	SLE RA 3	27	15	3613	3.75	1.95	-1.07
329	SLE RA 4	27	9	3627	3.8	1.97	-1.07
329	SLE RA 5	27	4	3635	3.83	1.97	-1.08
329	SLE RA 6	27	15	3613	3.75	1.95	-1.07
329	SLE RA 7	27	9	3627	3.8	1.97	-1.07
329	SLE RA 8	27	15	3613	3.75	1.95	-1.07



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
329	SLE RA 9	27	9	3627	3.8	1.97	-1.07
329	SLE RA 10	26	6	4097	4.3	2.01	-1.02
329	SLE RA 11	25	18	4075	4.22	1.99	-1.01
329	SLE RA 12	26	11	4088	4.27	2	-1.02
329	SLE RA 13	26	6	4097	4.3	2.01	-1.02
329	SLE RA 14	25	18	4075	4.22	1.99	-1.01
329	SLE RA 15	26	11	4088	4.27	2	-1.02
329	SLE RA 16	25	18	4075	4.22	1.99	-1.01
329	SLE RA 17	26	11	4088	4.27	2	-1.02
329	SLE RA 18	25	19	4273	4.42	2	-0.99
329	SLE RA 19	25	12	4286	4.47	2.01	-0.99
329	SLE RA 20	25	19	4273	4.42	2	-0.99
329	SLE RA 21	25	12	4286	4.47	2.01	-0.99
329	SLE FR 1	27	15	3613	3.75	1.95	-1.07
329	SLE FR 2	27	13	3618	3.77	1.96	-1.07
329	SLE FR 3	27	15	3613	3.75	1.95	-1.07
329	SLE FR 4	26	14	3816	3.97	1.97	-1.05
329	SLE FR 5	26	16	3811	3.95	1.97	-1.05
329	SLE FR 6	26	17	3943	4.09	1.98	-1.03
329	SLE QP 1	27	15	3613	3.75	1.95	-1.07
329	SLE QP 2	26	16	3811	3.95	1.97	-1.05
329	SLD 1	339	111	3617	3.51	9.77	-2.52
329	SLD 2	286	112	3617	3.51	9.86	-1.5
329	SLD 3	352	-57	3948	4.86	9.42	-2.72
329	SLD 4	299	-56	3949	4.87	9.51	-1.71
329	SLD 5	120	299	3250	1.76	4.81	-1.54
329	SLD 6	65	300	3251	1.77	4.9	-0.49
329	SLD 7	162	-261	4355	6.28	3.64	-2.24
329	SLD 8	107	-260	4355	6.28	3.73	-1.19
329	SLD 9	-55	293	3267	1.62	0.2	-0.9
329	SLD 10	-110	294	3268	1.62	0.3	0.15
329	SLD 11	-13	-268	4372	6.14	-0.96	-1.6
329	SLD 12	-68	-266	4372	6.14	-0.87	-0.55
329	SLD 13	-246	89	3674	3.04	-5.57	-0.38
329	SLD 14	-299	90	3674	3.04	-5.48	0.63
329	SLD 15	-234	-79	4005	4.39	-5.92	-0.59
329	SLD 16	-287	-78	4005	4.39	-5.83	0.43
329	SLV 1	738	236	3358	2.93	19.78	-4.39
329	SLV 2	617	239	3360	2.94	19.98	-2.05
329	SLV 3	768	-157	4132	6.1	18.91	-4.89
329	SLV 4	647	-154	4134	6.1	19.11	-2.56
329	SLV 5	240	677	2501	-1.15	8.55	-2.16
329	SLV 6	112	680	2502	-1.15	8.76	0.3
329	SLV 7	340	-632	5081	9.39	5.66	-3.85
329	SLV 8	212	-629	5083	9.4	5.87	-1.39
329	SLV 9	-160	662	2540	-1.49	-1.94	-0.7
329	SLV 10	-288	665	2541	-1.49	-1.73	1.76
329	SLV 11	-60	-647	5120	9.05	-4.83	-2.39
329	SLV 12	-188	-644	5122	9.06	-4.61	0.07
329	SLV 13	-594	187	3488	1.8	-15.18	0.47
329	SLV 14	-716	189	3490	1.8	-14.98	2.8
329	SLV 15	-565	-206	4263	4.97	-16.04	-0.04
329	SLV 16	-686	-203	4264	4.97	-15.84	2.29
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
332	SLU 1	17	5	1707	-44.67	322.25	-0.76
332	SLU 2	17	-5	1726	-45.12	325.77	1.75
332	SLU 3	17	5	1707	-44.67	322.25	-0.76
332	SLU 4	17	-1	1718	-44.94	324.36	0.74
332	SLU 5	17	-5	1726	-45.12	325.77	1.75
332	SLU 6	17	5	1707	-44.67	322.25	-0.76
332	SLU 7	17	-1	1718	-44.94	324.36	0.74
332	SLU 8	17	5	1707	-44.67	322.25	-0.76
332	SLU 9	17	-1	1718	-44.94	324.36	0.74
332	SLU 10	14	-5	2020	-52.75	379.78	1.67
332	SLU 11	13	5	2001	-52.29	376.26	-0.84
332	SLU 12	14	-1	2013	-52.56	378.37	0.66
332	SLU 13	14	-5	2020	-52.75	379.78	1.67
332	SLU 14	13	5	2001	-52.29	376.26	-0.84
332	SLU 15	14	-1	2013	-52.56	378.37	0.66
332	SLU 16	13	5	2001	-52.29	376.26	-0.84
332	SLU 17	14	-1	2013	-52.56	378.37	0.66
332	SLU 18	12	5	2127	-55.56	399.4	-0.88
332	SLU 19	12	-1	2139	-55.83	401.52	0.63
332	SLU 20	12	5	2127	-55.56	399.4	-0.88
332	SLU 21	12	-1	2139	-55.83	401.52	0.63
332	SLU 22	15	5	1932	-50.48	363.29	-0.83
332	SLU 23	15	-5	1950	-50.94	366.81	1.68
332	SLU 24	15	5	1932	-50.48	363.29	-0.83
332	SLU 25	15	-1	1943	-50.76	365.41	0.68
332	SLU 26	15	-5	1950	-50.94	366.81	1.68
332	SLU 27	15	5	1932	-50.48	363.29	-0.83
332	SLU 28	15	-1	1943	-50.76	365.41	0.68
332	SLU 29	15	5	1932	-50.48	363.29	-0.83
332	SLU 30	15	-1	1943	-50.76	365.41	0.68
332	SLU 31	12	-5	2244	-58.56	420.82	1.6
332	SLU 32	11	5	2226	-58.11	417.3	-0.91
332	SLU 33	12	-1	2237	-58.38	419.42	0.6
332	SLU 34	12	-5	2244	-58.56	420.82	1.6



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
332	SLU 35	11	5	2226	-58.11	417.3	-0.91
332	SLU 36	12	-1	2237	-58.38	419.42	0.6
332	SLU 37	11	5	2226	-58.11	417.3	-0.91
332	SLU 38	12	-1	2237	-58.38	419.42	0.6
332	SLU 39	10	5	2352	-61.37	440.45	-0.94
332	SLU 40	10	-1	2363	-61.65	442.56	0.56
332	SLU 41	10	5	2352	-61.37	440.45	-0.94
332	SLU 42	10	-1	2363	-61.65	442.56	0.56
332	SLU 43	23	6	2142	-56.07	404.85	-0.97
332	SLU 44	23	-4	2161	-56.53	408.37	1.54
332	SLU 45	23	6	2142	-56.07	404.85	-0.97
332	SLU 46	23	0	2154	-56.35	406.96	0.54
332	SLU 47	23	-4	2161	-56.53	408.37	1.54
332	SLU 48	23	6	2142	-56.07	404.85	-0.97
332	SLU 49	23	0	2154	-56.35	406.96	0.54
332	SLU 50	23	6	2142	-56.07	404.85	-0.97
332	SLU 51	23	0	2154	-56.35	406.96	0.54
332	SLU 52	19	-4	2455	-64.15	462.38	1.46
332	SLU 53	19	6	2436	-63.7	458.86	-1.05
332	SLU 54	19	0	2448	-63.97	460.97	0.46
332	SLU 55	19	-4	2455	-64.15	462.38	1.46
332	SLU 56	19	6	2436	-63.7	458.86	-1.05
332	SLU 57	19	0	2448	-63.97	460.97	0.46
332	SLU 58	19	6	2436	-63.7	458.86	-1.05
332	SLU 59	19	0	2448	-63.97	460.97	0.46
332	SLU 60	17	6	2563	-66.97	482	-1.08
332	SLU 61	18	0	2574	-67.24	484.12	0.42
332	SLU 62	17	6	2563	-66.97	482	-1.08
332	SLU 63	18	0	2574	-67.24	484.12	0.42
332	SLU 64	21	6	2367	-61.89	445.89	-1.04
332	SLU 65	21	-4	2386	-62.34	449.42	1.48
332	SLU 66	21	6	2367	-61.89	445.89	-1.04
332	SLU 67	21	0	2378	-62.16	448.01	0.47
332	SLU 68	21	-4	2386	-62.34	449.42	1.48
332	SLU 69	21	6	2367	-61.89	445.89	-1.04
332	SLU 70	21	0	2378	-62.16	448.01	0.47
332	SLU 71	21	6	2367	-61.89	445.89	-1.04
332	SLU 72	21	0	2378	-62.16	448.01	0.47
332	SLU 73	17	-4	2680	-69.97	503.42	1.4
332	SLU 74	17	6	2661	-69.51	499.9	-1.12
332	SLU 75	17	0	2672	-69.79	502.02	0.39
332	SLU 76	17	-4	2680	-69.97	503.42	1.4
332	SLU 77	17	6	2661	-69.51	499.9	-1.12
332	SLU 78	17	0	2672	-69.79	502.02	0.39
332	SLU 79	17	6	2661	-69.51	499.9	-1.12
332	SLU 80	17	0	2672	-69.79	502.02	0.39
332	SLU 81	15	6	2787	-72.78	523.05	-1.15
332	SLU 82	16	0	2798	-73.05	525.16	0.36
332	SLU 83	15	6	2787	-72.78	523.05	-1.15
332	SLU 84	16	0	2798	-73.05	525.16	0.36
332	SLE RA 1	16	5	1771	-46.33	333.97	-0.78
332	SLE RA 2	17	-2	1784	-46.63	336.32	0.89
332	SLE RA 3	16	5	1771	-46.33	333.97	-0.78
332	SLE RA 4	17	1	1779	-46.51	335.38	0.22
332	SLE RA 5	17	-2	1784	-46.63	336.32	0.89
332	SLE RA 6	16	5	1771	-46.33	333.97	-0.78
332	SLE RA 7	17	1	1779	-46.51	335.38	0.22
332	SLE RA 8	16	5	1771	-46.33	333.97	-0.78
332	SLE RA 9	17	1	1779	-46.51	335.38	0.22
332	SLE RA 10	14	-2	1980	-51.71	372.33	0.84
332	SLE RA 11	14	5	1967	-51.41	369.98	-0.84
332	SLE RA 12	14	1	1975	-51.59	371.39	0.17
332	SLE RA 13	14	-2	1980	-51.71	372.33	0.84
332	SLE RA 14	14	5	1967	-51.41	369.98	-0.84
332	SLE RA 15	14	1	1975	-51.59	371.39	0.17
332	SLE RA 16	14	5	1967	-51.41	369.98	-0.84
332	SLE RA 17	14	1	1975	-51.59	371.39	0.17
332	SLE RA 18	13	5	2051	-53.59	385.41	-0.86
332	SLE RA 19	13	1	2059	-53.77	386.82	0.15
332	SLE RA 20	13	5	2051	-53.59	385.41	-0.86
332	SLE RA 21	13	1	2059	-53.77	386.82	0.15
332	SLE FR 1	16	5	1771	-46.33	333.97	-0.78
332	SLE FR 2	16	4	1774	-46.39	334.44	-0.45
332	SLE FR 3	16	5	1771	-46.33	333.97	-0.78
332	SLE FR 4	15	4	1858	-48.57	349.87	-0.47
332	SLE FR 5	15	5	1855	-48.51	349.4	-0.81
332	SLE FR 6	15	5	1911	-49.96	359.69	-0.82
332	SLE QP 1	16	5	1771	-46.33	333.97	-0.78
332	SLE QP 2	15	5	1855	-48.51	349.4	-0.81
332	SLD 1	160	30	1572	-41.39	299.87	-4.62
332	SLD 2	133	63	1555	-40.99	296.82	-13.35
332	SLD 3	168	-66	1760	-45.87	335.03	19.61
332	SLD 4	141	-34	1743	-45.47	331.98	10.87
332	SLD 5	56	147	1491	-39.73	282.34	-35.47
332	SLD 6	29	181	1474	-39.31	279.18	-44.54
332	SLD 7	83	-175	2118	-54.66	399.54	45.29
332	SLD 8	55	-141	2101	-54.24	396.38	36.21
332	SLD 9	-25	151	1610	-42.77	302.43	-37.83
332	SLD 10	-52	185	1592	-42.36	299.27	-46.9
332	SLD 11	2	-171	2237	-57.7	419.63	42.93
332	SLD 12	-26	-137	2219	-57.29	416.47	33.86



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
332	SLD 13	-111	44	1967	-51.54	366.83	-12.48
332	SLD 14	-137	76	1950	-51.14	363.78	-21.22
332	SLD 15	-103	-53	2155	-56.02	401.99	11.74
332	SLD 16	-129	-21	2138	-55.62	398.94	3.01
332	SLV 1	344	66	1205	-32.18	235.53	-10.13
332	SLV 2	283	140	1167	-31.26	228.54	-30.16
332	SLV 3	363	-160	1645	-42.64	317.62	46.49
332	SLV 4	302	-86	1606	-41.72	310.63	26.46
332	SLV 5	108	337	1009	-28.09	193.37	-81.93
332	SLV 6	44	415	968	-27.13	186.01	-103.03
332	SLV 7	171	-415	2473	-62.96	467	106.81
332	SLV 8	107	-337	2432	-61.99	459.65	85.71
332	SLV 9	-76	346	1279	-35.02	239.16	-87.32
332	SLV 10	-140	425	1238	-34.06	231.81	-108.42
332	SLV 11	-14	-406	2743	-69.89	512.8	101.42
332	SLV 12	-78	-328	2702	-68.93	505.44	80.32
332	SLV 13	-272	96	2105	-55.29	388.18	-28.07
332	SLV 14	-332	170	2066	-54.38	381.19	-48.1
332	SLV 15	-253	-130	2544	-65.75	470.27	28.55
332	SLV 16	-313	-56	2505	-64.84	463.28	8.52
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
333	SLU 1	12	4	1489	-38.89	-625.43	2.31
333	SLU 2	12	-5	1505	-39.29	-632.22	-1.99
333	SLU 3	12	4	1489	-38.89	-625.43	2.31
333	SLU 4	12	-1	1498	-39.13	-629.5	-0.27
333	SLU 5	12	-5	1505	-39.29	-632.22	-1.99
333	SLU 6	12	4	1489	-38.89	-625.43	2.31
333	SLU 7	12	-1	1498	-39.13	-629.5	-0.27
333	SLU 8	12	4	1489	-38.89	-625.43	2.31
333	SLU 9	12	-1	1498	-39.13	-629.5	-0.27
333	SLU 10	13	-4	1781	-46.43	-746.83	-1.56
333	SLU 11	14	5	1765	-46.03	-740.04	2.75
333	SLU 12	13	0	1775	-46.27	-744.12	0.16
333	SLU 13	13	-4	1781	-46.43	-746.83	-1.56
333	SLU 14	14	5	1765	-46.03	-740.04	2.75
333	SLU 15	13	0	1775	-46.27	-744.12	0.16
333	SLU 16	14	5	1765	-46.03	-740.04	2.75
333	SLU 17	13	0	1775	-46.27	-744.12	0.16
333	SLU 18	14	5	1883	-49.09	-789.16	2.93
333	SLU 19	14	0	1893	-49.33	-793.23	0.35
333	SLU 20	14	5	1883	-49.09	-789.16	2.93
333	SLU 21	14	0	1893	-49.33	-793.23	0.35
333	SLU 22	13	5	1690	-44.09	-709.03	2.73
333	SLU 23	13	-4	1706	-44.49	-715.82	-1.58
333	SLU 24	13	5	1690	-44.09	-709.03	2.73
333	SLU 25	13	0	1700	-44.33	-713.11	0.14
333	SLU 26	13	-4	1706	-44.49	-715.82	-1.58
333	SLU 27	13	5	1690	-44.09	-709.03	2.73
333	SLU 28	13	0	1700	-44.33	-713.11	0.14
333	SLU 29	13	5	1690	-44.09	-709.03	2.73
333	SLU 30	13	0	1700	-44.33	-713.11	0.14
333	SLU 31	14	-3	1983	-51.64	-830.43	-1.15
333	SLU 32	15	6	1966	-51.24	-823.65	3.16
333	SLU 33	15	1	1976	-51.48	-827.72	0.57
333	SLU 34	14	-3	1983	-51.64	-830.43	-1.15
333	SLU 35	15	6	1966	-51.24	-823.65	3.16
333	SLU 36	15	1	1976	-51.48	-827.72	0.57
333	SLU 37	15	6	1966	-51.24	-823.65	3.16
333	SLU 38	15	1	1976	-51.48	-827.72	0.57
333	SLU 39	15	6	2085	-54.3	-872.77	3.35
333	SLU 40	15	1	2095	-54.54	-876.84	0.76
333	SLU 41	15	6	2085	-54.3	-872.77	3.35
333	SLU 42	15	1	2095	-54.54	-876.84	0.76
333	SLU 43	15	5	1866	-48.77	-784.39	2.87
333	SLU 44	15	-4	1882	-49.17	-791.18	-1.44
333	SLU 45	15	5	1866	-48.77	-784.39	2.87
333	SLU 46	15	0	1876	-49.01	-788.47	0.28
333	SLU 47	15	-4	1882	-49.17	-791.18	-1.44
333	SLU 48	15	5	1866	-48.77	-784.39	2.87
333	SLU 49	15	0	1876	-49.01	-788.47	0.28
333	SLU 50	15	5	1866	-48.77	-784.39	2.87
333	SLU 51	15	0	1876	-49.01	-788.47	0.28
333	SLU 52	17	-3	2159	-56.31	-905.8	-1.01
333	SLU 53	17	6	2142	-55.91	-899.01	3.3
333	SLU 54	17	1	2152	-56.15	-903.08	0.72
333	SLU 55	17	-3	2159	-56.31	-905.8	-1.01
333	SLU 56	17	6	2142	-55.91	-899.01	3.3
333	SLU 57	17	1	2152	-56.15	-903.08	0.72
333	SLU 58	17	6	2142	-55.91	-899.01	3.3
333	SLU 59	17	1	2152	-56.15	-903.08	0.72
333	SLU 60	18	6	2261	-58.97	-948.13	3.49
333	SLU 61	17	1	2271	-59.21	-952.2	0.9
333	SLU 62	18	6	2261	-58.97	-948.13	3.49
333	SLU 63	17	1	2271	-59.21	-952.2	0.9
333	SLU 64	16	6	2068	-53.97	-868	3.28
333	SLU 65	16	-3	2084	-54.38	-874.79	-1.03
333	SLU 66	16	6	2068	-53.97	-868	3.28
333	SLU 67	16	1	2077	-54.22	-872.07	0.69



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
333	SLU 68	16	-3	2084	-54.38	-874.79	-1.03
333	SLU 69	16	6	2068	-53.97	-868	3.28
333	SLU 70	16	1	2077	-54.22	-872.07	0.69
333	SLU 71	16	6	2068	-53.97	-868	3.28
333	SLU 72	16	1	2077	-54.22	-872.07	0.69
333	SLU 73	18	-2	2360	-61.52	-989.4	-0.6
333	SLU 74	18	7	2344	-61.12	-982.61	3.71
333	SLU 75	18	2	2354	-61.36	-986.68	1.13
333	SLU 76	18	-2	2360	-61.52	-989.4	-0.6
333	SLU 77	18	7	2344	-61.12	-982.61	3.71
333	SLU 78	18	2	2354	-61.36	-986.68	1.13
333	SLU 79	18	7	2344	-61.12	-982.61	3.71
333	SLU 80	18	2	2354	-61.36	-986.68	1.13
333	SLU 81	19	7	2462	-64.18	-1031.73	3.9
333	SLU 82	19	2	2472	-64.42	-1035.8	1.31
333	SLU 83	19	7	2462	-64.18	-1031.73	3.9
333	SLU 84	19	2	2472	-64.42	-1035.8	1.31
333	SLE RA 1	12	5	1546	-40.37	-649.32	2.43
333	SLE RA 2	12	-2	1557	-40.64	-653.84	-0.44
333	SLE RA 3	12	5	1546	-40.37	-649.32	2.43
333	SLE RA 4	12	1	1553	-40.53	-652.03	0.71
333	SLE RA 5	12	-2	1557	-40.64	-653.84	-0.44
333	SLE RA 6	12	5	1546	-40.37	-649.32	2.43
333	SLE RA 7	12	1	1553	-40.53	-652.03	0.71
333	SLE RA 8	12	5	1546	-40.37	-649.32	2.43
333	SLE RA 9	12	1	1553	-40.53	-652.03	0.71
333	SLE RA 10	13	-1	1741	-45.4	-730.25	-0.15
333	SLE RA 11	13	5	1730	-45.14	-725.72	2.72
333	SLE RA 12	13	1	1737	-45.3	-728.44	1
333	SLE RA 13	13	-1	1741	-45.4	-730.25	-0.15
333	SLE RA 14	13	5	1730	-45.14	-725.72	2.72
333	SLE RA 15	13	1	1737	-45.3	-728.44	1
333	SLE RA 16	13	5	1730	-45.14	-725.72	2.72
333	SLE RA 17	13	1	1737	-45.3	-728.44	1
333	SLE RA 18	14	5	1809	-47.18	-758.47	2.85
333	SLE RA 19	14	2	1816	-47.34	-761.19	1.12
333	SLE RA 20	14	5	1809	-47.18	-758.47	2.85
333	SLE RA 21	14	2	1816	-47.34	-761.19	1.12
333	SLE FR 1	12	5	1546	-40.37	-649.32	2.43
333	SLE FR 2	12	3	1548	-40.43	-650.22	1.86
333	SLE FR 3	12	5	1546	-40.37	-649.32	2.43
333	SLE FR 4	13	4	1627	-42.47	-682.97	1.98
333	SLE FR 5	13	5	1625	-42.42	-682.06	2.56
333	SLE FR 6	13	5	1678	-43.78	-703.89	2.64
333	SLE QP 1	12	5	1546	-40.37	-649.32	2.43
333	SLE QP 2	13	5	1625	-42.42	-682.06	2.56
333	SLD 1	154	54	1723	-45.07	-719.68	34.54
333	SLD 2	129	25	1735	-45.35	-724.37	19.89
333	SLD 3	149	-30	1880	-48.83	-784.32	-5.52
333	SLD 4	124	-60	1891	-49.12	-789.01	-20.17
333	SLD 5	71	159	1413	-37.39	-593.57	78.32
333	SLD 6	46	128	1425	-37.69	-598.45	63.1
333	SLD 7	56	-123	1935	-49.95	-809.05	-55.21
333	SLD 8	30	-154	1947	-50.24	-813.92	-70.43
333	SLD 9	-4	163	1303	-34.59	-550.2	75.54
333	SLD 10	-30	132	1316	-34.88	-555.08	60.32
333	SLD 11	-20	-118	1825	-47.14	-765.68	-57.98
333	SLD 12	-46	-149	1837	-47.44	-770.55	-73.21
333	SLD 13	-98	69	1359	-35.72	-575.12	25.28
333	SLD 14	-123	40	1371	-36	-579.81	10.63
333	SLD 15	-103	-15	1515	-39.48	-639.76	-14.78
333	SLD 16	-128	-45	1527	-39.77	-644.45	-29.43
333	SLV 1	334	120	1843	-48.34	-765.82	76.75
333	SLV 2	277	52	1870	-48.99	-776.57	43.15
333	SLV 3	323	-78	2209	-57.14	-916.87	-16.87
333	SLV 4	266	-145	2236	-57.79	-927.62	-50.47
333	SLV 5	148	364	1126	-30.6	-474.04	179.45
333	SLV 6	88	293	1154	-31.29	-485.37	144.07
333	SLV 7	110	-294	2345	-59.93	-977.55	-132.61
333	SLV 8	50	-365	2373	-60.62	-988.88	-167.99
333	SLV 9	-24	375	877	-24.21	-375.25	173.1
333	SLV 10	-84	303	905	-24.9	-386.58	137.72
333	SLV 11	-62	-283	2096	-53.55	-878.76	-138.96
333	SLV 12	-122	-355	2125	-54.23	-890.08	-174.34
333	SLV 13	-240	155	1014	-27.04	-436.5	55.58
333	SLV 14	-297	87	1041	-27.7	-447.26	21.99
333	SLV 15	-251	-42	1380	-35.84	-587.56	-38.04
333	SLV 16	-308	-110	1407	-36.5	-598.31	-71.63
333	CRTFP Ux+	0	0	0	0	0	0
333	CRTFP Ux-	0	0	0	0	0	0
333	CRTFP Uy+	0	0	0	0	0	0
333	CRTFP Uy-	0	0	0	0	0	0
336	SLU 1	27	13	3055	-82.25	1.55	0
336	SLU 2	27	-1	3087	-83.04	1.57	0
336	SLU 3	27	13	3055	-82.25	1.55	0
336	SLU 4	27	5	3074	-82.72	1.56	0
336	SLU 5	27	-1	3087	-83.04	1.57	0
336	SLU 6	27	13	3055	-82.25	1.55	0
336	SLU 7	27	5	3074	-82.72	1.56	0
336	SLU 8	27	13	3055	-82.25	1.55	0
336	SLU 9	27	5	3074	-82.72	1.56	0



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
336	SLU 10	25	2	3697	-99.46	1.64	0.02
336	SLU 11	25	16	3666	-98.66	1.62	0.02
336	SLU 12	25	8	3684	-99.14	1.63	0.02
336	SLU 13	25	2	3697	-99.46	1.64	0.02
336	SLU 14	25	16	3666	-98.66	1.62	0.02
336	SLU 15	25	8	3684	-99.14	1.63	0.02
336	SLU 16	25	16	3666	-98.66	1.62	0.02
336	SLU 17	25	8	3684	-99.14	1.63	0.02
336	SLU 18	24	18	3927	-105.69	1.65	0.02
336	SLU 19	25	9	3946	-106.17	1.66	0.02
336	SLU 20	24	18	3927	-105.69	1.65	0.02
336	SLU 21	25	9	3946	-106.17	1.66	0.02
336	SLU 22	26	15	3502	-94.26	1.56	0.01
336	SLU 23	26	1	3534	-95.06	1.59	0.01
336	SLU 24	26	15	3502	-94.26	1.56	0.01
336	SLU 25	26	7	3521	-94.74	1.58	0.01
336	SLU 26	26	1	3534	-95.06	1.59	0.01
336	SLU 27	26	15	3502	-94.26	1.56	0.01
336	SLU 28	26	7	3521	-94.74	1.58	0.01
336	SLU 29	26	15	3502	-94.26	1.56	0.01
336	SLU 30	26	7	3521	-94.74	1.58	0.01
336	SLU 31	25	4	4144	-111.47	1.66	0.03
336	SLU 32	24	18	4112	-110.67	1.63	0.03
336	SLU 33	25	10	4131	-111.15	1.65	0.03
336	SLU 34	25	4	4144	-111.47	1.66	0.03
336	SLU 35	24	18	4112	-110.67	1.63	0.03
336	SLU 36	25	10	4131	-111.15	1.65	0.03
336	SLU 37	24	18	4112	-110.67	1.63	0.03
336	SLU 38	25	10	4131	-111.15	1.65	0.03
336	SLU 39	24	20	4374	-117.71	1.66	0.03
336	SLU 40	24	11	4393	-118.19	1.68	0.03
336	SLU 41	24	20	4374	-117.71	1.66	0.03
336	SLU 42	24	11	4393	-118.19	1.68	0.03
336	SLU 43	35	17	3818	-102.8	2.01	0
336	SLU 44	35	3	3850	-103.6	2.03	0
336	SLU 45	35	17	3818	-102.8	2.01	0
336	SLU 46	35	8	3837	-103.28	2.02	0
336	SLU 47	35	3	3850	-103.6	2.03	0
336	SLU 48	35	17	3818	-102.8	2.01	0
336	SLU 49	35	8	3837	-103.28	2.02	0
336	SLU 50	35	17	3818	-102.8	2.01	0
336	SLU 51	35	8	3837	-103.28	2.02	0
336	SLU 52	34	6	4460	-120.01	2.1	0.01
336	SLU 53	33	20	4429	-119.21	2.08	0.02
336	SLU 54	34	11	4448	-119.69	2.09	0.01
336	SLU 55	34	6	4460	-120.01	2.1	0.01
336	SLU 56	33	20	4429	-119.21	2.08	0.02
336	SLU 57	34	11	4448	-119.69	2.09	0.01
336	SLU 58	33	20	4429	-119.21	2.08	0.02
336	SLU 59	34	11	4448	-119.69	2.09	0.01
336	SLU 60	33	21	4690	-126.25	2.11	0.02
336	SLU 61	33	13	4709	-126.73	2.12	0.02
336	SLU 62	33	21	4690	-126.25	2.11	0.02
336	SLU 63	33	13	4709	-126.73	2.12	0.02
336	SLU 64	34	19	4265	-114.81	2.02	0.01
336	SLU 65	34	5	4297	-115.61	2.04	0.01
336	SLU 66	34	19	4265	-114.81	2.02	0.01
336	SLU 67	34	10	4284	-115.29	2.04	0.01
336	SLU 68	34	5	4297	-115.61	2.04	0.01
336	SLU 69	34	19	4265	-114.81	2.02	0.01
336	SLU 70	34	10	4284	-115.29	2.04	0.01
336	SLU 71	34	19	4265	-114.81	2.02	0.01
336	SLU 72	34	10	4284	-115.29	2.04	0.01
336	SLU 73	33	8	4907	-132.02	2.12	0.02
336	SLU 74	33	22	4876	-131.23	2.09	0.02
336	SLU 75	33	13	4895	-131.71	2.11	0.02
336	SLU 76	33	8	4907	-132.02	2.12	0.02
336	SLU 77	33	22	4876	-131.23	2.09	0.02
336	SLU 78	33	13	4895	-131.71	2.11	0.02
336	SLU 79	33	22	4876	-131.23	2.09	0.02
336	SLU 80	33	13	4895	-131.71	2.11	0.02
336	SLU 81	32	23	5137	-138.26	2.12	0.03
336	SLU 82	32	14	5156	-138.74	2.14	0.03
336	SLU 83	32	23	5137	-138.26	2.12	0.03
336	SLU 84	32	14	5156	-138.74	2.14	0.03
336	SLE RA 1	27	14	3183	-85.68	1.55	0.01
336	SLE RA 2	27	5	3204	-86.21	1.57	0.01
336	SLE RA 3	27	14	3183	-85.68	1.55	0.01
336	SLE RA 4	27	8	3195	-86	1.56	0.01
336	SLE RA 5	27	5	3204	-86.21	1.57	0.01
336	SLE RA 6	27	14	3183	-85.68	1.55	0.01
336	SLE RA 7	27	8	3195	-86	1.56	0.01
336	SLE RA 8	27	14	3183	-85.68	1.55	0.01
336	SLE RA 9	27	8	3195	-86	1.56	0.01
336	SLE RA 10	26	7	3611	-97.15	1.62	0.01
336	SLE RA 11	25	16	3590	-96.62	1.6	0.02
336	SLE RA 12	26	10	3602	-96.94	1.61	0.02
336	SLE RA 13	26	7	3611	-97.15	1.62	0.01
336	SLE RA 14	25	16	3590	-96.62	1.6	0.02
336	SLE RA 15	26	10	3602	-96.94	1.61	0.02
336	SLE RA 16	25	16	3590	-96.62	1.6	0.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
336	SLE RA 17	26	10	3602	-96.94	1.61	0.02
336	SLE RA 18	25	17	3764	-101.31	1.62	0.02
336	SLE RA 19	25	11	3777	-101.63	1.63	0.02
336	SLE RA 20	25	17	3764	-101.31	1.62	0.02
336	SLE RA 21	25	11	3777	-101.63	1.63	0.02
336	SLE FR 1	27	14	3183	-85.68	1.55	0.01
336	SLE FR 2	27	12	3187	-85.78	1.55	0.01
336	SLE FR 3	27	14	3183	-85.68	1.55	0.01
336	SLE FR 4	26	13	3361	-90.47	1.57	0.01
336	SLE FR 5	26	15	3357	-90.37	1.57	0.01
336	SLE FR 6	26	15	3473	-93.49	1.59	0.01
336	SLE QP 1	27	14	3183	-85.68	1.55	0.01
336	SLE QP 2	26	15	3357	-90.37	1.57	0.01
336	SLD 1	298	95	3173	-85.71	8.08	6.5
336	SLD 2	249	96	3173	-85.73	8.17	5.87
336	SLD 3	309	-48	3491	-93.67	7.81	6.71
336	SLD 4	260	-47	3492	-93.68	7.9	6.08
336	SLD 5	108	254	2819	-76.9	3.9	1.88
336	SLD 6	57	255	2819	-76.92	3.99	1.22
336	SLD 7	146	-220	3880	-103.41	3	2.56
336	SLD 8	96	-219	3881	-103.43	3.09	1.91
336	SLD 9	-43	249	2833	-77.31	0.05	-1.89
336	SLD 10	-94	250	2834	-77.32	0.14	-2.54
336	SLD 11	-5	-226	3895	-103.82	-0.85	-1.2
336	SLD 12	-56	-225	3896	-103.83	-0.76	-1.85
336	SLD 13	-208	76	3222	-87.05	-4.75	-6.06
336	SLD 14	-257	77	3223	-87.07	-4.67	-6.69
336	SLD 15	-197	-66	3541	-95.01	-5.02	-5.85
336	SLD 16	-245	-65	3541	-95.02	-4.94	-6.48
336	SLV 1	644	201	2928	-79.52	16.42	14.79
336	SLV 2	532	203	2929	-79.56	16.62	13.35
336	SLV 3	671	-132	3672	-98.11	15.76	15.27
336	SLV 4	559	-129	3673	-98.14	15.96	13.83
336	SLV 5	213	574	2099	-58.92	6.96	4.25
336	SLV 6	95	577	2101	-58.96	7.17	2.74
336	SLV 7	303	-535	4580	-120.86	4.75	5.86
336	SLV 8	185	-532	4581	-120.89	4.96	4.35
336	SLV 9	-133	562	2133	-59.84	-1.81	-4.33
336	SLV 10	-251	564	2135	-59.88	-1.6	-5.84
336	SLV 11	-43	-547	4614	-121.78	-4.03	-2.72
336	SLV 12	-161	-545	4615	-121.82	-3.82	-4.23
336	SLV 13	-507	159	3041	-82.59	-12.82	-13.81
336	SLV 14	-619	161	3042	-82.63	-12.62	-15.25
336	SLV 15	-480	-174	3785	-101.18	-13.48	-13.33
336	SLV 16	-592	-171	3786	-101.21	-13.28	-14.77
336	CRTFP Ux+	0	0	0	0	0	0
336	CRTFP Ux-	0	0	0	0	0	0
336	CRTFP Uy+	0	0	0	0	0	0
336	CRTFP Uy-	0	0	0	0	0	0
376	SLU 1	15	5	1769	-317.41	-973	5.5
376	SLU 2	14	-5	1789	-320.91	-984.24	-0.34
376	SLU 3	15	5	1769	-317.41	-973	5.5
376	SLU 4	14	-1	1781	-319.51	-979.74	2
376	SLU 5	14	-5	1789	-320.91	-984.24	-0.34
376	SLU 6	15	5	1769	-317.41	-973	5.5
376	SLU 7	14	-1	1781	-319.51	-979.74	2
376	SLU 8	15	5	1769	-317.41	-973	5.5
376	SLU 9	14	-1	1781	-319.51	-979.74	2
376	SLU 10	16	-4	2121	-379.87	-1166.06	0.66
376	SLU 11	17	6	2101	-376.37	-1154.83	6.49
376	SLU 12	16	0	2113	-378.47	-1161.57	2.99
376	SLU 13	16	-4	2121	-379.87	-1166.06	0.66
376	SLU 14	17	6	2101	-376.37	-1154.83	6.49
376	SLU 15	16	0	2113	-378.47	-1161.57	2.99
376	SLU 16	17	6	2101	-376.37	-1154.83	6.49
376	SLU 17	16	0	2113	-378.47	-1161.57	2.99
376	SLU 18	18	7	2243	-401.64	-1232.75	6.92
376	SLU 19	17	1	2255	-403.74	-1239.49	3.42
376	SLU 20	18	7	2243	-401.64	-1232.75	6.92
376	SLU 21	17	1	2255	-403.74	-1239.49	3.42
376	SLU 22	16	6	2011	-360.39	-1105.66	6.35
376	SLU 23	16	-4	2032	-363.89	-1116.9	0.51
376	SLU 24	16	6	2011	-360.39	-1105.66	6.35
376	SLU 25	16	0	2023	-362.49	-1112.4	2.84
376	SLU 26	16	-4	2032	-363.89	-1116.9	0.51
376	SLU 27	16	6	2011	-360.39	-1105.66	6.35
376	SLU 28	16	0	2023	-362.49	-1112.4	2.84
376	SLU 29	16	6	2011	-360.39	-1105.66	6.35
376	SLU 30	16	0	2023	-362.49	-1112.4	2.84
376	SLU 31	18	-3	2364	-422.84	-1298.72	1.5
376	SLU 32	18	8	2343	-419.34	-1287.49	7.34
376	SLU 33	18	1	2355	-421.44	-1294.23	3.84
376	SLU 34	18	-3	2364	-422.84	-1298.72	1.5
376	SLU 35	18	8	2343	-419.34	-1287.49	7.34
376	SLU 36	18	1	2355	-421.44	-1294.23	3.84
376	SLU 37	18	8	2343	-419.34	-1287.49	7.34
376	SLU 38	18	1	2355	-421.44	-1294.23	3.84
376	SLU 39	19	8	2485	-444.61	-1365.41	7.76
376	SLU 40	19	2	2498	-446.71	-1372.15	4.26
376	SLU 41	19	8	2485	-444.61	-1365.41	7.76
376	SLU 42	19	2	2498	-446.71	-1372.15	4.26



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
376	SLU 43	18	6	2217	-397.9	-1219.41	6.86
376	SLU 44	18	-4	2237	-401.4	-1230.65	1.03
376	SLU 45	18	6	2217	-397.9	-1219.41	6.86
376	SLU 46	18	0	2229	-400	-1226.16	3.36
376	SLU 47	18	-4	2237	-401.4	-1230.65	1.03
376	SLU 48	18	6	2217	-397.9	-1219.41	6.86
376	SLU 49	18	0	2229	-400	-1226.16	3.36
376	SLU 50	18	6	2217	-397.9	-1219.41	6.86
376	SLU 51	18	0	2229	-400	-1226.16	3.36
376	SLU 52	20	-2	2569	-460.36	-1412.48	2.02
376	SLU 53	21	8	2549	-456.86	-1401.24	7.86
376	SLU 54	20	2	2561	-458.96	-1407.98	4.35
376	SLU 55	20	-2	2569	-460.36	-1412.48	2.02
376	SLU 56	21	8	2549	-456.86	-1401.24	7.86
376	SLU 57	20	2	2561	-458.96	-1407.98	4.35
376	SLU 58	21	8	2549	-456.86	-1401.24	7.86
376	SLU 59	20	2	2561	-458.96	-1407.98	4.35
376	SLU 60	22	8	2691	-482.13	-1479.17	8.28
376	SLU 61	21	2	2703	-484.23	-1485.91	4.78
376	SLU 62	22	8	2691	-482.13	-1479.17	8.28
376	SLU 63	21	2	2703	-484.23	-1485.91	4.78
376	SLU 64	20	8	2459	-440.88	-1352.08	7.71
376	SLU 65	19	-3	2479	-444.38	-1363.31	1.87
376	SLU 66	20	8	2459	-440.88	-1352.08	7.71
376	SLU 67	20	1	2471	-442.98	-1358.82	4.2
376	SLU 68	19	-3	2479	-444.38	-1363.31	1.87
376	SLU 69	20	8	2459	-440.88	-1352.08	7.71
376	SLU 70	20	1	2471	-442.98	-1358.82	4.2
376	SLU 71	20	8	2459	-440.88	-1352.08	7.71
376	SLU 72	20	1	2471	-442.98	-1358.82	4.2
376	SLU 73	22	-1	2811	-503.33	-1545.14	2.86
376	SLU 74	22	9	2791	-499.83	-1533.9	8.7
376	SLU 75	22	3	2803	-501.93	-1540.64	5.2
376	SLU 76	22	-1	2811	-503.33	-1545.14	2.86
376	SLU 77	22	9	2791	-499.83	-1533.9	8.7
376	SLU 78	22	3	2803	-501.93	-1540.64	5.2
376	SLU 79	22	9	2791	-499.83	-1533.9	8.7
376	SLU 80	22	3	2803	-501.93	-1540.64	5.2
376	SLU 81	23	9	2933	-525.1	-1611.83	9.13
376	SLU 82	23	3	2945	-527.2	-1618.57	5.62
376	SLU 83	23	9	2933	-525.1	-1611.83	9.13
376	SLU 84	23	3	2945	-527.2	-1618.57	5.62
376	SLE RA 1	15	6	1838	-329.69	-1010.9	5.74
376	SLE RA 2	15	-1	1852	-332.03	-1018.39	1.85
376	SLE RA 3	15	6	1838	-329.69	-1010.9	5.74
376	SLE RA 4	15	1	1846	-331.09	-1015.4	3.41
376	SLE RA 5	15	-1	1852	-332.03	-1018.39	1.85
376	SLE RA 6	15	6	1838	-329.69	-1010.9	5.74
376	SLE RA 7	15	1	1846	-331.09	-1015.4	3.41
376	SLE RA 8	15	6	1838	-329.69	-1010.9	5.74
376	SLE RA 9	15	1	1846	-331.09	-1015.4	3.41
376	SLE RA 10	16	0	2073	-371.33	-1139.61	2.51
376	SLE RA 11	16	6	2059	-369	-1132.12	6.41
376	SLE RA 12	16	2	2068	-370.4	-1136.61	4.07
376	SLE RA 13	16	0	2073	-371.33	-1139.61	2.51
376	SLE RA 14	16	6	2059	-369	-1132.12	6.41
376	SLE RA 15	16	2	2068	-370.4	-1136.61	4.07
376	SLE RA 16	16	6	2059	-369	-1132.12	6.41
376	SLE RA 17	16	2	2068	-370.4	-1136.61	4.07
376	SLE RA 18	17	7	2154	-385.84	-1184.07	6.69
376	SLE RA 19	17	3	2162	-387.24	-1188.57	4.35
376	SLE RA 20	17	7	2154	-385.84	-1184.07	6.69
376	SLE RA 21	17	3	2162	-387.24	-1188.57	4.35
376	SLE FR 1	15	6	1838	-329.69	-1010.9	5.74
376	SLE FR 2	15	4	1841	-330.16	-1012.4	4.97
376	SLE FR 3	15	6	1838	-329.69	-1010.9	5.74
376	SLE FR 4	16	5	1936	-347	-1064.35	5.25
376	SLE FR 5	16	6	1933	-346.54	-1062.85	6.03
376	SLE FR 6	16	6	1996	-357.77	-1097.49	6.22
376	SLE QP 1	15	6	1838	-329.69	-1010.9	5.74
376	SLE QP 2	16	6	1933	-346.54	-1062.85	6.03
376	SLD 1	172	78	2051	-369	-1124.07	71.29
376	SLD 2	143	44	2066	-371.6	-1132.14	46.98
376	SLD 3	167	-16	2248	-402.26	-1232.14	17.71
376	SLD 4	138	-49	2263	-404.86	-1240.2	-6.6
376	SLD 5	82	182	1664	-301.87	-914.34	115.86
376	SLD 6	52	147	1679	-304.57	-922.72	90.59
376	SLD 7	63	-130	2321	-412.74	-1274.56	-62.74
376	SLD 8	33	-165	2336	-415.44	-1282.94	-88.01
376	SLD 9	-2	177	1530	-277.63	-842.77	100.07
376	SLD 10	-32	142	1545	-280.33	-851.15	74.8
376	SLD 11	-20	-135	2187	-388.51	-1202.99	-78.54
376	SLD 12	-51	-170	2202	-391.21	-1211.37	-103.8
376	SLD 13	-106	61	1603	-288.21	-885.5	18.66
376	SLD 14	-135	27	1618	-290.81	-893.57	-5.66
376	SLD 15	-112	-33	1800	-321.48	-993.57	-34.92
376	SLD 16	-141	-66	1815	-324.07	-1001.63	-59.24
376	SLV 1	373	173	2195	-396.68	-1199.01	156.45
376	SLV 2	306	96	2229	-402.64	-1217.51	100.69
376	SLV 3	360	-46	2656	-474.41	-1451.54	31.22
376	SLV 4	293	-122	2690	-480.37	-1470.03	-24.54



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
376	SLV 5	168	417	1300	-241.45	-713.74	262.09
376	SLV 6	98	336	1336	-247.72	-733.22	203.36
376	SLV 7	124	-312	2835	-500.55	-1555.49	-155.35
376	SLV 8	54	-393	2872	-506.82	-1574.97	-214.08
376	SLV 9	-22	405	994	-186.26	-550.74	226.13
376	SLV 10	-92	324	1031	-192.53	-570.21	167.41
376	SLV 11	-67	-324	2530	-445.35	-1392.49	-191.31
376	SLV 12	-137	-405	2566	-451.62	-1411.97	-250.04
376	SLV 13	-262	134	1176	-212.71	-655.67	36.6
376	SLV 14	-328	57	1210	-218.66	-674.17	-19.17
376	SLV 15	-275	-85	1637	-290.44	-908.2	-88.64
376	SLV 16	-342	-161	1671	-296.39	-926.69	-144.4
376	CRTFP Ux+	0	0	0	0	0.01	0
376	CRTFP Ux-	0	0	0	0	-0.01	0
376	CRTFP Uy+	0	0	0	0	-0.01	0
376	CRTFP Uy-	0	0	0	0	0.01	0
378	SLU 1	14	6	1747	-484.28	-97.03	5.08
378	SLU 2	13	-5	1767	-489.39	-98.12	4.4
378	SLU 3	14	6	1747	-484.28	-97.03	5.08
378	SLU 4	14	0	1759	-487.35	-97.68	4.67
378	SLU 5	13	-5	1767	-489.39	-98.12	4.4
378	SLU 6	14	6	1747	-484.28	-97.03	5.08
378	SLU 7	14	0	1759	-487.35	-97.68	4.67
378	SLU 8	14	6	1747	-484.28	-97.03	5.08
378	SLU 9	14	0	1759	-487.35	-97.68	4.67
378	SLU 10	15	-3	2094	-576.16	-116.24	5.11
378	SLU 11	16	7	2075	-571.06	-115.15	5.78
378	SLU 12	15	1	2087	-574.12	-115.8	5.38
378	SLU 13	15	-3	2094	-576.16	-116.24	5.11
378	SLU 14	16	7	2075	-571.06	-115.15	5.78
378	SLU 15	15	1	2087	-574.12	-115.8	5.38
378	SLU 16	16	7	2075	-571.06	-115.15	5.78
378	SLU 17	15	1	2087	-574.12	-115.8	5.38
378	SLU 18	16	8	2215	-608.25	-122.91	6.08
378	SLU 19	16	2	2227	-611.31	-123.57	5.68
378	SLU 20	16	8	2215	-608.25	-122.91	6.08
378	SLU 21	16	2	2227	-611.31	-123.57	5.68
378	SLU 22	15	7	1986	-547.46	-110.24	5.59
378	SLU 23	15	-3	2006	-552.56	-111.33	4.91
378	SLU 24	15	7	1986	-547.46	-110.24	5.59
378	SLU 25	15	1	1998	-550.52	-110.9	5.18
378	SLU 26	15	-3	2006	-552.56	-111.33	4.91
378	SLU 27	15	7	1986	-547.46	-110.24	5.59
378	SLU 28	15	1	1998	-550.52	-110.9	5.18
378	SLU 29	15	7	1986	-547.46	-110.24	5.59
378	SLU 30	15	1	1998	-550.52	-110.9	5.18
378	SLU 31	17	-2	2333	-639.34	-129.45	5.61
378	SLU 32	17	8	2313	-634.23	-128.36	6.29
378	SLU 33	17	2	2325	-637.3	-129.01	5.89
378	SLU 34	17	-2	2333	-639.34	-129.45	5.61
378	SLU 35	17	8	2313	-634.23	-128.36	6.29
378	SLU 36	17	2	2325	-637.3	-129.01	5.89
378	SLU 37	17	8	2313	-634.23	-128.36	6.29
378	SLU 38	17	2	2325	-637.3	-129.01	5.89
378	SLU 39	18	9	2454	-671.42	-136.13	6.59
378	SLU 40	17	3	2465	-674.49	-136.78	6.19
378	SLU 41	18	9	2454	-671.42	-136.13	6.59
378	SLU 42	17	3	2465	-674.49	-136.78	6.19
378	SLU 43	17	7	2190	-607.91	-121.61	6.43
378	SLU 44	17	-3	2210	-613.01	-122.7	5.75
378	SLU 45	17	7	2190	-607.91	-121.61	6.43
378	SLU 46	17	1	2202	-610.97	-122.26	6.02
378	SLU 47	17	-3	2210	-613.01	-122.7	5.75
378	SLU 48	17	7	2190	-607.91	-121.61	6.43
378	SLU 49	17	1	2202	-610.97	-122.26	6.02
378	SLU 50	17	7	2190	-607.91	-121.61	6.43
378	SLU 51	17	1	2202	-610.97	-122.26	6.02
378	SLU 52	19	-2	2537	-699.79	-140.82	6.45
378	SLU 53	19	8	2517	-694.68	-139.73	7.13
378	SLU 54	19	2	2529	-697.75	-140.38	6.73
378	SLU 55	19	-2	2537	-699.79	-140.82	6.45
378	SLU 56	19	8	2517	-694.68	-139.73	7.13
378	SLU 57	19	2	2529	-697.75	-140.38	6.73
378	SLU 58	19	8	2517	-694.68	-139.73	7.13
378	SLU 59	19	2	2529	-697.75	-140.38	6.73
378	SLU 60	20	9	2657	-731.87	-147.49	7.43
378	SLU 61	20	3	2669	-734.93	-148.15	7.03
378	SLU 62	20	9	2657	-731.87	-147.49	7.43
378	SLU 63	20	3	2669	-734.93	-148.15	7.03
378	SLU 64	19	8	2428	-671.08	-134.82	6.94
378	SLU 65	18	-2	2448	-676.19	-135.91	6.26
378	SLU 66	19	8	2428	-671.08	-134.82	6.94
378	SLU 67	18	2	2440	-674.15	-135.47	6.53
378	SLU 68	18	-2	2448	-676.19	-135.91	6.26
378	SLU 69	19	8	2428	-671.08	-134.82	6.94
378	SLU 70	18	2	2440	-674.15	-135.47	6.53
378	SLU 71	19	8	2428	-671.08	-134.82	6.94
378	SLU 72	18	2	2440	-674.15	-135.47	6.53
378	SLU 73	20	-1	2775	-762.96	-154.03	6.96
378	SLU 74	20	10	2756	-757.86	-152.94	7.64
378	SLU 75	20	3	2768	-760.92	-153.59	7.23



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
378	SLU 76	20	-1	2775	-762.96	-154.03	6.96
378	SLU 77	20	10	2756	-757.86	-152.94	7.64
378	SLU 78	20	3	2768	-760.92	-153.59	7.23
378	SLU 79	20	10	2756	-757.86	-152.94	7.64
378	SLU 80	20	3	2768	-760.92	-153.59	7.23
378	SLU 81	21	10	2896	-795.05	-160.7	7.94
378	SLU 82	21	4	2908	-798.11	-161.36	7.54
378	SLU 83	21	10	2896	-795.05	-160.7	7.94
378	SLU 84	21	4	2908	-798.11	-161.36	7.54
378	SLE RA 1	14	6	1816	-502.33	-100.8	5.23
378	SLE RA 2	14	-1	1829	-505.74	-101.53	4.77
378	SLE RA 3	14	6	1816	-502.33	-100.8	5.23
378	SLE RA 4	14	2	1824	-504.37	-101.24	4.95
378	SLE RA 5	14	-1	1829	-505.74	-101.53	4.77
378	SLE RA 6	14	6	1816	-502.33	-100.8	5.23
378	SLE RA 7	14	2	1824	-504.37	-101.24	4.95
378	SLE RA 8	14	6	1816	-502.33	-100.8	5.23
378	SLE RA 9	14	2	1824	-504.37	-101.24	4.95
378	SLE RA 10	15	0	2047	-563.59	-113.61	5.24
378	SLE RA 11	15	7	2034	-560.18	-112.88	5.69
378	SLE RA 12	15	3	2042	-562.23	-113.32	5.42
378	SLE RA 13	15	0	2047	-563.59	-113.61	5.24
378	SLE RA 14	15	7	2034	-560.18	-112.88	5.69
378	SLE RA 15	15	3	2042	-562.23	-113.32	5.42
378	SLE RA 16	15	7	2034	-560.18	-112.88	5.69
378	SLE RA 17	15	3	2042	-562.23	-113.32	5.42
378	SLE RA 18	16	7	2127	-584.98	-118.06	5.89
378	SLE RA 19	16	3	2135	-587.02	-118.5	5.62
378	SLE RA 20	16	7	2127	-584.98	-118.06	5.89
378	SLE RA 21	16	3	2135	-587.02	-118.5	5.62
378	SLE FR 1	14	6	1816	-502.33	-100.8	5.23
378	SLE FR 2	14	5	1818	-503.01	-100.95	5.14
378	SLE FR 3	14	6	1816	-502.33	-100.8	5.23
378	SLE FR 4	15	5	1912	-527.81	-106.13	5.34
378	SLE FR 5	15	6	1909	-527.13	-105.98	5.43
378	SLE FR 6	15	7	1971	-543.65	-109.43	5.56
378	SLE QP 1	14	6	1816	-502.33	-100.8	5.23
378	SLE QP 2	15	6	1909	-527.13	-105.98	5.43
378	SLD 1	169	79	2031	-563.75	-112.56	62.2
378	SLD 2	142	45	2045	-567.76	-113.36	50.68
378	SLD 3	164	-15	2220	-610.3	-122.97	56.76
378	SLD 4	136	-49	2235	-614.3	-123.76	45.24
378	SLD 5	79	183	1653	-466.04	-91.88	34.96
378	SLD 6	50	147	1668	-470.2	-92.7	22.99
378	SLD 7	62	-130	2284	-621.19	-126.57	16.84
378	SLD 8	33	-165	2299	-625.35	-127.4	4.87
378	SLD 9	-4	178	1519	-428.9	-84.57	5.98
378	SLD 10	-32	142	1534	-433.06	-85.39	-5.99
378	SLD 11	-21	-135	2150	-584.05	-119.26	-12.14
378	SLD 12	-50	-170	2165	-588.21	-120.09	-24.11
378	SLD 13	-107	62	1584	-439.95	-88.2	-34.39
378	SLD 14	-135	28	1598	-443.96	-88.99	-45.91
378	SLD 15	-112	-32	1773	-486.5	-98.61	-39.83
378	SLD 16	-140	-66	1787	-490.5	-99.4	-51.35
378	SLV 1	367	175	2181	-609.1	-120.66	134.97
378	SLV 2	304	96	2214	-618.29	-122.47	108.55
378	SLV 3	354	-44	2623	-717.88	-144.98	122.23
378	SLV 4	291	-123	2656	-727.06	-146.8	95.81
378	SLV 5	163	419	1308	-383.28	-72.81	73.57
378	SLV 6	97	336	1343	-392.96	-74.72	45.75
378	SLV 7	121	-312	2781	-745.87	-153.89	31.08
378	SLV 8	55	-394	2816	-755.54	-155.8	3.26
378	SLV 9	-26	407	1002	-298.71	-56.16	7.59
378	SLV 10	-92	325	1037	-308.38	-58.07	-20.23
378	SLV 11	-67	-323	2476	-661.29	-137.24	-34.89
378	SLV 12	-134	-406	2511	-670.97	-139.16	-62.72
378	SLV 13	-262	136	1162	-327.19	-65.17	-84.95
378	SLV 14	-325	57	1196	-336.38	-66.98	-111.37
378	SLV 15	-274	-83	1604	-435.96	-89.49	-97.7
378	SLV 16	-338	-162	1638	-445.15	-91.31	-124.12
378	CRTFP Ux+	0	0	0	0	0	0
378	CRTFP Ux-	0	0	0	0	0	0
378	CRTFP Uy+	0	0	0	0	0	0
378	CRTFP Uy-	0	0	0	0	0	0
380	SLU 1	19	5	2252	-534.54	6.52	6.55
380	SLU 2	19	-8	2277	-540.01	6.61	6.44
380	SLU 3	19	5	2252	-534.54	6.52	6.55
380	SLU 4	19	-3	2267	-537.82	6.57	6.48
380	SLU 5	19	-8	2277	-540.01	6.61	6.44
380	SLU 6	19	5	2252	-534.54	6.52	6.55
380	SLU 7	19	-3	2267	-537.82	6.57	6.48
380	SLU 8	19	5	2252	-534.54	6.52	6.55
380	SLU 9	19	-3	2267	-537.82	6.57	6.48
380	SLU 10	21	-8	2696	-630.91	7.95	7.26
380	SLU 11	22	6	2671	-625.44	7.85	7.37
380	SLU 12	21	-2	2686	-628.73	7.91	7.3
380	SLU 13	21	-8	2696	-630.91	7.95	7.26
380	SLU 14	22	6	2671	-625.44	7.85	7.37
380	SLU 15	21	-2	2686	-628.73	7.91	7.3
380	SLU 16	22	6	2671	-625.44	7.85	7.37
380	SLU 17	21	-2	2686	-628.73	7.91	7.3



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
380	SLU 18	23	6	2850	-664.41	8.42	7.72
380	SLU 19	22	-2	2865	-667.69	8.48	7.66
380	SLU 20	23	6	2850	-664.41	8.42	7.72
380	SLU 21	22	-2	2865	-667.69	8.48	7.66
380	SLU 22	21	6	2558	-600.67	7.49	7.12
380	SLU 23	20	-8	2582	-606.14	7.58	7.01
380	SLU 24	21	6	2558	-600.67	7.49	7.12
380	SLU 25	21	-2	2572	-603.95	7.55	7.06
380	SLU 26	20	-8	2582	-606.14	7.58	7.01
380	SLU 27	21	6	2558	-600.67	7.49	7.12
380	SLU 28	21	-2	2572	-603.95	7.55	7.06
380	SLU 29	21	6	2558	-600.67	7.49	7.12
380	SLU 30	21	-2	2572	-603.95	7.55	7.06
380	SLU 31	23	-7	3001	-697.05	8.92	7.84
380	SLU 32	23	7	2976	-691.58	8.82	7.95
380	SLU 33	23	-1	2991	-694.86	8.88	7.88
380	SLU 34	23	-7	3001	-697.05	8.92	7.84
380	SLU 35	23	7	2976	-691.58	8.82	7.95
380	SLU 36	23	-1	2991	-694.86	8.88	7.88
380	SLU 37	23	7	2976	-691.58	8.82	7.95
380	SLU 38	23	-1	2991	-694.86	8.88	7.88
380	SLU 39	24	7	3155	-730.54	9.4	8.3
380	SLU 40	24	-1	3170	-733.82	9.45	8.24
380	SLU 41	24	7	3155	-730.54	9.4	8.3
380	SLU 42	24	-1	3170	-733.82	9.45	8.24
380	SLU 43	24	6	2823	-672.22	8.14	8.31
380	SLU 44	24	-7	2848	-677.69	8.23	8.2
380	SLU 45	24	6	2823	-672.22	8.14	8.31
380	SLU 46	24	-2	2838	-675.5	8.2	8.25
380	SLU 47	24	-7	2848	-677.69	8.23	8.2
380	SLU 48	24	6	2823	-672.22	8.14	8.31
380	SLU 49	24	-2	2838	-675.5	8.2	8.25
380	SLU 50	24	6	2823	-672.22	8.14	8.31
380	SLU 51	24	-2	2838	-675.5	8.2	8.25
380	SLU 52	26	-6	3267	-768.6	9.57	9.03
380	SLU 53	27	7	3242	-763.13	9.47	9.14
380	SLU 54	26	-1	3257	-766.41	9.53	9.07
380	SLU 55	26	-6	3267	-768.6	9.57	9.03
380	SLU 56	27	7	3242	-763.13	9.47	9.14
380	SLU 57	26	-1	3257	-766.41	9.53	9.07
380	SLU 58	27	7	3242	-763.13	9.47	9.14
380	SLU 59	26	-1	3257	-766.41	9.53	9.07
380	SLU 60	28	7	3421	-802.09	10.05	9.49
380	SLU 61	27	-1	3436	-805.37	10.1	9.42
380	SLU 62	28	7	3421	-802.09	10.05	9.49
380	SLU 63	27	-1	3436	-805.37	10.1	9.42
380	SLU 64	26	7	3129	-738.36	9.11	8.89
380	SLU 65	25	-6	3153	-743.83	9.21	8.78
380	SLU 66	26	7	3129	-738.36	9.11	8.89
380	SLU 67	26	-1	3143	-741.64	9.17	8.82
380	SLU 68	25	-6	3153	-743.83	9.21	8.78
380	SLU 69	26	7	3129	-738.36	9.11	8.89
380	SLU 70	26	-1	3143	-741.64	9.17	8.82
380	SLU 71	26	7	3129	-738.36	9.11	8.89
380	SLU 72	26	-1	3143	-741.64	9.17	8.82
380	SLU 73	28	-5	3572	-834.73	10.54	9.6
380	SLU 74	28	8	3547	-829.26	10.44	9.71
380	SLU 75	28	0	3562	-832.55	10.5	9.65
380	SLU 76	28	-5	3572	-834.73	10.54	9.6
380	SLU 77	28	8	3547	-829.26	10.44	9.71
380	SLU 78	28	0	3562	-832.55	10.5	9.65
380	SLU 79	28	8	3547	-829.26	10.44	9.71
380	SLU 80	28	0	3562	-832.55	10.5	9.65
380	SLU 81	29	8	3726	-868.23	11.02	10.07
380	SLU 82	29	0	3741	-871.51	11.07	10
380	SLU 83	29	8	3726	-868.23	11.02	10.07
380	SLU 84	29	0	3741	-871.51	11.07	10
380	SLE RA 1	20	5	2340	-553.43	6.79	6.71
380	SLE RA 2	19	-4	2356	-557.08	6.86	6.64
380	SLE RA 3	20	5	2340	-553.43	6.79	6.71
380	SLE RA 4	19	0	2349	-555.62	6.83	6.67
380	SLE RA 5	19	-4	2356	-557.08	6.86	6.64
380	SLE RA 6	20	5	2340	-553.43	6.79	6.71
380	SLE RA 7	19	0	2349	-555.62	6.83	6.67
380	SLE RA 8	20	5	2340	-553.43	6.79	6.71
380	SLE RA 9	19	0	2349	-555.62	6.83	6.67
380	SLE RA 10	21	-3	2635	-617.68	7.75	7.19
380	SLE RA 11	21	6	2618	-614.04	7.68	7.26
380	SLE RA 12	21	0	2628	-616.22	7.72	7.22
380	SLE RA 13	21	-3	2635	-617.68	7.75	7.19
380	SLE RA 14	21	6	2618	-614.04	7.68	7.26
380	SLE RA 15	21	0	2628	-616.22	7.72	7.22
380	SLE RA 16	21	6	2618	-614.04	7.68	7.26
380	SLE RA 17	21	0	2628	-616.22	7.72	7.22
380	SLE RA 18	22	6	2738	-640.01	8.07	7.5
380	SLE RA 19	22	1	2748	-642.2	8.1	7.45
380	SLE RA 20	22	6	2738	-640.01	8.07	7.5
380	SLE RA 21	22	1	2748	-642.2	8.1	7.45
380	SLE FR 1	20	5	2340	-553.43	6.79	6.71
380	SLE FR 2	19	3	2343	-554.16	6.81	6.7
380	SLE FR 3	20	5	2340	-553.43	6.79	6.71



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
380	SLE FR 4	20	4	2462	-580.13	7.19	6.93
380	SLE FR 5	20	5	2459	-579.41	7.18	6.95
380	SLE FR 6	21	6	2539	-596.72	7.43	7.1
380	SLE QP 1	20	5	2340	-553.43	6.79	6.71
380	SLE QP 2	20	5	2459	-579.41	7.18	6.95
380	SLD 1	236	79	2604	-618.98	8.06	82.27
380	SLD 2	197	35	2622	-623.32	8.16	69.02
380	SLD 3	228	-47	2841	-666.03	9.04	79.69
380	SLD 4	190	-90	2859	-670.37	9.14	66.44
380	SLD 5	110	233	2137	-518.31	5.91	38.35
380	SLD 6	70	188	2155	-522.82	6.02	24.58
380	SLD 7	86	-184	2927	-675.15	9.19	29.76
380	SLD 8	46	-229	2945	-679.66	9.29	15.99
380	SLD 9	-5	240	1973	-479.15	5.06	-2.09
380	SLD 10	-45	195	1992	-483.66	5.17	-15.87
380	SLD 11	-30	-177	2763	-635.99	8.33	-10.69
380	SLD 12	-70	-222	2781	-640.5	8.44	-24.46
380	SLD 13	-150	101	2059	-488.44	5.21	-52.55
380	SLD 14	-188	58	2077	-492.78	5.31	-65.8
380	SLD 15	-157	-24	2296	-535.49	6.19	-55.12
380	SLD 16	-195	-68	2314	-539.84	6.29	-68.38
380	SLV 1	512	176	2783	-668.06	9.15	178.7
380	SLV 2	424	76	2823	-678.02	9.39	148.3
380	SLV 3	494	-117	3336	-778.03	11.45	172.55
380	SLV 4	406	-216	3377	-788	11.68	142.16
380	SLV 5	227	538	1701	-435.46	4.2	79.24
380	SLV 6	135	433	1743	-445.95	4.45	47.23
380	SLV 7	169	-437	3547	-802.03	11.85	58.75
380	SLV 8	76	-542	3589	-812.53	12.1	26.74
380	SLV 9	-36	553	1329	-346.28	2.26	-12.85
380	SLV 10	-129	448	1371	-356.78	2.5	-44.86
380	SLV 11	-94	-422	3175	-712.86	9.9	-33.34
380	SLV 12	-187	-527	3217	-723.35	10.15	-65.35
380	SLV 13	-366	227	1542	-370.82	2.67	-128.27
380	SLV 14	-454	128	1582	-380.78	2.9	-158.66
380	SLV 15	-383	-65	2095	-480.79	4.96	-134.41
380	SLV 16	-471	-165	2136	-490.75	5.2	-164.81
380	CRTFP Ux+	0	0	0	0	0	0
380	CRTFP Ux-	0	0	0	0	0	0
380	CRTFP Uy+	0	0	0	0	0	0
380	CRTFP Uy-	0	0	0	0	0	0
381	SLU 1	19	2	2077	-404.9	5.14	6.49
381	SLU 2	18	-11	2099	-408.78	5.22	6.39
381	SLU 3	19	2	2077	-404.9	5.14	6.49
381	SLU 4	19	-6	2090	-407.23	5.19	6.43
381	SLU 5	18	-11	2099	-408.78	5.22	6.39
381	SLU 6	19	2	2077	-404.9	5.14	6.49
381	SLU 7	19	-6	2090	-407.23	5.19	6.43
381	SLU 8	19	2	2077	-404.9	5.14	6.49
381	SLU 9	19	-6	2090	-407.23	5.19	6.43
381	SLU 10	21	-11	2482	-471.94	6.26	7.18
381	SLU 11	21	1	2459	-468.05	6.18	7.28
381	SLU 12	21	-6	2473	-470.38	6.23	7.22
381	SLU 13	21	-11	2482	-471.94	6.26	7.18
381	SLU 14	21	1	2459	-468.05	6.18	7.28
381	SLU 15	21	-6	2473	-470.38	6.23	7.22
381	SLU 16	21	1	2459	-468.05	6.18	7.28
381	SLU 17	21	-6	2473	-470.38	6.23	7.22
381	SLU 18	22	1	2623	-495.12	6.62	7.61
381	SLU 19	22	-7	2637	-497.45	6.67	7.56
381	SLU 20	22	1	2623	-495.12	6.62	7.61
381	SLU 21	22	-7	2637	-497.45	6.67	7.56
381	SLU 22	21	1	2356	-450.79	5.89	7.04
381	SLU 23	20	-11	2378	-454.67	5.97	6.94
381	SLU 24	21	1	2356	-450.79	5.89	7.04
381	SLU 25	20	-6	2369	-453.12	5.94	6.98
381	SLU 26	20	-11	2378	-454.67	5.97	6.94
381	SLU 27	21	1	2356	-450.79	5.89	7.04
381	SLU 28	20	-6	2369	-453.12	5.94	6.98
381	SLU 29	21	1	2356	-450.79	5.89	7.04
381	SLU 30	20	-6	2369	-453.12	5.94	6.98
381	SLU 31	23	-12	2761	-517.83	7.01	7.73
381	SLU 32	23	1	2739	-513.94	6.93	7.83
381	SLU 33	23	-7	2752	-516.27	6.98	7.77
381	SLU 34	23	-12	2761	-517.83	7.01	7.73
381	SLU 35	23	1	2739	-513.94	6.93	7.83
381	SLU 36	23	-7	2752	-516.27	6.98	7.77
381	SLU 37	23	1	2739	-513.94	6.93	7.83
381	SLU 38	23	-7	2752	-516.27	6.98	7.77
381	SLU 39	24	1	2903	-541	7.38	8.17
381	SLU 40	24	-7	2916	-543.34	7.43	8.11
381	SLU 41	24	1	2903	-541	7.38	8.17
381	SLU 42	24	-7	2916	-543.34	7.43	8.11
381	SLU 43	24	2	2604	-510.63	6.42	8.25
381	SLU 44	24	-10	2626	-514.52	6.5	8.15
381	SLU 45	24	2	2604	-510.63	6.42	8.25
381	SLU 46	24	-5	2617	-512.97	6.47	8.19
381	SLU 47	24	-10	2626	-514.52	6.5	8.15
381	SLU 48	24	2	2604	-510.63	6.42	8.25
381	SLU 49	24	-5	2617	-512.97	6.47	8.19
381	SLU 50	24	2	2604	-510.63	6.42	8.25



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
381	SLU 51	24	-5	2617	-512.97	6.47	8.19
381	SLU 52	26	-11	3009	-577.67	7.54	8.94
381	SLU 53	26	1	2987	-573.79	7.46	9.03
381	SLU 54	26	-6	3000	-576.12	7.51	8.97
381	SLU 55	26	-11	3009	-577.67	7.54	8.94
381	SLU 56	26	1	2987	-573.79	7.46	9.03
381	SLU 57	26	-6	3000	-576.12	7.51	8.97
381	SLU 58	26	1	2987	-573.79	7.46	9.03
381	SLU 59	26	-6	3000	-576.12	7.51	8.97
381	SLU 60	27	1	3151	-600.85	7.9	9.37
381	SLU 61	27	-6	3164	-603.18	7.95	9.31
381	SLU 62	27	1	3151	-600.85	7.9	9.37
381	SLU 63	27	-6	3164	-603.18	7.95	9.31
381	SLU 64	26	2	2883	-556.52	7.18	8.8
381	SLU 65	25	-10	2905	-560.41	7.26	8.7
381	SLU 66	26	2	2883	-556.52	7.18	8.8
381	SLU 67	25	-6	2897	-558.86	7.22	8.74
381	SLU 68	25	-10	2905	-560.41	7.26	8.7
381	SLU 69	26	2	2883	-556.52	7.18	8.8
381	SLU 70	25	-6	2897	-558.86	7.22	8.74
381	SLU 71	26	2	2883	-556.52	7.18	8.8
381	SLU 72	25	-6	2897	-558.86	7.22	8.74
381	SLU 73	28	-11	3288	-623.56	8.3	9.49
381	SLU 74	28	1	3266	-619.68	8.22	9.59
381	SLU 75	28	-6	3279	-622.01	8.26	9.53
381	SLU 76	28	-11	3288	-623.56	8.3	9.49
381	SLU 77	28	1	3266	-619.68	8.22	9.59
381	SLU 78	28	-6	3279	-622.01	8.26	9.53
381	SLU 79	28	1	3266	-619.68	8.22	9.59
381	SLU 80	28	-6	3279	-622.01	8.26	9.53
381	SLU 81	29	1	3430	-646.74	8.66	9.92
381	SLU 82	29	-6	3443	-649.07	8.71	9.86
381	SLU 83	29	1	3430	-646.74	8.66	9.92
381	SLU 84	29	-6	3443	-649.07	8.71	9.86
381	SLE RA 1	19	1	2156	-418.01	5.35	6.65
381	SLE RA 2	19	-7	2171	-420.6	5.41	6.58
381	SLE RA 3	19	1	2156	-418.01	5.35	6.65
381	SLE RA 4	19	-3	2165	-419.56	5.39	6.61
381	SLE RA 5	19	-7	2171	-420.6	5.41	6.58
381	SLE RA 6	19	1	2156	-418.01	5.35	6.65
381	SLE RA 7	19	-3	2165	-419.56	5.39	6.61
381	SLE RA 8	19	1	2156	-418.01	5.35	6.65
381	SLE RA 9	19	-3	2165	-419.56	5.39	6.61
381	SLE RA 10	21	-7	2426	-462.7	6.1	7.11
381	SLE RA 11	21	1	2412	-460.11	6.05	7.17
381	SLE RA 12	21	-4	2421	-461.67	6.08	7.13
381	SLE RA 13	21	-7	2426	-462.7	6.1	7.11
381	SLE RA 14	21	1	2412	-460.11	6.05	7.17
381	SLE RA 15	21	-4	2421	-461.67	6.08	7.13
381	SLE RA 16	21	1	2412	-460.11	6.05	7.17
381	SLE RA 17	21	-4	2421	-461.67	6.08	7.13
381	SLE RA 18	22	1	2521	-478.15	6.34	7.4
381	SLE RA 19	21	-4	2530	-479.71	6.38	7.36
381	SLE RA 20	22	1	2521	-478.15	6.34	7.4
381	SLE RA 21	21	-4	2530	-479.71	6.38	7.36
381	SLE FR 1	19	1	2156	-418.01	5.35	6.65
381	SLE FR 2	19	0	2159	-418.53	5.36	6.63
381	SLE FR 3	19	1	2156	-418.01	5.35	6.65
381	SLE FR 4	20	0	2269	-436.57	5.66	6.86
381	SLE FR 5	20	1	2266	-436.05	5.65	6.87
381	SLE FR 6	20	1	2339	-448.08	5.85	7.02
381	SLE QP 1	19	1	2156	-418.01	5.35	6.65
381	SLE QP 2	20	1	2266	-436.05	5.65	6.87
381	SLD 1	236	69	2386	-464.93	6.4	82.32
381	SLD 2	197	31	2401	-468.05	6.49	69.06
381	SLD 3	228	-49	2596	-495.18	7.22	79.72
381	SLD 4	190	-87	2611	-498.3	7.31	66.46
381	SLD 5	110	215	1978	-397.69	4.59	38.35
381	SLD 6	70	175	1993	-400.93	4.68	24.57
381	SLD 7	86	-179	2678	-498.51	7.34	29.68
381	SLD 8	46	-219	2693	-501.75	7.44	15.9
381	SLD 9	-6	221	1838	-370.35	3.87	-2.16
381	SLD 10	-46	181	1854	-373.59	3.96	-15.94
381	SLD 11	-30	-172	2538	-471.18	6.62	-10.83
381	SLD 12	-70	-212	2553	-474.42	6.71	-24.61
381	SLD 13	-150	90	1921	-373.81	3.99	-52.72
381	SLD 14	-188	52	1935	-376.93	4.08	-65.98
381	SLD 15	-157	-28	2131	-404.06	4.81	-55.32
381	SLD 16	-196	-67	2145	-407.18	4.91	-68.58
381	SLV 1	512	160	2534	-500.84	7.32	178.91
381	SLV 2	424	72	2568	-508	7.53	148.5
381	SLV 3	494	-116	3025	-571.58	9.25	172.71
381	SLV 4	407	-204	3058	-578.74	9.46	142.3
381	SLV 5	227	501	1590	-345.51	3.15	79.33
381	SLV 6	135	408	1625	-353.05	3.37	47.31
381	SLV 7	169	-419	3225	-581.3	9.58	58.67
381	SLV 8	76	-512	3260	-588.84	9.8	26.65
381	SLV 9	-36	515	1271	-283.27	1.5	-12.91
381	SLV 10	-129	422	1307	-290.8	1.73	-44.93
381	SLV 11	-95	-405	2907	-519.06	7.93	-33.57
381	SLV 12	-187	-498	2942	-526.6	8.16	-65.59



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
381	SLV 13	-367	207	1473	-293.37	1.84	-128.56
381	SLV 14	-454	119	1507	-300.53	2.05	-158.97
381	SLV 15	-384	-69	1964	-364.11	3.77	-134.76
381	SLV 16	-472	-157	1997	-371.26	3.98	-165.17
381	CRTFP Ux+	0	0	0	0	0	0
381	CRTFP Ux-	0	0	0	0	0	0
381	CRTFP Uy+	0	0	0	0	0	0
381	CRTFP Uy-	0	0	0	0	0	0
382	SLU 1	19	-2	1942	-306.1	3.85	6.42
382	SLU 2	18	-13	1962	-308.74	3.91	6.33
382	SLU 3	19	-2	1942	-306.1	3.85	6.42
382	SLU 4	18	-9	1954	-307.68	3.88	6.37
382	SLU 5	18	-13	1962	-308.74	3.91	6.33
382	SLU 6	19	-2	1942	-306.1	3.85	6.42
382	SLU 7	18	-9	1954	-307.68	3.88	6.37
382	SLU 8	19	-2	1942	-306.1	3.85	6.42
382	SLU 9	18	-9	1954	-307.68	3.88	6.37
382	SLU 10	21	-15	2317	-350.69	4.67	7.07
382	SLU 11	21	-4	2297	-348.05	4.61	7.16
382	SLU 12	21	-10	2309	-349.64	4.64	7.1
382	SLU 13	21	-15	2317	-350.69	4.67	7.07
382	SLU 14	21	-4	2297	-348.05	4.61	7.16
382	SLU 15	21	-10	2309	-349.64	4.64	7.1
382	SLU 16	21	-4	2297	-348.05	4.61	7.16
382	SLU 17	21	-10	2309	-349.64	4.64	7.1
382	SLU 18	22	-4	2450	-366.03	4.93	7.47
382	SLU 19	22	-11	2462	-367.62	4.97	7.42
382	SLU 20	22	-4	2450	-366.03	4.93	7.47
382	SLU 21	22	-11	2462	-367.62	4.97	7.42
382	SLU 22	20	-3	2201	-336.55	4.4	6.94
382	SLU 23	20	-14	2221	-339.18	4.46	6.85
382	SLU 24	20	-3	2201	-336.55	4.4	6.94
382	SLU 25	20	-10	2213	-338.13	4.44	6.88
382	SLU 26	20	-14	2221	-339.18	4.46	6.85
382	SLU 27	20	-3	2201	-336.55	4.4	6.94
382	SLU 28	20	-10	2213	-338.13	4.44	6.88
382	SLU 29	20	-3	2201	-336.55	4.4	6.94
382	SLU 30	20	-10	2213	-338.13	4.44	6.88
382	SLU 31	22	-16	2577	-381.13	5.22	7.59
382	SLU 32	22	-5	2557	-378.5	5.16	7.67
382	SLU 33	22	-12	2569	-380.08	5.2	7.62
382	SLU 34	22	-16	2577	-381.13	5.22	7.59
382	SLU 35	22	-5	2557	-378.5	5.16	7.67
382	SLU 36	22	-12	2569	-380.08	5.2	7.62
382	SLU 37	22	-5	2557	-378.5	5.16	7.67
382	SLU 38	22	-12	2569	-380.08	5.2	7.62
382	SLU 39	23	-5	2709	-396.48	5.49	7.99
382	SLU 40	23	-12	2721	-398.06	5.53	7.94
382	SLU 41	23	-5	2709	-396.48	5.49	7.99
382	SLU 42	23	-12	2721	-398.06	5.53	7.94
382	SLU 43	24	-2	2435	-387.49	4.81	8.17
382	SLU 44	23	-13	2455	-390.13	4.87	8.08
382	SLU 45	24	-2	2435	-387.49	4.81	8.17
382	SLU 46	23	-9	2447	-389.08	4.85	8.11
382	SLU 47	23	-13	2455	-390.13	4.87	8.08
382	SLU 48	24	-2	2435	-387.49	4.81	8.17
382	SLU 49	23	-9	2447	-389.08	4.85	8.11
382	SLU 50	24	-2	2435	-387.49	4.81	8.17
382	SLU 51	23	-9	2447	-389.08	4.85	8.11
382	SLU 52	26	-15	2811	-432.08	5.63	8.82
382	SLU 53	26	-4	2791	-429.45	5.57	8.91
382	SLU 54	26	-11	2803	-431.03	5.61	8.85
382	SLU 55	26	-15	2811	-432.08	5.63	8.82
382	SLU 56	26	-4	2791	-429.45	5.57	8.91
382	SLU 57	26	-11	2803	-431.03	5.61	8.85
382	SLU 58	26	-4	2791	-429.45	5.57	8.91
382	SLU 59	26	-11	2803	-431.03	5.61	8.85
382	SLU 60	27	-4	2943	-447.43	5.9	9.22
382	SLU 61	27	-11	2955	-449.01	5.93	9.17
382	SLU 62	27	-4	2943	-447.43	5.9	9.22
382	SLU 63	27	-11	2955	-449.01	5.93	9.17
382	SLU 64	25	-3	2695	-417.94	5.36	8.68
382	SLU 65	25	-14	2715	-420.57	5.43	8.6
382	SLU 66	25	-3	2695	-417.94	5.36	8.68
382	SLU 67	25	-10	2707	-419.52	5.4	8.63
382	SLU 68	25	-14	2715	-420.57	5.43	8.6
382	SLU 69	25	-3	2695	-417.94	5.36	8.68
382	SLU 70	25	-10	2707	-419.52	5.4	8.63
382	SLU 71	25	-3	2695	-417.94	5.36	8.68
382	SLU 72	25	-10	2707	-419.52	5.4	8.63
382	SLU 73	27	-16	3070	-462.53	6.19	9.34
382	SLU 74	27	-5	3050	-459.89	6.12	9.42
382	SLU 75	27	-12	3062	-461.47	6.16	9.37
382	SLU 76	27	-16	3070	-462.53	6.19	9.34
382	SLU 77	27	-5	3050	-459.89	6.12	9.42
382	SLU 78	27	-12	3062	-461.47	6.16	9.37
382	SLU 79	27	-5	3050	-459.89	6.12	9.42
382	SLU 80	27	-12	3062	-461.47	6.16	9.37
382	SLU 81	28	-6	3203	-477.87	6.45	9.74
382	SLU 82	28	-12	3215	-479.45	6.49	9.69
382	SLU 83	28	-6	3203	-477.87	6.45	9.74



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
382	SLU 84	28	-12	3215		-479.45	6.49	9.69
382	SLE RA 1	19	-2	2016		-314.8	4	6.57
382	SLE RA 2	19	-10	2029		-316.56	4.05	6.51
382	SLE RA 3	19	-2	2016		-314.8	4	6.57
382	SLE RA 4	19	-7	2024		-315.85	4.03	6.53
382	SLE RA 5	19	-10	2029		-316.56	4.05	6.51
382	SLE RA 6	19	-2	2016		-314.8	4	6.57
382	SLE RA 7	19	-7	2024		-315.85	4.03	6.53
382	SLE RA 8	19	-2	2016		-314.8	4	6.57
382	SLE RA 9	19	-7	2024		-315.85	4.03	6.53
382	SLE RA 10	20	-11	2266		-344.53	4.55	7
382	SLE RA 11	21	-3	2253		-342.77	4.51	7.06
382	SLE RA 12	20	-8	2261		-343.82	4.54	7.02
382	SLE RA 13	20	-11	2266		-344.53	4.55	7
382	SLE RA 14	21	-3	2253		-342.77	4.51	7.06
382	SLE RA 15	20	-8	2261		-343.82	4.54	7.02
382	SLE RA 16	21	-3	2253		-342.77	4.51	7.06
382	SLE RA 17	20	-8	2261		-343.82	4.54	7.02
382	SLE RA 18	21	-4	2354		-354.75	4.73	7.27
382	SLE RA 19	21	-8	2362		-355.81	4.75	7.23
382	SLE RA 20	21	-4	2354		-354.75	4.73	7.27
382	SLE RA 21	21	-8	2362		-355.81	4.75	7.23
382	SLE FR 1	19	-2	2016		-314.8	4	6.57
382	SLE FR 2	19	-4	2018		-315.15	4.01	6.55
382	SLE FR 3	19	-2	2016		-314.8	4	6.57
382	SLE FR 4	20	-4	2120		-327.14	4.23	6.77
382	SLE FR 5	20	-3	2117		-326.79	4.22	6.78
382	SLE FR 6	20	-3	2185		-334.78	4.37	6.92
382	SLE QP 1	19	-2	2016		-314.8	4	6.57
382	SLE QP 2	20	-3	2117		-326.79	4.22	6.78
382	SLD 1	236	60	2217		-346.87	4.85	82.34
382	SLD 2	197	27	2229		-349	4.93	69.07
382	SLD 3	228	-51	2405		-365.12	5.51	79.72
382	SLD 4	190	-84	2417		-367.26	5.59	66.45
382	SLD 5	110	197	1858		-304.34	3.38	38.33
382	SLD 6	70	162	1870		-306.56	3.46	24.54
382	SLD 7	85	-173	2484		-365.18	5.58	29.59
382	SLD 8	45	-208	2497		-367.4	5.66	15.8
382	SLD 9	-6	203	1738		-286.17	2.78	-2.24
382	SLD 10	-46	168	1750		-288.39	2.86	-16.03
382	SLD 11	-31	-167	2364		-347.02	4.98	-10.98
382	SLD 12	-71	-202	2377		-349.24	5.06	-24.77
382	SLD 13	-151	79	1817		-286.31	2.85	-52.89
382	SLD 14	-189	46	1829		-288.45	2.93	-66.16
382	SLD 15	-158	-32	2005		-304.57	3.51	-55.51
382	SLD 16	-196	-66	2017		-306.7	3.59	-68.79
382	SLV 1	512	144	2339		-371.88	5.64	179.08
382	SLV 2	424	67	2367		-376.78	5.82	148.64
382	SLV 3	495	-115	2778		-414.68	7.18	172.83
382	SLV 4	407	-192	2806		-419.57	7.36	142.39
382	SLV 5	227	464	1508		-273.56	2.24	79.4
382	SLV 6	135	383	1537		-278.72	2.43	47.35
382	SLV 7	169	-401	2971		-416.22	7.38	58.58
382	SLV 8	76	-482	3000		-421.38	7.57	26.53
382	SLV 9	-36	477	1234		-232.2	0.87	-12.97
382	SLV 10	-129	396	1263		-237.36	1.06	-45.02
382	SLV 11	-95	-388	2698		-374.85	6.01	-33.8
382	SLV 12	-188	-469	2727		-380.01	6.21	-65.85
382	SLV 13	-367	187	1429		-234	1.08	-128.84
382	SLV 14	-455	110	1456		-238.9	1.26	-159.27
382	SLV 15	-385	-72	1868		-276.8	2.62	-135.09
382	SLV 16	-473	-149	1895		-281.69	2.81	-165.52
382	CRTFP Ux+	0	0	0		0	0	0
382	CRTFP Ux-	0	0	0		0	0	0
382	CRTFP Uy+	0	0	0		0	0	0
382	CRTFP Uy-	0	0	0		0	0	0
383	SLU 1	18	-5	1843		-235.14	2.7	6.34
383	SLU 2	18	-15	1862		-236.85	2.74	6.26
383	SLU 3	18	-5	1843		-235.14	2.7	6.34
383	SLU 4	18	-11	1854		-236.17	2.72	6.3
383	SLU 5	18	-15	1862		-236.85	2.74	6.26
383	SLU 6	18	-5	1843		-235.14	2.7	6.34
383	SLU 7	18	-11	1854		-236.17	2.72	6.3
383	SLU 8	18	-5	1843		-235.14	2.7	6.34
383	SLU 9	18	-11	1854		-236.17	2.72	6.3
383	SLU 10	20	-18	2198		-263.55	3.26	6.94
383	SLU 11	20	-8	2180		-261.84	3.21	7.02
383	SLU 12	20	-14	2191		-262.87	3.24	6.97
383	SLU 13	20	-18	2198		-263.55	3.26	6.94
383	SLU 14	20	-8	2180		-261.84	3.21	7.02
383	SLU 15	20	-14	2191		-262.87	3.24	6.97
383	SLU 16	20	-8	2180		-261.84	3.21	7.02
383	SLU 17	20	-14	2191		-262.87	3.24	6.97
383	SLU 18	21	-9	2324		-273.28	3.43	7.31
383	SLU 19	21	-15	2335		-274.31	3.46	7.26
383	SLU 20	21	-9	2324		-273.28	3.43	7.31
383	SLU 21	21	-15	2335		-274.31	3.46	7.26
383	SLU 22	20	-7	2089		-254.5	3.07	6.82
383	SLU 23	20	-17	2107		-256.2	3.12	6.74
383	SLU 24	20	-7	2089		-254.5	3.07	6.82
383	SLU 25	20	-13	2100		-255.52	3.1	6.77



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
383	SLU 26	20	-17	2107	-256.2	3.12	6.74
383	SLU 27	20	-7	2089	-254.5	3.07	6.82
383	SLU 28	20	-13	2100	-255.52	3.1	6.77
383	SLU 29	20	-7	2089	-254.5	3.07	6.82
383	SLU 30	20	-13	2100	-255.52	3.1	6.77
383	SLU 31	22	-20	2444	-282.9	3.63	7.42
383	SLU 32	22	-10	2425	-281.2	3.58	7.5
383	SLU 33	22	-16	2436	-282.22	3.61	7.45
383	SLU 34	22	-20	2444	-282.9	3.63	7.42
383	SLU 35	22	-10	2425	-281.2	3.58	7.5
383	SLU 36	22	-16	2436	-282.22	3.61	7.45
383	SLU 37	22	-10	2425	-281.2	3.58	7.5
383	SLU 38	22	-16	2436	-282.22	3.61	7.45
383	SLU 39	23	-11	2569	-292.64	3.8	7.79
383	SLU 40	23	-17	2580	-293.66	3.83	7.74
383	SLU 41	23	-11	2569	-292.64	3.8	7.79
383	SLU 42	23	-17	2580	-293.66	3.83	7.74
383	SLU 43	23	-5	2312	-299.05	3.38	8.08
383	SLU 44	23	-16	2330	-300.76	3.42	8.01
383	SLU 45	23	-5	2312	-299.05	3.38	8.08
383	SLU 46	23	-12	2323	-300.07	3.4	8.04
383	SLU 47	23	-16	2330	-300.76	3.42	8.01
383	SLU 48	23	-5	2312	-299.05	3.38	8.08
383	SLU 49	23	-12	2323	-300.07	3.4	8.04
383	SLU 50	23	-5	2312	-299.05	3.38	8.08
383	SLU 51	23	-12	2323	-300.07	3.4	8.04
383	SLU 52	25	-19	2667	-327.46	3.94	8.68
383	SLU 53	25	-8	2649	-325.75	3.89	8.76
383	SLU 54	25	-15	2660	-326.77	3.92	8.71
383	SLU 55	25	-19	2667	-327.46	3.94	8.68
383	SLU 56	25	-8	2649	-325.75	3.89	8.76
383	SLU 57	25	-15	2660	-326.77	3.92	8.71
383	SLU 58	25	-8	2649	-325.75	3.89	8.76
383	SLU 59	25	-15	2660	-326.77	3.92	8.71
383	SLU 60	26	-10	2793	-337.19	4.11	9.05
383	SLU 61	26	-16	2804	-338.22	4.14	9
383	SLU 62	26	-10	2793	-337.19	4.11	9.05
383	SLU 63	26	-16	2804	-338.22	4.14	9
383	SLU 64	25	-7	2558	-318.41	3.75	8.56
383	SLU 65	25	-18	2576	-320.11	3.8	8.48
383	SLU 66	25	-7	2558	-318.41	3.75	8.56
383	SLU 67	25	-14	2569	-319.43	3.78	8.51
383	SLU 68	25	-18	2576	-320.11	3.8	8.48
383	SLU 69	25	-7	2558	-318.41	3.75	8.56
383	SLU 70	25	-14	2569	-319.43	3.78	8.51
383	SLU 71	25	-7	2558	-318.41	3.75	8.56
383	SLU 72	25	-14	2569	-319.43	3.78	8.51
383	SLU 73	27	-21	2912	-346.81	4.31	9.16
383	SLU 74	27	-10	2894	-345.1	4.26	9.24
383	SLU 75	27	-17	2905	-346.13	4.29	9.19
383	SLU 76	27	-21	2912	-346.81	4.31	9.16
383	SLU 77	27	-10	2894	-345.1	4.26	9.24
383	SLU 78	27	-17	2905	-346.13	4.29	9.19
383	SLU 79	27	-10	2894	-345.1	4.26	9.24
383	SLU 80	27	-17	2905	-346.13	4.29	9.19
383	SLU 81	28	-12	3038	-356.55	4.48	9.53
383	SLU 82	28	-18	3049	-357.57	4.51	9.48
383	SLU 83	28	-12	3038	-356.55	4.48	9.53
383	SLU 84	28	-18	3049	-357.57	4.51	9.48
383	SLE RA 1	19	-5	1913	-240.67	2.8	6.48
383	SLE RA 2	19	-12	1926	-241.81	2.83	6.43
383	SLE RA 3	19	-5	1913	-240.67	2.8	6.48
383	SLE RA 4	19	-9	1921	-241.36	2.82	6.45
383	SLE RA 5	19	-12	1926	-241.81	2.83	6.43
383	SLE RA 6	19	-5	1913	-240.67	2.8	6.48
383	SLE RA 7	19	-9	1921	-241.36	2.82	6.45
383	SLE RA 8	19	-5	1913	-240.67	2.8	6.48
383	SLE RA 9	19	-9	1921	-241.36	2.82	6.45
383	SLE RA 10	20	-14	2150	-259.61	3.18	6.88
383	SLE RA 11	20	-7	2138	-258.47	3.15	6.93
383	SLE RA 12	20	-11	2145	-259.16	3.16	6.9
383	SLE RA 13	20	-14	2150	-259.61	3.18	6.88
383	SLE RA 14	20	-7	2138	-258.47	3.15	6.93
383	SLE RA 15	20	-11	2145	-259.16	3.16	6.9
383	SLE RA 16	20	-7	2138	-258.47	3.15	6.93
383	SLE RA 17	20	-11	2145	-259.16	3.16	6.9
383	SLE RA 18	21	-8	2234	-266.1	3.29	7.12
383	SLE RA 19	21	-12	2241	-266.78	3.31	7.09
383	SLE RA 20	21	-8	2234	-266.1	3.29	7.12
383	SLE RA 21	21	-12	2241	-266.78	3.31	7.09
383	SLE FR 1	19	-5	1913	-240.67	2.8	6.48
383	SLE FR 2	19	-7	1916	-240.9	2.81	6.47
383	SLE FR 3	19	-5	1913	-240.67	2.8	6.48
383	SLE FR 4	19	-7	2012	-248.53	2.96	6.66
383	SLE FR 5	19	-6	2010	-248.3	2.95	6.67
383	SLE FR 6	20	-7	2074	-253.39	3.05	6.8
383	SLE QP 1	19	-5	1913	-240.67	2.8	6.48
383	SLE QP 2	19	-6	2010	-248.3	2.95	6.67
383	SLD 1	236	52	2092	-260.11	3.49	82.34
383	SLD 2	197	23	2102	-261.49	3.56	69.05
383	SLD 3	228	-52	2263	-273.04	3.99	79.69



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
383	SLD 4	190	-81	2272	-274.42	4.06	66.41
383	SLD 5	110	181	1771	-231.73	2.33	38.29
383	SLD 6	70	150	1782	-233.17	2.41	24.49
383	SLD 7	85	-168	2341	-274.81	3.99	29.48
383	SLD 8	45	-198	2351	-276.25	4.06	15.68
383	SLD 9	-6	186	1668	-220.35	1.84	-2.33
383	SLD 10	-46	156	1678	-221.79	1.91	-16.13
383	SLD 11	-31	-163	2237	-263.44	3.49	-11.14
383	SLD 12	-71	-193	2248	-264.87	3.56	-24.94
383	SLD 13	-151	69	1747	-222.19	1.84	-53.06
383	SLD 14	-189	40	1756	-223.57	1.91	-66.35
383	SLD 15	-159	-35	1918	-235.11	2.34	-55.71
383	SLD 16	-197	-64	1927	-236.49	2.4	-68.99
383	SLV 1	513	130	2192	-274.66	4.17	179.2
383	SLV 2	425	63	2214	-277.83	4.33	148.74
383	SLV 3	495	-114	2591	-305.15	5.33	172.9
383	SLV 4	407	-181	2613	-308.32	5.49	142.44
383	SLV 5	227	431	1450	-208.77	1.5	79.45
383	SLV 6	135	360	1474	-212.11	1.66	47.37
383	SLV 7	168	-384	2781	-310.41	5.37	58.47
383	SLV 8	76	-454	2805	-313.75	5.53	26.39
383	SLV 9	-37	442	1214	-182.85	0.37	-13.04
383	SLV 10	-129	372	1238	-186.19	0.53	-45.12
383	SLV 11	-96	-372	2545	-284.5	4.24	-34.02
383	SLV 12	-189	-443	2569	-287.84	4.4	-66.1
383	SLV 13	-368	169	1406	-188.28	0.41	-129.1
383	SLV 14	-456	102	1428	-191.45	0.56	-159.56
383	SLV 15	-386	-75	1805	-218.77	1.57	-135.39
383	SLV 16	-474	-142	1827	-221.94	1.73	-165.85
383	CRTFP Ux+	0	0	0	0	0	0
383	CRTFP Ux-	0	0	0	0	0	0
383	CRTFP Uy+	0	0	0	0	0	0
383	CRTFP Uy-	0	0	0	0	0	0
384	SLU 1	18	-7	1777	-188.52	1.7	6.27
384	SLU 2	18	-17	1794	-189.6	1.73	6.19
384	SLU 3	18	-7	1777	-188.52	1.7	6.27
384	SLU 4	18	-13	1788	-189.17	1.72	6.22
384	SLU 5	18	-17	1794	-189.6	1.73	6.19
384	SLU 6	18	-7	1777	-188.52	1.7	6.27
384	SLU 7	18	-13	1788	-189.17	1.72	6.22
384	SLU 8	18	-7	1777	-188.52	1.7	6.27
384	SLU 9	18	-13	1788	-189.17	1.72	6.22
384	SLU 10	20	-21	2119	-206.28	2.03	6.8
384	SLU 11	20	-11	2102	-205.21	2	6.87
384	SLU 12	20	-17	2112	-205.86	2.02	6.83
384	SLU 13	20	-21	2119	-206.28	2.03	6.8
384	SLU 14	20	-11	2102	-205.21	2	6.87
384	SLU 15	20	-17	2112	-205.86	2.02	6.83
384	SLU 16	20	-11	2102	-205.21	2	6.87
384	SLU 17	20	-17	2112	-205.86	2.02	6.83
384	SLU 18	21	-13	2241	-212.36	2.13	7.13
384	SLU 19	21	-19	2251	-213.01	2.15	7.09
384	SLU 20	21	-13	2241	-212.36	2.13	7.13
384	SLU 21	21	-19	2251	-213.01	2.15	7.09
384	SLU 22	19	-10	2014	-200.63	1.92	6.69
384	SLU 23	19	-19	2031	-201.7	1.95	6.62
384	SLU 24	19	-10	2014	-200.63	1.92	6.69
384	SLU 25	19	-15	2024	-201.27	1.94	6.65
384	SLU 26	19	-19	2031	-201.7	1.95	6.62
384	SLU 27	19	-10	2014	-200.63	1.92	6.69
384	SLU 28	19	-15	2024	-201.27	1.94	6.65
384	SLU 29	19	-10	2014	-200.63	1.92	6.69
384	SLU 30	19	-15	2024	-201.27	1.94	6.65
384	SLU 31	21	-23	2355	-218.39	2.25	7.22
384	SLU 32	21	-14	2338	-217.32	2.22	7.3
384	SLU 33	21	-20	2348	-217.96	2.24	7.25
384	SLU 34	21	-23	2355	-218.39	2.25	7.22
384	SLU 35	21	-14	2338	-217.32	2.22	7.3
384	SLU 36	21	-20	2348	-217.96	2.24	7.25
384	SLU 37	21	-14	2338	-217.32	2.22	7.3
384	SLU 38	21	-20	2348	-217.96	2.24	7.25
384	SLU 39	22	-15	2477	-224.47	2.35	7.56
384	SLU 40	22	-21	2487	-225.11	2.37	7.51
384	SLU 41	22	-15	2477	-224.47	2.35	7.56
384	SLU 42	22	-21	2487	-225.11	2.37	7.51
384	SLU 43	23	-8	2229	-240.93	2.13	8
384	SLU 44	23	-18	2247	-242	2.17	7.93
384	SLU 45	23	-8	2229	-240.93	2.13	8
384	SLU 46	23	-14	2240	-241.57	2.15	7.96
384	SLU 47	23	-18	2247	-242	2.17	7.93
384	SLU 48	23	-8	2229	-240.93	2.13	8
384	SLU 49	23	-14	2240	-241.57	2.15	7.96
384	SLU 50	23	-8	2229	-240.93	2.13	8
384	SLU 51	23	-14	2240	-241.57	2.15	7.96
384	SLU 52	25	-22	2571	-258.69	2.47	8.53
384	SLU 53	25	-12	2554	-257.62	2.43	8.61
384	SLU 54	25	-18	2564	-258.26	2.45	8.56
384	SLU 55	25	-22	2571	-258.69	2.47	8.53
384	SLU 56	25	-12	2554	-257.62	2.43	8.61
384	SLU 57	25	-18	2564	-258.26	2.45	8.56
384	SLU 58	25	-12	2554	-257.62	2.43	8.61



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
384	SLU 59	25	-18	2564	-258.26	2.45	8.56
384	SLU 60	26	-14	2693	-264.77	2.56	8.86
384	SLU 61	26	-20	2703	-265.41	2.58	8.82
384	SLU 62	26	-14	2693	-264.77	2.56	8.86
384	SLU 63	26	-20	2703	-265.41	2.58	8.82
384	SLU 64	24	-11	2466	-253.04	2.35	8.43
384	SLU 65	24	-21	2483	-254.11	2.38	8.35
384	SLU 66	24	-11	2466	-253.04	2.35	8.43
384	SLU 67	24	-17	2476	-253.68	2.37	8.38
384	SLU 68	24	-21	2483	-254.11	2.38	8.35
384	SLU 69	24	-11	2466	-253.04	2.35	8.43
384	SLU 70	24	-17	2476	-253.68	2.37	8.38
384	SLU 71	24	-11	2466	-253.04	2.35	8.43
384	SLU 72	24	-17	2476	-253.68	2.37	8.38
384	SLU 73	26	-25	2807	-270.8	2.68	8.96
384	SLU 74	26	-15	2790	-269.72	2.65	9.03
384	SLU 75	26	-21	2801	-270.37	2.67	8.99
384	SLU 76	26	-25	2807	-270.8	2.68	8.96
384	SLU 77	26	-15	2790	-269.72	2.65	9.03
384	SLU 78	26	-21	2801	-270.37	2.67	8.99
384	SLU 79	26	-15	2790	-269.72	2.65	9.03
384	SLU 80	26	-21	2801	-270.37	2.67	8.99
384	SLU 81	27	-17	2929	-276.88	2.78	9.29
384	SLU 82	27	-22	2940	-277.52	2.8	9.25
384	SLU 83	27	-17	2929	-276.88	2.78	9.29
384	SLU 84	27	-22	2940	-277.52	2.8	9.25
384	SLE RA 1	18	-8	1845	-191.98	1.76	6.39
384	SLE RA 2	18	-14	1856	-192.7	1.78	6.34
384	SLE RA 3	18	-8	1845	-191.98	1.76	6.39
384	SLE RA 4	18	-12	1852	-192.41	1.77	6.36
384	SLE RA 5	18	-14	1856	-192.7	1.78	6.34
384	SLE RA 6	18	-8	1845	-191.98	1.76	6.39
384	SLE RA 7	18	-12	1852	-192.41	1.77	6.36
384	SLE RA 8	18	-8	1845	-191.98	1.76	6.39
384	SLE RA 9	18	-12	1852	-192.41	1.77	6.36
384	SLE RA 10	19	-17	2073	-203.82	1.98	6.74
384	SLE RA 11	20	-10	2061	-203.11	1.96	6.79
384	SLE RA 12	20	-14	2068	-203.54	1.97	6.76
384	SLE RA 13	19	-17	2073	-203.82	1.98	6.74
384	SLE RA 14	20	-10	2061	-203.11	1.96	6.79
384	SLE RA 15	20	-14	2068	-203.54	1.97	6.76
384	SLE RA 16	20	-10	2061	-203.11	1.96	6.79
384	SLE RA 17	20	-14	2068	-203.54	1.97	6.76
384	SLE RA 18	20	-12	2154	-207.88	2.05	6.96
384	SLE RA 19	20	-15	2161	-208.3	2.06	6.93
384	SLE RA 20	20	-12	2154	-207.88	2.05	6.96
384	SLE RA 21	20	-15	2161	-208.3	2.06	6.93
384	SLE FR 1	18	-8	1845	-191.98	1.76	6.39
384	SLE FR 2	18	-9	1847	-192.13	1.77	6.38
384	SLE FR 3	18	-8	1845	-191.98	1.76	6.39
384	SLE FR 4	19	-10	1940	-196.89	1.85	6.55
384	SLE FR 5	19	-9	1938	-196.75	1.85	6.56
384	SLE FR 6	19	-10	1999	-199.93	1.9	6.68
384	SLE QP 1	18	-8	1845	-191.98	1.76	6.39
384	SLE QP 2	19	-9	1938	-196.75	1.85	6.56
384	SLD 1	235	46	2004	-200.57	2.33	82.31
384	SLD 2	197	20	2012	-201.4	2.39	69.01
384	SLD 3	228	-53	2163	-214.41	2.67	79.65
384	SLD 4	190	-78	2171	-215.23	2.73	66.35
384	SLD 5	109	167	1714	-176.61	1.46	38.23
384	SLD 6	70	140	1722	-177.46	1.51	24.42
384	SLD 7	84	-163	2243	-222.73	2.59	29.36
384	SLD 8	45	-189	2251	-223.59	2.65	15.55
384	SLD 9	-7	171	1624	-169.92	1.04	-2.43
384	SLD 10	-46	145	1632	-170.77	1.1	-16.24
384	SLD 11	-32	-158	2153	-216.04	2.18	-11.3
384	SLD 12	-72	-184	2161	-216.9	2.24	-25.11
384	SLD 13	-152	61	1704	-178.27	0.96	-53.23
384	SLD 14	-190	36	1712	-179.09	1.02	-66.52
384	SLD 15	-159	-38	1863	-192.11	1.3	-55.89
384	SLD 16	-197	-63	1871	-192.93	1.36	-69.18
384	SLV 1	513	118	2085	-204.89	2.94	179.27
384	SLV 2	425	60	2103	-206.78	3.08	148.79
384	SLV 3	495	-113	2456	-237.59	3.74	172.94
384	SLV 4	407	-171	2474	-239.48	3.87	142.45
384	SLV 5	227	401	1413	-148.89	0.92	79.47
384	SLV 6	135	340	1432	-150.88	1.06	47.36
384	SLV 7	168	-369	2648	-257.88	3.57	58.35
384	SLV 8	75	-429	2667	-259.87	3.71	26.24
384	SLV 9	-37	412	1208	-133.63	-0.02	-13.11
384	SLV 10	-130	351	1227	-135.62	0.12	-45.22
384	SLV 11	-97	-358	2443	-242.63	2.63	-34.24
384	SLV 12	-189	-419	2462	-244.62	2.77	-66.34
384	SLV 13	-369	153	1402	-154.03	-0.18	-129.33
384	SLV 14	-457	95	1420	-155.92	-0.05	-159.81
384	SLV 15	-387	-78	1772	-186.73	0.62	-135.66
384	SLV 16	-475	-136	1790	-188.62	0.75	-166.15
384	CRTFP Ux+	0	0	0	0	0	0
384	CRTFP Ux-	0	0	0	0	0	0
384	CRTFP Uy+	0	0	0	0	0	0
384	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
385	SLU 1	18	-9	1739	-163.07	0.84	6.19
385	SLU 2	18	-18	1756	-163.77	0.86	6.12
385	SLU 3	18	-9	1739	-163.07	0.84	6.19
385	SLU 4	18	-14	1749	-163.49	0.85	6.15
385	SLU 5	18	-18	1756	-163.77	0.86	6.12
385	SLU 6	18	-9	1739	-163.07	0.84	6.19
385	SLU 7	18	-14	1749	-163.49	0.85	6.15
385	SLU 8	18	-9	1739	-163.07	0.84	6.19
385	SLU 9	18	-14	1749	-163.49	0.85	6.15
385	SLU 10	19	-23	2074	-175.06	0.98	6.64
385	SLU 11	19	-13	2057	-174.35	0.96	6.71
385	SLU 12	19	-19	2067	-174.78	0.97	6.67
385	SLU 13	19	-23	2074	-175.06	0.98	6.64
385	SLU 14	19	-13	2057	-174.35	0.96	6.71
385	SLU 15	19	-19	2067	-174.78	0.97	6.67
385	SLU 16	19	-13	2057	-174.35	0.96	6.71
385	SLU 17	19	-19	2067	-174.78	0.97	6.67
385	SLU 18	20	-16	2194	-179.19	1	6.94
385	SLU 19	20	-21	2203	-179.61	1.02	6.9
385	SLU 20	20	-16	2194	-179.19	1	6.94
385	SLU 21	20	-21	2203	-179.61	1.02	6.9
385	SLU 22	19	-12	1971	-171.29	0.92	6.56
385	SLU 23	19	-21	1988	-171.99	0.94	6.49
385	SLU 24	19	-12	1971	-171.29	0.92	6.56
385	SLU 25	19	-17	1981	-171.71	0.94	6.52
385	SLU 26	19	-21	1988	-171.99	0.94	6.49
385	SLU 27	19	-12	1971	-171.29	0.92	6.56
385	SLU 28	19	-17	1981	-171.71	0.94	6.52
385	SLU 29	19	-12	1971	-171.29	0.92	6.56
385	SLU 30	19	-17	1981	-171.71	0.94	6.52
385	SLU 31	20	-26	2306	-183.28	1.06	7.01
385	SLU 32	20	-17	2289	-182.58	1.04	7.08
385	SLU 33	20	-22	2299	-183	1.05	7.04
385	SLU 34	20	-26	2306	-183.28	1.06	7.01
385	SLU 35	20	-17	2289	-182.58	1.04	7.08
385	SLU 36	20	-22	2299	-183	1.05	7.04
385	SLU 37	20	-17	2289	-182.58	1.04	7.08
385	SLU 38	20	-22	2299	-183	1.05	7.04
385	SLU 39	21	-19	2426	-187.42	1.09	7.31
385	SLU 40	21	-24	2436	-187.84	1.1	7.27
385	SLU 41	21	-19	2426	-187.42	1.09	7.31
385	SLU 42	21	-24	2436	-187.84	1.1	7.27
385	SLU 43	23	-10	2182	-209.17	1.06	7.92
385	SLU 44	23	-19	2198	-209.87	1.08	7.86
385	SLU 45	23	-10	2182	-209.17	1.06	7.92
385	SLU 46	23	-15	2191	-209.59	1.07	7.88
385	SLU 47	23	-19	2198	-209.87	1.08	7.86
385	SLU 48	23	-10	2182	-209.17	1.06	7.92
385	SLU 49	23	-15	2191	-209.59	1.07	7.88
385	SLU 50	23	-10	2182	-209.17	1.06	7.92
385	SLU 51	23	-15	2191	-209.59	1.07	7.88
385	SLU 52	24	-24	2516	-221.16	1.2	8.38
385	SLU 53	24	-15	2500	-220.46	1.18	8.44
385	SLU 54	24	-20	2509	-220.88	1.19	8.4
385	SLU 55	24	-24	2516	-221.16	1.2	8.38
385	SLU 56	24	-15	2500	-220.46	1.18	8.44
385	SLU 57	24	-20	2509	-220.88	1.19	8.4
385	SLU 58	24	-15	2500	-220.46	1.18	8.44
385	SLU 59	24	-20	2509	-220.88	1.19	8.4
385	SLU 60	25	-17	2636	-225.29	1.23	8.67
385	SLU 61	25	-22	2646	-225.71	1.24	8.63
385	SLU 62	25	-17	2636	-225.29	1.23	8.67
385	SLU 63	25	-22	2646	-225.71	1.24	8.63
385	SLU 64	24	-13	2414	-217.39	1.15	8.29
385	SLU 65	24	-22	2430	-218.09	1.17	8.23
385	SLU 66	24	-13	2414	-217.39	1.15	8.29
385	SLU 67	24	-19	2423	-217.81	1.16	8.25
385	SLU 68	24	-22	2430	-218.09	1.17	8.23
385	SLU 69	24	-13	2414	-217.39	1.15	8.29
385	SLU 70	24	-19	2423	-217.81	1.16	8.25
385	SLU 71	24	-13	2414	-217.39	1.15	8.29
385	SLU 72	24	-19	2423	-217.81	1.16	8.25
385	SLU 73	25	-27	2748	-229.38	1.28	8.75
385	SLU 74	25	-18	2732	-228.68	1.26	8.81
385	SLU 75	25	-24	2741	-229.1	1.27	8.77
385	SLU 76	25	-27	2748	-229.38	1.28	8.75
385	SLU 77	25	-18	2732	-228.68	1.26	8.81
385	SLU 78	25	-24	2741	-229.1	1.27	8.77
385	SLU 79	25	-18	2732	-228.68	1.26	8.81
385	SLU 80	25	-24	2741	-229.1	1.27	8.77
385	SLU 81	26	-20	2868	-233.52	1.31	9.04
385	SLU 82	26	-26	2878	-233.94	1.32	9
385	SLU 83	26	-20	2868	-233.52	1.31	9.04
385	SLU 84	26	-26	2878	-233.94	1.32	9
385	SLE RA 1	18	-10	1806	-165.42	0.86	6.3
385	SLE RA 2	18	-16	1817	-165.88	0.88	6.25
385	SLE RA 3	18	-10	1806	-165.42	0.86	6.3
385	SLE RA 4	18	-13	1812	-165.7	0.87	6.27
385	SLE RA 5	18	-16	1817	-165.88	0.88	6.25
385	SLE RA 6	18	-10	1806	-165.42	0.86	6.3
385	SLE RA 7	18	-13	1812	-165.7	0.87	6.27



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
385	SLE RA 8	18	-10	1806	-165.42	0.86	6.3
385	SLE RA 9	18	-13	1812	-165.7	0.87	6.27
385	SLE RA 10	19	-19	2029	-173.41	0.95	6.6
385	SLE RA 11	19	-13	2018	-172.94	0.94	6.64
385	SLE RA 12	19	-16	2024	-173.22	0.95	6.62
385	SLE RA 13	19	-19	2029	-173.41	0.95	6.6
385	SLE RA 14	19	-13	2018	-172.94	0.94	6.64
385	SLE RA 15	19	-16	2024	-173.22	0.95	6.62
385	SLE RA 16	19	-13	2018	-172.94	0.94	6.64
385	SLE RA 17	19	-16	2024	-173.22	0.95	6.62
385	SLE RA 18	20	-14	2109	-176.17	0.97	6.79
385	SLE RA 19	20	-18	2115	-176.45	0.98	6.77
385	SLE RA 20	20	-14	2109	-176.17	0.97	6.79
385	SLE RA 21	20	-18	2115	-176.45	0.98	6.77
385	SLE FR 1	18	-10	1806	-165.42	0.86	6.3
385	SLE FR 2	18	-11	1808	-165.51	0.87	6.29
385	SLE FR 3	18	-10	1806	-165.42	0.86	6.3
385	SLE FR 4	19	-12	1899	-168.74	0.9	6.44
385	SLE FR 5	19	-11	1897	-168.64	0.9	6.45
385	SLE FR 6	19	-12	1957	-170.79	0.92	6.55
385	SLE QP 1	18	-10	1806	-165.42	0.86	6.3
385	SLE QP 2	19	-11	1897	-168.64	0.9	6.45
385	SLD 1	235	40	1949	-166.91	1.35	79.58
385	SLD 2	197	19	1955	-167.33	1.4	66.27
385	SLD 3	228	-54	2100	-183.05	1.55	82.25
385	SLD 4	189	-76	2106	-183.47	1.59	68.95
385	SLD 5	109	155	1681	-143.48	0.72	29.24
385	SLD 6	69	133	1688	-143.92	0.77	15.42
385	SLD 7	84	-159	2184	-197.3	1.37	38.17
385	SLD 8	44	-181	2191	-197.73	1.42	24.34
385	SLD 9	-7	160	1603	-139.55	0.38	-11.45
385	SLD 10	-47	137	1609	-139.99	0.43	-25.27
385	SLD 11	-32	-155	2105	-193.37	1.02	-2.52
385	SLD 12	-72	-177	2112	-193.8	1.07	-16.35
385	SLD 13	-152	54	1687	-153.81	0.2	-56.06
385	SLD 14	-190	32	1693	-154.23	0.25	-69.36
385	SLD 15	-160	-40	1838	-169.96	0.39	-53.38
385	SLD 16	-198	-62	1844	-170.38	0.44	-66.68
385	SLV 1	513	108	2012	-164.11	1.93	172.93
385	SLV 2	425	59	2026	-165.07	2.03	142.42
385	SLV 3	494	-112	2364	-202.23	2.38	179.3
385	SLV 4	407	-162	2379	-203.19	2.49	148.79
385	SLV 5	227	378	1391	-109.11	0.48	58.21
385	SLV 6	135	325	1406	-110.13	0.59	26.08
385	SLV 7	167	-357	2566	-236.16	1.99	79.46
385	SLV 8	74	-409	2581	-237.18	2.1	47.33
385	SLV 9	-37	387	1212	-100.11	-0.31	-34.44
385	SLV 10	-130	335	1227	-101.12	-0.19	-66.57
385	SLV 11	-98	-347	2387	-227.16	1.2	-13.19
385	SLV 12	-190	-400	2402	-228.17	1.31	-45.32
385	SLV 13	-369	140	1414	-134.09	-0.69	-135.9
385	SLV 14	-457	90	1429	-135.06	-0.59	-166.41
385	SLV 15	-387	-81	1767	-172.21	-0.24	-129.53
385	SLV 16	-475	-130	1781	-173.17	-0.13	-160.04
385	CRTFP Ux+	0	0	0	0	0	0
385	CRTFP Ux-	0	0	0	0	0	0
385	CRTFP Uy+	0	0	0	0	0	0
385	CRTFP Uy-	0	0	0	0	0	0
386	SLU 1	18	-9	1726	-156.15	0.09	6.12
386	SLU 2	17	-18	1741	-156.72	0.1	6.06
386	SLU 3	18	-9	1726	-156.15	0.09	6.12
386	SLU 4	17	-15	1735	-156.49	0.09	6.08
386	SLU 5	17	-18	1741	-156.72	0.1	6.06
386	SLU 6	18	-9	1726	-156.15	0.09	6.12
386	SLU 7	17	-15	1735	-156.49	0.09	6.08
386	SLU 8	18	-9	1726	-156.15	0.09	6.12
386	SLU 9	17	-15	1735	-156.49	0.09	6.08
386	SLU 10	19	-23	2058	-166.71	0.05	6.49
386	SLU 11	19	-15	2043	-166.14	0.04	6.55
386	SLU 12	19	-20	2052	-166.48	0.05	6.51
386	SLU 13	19	-23	2058	-166.71	0.05	6.49
386	SLU 14	19	-15	2043	-166.14	0.04	6.55
386	SLU 15	19	-20	2052	-166.48	0.05	6.51
386	SLU 16	19	-15	2043	-166.14	0.04	6.55
386	SLU 17	19	-20	2052	-166.48	0.05	6.51
386	SLU 18	19	-17	2178	-170.42	0.02	6.73
386	SLU 19	19	-22	2188	-170.76	0.03	6.7
386	SLU 20	19	-17	2178	-170.42	0.02	6.73
386	SLU 21	19	-22	2188	-170.76	0.03	6.7
386	SLU 22	18	-13	1957	-163.48	0.06	6.43
386	SLU 23	18	-22	1973	-164.05	0.06	6.37
386	SLU 24	18	-13	1957	-163.48	0.06	6.43
386	SLU 25	18	-18	1966	-163.83	0.06	6.39
386	SLU 26	18	-22	1973	-164.05	0.06	6.37
386	SLU 27	18	-13	1957	-163.48	0.06	6.43
386	SLU 28	18	-18	1966	-163.83	0.06	6.39
386	SLU 29	18	-13	1957	-163.48	0.06	6.43
386	SLU 30	18	-18	1966	-163.83	0.06	6.39
386	SLU 31	19	-27	2290	-174.04	0.02	6.8
386	SLU 32	20	-19	2274	-173.47	0.01	6.86
386	SLU 33	20	-24	2283	-173.81	0.01	6.82



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
386	SLU 34	19	-27	2290	-174.04	0.02	6.8
386	SLU 35	20	-19	2274	-173.47	0.01	6.86
386	SLU 36	20	-24	2283	-173.81	0.01	6.82
386	SLU 37	20	-19	2274	-173.47	0.01	6.86
386	SLU 38	20	-24	2283	-173.81	0.01	6.82
386	SLU 39	20	-21	2410	-177.75	-0.01	7.04
386	SLU 40	20	-26	2419	-178.09	0	7.01
386	SLU 41	20	-21	2410	-177.75	-0.01	7.04
386	SLU 42	20	-26	2419	-178.09	0	7.01
386	SLU 43	22	-11	2164	-200.48	0.13	7.85
386	SLU 44	22	-20	2180	-201.05	0.13	7.79
386	SLU 45	22	-11	2164	-200.48	0.13	7.85
386	SLU 46	22	-16	2173	-200.82	0.13	7.81
386	SLU 47	22	-20	2180	-201.05	0.13	7.79
386	SLU 48	22	-11	2164	-200.48	0.13	7.85
386	SLU 49	22	-16	2173	-200.82	0.13	7.81
386	SLU 50	22	-11	2164	-200.48	0.13	7.85
386	SLU 51	22	-16	2173	-200.82	0.13	7.81
386	SLU 52	24	-25	2497	-211.04	0.09	8.22
386	SLU 53	24	-16	2481	-210.47	0.08	8.28
386	SLU 54	24	-22	2490	-210.81	0.09	8.24
386	SLU 55	24	-25	2497	-211.04	0.09	8.22
386	SLU 56	24	-16	2481	-210.47	0.08	8.28
386	SLU 57	24	-22	2490	-210.81	0.09	8.24
386	SLU 58	24	-16	2481	-210.47	0.08	8.28
386	SLU 59	24	-22	2490	-210.81	0.09	8.24
386	SLU 60	24	-19	2617	-214.75	0.06	8.46
386	SLU 61	24	-24	2626	-215.09	0.07	8.43
386	SLU 62	24	-19	2617	-214.75	0.06	8.46
386	SLU 63	24	-24	2626	-215.09	0.07	8.43
386	SLU 64	23	-15	2395	-207.81	0.09	8.16
386	SLU 65	23	-23	2411	-208.38	0.1	8.1
386	SLU 66	23	-15	2395	-207.81	0.09	8.16
386	SLU 67	23	-20	2405	-208.16	0.1	8.12
386	SLU 68	23	-23	2411	-208.38	0.1	8.1
386	SLU 69	23	-15	2395	-207.81	0.09	8.16
386	SLU 70	23	-20	2405	-208.16	0.1	8.12
386	SLU 71	23	-15	2395	-207.81	0.09	8.16
386	SLU 72	23	-20	2405	-208.16	0.1	8.12
386	SLU 73	24	-29	2728	-218.37	0.06	8.53
386	SLU 74	25	-20	2712	-217.8	0.05	8.59
386	SLU 75	25	-25	2722	-218.14	0.05	8.55
386	SLU 76	24	-29	2728	-218.37	0.06	8.53
386	SLU 77	25	-20	2712	-217.8	0.05	8.59
386	SLU 78	25	-25	2722	-218.14	0.05	8.55
386	SLU 79	25	-20	2712	-217.8	0.05	8.59
386	SLU 80	25	-25	2722	-218.14	0.05	8.55
386	SLU 81	25	-22	2848	-222.08	0.03	8.77
386	SLU 82	25	-28	2858	-222.42	0.03	8.74
386	SLU 83	25	-22	2848	-222.08	0.03	8.77
386	SLU 84	25	-28	2858	-222.42	0.03	8.74
386	SLE RA 1	18	-10	1792	-158.25	0.08	6.21
386	SLE RA 2	18	-16	1802	-158.63	0.08	6.17
386	SLE RA 3	18	-10	1792	-158.25	0.08	6.21
386	SLE RA 4	18	-14	1798	-158.47	0.08	6.19
386	SLE RA 5	18	-16	1802	-158.63	0.08	6.17
386	SLE RA 6	18	-10	1792	-158.25	0.08	6.21
386	SLE RA 7	18	-14	1798	-158.47	0.08	6.19
386	SLE RA 8	18	-10	1792	-158.25	0.08	6.21
386	SLE RA 9	18	-14	1798	-158.47	0.08	6.19
386	SLE RA 10	18	-20	2014	-165.28	0.05	6.45
386	SLE RA 11	19	-14	2003	-164.9	0.05	6.5
386	SLE RA 12	19	-18	2009	-165.13	0.05	6.47
386	SLE RA 13	18	-20	2014	-165.28	0.05	6.45
386	SLE RA 14	19	-14	2003	-164.9	0.05	6.5
386	SLE RA 15	19	-18	2009	-165.13	0.05	6.47
386	SLE RA 16	19	-14	2003	-164.9	0.05	6.5
386	SLE RA 17	19	-18	2009	-165.13	0.05	6.47
386	SLE RA 18	19	-16	2094	-167.76	0.04	6.62
386	SLE RA 19	19	-19	2100	-167.98	0.04	6.59
386	SLE RA 20	19	-16	2094	-167.76	0.04	6.62
386	SLE RA 21	19	-19	2100	-167.98	0.04	6.59
386	SLE FR 1	18	-10	1792	-158.25	0.08	6.21
386	SLE FR 2	18	-12	1794	-158.32	0.08	6.2
386	SLE FR 3	18	-10	1792	-158.25	0.08	6.21
386	SLE FR 4	18	-13	1884	-161.18	0.07	6.32
386	SLE FR 5	18	-12	1882	-161.1	0.07	6.33
386	SLE FR 6	18	-13	1943	-163	0.06	6.41
386	SLE QP 1	18	-10	1792	-158.25	0.08	6.21
386	SLE QP 2	18	-12	1882	-161.1	0.07	6.33
386	SLD 1	235	36	1921	-157.31	0.51	79.49
386	SLD 2	197	18	1926	-157.44	0.55	66.18
386	SLD 3	227	-55	2069	-174.53	0.57	82.19
386	SLD 4	189	-73	2074	-174.66	0.61	68.87
386	SLD 5	109	147	1669	-133.8	0.1	29.12
386	SLD 6	69	128	1674	-133.94	0.14	15.28
386	SLD 7	83	-156	2159	-191.19	0.29	38.09
386	SLD 8	44	-175	2165	-191.33	0.33	24.26
386	SLD 9	-7	151	1600	-130.87	-0.2	-11.59
386	SLD 10	-47	132	1605	-131.01	-0.16	-25.43
386	SLD 11	-33	-152	2090	-188.26	0	-2.62



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
386	SLD 12	-73	-171	2096	-188.4	0.03	-16.45
386	SLD 13	-153	49	1691	-147.54	-0.48	-56.21
386	SLD 14	-191	31	1696	-147.67	-0.44	-69.52
386	SLD 15	-160	-42	1838	-164.76	-0.42	-53.51
386	SLD 16	-199	-60	1843	-164.89	-0.38	-66.83
386	SLV 1	512	101	1967	-151.92	1.08	172.88
386	SLV 2	425	58	1979	-152.21	1.17	142.35
386	SLV 3	494	-112	2311	-192.57	1.22	179.29
386	SLV 4	406	-154	2323	-192.86	1.3	148.76
386	SLV 5	227	360	1382	-96.57	0.13	58.07
386	SLV 6	135	316	1394	-96.89	0.22	25.92
386	SLV 7	166	-348	2528	-232.09	0.59	79.44
386	SLV 8	74	-393	2540	-232.4	0.68	47.29
386	SLV 9	-38	369	1224	-89.8	-0.55	-34.63
386	SLV 10	-130	324	1236	-90.11	-0.46	-66.78
386	SLV 11	-98	-340	2371	-225.31	-0.09	-13.25
386	SLV 12	-191	-384	2383	-225.62	0	-45.4
386	SLV 13	-370	130	1442	-129.33	-1.17	-136.1
386	SLV 14	-458	88	1453	-129.63	-1.09	-166.63
386	SLV 15	-388	-82	1786	-169.99	-1.03	-129.69
386	SLV 16	-476	-125	1797	-170.28	-0.95	-160.21
386	CRTFP Ux+	0	0	0	0	0	0
386	CRTFP Ux-	0	0	0	0	0	0
386	CRTFP Uy+	0	0	0	0	0	0
386	CRTFP Uy-	0	0	0	0	0	0
387	SLU 1	17	-9	1733	-165.93	-0.59	6.06
387	SLU 2	17	-18	1749	-166.58	-0.59	6
387	SLU 3	17	-9	1733	-165.93	-0.59	6.06
387	SLU 4	17	-14	1743	-166.32	-0.59	6.03
387	SLU 5	17	-18	1749	-166.58	-0.59	6
387	SLU 6	17	-9	1733	-165.93	-0.59	6.06
387	SLU 7	17	-14	1743	-166.32	-0.59	6.03
387	SLU 8	17	-9	1733	-165.93	-0.59	6.06
387	SLU 9	17	-14	1743	-166.32	-0.59	6.03
387	SLU 10	18	-23	2070	-179.01	-0.78	6.33
387	SLU 11	18	-15	2054	-178.35	-0.78	6.39
387	SLU 12	18	-20	2063	-178.75	-0.78	6.36
387	SLU 13	18	-23	2070	-179.01	-0.78	6.33
387	SLU 14	18	-15	2054	-178.35	-0.78	6.39
387	SLU 15	18	-20	2063	-178.75	-0.78	6.36
387	SLU 16	18	-15	2054	-178.35	-0.78	6.39
387	SLU 17	18	-20	2063	-178.75	-0.78	6.36
387	SLU 18	19	-17	2191	-183.68	-0.86	6.53
387	SLU 19	19	-22	2201	-184.07	-0.86	6.5
387	SLU 20	19	-17	2191	-183.68	-0.86	6.53
387	SLU 21	19	-22	2201	-184.07	-0.86	6.5
387	SLU 22	18	-13	1967	-175.09	-0.73	6.31
387	SLU 23	18	-22	1983	-175.75	-0.73	6.25
387	SLU 24	18	-13	1967	-175.09	-0.73	6.31
387	SLU 25	18	-18	1977	-175.49	-0.73	6.27
387	SLU 26	18	-22	1983	-175.75	-0.73	6.25
387	SLU 27	18	-13	1967	-175.09	-0.73	6.31
387	SLU 28	18	-18	1977	-175.49	-0.73	6.27
387	SLU 29	18	-13	1967	-175.09	-0.73	6.31
387	SLU 30	18	-18	1977	-175.49	-0.73	6.27
387	SLU 31	19	-27	2304	-188.18	-0.92	6.58
387	SLU 32	19	-19	2288	-187.52	-0.92	6.64
387	SLU 33	19	-24	2297	-187.91	-0.92	6.6
387	SLU 34	19	-27	2304	-188.18	-0.92	6.58
387	SLU 35	19	-19	2288	-187.52	-0.92	6.64
387	SLU 36	19	-24	2297	-187.91	-0.92	6.6
387	SLU 37	19	-19	2288	-187.52	-0.92	6.64
387	SLU 38	19	-24	2297	-187.91	-0.92	6.6
387	SLU 39	19	-21	2425	-192.84	-1	6.78
387	SLU 40	19	-26	2435	-193.24	-1	6.74
387	SLU 41	19	-21	2425	-192.84	-1	6.78
387	SLU 42	19	-26	2435	-193.24	-1	6.74
387	SLU 43	22	-11	2173	-212.56	-0.72	7.8
387	SLU 44	22	-19	2189	-213.22	-0.72	7.74
387	SLU 45	22	-11	2173	-212.56	-0.72	7.8
387	SLU 46	22	-16	2183	-212.96	-0.72	7.76
387	SLU 47	22	-19	2189	-213.22	-0.72	7.74
387	SLU 48	22	-11	2173	-212.56	-0.72	7.8
387	SLU 49	22	-16	2183	-212.96	-0.72	7.76
387	SLU 50	22	-11	2173	-212.56	-0.72	7.8
387	SLU 51	22	-16	2183	-212.96	-0.72	7.76
387	SLU 52	23	-25	2509	-225.65	-0.91	8.07
387	SLU 53	23	-17	2494	-224.99	-0.91	8.13
387	SLU 54	23	-22	2503	-225.38	-0.91	8.09
387	SLU 55	23	-25	2509	-225.65	-0.91	8.07
387	SLU 56	23	-17	2494	-224.99	-0.91	8.13
387	SLU 57	23	-22	2503	-225.38	-0.91	8.09
387	SLU 58	23	-17	2494	-224.99	-0.91	8.13
387	SLU 59	23	-22	2503	-225.38	-0.91	8.09
387	SLU 60	24	-19	2631	-230.31	-0.99	8.27
387	SLU 61	23	-24	2640	-230.71	-0.99	8.23
387	SLU 62	24	-19	2631	-230.31	-0.99	8.27
387	SLU 63	23	-24	2640	-230.71	-0.99	8.23
387	SLU 64	23	-15	2407	-221.73	-0.86	8.04
387	SLU 65	23	-23	2423	-222.38	-0.86	7.98
387	SLU 66	23	-15	2407	-221.73	-0.86	8.04



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
387	SLU 67	23	-20	2416	-222.12	-0.86	8.01
387	SLU 68	23	-23	2423	-222.38	-0.86	7.98
387	SLU 69	23	-15	2407	-221.73	-0.86	8.04
387	SLU 70	23	-20	2416	-222.12	-0.86	8.01
387	SLU 71	23	-15	2407	-221.73	-0.86	8.04
387	SLU 72	23	-20	2416	-222.12	-0.86	8.01
387	SLU 73	24	-29	2743	-234.81	-1.05	8.31
387	SLU 74	24	-20	2727	-234.15	-1.05	8.37
387	SLU 75	24	-25	2737	-234.55	-1.05	8.34
387	SLU 76	24	-29	2743	-234.81	-1.05	8.31
387	SLU 77	24	-20	2727	-234.15	-1.05	8.37
387	SLU 78	24	-25	2737	-234.55	-1.05	8.34
387	SLU 79	24	-20	2727	-234.15	-1.05	8.37
387	SLU 80	24	-25	2737	-234.55	-1.05	8.34
387	SLU 81	24	-23	2865	-239.48	-1.13	8.51
387	SLU 82	24	-28	2874	-239.87	-1.13	8.48
387	SLU 83	24	-23	2865	-239.48	-1.13	8.51
387	SLU 84	24	-28	2874	-239.87	-1.13	8.48
387	SLE RA 1	17	-11	1800	-168.54	-0.63	6.13
387	SLE RA 2	17	-16	1811	-168.98	-0.63	6.09
387	SLE RA 3	17	-11	1800	-168.54	-0.63	6.13
387	SLE RA 4	17	-14	1806	-168.81	-0.63	6.11
387	SLE RA 5	17	-16	1811	-168.98	-0.63	6.09
387	SLE RA 6	17	-11	1800	-168.54	-0.63	6.13
387	SLE RA 7	17	-14	1806	-168.81	-0.63	6.11
387	SLE RA 8	17	-11	1800	-168.54	-0.63	6.13
387	SLE RA 9	17	-14	1806	-168.81	-0.63	6.11
387	SLE RA 10	18	-20	2024	-177.27	-0.76	6.31
387	SLE RA 11	18	-14	2014	-176.83	-0.75	6.35
387	SLE RA 12	18	-18	2020	-177.09	-0.76	6.33
387	SLE RA 13	18	-20	2024	-177.27	-0.76	6.31
387	SLE RA 14	18	-14	2014	-176.83	-0.75	6.35
387	SLE RA 15	18	-18	2020	-177.09	-0.76	6.33
387	SLE RA 16	18	-14	2014	-176.83	-0.75	6.35
387	SLE RA 17	18	-18	2020	-177.09	-0.76	6.33
387	SLE RA 18	18	-16	2105	-180.38	-0.81	6.45
387	SLE RA 19	18	-19	2112	-180.64	-0.81	6.42
387	SLE RA 20	18	-16	2105	-180.38	-0.81	6.45
387	SLE RA 21	18	-19	2112	-180.64	-0.81	6.42
387	SLE FR 1	17	-11	1800	-168.54	-0.63	6.13
387	SLE FR 2	17	-12	1802	-168.63	-0.63	6.12
387	SLE FR 3	17	-11	1800	-168.54	-0.63	6.13
387	SLE FR 4	18	-13	1894	-172.18	-0.68	6.22
387	SLE FR 5	18	-12	1892	-172.1	-0.68	6.23
387	SLE FR 6	18	-13	1953	-174.46	-0.72	6.29
387	SLE QP 1	17	-11	1800	-168.54	-0.63	6.13
387	SLE QP 2	18	-12	1892	-172.1	-0.68	6.23
387	SLD 1	227	34	1917	-158.94	-0.22	79.4
387	SLD 2	189	18	1921	-158.86	-0.19	66.08
387	SLD 3	235	-55	2065	-175.51	-0.3	82.1
387	SLD 4	196	-71	2069	-175.44	-0.27	68.79
387	SLD 5	83	143	1674	-143.04	-0.43	28.99
387	SLD 6	43	126	1679	-142.96	-0.4	15.15
387	SLD 7	109	-154	2166	-198.28	-0.7	38.02
387	SLD 8	69	-171	2170	-198.2	-0.67	24.18
387	SLD 9	-33	147	1614	-145.99	-0.7	-11.73
387	SLD 10	-73	130	1618	-145.91	-0.67	-25.57
387	SLD 11	-8	-150	2105	-201.23	-0.96	-2.7
387	SLD 12	-47	-167	2109	-201.15	-0.93	-16.54
387	SLD 13	-161	47	1715	-168.75	-1.09	-56.34
387	SLD 14	-199	31	1719	-168.68	-1.07	-69.65
387	SLD 15	-153	-42	1862	-185.33	-1.17	-53.63
387	SLD 16	-191	-58	1866	-185.25	-1.14	-66.94
387	SLV 1	494	96	1946	-141.22	0.37	172.8
387	SLV 2	406	59	1955	-141.05	0.44	142.26
387	SLV 3	512	-112	2290	-180.42	0.19	179.24
387	SLV 4	424	-149	2300	-180.25	0.25	148.71
387	SLV 5	166	350	1382	-103.44	-0.11	57.92
387	SLV 6	73	311	1392	-103.26	-0.04	25.76
387	SLV 7	227	-344	2530	-234.11	-0.73	79.41
387	SLV 8	135	-383	2540	-233.93	-0.66	47.25
387	SLV 9	-99	358	1243	-110.26	-0.71	-34.8
387	SLV 10	-191	320	1253	-110.08	-0.64	-66.96
387	SLV 11	-38	-335	2392	-240.93	-1.33	-13.3
387	SLV 12	-130	-374	2401	-240.75	-1.26	-45.46
387	SLV 13	-389	125	1484	-163.94	-1.62	-136.26
387	SLV 14	-477	88	1493	-163.77	-1.55	-166.79
387	SLV 15	-370	-84	1828	-203.14	-1.81	-129.81
387	SLV 16	-458	-120	1837	-202.97	-1.74	-160.34
387	CRTFP Ux+	0	0	0	0	0	0
387	CRTFP Ux-	0	0	0	0	0	0
387	CRTFP Uy+	0	0	0	0	0	0
387	CRTFP Uy-	0	0	0	0	0	0
388	SLU 1	17	-8	1761	-191.22	-1.22	6.02
388	SLU 2	17	-17	1777	-192.17	-1.23	5.97
388	SLU 3	17	-8	1761	-191.22	-1.22	6.02
388	SLU 4	17	-13	1770	-191.79	-1.23	5.99
388	SLU 5	17	-17	1777	-192.17	-1.23	5.97
388	SLU 6	17	-8	1761	-191.22	-1.22	6.02
388	SLU 7	17	-13	1770	-191.79	-1.23	5.99
388	SLU 8	17	-8	1761	-191.22	-1.22	6.02



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
388	SLU 9	17	-13	1770	-191.79	-1.23	5.99
388	SLU 10	18	-22	2105	-210.56	-1.56	6.19
388	SLU 11	18	-14	2089	-209.61	-1.55	6.24
388	SLU 12	18	-19	2099	-210.18	-1.55	6.21
388	SLU 13	18	-22	2105	-210.56	-1.56	6.19
388	SLU 14	18	-14	2089	-209.61	-1.55	6.24
388	SLU 15	18	-19	2099	-210.18	-1.55	6.21
388	SLU 16	18	-14	2089	-209.61	-1.55	6.24
388	SLU 17	18	-19	2099	-210.18	-1.55	6.21
388	SLU 18	18	-16	2230	-217.49	-1.69	6.34
388	SLU 19	18	-21	2239	-218.06	-1.69	6.31
388	SLU 20	18	-16	2230	-217.49	-1.69	6.34
388	SLU 21	18	-21	2239	-218.06	-1.69	6.31
388	SLU 22	18	-12	2000	-204.78	-1.46	6.2
388	SLU 23	17	-21	2016	-205.73	-1.47	6.15
388	SLU 24	18	-12	2000	-204.78	-1.46	6.2
388	SLU 25	17	-17	2010	-205.35	-1.47	6.17
388	SLU 26	17	-21	2016	-205.73	-1.47	6.15
388	SLU 27	18	-12	2000	-204.78	-1.46	6.2
388	SLU 28	17	-17	2010	-205.35	-1.47	6.17
388	SLU 29	18	-12	2000	-204.78	-1.46	6.2
388	SLU 30	17	-17	2010	-205.35	-1.47	6.17
388	SLU 31	18	-26	2345	-224.12	-1.8	6.37
388	SLU 32	18	-18	2329	-223.17	-1.79	6.42
388	SLU 33	18	-23	2338	-223.74	-1.79	6.39
388	SLU 34	18	-26	2345	-224.12	-1.8	6.37
388	SLU 35	18	-18	2329	-223.17	-1.79	6.42
388	SLU 36	18	-23	2338	-223.74	-1.79	6.39
388	SLU 37	18	-18	2329	-223.17	-1.79	6.42
388	SLU 38	18	-23	2338	-223.74	-1.79	6.39
388	SLU 39	18	-20	2469	-231.05	-1.93	6.52
388	SLU 40	18	-25	2479	-231.62	-1.93	6.49
388	SLU 41	18	-20	2469	-231.05	-1.93	6.52
388	SLU 42	18	-25	2479	-231.62	-1.93	6.49
388	SLU 43	22	-10	2207	-243.93	-1.5	7.76
388	SLU 44	22	-18	2223	-244.89	-1.52	7.71
388	SLU 45	22	-10	2207	-243.93	-1.5	7.76
388	SLU 46	22	-15	2216	-244.51	-1.51	7.73
388	SLU 47	22	-18	2223	-244.89	-1.52	7.71
388	SLU 48	22	-10	2207	-243.93	-1.5	7.76
388	SLU 49	22	-15	2216	-244.51	-1.51	7.73
388	SLU 50	22	-10	2207	-243.93	-1.5	7.76
388	SLU 51	22	-15	2216	-244.51	-1.51	7.73
388	SLU 52	22	-23	2551	-263.28	-1.84	7.94
388	SLU 53	23	-15	2535	-262.33	-1.83	7.99
388	SLU 54	23	-20	2545	-262.9	-1.84	7.96
388	SLU 55	22	-23	2551	-263.28	-1.84	7.94
388	SLU 56	23	-15	2535	-262.33	-1.83	7.99
388	SLU 57	23	-20	2545	-262.9	-1.84	7.96
388	SLU 58	23	-15	2535	-262.33	-1.83	7.99
388	SLU 59	23	-20	2545	-262.9	-1.84	7.96
388	SLU 60	23	-18	2676	-270.21	-1.97	8.08
388	SLU 61	23	-23	2685	-270.78	-1.98	8.05
388	SLU 62	23	-18	2676	-270.21	-1.97	8.08
388	SLU 63	23	-23	2685	-270.78	-1.98	8.05
388	SLU 64	23	-14	2446	-257.49	-1.74	7.94
388	SLU 65	22	-22	2462	-258.44	-1.76	7.89
388	SLU 66	23	-14	2446	-257.49	-1.74	7.94
388	SLU 67	22	-18	2456	-258.06	-1.75	7.91
388	SLU 68	22	-22	2462	-258.44	-1.76	7.89
388	SLU 69	23	-14	2446	-257.49	-1.74	7.94
388	SLU 70	22	-18	2456	-258.06	-1.75	7.91
388	SLU 71	23	-14	2446	-257.49	-1.74	7.94
388	SLU 72	22	-18	2456	-258.06	-1.75	7.91
388	SLU 73	23	-27	2791	-276.83	-2.08	8.12
388	SLU 74	23	-19	2775	-275.88	-2.07	8.17
388	SLU 75	23	-24	2784	-276.45	-2.08	8.14
388	SLU 76	23	-27	2791	-276.83	-2.08	8.12
388	SLU 77	23	-19	2775	-275.88	-2.07	8.17
388	SLU 78	23	-24	2784	-276.45	-2.08	8.14
388	SLU 79	23	-19	2775	-275.88	-2.07	8.17
388	SLU 80	23	-24	2784	-276.45	-2.08	8.14
388	SLU 81	23	-21	2915	-283.77	-2.21	8.26
388	SLU 82	23	-26	2925	-284.34	-2.22	8.23
388	SLU 83	23	-21	2915	-283.77	-2.21	8.26
388	SLU 84	23	-26	2925	-284.34	-2.22	8.23
388	SLE RA 1	17	-10	1829	-195.09	-1.29	6.07
388	SLE RA 2	17	-15	1840	-195.73	-1.3	6.04
388	SLE RA 3	17	-10	1829	-195.09	-1.29	6.07
388	SLE RA 4	17	-13	1835	-195.47	-1.29	6.05
388	SLE RA 5	17	-15	1840	-195.73	-1.3	6.04
388	SLE RA 6	17	-10	1829	-195.09	-1.29	6.07
388	SLE RA 7	17	-13	1835	-195.47	-1.29	6.05
388	SLE RA 8	17	-10	1829	-195.09	-1.29	6.07
388	SLE RA 9	17	-13	1835	-195.47	-1.29	6.05
388	SLE RA 10	18	-19	2059	-207.99	-1.52	6.19
388	SLE RA 11	18	-13	2048	-207.35	-1.51	6.22
388	SLE RA 12	18	-17	2054	-207.73	-1.51	6.2
388	SLE RA 13	18	-19	2059	-207.99	-1.52	6.19
388	SLE RA 14	18	-13	2048	-207.35	-1.51	6.22
388	SLE RA 15	18	-17	2054	-207.73	-1.51	6.2



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
388	SLE RA 16	18	-13	2048	-207.35	-1.51	6.22
388	SLE RA 17	18	-17	2054	-207.73	-1.51	6.2
388	SLE RA 18	18	-15	2142	-212.61	-1.6	6.28
388	SLE RA 19	18	-18	2148	-212.99	-1.6	6.26
388	SLE RA 20	18	-15	2142	-212.61	-1.6	6.28
388	SLE RA 21	18	-18	2148	-212.99	-1.6	6.26
388	SLE FR 1	17	-10	1829	-195.09	-1.29	6.07
388	SLE FR 2	17	-11	1831	-195.22	-1.29	6.06
388	SLE FR 3	17	-10	1829	-195.09	-1.29	6.07
388	SLE FR 4	17	-12	1925	-200.47	-1.38	6.13
388	SLE FR 5	17	-11	1923	-200.35	-1.38	6.13
388	SLE FR 6	18	-12	1985	-203.85	-1.44	6.18
388	SLE QP 1	17	-10	1829	-195.09	-1.29	6.07
388	SLE QP 2	17	-11	1923	-200.35	-1.38	6.13
388	SLD 1	226	33	1935	-187.95	-0.89	79.3
388	SLD 2	188	20	1938	-187.73	-0.87	65.98
388	SLD 3	234	-55	2086	-202.6	-1.09	82.02
388	SLD 4	196	-69	2089	-202.38	-1.07	68.7
388	SLD 5	82	142	1696	-174.48	-0.94	28.87
388	SLD 6	43	127	1699	-174.26	-0.92	15.04
388	SLD 7	108	-154	2200	-223.32	-1.61	37.95
388	SLD 8	69	-168	2203	-223.1	-1.58	24.12
388	SLD 9	-34	145	1642	-177.59	-1.18	-11.85
388	SLD 10	-74	131	1646	-177.37	-1.16	-25.68
388	SLD 11	-8	-150	2146	-226.43	-1.85	-2.77
388	SLD 12	-48	-164	2150	-226.21	-1.82	-16.6
388	SLD 13	-161	47	1757	-198.31	-1.69	-56.44
388	SLD 14	-199	33	1760	-198.1	-1.67	-69.75
388	SLD 15	-153	-42	1908	-212.96	-1.89	-53.71
388	SLD 16	-192	-56	1911	-212.75	-1.87	-67.03
388	SLV 1	493	93	1945	-171.22	-0.26	172.69
388	SLV 2	406	62	1953	-170.73	-0.21	142.15
388	SLV 3	512	-114	2299	-206	-0.73	179.17
388	SLV 4	424	-145	2306	-205.51	-0.68	148.64
388	SLV 5	165	346	1391	-139.04	-0.36	57.76
388	SLV 6	73	313	1399	-138.53	-0.3	25.61
388	SLV 7	227	-344	2569	-254.97	-1.92	79.38
388	SLV 8	135	-377	2577	-254.46	-1.86	47.22
388	SLV 9	-100	355	1269	-146.23	-0.9	-34.95
388	SLV 10	-192	322	1277	-145.72	-0.85	-67.11
388	SLV 11	-38	-335	2447	-262.16	-2.46	-13.34
388	SLV 12	-130	-368	2455	-261.65	-2.41	-45.49
388	SLV 13	-389	123	1539	-195.19	-2.08	-136.37
388	SLV 14	-477	92	1547	-194.7	-2.03	-166.9
388	SLV 15	-371	-84	1893	-229.96	-2.55	-129.88
388	SLV 16	-458	-115	1900	-229.48	-2.5	-160.42
388	CRTFP Ux+	0	0	0	0	0	0
388	CRTFP Ux-	0	0	0	0	0	0
388	CRTFP Uy+	0	0	0	0	0	0
388	CRTFP Uy-	0	0	0	0	0	0
389	SLU 1	17	-7	1806	-231.35	-1.82	6
389	SLU 2	17	-15	1823	-232.79	-1.85	5.95
389	SLU 3	17	-7	1806	-231.35	-1.82	6
389	SLU 4	17	-12	1816	-232.21	-1.83	5.97
389	SLU 5	17	-15	1823	-232.79	-1.85	5.95
389	SLU 6	17	-7	1806	-231.35	-1.82	6
389	SLU 7	17	-12	1816	-232.21	-1.83	5.97
389	SLU 8	17	-7	1806	-231.35	-1.82	6
389	SLU 9	17	-12	1816	-232.21	-1.83	5.97
389	SLU 10	17	-20	2163	-260.54	-2.3	6.07
389	SLU 11	17	-12	2147	-259.1	-2.28	6.12
389	SLU 12	17	-17	2157	-259.96	-2.29	6.09
389	SLU 13	17	-20	2163	-260.54	-2.3	6.07
389	SLU 14	17	-12	2147	-259.1	-2.28	6.12
389	SLU 15	17	-17	2157	-259.96	-2.29	6.09
389	SLU 16	17	-12	2147	-259.1	-2.28	6.12
389	SLU 17	17	-17	2157	-259.96	-2.29	6.09
389	SLU 18	17	-14	2292	-270.99	-2.47	6.17
389	SLU 19	17	-19	2302	-271.86	-2.49	6.14
389	SLU 20	17	-14	2292	-270.99	-2.47	6.17
389	SLU 21	17	-19	2302	-271.86	-2.49	6.14
389	SLU 22	17	-10	2055	-251.77	-2.16	6.11
389	SLU 23	17	-19	2072	-253.21	-2.18	6.07
389	SLU 24	17	-10	2055	-251.77	-2.16	6.11
389	SLU 25	17	-15	2065	-252.63	-2.17	6.08
389	SLU 26	17	-19	2072	-253.21	-2.18	6.07
389	SLU 27	17	-10	2055	-251.77	-2.16	6.11
389	SLU 28	17	-15	2065	-252.63	-2.17	6.08
389	SLU 29	17	-10	2055	-251.77	-2.16	6.11
389	SLU 30	17	-15	2065	-252.63	-2.17	6.08
389	SLU 31	17	-24	2412	-280.96	-2.64	6.19
389	SLU 32	17	-15	2395	-279.52	-2.61	6.23
389	SLU 33	17	-20	2405	-280.38	-2.63	6.2
389	SLU 34	17	-24	2412	-280.96	-2.64	6.19
389	SLU 35	17	-15	2395	-279.52	-2.61	6.23
389	SLU 36	17	-20	2405	-280.38	-2.63	6.2
389	SLU 37	17	-15	2395	-279.52	-2.61	6.23
389	SLU 38	17	-20	2405	-280.38	-2.63	6.2
389	SLU 39	18	-17	2541	-291.41	-2.81	6.28
389	SLU 40	18	-22	2551	-292.28	-2.82	6.26
389	SLU 41	18	-17	2541	-291.41	-2.81	6.28



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
389	SLU 42	18	-22	2551	-292.28	-2.82	6.26
389	SLU 43	22	-7	2263	-293.75	-2.25	7.76
389	SLU 44	22	-16	2280	-295.19	-2.28	7.71
389	SLU 45	22	-7	2263	-293.75	-2.25	7.76
389	SLU 46	22	-12	2273	-294.62	-2.27	7.73
389	SLU 47	22	-16	2280	-295.19	-2.28	7.71
389	SLU 48	22	-7	2263	-293.75	-2.25	7.76
389	SLU 49	22	-12	2273	-294.62	-2.27	7.73
389	SLU 50	22	-7	2263	-293.75	-2.25	7.76
389	SLU 51	22	-12	2273	-294.62	-2.27	7.73
389	SLU 52	22	-21	2620	-322.94	-2.73	7.83
389	SLU 53	22	-13	2603	-321.51	-2.71	7.88
389	SLU 54	22	-18	2613	-322.37	-2.72	7.85
389	SLU 55	22	-21	2620	-322.94	-2.73	7.83
389	SLU 56	22	-13	2603	-321.51	-2.71	7.88
389	SLU 57	22	-18	2613	-322.37	-2.72	7.85
389	SLU 58	22	-13	2603	-321.51	-2.71	7.88
389	SLU 59	22	-18	2613	-322.37	-2.72	7.85
389	SLU 60	22	-15	2749	-333.4	-2.9	7.93
389	SLU 61	22	-20	2759	-334.26	-2.92	7.9
389	SLU 62	22	-15	2749	-333.4	-2.9	7.93
389	SLU 63	22	-20	2759	-334.26	-2.92	7.9
389	SLU 64	22	-11	2512	-314.17	-2.59	7.87
389	SLU 65	22	-19	2528	-315.61	-2.61	7.83
389	SLU 66	22	-11	2512	-314.17	-2.59	7.87
389	SLU 67	22	-16	2522	-315.04	-2.6	7.85
389	SLU 68	22	-19	2528	-315.61	-2.61	7.83
389	SLU 69	22	-11	2512	-314.17	-2.59	7.87
389	SLU 70	22	-16	2522	-315.04	-2.6	7.85
389	SLU 71	22	-11	2512	-314.17	-2.59	7.87
389	SLU 72	22	-16	2522	-315.04	-2.6	7.85
389	SLU 73	22	-24	2868	-343.36	-3.07	7.95
389	SLU 74	22	-16	2852	-341.93	-3.04	7.99
389	SLU 75	22	-21	2862	-342.79	-3.06	7.96
389	SLU 76	22	-24	2868	-343.36	-3.07	7.95
389	SLU 77	22	-16	2852	-341.93	-3.04	7.99
389	SLU 78	22	-21	2862	-342.79	-3.06	7.96
389	SLU 79	22	-16	2852	-341.93	-3.04	7.99
389	SLU 80	22	-21	2862	-342.79	-3.06	7.96
389	SLU 81	23	-18	2998	-353.82	-3.24	8.04
389	SLU 82	23	-23	3008	-354.68	-3.25	8.02
389	SLU 83	23	-18	2998	-353.82	-3.24	8.04
389	SLU 84	23	-23	3008	-354.68	-3.25	8.02
389	SLE RA 1	17	-8	1877	-237.18	-1.92	6.03
389	SLE RA 2	17	-13	1889	-238.14	-1.93	6
389	SLE RA 3	17	-8	1877	-237.18	-1.92	6.03
389	SLE RA 4	17	-11	1884	-237.76	-1.93	6.01
389	SLE RA 5	17	-13	1889	-238.14	-1.93	6
389	SLE RA 6	17	-8	1877	-237.18	-1.92	6.03
389	SLE RA 7	17	-11	1884	-237.76	-1.93	6.01
389	SLE RA 8	17	-8	1877	-237.18	-1.92	6.03
389	SLE RA 9	17	-11	1884	-237.76	-1.93	6.01
389	SLE RA 10	17	-17	2115	-256.64	-2.24	6.08
389	SLE RA 11	17	-11	2104	-255.69	-2.22	6.11
389	SLE RA 12	17	-14	2111	-256.26	-2.23	6.09
389	SLE RA 13	17	-17	2115	-256.64	-2.24	6.08
389	SLE RA 14	17	-11	2104	-255.69	-2.22	6.11
389	SLE RA 15	17	-14	2111	-256.26	-2.23	6.09
389	SLE RA 16	17	-11	2104	-255.69	-2.22	6.11
389	SLE RA 17	17	-14	2111	-256.26	-2.23	6.09
389	SLE RA 18	17	-13	2201	-263.61	-2.35	6.14
389	SLE RA 19	17	-16	2208	-264.19	-2.36	6.13
389	SLE RA 20	17	-13	2201	-263.61	-2.35	6.14
389	SLE RA 21	17	-16	2208	-264.19	-2.36	6.13
389	SLE FR 1	17	-8	1877	-237.18	-1.92	6.03
389	SLE FR 2	17	-9	1880	-237.38	-1.92	6.03
389	SLE FR 3	17	-8	1877	-237.18	-1.92	6.03
389	SLE FR 4	17	-10	1977	-245.31	-2.05	6.06
389	SLE FR 5	17	-9	1975	-245.11	-2.05	6.07
389	SLE FR 6	17	-10	2039	-250.4	-2.13	6.09
389	SLE QP 1	17	-8	1877	-237.18	-1.92	6.03
389	SLE QP 2	17	-9	1975	-245.11	-2.05	6.07
389	SLD 1	226	48	1972	-233.41	-1.52	79.2
389	SLD 2	188	37	1974	-233.12	-1.5	65.89
389	SLD 3	234	-41	2130	-246.5	-1.84	81.94
389	SLD 4	196	-53	2133	-246.21	-1.82	68.63
389	SLD 5	82	148	1732	-221.86	-1.42	28.76
389	SLD 6	42	136	1735	-221.55	-1.4	14.94
389	SLD 7	108	-150	2261	-265.49	-2.47	37.9
389	SLD 8	69	-162	2263	-265.19	-2.45	24.08
389	SLD 9	-34	144	1686	-225.04	-1.64	-11.95
389	SLD 10	-74	131	1689	-224.73	-1.63	-25.77
389	SLD 11	-8	-154	2214	-268.68	-2.69	-2.81
389	SLD 12	-48	-166	2217	-268.37	-2.67	-16.63
389	SLD 13	-162	34	1816	-244.02	-2.28	-56.5
389	SLD 14	-200	23	1819	-243.72	-2.26	-69.81
389	SLD 15	-154	-55	1975	-257.11	-2.59	-53.76
389	SLD 16	-192	-67	1977	-256.81	-2.57	-67.07
389	SLV 1	493	125	1963	-217.62	-0.84	172.55
389	SLV 2	405	98	1970	-216.94	-0.8	142.03
389	SLV 3	511	-84	2334	-248.78	-1.58	179.08



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
389	SLV 4	424	-111	2340	-248.11	-1.54	148.56
389	SLV 5	164	358	1407	-189.85	-0.59	57.61
389	SLV 6	72	329	1414	-189.14	-0.54	25.47
389	SLV 7	227	-338	2642	-293.74	-3.04	79.36
389	SLV 8	135	-366	2648	-293.02	-2.99	47.21
389	SLV 9	-100	348	1301	-197.2	-1.1	-35.08
389	SLV 10	-193	319	1307	-196.49	-1.06	-67.23
389	SLV 11	-38	-347	2536	-301.09	-3.55	-13.34
389	SLV 12	-130	-376	2542	-300.38	-3.51	-45.48
389	SLV 13	-390	93	1609	-242.12	-2.56	-136.43
389	SLV 14	-477	66	1615	-241.45	-2.52	-166.95
389	SLV 15	-371	-116	1980	-273.29	-3.29	-129.9
389	SLV 16	-459	-143	1986	-272.61	-3.25	-160.42
389	CRTFP Ux+	0	0	0	0	0	0
389	CRTFP Ux-	0	0	0	0	0	0
389	CRTFP Uy+	0	0	0	0	0	0
389	CRTFP Uy-	0	0	0	0	0	0
390	SLU 1	17	-4	1870	-285.77	-2.38	6.01
390	SLU 2	17	-13	1888	-287.87	-2.42	5.97
390	SLU 3	17	-4	1870	-285.77	-2.38	6.01
390	SLU 4	17	-9	1880	-287.03	-2.4	5.99
390	SLU 5	17	-13	1888	-287.87	-2.42	5.97
390	SLU 6	17	-4	1870	-285.77	-2.38	6.01
390	SLU 7	17	-9	1880	-287.03	-2.4	5.99
390	SLU 8	17	-4	1870	-285.77	-2.38	6.01
390	SLU 9	17	-9	1880	-287.03	-2.4	5.99
390	SLU 10	17	-17	2243	-328.26	-3	5.98
390	SLU 11	17	-8	2226	-326.16	-2.96	6.02
390	SLU 12	17	-14	2236	-327.42	-2.98	6
390	SLU 13	17	-17	2243	-328.26	-3	5.98
390	SLU 14	17	-8	2226	-326.16	-2.96	6.02
390	SLU 15	17	-14	2236	-327.42	-2.98	6
390	SLU 16	17	-8	2226	-326.16	-2.96	6.02
390	SLU 17	17	-14	2236	-327.42	-2.98	6
390	SLU 18	17	-10	2378	-343.47	-3.21	6.03
390	SLU 19	17	-15	2389	-344.73	-3.23	6
390	SLU 20	17	-10	2378	-343.47	-3.21	6.03
390	SLU 21	17	-15	2389	-344.73	-3.23	6
390	SLU 22	17	-7	2130	-315.44	-2.81	6.06
390	SLU 23	17	-16	2147	-317.54	-2.85	6.02
390	SLU 24	17	-7	2130	-315.44	-2.81	6.06
390	SLU 25	17	-12	2140	-316.7	-2.83	6.03
390	SLU 26	17	-16	2147	-317.54	-2.85	6.02
390	SLU 27	17	-7	2130	-315.44	-2.81	6.06
390	SLU 28	17	-12	2140	-316.7	-2.83	6.03
390	SLU 29	17	-7	2130	-315.44	-2.81	6.06
390	SLU 30	17	-12	2140	-316.7	-2.83	6.03
390	SLU 31	17	-20	2503	-357.93	-3.43	6.03
390	SLU 32	17	-11	2486	-355.83	-3.39	6.07
390	SLU 33	17	-17	2496	-357.09	-3.41	6.05
390	SLU 34	17	-20	2503	-357.93	-3.43	6.03
390	SLU 35	17	-11	2486	-355.83	-3.39	6.07
390	SLU 36	17	-17	2496	-357.09	-3.41	6.05
390	SLU 37	17	-11	2486	-355.83	-3.39	6.07
390	SLU 38	17	-17	2496	-357.09	-3.41	6.05
390	SLU 39	17	-13	2638	-373.14	-3.64	6.08
390	SLU 40	17	-18	2649	-374.4	-3.66	6.05
390	SLU 41	17	-13	2638	-373.14	-3.64	6.08
390	SLU 42	17	-18	2649	-374.4	-3.66	6.05
390	SLU 43	22	-4	2342	-361.32	-2.95	7.79
390	SLU 44	22	-13	2359	-363.42	-2.99	7.76
390	SLU 45	22	-4	2342	-361.32	-2.95	7.79
390	SLU 46	22	-9	2352	-362.58	-2.97	7.77
390	SLU 47	22	-13	2359	-363.42	-2.99	7.76
390	SLU 48	22	-4	2342	-361.32	-2.95	7.79
390	SLU 49	22	-9	2352	-362.58	-2.97	7.77
390	SLU 50	22	-4	2342	-361.32	-2.95	7.79
390	SLU 51	22	-9	2352	-362.58	-2.97	7.77
390	SLU 52	22	-17	2715	-403.81	-3.57	7.77
390	SLU 53	22	-9	2698	-401.71	-3.53	7.81
390	SLU 54	22	-14	2708	-402.97	-3.55	7.78
390	SLU 55	22	-17	2715	-403.81	-3.57	7.77
390	SLU 56	22	-9	2698	-401.71	-3.53	7.81
390	SLU 57	22	-14	2708	-402.97	-3.55	7.78
390	SLU 58	22	-9	2698	-401.71	-3.53	7.81
390	SLU 59	22	-14	2708	-402.97	-3.55	7.78
390	SLU 60	22	-10	2850	-419.02	-3.78	7.81
390	SLU 61	22	-16	2861	-420.28	-3.8	7.79
390	SLU 62	22	-10	2850	-419.02	-3.78	7.81
390	SLU 63	22	-16	2861	-420.28	-3.8	7.79
390	SLU 64	22	-7	2602	-391	-3.38	7.84
390	SLU 65	22	-16	2619	-393.1	-3.41	7.8
390	SLU 66	22	-7	2602	-391	-3.38	7.84
390	SLU 67	22	-12	2612	-392.26	-3.4	7.82
390	SLU 68	22	-16	2619	-393.1	-3.41	7.8
390	SLU 69	22	-7	2602	-391	-3.38	7.84
390	SLU 70	22	-12	2612	-392.26	-3.4	7.82
390	SLU 71	22	-7	2602	-391	-3.38	7.84
390	SLU 72	22	-12	2612	-392.26	-3.4	7.82
390	SLU 73	22	-20	2975	-433.49	-3.99	7.82
390	SLU 74	22	-12	2957	-431.39	-3.96	7.86



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
390	SLU 75	22	-17	2968	-432.65	-3.98	7.83
390	SLU 76	22	-20	2975	-433.49	-3.99	7.82
390	SLU 77	22	-12	2957	-431.39	-3.96	7.86
390	SLU 78	22	-17	2968	-432.65	-3.98	7.83
390	SLU 79	22	-12	2957	-431.39	-3.96	7.86
390	SLU 80	22	-17	2968	-432.65	-3.98	7.83
390	SLU 81	22	-13	3110	-448.7	-4.21	7.86
390	SLU 82	22	-19	3121	-449.96	-4.23	7.84
390	SLU 83	22	-13	3110	-448.7	-4.21	7.86
390	SLU 84	22	-19	3121	-449.96	-4.23	7.84
390	SLE RA 1	17	-5	1944	-294.24	-2.51	6.02
390	SLE RA 2	17	-11	1956	-295.64	-2.53	6
390	SLE RA 3	17	-5	1944	-294.24	-2.51	6.02
390	SLE RA 4	17	-8	1951	-295.08	-2.52	6.01
390	SLE RA 5	17	-11	1956	-295.64	-2.53	6
390	SLE RA 6	17	-5	1944	-294.24	-2.51	6.02
390	SLE RA 7	17	-8	1951	-295.08	-2.52	6.01
390	SLE RA 8	17	-5	1944	-294.24	-2.51	6.02
390	SLE RA 9	17	-8	1951	-295.08	-2.52	6.01
390	SLE RA 10	17	-14	2193	-322.57	-2.92	6.01
390	SLE RA 11	17	-8	2181	-321.17	-2.89	6.03
390	SLE RA 12	17	-11	2188	-322.01	-2.91	6.02
390	SLE RA 13	17	-14	2193	-322.57	-2.92	6.01
390	SLE RA 14	17	-8	2181	-321.17	-2.89	6.03
390	SLE RA 15	17	-11	2188	-322.01	-2.91	6.02
390	SLE RA 16	17	-8	2181	-321.17	-2.89	6.03
390	SLE RA 17	17	-11	2188	-322.01	-2.91	6.02
390	SLE RA 18	17	-9	2283	-332.71	-3.06	6.04
390	SLE RA 19	17	-12	2290	-333.55	-3.07	6.02
390	SLE RA 20	17	-9	2283	-332.71	-3.06	6.04
390	SLE RA 21	17	-12	2290	-333.55	-3.07	6.02
390	SLE FR 1	17	-5	1944	-294.24	-2.51	6.02
390	SLE FR 2	17	-6	1947	-294.52	-2.51	6.02
390	SLE FR 3	17	-5	1944	-294.24	-2.51	6.02
390	SLE FR 4	17	-7	2048	-306.06	-2.68	6.02
390	SLE FR 5	17	-6	2046	-305.78	-2.67	6.03
390	SLE FR 6	17	-7	2114	-313.48	-2.78	6.03
390	SLE QP 1	17	-5	1944	-294.24	-2.51	6.02
390	SLE QP 2	17	-6	2046	-305.78	-2.67	6.03
390	SLD 1	226	52	2027	-293.07	-2.11	79.11
390	SLD 2	188	42	2029	-292.75	-2.09	65.82
390	SLD 3	234	-39	2196	-308.17	-2.52	81.87
390	SLD 4	196	-49	2198	-307.84	-2.51	68.58
390	SLD 5	82	153	1783	-279.2	-1.87	28.68
390	SLD 6	42	143	1785	-278.86	-1.86	14.86
390	SLD 7	108	-150	2346	-329.52	-3.27	37.88
390	SLD 8	68	-161	2349	-329.17	-3.25	24.07
390	SLD 9	-35	149	1743	-282.39	-2.09	-12.01
390	SLD 10	-74	138	1745	-282.05	-2.08	-25.83
390	SLD 11	-8	-155	2306	-332.71	-3.48	-2.81
390	SLD 12	-48	-166	2309	-332.37	-3.47	-16.63
390	SLD 13	-162	37	1893	-303.73	-2.84	-56.52
390	SLD 14	-200	27	1896	-303.4	-2.82	-69.82
390	SLD 15	-154	-54	2062	-318.82	-3.25	-53.76
390	SLD 16	-192	-64	2064	-318.49	-3.24	-67.06
390	SLV 1	492	130	1998	-276.01	-1.37	172.41
390	SLV 2	405	106	2003	-275.25	-1.34	141.92
390	SLV 3	511	-83	2393	-311.72	-2.34	178.98
390	SLV 4	424	-107	2398	-310.96	-2.31	148.48
390	SLV 5	164	366	1431	-242.98	-0.81	57.46
390	SLV 6	72	342	1436	-242.18	-0.78	25.35
390	SLV 7	227	-344	2747	-362.01	-4.07	79.36
390	SLV 8	135	-368	2752	-361.21	-4.03	47.24
390	SLV 9	-101	356	1339	-250.36	-1.31	-35.19
390	SLV 10	-193	331	1344	-249.56	-1.28	-67.3
390	SLV 11	-38	-354	2656	-369.39	-4.56	-13.3
390	SLV 12	-130	-379	2661	-368.59	-4.53	-45.41
390	SLV 13	-390	94	1693	-300.61	-3.03	-136.43
390	SLV 14	-477	71	1698	-299.85	-3	-166.93
390	SLV 15	-371	-119	2088	-336.32	-4.01	-129.86
390	SLV 16	-458	-142	2093	-335.56	-3.97	-160.36
390	CRTFP Ux+	0	0	0	0	0	0
390	CRTFP Ux-	0	0	0	0	0	0
390	CRTFP Uy+	0	0	0	0	0	0
390	CRTFP Uy-	0	0	0	0	0	0
391	SLU 1	17	-1	1949	-353.52	-2.87	6.05
391	SLU 2	17	-10	1968	-356.44	-2.92	6.03
391	SLU 3	17	-1	1949	-353.52	-2.87	6.05
391	SLU 4	17	-6	1961	-355.27	-2.9	6.04
391	SLU 5	17	-10	1968	-356.44	-2.92	6.03
391	SLU 6	17	-1	1949	-353.52	-2.87	6.05
391	SLU 7	17	-6	1961	-355.27	-2.9	6.04
391	SLU 8	17	-1	1949	-353.52	-2.87	6.05
391	SLU 9	17	-6	1961	-355.27	-2.9	6.04
391	SLU 10	17	-13	2343	-412.54	-3.6	5.94
391	SLU 11	17	-4	2324	-409.62	-3.56	5.97
391	SLU 12	17	-9	2336	-411.37	-3.59	5.95
391	SLU 13	17	-13	2343	-412.54	-3.6	5.94
391	SLU 14	17	-4	2324	-409.62	-3.56	5.97
391	SLU 15	17	-9	2336	-411.37	-3.59	5.95
391	SLU 16	17	-4	2324	-409.62	-3.56	5.97



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
391	SLU 17	17	-9	2336	-411.37	-3.59	5.95
391	SLU 18	16	-5	2485	-433.66	-3.86	5.93
391	SLU 19	16	-11	2496	-435.42	-3.88	5.91
391	SLU 20	16	-5	2485	-433.66	-3.86	5.93
391	SLU 21	16	-11	2496	-435.42	-3.88	5.91
391	SLU 22	17	-3	2223	-394.69	-3.38	6.04
391	SLU 23	17	-12	2242	-397.61	-3.42	6.01
391	SLU 24	17	-3	2223	-394.69	-3.38	6.04
391	SLU 25	17	-8	2235	-396.44	-3.41	6.02
391	SLU 26	17	-12	2242	-397.61	-3.42	6.01
391	SLU 27	17	-3	2223	-394.69	-3.38	6.04
391	SLU 28	17	-8	2235	-396.44	-3.41	6.02
391	SLU 29	17	-3	2223	-394.69	-3.38	6.04
391	SLU 30	17	-8	2235	-396.44	-3.41	6.02
391	SLU 31	16	-15	2617	-453.72	-4.11	5.92
391	SLU 32	16	-6	2598	-450.79	-4.07	5.95
391	SLU 33	16	-12	2610	-452.55	-4.09	5.93
391	SLU 34	16	-15	2617	-453.72	-4.11	5.92
391	SLU 35	16	-6	2598	-450.79	-4.07	5.95
391	SLU 36	16	-12	2610	-452.55	-4.09	5.93
391	SLU 37	16	-6	2598	-450.79	-4.07	5.95
391	SLU 38	16	-12	2610	-452.55	-4.09	5.93
391	SLU 39	16	-8	2759	-474.84	-4.36	5.91
391	SLU 40	16	-13	2770	-476.59	-4.39	5.9
391	SLU 41	16	-8	2759	-474.84	-4.36	5.91
391	SLU 42	16	-13	2770	-476.59	-4.39	5.9
391	SLU 43	22	0	2440	-445.45	-3.56	7.88
391	SLU 44	22	-9	2459	-448.38	-3.6	7.85
391	SLU 45	22	0	2440	-445.45	-3.56	7.88
391	SLU 46	22	-6	2452	-447.21	-3.59	7.86
391	SLU 47	22	-9	2459	-448.38	-3.6	7.85
391	SLU 48	22	0	2440	-445.45	-3.56	7.88
391	SLU 49	22	-6	2452	-447.21	-3.59	7.86
391	SLU 50	22	0	2440	-445.45	-3.56	7.88
391	SLU 51	22	-6	2452	-447.21	-3.59	7.86
391	SLU 52	22	-12	2834	-504.48	-4.29	7.76
391	SLU 53	22	-4	2815	-501.56	-4.25	7.79
391	SLU 54	22	-9	2827	-503.31	-4.28	7.77
391	SLU 55	22	-12	2834	-504.48	-4.29	7.76
391	SLU 56	22	-4	2815	-501.56	-4.25	7.79
391	SLU 57	22	-9	2827	-503.31	-4.28	7.77
391	SLU 58	22	-4	2815	-501.56	-4.25	7.79
391	SLU 59	22	-9	2827	-503.31	-4.28	7.77
391	SLU 60	22	-5	2976	-525.6	-4.54	7.75
391	SLU 61	22	-10	2987	-527.36	-4.57	7.73
391	SLU 62	22	-5	2976	-525.6	-4.54	7.75
391	SLU 63	22	-10	2987	-527.36	-4.57	7.73
391	SLU 64	22	-3	2714	-486.63	-4.07	7.86
391	SLU 65	22	-11	2733	-489.55	-4.11	7.83
391	SLU 66	22	-3	2714	-486.63	-4.07	7.86
391	SLU 67	22	-8	2726	-488.38	-4.09	7.84
391	SLU 68	22	-11	2733	-489.55	-4.11	7.83
391	SLU 69	22	-3	2714	-486.63	-4.07	7.86
391	SLU 70	22	-8	2726	-488.38	-4.09	7.84
391	SLU 71	22	-3	2714	-486.63	-4.07	7.86
391	SLU 72	22	-8	2726	-488.38	-4.09	7.84
391	SLU 73	22	-15	3108	-545.65	-4.8	7.74
391	SLU 74	22	-6	3089	-542.73	-4.76	7.77
391	SLU 75	22	-11	3101	-544.48	-4.78	7.76
391	SLU 76	22	-15	3108	-545.65	-4.8	7.74
391	SLU 77	22	-6	3089	-542.73	-4.76	7.77
391	SLU 78	22	-11	3101	-544.48	-4.78	7.76
391	SLU 79	22	-6	3089	-542.73	-4.76	7.77
391	SLU 80	22	-11	3101	-544.48	-4.78	7.76
391	SLU 81	21	-7	3250	-566.78	-5.05	7.73
391	SLU 82	21	-13	3261	-568.53	-5.08	7.72
391	SLU 83	21	-7	3250	-566.78	-5.05	7.73
391	SLU 84	21	-13	3261	-568.53	-5.08	7.72
391	SLE RA 1	17	-1	2028	-365.28	-3.02	6.05
391	SLE RA 2	17	-7	2040	-367.23	-3.05	6.03
391	SLE RA 3	17	-1	2028	-365.28	-3.02	6.05
391	SLE RA 4	17	-5	2035	-366.45	-3.04	6.04
391	SLE RA 5	17	-7	2040	-367.23	-3.05	6.03
391	SLE RA 6	17	-1	2028	-365.28	-3.02	6.05
391	SLE RA 7	17	-5	2035	-366.45	-3.04	6.04
391	SLE RA 8	17	-1	2028	-365.28	-3.02	6.05
391	SLE RA 9	17	-5	2035	-366.45	-3.04	6.04
391	SLE RA 10	17	-10	2290	-404.63	-3.51	5.97
391	SLE RA 11	17	-4	2278	-402.68	-3.48	5.99
391	SLE RA 12	17	-7	2285	-403.85	-3.49	5.98
391	SLE RA 13	17	-10	2290	-404.63	-3.51	5.97
391	SLE RA 14	17	-4	2278	-402.68	-3.48	5.99
391	SLE RA 15	17	-7	2285	-403.85	-3.49	5.98
391	SLE RA 16	17	-4	2278	-402.68	-3.48	5.99
391	SLE RA 17	17	-7	2285	-403.85	-3.49	5.98
391	SLE RA 18	17	-5	2385	-418.71	-3.67	5.97
391	SLE RA 19	17	-8	2392	-419.88	-3.69	5.95
391	SLE RA 20	17	-5	2385	-418.71	-3.67	5.97
391	SLE RA 21	17	-8	2392	-419.88	-3.69	5.95
391	SLE FR 1	17	-1	2028	-365.28	-3.02	6.05
391	SLE FR 2	17	-3	2030	-365.67	-3.02	6.05



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
391	SLE FR 3	17	-1	2028	-365.28	-3.02	6.05
391	SLE FR 4	17	-4	2137	-381.7	-3.22	6.02
391	SLE FR 5	17	-2	2135	-381.31	-3.22	6.03
391	SLE FR 6	17	-3	2206	-392	-3.35	6.01
391	SLE QP 1	17	-1	2028	-365.28	-3.02	6.05
391	SLE QP 2	17	-2	2135	-381.31	-3.22	6.03
391	SLD 1	225	57	2099	-365.11	-2.61	79.04
391	SLD 2	187	49	2101	-364.78	-2.6	65.76
391	SLD 3	233	-37	2282	-387.06	-3.11	81.83
391	SLD 4	195	-45	2283	-386.74	-3.1	68.55
391	SLD 5	81	161	1847	-343.27	-2.28	28.61
391	SLD 6	42	152	1849	-342.94	-2.27	14.82
391	SLD 7	108	-152	2455	-416.45	-3.95	37.9
391	SLD 8	69	-161	2457	-416.11	-3.94	24.1
391	SLD 9	-35	156	1813	-346.51	-2.49	-12.05
391	SLD 10	-75	147	1815	-346.17	-2.48	-25.85
391	SLD 11	-8	-157	2421	-419.68	-4.16	-2.77
391	SLD 12	-48	-166	2423	-419.34	-4.15	-16.56
391	SLD 13	-162	41	1986	-375.88	-3.33	-56.5
391	SLD 14	-200	32	1988	-375.56	-3.32	-69.78
391	SLD 15	-154	-53	2169	-397.84	-3.83	-53.71
391	SLD 16	-192	-62	2170	-397.51	-3.82	-66.99
391	SLV 1	492	136	2049	-343.48	-1.82	172.25
391	SLV 2	404	116	2053	-342.73	-1.79	141.8
391	SLV 3	511	-83	2475	-395.01	-2.99	178.87
391	SLV 4	424	-103	2479	-394.27	-2.96	148.42
391	SLV 5	163	380	1461	-292.08	-1.03	57.32
391	SLV 6	71	359	1465	-291.29	-1	25.25
391	SLV 7	227	-352	2882	-463.87	-4.93	79.39
391	SLV 8	135	-373	2886	-463.08	-4.9	47.32
391	SLV 9	-101	368	1384	-299.54	-1.53	-35.27
391	SLV 10	-193	347	1388	-298.75	-1.5	-67.34
391	SLV 11	-37	-364	2804	-471.33	-5.43	-13.2
391	SLV 12	-129	-384	2808	-470.54	-5.4	-45.27
391	SLV 13	-390	98	1791	-368.35	-3.47	-136.37
391	SLV 14	-477	79	1795	-367.6	-3.44	-166.82
391	SLV 15	-371	-121	2217	-419.89	-4.64	-129.75
391	SLV 16	-458	-141	2221	-419.14	-4.61	-160.2
391	CRTFP Ux+	0	0	0	0	0	0
391	CRTFP Ux-	0	0	0	0	0	0
391	CRTFP Uy+	0	0	0	0	0	0
391	CRTFP Uy-	0	0	0	0	0	0
392	SLU 1	17	3	2042	-432.56	-3.21	6.15
392	SLU 2	17	-7	2062	-436.42	-3.26	6.13
392	SLU 3	17	3	2042	-432.56	-3.21	6.15
392	SLU 4	17	-3	2054	-434.88	-3.24	6.13
392	SLU 5	17	-7	2062	-436.42	-3.26	6.13
392	SLU 6	17	3	2042	-432.56	-3.21	6.15
392	SLU 7	17	-3	2054	-434.88	-3.24	6.13
392	SLU 8	17	3	2042	-432.56	-3.21	6.15
392	SLU 9	17	-3	2054	-434.88	-3.24	6.13
392	SLU 10	17	-9	2459	-510.85	-4.02	5.94
392	SLU 11	17	1	2438	-506.99	-3.97	5.96
392	SLU 12	17	-5	2451	-509.31	-4	5.95
392	SLU 13	17	-9	2459	-510.85	-4.02	5.94
392	SLU 14	17	1	2438	-506.99	-3.97	5.96
392	SLU 15	17	-5	2451	-509.31	-4	5.95
392	SLU 16	17	1	2438	-506.99	-3.97	5.96
392	SLU 17	17	-5	2451	-509.31	-4	5.95
392	SLU 18	16	0	2609	-538.89	-4.3	5.88
392	SLU 19	16	-6	2621	-541.21	-4.33	5.87
392	SLU 20	16	0	2609	-538.89	-4.3	5.88
392	SLU 21	16	-6	2621	-541.21	-4.33	5.87
392	SLU 22	17	1	2332	-487.15	-3.77	6.07
392	SLU 23	17	-8	2352	-491.01	-3.82	6.06
392	SLU 24	17	1	2332	-487.15	-3.77	6.07
392	SLU 25	17	-4	2344	-489.46	-3.8	6.06
392	SLU 26	17	-8	2352	-491.01	-3.82	6.06
392	SLU 27	17	1	2332	-487.15	-3.77	6.07
392	SLU 28	17	-4	2344	-489.46	-3.8	6.06
392	SLU 29	17	1	2332	-487.15	-3.77	6.07
392	SLU 30	17	-4	2344	-489.46	-3.8	6.06
392	SLU 31	16	-10	2749	-565.44	-4.58	5.87
392	SLU 32	16	-1	2729	-561.58	-4.53	5.89
392	SLU 33	16	-6	2741	-563.89	-4.56	5.88
392	SLU 34	16	-10	2749	-565.44	-4.58	5.87
392	SLU 35	16	-1	2729	-561.58	-4.53	5.89
392	SLU 36	16	-6	2741	-563.89	-4.56	5.88
392	SLU 37	16	-1	2729	-561.58	-4.53	5.89
392	SLU 38	16	-6	2741	-563.89	-4.56	5.88
392	SLU 39	16	-2	2899	-593.48	-4.86	5.81
392	SLU 40	16	-7	2911	-595.79	-4.89	5.8
392	SLU 41	16	-2	2899	-593.48	-4.86	5.81
392	SLU 42	16	-7	2911	-595.79	-4.89	5.8
392	SLU 43	22	4	2554	-543.61	-3.98	8.01
392	SLU 44	22	-5	2575	-547.48	-4.03	8
392	SLU 45	22	4	2554	-543.61	-3.98	8.01
392	SLU 46	22	-1	2567	-545.93	-4.01	8
392	SLU 47	22	-5	2575	-547.48	-4.03	8
392	SLU 48	22	4	2554	-543.61	-3.98	8.01
392	SLU 49	22	-1	2567	-545.93	-4.01	8



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
392	SLU 50	22	4	2554	-543.61	-3.98	8.01
392	SLU 51	22	-1	2567	-545.93	-4.01	8
392	SLU 52	22	-7	2972	-621.91	-4.79	7.81
392	SLU 53	22	2	2951	-618.05	-4.74	7.83
392	SLU 54	22	-3	2964	-620.36	-4.77	7.82
392	SLU 55	22	-7	2972	-621.91	-4.79	7.81
392	SLU 56	22	2	2951	-618.05	-4.74	7.83
392	SLU 57	22	-3	2964	-620.36	-4.77	7.82
392	SLU 58	22	2	2951	-618.05	-4.74	7.83
392	SLU 59	22	-3	2964	-620.36	-4.77	7.82
392	SLU 60	22	1	3122	-649.95	-5.07	7.75
392	SLU 61	22	-4	3134	-652.26	-5.1	7.74
392	SLU 62	22	1	3122	-649.95	-5.07	7.75
392	SLU 63	22	-4	3134	-652.26	-5.1	7.74
392	SLU 64	22	3	2845	-598.2	-4.54	7.94
392	SLU 65	22	-7	2865	-602.06	-4.59	7.92
392	SLU 66	22	3	2845	-598.2	-4.54	7.94
392	SLU 67	22	-3	2857	-600.52	-4.57	7.93
392	SLU 68	22	-7	2865	-602.06	-4.59	7.92
392	SLU 69	22	3	2845	-598.2	-4.54	7.94
392	SLU 70	22	-3	2857	-600.52	-4.57	7.93
392	SLU 71	22	3	2845	-598.2	-4.54	7.94
392	SLU 72	22	-3	2857	-600.52	-4.57	7.93
392	SLU 73	22	-9	3262	-676.49	-5.35	7.74
392	SLU 74	22	1	3242	-672.63	-5.3	7.76
392	SLU 75	22	-5	3254	-674.95	-5.33	7.74
392	SLU 76	22	-9	3262	-676.49	-5.35	7.74
392	SLU 77	22	1	3242	-672.63	-5.3	7.76
392	SLU 78	22	-5	3254	-674.95	-5.33	7.74
392	SLU 79	22	1	3242	-672.63	-5.3	7.76
392	SLU 80	22	-5	3254	-674.95	-5.33	7.74
392	SLU 81	21	0	3412	-704.53	-5.63	7.68
392	SLU 82	21	-6	3424	-706.85	-5.66	7.66
392	SLU 83	21	0	3412	-704.53	-5.63	7.68
392	SLU 84	21	-6	3424	-706.85	-5.66	7.66
392	SLE RA 1	17	2	2124	-448.16	-3.37	6.12
392	SLE RA 2	17	-4	2138	-450.73	-3.4	6.11
392	SLE RA 3	17	2	2124	-448.16	-3.37	6.12
392	SLE RA 4	17	-1	2132	-449.7	-3.39	6.12
392	SLE RA 5	17	-4	2138	-450.73	-3.4	6.11
392	SLE RA 6	17	2	2124	-448.16	-3.37	6.12
392	SLE RA 7	17	-1	2132	-449.7	-3.39	6.12
392	SLE RA 8	17	2	2124	-448.16	-3.37	6.12
392	SLE RA 9	17	-1	2132	-449.7	-3.39	6.12
392	SLE RA 10	17	-5	2402	-500.35	-3.91	5.99
392	SLE RA 11	17	1	2389	-497.78	-3.88	6
392	SLE RA 12	17	-3	2397	-499.32	-3.9	5.99
392	SLE RA 13	17	-5	2402	-500.35	-3.91	5.99
392	SLE RA 14	17	1	2389	-497.78	-3.88	6
392	SLE RA 15	17	-3	2397	-499.32	-3.9	5.99
392	SLE RA 16	17	1	2389	-497.78	-3.88	6
392	SLE RA 17	17	-3	2397	-499.32	-3.9	5.99
392	SLE RA 18	16	1	2502	-519.04	-4.09	5.95
392	SLE RA 19	16	-3	2511	-520.59	-4.11	5.94
392	SLE RA 20	16	1	2502	-519.04	-4.09	5.95
392	SLE RA 21	16	-3	2511	-520.59	-4.11	5.94
392	SLE FR 1	17	2	2124	-448.16	-3.37	6.12
392	SLE FR 2	17	1	2127	-448.67	-3.38	6.12
392	SLE FR 3	17	2	2124	-448.16	-3.37	6.12
392	SLE FR 4	17	1	2241	-469.94	-3.59	6.07
392	SLE FR 5	17	2	2238	-469.42	-3.59	6.07
392	SLE FR 6	17	1	2313	-483.6	-3.73	6.04
392	SLE QP 1	17	2	2124	-448.16	-3.37	6.12
392	SLE QP 2	17	2	2238	-469.42	-3.59	6.07
392	SLD 1	225	63	2185	-448.04	-2.95	79
392	SLD 2	187	56	2186	-447.74	-2.94	65.75
392	SLD 3	233	-35	2382	-479.98	-3.5	81.82
392	SLD 4	195	-42	2384	-479.68	-3.49	68.56
392	SLD 5	81	171	1921	-414.66	-2.56	28.58
392	SLD 6	42	163	1923	-414.35	-2.55	14.81
392	SLD 7	108	-154	2581	-521.16	-4.4	37.96
392	SLD 8	69	-162	2582	-520.84	-4.39	24.19
392	SLD 9	-35	165	1893	-418	-2.78	-12.05
392	SLD 10	-75	158	1895	-417.69	-2.77	-25.82
392	SLD 11	-8	-159	2553	-524.49	-4.62	-2.66
392	SLD 12	-47	-167	2554	-524.18	-4.61	-16.44
392	SLD 13	-162	46	2092	-459.16	-3.68	-56.42
392	SLD 14	-200	38	2093	-458.86	-3.67	-69.67
392	SLD 15	-153	-52	2290	-491.11	-4.23	-53.6
392	SLD 16	-191	-59	2291	-490.81	-4.22	-66.86
392	SLV 1	491	144	2111	-419.54	-2.12	172.09
392	SLV 2	404	127	2114	-418.86	-2.1	141.7
392	SLV 3	511	-84	2573	-494.31	-3.41	178.78
392	SLV 4	424	-100	2576	-493.62	-3.39	148.39
392	SLV 5	163	396	1497	-341.33	-1.2	57.18
392	SLV 6	71	378	1501	-340.6	-1.18	25.17
392	SLV 7	227	-363	3038	-590.54	-5.5	79.47
392	SLV 8	136	-380	3042	-589.82	-5.48	47.46
392	SLV 9	-102	384	1434	-349.03	-1.7	-35.32
392	SLV 10	-194	367	1437	-348.31	-1.67	-67.33
392	SLV 11	-37	-375	2975	-598.24	-6	-13.03



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
392	SLV 12	-129	-392	2978	-597.52	-5.97	-45.04
392	SLV 13	-390	104	1899	-445.22	-3.78	-136.24
392	SLV 14	-477	88	1903	-444.54	-3.76	-166.64
392	SLV 15	-370	-123	2362	-519.99	-5.07	-129.56
392	SLV 16	-457	-140	2365	-519.3	-5.05	-159.95
392	CRTFP Ux+	0	0	0	0	0	0
392	CRTFP Ux-	0	0	0	0	0	0
392	CRTFP Uy+	0	0	0	0	0	0
392	CRTFP Uy-	0	0	0	0	0	0
393	SLU 1	18	7	2140	-518.93	-3.26	6.29
393	SLU 2	18	-3	2161	-523.78	-3.31	6.29
393	SLU 3	18	7	2140	-518.93	-3.26	6.29
393	SLU 4	18	1	2153	-521.84	-3.29	6.29
393	SLU 5	18	-3	2161	-523.78	-3.31	6.29
393	SLU 6	18	7	2140	-518.93	-3.26	6.29
393	SLU 7	18	1	2153	-521.84	-3.29	6.29
393	SLU 8	18	7	2140	-518.93	-3.26	6.29
393	SLU 9	18	1	2153	-521.84	-3.29	6.29
393	SLU 10	17	-4	2582	-618.25	-4.08	6.01
393	SLU 11	17	6	2560	-613.4	-4.03	6.02
393	SLU 12	17	0	2573	-616.31	-4.06	6.01
393	SLU 13	17	-4	2582	-618.25	-4.08	6.01
393	SLU 14	17	6	2560	-613.4	-4.03	6.02
393	SLU 15	17	0	2573	-616.31	-4.06	6.01
393	SLU 16	17	6	2560	-613.4	-4.03	6.02
393	SLU 17	17	0	2573	-616.31	-4.06	6.01
393	SLU 18	16	6	2740	-653.89	-4.36	5.9
393	SLU 19	16	0	2753	-656.8	-4.39	5.89
393	SLU 20	16	6	2740	-653.89	-4.36	5.9
393	SLU 21	16	0	2753	-656.8	-4.39	5.89
393	SLU 22	17	6	2447	-588.18	-3.83	6.17
393	SLU 23	17	-4	2469	-593.03	-3.87	6.17
393	SLU 24	17	6	2447	-588.18	-3.83	6.17
393	SLU 25	17	0	2460	-591.09	-3.86	6.17
393	SLU 26	17	-4	2469	-593.03	-3.87	6.17
393	SLU 27	17	6	2447	-588.18	-3.83	6.17
393	SLU 28	17	0	2460	-591.09	-3.86	6.17
393	SLU 29	17	6	2447	-588.18	-3.83	6.17
393	SLU 30	17	0	2460	-591.09	-3.86	6.17
393	SLU 31	16	-4	2889	-687.5	-4.64	5.89
393	SLU 32	16	5	2867	-682.65	-4.6	5.89
393	SLU 33	16	-1	2880	-685.56	-4.62	5.89
393	SLU 34	16	-4	2889	-687.5	-4.64	5.89
393	SLU 35	16	5	2867	-682.65	-4.6	5.89
393	SLU 36	16	-1	2880	-685.56	-4.62	5.89
393	SLU 37	16	5	2867	-682.65	-4.6	5.89
393	SLU 38	16	-1	2880	-685.56	-4.62	5.89
393	SLU 39	16	5	3047	-723.14	-4.93	5.77
393	SLU 40	16	-1	3060	-726.05	-4.95	5.77
393	SLU 41	16	5	3047	-723.14	-4.93	5.77
393	SLU 42	16	-1	3060	-726.05	-4.95	5.77
393	SLU 43	23	9	2676	-650.87	-4.04	8.22
393	SLU 44	23	-1	2698	-655.72	-4.09	8.22
393	SLU 45	23	9	2676	-650.87	-4.04	8.22
393	SLU 46	23	3	2689	-653.78	-4.07	8.22
393	SLU 47	23	-1	2698	-655.72	-4.09	8.22
393	SLU 48	23	9	2676	-650.87	-4.04	8.22
393	SLU 49	23	3	2689	-653.78	-4.07	8.22
393	SLU 50	23	9	2676	-650.87	-4.04	8.22
393	SLU 51	23	3	2689	-653.78	-4.07	8.22
393	SLU 52	22	-2	3118	-750.19	-4.86	7.94
393	SLU 53	22	8	3097	-745.34	-4.81	7.94
393	SLU 54	22	2	3109	-748.25	-4.84	7.94
393	SLU 55	22	-2	3118	-750.19	-4.86	7.94
393	SLU 56	22	8	3097	-745.34	-4.81	7.94
393	SLU 57	22	2	3109	-748.25	-4.84	7.94
393	SLU 58	22	8	3097	-745.34	-4.81	7.94
393	SLU 59	22	2	3109	-748.25	-4.84	7.94
393	SLU 60	22	8	3277	-785.83	-5.14	7.83
393	SLU 61	22	2	3290	-788.74	-5.17	7.82
393	SLU 62	22	8	3277	-785.83	-5.14	7.83
393	SLU 63	22	2	3290	-788.74	-5.17	7.82
393	SLU 64	23	8	2984	-720.12	-4.61	8.1
393	SLU 65	23	-2	3005	-724.97	-4.66	8.1
393	SLU 66	23	8	2984	-720.12	-4.61	8.1
393	SLU 67	23	2	2997	-723.03	-4.64	8.1
393	SLU 68	23	-2	3005	-724.97	-4.66	8.1
393	SLU 69	23	8	2984	-720.12	-4.61	8.1
393	SLU 70	23	2	2997	-723.03	-4.64	8.1
393	SLU 71	23	8	2984	-720.12	-4.61	8.1
393	SLU 72	23	2	2997	-723.03	-4.64	8.1
393	SLU 73	22	-2	3425	-819.44	-5.43	7.82
393	SLU 74	22	8	3404	-814.59	-5.38	7.82
393	SLU 75	22	2	3417	-817.5	-5.41	7.82
393	SLU 76	22	-2	3425	-819.44	-5.43	7.82
393	SLU 77	22	8	3404	-814.59	-5.38	7.82
393	SLU 78	22	2	3417	-817.5	-5.41	7.82
393	SLU 79	22	8	3404	-814.59	-5.38	7.82
393	SLU 80	22	2	3417	-817.5	-5.41	7.82
393	SLU 81	21	7	3584	-855.08	-5.71	7.7
393	SLU 82	21	1	3597	-857.99	-5.74	7.7



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
393	SLU 83	21	7	3584	-855.08	-5.71	7.7
393	SLU 84	21	1	3597	-857.99	-5.74	7.7
393	SLE RA 1	18	6	2228	-538.72	-3.42	6.26
393	SLE RA 2	18	0	2242	-541.95	-3.45	6.25
393	SLE RA 3	18	6	2228	-538.72	-3.42	6.26
393	SLE RA 4	18	2	2236	-540.66	-3.44	6.26
393	SLE RA 5	18	0	2242	-541.95	-3.45	6.25
393	SLE RA 6	18	6	2228	-538.72	-3.42	6.26
393	SLE RA 7	18	2	2236	-540.66	-3.44	6.26
393	SLE RA 8	18	6	2228	-538.72	-3.42	6.26
393	SLE RA 9	18	2	2236	-540.66	-3.44	6.26
393	SLE RA 10	17	-1	2522	-604.93	-3.97	6.07
393	SLE RA 11	17	6	2508	-601.7	-3.93	6.07
393	SLE RA 12	17	2	2516	-603.64	-3.95	6.07
393	SLE RA 13	17	-1	2522	-604.93	-3.97	6.07
393	SLE RA 14	17	6	2508	-601.7	-3.93	6.07
393	SLE RA 15	17	2	2516	-603.64	-3.95	6.07
393	SLE RA 16	17	6	2508	-601.7	-3.93	6.07
393	SLE RA 17	17	2	2516	-603.64	-3.95	6.07
393	SLE RA 18	17	6	2628	-628.69	-4.15	5.99
393	SLE RA 19	17	2	2636	-630.63	-4.17	5.99
393	SLE RA 20	17	6	2628	-628.69	-4.15	5.99
393	SLE RA 21	17	2	2636	-630.63	-4.17	5.99
393	SLE FR 1	18	6	2228	-538.72	-3.42	6.26
393	SLE FR 2	18	5	2230	-539.36	-3.43	6.26
393	SLE FR 3	18	6	2228	-538.72	-3.42	6.26
393	SLE FR 4	17	5	2351	-566.35	-3.65	6.18
393	SLE FR 5	17	6	2348	-565.71	-3.64	6.18
393	SLE FR 6	17	6	2428	-583.7	-3.79	6.12
393	SLE QP 1	18	6	2228	-538.72	-3.42	6.26
393	SLE QP 2	17	6	2348	-565.71	-3.64	6.18
393	SLD 1	225	68	2277	-538.34	-3	78.99
393	SLD 2	187	63	2278	-538.08	-2.99	65.77
393	SLD 3	234	-33	2491	-581.65	-3.55	81.85
393	SLD 4	196	-38	2492	-581.4	-3.54	68.62
393	SLD 5	81	180	2001	-491.9	-2.62	28.58
393	SLD 6	42	174	2002	-491.63	-2.61	14.84
393	SLD 7	109	-157	2715	-636.28	-4.45	38.09
393	SLD 8	69	-163	2716	-636.01	-4.44	24.35
393	SLD 9	-35	175	1979	-495.4	-2.84	-12
393	SLD 10	-74	169	1980	-495.14	-2.83	-25.74
393	SLD 11	-7	-162	2693	-639.78	-4.68	-2.49
393	SLD 12	-47	-168	2694	-639.52	-4.67	-16.22
393	SLD 13	-161	51	2203	-550.02	-3.74	-56.27
393	SLD 14	-199	45	2204	-549.76	-3.73	-69.49
393	SLD 15	-153	-50	2418	-593.33	-4.29	-53.41
393	SLD 16	-191	-56	2419	-593.08	-4.28	-66.64
393	SLV 1	491	151	2180	-501.89	-2.16	171.94
393	SLV 2	404	138	2182	-501.31	-2.14	141.62
393	SLV 3	511	-85	2680	-603.14	-3.45	178.72
393	SLV 4	424	-98	2683	-602.56	-3.43	148.4
393	SLV 5	162	413	1537	-393.22	-1.25	57.05
393	SLV 6	71	399	1540	-392.61	-1.23	25.12
393	SLV 7	228	-375	3206	-730.72	-5.55	79.63
393	SLV 8	136	-388	3208	-730.11	-5.52	47.7
393	SLV 9	-102	401	1487	-401.31	-1.76	-35.34
393	SLV 10	-193	387	1490	-400.69	-1.74	-67.28
393	SLV 11	-36	-387	3156	-738.81	-6.05	-12.76
393	SLV 12	-128	-400	3158	-738.2	-6.03	-44.7
393	SLV 13	-389	111	2012	-528.86	-3.85	-136.04
393	SLV 14	-476	98	2015	-528.27	-3.83	-166.36
393	SLV 15	-369	-125	2513	-630.11	-5.14	-129.27
393	SLV 16	-456	-138	2516	-629.52	-5.12	-159.59
393	CRTFP Ux+	0	0	0	0	0	0
393	CRTFP Ux-	0	0	0	0	0	0
393	CRTFP Uy+	0	0	0	0	0	0
393	CRTFP Uy-	0	0	0	0	0	0
394	SLU 1	18	10	2233	-606	-2.82	6.51
394	SLU 2	18	-1	2256	-611.79	-2.87	6.53
394	SLU 3	18	10	2233	-606	-2.82	6.51
394	SLU 4	18	4	2246	-609.48	-2.85	6.52
394	SLU 5	18	-1	2256	-611.79	-2.87	6.53
394	SLU 6	18	10	2233	-606	-2.82	6.51
394	SLU 7	18	4	2246	-609.48	-2.85	6.52
394	SLU 8	18	10	2233	-606	-2.82	6.51
394	SLU 9	18	4	2246	-609.48	-2.85	6.52
394	SLU 10	17	0	2698	-726.53	-3.53	6.17
394	SLU 11	17	10	2675	-720.73	-3.49	6.16
394	SLU 12	17	4	2689	-724.21	-3.52	6.16
394	SLU 13	17	0	2698	-726.53	-3.53	6.17
394	SLU 14	17	10	2675	-720.73	-3.49	6.16
394	SLU 15	17	4	2689	-724.21	-3.52	6.16
394	SLU 16	17	10	2675	-720.73	-3.49	6.16
394	SLU 17	17	4	2689	-724.21	-3.52	6.16
394	SLU 18	17	11	2864	-769.9	-3.78	6
394	SLU 19	17	5	2878	-773.38	-3.8	6.01
394	SLU 20	17	11	2864	-769.9	-3.78	6
394	SLU 21	17	5	2878	-773.38	-3.8	6.01
394	SLU 22	18	10	2556	-690.07	-3.32	6.35
394	SLU 23	18	0	2579	-695.86	-3.36	6.36
394	SLU 24	18	10	2556	-690.07	-3.32	6.35



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
394	SLU 25	18	4	2570	-693.54	-3.34	6.35
394	SLU 26	18	0	2579	-695.86	-3.36	6.36
394	SLU 27	18	10	2556	-690.07	-3.32	6.35
394	SLU 28	18	4	2570	-693.54	-3.34	6.35
394	SLU 29	18	10	2556	-690.07	-3.32	6.35
394	SLU 30	18	4	2570	-693.54	-3.34	6.35
394	SLU 31	17	1	3021	-810.59	-4.03	6
394	SLU 32	17	11	2998	-804.8	-3.99	5.99
394	SLU 33	17	5	3012	-808.27	-4.01	6
394	SLU 34	17	1	3021	-810.59	-4.03	6
394	SLU 35	17	11	2998	-804.8	-3.99	5.99
394	SLU 36	17	5	3012	-808.27	-4.01	6
394	SLU 37	17	11	2998	-804.8	-3.99	5.99
394	SLU 38	17	5	3012	-808.27	-4.01	6
394	SLU 39	16	11	3188	-853.97	-4.27	5.84
394	SLU 40	16	5	3202	-857.44	-4.3	5.85
394	SLU 41	16	11	3188	-853.97	-4.27	5.84
394	SLU 42	16	5	3202	-857.44	-4.3	5.85
394	SLU 43	24	13	2792	-758.98	-3.5	8.52
394	SLU 44	24	2	2815	-764.77	-3.54	8.54
394	SLU 45	24	13	2792	-758.98	-3.5	8.52
394	SLU 46	24	6	2805	-762.46	-3.53	8.53
394	SLU 47	24	2	2815	-764.77	-3.54	8.54
394	SLU 48	24	13	2792	-758.98	-3.5	8.52
394	SLU 49	24	6	2805	-762.46	-3.53	8.53
394	SLU 50	24	13	2792	-758.98	-3.5	8.52
394	SLU 51	24	6	2805	-762.46	-3.53	8.53
394	SLU 52	23	3	3257	-879.5	-4.21	8.18
394	SLU 53	23	13	3234	-873.71	-4.17	8.17
394	SLU 54	23	7	3248	-877.19	-4.2	8.18
394	SLU 55	23	3	3257	-879.5	-4.21	8.18
394	SLU 56	23	13	3234	-873.71	-4.17	8.17
394	SLU 57	23	7	3248	-877.19	-4.2	8.18
394	SLU 58	23	13	3234	-873.71	-4.17	8.17
394	SLU 59	23	7	3248	-877.19	-4.2	8.18
394	SLU 60	22	14	3423	-922.88	-4.46	8.01
394	SLU 61	22	7	3437	-926.36	-4.48	8.02
394	SLU 62	22	14	3423	-922.88	-4.46	8.01
394	SLU 63	22	7	3437	-926.36	-4.48	8.02
394	SLU 64	23	13	3115	-843.05	-4	8.36
394	SLU 65	24	3	3138	-848.84	-4.04	8.37
394	SLU 66	23	13	3115	-843.05	-4	8.36
394	SLU 67	24	7	3129	-846.52	-4.02	8.36
394	SLU 68	24	3	3138	-848.84	-4.04	8.37
394	SLU 69	23	13	3115	-843.05	-4	8.36
394	SLU 70	24	7	3129	-846.52	-4.02	8.36
394	SLU 71	23	13	3115	-843.05	-4	8.36
394	SLU 72	24	7	3129	-846.52	-4.02	8.36
394	SLU 73	22	3	3580	-963.57	-4.7	8.02
394	SLU 74	22	14	3557	-957.78	-4.66	8
394	SLU 75	22	7	3571	-961.25	-4.69	8.01
394	SLU 76	22	3	3580	-963.57	-4.7	8.02
394	SLU 77	22	14	3557	-957.78	-4.66	8
394	SLU 78	22	7	3571	-961.25	-4.69	8.01
394	SLU 79	22	14	3557	-957.78	-4.66	8
394	SLU 80	22	7	3571	-961.25	-4.69	8.01
394	SLU 81	22	14	3747	-1006.95	-4.95	7.85
394	SLU 82	22	8	3761	-1010.42	-4.97	7.86
394	SLU 83	22	14	3747	-1006.95	-4.95	7.85
394	SLU 84	22	8	3761	-1010.42	-4.97	7.86
394	SLE RA 1	18	10	2325	-630.02	-2.97	6.46
394	SLE RA 2	18	3	2340	-633.88	-2.99	6.47
394	SLE RA 3	18	10	2325	-630.02	-2.97	6.46
394	SLE RA 4	18	6	2334	-632.34	-2.98	6.47
394	SLE RA 5	18	3	2340	-633.88	-2.99	6.47
394	SLE RA 6	18	10	2325	-630.02	-2.97	6.46
394	SLE RA 7	18	6	2334	-632.34	-2.98	6.47
394	SLE RA 8	18	10	2325	-630.02	-2.97	6.46
394	SLE RA 9	18	6	2334	-632.34	-2.98	6.47
394	SLE RA 10	17	3	2635	-710.37	-3.44	6.24
394	SLE RA 11	17	10	2620	-706.51	-3.41	6.23
394	SLE RA 12	17	6	2629	-708.82	-3.43	6.23
394	SLE RA 13	17	3	2635	-710.37	-3.44	6.24
394	SLE RA 14	17	10	2620	-706.51	-3.41	6.23
394	SLE RA 15	17	6	2629	-708.82	-3.43	6.23
394	SLE RA 16	17	10	2620	-706.51	-3.41	6.23
394	SLE RA 17	17	6	2629	-708.82	-3.43	6.23
394	SLE RA 18	17	10	2746	-739.29	-3.6	6.13
394	SLE RA 19	17	6	2755	-741.61	-3.62	6.13
394	SLE RA 20	17	10	2746	-739.29	-3.6	6.13
394	SLE RA 21	17	6	2755	-741.61	-3.62	6.13
394	SLE FR 1	18	10	2325	-630.02	-2.97	6.46
394	SLE FR 2	18	9	2328	-630.79	-2.97	6.47
394	SLE FR 3	18	10	2325	-630.02	-2.97	6.46
394	SLE FR 4	18	9	2455	-663.57	-3.16	6.36
394	SLE FR 5	18	10	2451	-662.8	-3.16	6.36
394	SLE FR 6	18	10	2536	-684.65	-3.28	6.3
394	SLE QP 1	18	10	2325	-630.02	-2.97	6.46
394	SLE QP 2	18	10	2451	-662.8	-3.16	6.36
394	SLD 1	226	73	2364	-629.55	-2.55	79.04
394	SLD 2	188	69	2365	-629.36	-2.54	65.86



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
394	SLD 3	234	-32	2594	-684.03	-3.02	81.94
394	SLD 4	196	-36	2594	-683.84	-3.01	68.76
394	SLD 5	81	189	2077	-570.27	-2.26	28.63
394	SLD 6	42	185	2078	-570.07	-2.25	14.93
394	SLD 7	110	-159	2842	-751.87	-3.83	38.32
394	SLD 8	70	-163	2843	-751.67	-3.82	24.62
394	SLD 9	-34	184	2060	-573.93	-2.49	-11.89
394	SLD 10	-74	180	2061	-573.74	-2.48	-25.59
394	SLD 11	-6	-164	2825	-755.53	-4.06	-2.21
394	SLD 12	-46	-169	2826	-755.33	-4.05	-15.9
394	SLD 13	-161	56	2309	-641.76	-3.31	-56.03
394	SLD 14	-198	52	2309	-641.57	-3.3	-69.22
394	SLD 15	-152	-49	2538	-696.24	-3.78	-53.13
394	SLD 16	-190	-53	2539	-696.05	-3.77	-66.31
394	SLV 1	491	156	2246	-585.27	-1.75	171.81
394	SLV 2	404	147	2248	-584.84	-1.73	141.58
394	SLV 3	511	-88	2782	-712.58	-2.85	178.7
394	SLV 4	424	-97	2784	-712.14	-2.83	148.47
394	SLV 5	162	427	1575	-446.63	-1.07	56.93
394	SLV 6	71	418	1577	-446.18	-1.05	25.09
394	SLV 7	229	-386	3364	-870.97	-4.74	79.9
394	SLV 8	137	-396	3366	-870.51	-4.72	48.06
394	SLV 9	-102	416	1537	-455.09	-1.59	-35.34
394	SLV 10	-193	406	1539	-454.63	-1.57	-67.17
394	SLV 11	-35	-398	3326	-879.42	-5.26	-12.37
394	SLV 12	-126	-407	3328	-878.97	-5.24	-44.2
394	SLV 13	-388	117	2119	-613.46	-3.48	-135.75
394	SLV 14	-475	108	2121	-613.03	-3.46	-165.98
394	SLV 15	-368	-127	2655	-740.76	-4.58	-128.85
394	SLV 16	-455	-136	2657	-740.33	-4.56	-159.09
394	CRTFP Ux+	0	0	0	0	0	0
394	CRTFP Ux-	0	0	0	0	0	0
394	CRTFP Uy+	0	0	0	0	0	0
394	CRTFP Uy-	0	0	0	0	0	0
395	SLU 1	18	11	2102	-624.16	35.21	6.05
395	SLU 2	18	1	2124	-630.13	35.57	6.25
395	SLU 3	18	11	2102	-624.16	35.21	6.05
395	SLU 4	18	5	2116	-627.74	35.43	6.17
395	SLU 5	18	1	2124	-630.13	35.57	6.25
395	SLU 6	18	11	2102	-624.16	35.21	6.05
395	SLU 7	18	5	2116	-627.74	35.43	6.17
395	SLU 8	18	11	2102	-624.16	35.21	6.05
395	SLU 9	18	5	2116	-627.74	35.43	6.17
395	SLU 10	17	2	2543	-751.45	42.53	5.84
395	SLU 11	17	12	2521	-745.48	42.17	5.64
395	SLU 12	17	6	2534	-749.06	42.39	5.76
395	SLU 13	17	2	2543	-751.45	42.53	5.84
395	SLU 14	17	12	2521	-745.48	42.17	5.64
395	SLU 15	17	6	2534	-749.06	42.39	5.76
395	SLU 16	17	12	2521	-745.48	42.17	5.64
395	SLU 17	17	6	2534	-749.06	42.39	5.76
395	SLU 18	16	13	2701	-797.47	45.15	5.47
395	SLU 19	16	7	2714	-801.06	45.37	5.59
395	SLU 20	16	13	2701	-797.47	45.15	5.47
395	SLU 21	16	7	2714	-801.06	45.37	5.59
395	SLU 22	17	12	2409	-713.01	40.3	5.85
395	SLU 23	17	2	2431	-718.99	40.66	6.05
395	SLU 24	17	12	2409	-713.01	40.3	5.85
395	SLU 25	17	6	2422	-716.6	40.52	5.97
395	SLU 26	17	2	2431	-718.99	40.66	6.05
395	SLU 27	17	12	2409	-713.01	40.3	5.85
395	SLU 28	17	6	2422	-716.6	40.52	5.97
395	SLU 29	17	12	2409	-713.01	40.3	5.85
395	SLU 30	17	6	2422	-716.6	40.52	5.97
395	SLU 31	16	3	2850	-840.31	47.62	5.64
395	SLU 32	16	13	2828	-834.33	47.26	5.44
395	SLU 33	16	7	2841	-837.92	47.48	5.56
395	SLU 34	16	3	2850	-840.31	47.62	5.64
395	SLU 35	16	13	2828	-834.33	47.26	5.44
395	SLU 36	16	7	2841	-837.92	47.48	5.56
395	SLU 37	16	13	2828	-834.33	47.26	5.44
395	SLU 38	16	7	2841	-837.92	47.48	5.56
395	SLU 39	16	14	3007	-886.33	50.25	5.27
395	SLU 40	16	8	3020	-889.91	50.46	5.39
395	SLU 41	16	14	3007	-886.33	50.25	5.27
395	SLU 42	16	8	3020	-889.91	50.46	5.39
395	SLU 43	23	13	2628	-780.94	44.03	7.93
395	SLU 44	23	4	2650	-786.91	44.39	8.13
395	SLU 45	23	13	2628	-780.94	44.03	7.93
395	SLU 46	23	8	2641	-784.52	44.24	8.05
395	SLU 47	23	4	2650	-786.91	44.39	8.13
395	SLU 48	23	13	2628	-780.94	44.03	7.93
395	SLU 49	23	8	2641	-784.52	44.24	8.05
395	SLU 50	23	13	2628	-780.94	44.03	7.93
395	SLU 51	23	8	2641	-784.52	44.24	8.05
395	SLU 52	22	5	3069	-908.23	51.35	7.72
395	SLU 53	22	15	3047	-902.26	50.99	7.52
395	SLU 54	22	9	3060	-905.84	51.2	7.64
395	SLU 55	22	5	3069	-908.23	51.35	7.72
395	SLU 56	22	15	3047	-902.26	50.99	7.52
395	SLU 57	22	9	3060	-905.84	51.2	7.64



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
395	SLU 58	22	15	3047	-902.26	50.99	7.52
395	SLU 59	22	9	3060	-905.84	51.2	7.64
395	SLU 60	22	16	3226	-954.25	53.97	7.35
395	SLU 61	22	10	3239	-957.84	54.19	7.47
395	SLU 62	22	16	3226	-954.25	53.97	7.35
395	SLU 63	22	10	3239	-957.84	54.19	7.47
395	SLU 64	23	14	2935	-869.8	49.12	7.73
395	SLU 65	23	5	2957	-875.77	49.48	7.93
395	SLU 66	23	14	2935	-869.8	49.12	7.73
395	SLU 67	23	9	2948	-873.38	49.34	7.85
395	SLU 68	23	5	2957	-875.77	49.48	7.93
395	SLU 69	23	14	2935	-869.8	49.12	7.73
395	SLU 70	23	9	2948	-873.38	49.34	7.85
395	SLU 71	23	14	2935	-869.8	49.12	7.73
395	SLU 72	23	9	2948	-873.38	49.34	7.85
395	SLU 73	22	6	3375	-997.09	56.44	7.53
395	SLU 74	22	16	3353	-991.11	56.08	7.33
395	SLU 75	22	10	3367	-994.7	56.3	7.45
395	SLU 76	22	6	3375	-997.09	56.44	7.53
395	SLU 77	22	16	3353	-991.11	56.08	7.33
395	SLU 78	22	10	3367	-994.7	56.3	7.45
395	SLU 79	22	16	3353	-991.11	56.08	7.33
395	SLU 80	22	10	3367	-994.7	56.3	7.45
395	SLU 81	21	17	3533	-1043.11	59.06	7.15
395	SLU 82	21	11	3546	-1046.69	59.28	7.27
395	SLU 83	21	17	3533	-1043.11	59.06	7.15
395	SLU 84	21	11	3546	-1046.69	59.28	7.27
395	SLE RA 1	18	11	2190	-649.54	36.67	5.99
395	SLE RA 2	18	4	2205	-653.53	36.91	6.13
395	SLE RA 3	18	11	2190	-649.54	36.67	5.99
395	SLE RA 4	18	7	2199	-651.93	36.81	6.07
395	SLE RA 5	18	4	2205	-653.53	36.91	6.13
395	SLE RA 6	18	11	2190	-649.54	36.67	5.99
395	SLE RA 7	18	7	2199	-651.93	36.81	6.07
395	SLE RA 8	18	11	2190	-649.54	36.67	5.99
395	SLE RA 9	18	7	2199	-651.93	36.81	6.07
395	SLE RA 10	17	5	2484	-734.41	41.55	5.85
395	SLE RA 11	17	12	2469	-730.42	41.31	5.72
395	SLE RA 12	17	8	2478	-732.81	41.45	5.8
395	SLE RA 13	17	5	2484	-734.41	41.55	5.85
395	SLE RA 14	17	12	2469	-730.42	41.31	5.72
395	SLE RA 15	17	8	2478	-732.81	41.45	5.8
395	SLE RA 16	17	12	2469	-730.42	41.31	5.72
395	SLE RA 17	17	8	2478	-732.81	41.45	5.8
395	SLE RA 18	16	12	2589	-765.09	43.29	5.6
395	SLE RA 19	17	8	2598	-767.48	43.44	5.68
395	SLE RA 20	16	12	2589	-765.09	43.29	5.6
395	SLE RA 21	17	8	2598	-767.48	43.44	5.68
395	SLE FR 1	18	11	2190	-649.54	36.67	5.99
395	SLE FR 2	18	10	2193	-650.34	36.71	6.02
395	SLE FR 3	18	11	2190	-649.54	36.67	5.99
395	SLE FR 4	17	10	2313	-685	38.7	5.9
395	SLE FR 5	17	11	2310	-684.21	38.65	5.88
395	SLE FR 6	17	12	2389	-707.32	39.98	5.8
395	SLE QP 1	18	11	2190	-649.54	36.67	5.99
395	SLE QP 2	17	11	2310	-684.21	38.65	5.88
395	SLD 1	207	68	2219	-649.53	37.38	71.5
395	SLD 2	172	66	2219	-649.46	37.4	59.5
395	SLD 3	215	-30	2439	-707.62	40.99	75.43
395	SLD 4	180	-31	2439	-707.55	41	63.44
395	SLD 5	75	177	1948	-585.73	32.8	24.03
395	SLD 6	39	175	1949	-585.65	32.81	11.57
395	SLD 7	101	-148	2682	-779.36	44.82	37.14
395	SLD 8	65	-150	2683	-779.29	44.83	24.68
395	SLD 9	-31	173	1937	-589.13	32.47	-12.92
395	SLD 10	-67	171	1938	-589.05	32.49	-25.38
395	SLD 11	-5	-153	2670	-782.76	44.49	0.18
395	SLD 12	-40	-154	2671	-782.69	44.51	-12.28
395	SLD 13	-146	54	2180	-660.86	36.3	-51.68
395	SLD 14	-180	52	2181	-660.79	36.32	-63.68
395	SLD 15	-138	-44	2400	-718.95	39.91	-47.75
395	SLD 16	-172	-46	2401	-718.88	39.93	-59.74
395	SLV 1	449	144	2096	-603.37	35.65	155.24
395	SLV 2	370	140	2097	-603.21	35.69	127.74
395	SLV 3	468	-84	2610	-739.09	44.08	164.49
395	SLV 4	388	-89	2611	-738.93	44.11	136.99
395	SLV 5	148	399	1466	-454.17	24.96	47.01
395	SLV 6	65	394	1467	-454	25	18.05
395	SLV 7	210	-362	3179	-906.58	53.04	77.84
395	SLV 8	127	-366	3180	-906.41	53.08	48.88
395	SLV 9	-93	389	1439	-462	24.23	-37.13
395	SLV 10	-176	385	1440	-461.83	24.26	-66.09
395	SLV 11	-30	-372	3153	-914.41	52.31	-6.3
395	SLV 12	-114	-376	3154	-914.24	52.34	-35.26
395	SLV 13	-354	111	2008	-629.48	33.19	-125.24
395	SLV 14	-433	107	2009	-629.32	33.23	-152.74
395	SLV 15	-335	-117	2522	-765.21	41.62	-115.99
395	SLV 16	-414	-121	2523	-765.05	41.65	-143.49
395	CRTFP Ux+	0	0	0	0	0	0
395	CRTFP Ux-	0	0	0	0	0	0
395	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
395	CRTFP Uy-	0	0	0	0	0	0
397	SLU 1	46	22	5057	-1141.16	23.18	10.34
397	SLU 2	47	0	5111	-1152.4	23.43	10.52
397	SLU 3	46	22	5057	-1141.16	23.18	10.34
397	SLU 4	46	9	5089	-1147.9	23.33	10.44
397	SLU 5	47	0	5111	-1152.4	23.43	10.52
397	SLU 6	46	22	5057	-1141.16	23.18	10.34
397	SLU 7	46	9	5089	-1147.9	23.33	10.44
397	SLU 8	46	22	5057	-1141.16	23.18	10.34
397	SLU 9	46	9	5089	-1147.9	23.33	10.44
397	SLU 10	44	4	6122	-1379.24	27.88	9.87
397	SLU 11	43	27	6068	-1368	27.63	9.69
397	SLU 12	44	14	6101	-1374.75	27.78	9.8
397	SLU 13	44	4	6122	-1379.24	27.88	9.87
397	SLU 14	43	27	6068	-1368	27.63	9.69
397	SLU 15	44	14	6101	-1374.75	27.78	9.8
397	SLU 16	43	27	6068	-1368	27.63	9.69
397	SLU 17	44	14	6101	-1374.75	27.78	9.8
397	SLU 18	42	29	6502	-1465.22	29.53	9.41
397	SLU 19	42	16	6534	-1471.96	29.68	9.52
397	SLU 20	42	29	6502	-1465.22	29.53	9.41
397	SLU 21	42	16	6534	-1471.96	29.68	9.52
397	SLU 22	45	26	5798	-1307.22	26.41	10.04
397	SLU 23	45	3	5851	-1318.47	26.65	10.22
397	SLU 24	45	26	5798	-1307.22	26.41	10.04
397	SLU 25	45	12	5830	-1313.97	26.55	10.15
397	SLU 26	45	3	5851	-1318.47	26.65	10.22
397	SLU 27	45	26	5798	-1307.22	26.41	10.04
397	SLU 28	45	12	5830	-1313.97	26.55	10.15
397	SLU 29	45	26	5798	-1307.22	26.41	10.04
397	SLU 30	45	12	5830	-1313.97	26.55	10.15
397	SLU 31	42	8	6863	-1545.31	31.1	9.57
397	SLU 32	42	30	6809	-1534.06	30.85	9.4
397	SLU 33	42	17	6841	-1540.81	31	9.5
397	SLU 34	42	8	6863	-1545.31	31.1	9.57
397	SLU 35	42	30	6809	-1534.06	30.85	9.4
397	SLU 36	42	17	6841	-1540.81	31	9.5
397	SLU 37	42	30	6809	-1534.06	30.85	9.4
397	SLU 38	42	17	6841	-1540.81	31	9.5
397	SLU 39	41	33	7242	-1631.28	32.76	9.12
397	SLU 40	41	19	7274	-1638.03	32.9	9.23
397	SLU 41	41	33	7242	-1631.28	32.76	9.12
397	SLU 42	41	19	7274	-1638.03	32.9	9.23
397	SLU 43	61	28	6320	-1426.56	29.04	13.54
397	SLU 44	61	5	6374	-1437.81	29.28	13.72
397	SLU 45	61	28	6320	-1426.56	29.04	13.54
397	SLU 46	61	14	6353	-1433.31	29.19	13.65
397	SLU 47	61	5	6374	-1437.81	29.28	13.72
397	SLU 48	61	28	6320	-1426.56	29.04	13.54
397	SLU 49	61	14	6353	-1433.31	29.19	13.65
397	SLU 50	61	28	6320	-1426.56	29.04	13.54
397	SLU 51	61	14	6353	-1433.31	29.19	13.65
397	SLU 52	58	10	7385	-1664.65	33.73	13.07
397	SLU 53	58	33	7332	-1653.41	33.48	12.89
397	SLU 54	58	19	7364	-1660.16	33.63	13
397	SLU 55	58	10	7385	-1664.65	33.73	13.07
397	SLU 56	58	33	7332	-1653.41	33.48	12.89
397	SLU 57	58	19	7364	-1660.16	33.63	13
397	SLU 58	58	33	7332	-1653.41	33.48	12.89
397	SLU 59	58	19	7364	-1660.16	33.63	13
397	SLU 60	56	35	7765	-1750.63	35.39	12.61
397	SLU 61	57	21	7797	-1757.37	35.54	12.72
397	SLU 62	56	35	7765	-1750.63	35.39	12.61
397	SLU 63	57	21	7797	-1757.37	35.54	12.72
397	SLU 64	59	31	7061	-1592.63	32.26	13.25
397	SLU 65	60	8	7115	-1603.88	32.51	13.42
397	SLU 66	59	31	7061	-1592.63	32.26	13.25
397	SLU 67	59	18	7093	-1599.38	32.41	13.35
397	SLU 68	60	8	7115	-1603.88	32.51	13.42
397	SLU 69	59	31	7061	-1592.63	32.26	13.25
397	SLU 70	59	18	7093	-1599.38	32.41	13.35
397	SLU 71	59	31	7061	-1592.63	32.26	13.25
397	SLU 72	59	18	7093	-1599.38	32.41	13.35
397	SLU 73	57	13	8126	-1830.72	36.95	12.78
397	SLU 74	56	36	8072	-1819.47	36.7	12.6
397	SLU 75	57	22	8104	-1826.22	36.85	12.7
397	SLU 76	57	13	8126	-1830.72	36.95	12.78
397	SLU 77	56	36	8072	-1819.47	36.7	12.6
397	SLU 78	57	22	8104	-1826.22	36.85	12.7
397	SLU 79	56	36	8072	-1819.47	36.7	12.6
397	SLU 80	57	22	8104	-1826.22	36.85	12.7
397	SLU 81	55	38	8505	-1916.69	38.61	12.32
397	SLU 82	55	24	8538	-1923.44	38.76	12.43
397	SLU 83	55	38	8505	-1916.69	38.61	12.32
397	SLU 84	55	24	8538	-1923.44	38.76	12.43
397	SLE RA 1	46	23	5269	-1188.6	24.11	10.25
397	SLE RA 2	46	8	5305	-1196.1	24.27	10.37
397	SLE RA 3	46	23	5269	-1188.6	24.11	10.25
397	SLE RA 4	46	14	5290	-1193.1	24.2	10.32
397	SLE RA 5	46	8	5305	-1196.1	24.27	10.37
397	SLE RA 6	46	23	5269	-1188.6	24.11	10.25



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
397	SLE RA 7	46	14	5290	-1193.1	24.2	10.32
397	SLE RA 8	46	23	5269	-1188.6	24.11	10.25
397	SLE RA 9	46	14	5290	-1193.1	24.2	10.32
397	SLE RA 10	44	11	5979	-1347.33	27.23	9.94
397	SLE RA 11	44	27	5943	-1339.83	27.07	9.82
397	SLE RA 12	44	17	5964	-1344.33	27.17	9.89
397	SLE RA 13	44	11	5979	-1347.33	27.23	9.94
397	SLE RA 14	44	27	5943	-1339.83	27.07	9.82
397	SLE RA 15	44	17	5964	-1344.33	27.17	9.89
397	SLE RA 16	44	27	5943	-1339.83	27.07	9.82
397	SLE RA 17	44	17	5964	-1344.33	27.17	9.89
397	SLE RA 18	43	28	6232	-1404.64	28.34	9.64
397	SLE RA 19	43	19	6253	-1409.14	28.44	9.71
397	SLE RA 20	43	28	6232	-1404.64	28.34	9.64
397	SLE RA 21	43	19	6253	-1409.14	28.44	9.71
397	SLE FR 1	46	23	5269	-1188.6	24.11	10.25
397	SLE FR 2	46	20	5276	-1190.1	24.14	10.28
397	SLE FR 3	46	23	5269	-1188.6	24.11	10.25
397	SLE FR 4	45	22	5565	-1254.91	25.41	10.09
397	SLE FR 5	45	25	5558	-1253.41	25.38	10.07
397	SLE FR 6	44	26	5750	-1296.62	26.22	9.94
397	SLE QP 1	46	23	5269	-1188.6	24.11	10.25
397	SLE QP 2	45	25	5558	-1253.41	25.38	10.07
397	SLD 1	490	154	5242	-1187.85	29.7	116.41
397	SLD 2	408	156	5243	-1188.05	29.78	97.3
397	SLD 3	509	-77	5789	-1300.22	31.99	121.57
397	SLD 4	427	-75	5790	-1300.42	32.07	102.46
397	SLD 5	180	413	4633	-1063.24	23.16	41.22
397	SLD 6	95	415	4634	-1063.45	23.25	21.36
397	SLD 7	244	-356	6456	-1437.81	30.8	58.39
397	SLD 8	158	-355	6457	-1438.02	30.89	38.54
397	SLD 9	-68	404	4658	-1068.81	19.86	-18.4
397	SLD 10	-153	406	4659	-1069.02	19.95	-38.26
397	SLD 11	-5	-365	6481	-1443.38	27.5	-1.23
397	SLD 12	-90	-364	6482	-1443.59	27.59	-21.08
397	SLD 13	-337	125	5325	-1206.41	18.68	-82.32
397	SLD 14	-419	126	5326	-1206.61	18.76	-101.43
397	SLD 15	-318	-106	5872	-1318.78	20.97	-77.17
397	SLD 16	-400	-105	5873	-1318.98	21.05	-96.28
397	SLV 1	1059	327	4823	-1100.68	35.16	252.16
397	SLV 2	870	330	4825	-1101.14	35.35	208.33
397	SLV 3	1104	-213	6100	-1363.22	40.51	264.31
397	SLV 4	915	-209	6102	-1363.68	40.7	220.49
397	SLV 5	352	932	3399	-809.23	20.13	80.76
397	SLV 6	153	935	3401	-809.72	20.33	34.61
397	SLV 7	502	-866	7657	-1684.37	37.95	121.28
397	SLV 8	303	-862	7659	-1684.85	38.16	75.13
397	SLV 9	-213	911	3456	-821.98	12.59	-54.99
397	SLV 10	-412	915	3458	-822.46	12.8	-101.14
397	SLV 11	-63	-886	7714	-1697.11	30.42	-14.47
397	SLV 12	-262	-882	7716	-1697.6	30.62	-60.63
397	SLV 13	-825	259	5013	-1143.15	10.05	-200.35
397	SLV 14	-1014	262	5015	-1143.61	10.24	-244.17
397	SLV 15	-780	-281	6290	-1405.69	15.4	-188.2
397	SLV 16	-969	-277	6292	-1406.15	15.59	-232.02
397	CRTFP Ux+	0	0	0	0	0	0
397	CRTFP Ux-	0	0	0	0	0	0
397	CRTFP Uy+	0	0	0	-0.01	0	0
397	CRTFP Uy-	0	0	0	0.01	0	0
399	SLU 1	19	6	1913	-572.12	-32.23	6.58
399	SLU 2	19	-3	1932	-577.59	-32.56	6.49
399	SLU 3	19	6	1913	-572.12	-32.23	6.58
399	SLU 4	19	1	1925	-575.4	-32.43	6.52
399	SLU 5	19	-3	1932	-577.59	-32.56	6.49
399	SLU 6	19	6	1913	-572.12	-32.23	6.58
399	SLU 7	19	1	1925	-575.4	-32.43	6.52
399	SLU 8	19	6	1913	-572.12	-32.23	6.58
399	SLU 9	19	1	1925	-575.4	-32.43	6.52
399	SLU 10	18	-1	2314	-689.84	-38.96	6.13
399	SLU 11	18	8	2294	-684.38	-38.63	6.23
399	SLU 12	18	3	2306	-687.66	-38.82	6.17
399	SLU 13	18	-1	2314	-689.84	-38.96	6.13
399	SLU 14	18	8	2294	-684.38	-38.63	6.23
399	SLU 15	18	3	2306	-687.66	-38.82	6.17
399	SLU 16	18	8	2294	-684.38	-38.63	6.23
399	SLU 17	18	3	2306	-687.66	-38.82	6.17
399	SLU 18	17	9	2458	-732.49	-41.37	6.08
399	SLU 19	17	3	2470	-735.77	-41.57	6.02
399	SLU 20	17	9	2458	-732.49	-41.37	6.08
399	SLU 21	17	3	2470	-735.77	-41.57	6.02
399	SLU 22	18	7	2192	-654.28	-36.92	6.43
399	SLU 23	18	-2	2212	-659.74	-37.25	6.34
399	SLU 24	18	7	2192	-654.28	-36.92	6.43
399	SLU 25	18	2	2204	-657.56	-37.11	6.38
399	SLU 26	18	-2	2212	-659.74	-37.25	6.34
399	SLU 27	18	7	2192	-654.28	-36.92	6.43
399	SLU 28	18	2	2204	-657.56	-37.11	6.38
399	SLU 29	18	7	2192	-654.28	-36.92	6.43
399	SLU 30	18	2	2204	-657.56	-37.11	6.38
399	SLU 31	17	0	2593	-772	-43.64	5.99
399	SLU 32	17	9	2574	-766.54	-43.31	6.08



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
399	SLU 33	17	4	2585	-769.81	-43.51	6.03
399	SLU 34	17	0	2593	-772	-43.64	5.99
399	SLU 35	17	9	2574	-766.54	-43.31	6.08
399	SLU 36	17	4	2585	-769.81	-43.51	6.03
399	SLU 37	17	9	2574	-766.54	-43.31	6.08
399	SLU 38	17	4	2585	-769.81	-43.51	6.03
399	SLU 39	17	10	2737	-814.65	-46.05	5.93
399	SLU 40	17	4	2749	-817.92	-46.25	5.88
399	SLU 41	17	10	2737	-814.65	-46.05	5.93
399	SLU 42	17	4	2749	-817.92	-46.25	5.88
399	SLU 43	25	7	2391	-715.59	-40.29	8.6
399	SLU 44	25	-1	2410	-721.05	-40.62	8.51
399	SLU 45	25	7	2391	-715.59	-40.29	8.6
399	SLU 46	25	2	2402	-718.87	-40.49	8.55
399	SLU 47	25	-1	2410	-721.05	-40.62	8.51
399	SLU 48	25	7	2391	-715.59	-40.29	8.6
399	SLU 49	25	2	2402	-718.87	-40.49	8.55
399	SLU 50	25	7	2391	-715.59	-40.29	8.6
399	SLU 51	25	2	2402	-718.87	-40.49	8.55
399	SLU 52	24	0	2792	-833.31	-47.02	8.16
399	SLU 53	23	9	2772	-827.85	-46.69	8.25
399	SLU 54	24	4	2784	-831.13	-46.89	8.19
399	SLU 55	24	0	2792	-833.31	-47.02	8.16
399	SLU 56	23	9	2772	-827.85	-46.69	8.25
399	SLU 57	24	4	2784	-831.13	-46.89	8.19
399	SLU 58	23	9	2772	-827.85	-46.69	8.25
399	SLU 59	24	4	2784	-831.13	-46.89	8.19
399	SLU 60	23	10	2936	-875.96	-49.43	8.1
399	SLU 61	23	5	2948	-879.24	-49.63	8.04
399	SLU 62	23	10	2936	-875.96	-49.43	8.1
399	SLU 63	23	5	2948	-879.24	-49.63	8.04
399	SLU 64	24	9	2670	-797.75	-44.98	8.46
399	SLU 65	24	0	2690	-803.21	-45.31	8.37
399	SLU 66	24	9	2670	-797.75	-44.98	8.46
399	SLU 67	24	3	2682	-801.03	-45.18	8.4
399	SLU 68	24	0	2690	-803.21	-45.31	8.37
399	SLU 69	24	9	2670	-797.75	-44.98	8.46
399	SLU 70	24	3	2682	-801.03	-45.18	8.4
399	SLU 71	24	9	2670	-797.75	-44.98	8.46
399	SLU 72	24	3	2682	-801.03	-45.18	8.4
399	SLU 73	23	2	3071	-915.47	-51.7	8.01
399	SLU 74	23	10	3052	-910.01	-51.37	8.11
399	SLU 75	23	5	3063	-913.28	-51.57	8.05
399	SLU 76	23	2	3071	-915.47	-51.7	8.01
399	SLU 77	23	10	3052	-910.01	-51.37	8.11
399	SLU 78	23	5	3063	-913.28	-51.57	8.05
399	SLU 79	23	10	3052	-910.01	-51.37	8.11
399	SLU 80	23	5	3063	-913.28	-51.57	8.05
399	SLU 81	23	11	3215	-958.12	-54.12	7.95
399	SLU 82	23	6	3227	-961.39	-54.31	7.9
399	SLU 83	23	11	3215	-958.12	-54.12	7.95
399	SLU 84	23	6	3227	-961.39	-54.31	7.9
399	SLE RA 1	19	6	1992	-595.6	-33.57	6.54
399	SLE RA 2	19	0	2006	-599.24	-33.79	6.48
399	SLE RA 3	19	6	1992	-595.6	-33.57	6.54
399	SLE RA 4	19	3	2000	-597.78	-33.7	6.5
399	SLE RA 5	19	0	2006	-599.24	-33.79	6.48
399	SLE RA 6	19	6	1992	-595.6	-33.57	6.54
399	SLE RA 7	19	3	2000	-597.78	-33.7	6.5
399	SLE RA 8	19	6	1992	-595.6	-33.57	6.54
399	SLE RA 9	19	3	2000	-597.78	-33.7	6.5
399	SLE RA 10	18	2	2260	-674.08	-38.05	6.24
399	SLE RA 11	18	8	2247	-670.43	-37.83	6.3
399	SLE RA 12	18	4	2255	-672.62	-37.96	6.27
399	SLE RA 13	18	2	2260	-674.08	-38.05	6.24
399	SLE RA 14	18	8	2247	-670.43	-37.83	6.3
399	SLE RA 15	18	4	2255	-672.62	-37.96	6.27
399	SLE RA 16	18	8	2247	-670.43	-37.83	6.3
399	SLE RA 17	18	4	2255	-672.62	-37.96	6.27
399	SLE RA 18	18	8	2356	-702.51	-39.66	6.2
399	SLE RA 19	18	5	2364	-704.69	-39.79	6.17
399	SLE RA 20	18	8	2356	-702.51	-39.66	6.2
399	SLE RA 21	18	5	2364	-704.69	-39.79	6.17
399	SLE FR 1	19	6	1992	-595.6	-33.57	6.54
399	SLE FR 2	19	5	1995	-596.33	-33.61	6.53
399	SLE FR 3	19	6	1992	-595.6	-33.57	6.54
399	SLE FR 4	18	6	2104	-628.4	-35.44	6.43
399	SLE FR 5	18	7	2101	-627.67	-35.4	6.44
399	SLE FR 6	18	7	2174	-649.05	-36.61	6.37
399	SLE QP 1	19	6	1992	-595.6	-33.57	6.54
399	SLE QP 2	18	7	2101	-627.67	-35.4	6.44
399	SLD 1	191	45	1982	-595.72	-33.24	69.02
399	SLD 2	159	47	1982	-595.98	-33.24	58.11
399	SLD 3	198	-45	2183	-649.27	-36.58	66.98
399	SLD 4	167	-42	2183	-649.53	-36.58	56.08
399	SLD 5	70	153	1761	-536.78	-29.68	32.33
399	SLD 6	38	155	1761	-537.04	-29.68	21
399	SLD 7	95	-145	2430	-715.27	-40.82	25.54
399	SLD 8	63	-142	2431	-715.54	-40.82	14.21
399	SLD 9	-26	156	1772	-539.8	-29.98	-1.34
399	SLD 10	-59	159	1772	-540.07	-29.97	-12.66



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
399	SLD 11	-1	-142	2442	-718.3	-41.11	-8.13
399	SLD 12	-34	-139	2442	-718.57	-41.11	-19.45
399	SLD 13	-130	56	2020	-605.81	-34.22	-43.2
399	SLD 14	-162	58	2020	-606.07	-34.21	-54.1
399	SLD 15	-123	-34	2221	-659.36	-37.56	-45.24
399	SLD 16	-154	-31	2221	-659.62	-37.55	-56.14
399	SLV 1	411	95	1823	-553.17	-30.38	149.12
399	SLV 2	339	101	1823	-553.75	-30.38	124.12
399	SLV 3	428	-113	2292	-678.31	-38.19	144.27
399	SLV 4	356	-107	2293	-678.89	-38.18	119.27
399	SLV 5	136	347	1306	-415.3	-22.06	66.01
399	SLV 6	61	354	1306	-415.92	-22.05	39.69
399	SLV 7	195	-348	2870	-832.43	-48.07	49.84
399	SLV 8	119	-341	2871	-833.05	-48.07	23.52
399	SLV 9	-83	355	1332	-422.29	-22.72	-10.64
399	SLV 10	-159	362	1333	-422.91	-22.72	-36.97
399	SLV 11	-24	-340	2897	-839.42	-48.74	-26.81
399	SLV 12	-100	-334	2897	-840.04	-48.73	-53.14
399	SLV 13	-320	121	1910	-576.45	-32.61	-106.39
399	SLV 14	-392	127	1911	-577.04	-32.6	-131.39
399	SLV 15	-302	-88	2380	-701.59	-40.41	-111.25
399	SLV 16	-374	-82	2380	-702.18	-40.41	-136.24
399	CRTFP Ux+	0	0	0	0	0	0
399	CRTFP Ux-	0	0	0	0	0	0
399	CRTFP Uy+	0	0	0	0	0	0
399	CRTFP Uy-	0	0	0	0	0	0
400	SLU 1	22	3	2054	-567.65	2.15	7.53
400	SLU 2	22	-7	2075	-573.06	2.18	7.62
400	SLU 3	22	3	2054	-567.65	2.15	7.53
400	SLU 4	22	-3	2067	-570.89	2.17	7.59
400	SLU 5	22	-7	2075	-573.06	2.18	7.62
400	SLU 6	22	3	2054	-567.65	2.15	7.53
400	SLU 7	22	-3	2067	-570.89	2.17	7.59
400	SLU 8	22	3	2054	-567.65	2.15	7.53
400	SLU 9	22	-3	2067	-570.89	2.17	7.59
400	SLU 10	21	-5	2483	-682.55	2.69	7.15
400	SLU 11	21	4	2462	-677.14	2.66	7.06
400	SLU 12	21	-1	2475	-680.38	2.68	7.11
400	SLU 13	21	-5	2483	-682.55	2.69	7.15
400	SLU 14	21	4	2462	-677.14	2.66	7.06
400	SLU 15	21	-1	2475	-680.38	2.68	7.11
400	SLU 16	21	4	2462	-677.14	2.66	7.06
400	SLU 17	21	-1	2475	-680.38	2.68	7.11
400	SLU 18	20	5	2637	-724.06	2.88	6.86
400	SLU 19	20	-1	2649	-727.31	2.9	6.91
400	SLU 20	20	5	2637	-724.06	2.88	6.86
400	SLU 21	20	-1	2649	-727.31	2.9	6.91
400	SLU 22	21	4	2353	-647.76	2.52	7.33
400	SLU 23	22	-6	2374	-653.17	2.55	7.42
400	SLU 24	21	4	2353	-647.76	2.52	7.33
400	SLU 25	21	-2	2366	-651	2.54	7.38
400	SLU 26	22	-6	2374	-653.17	2.55	7.42
400	SLU 27	21	4	2353	-647.76	2.52	7.33
400	SLU 28	21	-2	2366	-651	2.54	7.38
400	SLU 29	21	4	2353	-647.76	2.52	7.33
400	SLU 30	21	-2	2366	-651	2.54	7.38
400	SLU 31	20	-5	2782	-762.66	3.07	6.95
400	SLU 32	20	5	2761	-757.25	3.04	6.86
400	SLU 33	20	-1	2773	-760.49	3.05	6.91
400	SLU 34	20	-5	2782	-762.66	3.07	6.95
400	SLU 35	20	5	2761	-757.25	3.04	6.86
400	SLU 36	20	-1	2773	-760.49	3.05	6.91
400	SLU 37	20	5	2761	-757.25	3.04	6.86
400	SLU 38	20	-1	2773	-760.49	3.05	6.91
400	SLU 39	20	6	2935	-804.17	3.26	6.66
400	SLU 40	20	0	2948	-807.42	3.27	6.71
400	SLU 41	20	6	2935	-804.17	3.26	6.66
400	SLU 42	20	0	2948	-807.42	3.27	6.71
400	SLU 43	29	4	2568	-710.48	2.67	9.86
400	SLU 44	29	-6	2589	-715.89	2.7	9.95
400	SLU 45	29	4	2568	-710.48	2.67	9.86
400	SLU 46	29	-2	2581	-713.72	2.69	9.92
400	SLU 47	29	-6	2589	-715.89	2.7	9.95
400	SLU 48	29	4	2568	-710.48	2.67	9.86
400	SLU 49	29	-2	2581	-713.72	2.69	9.92
400	SLU 50	29	4	2568	-710.48	2.67	9.86
400	SLU 51	29	-2	2581	-713.72	2.69	9.92
400	SLU 52	28	-5	2997	-825.38	3.21	9.48
400	SLU 53	27	5	2976	-819.96	3.18	9.39
400	SLU 54	27	-1	2988	-823.21	3.2	9.44
400	SLU 55	28	-5	2997	-825.38	3.21	9.48
400	SLU 56	27	5	2976	-819.96	3.18	9.39
400	SLU 57	27	-1	2988	-823.21	3.2	9.44
400	SLU 58	27	5	2976	-819.96	3.18	9.39
400	SLU 59	27	-1	2988	-823.21	3.2	9.44
400	SLU 60	27	5	3151	-866.89	3.4	9.19
400	SLU 61	27	0	3163	-870.13	3.42	9.24
400	SLU 62	27	5	3151	-866.89	3.4	9.19
400	SLU 63	27	0	3163	-870.13	3.42	9.24
400	SLU 64	28	4	2867	-790.59	3.04	9.66
400	SLU 65	28	-5	2888	-796	3.07	9.75



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
400	SLU 66	28	4	2867	-790.59	3.04	9.66
400	SLU 67	28	-1	2879	-793.83	3.06	9.71
400	SLU 68	28	-5	2888	-796	3.07	9.75
400	SLU 69	28	4	2867	-790.59	3.04	9.66
400	SLU 70	28	-1	2879	-793.83	3.06	9.71
400	SLU 71	28	4	2867	-790.59	3.04	9.66
400	SLU 72	28	-1	2879	-793.83	3.06	9.71
400	SLU 73	27	-4	3296	-905.49	3.58	9.27
400	SLU 74	27	6	3274	-900.07	3.55	9.19
400	SLU 75	27	0	3287	-903.32	3.57	9.24
400	SLU 76	27	-4	3296	-905.49	3.58	9.27
400	SLU 77	27	6	3274	-900.07	3.55	9.19
400	SLU 78	27	0	3287	-903.32	3.57	9.24
400	SLU 79	27	6	3274	-900.07	3.55	9.19
400	SLU 80	27	0	3287	-903.32	3.57	9.24
400	SLU 81	26	6	3449	-947	3.77	8.99
400	SLU 82	26	0	3462	-950.24	3.79	9.04
400	SLU 83	26	6	3449	-947	3.77	8.99
400	SLU 84	26	0	3462	-950.24	3.79	9.04
400	SLE RA 1	22	3	2140	-590.54	2.26	7.48
400	SLE RA 2	22	-3	2154	-594.14	2.28	7.53
400	SLE RA 3	22	3	2140	-590.54	2.26	7.48
400	SLE RA 4	22	-1	2148	-592.7	2.27	7.51
400	SLE RA 5	22	-3	2154	-594.14	2.28	7.53
400	SLE RA 6	22	3	2140	-590.54	2.26	7.48
400	SLE RA 7	22	-1	2148	-592.7	2.27	7.51
400	SLE RA 8	22	3	2140	-590.54	2.26	7.48
400	SLE RA 9	22	-1	2148	-592.7	2.27	7.51
400	SLE RA 10	21	-2	2425	-667.14	2.62	7.22
400	SLE RA 11	21	4	2411	-663.53	2.6	7.16
400	SLE RA 12	21	0	2420	-665.69	2.61	7.2
400	SLE RA 13	21	-2	2425	-667.14	2.62	7.22
400	SLE RA 14	21	4	2411	-663.53	2.6	7.16
400	SLE RA 15	21	0	2420	-665.69	2.61	7.2
400	SLE RA 16	21	4	2411	-663.53	2.6	7.16
400	SLE RA 17	21	0	2420	-665.69	2.61	7.2
400	SLE RA 18	21	4	2528	-694.81	2.74	7.03
400	SLE RA 19	21	1	2536	-696.98	2.76	7.06
400	SLE RA 20	21	4	2528	-694.81	2.74	7.03
400	SLE RA 21	21	1	2536	-696.98	2.76	7.06
400	SLE FR 1	22	3	2140	-590.54	2.26	7.48
400	SLE FR 2	22	2	2142	-591.26	2.26	7.49
400	SLE FR 3	22	3	2140	-590.54	2.26	7.48
400	SLE FR 4	21	2	2259	-622.54	2.41	7.35
400	SLE FR 5	21	4	2256	-621.82	2.4	7.34
400	SLE FR 6	21	4	2334	-642.67	2.5	7.25
400	SLE QP 1	22	3	2140	-590.54	2.26	7.48
400	SLE QP 2	21	4	2256	-621.82	2.4	7.34
400	SLD 1	212	43	2123	-590.4	2.5	73.92
400	SLD 2	177	48	2123	-590.77	2.51	61.81
400	SLD 3	220	-53	2336	-642.28	2.84	76.91
400	SLD 4	186	-49	2336	-642.66	2.85	64.8
400	SLD 5	79	160	1893	-533.57	1.91	27.25
400	SLD 6	42	165	1893	-533.96	1.92	14.68
400	SLD 7	107	-162	2603	-706.5	3.05	37.22
400	SLD 8	71	-157	2603	-706.9	3.06	24.64
400	SLD 9	-28	164	1909	-536.74	1.75	-9.96
400	SLD 10	-64	169	1909	-537.14	1.75	-22.53
400	SLD 11	0	-158	2619	-709.68	2.89	0.01
400	SLD 12	-36	-153	2619	-710.07	2.9	-12.57
400	SLD 13	-143	56	2177	-600.98	1.96	-50.12
400	SLD 14	-177	60	2177	-601.36	1.96	-62.22
400	SLD 15	-134	-41	2390	-652.86	2.3	-47.13
400	SLD 16	-169	-36	2389	-653.24	2.31	-59.23
400	SLV 1	455	97	1946	-548.46	2.61	158.9
400	SLV 2	375	107	1946	-549.33	2.63	131.14
400	SLV 3	475	-129	2443	-669.74	3.41	165.96
400	SLV 4	395	-118	2443	-670.61	3.43	138.2
400	SLV 5	151	370	1408	-415.55	1.25	52.55
400	SLV 6	67	381	1408	-416.46	1.26	23.32
400	SLV 7	218	-383	3067	-819.8	3.91	76.09
400	SLV 8	134	-372	3067	-820.72	3.93	46.86
400	SLV 9	-91	379	1445	-422.92	0.87	-32.17
400	SLV 10	-175	390	1445	-423.83	0.89	-61.41
400	SLV 11	-25	-374	3104	-827.17	3.54	-8.63
400	SLV 12	-108	-363	3104	-828.09	3.56	-37.87
400	SLV 13	-352	126	2069	-573.03	1.37	-123.52
400	SLV 14	-432	136	2069	-573.9	1.39	-151.28
400	SLV 15	-333	-100	2566	-694.3	2.17	-116.46
400	SLV 16	-412	-90	2566	-695.17	2.19	-144.22
400	CRTFP Ux+	0	0	0	0	0	0
400	CRTFP Ux-	0	0	0	0	0	0
400	CRTFP Uy+	0	0	0	0	0	0
400	CRTFP Uy-	0	0	0	0	0	0
401	SLU 1	23	-1	1977	-495.24	2.51	7.87
401	SLU 2	23	-10	1997	-499.87	2.55	7.98
401	SLU 3	23	-1	1977	-495.24	2.51	7.87
401	SLU 4	23	-7	1989	-498.02	2.53	7.94
401	SLU 5	23	-10	1997	-499.87	2.55	7.98
401	SLU 6	23	-1	1977	-495.24	2.51	7.87
401	SLU 7	23	-7	1989	-498.02	2.53	7.94



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
401	SLU 8	23	-1	1977	-495.24	2.51	7.87
401	SLU 9	23	-7	1989	-498.02	2.53	7.94
401	SLU 10	22	-10	2386	-592.77	3.16	7.44
401	SLU 11	21	-1	2366	-588.13	3.12	7.33
401	SLU 12	22	-6	2378	-590.92	3.14	7.39
401	SLU 13	22	-10	2386	-592.77	3.16	7.44
401	SLU 14	21	-1	2366	-588.13	3.12	7.33
401	SLU 15	22	-6	2378	-590.92	3.14	7.39
401	SLU 16	21	-1	2366	-588.13	3.12	7.33
401	SLU 17	22	-6	2378	-590.92	3.14	7.39
401	SLU 18	21	-1	2533	-627.95	3.38	7.1
401	SLU 19	21	-6	2545	-630.73	3.4	7.16
401	SLU 20	21	-1	2533	-627.95	3.38	7.1
401	SLU 21	21	-6	2545	-630.73	3.4	7.16
401	SLU 22	22	-1	2262	-563.18	2.95	7.64
401	SLU 23	23	-10	2282	-567.82	2.99	7.74
401	SLU 24	22	-1	2262	-563.18	2.95	7.64
401	SLU 25	22	-7	2274	-565.96	2.97	7.7
401	SLU 26	23	-10	2282	-567.82	2.99	7.74
401	SLU 27	22	-1	2262	-563.18	2.95	7.64
401	SLU 28	22	-7	2274	-565.96	2.97	7.7
401	SLU 29	22	-1	2262	-563.18	2.95	7.64
401	SLU 30	22	-7	2274	-565.96	2.97	7.7
401	SLU 31	21	-10	2671	-660.72	3.6	7.2
401	SLU 32	21	-1	2651	-656.08	3.56	7.1
401	SLU 33	21	-6	2663	-658.86	3.58	7.16
401	SLU 34	21	-10	2671	-660.72	3.6	7.2
401	SLU 35	21	-1	2651	-656.08	3.56	7.1
401	SLU 36	21	-6	2663	-658.86	3.58	7.16
401	SLU 37	21	-1	2651	-656.08	3.56	7.1
401	SLU 38	21	-6	2663	-658.86	3.58	7.16
401	SLU 39	20	-1	2818	-695.89	3.82	6.87
401	SLU 40	20	-6	2830	-698.67	3.84	6.93
401	SLU 41	20	-1	2818	-695.89	3.82	6.87
401	SLU 42	20	-6	2830	-698.67	3.84	6.93
401	SLU 43	30	-1	2472	-620.51	3.11	10.32
401	SLU 44	30	-11	2492	-625.15	3.15	10.42
401	SLU 45	30	-1	2472	-620.51	3.11	10.32
401	SLU 46	30	-7	2484	-623.29	3.14	10.38
401	SLU 47	30	-11	2492	-625.15	3.15	10.42
401	SLU 48	30	-1	2472	-620.51	3.11	10.32
401	SLU 49	30	-7	2484	-623.29	3.14	10.38
401	SLU 50	30	-1	2472	-620.51	3.11	10.32
401	SLU 51	30	-7	2484	-623.29	3.14	10.38
401	SLU 52	29	-10	2881	-718.05	3.76	9.88
401	SLU 53	28	-1	2861	-713.41	3.72	9.78
401	SLU 54	29	-7	2873	-716.19	3.74	9.84
401	SLU 55	29	-10	2881	-718.05	3.76	9.88
401	SLU 56	28	-1	2861	-713.41	3.72	9.78
401	SLU 57	29	-7	2873	-716.19	3.74	9.84
401	SLU 58	28	-1	2861	-713.41	3.72	9.78
401	SLU 59	29	-7	2873	-716.19	3.74	9.84
401	SLU 60	28	-1	3028	-753.22	3.98	9.54
401	SLU 61	28	-7	3040	-756.01	4	9.61
401	SLU 62	28	-1	3028	-753.22	3.98	9.54
401	SLU 63	28	-7	3040	-756.01	4	9.61
401	SLU 64	29	-1	2757	-688.45	3.55	10.08
401	SLU 65	30	-11	2777	-693.09	3.59	10.19
401	SLU 66	29	-1	2757	-688.45	3.55	10.08
401	SLU 67	29	-7	2769	-691.24	3.58	10.14
401	SLU 68	30	-11	2777	-693.09	3.59	10.19
401	SLU 69	29	-1	2757	-688.45	3.55	10.08
401	SLU 70	29	-7	2769	-691.24	3.58	10.14
401	SLU 71	29	-1	2757	-688.45	3.55	10.08
401	SLU 72	29	-7	2769	-691.24	3.58	10.14
401	SLU 73	28	-10	3166	-785.99	4.2	9.65
401	SLU 74	28	-1	3146	-781.35	4.16	9.54
401	SLU 75	28	-7	3158	-784.14	4.18	9.6
401	SLU 76	28	-10	3166	-785.99	4.2	9.65
401	SLU 77	28	-1	3146	-781.35	4.16	9.54
401	SLU 78	28	-7	3158	-784.14	4.18	9.6
401	SLU 79	28	-1	3146	-781.35	4.16	9.54
401	SLU 80	28	-7	3158	-784.14	4.18	9.6
401	SLU 81	27	-1	3313	-821.17	4.42	9.31
401	SLU 82	27	-7	3325	-823.95	4.44	9.37
401	SLU 83	27	-1	3313	-821.17	4.42	9.31
401	SLU 84	27	-7	3325	-823.95	4.44	9.37
401	SLE RA 1	23	-1	2058	-514.65	2.64	7.81
401	SLE RA 2	23	-7	2071	-517.74	2.66	7.88
401	SLE RA 3	23	-1	2058	-514.65	2.64	7.81
401	SLE RA 4	23	-5	2066	-516.5	2.65	7.85
401	SLE RA 5	23	-7	2071	-517.74	2.66	7.88
401	SLE RA 6	23	-1	2058	-514.65	2.64	7.81
401	SLE RA 7	23	-5	2066	-516.5	2.65	7.85
401	SLE RA 8	23	-1	2058	-514.65	2.64	7.81
401	SLE RA 9	23	-5	2066	-516.5	2.65	7.85
401	SLE RA 10	22	-7	2331	-579.67	3.07	7.52
401	SLE RA 11	22	-1	2318	-576.58	3.04	7.45
401	SLE RA 12	22	-5	2326	-578.44	3.06	7.49
401	SLE RA 13	22	-7	2331	-579.67	3.07	7.52
401	SLE RA 14	22	-1	2318	-576.58	3.04	7.45



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
401	SLE RA 15	22	-5	2326	-578.44	3.06	7.49
401	SLE RA 16	22	-1	2318	-576.58	3.04	7.45
401	SLE RA 17	22	-5	2326	-578.44	3.06	7.49
401	SLE RA 18	21	-1	2429	-603.12	3.22	7.29
401	SLE RA 19	21	-5	2437	-604.98	3.23	7.33
401	SLE RA 20	21	-1	2429	-603.12	3.22	7.29
401	SLE RA 21	21	-5	2437	-604.98	3.23	7.33
401	SLE FR 1	23	-1	2058	-514.65	2.64	7.81
401	SLE FR 2	23	-2	2061	-515.27	2.64	7.82
401	SLE FR 3	23	-1	2058	-514.65	2.64	7.81
401	SLE FR 4	22	-2	2172	-541.81	2.82	7.67
401	SLE FR 5	22	-1	2169	-541.19	2.81	7.65
401	SLE FR 6	22	-1	2243	-558.88	2.93	7.55
401	SLE QP 1	23	-1	2058	-514.65	2.64	7.81
401	SLE QP 2	22	-1	2169	-541.19	2.81	7.65
401	SLD 1	213	37	2035	-514.61	2.86	74.31
401	SLD 2	178	43	2035	-515.06	2.87	62.17
401	SLD 3	222	-57	2236	-557.49	3.27	77.38
401	SLD 4	187	-51	2236	-557.94	3.28	65.24
401	SLD 5	79	150	1825	-468.02	2.2	27.48
401	SLD 6	43	157	1825	-468.48	2.2	14.86
401	SLD 7	108	-162	2494	-610.95	3.57	37.72
401	SLD 8	72	-156	2493	-611.41	3.58	25.1
401	SLD 9	-27	154	1845	-470.97	2.04	-9.8
401	SLD 10	-63	160	1845	-471.43	2.05	-22.41
401	SLD 11	1	-159	2514	-613.9	3.42	0.45
401	SLD 12	-35	-152	2514	-614.36	3.43	-12.17
401	SLD 13	-142	49	2103	-524.44	2.34	-49.93
401	SLD 14	-177	55	2103	-524.89	2.35	-62.07
401	SLD 15	-134	-45	2304	-567.32	2.75	-46.86
401	SLD 16	-168	-39	2303	-567.77	2.76	-59
401	SLV 1	456	87	1858	-479.05	2.91	159.39
401	SLV 2	376	101	1858	-480.08	2.93	131.55
401	SLV 3	477	-132	2327	-579.35	3.88	166.64
401	SLV 4	397	-118	2326	-580.38	3.9	138.8
401	SLV 5	152	353	1366	-370.05	1.37	52.66
401	SLV 6	68	367	1365	-371.14	1.39	23.34
401	SLV 7	219	-378	2927	-704.36	4.59	76.84
401	SLV 8	135	-364	2927	-705.45	4.61	47.51
401	SLV 9	-91	362	1412	-376.93	1.01	-32.21
401	SLV 10	-175	376	1411	-378.02	1.03	-61.53
401	SLV 11	-23	-369	2974	-711.24	4.23	-8.03
401	SLV 12	-107	-355	2973	-712.33	4.25	-37.35
401	SLV 13	-352	116	2013	-502	1.73	-123.5
401	SLV 14	-432	130	2012	-503.03	1.75	-151.34
401	SLV 15	-332	-103	2481	-602.3	2.69	-116.24
401	SLV 16	-412	-89	2480	-603.33	2.71	-144.08
401	CRTFP Ux+	0	0	0	0	0	0
401	CRTFP Ux-	0	0	0	0	0	0
401	CRTFP Uy+	0	0	0	0	0	0
401	CRTFP Uy-	0	0	0	0	0	0
402	SLU 1	24	-5	1893	-421.97	2.53	8.14
402	SLU 2	24	-14	1912	-425.78	2.56	8.26
402	SLU 3	24	-5	1893	-421.97	2.53	8.14
402	SLU 4	24	-10	1905	-424.26	2.55	8.21
402	SLU 5	24	-14	1912	-425.78	2.56	8.26
402	SLU 6	24	-5	1893	-421.97	2.53	8.14
402	SLU 7	24	-10	1905	-424.26	2.55	8.21
402	SLU 8	24	-5	1893	-421.97	2.53	8.14
402	SLU 9	24	-10	1905	-424.26	2.55	8.21
402	SLU 10	22	-15	2281	-501.73	3.18	7.64
402	SLU 11	22	-6	2262	-497.92	3.14	7.52
402	SLU 12	22	-11	2273	-500.21	3.17	7.59
402	SLU 13	22	-15	2281	-501.73	3.18	7.64
402	SLU 14	22	-6	2262	-497.92	3.14	7.52
402	SLU 15	22	-11	2273	-500.21	3.17	7.59
402	SLU 16	22	-6	2262	-497.92	3.14	7.52
402	SLU 17	22	-11	2273	-500.21	3.17	7.59
402	SLU 18	21	-7	2420	-530.47	3.41	7.26
402	SLU 19	21	-12	2432	-532.76	3.43	7.33
402	SLU 20	21	-7	2420	-530.47	3.41	7.26
402	SLU 21	21	-12	2432	-532.76	3.43	7.33
402	SLU 22	23	-6	2164	-477.49	2.97	7.87
402	SLU 23	23	-14	2182	-481.31	3.01	7.99
402	SLU 24	23	-6	2164	-477.49	2.97	7.87
402	SLU 25	23	-11	2175	-479.78	3	7.94
402	SLU 26	23	-14	2182	-481.31	3.01	7.99
402	SLU 27	23	-6	2164	-477.49	2.97	7.87
402	SLU 28	23	-11	2175	-479.78	3	7.94
402	SLU 29	23	-6	2164	-477.49	2.97	7.87
402	SLU 30	23	-11	2175	-479.78	3	7.94
402	SLU 31	22	-16	2551	-557.26	3.63	7.37
402	SLU 32	21	-7	2533	-553.44	3.59	7.25
402	SLU 33	21	-12	2544	-555.73	3.61	7.32
402	SLU 34	22	-16	2551	-557.26	3.63	7.37
402	SLU 35	21	-7	2533	-553.44	3.59	7.25
402	SLU 36	21	-12	2544	-555.73	3.61	7.32
402	SLU 37	21	-7	2533	-553.44	3.59	7.25
402	SLU 38	21	-12	2544	-555.73	3.61	7.32
402	SLU 39	21	-7	2691	-586	3.86	6.99
402	SLU 40	21	-13	2702	-588.28	3.88	7.06



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
402	SLU 41	21	-7	2691	-586	3.86	6.99
402	SLU 42	21	-13	2702	-588.28	3.88	7.06
402	SLU 43	31	-6	2369	-529.52	3.13	10.68
402	SLU 44	31	-15	2387	-533.33	3.17	10.79
402	SLU 45	31	-6	2369	-529.52	3.13	10.68
402	SLU 46	31	-11	2380	-531.81	3.15	10.75
402	SLU 47	31	-15	2387	-533.33	3.17	10.79
402	SLU 48	31	-6	2369	-529.52	3.13	10.68
402	SLU 49	31	-11	2380	-531.81	3.15	10.75
402	SLU 50	31	-6	2369	-529.52	3.13	10.68
402	SLU 51	31	-11	2380	-531.81	3.15	10.75
402	SLU 52	30	-16	2756	-609.29	3.79	10.18
402	SLU 53	29	-7	2738	-605.47	3.75	10.06
402	SLU 54	29	-13	2749	-607.76	3.77	10.13
402	SLU 55	30	-16	2756	-609.29	3.79	10.18
402	SLU 56	29	-7	2738	-605.47	3.75	10.06
402	SLU 57	29	-13	2749	-607.76	3.77	10.13
402	SLU 58	29	-7	2738	-605.47	3.75	10.06
402	SLU 59	29	-13	2749	-607.76	3.77	10.13
402	SLU 60	29	-8	2896	-638.02	4.01	9.79
402	SLU 61	29	-13	2907	-640.31	4.04	9.86
402	SLU 62	29	-8	2896	-638.02	4.01	9.79
402	SLU 63	29	-13	2907	-640.31	4.04	9.86
402	SLU 64	30	-7	2639	-585.05	3.58	10.41
402	SLU 65	30	-16	2658	-588.86	3.62	10.52
402	SLU 66	30	-7	2639	-585.05	3.58	10.41
402	SLU 67	30	-12	2650	-587.33	3.6	10.47
402	SLU 68	30	-16	2658	-588.86	3.62	10.52
402	SLU 69	30	-7	2639	-585.05	3.58	10.41
402	SLU 70	30	-12	2650	-587.33	3.6	10.47
402	SLU 71	30	-7	2639	-585.05	3.58	10.41
402	SLU 72	30	-12	2650	-587.33	3.6	10.47
402	SLU 73	29	-17	3027	-664.81	4.23	9.9
402	SLU 74	29	-8	3008	-661	4.2	9.79
402	SLU 75	29	-13	3019	-663.29	4.22	9.86
402	SLU 76	29	-17	3027	-664.81	4.23	9.9
402	SLU 77	29	-8	3008	-661	4.2	9.79
402	SLU 78	29	-13	3019	-663.29	4.22	9.86
402	SLU 79	29	-8	3008	-661	4.2	9.79
402	SLU 80	29	-13	3019	-663.29	4.22	9.86
402	SLU 81	28	-9	3166	-693.55	4.46	9.52
402	SLU 82	28	-14	3177	-695.84	4.48	9.59
402	SLU 83	28	-9	3166	-693.55	4.46	9.52
402	SLU 84	28	-14	3177	-695.84	4.48	9.59
402	SLE RA 1	23	-5	1971	-437.83	2.65	8.06
402	SLE RA 2	24	-11	1983	-440.37	2.68	8.14
402	SLE RA 3	23	-5	1971	-437.83	2.65	8.06
402	SLE RA 4	23	-9	1978	-439.36	2.67	8.11
402	SLE RA 5	24	-11	1983	-440.37	2.68	8.14
402	SLE RA 6	23	-5	1971	-437.83	2.65	8.06
402	SLE RA 7	23	-9	1978	-439.36	2.67	8.11
402	SLE RA 8	23	-5	1971	-437.83	2.65	8.06
402	SLE RA 9	23	-9	1978	-439.36	2.67	8.11
402	SLE RA 10	22	-12	2229	-491.01	3.09	7.73
402	SLE RA 11	22	-6	2217	-488.47	3.07	7.65
402	SLE RA 12	22	-9	2224	-489.99	3.08	7.7
402	SLE RA 13	22	-12	2229	-491.01	3.09	7.73
402	SLE RA 14	22	-6	2217	-488.47	3.07	7.65
402	SLE RA 15	22	-9	2224	-489.99	3.08	7.7
402	SLE RA 16	22	-6	2217	-488.47	3.07	7.65
402	SLE RA 17	22	-9	2224	-489.99	3.08	7.7
402	SLE RA 18	22	-6	2322	-510.17	3.24	7.48
402	SLE RA 19	22	-10	2329	-511.69	3.26	7.52
402	SLE RA 20	22	-6	2322	-510.17	3.24	7.48
402	SLE RA 21	22	-10	2329	-511.69	3.26	7.52
402	SLE FR 1	23	-5	1971	-437.83	2.65	8.06
402	SLE FR 2	23	-6	1973	-438.34	2.66	8.08
402	SLE FR 3	23	-5	1971	-437.83	2.65	8.06
402	SLE FR 4	23	-7	2079	-460.04	2.84	7.9
402	SLE FR 5	23	-5	2076	-459.53	2.83	7.89
402	SLE FR 6	23	-6	2146	-474	2.95	7.77
402	SLE QP 1	23	-5	1971	-437.83	2.65	8.06
402	SLE QP 2	23	-5	2076	-459.53	2.83	7.89
402	SLD 1	214	30	1942	-438	2.87	74.61
402	SLD 2	179	37	1941	-438.51	2.88	62.44
402	SLD 3	222	-60	2129	-471.41	3.29	77.75
402	SLD 4	188	-53	2128	-471.92	3.3	65.58
402	SLD 5	80	140	1753	-402.22	2.19	27.63
402	SLD 6	43	147	1752	-402.75	2.2	14.99
402	SLD 7	109	-162	2375	-513.57	3.61	38.11
402	SLD 8	73	-155	2375	-514.1	3.62	25.47
402	SLD 9	-27	144	1777	-404.96	2.04	-9.69
402	SLD 10	-63	151	1777	-405.49	2.05	-22.34
402	SLD 11	2	-158	2400	-516.32	3.46	0.79
402	SLD 12	-34	-151	2399	-516.85	3.47	-11.86
402	SLD 13	-142	42	2024	-447.15	2.36	-49.81
402	SLD 14	-177	50	2023	-447.66	2.37	-61.98
402	SLD 15	-133	-48	2211	-480.56	2.79	-46.66
402	SLD 16	-168	-41	2210	-481.07	2.8	-58.83
402	SLV 1	457	78	1765	-409.1	2.9	159.77
402	SLV 2	377	94	1763	-410.27	2.92	131.87



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
402	SLV 3	478	-134	2201	-487.33	3.89	167.19
402	SLV 4	398	-117	2200	-488.5	3.92	139.29
402	SLV 5	152	334	1321	-325.31	1.33	52.71
402	SLV 6	68	352	1320	-326.55	1.35	23.32
402	SLV 7	221	-371	2776	-586.08	4.65	77.44
402	SLV 8	137	-354	2775	-587.31	4.68	48.05
402	SLV 9	-91	343	1377	-331.75	0.98	-32.28
402	SLV 10	-175	360	1376	-332.98	1.01	-61.67
402	SLV 11	-22	-363	2832	-592.52	4.31	-7.54
402	SLV 12	-106	-345	2831	-593.75	4.33	-36.93
402	SLV 13	-352	106	1952	-430.56	1.74	-123.51
402	SLV 14	-432	123	1951	-431.73	1.77	-151.42
402	SLV 15	-331	-105	2389	-508.79	2.74	-116.09
402	SLV 16	-411	-89	2387	-509.96	2.76	-144
402	CRTFP Ux+	0	0	0	0	0	0
402	CRTFP Ux-	0	0	0	0	0	0
402	CRTFP Uy+	0	0	0	0	0	0
402	CRTFP Uy-	0	0	0	0	0	0
403	SLU 1	24	-8	1813	-353.17	2.32	8.35
403	SLU 2	24	-17	1831	-356.17	2.36	8.47
403	SLU 3	24	-8	1813	-353.17	2.32	8.35
403	SLU 4	24	-13	1824	-354.97	2.35	8.42
403	SLU 5	24	-17	1831	-356.17	2.36	8.47
403	SLU 6	24	-8	1813	-353.17	2.32	8.35
403	SLU 7	24	-13	1824	-354.97	2.35	8.42
403	SLU 8	24	-8	1813	-353.17	2.32	8.35
403	SLU 9	24	-13	1824	-354.97	2.35	8.42
403	SLU 10	23	-19	2180	-416.08	2.94	7.77
403	SLU 11	22	-11	2162	-413.07	2.9	7.64
403	SLU 12	22	-16	2173	-414.87	2.92	7.72
403	SLU 13	23	-19	2180	-416.08	2.94	7.77
403	SLU 14	22	-11	2162	-413.07	2.9	7.64
403	SLU 15	22	-16	2173	-414.87	2.92	7.72
403	SLU 16	22	-11	2162	-413.07	2.9	7.64
403	SLU 17	22	-16	2173	-414.87	2.92	7.72
403	SLU 18	21	-12	2312	-438.74	3.15	7.34
403	SLU 19	22	-17	2323	-440.54	3.17	7.42
403	SLU 20	21	-12	2312	-438.74	3.15	7.34
403	SLU 21	22	-17	2323	-440.54	3.17	7.42
403	SLU 22	23	-10	2069	-396.94	2.74	8.03
403	SLU 23	24	-18	2087	-399.94	2.78	8.16
403	SLU 24	23	-10	2069	-396.94	2.74	8.03
403	SLU 25	23	-15	2080	-398.74	2.76	8.11
403	SLU 26	24	-18	2087	-399.94	2.78	8.16
403	SLU 27	23	-10	2069	-396.94	2.74	8.03
403	SLU 28	23	-15	2080	-398.74	2.76	8.11
403	SLU 29	23	-10	2069	-396.94	2.74	8.03
403	SLU 30	23	-15	2080	-398.74	2.76	8.11
403	SLU 31	22	-21	2436	-459.85	3.36	7.45
403	SLU 32	21	-12	2419	-456.84	3.32	7.33
403	SLU 33	22	-17	2429	-458.64	3.34	7.4
403	SLU 34	22	-21	2436	-459.85	3.36	7.45
403	SLU 35	21	-12	2419	-456.84	3.32	7.33
403	SLU 36	22	-17	2429	-458.64	3.34	7.4
403	SLU 37	21	-12	2419	-456.84	3.32	7.33
403	SLU 38	22	-17	2429	-458.64	3.34	7.4
403	SLU 39	21	-13	2568	-482.51	3.57	7.02
403	SLU 40	21	-18	2579	-484.32	3.59	7.1
403	SLU 41	21	-13	2568	-482.51	3.57	7.02
403	SLU 42	21	-18	2579	-484.32	3.59	7.1
403	SLU 43	32	-10	2270	-444.11	2.88	10.96
403	SLU 44	32	-18	2287	-447.12	2.91	11.09
403	SLU 45	32	-10	2270	-444.11	2.88	10.96
403	SLU 46	32	-15	2280	-445.91	2.9	11.04
403	SLU 47	32	-18	2287	-447.12	2.91	11.09
403	SLU 48	32	-10	2270	-444.11	2.88	10.96
403	SLU 49	32	-15	2280	-445.91	2.9	11.04
403	SLU 50	32	-10	2270	-444.11	2.88	10.96
403	SLU 51	32	-15	2280	-445.91	2.9	11.04
403	SLU 52	30	-21	2636	-507.02	3.49	10.38
403	SLU 53	30	-13	2619	-504.01	3.46	10.26
403	SLU 54	30	-18	2629	-505.81	3.48	10.33
403	SLU 55	30	-21	2636	-507.02	3.49	10.38
403	SLU 56	30	-13	2619	-504.01	3.46	10.26
403	SLU 57	30	-18	2629	-505.81	3.48	10.33
403	SLU 58	30	-13	2619	-504.01	3.46	10.26
403	SLU 59	30	-18	2629	-505.81	3.48	10.33
403	SLU 60	29	-14	2768	-529.68	3.7	9.95
403	SLU 61	29	-19	2779	-531.49	3.72	10.03
403	SLU 62	29	-14	2768	-529.68	3.7	9.95
403	SLU 63	29	-19	2779	-531.49	3.72	10.03
403	SLU 64	31	-12	2526	-487.88	3.3	10.64
403	SLU 65	31	-20	2543	-490.89	3.33	10.77
403	SLU 66	31	-12	2526	-487.88	3.3	10.64
403	SLU 67	31	-17	2536	-489.68	3.32	10.72
403	SLU 68	31	-20	2543	-490.89	3.33	10.77
403	SLU 69	31	-12	2526	-487.88	3.3	10.64
403	SLU 70	31	-17	2536	-489.68	3.32	10.72
403	SLU 71	31	-12	2526	-487.88	3.3	10.64
403	SLU 72	31	-17	2536	-489.68	3.32	10.72
403	SLU 73	29	-23	2892	-550.79	3.91	10.07



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
403	SLU 74	29	-14	2875	-547.78	3.87	9.94
403	SLU 75	29	-19	2885	-549.59	3.89	10.02
403	SLU 76	29	-23	2892	-550.79	3.91	10.07
403	SLU 77	29	-14	2875	-547.78	3.87	9.94
403	SLU 78	29	-19	2885	-549.59	3.89	10.02
403	SLU 79	29	-14	2875	-547.78	3.87	9.94
403	SLU 80	29	-19	2885	-549.59	3.89	10.02
403	SLU 81	28	-15	3024	-573.45	4.12	9.64
403	SLU 82	28	-20	3035	-575.26	4.14	9.71
403	SLU 83	28	-15	3024	-573.45	4.12	9.64
403	SLU 84	28	-20	3035	-575.26	4.14	9.71
403	SLE RA 1	24	-9	1887	-365.67	2.44	8.26
403	SLE RA 2	24	-14	1898	-367.68	2.47	8.34
403	SLE RA 3	24	-9	1887	-365.67	2.44	8.26
403	SLE RA 4	24	-12	1894	-366.87	2.46	8.31
403	SLE RA 5	24	-14	1898	-367.68	2.47	8.34
403	SLE RA 6	24	-9	1887	-365.67	2.44	8.26
403	SLE RA 7	24	-12	1894	-366.87	2.46	8.31
403	SLE RA 8	24	-9	1887	-365.67	2.44	8.26
403	SLE RA 9	24	-12	1894	-366.87	2.46	8.31
403	SLE RA 10	23	-16	2131	-407.61	2.85	7.87
403	SLE RA 11	23	-10	2119	-405.61	2.83	7.79
403	SLE RA 12	23	-14	2126	-406.81	2.84	7.84
403	SLE RA 13	23	-16	2131	-407.61	2.85	7.87
403	SLE RA 14	23	-10	2119	-405.61	2.83	7.79
403	SLE RA 15	23	-14	2126	-406.81	2.84	7.84
403	SLE RA 16	23	-10	2119	-405.61	2.83	7.79
403	SLE RA 17	23	-14	2126	-406.81	2.84	7.84
403	SLE RA 18	22	-11	2219	-422.72	2.99	7.59
403	SLE RA 19	22	-14	2226	-423.92	3.01	7.64
403	SLE RA 20	22	-11	2219	-422.72	2.99	7.59
403	SLE RA 21	22	-14	2226	-423.92	3.01	7.64
403	SLE FR 1	24	-9	1887	-365.67	2.44	8.26
403	SLE FR 2	24	-10	1889	-366.07	2.45	8.27
403	SLE FR 3	24	-9	1887	-365.67	2.44	8.26
403	SLE FR 4	23	-11	1989	-383.19	2.61	8.07
403	SLE FR 5	23	-9	1986	-382.79	2.61	8.05
403	SLE FR 6	23	-10	2053	-394.2	2.72	7.92
403	SLE QP 1	24	-9	1887	-365.67	2.44	8.26
403	SLE QP 2	23	-9	1986	-382.79	2.61	8.05
403	SLD 1	214	24	1851	-365.88	2.65	74.83
403	SLD 2	179	32	1850	-366.43	2.67	62.63
403	SLD 3	223	-63	2025	-390.42	3.05	78.04
403	SLD 4	188	-55	2024	-390.98	3.07	65.84
403	SLD 5	80	130	1683	-340.29	2.01	27.73
403	SLD 6	44	139	1682	-340.86	2.02	15.06
403	SLD 7	110	-161	2261	-422.09	3.35	38.42
403	SLD 8	74	-152	2260	-422.67	3.36	25.75
403	SLD 9	-27	134	1712	-342.9	1.86	-9.64
403	SLD 10	-63	142	1711	-343.48	1.87	-22.31
403	SLD 11	3	-157	2290	-424.71	3.19	1.05
403	SLD 12	-33	-149	2289	-425.28	3.21	-11.62
403	SLD 13	-142	36	1949	-374.6	2.15	-49.73
403	SLD 14	-177	44	1948	-375.15	2.16	-61.93
403	SLD 15	-133	-51	2122	-399.14	2.55	-46.52
403	SLD 16	-168	-43	2121	-399.69	2.56	-58.72
403	SLV 1	458	70	1674	-343.08	2.7	160.06
403	SLV 2	378	88	1672	-344.35	2.73	132.1
403	SLV 3	479	-134	2079	-400.71	3.64	167.63
403	SLV 4	399	-115	2077	-401.97	3.66	139.66
403	SLV 5	152	317	1279	-282.99	1.21	52.72
403	SLV 6	67	336	1277	-284.33	1.23	23.27
403	SLV 7	222	-363	2629	-475.09	4.33	77.93
403	SLV 8	138	-344	2627	-476.42	4.35	48.48
403	SLV 9	-91	325	1345	-289.15	0.86	-32.37
403	SLV 10	-176	344	1343	-290.48	0.89	-61.82
403	SLV 11	-21	-355	2696	-481.24	3.98	-7.16
403	SLV 12	-105	-336	2694	-482.58	4.01	-36.61
403	SLV 13	-352	97	1896	-363.6	1.55	-123.55
403	SLV 14	-432	115	1893	-364.87	1.58	-151.52
403	SLV 15	-331	-107	2301	-421.23	2.49	-115.99
403	SLV 16	-411	-89	2299	-422.5	2.52	-143.95
403	CRTFP Ux+	0	0	0	0	0	0
403	CRTFP Ux-	0	0	0	0	0	0
403	CRTFP Uy+	0	0	0	0	0	0
403	CRTFP Uy-	0	0	0	0	0	0
404	SLU 1	24	-11	1742	-292.5	2	8.49
404	SLU 2	25	-19	1759	-294.78	2.03	8.63
404	SLU 3	24	-11	1742	-292.5	2	8.49
404	SLU 4	25	-16	1752	-293.87	2.01	8.58
404	SLU 5	25	-19	1759	-294.78	2.03	8.63
404	SLU 6	24	-11	1742	-292.5	2	8.49
404	SLU 7	25	-16	1752	-293.87	2.01	8.58
404	SLU 8	24	-11	1742	-292.5	2	8.49
404	SLU 9	25	-16	1752	-293.87	2.01	8.58
404	SLU 10	23	-23	2090	-340.39	2.54	7.84
404	SLU 11	22	-15	2073	-338.11	2.51	7.7
404	SLU 12	23	-19	2083	-339.48	2.52	7.78
404	SLU 13	23	-23	2090	-340.39	2.54	7.84
404	SLU 14	22	-15	2073	-338.11	2.51	7.7
404	SLU 15	23	-19	2083	-339.48	2.52	7.78



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
404	SLU 16	22	-15	2073	-338.11	2.51	7.7
404	SLU 17	23	-19	2083	-339.48	2.52	7.78
404	SLU 18	21	-16	2215	-357.65	2.72	7.36
404	SLU 19	22	-21	2225	-359.02	2.74	7.44
404	SLU 20	21	-16	2215	-357.65	2.72	7.36
404	SLU 21	22	-21	2225	-359.02	2.74	7.44
404	SLU 22	23	-13	1985	-325.82	2.36	8.13
404	SLU 23	24	-21	2002	-328.1	2.39	8.26
404	SLU 24	23	-13	1985	-325.82	2.36	8.13
404	SLU 25	24	-18	1995	-327.19	2.38	8.21
404	SLU 26	24	-21	2002	-328.1	2.39	8.26
404	SLU 27	23	-13	1985	-325.82	2.36	8.13
404	SLU 28	24	-18	1995	-327.19	2.38	8.21
404	SLU 29	23	-13	1985	-325.82	2.36	8.13
404	SLU 30	24	-18	1995	-327.19	2.38	8.21
404	SLU 31	22	-25	2333	-373.7	2.9	7.47
404	SLU 32	21	-17	2317	-371.42	2.87	7.33
404	SLU 33	22	-22	2326	-372.79	2.89	7.41
404	SLU 34	22	-25	2333	-373.7	2.9	7.47
404	SLU 35	21	-17	2317	-371.42	2.87	7.33
404	SLU 36	22	-22	2326	-372.79	2.89	7.41
404	SLU 37	21	-17	2317	-371.42	2.87	7.33
404	SLU 38	22	-22	2326	-372.79	2.89	7.41
404	SLU 39	20	-19	2459	-390.97	3.09	6.99
404	SLU 40	21	-23	2468	-392.34	3.11	7.07
404	SLU 41	20	-19	2459	-390.97	3.09	6.99
404	SLU 42	21	-23	2468	-392.34	3.11	7.07
404	SLU 43	32	-13	2181	-368.83	2.47	11.17
404	SLU 44	33	-21	2198	-371.11	2.5	11.31
404	SLU 45	32	-13	2181	-368.83	2.47	11.17
404	SLU 46	32	-18	2191	-370.2	2.49	11.25
404	SLU 47	33	-21	2198	-371.11	2.5	11.31
404	SLU 48	32	-13	2181	-368.83	2.47	11.17
404	SLU 49	32	-18	2191	-370.2	2.49	11.25
404	SLU 50	32	-13	2181	-368.83	2.47	11.17
404	SLU 51	32	-18	2191	-370.2	2.49	11.25
404	SLU 52	30	-25	2529	-416.72	3.01	10.51
404	SLU 53	30	-17	2513	-414.44	2.98	10.37
404	SLU 54	30	-22	2522	-415.8	3	10.46
404	SLU 55	30	-25	2529	-416.72	3.01	10.51
404	SLU 56	30	-17	2513	-414.44	2.98	10.37
404	SLU 57	30	-22	2522	-415.8	3	10.46
404	SLU 58	30	-17	2513	-414.44	2.98	10.37
404	SLU 59	30	-22	2522	-415.8	3	10.46
404	SLU 60	29	-19	2655	-433.98	3.2	10.03
404	SLU 61	29	-23	2664	-435.35	3.21	10.12
404	SLU 62	29	-19	2655	-433.98	3.2	10.03
404	SLU 63	29	-23	2664	-435.35	3.21	10.12
404	SLU 64	31	-16	2425	-402.14	2.83	10.8
404	SLU 65	32	-24	2441	-404.43	2.87	10.94
404	SLU 66	31	-16	2425	-402.14	2.83	10.8
404	SLU 67	31	-20	2434	-403.51	2.85	10.88
404	SLU 68	32	-24	2441	-404.43	2.87	10.94
404	SLU 69	31	-16	2425	-402.14	2.83	10.8
404	SLU 70	31	-20	2434	-403.51	2.85	10.88
404	SLU 71	31	-16	2425	-402.14	2.83	10.8
404	SLU 72	31	-20	2434	-403.51	2.85	10.88
404	SLU 73	29	-27	2772	-450.03	3.37	10.14
404	SLU 74	29	-19	2756	-447.75	3.34	10.01
404	SLU 75	29	-24	2766	-449.12	3.36	10.09
404	SLU 76	29	-27	2772	-450.03	3.37	10.14
404	SLU 77	29	-19	2756	-447.75	3.34	10.01
404	SLU 78	29	-24	2766	-449.12	3.36	10.09
404	SLU 79	29	-19	2756	-447.75	3.34	10.01
404	SLU 80	29	-24	2766	-449.12	3.36	10.09
404	SLU 81	28	-21	2898	-467.29	3.56	9.66
404	SLU 82	28	-26	2908	-468.66	3.58	9.75
404	SLU 83	28	-21	2898	-467.29	3.56	9.66
404	SLU 84	28	-26	2908	-468.66	3.58	9.75
404	SLE RA 1	24	-12	1812	-302.02	2.1	8.39
404	SLE RA 2	24	-17	1823	-303.54	2.12	8.48
404	SLE RA 3	24	-12	1812	-302.02	2.1	8.39
404	SLE RA 4	24	-15	1818	-302.93	2.11	8.44
404	SLE RA 5	24	-17	1823	-303.54	2.12	8.48
404	SLE RA 6	24	-12	1812	-302.02	2.1	8.39
404	SLE RA 7	24	-15	1818	-302.93	2.11	8.44
404	SLE RA 8	24	-12	1812	-302.02	2.1	8.39
404	SLE RA 9	24	-15	1818	-302.93	2.11	8.44
404	SLE RA 10	23	-19	2043	-333.95	2.46	7.95
404	SLE RA 11	23	-14	2032	-332.42	2.44	7.86
404	SLE RA 12	23	-17	2039	-333.34	2.45	7.91
404	SLE RA 13	23	-19	2043	-333.95	2.46	7.95
404	SLE RA 14	23	-14	2032	-332.42	2.44	7.86
404	SLE RA 15	23	-17	2039	-333.34	2.45	7.91
404	SLE RA 16	23	-14	2032	-332.42	2.44	7.86
404	SLE RA 17	23	-17	2039	-333.34	2.45	7.91
404	SLE RA 18	22	-15	2127	-345.45	2.59	7.63
404	SLE RA 19	22	-18	2134	-346.37	2.6	7.69
404	SLE RA 20	22	-15	2127	-345.45	2.59	7.63
404	SLE RA 21	22	-18	2134	-346.37	2.6	7.69
404	SLE FR 1	24	-12	1812	-302.02	2.1	8.39



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
404	SLE FR 2	24	-13	1814	-302.32	2.1	8.41
404	SLE FR 3	24	-12	1812	-302.02	2.1	8.39
404	SLE FR 4	24	-14	1908	-315.35	2.25	8.18
404	SLE FR 5	24	-13	1906	-315.05	2.25	8.16
404	SLE FR 6	23	-13	1969	-323.74	2.34	8.01
404	SLE QP 1	24	-12	1812	-302.02	2.1	8.39
404	SLE QP 2	24	-13	1906	-315.05	2.25	8.16
404	SLD 1	215	20	1770	-301.82	2.32	74.98
404	SLD 2	180	29	1768	-302.38	2.33	62.76
404	SLD 3	224	-65	1931	-319.15	2.67	78.24
404	SLD 4	189	-56	1930	-319.72	2.68	66.02
404	SLD 5	80	122	1621	-284.58	1.74	27.78
404	SLD 6	44	131	1620	-285.17	1.75	15.09
404	SLD 7	110	-160	2159	-342.36	2.9	38.64
404	SLD 8	74	-150	2157	-342.95	2.91	25.95
404	SLD 9	-27	125	1655	-287.15	1.58	-9.63
404	SLD 10	-63	134	1654	-287.74	1.6	-22.32
404	SLD 11	4	-156	2193	-344.93	2.74	1.24
404	SLD 12	-33	-147	2191	-345.52	2.76	-11.45
404	SLD 13	-142	30	1883	-310.38	1.81	-49.7
404	SLD 14	-177	39	1881	-310.95	1.82	-61.91
404	SLD 15	-132	-54	2044	-327.72	2.16	-46.44
404	SLD 16	-167	-45	2043	-328.28	2.17	-58.65
404	SLV 1	458	63	1591	-283.82	2.41	160.26
404	SLV 2	378	84	1588	-285.11	2.44	132.26
404	SLV 3	480	-134	1968	-324.77	3.22	167.95
404	SLV 4	400	-113	1965	-326.06	3.25	139.94
404	SLV 5	151	301	1241	-243.08	1.05	52.69
404	SLV 6	67	323	1238	-244.44	1.08	23.19
404	SLV 7	223	-356	2498	-379.59	3.76	78.3
404	SLV 8	139	-334	2494	-380.95	3.79	48.8
404	SLV 9	-92	308	1318	-249.15	0.7	-32.48
404	SLV 10	-176	330	1315	-250.51	0.73	-61.97
404	SLV 11	-20	-348	2575	-385.66	3.41	-6.87
404	SLV 12	-104	-326	2572	-387.02	3.44	-36.36
404	SLV 13	-353	88	1848	-304.04	1.24	-123.62
404	SLV 14	-433	109	1845	-305.33	1.27	-151.62
404	SLV 15	-331	-109	2225	-344.99	2.06	-115.93
404	SLV 16	-411	-88	2222	-346.28	2.09	-143.94
404	CRTFP Ux+	0	0	0	0	0	0
404	CRTFP Ux-	0	0	0	0	0	0
404	CRTFP Uy+	0	0	0	0	0	0
404	CRTFP Uy-	0	0	0	0	0	0
405	SLU 1	25	-13	1683	-242.27	1.6	8.59
405	SLU 2	25	-20	1698	-243.94	1.62	8.74
405	SLU 3	25	-13	1683	-242.27	1.6	8.59
405	SLU 4	25	-17	1692	-243.27	1.61	8.68
405	SLU 5	25	-20	1698	-243.94	1.62	8.74
405	SLU 6	25	-13	1683	-242.27	1.6	8.59
405	SLU 7	25	-17	1692	-243.27	1.61	8.68
405	SLU 8	25	-13	1683	-242.27	1.6	8.59
405	SLU 9	25	-17	1692	-243.27	1.61	8.68
405	SLU 10	23	-25	2014	-277.55	2.05	7.84
405	SLU 11	22	-18	1999	-275.88	2.03	7.7
405	SLU 12	22	-22	2008	-276.88	2.04	7.79
405	SLU 13	23	-25	2014	-277.55	2.05	7.84
405	SLU 14	22	-18	1999	-275.88	2.03	7.7
405	SLU 15	22	-22	2008	-276.88	2.04	7.79
405	SLU 16	22	-18	1999	-275.88	2.03	7.7
405	SLU 17	22	-22	2008	-276.88	2.04	7.79
405	SLU 18	21	-20	2134	-290.28	2.21	7.32
405	SLU 19	21	-24	2143	-291.28	2.22	7.4
405	SLU 20	21	-20	2134	-290.28	2.21	7.32
405	SLU 21	21	-24	2143	-291.28	2.22	7.4
405	SLU 22	24	-16	1915	-266.83	1.9	8.17
405	SLU 23	24	-23	1931	-268.5	1.93	8.31
405	SLU 24	24	-16	1915	-266.83	1.9	8.17
405	SLU 25	24	-20	1925	-267.83	1.92	8.26
405	SLU 26	24	-23	1931	-268.5	1.93	8.31
405	SLU 27	24	-16	1915	-266.83	1.9	8.17
405	SLU 28	24	-20	1925	-267.83	1.92	8.26
405	SLU 29	24	-16	1915	-266.83	1.9	8.17
405	SLU 30	24	-20	1925	-267.83	1.92	8.26
405	SLU 31	21	-28	2247	-302.1	2.35	7.42
405	SLU 32	21	-21	2231	-300.43	2.33	7.27
405	SLU 33	21	-25	2240	-301.43	2.34	7.36
405	SLU 34	21	-28	2247	-302.1	2.35	7.42
405	SLU 35	21	-21	2231	-300.43	2.33	7.27
405	SLU 36	21	-25	2240	-301.43	2.34	7.36
405	SLU 37	21	-21	2231	-300.43	2.33	7.27
405	SLU 38	21	-25	2240	-301.43	2.34	7.36
405	SLU 39	20	-23	2366	-314.83	2.51	6.89
405	SLU 40	20	-27	2376	-315.84	2.53	6.98
405	SLU 41	20	-23	2366	-314.83	2.51	6.89
405	SLU 42	20	-27	2376	-315.84	2.53	6.98
405	SLU 43	32	-15	2108	-306.54	1.98	11.32
405	SLU 44	33	-23	2124	-308.21	2	11.46
405	SLU 45	32	-15	2108	-306.54	1.98	11.32
405	SLU 46	33	-20	2118	-307.54	1.99	11.4
405	SLU 47	33	-23	2124	-308.21	2	11.46
405	SLU 48	32	-15	2108	-306.54	1.98	11.32



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
405	SLU 49	33	-20	2118	-307.54	1.99	11.4
405	SLU 50	32	-15	2108	-306.54	1.98	11.32
405	SLU 51	33	-20	2118	-307.54	1.99	11.4
405	SLU 52	30	-28	2440	-341.81	2.43	10.57
405	SLU 53	30	-20	2424	-340.14	2.4	10.42
405	SLU 54	30	-25	2433	-341.14	2.42	10.51
405	SLU 55	30	-28	2440	-341.81	2.43	10.57
405	SLU 56	30	-20	2424	-340.14	2.4	10.42
405	SLU 57	30	-25	2433	-341.14	2.42	10.51
405	SLU 58	30	-20	2424	-340.14	2.4	10.42
405	SLU 59	30	-25	2433	-341.14	2.42	10.51
405	SLU 60	29	-22	2559	-354.54	2.59	10.04
405	SLU 61	29	-27	2569	-355.55	2.6	10.13
405	SLU 62	29	-22	2559	-354.54	2.59	10.04
405	SLU 63	29	-27	2569	-355.55	2.6	10.13
405	SLU 64	31	-18	2340	-331.09	2.28	10.89
405	SLU 65	32	-26	2356	-332.76	2.3	11.04
405	SLU 66	31	-18	2340	-331.09	2.28	10.89
405	SLU 67	32	-23	2350	-332.09	2.29	10.98
405	SLU 68	32	-26	2356	-332.76	2.3	11.04
405	SLU 69	31	-18	2340	-331.09	2.28	10.89
405	SLU 70	32	-23	2350	-332.09	2.29	10.98
405	SLU 71	31	-18	2340	-331.09	2.28	10.89
405	SLU 72	32	-23	2350	-332.09	2.29	10.98
405	SLU 73	29	-31	2672	-366.36	2.73	10.14
405	SLU 74	29	-23	2656	-364.69	2.71	10
405	SLU 75	29	-28	2666	-365.7	2.72	10.09
405	SLU 76	29	-31	2672	-366.36	2.73	10.14
405	SLU 77	29	-23	2656	-364.69	2.71	10
405	SLU 78	29	-28	2666	-365.7	2.72	10.09
405	SLU 79	29	-23	2656	-364.69	2.71	10
405	SLU 80	29	-28	2666	-365.7	2.72	10.09
405	SLU 81	28	-25	2792	-379.1	2.89	9.62
405	SLU 82	28	-30	2801	-380.1	2.9	9.7
405	SLU 83	28	-25	2792	-379.1	2.89	9.62
405	SLU 84	28	-30	2801	-380.1	2.9	9.7
405	SLE RA 1	24	-14	1749	-249.29	1.69	8.47
405	SLE RA 2	25	-19	1760	-250.4	1.7	8.57
405	SLE RA 3	24	-14	1749	-249.29	1.69	8.47
405	SLE RA 4	24	-17	1756	-249.96	1.7	8.53
405	SLE RA 5	25	-19	1760	-250.4	1.7	8.57
405	SLE RA 6	24	-14	1749	-249.29	1.69	8.47
405	SLE RA 7	24	-17	1756	-249.96	1.7	8.53
405	SLE RA 8	24	-14	1749	-249.29	1.69	8.47
405	SLE RA 9	24	-17	1756	-249.96	1.7	8.53
405	SLE RA 10	23	-22	1970	-272.8	1.99	7.97
405	SLE RA 11	23	-17	1960	-271.69	1.97	7.88
405	SLE RA 12	23	-20	1966	-272.36	1.98	7.93
405	SLE RA 13	23	-22	1970	-272.8	1.99	7.97
405	SLE RA 14	23	-17	1960	-271.69	1.97	7.88
405	SLE RA 15	23	-20	1966	-272.36	1.98	7.93
405	SLE RA 16	23	-17	1960	-271.69	1.97	7.88
405	SLE RA 17	23	-20	1966	-272.36	1.98	7.93
405	SLE RA 18	22	-18	2050	-281.29	2.09	7.62
405	SLE RA 19	22	-21	2056	-281.96	2.1	7.68
405	SLE RA 20	22	-18	2050	-281.29	2.09	7.62
405	SLE RA 21	22	-21	2056	-281.96	2.1	7.68
405	SLE FR 1	24	-14	1749	-249.29	1.69	8.47
405	SLE FR 2	24	-15	1751	-249.51	1.69	8.49
405	SLE FR 3	24	-14	1749	-249.29	1.69	8.47
405	SLE FR 4	24	-16	1842	-259.11	1.81	8.24
405	SLE FR 5	24	-15	1840	-258.89	1.81	8.22
405	SLE FR 6	23	-16	1900	-265.29	1.89	8.05
405	SLE QP 1	24	-14	1749	-249.29	1.69	8.47
405	SLE QP 2	24	-15	1840	-258.89	1.81	8.22
405	SLD 1	215	16	1700	-247.84	1.93	75.06
405	SLD 2	180	26	1698	-248.36	1.94	62.83
405	SLD 3	224	-66	1851	-260.78	2.2	78.36
405	SLD 4	189	-56	1850	-261.3	2.22	66.14
405	SLD 5	80	115	1569	-235.75	1.41	27.78
405	SLD 6	43	126	1567	-236.29	1.43	15.07
405	SLD 7	111	-158	2073	-278.9	2.35	38.79
405	SLD 8	74	-148	2071	-279.44	2.36	26.08
405	SLD 9	-27	118	1608	-238.34	1.26	-9.65
405	SLD 10	-64	128	1606	-238.88	1.27	-22.35
405	SLD 11	4	-155	2112	-281.49	2.19	1.36
405	SLD 12	-32	-145	2110	-282.03	2.2	-11.34
405	SLD 13	-142	26	1830	-256.48	1.4	-49.7
405	SLD 14	-177	36	1828	-256.99	1.41	-61.93
405	SLD 15	-132	-56	1981	-269.42	1.68	-46.4
405	SLD 16	-167	-46	1979	-269.94	1.69	-58.63
405	SLV 1	458	58	1518	-232.66	2.07	160.38
405	SLV 2	378	81	1513	-233.85	2.1	132.35
405	SLV 3	480	-134	1871	-263.54	2.72	168.17
405	SLV 4	400	-110	1867	-264.73	2.75	140.13
405	SLV 5	151	289	1208	-203.73	0.88	52.62
405	SLV 6	66	313	1204	-204.99	0.92	23.09
405	SLV 7	224	-350	2387	-306.68	3.06	78.57
405	SLV 8	140	-325	2382	-307.93	3.1	49.04
405	SLV 9	-92	295	1297	-209.85	0.52	-32.61
405	SLV 10	-177	320	1292	-211.1	0.56	-62.13



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
405	SLV 11	-19	-343	2475	-312.79	2.7	-6.66
405	SLV 12	-104	-319	2471	-314.04	2.73	-36.19
405	SLV 13	-353	80	1812	-253.05	0.86	-123.7
405	SLV 14	-433	104	1808	-254.24	0.9	-151.74
405	SLV 15	-331	-111	2166	-283.93	1.52	-115.92
405	SLV 16	-411	-88	2162	-285.12	1.55	-143.95
405	CRTFP Ux+	0	0	0	0	0	0
405	CRTFP Ux-	0	0	0	0	0	0
405	CRTFP Uy+	0	0	0	0	0	0
405	CRTFP Uy-	0	0	0	0	0	0
406	SLU 1	25	-13	1637	-203.72	1.17	8.65
406	SLU 2	25	-21	1652	-204.91	1.19	8.8
406	SLU 3	25	-13	1637	-203.72	1.17	8.65
406	SLU 4	25	-18	1646	-204.43	1.18	8.74
406	SLU 5	25	-21	1652	-204.91	1.19	8.8
406	SLU 6	25	-13	1637	-203.72	1.17	8.65
406	SLU 7	25	-18	1646	-204.43	1.18	8.74
406	SLU 8	25	-13	1637	-203.72	1.17	8.65
406	SLU 9	25	-18	1646	-204.43	1.18	8.74
406	SLU 10	22	-27	1956	-229.11	1.52	7.81
406	SLU 11	22	-19	1941	-227.92	1.51	7.65
406	SLU 12	22	-24	1950	-228.64	1.52	7.74
406	SLU 13	22	-27	1956	-229.11	1.52	7.81
406	SLU 14	22	-19	1941	-227.92	1.51	7.65
406	SLU 15	22	-24	1950	-228.64	1.52	7.74
406	SLU 16	22	-19	1941	-227.92	1.51	7.65
406	SLU 17	22	-24	1950	-228.64	1.52	7.74
406	SLU 18	21	-22	2071	-238.29	1.65	7.23
406	SLU 19	21	-26	2080	-239.01	1.66	7.32
406	SLU 20	21	-22	2071	-238.29	1.65	7.23
406	SLU 21	21	-26	2080	-239.01	1.66	7.32
406	SLU 22	23	-17	1861	-221.43	1.4	8.17
406	SLU 23	24	-25	1876	-222.62	1.42	8.32
406	SLU 24	23	-17	1861	-221.43	1.4	8.17
406	SLU 25	24	-22	1870	-222.14	1.41	8.26
406	SLU 26	24	-25	1876	-222.62	1.42	8.32
406	SLU 27	23	-17	1861	-221.43	1.4	8.17
406	SLU 28	24	-22	1870	-222.14	1.41	8.26
406	SLU 29	23	-17	1861	-221.43	1.4	8.17
406	SLU 30	24	-22	1870	-222.14	1.41	8.26
406	SLU 31	21	-30	2179	-246.82	1.76	7.32
406	SLU 32	21	-23	2164	-245.63	1.74	7.17
406	SLU 33	21	-27	2173	-246.35	1.75	7.26
406	SLU 34	21	-30	2179	-246.82	1.76	7.32
406	SLU 35	21	-23	2164	-245.63	1.74	7.17
406	SLU 36	21	-27	2173	-246.35	1.75	7.26
406	SLU 37	21	-23	2164	-245.63	1.74	7.17
406	SLU 38	21	-27	2173	-246.35	1.75	7.26
406	SLU 39	19	-25	2294	-256	1.89	6.74
406	SLU 40	20	-30	2303	-256.72	1.9	6.83
406	SLU 41	19	-25	2294	-256	1.89	6.74
406	SLU 42	20	-30	2303	-256.72	1.9	6.83
406	SLU 43	33	-16	2052	-258.76	1.44	11.41
406	SLU 44	33	-24	2067	-259.95	1.46	11.56
406	SLU 45	33	-16	2052	-258.76	1.44	11.41
406	SLU 46	33	-21	2061	-259.48	1.45	11.5
406	SLU 47	33	-24	2067	-259.95	1.46	11.56
406	SLU 48	33	-16	2052	-258.76	1.44	11.41
406	SLU 49	33	-21	2061	-259.48	1.45	11.5
406	SLU 50	33	-16	2052	-258.76	1.44	11.41
406	SLU 51	33	-21	2061	-259.48	1.45	11.5
406	SLU 52	30	-29	2370	-284.16	1.79	10.57
406	SLU 53	30	-22	2355	-282.96	1.78	10.41
406	SLU 54	30	-26	2364	-283.68	1.79	10.51
406	SLU 55	30	-29	2370	-284.16	1.79	10.57
406	SLU 56	30	-22	2355	-282.96	1.78	10.41
406	SLU 57	30	-26	2364	-283.68	1.79	10.51
406	SLU 58	30	-22	2355	-282.96	1.78	10.41
406	SLU 59	30	-26	2364	-283.68	1.79	10.51
406	SLU 60	29	-25	2485	-293.34	1.92	9.99
406	SLU 61	29	-29	2494	-294.05	1.93	10.08
406	SLU 62	29	-25	2485	-293.34	1.92	9.99
406	SLU 63	29	-29	2494	-294.05	1.93	10.08
406	SLU 64	31	-20	2275	-276.47	1.67	10.93
406	SLU 65	32	-27	2290	-277.66	1.69	11.08
406	SLU 66	31	-20	2275	-276.47	1.67	10.93
406	SLU 67	32	-24	2284	-277.19	1.69	11.02
406	SLU 68	32	-27	2290	-277.66	1.69	11.08
406	SLU 69	31	-20	2275	-276.47	1.67	10.93
406	SLU 70	32	-24	2284	-277.19	1.69	11.02
406	SLU 71	31	-20	2275	-276.47	1.67	10.93
406	SLU 72	32	-24	2284	-277.19	1.69	11.02
406	SLU 73	29	-33	2594	-301.87	2.03	10.08
406	SLU 74	29	-26	2579	-300.67	2.01	9.93
406	SLU 75	29	-30	2588	-301.39	2.02	10.02
406	SLU 76	29	-33	2594	-301.87	2.03	10.08
406	SLU 77	29	-26	2579	-300.67	2.01	9.93
406	SLU 78	29	-30	2588	-301.39	2.02	10.02
406	SLU 79	29	-26	2579	-300.67	2.01	9.93
406	SLU 80	29	-30	2588	-301.39	2.02	10.02
406	SLU 81	27	-28	2709	-311.05	2.16	9.5



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
406	SLU 82	28	-33	2718	-311.76	2.17	9.6
406	SLU 83	27	-28	2709	-311.05	2.16	9.5
406	SLU 84	28	-33	2718	-311.76	2.17	9.6
406	SLE RA 1	24	-15	1701	-208.78	1.24	8.51
406	SLE RA 2	25	-19	1711	-209.57	1.25	8.61
406	SLE RA 3	24	-15	1701	-208.78	1.24	8.51
406	SLE RA 4	25	-17	1707	-209.25	1.24	8.57
406	SLE RA 5	25	-19	1711	-209.57	1.25	8.61
406	SLE RA 6	24	-15	1701	-208.78	1.24	8.51
406	SLE RA 7	25	-17	1707	-209.25	1.24	8.57
406	SLE RA 8	24	-15	1701	-208.78	1.24	8.51
406	SLE RA 9	25	-17	1707	-209.25	1.24	8.57
406	SLE RA 10	23	-23	1913	-225.71	1.47	7.95
406	SLE RA 11	23	-18	1903	-224.91	1.46	7.85
406	SLE RA 12	23	-21	1909	-225.39	1.47	7.91
406	SLE RA 13	23	-23	1913	-225.71	1.47	7.95
406	SLE RA 14	23	-18	1903	-224.91	1.46	7.85
406	SLE RA 15	23	-21	1909	-225.39	1.47	7.91
406	SLE RA 16	23	-18	1903	-224.91	1.46	7.85
406	SLE RA 17	23	-21	1909	-225.39	1.47	7.91
406	SLE RA 18	22	-20	1990	-231.83	1.56	7.56
406	SLE RA 19	22	-23	1996	-232.3	1.56	7.62
406	SLE RA 20	22	-20	1990	-231.83	1.56	7.56
406	SLE RA 21	22	-23	1996	-232.3	1.56	7.62
406	SLE FR 1	24	-15	1701	-208.78	1.24	8.51
406	SLE FR 2	24	-16	1703	-208.94	1.24	8.53
406	SLE FR 3	24	-15	1701	-208.78	1.24	8.51
406	SLE FR 4	24	-17	1790	-215.85	1.34	8.25
406	SLE FR 5	24	-16	1788	-215.69	1.33	8.23
406	SLE FR 6	23	-17	1846	-220.3	1.4	8.04
406	SLE QP 1	24	-15	1701	-208.78	1.24	8.51
406	SLE QP 2	24	-16	1788	-215.69	1.33	8.23
406	SLD 1	215	23	1644	-205.09	1.5	75.09
406	SLD 2	180	34	1642	-205.5	1.52	62.85
406	SLD 3	224	-58	1788	-217.03	1.7	78.43
406	SLD 4	189	-46	1785	-217.44	1.72	66.19
406	SLD 5	79	113	1528	-194.24	1.07	27.74
406	SLD 6	43	125	1525	-194.67	1.09	15.03
406	SLD 7	111	-155	2007	-234.06	1.74	38.87
406	SLD 8	75	-143	2004	-234.49	1.76	26.16
406	SLD 9	-27	111	1572	-196.9	0.91	-9.71
406	SLD 10	-64	122	1569	-197.32	0.93	-22.42
406	SLD 11	4	-158	2051	-236.72	1.57	1.42
406	SLD 12	-32	-146	2048	-237.14	1.59	-11.29
406	SLD 13	-142	14	1791	-213.94	0.94	-49.74
406	SLD 14	-177	25	1788	-214.35	0.96	-61.98
406	SLD 15	-132	-67	1934	-225.89	1.14	-46.4
406	SLD 16	-167	-55	1932	-226.3	1.16	-58.64
406	SLV 1	458	75	1456	-190.48	1.71	160.44
406	SLV 2	378	101	1450	-191.42	1.76	132.38
406	SLV 3	481	-113	1791	-219.09	2.18	168.3
406	SLV 4	400	-87	1786	-220.03	2.22	140.25
406	SLV 5	150	287	1181	-164.39	0.72	52.52
406	SLV 6	66	314	1175	-165.37	0.77	22.97
406	SLV 7	225	-340	2300	-259.75	2.28	78.75
406	SLV 8	140	-313	2295	-260.74	2.32	49.2
406	SLV 9	-93	280	1281	-170.65	0.34	-32.75
406	SLV 10	-178	308	1276	-171.64	0.39	-62.3
406	SLV 11	-19	-346	2400	-266.01	1.9	-6.52
406	SLV 12	-103	-319	2395	-267	1.94	-36.07
406	SLV 13	-353	54	1790	-211.36	0.44	-123.8
406	SLV 14	-434	81	1784	-212.29	0.49	-151.85
406	SLV 15	-331	-134	2126	-239.96	0.91	-115.93
406	SLV 16	-411	-107	2120	-240.9	0.95	-143.98
406	CRTFP Ux+	0	0	0	0	0	0
406	CRTFP Ux-	0	0	0	0	0	0
406	CRTFP Uy+	0	0	0	0	0	0
406	CRTFP Uy-	0	0	0	0	0	0
407	SLU 1	25	-13	1606	-177.43	0.72	8.67
407	SLU 2	25	-21	1621	-178.29	0.72	8.83
407	SLU 3	25	-13	1606	-177.43	0.72	8.67
407	SLU 4	25	-18	1615	-177.95	0.72	8.77
407	SLU 5	25	-21	1621	-178.29	0.72	8.83
407	SLU 6	25	-13	1606	-177.43	0.72	8.67
407	SLU 7	25	-18	1615	-177.95	0.72	8.77
407	SLU 8	25	-13	1606	-177.43	0.72	8.67
407	SLU 9	25	-18	1615	-177.95	0.72	8.77
407	SLU 10	22	-27	1915	-195.84	0.97	7.73
407	SLU 11	22	-20	1900	-194.98	0.96	7.57
407	SLU 12	22	-24	1909	-195.5	0.97	7.67
407	SLU 13	22	-27	1915	-195.84	0.97	7.73
407	SLU 14	22	-20	1900	-194.98	0.96	7.57
407	SLU 15	22	-24	1909	-195.5	0.97	7.67
407	SLU 16	22	-20	1900	-194.98	0.96	7.57
407	SLU 17	22	-24	1909	-195.5	0.97	7.67
407	SLU 18	20	-23	2026	-202.5	1.07	7.1
407	SLU 19	21	-27	2035	-203.02	1.07	7.2
407	SLU 20	20	-23	2026	-202.5	1.07	7.1
407	SLU 21	21	-27	2035	-203.02	1.07	7.2
407	SLU 22	23	-17	1823	-190.32	0.88	8.13
407	SLU 23	24	-25	1838	-191.19	0.89	8.29



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
407	SLU 24	23	-17	1823	-190.32	0.88	8.13
407	SLU 25	23	-22	1832	-190.84	0.89	8.22
407	SLU 26	24	-25	1838	-191.19	0.89	8.29
407	SLU 27	23	-17	1823	-190.32	0.88	8.13
407	SLU 28	23	-22	1832	-190.84	0.89	8.22
407	SLU 29	23	-17	1823	-190.32	0.88	8.13
407	SLU 30	23	-22	1832	-190.84	0.89	8.22
407	SLU 31	21	-31	2131	-208.74	1.13	7.19
407	SLU 32	20	-24	2117	-207.88	1.13	7.03
407	SLU 33	20	-28	2126	-208.4	1.13	7.12
407	SLU 34	21	-31	2131	-208.74	1.13	7.19
407	SLU 35	20	-24	2117	-207.88	1.13	7.03
407	SLU 36	20	-28	2126	-208.4	1.13	7.12
407	SLU 37	20	-24	2117	-207.88	1.13	7.03
407	SLU 38	20	-28	2126	-208.4	1.13	7.12
407	SLU 39	19	-27	2243	-215.4	1.23	6.56
407	SLU 40	19	-31	2251	-215.92	1.24	6.65
407	SLU 41	19	-27	2243	-215.4	1.23	6.56
407	SLU 42	19	-31	2251	-215.92	1.24	6.65
407	SLU 43	33	-16	2014	-226.23	0.87	11.46
407	SLU 44	33	-23	2028	-227.1	0.88	11.62
407	SLU 45	33	-16	2014	-226.23	0.87	11.46
407	SLU 46	33	-20	2023	-226.75	0.88	11.55
407	SLU 47	33	-23	2028	-227.1	0.88	11.62
407	SLU 48	33	-16	2014	-226.23	0.87	11.46
407	SLU 49	33	-20	2023	-226.75	0.88	11.55
407	SLU 50	33	-16	2014	-226.23	0.87	11.46
407	SLU 51	33	-20	2023	-226.75	0.88	11.55
407	SLU 52	30	-30	2322	-244.65	1.13	10.52
407	SLU 53	30	-22	2308	-243.79	1.12	10.36
407	SLU 54	30	-27	2316	-244.31	1.12	10.46
407	SLU 55	30	-30	2322	-244.65	1.13	10.52
407	SLU 56	30	-22	2308	-243.79	1.12	10.36
407	SLU 57	30	-27	2316	-244.31	1.12	10.46
407	SLU 58	30	-22	2308	-243.79	1.12	10.36
407	SLU 59	30	-27	2316	-244.31	1.12	10.46
407	SLU 60	28	-25	2434	-251.31	1.22	9.89
407	SLU 61	29	-30	2442	-251.83	1.23	9.98
407	SLU 62	28	-25	2434	-251.31	1.22	9.89
407	SLU 63	29	-30	2442	-251.83	1.23	9.98
407	SLU 64	31	-20	2231	-239.13	1.04	10.92
407	SLU 65	32	-27	2245	-240	1.05	11.07
407	SLU 66	31	-20	2231	-239.13	1.04	10.92
407	SLU 67	31	-24	2239	-239.65	1.04	11.01
407	SLU 68	32	-27	2245	-240	1.05	11.07
407	SLU 69	31	-20	2231	-239.13	1.04	10.92
407	SLU 70	31	-24	2239	-239.65	1.04	11.01
407	SLU 71	31	-20	2231	-239.13	1.04	10.92
407	SLU 72	31	-24	2239	-239.65	1.04	11.01
407	SLU 73	28	-34	2539	-257.55	1.29	9.98
407	SLU 74	28	-27	2525	-256.68	1.28	9.82
407	SLU 75	28	-31	2533	-257.2	1.29	9.91
407	SLU 76	28	-34	2539	-257.55	1.29	9.98
407	SLU 77	28	-27	2525	-256.68	1.28	9.82
407	SLU 78	28	-31	2533	-257.2	1.29	9.91
407	SLU 79	28	-27	2525	-256.68	1.28	9.82
407	SLU 80	28	-31	2533	-257.2	1.29	9.91
407	SLU 81	27	-29	2650	-264.21	1.39	9.35
407	SLU 82	27	-34	2659	-264.73	1.39	9.44
407	SLU 83	27	-29	2650	-264.21	1.39	9.35
407	SLU 84	27	-34	2659	-264.73	1.39	9.44
407	SLE RA 1	24	-15	1668	-181.11	0.76	8.52
407	SLE RA 2	25	-19	1678	-181.69	0.77	8.62
407	SLE RA 3	24	-15	1668	-181.11	0.76	8.52
407	SLE RA 4	24	-17	1674	-181.46	0.77	8.58
407	SLE RA 5	25	-19	1678	-181.69	0.77	8.62
407	SLE RA 6	24	-15	1668	-181.11	0.76	8.52
407	SLE RA 7	24	-17	1674	-181.46	0.77	8.58
407	SLE RA 8	24	-15	1668	-181.11	0.76	8.52
407	SLE RA 9	24	-17	1674	-181.46	0.77	8.58
407	SLE RA 10	23	-24	1874	-193.39	0.93	7.89
407	SLE RA 11	22	-19	1864	-192.81	0.93	7.78
407	SLE RA 12	22	-22	1870	-193.16	0.93	7.85
407	SLE RA 13	23	-24	1874	-193.39	0.93	7.89
407	SLE RA 14	22	-19	1864	-192.81	0.93	7.78
407	SLE RA 15	22	-22	1870	-193.16	0.93	7.85
407	SLE RA 16	22	-19	1864	-192.81	0.93	7.78
407	SLE RA 17	22	-22	1870	-193.16	0.93	7.85
407	SLE RA 18	21	-21	1948	-197.83	1	7.47
407	SLE RA 19	22	-24	1954	-198.18	1	7.53
407	SLE RA 20	21	-21	1948	-197.83	1	7.47
407	SLE RA 21	22	-24	1954	-198.18	1	7.53
407	SLE FR 1	24	-15	1668	-181.11	0.76	8.52
407	SLE FR 2	24	-16	1670	-181.23	0.76	8.54
407	SLE FR 3	24	-15	1668	-181.11	0.76	8.52
407	SLE FR 4	23	-17	1754	-186.24	0.83	8.22
407	SLE FR 5	23	-16	1752	-186.13	0.83	8.2
407	SLE FR 6	23	-18	1808	-189.47	0.88	7.99
407	SLE QP 1	24	-15	1668	-181.11	0.76	8.52
407	SLE QP 2	23	-16	1752	-186.13	0.83	8.2
407	SLD 1	214	22	1602	-174.95	1.07	75.07



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
407	SLD 2	179	34	1599	-175.19	1.09	62.83
407	SLD 3	224	-58	1740	-187.85	1.18	78.44
407	SLD 4	189	-46	1737	-188.09	1.2	66.2
407	SLD 5	79	112	1498	-163.12	0.72	27.68
407	SLD 6	43	125	1495	-163.37	0.75	14.96
407	SLD 7	111	-155	1960	-206.12	1.1	38.91
407	SLD 8	75	-142	1957	-206.37	1.12	26.19
407	SLD 9	-28	109	1547	-165.89	0.54	-9.79
407	SLD 10	-64	122	1544	-166.13	0.57	-22.5
407	SLD 11	4	-158	2010	-208.89	0.92	1.45
407	SLD 12	-32	-144	2007	-209.14	0.94	-11.27
407	SLD 13	-142	13	1767	-184.17	0.46	-49.8
407	SLD 14	-177	26	1764	-184.4	0.49	-62.04
407	SLD 15	-133	-67	1906	-197.07	0.58	-46.43
407	SLD 16	-168	-54	1903	-197.3	0.6	-58.67
407	SLV 1	458	73	1405	-159.64	1.36	160.43
407	SLV 2	378	102	1398	-160.18	1.41	132.36
407	SLV 3	481	-114	1730	-190.41	1.62	168.37
407	SLV 4	400	-85	1723	-190.95	1.68	140.3
407	SLV 5	150	283	1159	-131.31	0.57	52.4
407	SLV 6	65	314	1152	-131.88	0.63	22.84
407	SLV 7	225	-340	2240	-233.88	1.45	78.86
407	SLV 8	141	-309	2233	-234.45	1.51	49.3
407	SLV 9	-94	277	1272	-137.81	0.16	-32.9
407	SLV 10	-179	307	1265	-138.38	0.22	-62.46
407	SLV 11	-18	-346	2353	-240.38	1.04	-6.44
407	SLV 12	-103	-315	2346	-240.95	1.1	-36
407	SLV 13	-354	52	1782	-181.31	-0.01	-123.9
407	SLV 14	-434	81	1775	-181.85	0.04	-151.97
407	SLV 15	-331	-135	2106	-212.08	0.25	-115.96
407	SLV 16	-411	-105	2099	-212.62	0.31	-144.03
407	CRTFP Ux+	0	0	0	0	0	0
407	CRTFP Ux-	0	0	0	0	0	0
407	CRTFP Uy+	0	0	0	0	0	0
407	CRTFP Uy-	0	0	0	0	0	0
408	SLU 1	25	-12	1591	-163.73	0.24	8.67
408	SLU 2	25	-20	1605	-164.42	0.24	8.83
408	SLU 3	25	-12	1591	-163.73	0.24	8.67
408	SLU 4	25	-17	1599	-164.14	0.24	8.77
408	SLU 5	25	-20	1605	-164.42	0.24	8.83
408	SLU 6	25	-12	1591	-163.73	0.24	8.67
408	SLU 7	25	-17	1599	-164.14	0.24	8.77
408	SLU 8	25	-12	1591	-163.73	0.24	8.67
408	SLU 9	25	-17	1599	-164.14	0.24	8.77
408	SLU 10	22	-27	1892	-178.15	0.39	7.63
408	SLU 11	21	-19	1878	-177.46	0.39	7.47
408	SLU 12	22	-24	1886	-177.88	0.39	7.57
408	SLU 13	22	-27	1892	-178.15	0.39	7.63
408	SLU 14	21	-19	1878	-177.46	0.39	7.47
408	SLU 15	22	-24	1886	-177.88	0.39	7.57
408	SLU 16	21	-19	1878	-177.46	0.39	7.47
408	SLU 17	22	-24	1886	-177.88	0.39	7.57
408	SLU 18	20	-22	2001	-183.35	0.45	6.95
408	SLU 19	20	-27	2010	-183.76	0.45	7.05
408	SLU 20	20	-22	2001	-183.35	0.45	6.95
408	SLU 21	20	-27	2010	-183.76	0.45	7.05
408	SLU 22	23	-17	1803	-173.91	0.33	8.06
408	SLU 23	23	-24	1817	-174.6	0.33	8.23
408	SLU 24	23	-17	1803	-173.91	0.33	8.06
408	SLU 25	23	-21	1812	-174.32	0.33	8.16
408	SLU 26	23	-24	1817	-174.6	0.33	8.23
408	SLU 27	23	-17	1803	-173.91	0.33	8.06
408	SLU 28	23	-21	1812	-174.32	0.33	8.16
408	SLU 29	23	-17	1803	-173.91	0.33	8.06
408	SLU 30	23	-21	1812	-174.32	0.33	8.16
408	SLU 31	20	-31	2105	-188.33	0.48	7.03
408	SLU 32	20	-23	2091	-187.64	0.48	6.86
408	SLU 33	20	-28	2099	-188.06	0.48	6.96
408	SLU 34	20	-31	2105	-188.33	0.48	7.03
408	SLU 35	20	-23	2091	-187.64	0.48	6.86
408	SLU 36	20	-28	2099	-188.06	0.48	6.96
408	SLU 37	20	-23	2091	-187.64	0.48	6.86
408	SLU 38	20	-28	2099	-188.06	0.48	6.96
408	SLU 39	18	-26	2214	-193.53	0.54	6.35
408	SLU 40	18	-31	2222	-193.94	0.54	6.45
408	SLU 41	18	-26	2214	-193.53	0.54	6.35
408	SLU 42	18	-31	2222	-193.94	0.54	6.45
408	SLU 43	33	-15	1995	-209.35	0.28	11.48
408	SLU 44	33	-22	2009	-210.04	0.28	11.64
408	SLU 45	33	-15	1995	-209.35	0.28	11.48
408	SLU 46	33	-19	2004	-209.77	0.28	11.57
408	SLU 47	33	-22	2009	-210.04	0.28	11.64
408	SLU 48	33	-15	1995	-209.35	0.28	11.48
408	SLU 49	33	-19	2004	-209.77	0.28	11.57
408	SLU 50	33	-15	1995	-209.35	0.28	11.48
408	SLU 51	33	-19	2004	-209.77	0.28	11.57
408	SLU 52	30	-29	2297	-223.78	0.43	10.44
408	SLU 53	29	-21	2282	-223.09	0.43	10.28
408	SLU 54	30	-26	2291	-223.5	0.43	10.37
408	SLU 55	30	-29	2297	-223.78	0.43	10.44
408	SLU 56	29	-21	2282	-223.09	0.43	10.28



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
408	SLU 57	30	-26	2291	-223.5	0.43	10.37
408	SLU 58	29	-21	2282	-223.09	0.43	10.28
408	SLU 59	30	-26	2291	-223.5	0.43	10.37
408	SLU 60	28	-24	2405	-228.98	0.49	9.76
408	SLU 61	28	-29	2414	-229.39	0.49	9.86
408	SLU 62	28	-24	2405	-228.98	0.49	9.76
408	SLU 63	28	-29	2414	-229.39	0.49	9.86
408	SLU 64	31	-19	2208	-219.53	0.37	10.87
408	SLU 65	31	-26	2222	-220.23	0.37	11.04
408	SLU 66	31	-19	2208	-219.53	0.37	10.87
408	SLU 67	31	-23	2216	-219.95	0.37	10.97
408	SLU 68	31	-26	2222	-220.23	0.37	11.04
408	SLU 69	31	-19	2208	-219.53	0.37	10.87
408	SLU 70	31	-23	2216	-219.95	0.37	10.97
408	SLU 71	31	-19	2208	-219.53	0.37	10.87
408	SLU 72	31	-23	2216	-219.95	0.37	10.97
408	SLU 73	28	-33	2509	-233.96	0.52	9.84
408	SLU 74	27	-26	2495	-233.27	0.52	9.67
408	SLU 75	28	-30	2503	-233.68	0.52	9.77
408	SLU 76	28	-33	2509	-233.96	0.52	9.84
408	SLU 77	27	-26	2495	-233.27	0.52	9.67
408	SLU 78	28	-30	2503	-233.68	0.52	9.77
408	SLU 79	27	-26	2495	-233.27	0.52	9.67
408	SLU 80	28	-30	2503	-233.68	0.52	9.77
408	SLU 81	26	-29	2618	-239.16	0.58	9.16
408	SLU 82	26	-33	2626	-239.57	0.58	9.26
408	SLU 83	26	-29	2618	-239.16	0.58	9.16
408	SLU 84	26	-33	2626	-239.57	0.58	9.26
408	SLE RA 1	24	-14	1651	-166.63	0.26	8.5
408	SLE RA 2	24	-19	1661	-167.1	0.27	8.61
408	SLE RA 3	24	-14	1651	-166.63	0.26	8.5
408	SLE RA 4	24	-17	1657	-166.91	0.26	8.56
408	SLE RA 5	24	-19	1661	-167.1	0.27	8.61
408	SLE RA 6	24	-14	1651	-166.63	0.26	8.5
408	SLE RA 7	24	-17	1657	-166.91	0.26	8.56
408	SLE RA 8	24	-14	1651	-166.63	0.26	8.5
408	SLE RA 9	24	-17	1657	-166.91	0.26	8.56
408	SLE RA 10	22	-23	1852	-176.25	0.36	7.8
408	SLE RA 11	22	-18	1843	-175.79	0.36	7.7
408	SLE RA 12	22	-21	1849	-176.07	0.36	7.76
408	SLE RA 13	22	-23	1852	-176.25	0.36	7.8
408	SLE RA 14	22	-18	1843	-175.79	0.36	7.7
408	SLE RA 15	22	-21	1849	-176.07	0.36	7.76
408	SLE RA 16	22	-18	1843	-175.79	0.36	7.7
408	SLE RA 17	22	-21	1849	-176.07	0.36	7.76
408	SLE RA 18	21	-20	1925	-179.72	0.41	7.35
408	SLE RA 19	21	-23	1931	-179.99	0.41	7.42
408	SLE RA 20	21	-20	1925	-179.72	0.41	7.35
408	SLE RA 21	21	-23	1931	-179.99	0.41	7.42
408	SLE FR 1	24	-14	1651	-166.63	0.26	8.5
408	SLE FR 2	24	-15	1653	-166.73	0.26	8.52
408	SLE FR 3	24	-14	1651	-166.63	0.26	8.5
408	SLE FR 4	23	-17	1735	-170.65	0.31	8.17
408	SLE FR 5	23	-16	1733	-170.56	0.31	8.15
408	SLE FR 6	23	-17	1788	-173.18	0.34	7.92
408	SLE QP 1	24	-14	1651	-166.63	0.26	8.5
408	SLE QP 2	23	-16	1733	-170.56	0.31	8.15
408	SLD 1	214	22	1574	-158.6	0.61	75.02
408	SLD 2	179	37	1570	-158.61	0.64	62.78
408	SLD 3	224	-58	1711	-172.47	0.64	78.42
408	SLD 4	189	-44	1707	-172.48	0.67	66.18
408	SLD 5	79	113	1480	-145.93	0.35	27.59
408	SLD 6	42	128	1476	-145.94	0.38	14.87
408	SLD 7	111	-156	1936	-192.17	0.43	38.91
408	SLD 8	75	-141	1931	-192.18	0.46	26.19
408	SLD 9	-28	110	1536	-148.94	0.15	-9.88
408	SLD 10	-65	125	1531	-148.95	0.18	-22.6
408	SLD 11	4	-159	1991	-195.18	0.23	1.44
408	SLD 12	-32	-144	1987	-195.19	0.27	-11.28
408	SLD 13	-142	13	1760	-168.64	-0.05	-49.87
408	SLD 14	-178	27	1756	-168.64	-0.02	-62.11
408	SLD 15	-133	-68	1897	-182.51	-0.03	-46.48
408	SLD 16	-168	-54	1893	-182.51	0	-58.72
408	SLV 1	458	73	1367	-142.35	1	160.38
408	SLV 2	377	106	1358	-142.36	1.07	132.31
408	SLV 3	481	-115	1686	-175.29	1.06	168.38
408	SLV 4	400	-82	1677	-175.31	1.13	140.31
408	SLV 5	149	284	1142	-112.12	0.4	52.26
408	SLV 6	64	319	1133	-112.14	0.47	22.7
408	SLV 7	226	-343	2207	-221.94	0.6	78.92
408	SLV 8	141	-309	2198	-221.96	0.67	49.36
408	SLV 9	-95	278	1269	-119.16	-0.05	-33.05
408	SLV 10	-179	312	1260	-119.18	0.02	-62.61
408	SLV 11	-18	-350	2334	-228.98	0.14	-6.39
408	SLV 12	-103	-315	2325	-229	0.22	-35.96
408	SLV 13	-354	51	1790	-165.81	-0.51	-124
408	SLV 14	-435	84	1781	-165.83	-0.44	-152.07
408	SLV 15	-331	-138	2109	-198.76	-0.45	-116
408	SLV 16	-412	-105	2100	-198.77	-0.38	-144.07
408	CRTFP Ux+	0	0	0	0	0	0
408	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
408	CRTFP Uy+	0	0	0	0	0	0
408	CRTFP Uy-	0	0	0	0	0	0
409	SLU 1	25	-11	1591	-163	-0.27	8.65
409	SLU 2	25	-18	1606	-163.68	-0.28	8.81
409	SLU 3	25	-11	1591	-163	-0.27	8.65
409	SLU 4	25	-15	1600	-163.41	-0.28	8.75
409	SLU 5	25	-18	1606	-163.68	-0.28	8.81
409	SLU 6	25	-11	1591	-163	-0.27	8.65
409	SLU 7	25	-15	1600	-163.41	-0.28	8.75
409	SLU 8	25	-11	1591	-163	-0.27	8.65
409	SLU 9	25	-15	1600	-163.41	-0.28	8.75
409	SLU 10	21	-25	1890	-176.52	-0.23	7.52
409	SLU 11	21	-17	1875	-175.84	-0.22	7.35
409	SLU 12	21	-22	1884	-176.25	-0.23	7.45
409	SLU 13	21	-25	1890	-176.52	-0.23	7.52
409	SLU 14	21	-17	1875	-175.84	-0.22	7.35
409	SLU 15	21	-22	1884	-176.25	-0.23	7.45
409	SLU 16	21	-17	1875	-175.84	-0.22	7.35
409	SLU 17	21	-22	1884	-176.25	-0.23	7.45
409	SLU 18	19	-20	1997	-181.34	-0.2	6.79
409	SLU 19	20	-25	2005	-181.75	-0.21	6.89
409	SLU 20	19	-20	1997	-181.34	-0.2	6.79
409	SLU 21	20	-25	2005	-181.75	-0.21	6.89
409	SLU 22	23	-15	1802	-172.63	-0.26	7.98
409	SLU 23	23	-23	1816	-173.31	-0.27	8.15
409	SLU 24	23	-15	1802	-172.63	-0.26	7.98
409	SLU 25	23	-20	1811	-173.04	-0.26	8.09
409	SLU 26	23	-23	1816	-173.31	-0.27	8.15
409	SLU 27	23	-15	1802	-172.63	-0.26	7.98
409	SLU 28	23	-20	1811	-173.04	-0.26	8.09
409	SLU 29	23	-15	1802	-172.63	-0.26	7.98
409	SLU 30	23	-20	1811	-173.04	-0.26	8.09
409	SLU 31	19	-29	2100	-186.15	-0.22	6.85
409	SLU 32	19	-22	2086	-185.47	-0.21	6.69
409	SLU 33	19	-26	2095	-185.87	-0.21	6.79
409	SLU 34	19	-29	2100	-186.15	-0.22	6.85
409	SLU 35	19	-22	2086	-185.47	-0.21	6.69
409	SLU 36	19	-26	2095	-185.87	-0.21	6.79
409	SLU 37	19	-22	2086	-185.47	-0.21	6.69
409	SLU 38	19	-26	2095	-185.87	-0.21	6.79
409	SLU 39	17	-25	2208	-190.97	-0.19	6.13
409	SLU 40	18	-29	2216	-191.38	-0.19	6.23
409	SLU 41	17	-25	2208	-190.97	-0.19	6.13
409	SLU 42	18	-29	2216	-191.38	-0.19	6.23
409	SLU 43	33	-13	1996	-208.6	-0.36	11.47
409	SLU 44	33	-20	2011	-209.28	-0.37	11.63
409	SLU 45	33	-13	1996	-208.6	-0.36	11.47
409	SLU 46	33	-17	2005	-209.01	-0.36	11.57
409	SLU 47	33	-20	2011	-209.28	-0.37	11.63
409	SLU 48	33	-13	1996	-208.6	-0.36	11.47
409	SLU 49	33	-17	2005	-209.01	-0.36	11.57
409	SLU 50	33	-13	1996	-208.6	-0.36	11.47
409	SLU 51	33	-17	2005	-209.01	-0.36	11.57
409	SLU 52	29	-27	2295	-222.12	-0.32	10.34
409	SLU 53	29	-19	2280	-221.44	-0.31	10.17
409	SLU 54	29	-24	2289	-221.85	-0.32	10.27
409	SLU 55	29	-27	2295	-222.12	-0.32	10.34
409	SLU 56	29	-19	2280	-221.44	-0.31	10.17
409	SLU 57	29	-24	2289	-221.85	-0.32	10.27
409	SLU 58	29	-19	2280	-221.44	-0.31	10.17
409	SLU 59	29	-24	2289	-221.85	-0.32	10.27
409	SLU 60	27	-22	2402	-226.94	-0.29	9.61
409	SLU 61	28	-27	2411	-227.35	-0.29	9.71
409	SLU 62	27	-22	2402	-226.94	-0.29	9.61
409	SLU 63	28	-27	2411	-227.35	-0.29	9.71
409	SLU 64	31	-17	2207	-218.23	-0.34	10.8
409	SLU 65	31	-24	2221	-218.91	-0.35	10.97
409	SLU 66	31	-17	2207	-218.23	-0.34	10.8
409	SLU 67	31	-21	2216	-218.64	-0.35	10.91
409	SLU 68	31	-24	2221	-218.91	-0.35	10.97
409	SLU 69	31	-17	2207	-218.23	-0.34	10.8
409	SLU 70	31	-21	2216	-218.64	-0.35	10.91
409	SLU 71	31	-17	2207	-218.23	-0.34	10.8
409	SLU 72	31	-21	2216	-218.64	-0.35	10.91
409	SLU 73	27	-31	2505	-231.75	-0.3	9.68
409	SLU 74	27	-24	2491	-231.07	-0.3	9.51
409	SLU 75	27	-28	2500	-231.47	-0.3	9.61
409	SLU 76	27	-31	2505	-231.75	-0.3	9.68
409	SLU 77	27	-24	2491	-231.07	-0.3	9.51
409	SLU 78	27	-28	2500	-231.47	-0.3	9.61
409	SLU 79	27	-24	2491	-231.07	-0.3	9.51
409	SLU 80	27	-28	2500	-231.47	-0.3	9.61
409	SLU 81	25	-26	2613	-236.57	-0.27	8.95
409	SLU 82	26	-31	2621	-236.98	-0.28	9.05
409	SLU 83	25	-26	2613	-236.57	-0.27	8.95
409	SLU 84	26	-31	2621	-236.98	-0.28	9.05
409	SLE RA 1	24	-12	1651	-165.75	-0.27	8.46
409	SLE RA 2	24	-17	1661	-166.21	-0.27	8.57
409	SLE RA 3	24	-12	1651	-165.75	-0.27	8.46
409	SLE RA 4	24	-15	1657	-166.02	-0.27	8.52
409	SLE RA 5	24	-17	1661	-166.21	-0.27	8.57



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
409	SLE RA 6	24	-12	1651	-165.75	-0.27	8.46
409	SLE RA 7	24	-15	1657	-166.02	-0.27	8.52
409	SLE RA 8	24	-12	1651	-165.75	-0.27	8.46
409	SLE RA 9	24	-15	1657	-166.02	-0.27	8.52
409	SLE RA 10	22	-22	1850	-174.76	-0.24	7.7
409	SLE RA 11	22	-16	1841	-174.31	-0.24	7.59
409	SLE RA 12	22	-20	1846	-174.58	-0.24	7.66
409	SLE RA 13	22	-22	1850	-174.76	-0.24	7.7
409	SLE RA 14	22	-16	1841	-174.31	-0.24	7.59
409	SLE RA 15	22	-20	1846	-174.58	-0.24	7.66
409	SLE RA 16	22	-16	1841	-174.31	-0.24	7.59
409	SLE RA 17	22	-20	1846	-174.58	-0.24	7.66
409	SLE RA 18	20	-18	1922	-177.98	-0.22	7.22
409	SLE RA 19	21	-21	1928	-178.25	-0.22	7.29
409	SLE RA 20	20	-18	1922	-177.98	-0.22	7.22
409	SLE RA 21	21	-21	1928	-178.25	-0.22	7.29
409	SLE FR 1	24	-12	1651	-165.75	-0.27	8.46
409	SLE FR 2	24	-13	1653	-165.84	-0.27	8.48
409	SLE FR 3	24	-12	1651	-165.75	-0.27	8.46
409	SLE FR 4	23	-15	1734	-169.51	-0.26	8.11
409	SLE FR 5	23	-14	1733	-169.42	-0.25	8.09
409	SLE FR 6	22	-15	1787	-171.86	-0.25	7.84
409	SLE QP 1	24	-12	1651	-165.75	-0.27	8.46
409	SLE QP 2	23	-14	1733	-169.42	-0.25	8.09
409	SLD 1	214	25	1562	-156.44	0.14	74.94
409	SLD 2	179	41	1557	-156.17	0.18	62.7
409	SLD 3	224	-58	1700	-170.36	0.06	78.36
409	SLD 4	189	-41	1694	-170.09	0.09	66.12
409	SLD 5	78	117	1474	-144.51	-0.03	27.48
409	SLD 6	42	134	1469	-144.23	0.01	14.77
409	SLD 7	111	-158	1933	-190.91	-0.3	38.88
409	SLD 8	75	-141	1928	-190.63	-0.26	26.16
409	SLD 9	-29	113	1537	-148.2	-0.25	-9.99
409	SLD 10	-65	130	1532	-147.93	-0.21	-22.7
409	SLD 11	4	-161	1996	-194.6	-0.52	1.41
409	SLD 12	-32	-144	1991	-194.33	-0.48	-11.31
409	SLD 13	-143	13	1771	-168.75	-0.6	-49.95
409	SLD 14	-178	30	1766	-168.48	-0.57	-62.19
409	SLD 15	-133	-69	1908	-182.67	-0.69	-46.53
409	SLD 16	-168	-53	1903	-182.4	-0.65	-58.77
409	SLV 1	458	77	1340	-138.98	0.64	160.29
409	SLV 2	377	114	1328	-138.36	0.73	132.22
409	SLV 3	481	-116	1662	-171.97	0.45	168.33
409	SLV 4	400	-78	1650	-171.35	0.54	140.26
409	SLV 5	148	291	1131	-110.49	0.27	52.11
409	SLV 6	63	331	1119	-109.84	0.37	22.55
409	SLV 7	226	-351	2204	-220.45	-0.37	78.94
409	SLV 8	141	-311	2191	-219.8	-0.28	49.37
409	SLV 9	-95	283	1274	-119.04	-0.23	-33.2
409	SLV 10	-180	323	1261	-118.39	-0.14	-62.76
409	SLV 11	-17	-359	2346	-229	-0.87	-6.38
409	SLV 12	-102	-319	2334	-228.35	-0.78	-35.94
409	SLV 13	-355	51	1815	-167.48	-1.05	-124.09
409	SLV 14	-435	88	1804	-166.87	-0.96	-152.16
409	SLV 15	-331	-142	2137	-200.47	-1.24	-116.05
409	SLV 16	-412	-104	2125	-199.86	-1.15	-144.11
409	CRTFP Ux+	0	0	0	0	0	0
409	CRTFP Ux-	0	0	0	0	0	0
409	CRTFP Uy+	0	0	0	0	0	0
409	CRTFP Uy-	0	0	0	0	0	0
410	SLU 1	24	-9	1609	-175.89	-0.83	8.61
410	SLU 2	25	-17	1624	-176.73	-0.85	8.78
410	SLU 3	24	-9	1609	-175.89	-0.83	8.61
410	SLU 4	25	-13	1618	-176.4	-0.84	8.71
410	SLU 5	25	-17	1624	-176.73	-0.85	8.78
410	SLU 6	24	-9	1609	-175.89	-0.83	8.61
410	SLU 7	25	-13	1618	-176.4	-0.84	8.71
410	SLU 8	24	-9	1609	-175.89	-0.83	8.61
410	SLU 9	25	-13	1618	-176.4	-0.84	8.71
410	SLU 10	21	-23	1908	-191.7	-0.91	7.39
410	SLU 11	20	-15	1893	-190.86	-0.89	7.22
410	SLU 12	21	-20	1902	-191.37	-0.9	7.32
410	SLU 13	21	-23	1908	-191.7	-0.91	7.39
410	SLU 14	20	-15	1893	-190.86	-0.89	7.22
410	SLU 15	21	-20	1902	-191.37	-0.9	7.32
410	SLU 16	20	-15	1893	-190.86	-0.89	7.22
410	SLU 17	21	-20	1902	-191.37	-0.9	7.32
410	SLU 18	19	-18	2015	-197.28	-0.92	6.63
410	SLU 19	19	-23	2024	-197.78	-0.93	6.73
410	SLU 20	19	-18	2015	-197.28	-0.92	6.63
410	SLU 21	19	-23	2024	-197.78	-0.93	6.73
410	SLU 22	22	-13	1821	-187.22	-0.9	7.89
410	SLU 23	23	-21	1836	-188.06	-0.92	8.06
410	SLU 24	22	-13	1821	-187.22	-0.9	7.89
410	SLU 25	23	-17	1830	-187.72	-0.91	8
410	SLU 26	23	-21	1836	-188.06	-0.92	8.06
410	SLU 27	22	-13	1821	-187.22	-0.9	7.89
410	SLU 28	23	-17	1830	-187.72	-0.91	8
410	SLU 29	22	-13	1821	-187.22	-0.9	7.89
410	SLU 30	23	-17	1830	-187.72	-0.91	8
410	SLU 31	19	-27	2120	-203.03	-0.98	6.68



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
410	SLU 32	18	-19	2105	-202.19	-0.96	6.51
410	SLU 33	19	-24	2114	-202.69	-0.97	6.61
410	SLU 34	19	-27	2120	-203.03	-0.98	6.68
410	SLU 35	18	-19	2105	-202.19	-0.96	6.51
410	SLU 36	19	-24	2114	-202.69	-0.97	6.61
410	SLU 37	18	-19	2105	-202.19	-0.96	6.51
410	SLU 38	19	-24	2114	-202.69	-0.97	6.61
410	SLU 39	17	-22	2227	-208.6	-0.98	5.91
410	SLU 40	17	-27	2236	-209.11	-1	6.01
410	SLU 41	17	-22	2227	-208.6	-0.98	5.91
410	SLU 42	17	-27	2236	-209.11	-1	6.01
410	SLU 43	32	-10	2019	-224.78	-1.06	11.44
410	SLU 44	33	-18	2034	-225.62	-1.07	11.61
410	SLU 45	32	-10	2019	-224.78	-1.06	11.44
410	SLU 46	33	-15	2028	-225.28	-1.07	11.54
410	SLU 47	33	-18	2034	-225.62	-1.07	11.61
410	SLU 48	32	-10	2019	-224.78	-1.06	11.44
410	SLU 49	33	-15	2028	-225.28	-1.07	11.54
410	SLU 50	32	-10	2019	-224.78	-1.06	11.44
410	SLU 51	33	-15	2028	-225.28	-1.07	11.54
410	SLU 52	29	-24	2318	-240.59	-1.13	10.22
410	SLU 53	28	-16	2303	-239.75	-1.12	10.05
410	SLU 54	29	-21	2312	-240.25	-1.13	10.15
410	SLU 55	29	-24	2318	-240.59	-1.13	10.22
410	SLU 56	28	-16	2303	-239.75	-1.12	10.05
410	SLU 57	29	-21	2312	-240.25	-1.13	10.15
410	SLU 58	28	-16	2303	-239.75	-1.12	10.05
410	SLU 59	29	-21	2312	-240.25	-1.13	10.15
410	SLU 60	27	-19	2425	-246.16	-1.14	9.45
410	SLU 61	27	-24	2434	-246.67	-1.15	9.56
410	SLU 62	27	-19	2425	-246.16	-1.14	9.45
410	SLU 63	27	-24	2434	-246.67	-1.15	9.56
410	SLU 64	30	-14	2231	-236.1	-1.13	10.72
410	SLU 65	31	-22	2246	-236.94	-1.14	10.89
410	SLU 66	30	-14	2231	-236.1	-1.13	10.72
410	SLU 67	31	-19	2240	-236.61	-1.14	10.82
410	SLU 68	31	-22	2246	-236.94	-1.14	10.89
410	SLU 69	30	-14	2231	-236.1	-1.13	10.72
410	SLU 70	31	-19	2240	-236.61	-1.14	10.82
410	SLU 71	30	-14	2231	-236.1	-1.13	10.72
410	SLU 72	31	-19	2240	-236.61	-1.14	10.82
410	SLU 73	27	-28	2530	-251.91	-1.2	9.51
410	SLU 74	26	-20	2515	-251.07	-1.19	9.33
410	SLU 75	27	-25	2524	-251.58	-1.2	9.44
410	SLU 76	27	-28	2530	-251.91	-1.2	9.51
410	SLU 77	26	-20	2515	-251.07	-1.19	9.33
410	SLU 78	27	-25	2524	-251.58	-1.2	9.44
410	SLU 79	26	-20	2515	-251.07	-1.19	9.33
410	SLU 80	27	-25	2524	-251.58	-1.2	9.44
410	SLU 81	25	-23	2637	-257.49	-1.21	8.74
410	SLU 82	25	-28	2646	-257.99	-1.22	8.84
410	SLU 83	25	-23	2637	-257.49	-1.21	8.74
410	SLU 84	25	-28	2646	-257.99	-1.22	8.84
410	SLE RA 1	24	-10	1670	-179.13	-0.85	8.4
410	SLE RA 2	24	-15	1679	-179.69	-0.86	8.52
410	SLE RA 3	24	-10	1670	-179.13	-0.85	8.4
410	SLE RA 4	24	-13	1676	-179.46	-0.86	8.47
410	SLE RA 5	24	-15	1679	-179.69	-0.86	8.52
410	SLE RA 6	24	-10	1670	-179.13	-0.85	8.4
410	SLE RA 7	24	-13	1676	-179.46	-0.86	8.47
410	SLE RA 8	24	-10	1670	-179.13	-0.85	8.4
410	SLE RA 9	24	-13	1676	-179.46	-0.86	8.47
410	SLE RA 10	21	-19	1869	-189.67	-0.9	7.59
410	SLE RA 11	21	-14	1859	-189.11	-0.89	7.48
410	SLE RA 12	21	-17	1865	-189.44	-0.9	7.55
410	SLE RA 13	21	-19	1869	-189.67	-0.9	7.59
410	SLE RA 14	21	-14	1859	-189.11	-0.89	7.48
410	SLE RA 15	21	-17	1865	-189.44	-0.9	7.55
410	SLE RA 16	21	-14	1859	-189.11	-0.89	7.48
410	SLE RA 17	21	-17	1865	-189.44	-0.9	7.55
410	SLE RA 18	20	-16	1940	-193.38	-0.91	7.08
410	SLE RA 19	20	-19	1946	-193.72	-0.91	7.15
410	SLE RA 20	20	-16	1940	-193.38	-0.91	7.08
410	SLE RA 21	20	-19	1946	-193.72	-0.91	7.15
410	SLE FR 1	24	-10	1670	-179.13	-0.85	8.4
410	SLE FR 2	24	-11	1672	-179.24	-0.85	8.43
410	SLE FR 3	24	-10	1670	-179.13	-0.85	8.4
410	SLE FR 4	23	-13	1753	-183.52	-0.87	8.03
410	SLE FR 5	23	-12	1751	-183.4	-0.87	8.01
410	SLE FR 6	22	-13	1805	-186.26	-0.88	7.74
410	SLE QP 1	24	-10	1670	-179.13	-0.85	8.4
410	SLE QP 2	23	-12	1751	-183.4	-0.87	8.01
410	SLD 1	214	28	1566	-168.48	-0.38	74.84
410	SLD 2	178	47	1559	-167.89	-0.33	62.6
410	SLD 3	224	-57	1708	-181.42	-0.56	78.28
410	SLD 4	188	-38	1701	-180.83	-0.51	66.04
410	SLD 5	78	123	1482	-159.52	-0.46	27.37
410	SLD 6	41	143	1476	-158.91	-0.41	14.65
410	SLD 7	111	-162	1956	-202.65	-1.07	38.82
410	SLD 8	75	-142	1949	-202.04	-1.03	26.11
410	SLD 9	-29	119	1553	-164.77	-0.71	-10.09



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
410	SLD 10	-66	139	1546	-164.16	-0.66	-22.81
410	SLD 11	4	-166	2026	-207.9	-1.33	1.36
410	SLD 12	-32	-146	2019	-207.29	-1.28	-11.35
410	SLD 13	-143	15	1800	-185.98	-1.22	-50.03
410	SLD 14	-178	34	1794	-185.39	-1.18	-62.26
410	SLD 15	-133	-70	1942	-198.92	-1.41	-46.59
410	SLD 16	-168	-51	1936	-198.33	-1.36	-58.83
410	SLV 1	457	82	1325	-148.67	0.26	160.15
410	SLV 2	376	125	1311	-147.33	0.37	132.09
410	SLV 3	481	-118	1657	-179.3	-0.17	168.24
410	SLV 4	400	-75	1642	-177.96	-0.07	140.18
410	SLV 5	147	303	1126	-127.04	0.09	51.94
410	SLV 6	62	349	1110	-125.62	0.2	22.39
410	SLV 7	226	-363	2231	-229.14	-1.36	78.92
410	SLV 8	141	-317	2216	-227.72	-1.24	49.37
410	SLV 9	-96	294	1286	-139.09	-0.49	-33.35
410	SLV 10	-181	340	1271	-137.67	-0.38	-62.9
410	SLV 11	-17	-372	2391	-241.19	-1.93	-6.38
410	SLV 12	-102	-326	2376	-239.77	-1.82	-35.93
410	SLV 13	-355	52	1859	-188.85	-1.67	-124.17
410	SLV 14	-436	95	1845	-187.5	-1.56	-152.23
410	SLV 15	-331	-148	2191	-219.48	-2.1	-116.08
410	SLV 16	-412	-105	2176	-218.13	-1.99	-144.13
410	CRTFP Ux+	0	0	0	0	0	0
410	CRTFP Ux-	0	0	0	0	0	0
410	CRTFP Uy+	0	0	0	0	0	0
410	CRTFP Uy-	0	0	0	0	0	0
411	SLU 1	24	-6	1646	-203.41	-1.45	8.56
411	SLU 2	25	-15	1662	-204.59	-1.48	8.73
411	SLU 3	24	-6	1646	-203.41	-1.45	8.56
411	SLU 4	25	-11	1656	-204.12	-1.47	8.66
411	SLU 5	25	-15	1662	-204.59	-1.48	8.73
411	SLU 6	24	-6	1646	-203.41	-1.45	8.56
411	SLU 7	25	-11	1656	-204.12	-1.47	8.66
411	SLU 8	24	-6	1646	-203.41	-1.45	8.56
411	SLU 9	25	-11	1656	-204.12	-1.47	8.66
411	SLU 10	21	-20	1950	-224.87	-1.66	7.27
411	SLU 11	20	-12	1935	-223.69	-1.63	7.09
411	SLU 12	20	-17	1944	-224.4	-1.65	7.2
411	SLU 13	21	-20	1950	-224.87	-1.66	7.27
411	SLU 14	20	-12	1935	-223.69	-1.63	7.09
411	SLU 15	20	-17	1944	-224.4	-1.65	7.2
411	SLU 16	20	-12	1935	-223.69	-1.63	7.09
411	SLU 17	20	-17	1944	-224.4	-1.65	7.2
411	SLU 18	18	-14	2058	-232.38	-1.71	6.46
411	SLU 19	18	-19	2067	-233.09	-1.72	6.57
411	SLU 20	18	-14	2058	-232.38	-1.71	6.46
411	SLU 21	18	-19	2067	-233.09	-1.72	6.57
411	SLU 22	22	-10	1862	-218.81	-1.61	7.79
411	SLU 23	23	-18	1877	-219.99	-1.64	7.97
411	SLU 24	22	-10	1862	-218.81	-1.61	7.79
411	SLU 25	22	-15	1871	-219.52	-1.63	7.9
411	SLU 26	23	-18	1877	-219.99	-1.64	7.97
411	SLU 27	22	-10	1862	-218.81	-1.61	7.79
411	SLU 28	22	-15	1871	-219.52	-1.63	7.9
411	SLU 29	22	-10	1862	-218.81	-1.61	7.79
411	SLU 30	22	-15	1871	-219.52	-1.63	7.9
411	SLU 31	18	-24	2165	-240.27	-1.82	6.5
411	SLU 32	18	-15	2150	-239.09	-1.79	6.33
411	SLU 33	18	-21	2159	-239.8	-1.81	6.43
411	SLU 34	18	-24	2165	-240.27	-1.82	6.5
411	SLU 35	18	-15	2150	-239.09	-1.79	6.33
411	SLU 36	18	-21	2159	-239.8	-1.81	6.43
411	SLU 37	18	-15	2150	-239.09	-1.79	6.33
411	SLU 38	18	-21	2159	-239.8	-1.81	6.43
411	SLU 39	16	-18	2273	-247.78	-1.87	5.7
411	SLU 40	16	-23	2283	-248.49	-1.88	5.8
411	SLU 41	16	-18	2273	-247.78	-1.87	5.7
411	SLU 42	16	-23	2283	-248.49	-1.88	5.8
411	SLU 43	32	-7	2067	-259.16	-1.83	11.39
411	SLU 44	33	-15	2082	-260.33	-1.86	11.56
411	SLU 45	32	-7	2067	-259.16	-1.83	11.39
411	SLU 46	33	-12	2076	-259.86	-1.85	11.49
411	SLU 47	33	-15	2082	-260.33	-1.86	11.56
411	SLU 48	32	-7	2067	-259.16	-1.83	11.39
411	SLU 49	33	-12	2076	-259.86	-1.85	11.49
411	SLU 50	32	-7	2067	-259.16	-1.83	11.39
411	SLU 51	33	-12	2076	-259.86	-1.85	11.49
411	SLU 52	29	-21	2370	-280.61	-2.04	10.1
411	SLU 53	28	-12	2355	-279.43	-2.01	9.92
411	SLU 54	28	-18	2364	-280.14	-2.03	10.03
411	SLU 55	29	-21	2370	-280.61	-2.04	10.1
411	SLU 56	28	-12	2355	-279.43	-2.01	9.92
411	SLU 57	28	-18	2364	-280.14	-2.03	10.03
411	SLU 58	28	-12	2355	-279.43	-2.01	9.92
411	SLU 59	28	-18	2364	-280.14	-2.03	10.03
411	SLU 60	26	-15	2478	-288.13	-2.09	9.29
411	SLU 61	27	-20	2487	-288.83	-2.1	9.4
411	SLU 62	26	-15	2478	-288.13	-2.09	9.29
411	SLU 63	27	-20	2487	-288.83	-2.1	9.4
411	SLU 64	30	-10	2282	-274.56	-1.99	10.62



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
411	SLU 65	31	-19	2298	-275.73	-2.02	10.8
411	SLU 66	30	-10	2282	-274.56	-1.99	10.62
411	SLU 67	30	-15	2291	-275.26	-2.01	10.73
411	SLU 68	31	-19	2298	-275.73	-2.02	10.8
411	SLU 69	30	-10	2282	-274.56	-1.99	10.62
411	SLU 70	30	-15	2291	-275.26	-2.01	10.73
411	SLU 71	30	-10	2282	-274.56	-1.99	10.62
411	SLU 72	30	-15	2291	-275.26	-2.01	10.73
411	SLU 73	26	-25	2586	-296.01	-2.2	9.33
411	SLU 74	26	-16	2570	-294.84	-2.17	9.16
411	SLU 75	26	-21	2579	-295.54	-2.19	9.26
411	SLU 76	26	-25	2586	-296.01	-2.2	9.33
411	SLU 77	26	-16	2570	-294.84	-2.17	9.16
411	SLU 78	26	-21	2579	-295.54	-2.19	9.26
411	SLU 79	26	-16	2570	-294.84	-2.17	9.16
411	SLU 80	26	-21	2579	-295.54	-2.19	9.26
411	SLU 81	24	-19	2694	-303.53	-2.25	8.53
411	SLU 82	24	-24	2703	-304.23	-2.26	8.63
411	SLU 83	24	-19	2694	-303.53	-2.25	8.53
411	SLU 84	24	-24	2703	-304.23	-2.26	8.63
411	SLE RA 1	24	-7	1708	-207.81	-1.5	8.34
411	SLE RA 2	24	-13	1718	-208.6	-1.51	8.46
411	SLE RA 3	24	-7	1708	-207.81	-1.5	8.34
411	SLE RA 4	24	-11	1714	-208.28	-1.51	8.41
411	SLE RA 5	24	-13	1718	-208.6	-1.51	8.46
411	SLE RA 6	24	-7	1708	-207.81	-1.5	8.34
411	SLE RA 7	24	-11	1714	-208.28	-1.51	8.41
411	SLE RA 8	24	-7	1708	-207.81	-1.5	8.34
411	SLE RA 9	24	-11	1714	-208.28	-1.51	8.41
411	SLE RA 10	21	-17	1910	-222.12	-1.63	7.48
411	SLE RA 11	21	-11	1900	-221.33	-1.62	7.36
411	SLE RA 12	21	-14	1906	-221.8	-1.63	7.43
411	SLE RA 13	21	-17	1910	-222.12	-1.63	7.48
411	SLE RA 14	21	-11	1900	-221.33	-1.62	7.36
411	SLE RA 15	21	-14	1906	-221.8	-1.63	7.43
411	SLE RA 16	21	-11	1900	-221.33	-1.62	7.36
411	SLE RA 17	21	-14	1906	-221.8	-1.63	7.43
411	SLE RA 18	20	-13	1982	-227.13	-1.67	6.94
411	SLE RA 19	20	-16	1989	-227.6	-1.68	7.01
411	SLE RA 20	20	-13	1982	-227.13	-1.67	6.94
411	SLE RA 21	20	-16	1989	-227.6	-1.68	7.01
411	SLE FR 1	24	-7	1708	-207.81	-1.5	8.34
411	SLE FR 2	24	-8	1710	-207.97	-1.5	8.36
411	SLE FR 3	24	-7	1708	-207.81	-1.5	8.34
411	SLE FR 4	22	-10	1792	-213.76	-1.55	7.94
411	SLE FR 5	22	-9	1790	-213.61	-1.55	7.92
411	SLE FR 6	22	-10	1845	-217.47	-1.58	7.64
411	SLE QP 1	24	-7	1708	-207.81	-1.5	8.34
411	SLE QP 2	22	-9	1790	-213.61	-1.55	7.92
411	SLD 1	213	33	1587	-194.93	-0.94	74.71
411	SLD 2	178	54	1579	-193.96	-0.88	62.48
411	SLD 3	223	-57	1737	-206.64	-1.23	78.17
411	SLD 4	188	-36	1729	-205.68	-1.18	65.94
411	SLD 5	77	132	1506	-190.6	-0.94	27.24
411	SLD 6	41	154	1497	-189.59	-0.88	14.53
411	SLD 7	111	-167	2004	-229.64	-1.92	38.75
411	SLD 8	75	-145	1996	-228.64	-1.86	26.05
411	SLD 9	-30	127	1585	-198.58	-1.23	-10.21
411	SLD 10	-66	150	1577	-197.57	-1.17	-22.91
411	SLD 11	4	-172	2083	-237.62	-2.21	1.31
411	SLD 12	-32	-149	2075	-236.62	-2.16	-11.4
411	SLD 13	-143	18	1852	-221.54	-1.92	-50.1
411	SLD 14	-179	40	1844	-220.57	-1.86	-62.33
411	SLD 15	-133	-72	2001	-233.25	-2.21	-46.64
411	SLD 16	-168	-50	1993	-232.28	-2.16	-58.87
411	SLV 1	457	88	1324	-170.48	-0.15	159.97
411	SLV 2	376	138	1305	-168.26	-0.03	131.93
411	SLV 3	481	-122	1673	-198.17	-0.84	168.1
411	SLV 4	400	-72	1655	-195.95	-0.71	140.06
411	SLV 5	147	320	1128	-159.51	-0.14	51.76
411	SLV 6	62	372	1108	-157.17	0	22.23
411	SLV 7	227	-379	2292	-251.81	-2.43	78.87
411	SLV 8	142	-327	2272	-249.47	-2.29	49.34
411	SLV 9	-97	310	1308	-177.74	-0.8	-33.5
411	SLV 10	-182	362	1289	-175.41	-0.67	-63.03
411	SLV 11	-17	-389	2473	-270.04	-3.09	-6.39
411	SLV 12	-102	-337	2453	-267.71	-2.96	-35.92
411	SLV 13	-355	55	1926	-231.27	-2.38	-124.22
411	SLV 14	-436	104	1907	-229.05	-2.25	-152.26
411	SLV 15	-331	-155	2275	-258.96	-3.07	-116.09
411	SLV 16	-412	-106	2257	-256.74	-2.94	-144.13
411	CRTFP Ux+	0	0	0	0	0	0
411	CRTFP Ux-	0	0	0	0	0	0
411	CRTFP Uy+	0	0	0	0	0	0
411	CRTFP Uy-	0	0	0	0	0	0
412	SLU 1	24	-3	1705	-246.92	-2.14	8.49
412	SLU 2	25	-13	1722	-248.63	-2.17	8.67
412	SLU 3	24	-3	1705	-246.92	-2.14	8.49
412	SLU 4	24	-9	1715	-247.95	-2.16	8.6
412	SLU 5	25	-13	1722	-248.63	-2.17	8.67
412	SLU 6	24	-3	1705	-246.92	-2.14	8.49



Nodo Ind.	Cont. N.br.	Reazione a traslazione				Reazione a rotazione		
		x	y	z		x	y	z
412	SLU 7	24	-9	1715		-247.95	-2.16	8.6
412	SLU 8	24	-3	1705		-246.92	-2.14	8.49
412	SLU 9	24	-9	1715		-247.95	-2.16	8.6
412	SLU 10	20	-18	2018		-277.56	-2.49	7.14
412	SLU 11	20	-8	2001		-275.85	-2.45	6.96
412	SLU 12	20	-14	2011		-276.88	-2.47	7.07
412	SLU 13	20	-18	2018		-277.56	-2.49	7.14
412	SLU 14	20	-8	2001		-275.85	-2.45	6.96
412	SLU 15	20	-14	2011		-276.88	-2.47	7.07
412	SLU 16	20	-8	2001		-275.85	-2.45	6.96
412	SLU 17	20	-14	2011		-276.88	-2.47	7.07
412	SLU 18	18	-11	2128		-288.25	-2.59	6.3
412	SLU 19	18	-16	2138		-289.27	-2.61	6.41
412	SLU 20	18	-11	2128		-288.25	-2.59	6.3
412	SLU 21	18	-16	2138		-289.27	-2.61	6.41
412	SLU 22	22	-7	1928		-268.92	-2.4	7.69
412	SLU 23	22	-16	1944		-270.63	-2.44	7.87
412	SLU 24	22	-7	1928		-268.92	-2.4	7.69
412	SLU 25	22	-12	1938		-269.94	-2.42	7.79
412	SLU 26	22	-16	1944		-270.63	-2.44	7.87
412	SLU 27	22	-7	1928		-268.92	-2.4	7.69
412	SLU 28	22	-12	1938		-269.94	-2.42	7.79
412	SLU 29	22	-7	1928		-268.92	-2.4	7.69
412	SLU 30	22	-12	1938		-269.94	-2.42	7.79
412	SLU 31	18	-21	2240		-299.56	-2.75	6.33
412	SLU 32	17	-11	2224		-297.85	-2.72	6.15
412	SLU 33	18	-17	2234		-298.87	-2.74	6.26
412	SLU 34	18	-21	2240		-299.56	-2.75	6.33
412	SLU 35	17	-11	2224		-297.85	-2.72	6.15
412	SLU 36	18	-17	2234		-298.87	-2.74	6.26
412	SLU 37	17	-11	2224		-297.85	-2.72	6.15
412	SLU 38	18	-17	2234		-298.87	-2.74	6.26
412	SLU 39	15	-14	2351		-310.25	-2.85	5.5
412	SLU 40	16	-19	2361		-311.27	-2.87	5.6
412	SLU 41	15	-14	2351		-310.25	-2.85	5.5
412	SLU 42	16	-19	2361		-311.27	-2.87	5.6
412	SLU 43	32	-3	2141		-313.45	-2.69	11.32
412	SLU 44	33	-13	2157		-315.16	-2.73	11.5
412	SLU 45	32	-3	2141		-313.45	-2.69	11.32
412	SLU 46	32	-9	2151		-314.48	-2.71	11.43
412	SLU 47	33	-13	2157		-315.16	-2.73	11.5
412	SLU 48	32	-3	2141		-313.45	-2.69	11.32
412	SLU 49	32	-9	2151		-314.48	-2.71	11.43
412	SLU 50	32	-3	2141		-313.45	-2.69	11.32
412	SLU 51	32	-9	2151		-314.48	-2.71	11.43
412	SLU 52	28	-18	2453		-344.09	-3.04	9.96
412	SLU 53	28	-8	2437		-342.38	-3	9.78
412	SLU 54	28	-14	2447		-343.41	-3.02	9.89
412	SLU 55	28	-18	2453		-344.09	-3.04	9.96
412	SLU 56	28	-8	2437		-342.38	-3	9.78
412	SLU 57	28	-14	2447		-343.41	-3.02	9.89
412	SLU 58	28	-8	2437		-342.38	-3	9.78
412	SLU 59	28	-14	2447		-343.41	-3.02	9.89
412	SLU 60	26	-11	2564		-354.78	-3.14	9.13
412	SLU 61	26	-16	2574		-355.81	-3.16	9.24
412	SLU 62	26	-11	2564		-354.78	-3.14	9.13
412	SLU 63	26	-16	2574		-355.81	-3.16	9.24
412	SLU 64	30	-7	2363		-335.45	-2.95	10.51
412	SLU 65	30	-16	2380		-337.16	-2.99	10.69
412	SLU 66	30	-7	2363		-335.45	-2.95	10.51
412	SLU 67	30	-12	2373		-336.48	-2.97	10.62
412	SLU 68	30	-16	2380		-337.16	-2.99	10.69
412	SLU 69	30	-7	2363		-335.45	-2.95	10.51
412	SLU 70	30	-12	2373		-336.48	-2.97	10.62
412	SLU 71	30	-7	2363		-335.45	-2.95	10.51
412	SLU 72	30	-12	2373		-336.48	-2.97	10.62
412	SLU 73	26	-21	2676		-366.09	-3.3	9.16
412	SLU 74	25	-11	2659		-364.38	-3.27	8.98
412	SLU 75	26	-17	2669		-365.41	-3.29	9.09
412	SLU 76	26	-21	2676		-366.09	-3.3	9.16
412	SLU 77	25	-11	2659		-364.38	-3.27	8.98
412	SLU 78	26	-17	2669		-365.41	-3.29	9.09
412	SLU 79	25	-11	2659		-364.38	-3.27	8.98
412	SLU 80	26	-17	2669		-365.41	-3.29	9.09
412	SLU 81	23	-14	2786		-376.78	-3.4	8.32
412	SLU 82	24	-19	2796		-377.81	-3.42	8.43
412	SLU 83	23	-14	2786		-376.78	-3.4	8.32
412	SLU 84	24	-19	2796		-377.81	-3.42	8.43
412	SLE RA 1	23	-4	1769		-253.21	-2.21	8.26
412	SLE RA 2	24	-10	1780		-254.35	-2.24	8.38
412	SLE RA 3	23	-4	1769		-253.21	-2.21	8.26
412	SLE RA 4	24	-8	1775		-253.89	-2.23	8.33
412	SLE RA 5	24	-10	1780		-254.35	-2.24	8.38
412	SLE RA 6	23	-4	1769		-253.21	-2.21	8.26
412	SLE RA 7	24	-8	1775		-253.89	-2.23	8.33
412	SLE RA 8	23	-4	1769		-253.21	-2.21	8.26
412	SLE RA 9	24	-8	1775		-253.89	-2.23	8.33
412	SLE RA 10	21	-14	1977		-273.63	-2.45	7.36
412	SLE RA 11	20	-8	1966		-272.49	-2.42	7.24
412	SLE RA 12	21	-11	1973		-273.18	-2.44	7.31
412	SLE RA 13	21	-14	1977		-273.63	-2.45	7.36



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
412	SLE RA 14	20	-8	1966	-272.49	-2.42	7.24
412	SLE RA 15	21	-11	1973	-273.18	-2.44	7.31
412	SLE RA 16	20	-8	1966	-272.49	-2.42	7.24
412	SLE RA 17	21	-11	1973	-273.18	-2.44	7.31
412	SLE RA 18	19	-9	2051	-280.76	-2.51	6.8
412	SLE RA 19	19	-13	2057	-281.44	-2.53	6.87
412	SLE RA 20	19	-9	2051	-280.76	-2.51	6.8
412	SLE RA 21	19	-13	2057	-281.44	-2.53	6.87
412	SLE FR 1	23	-4	1769	-253.21	-2.21	8.26
412	SLE FR 2	23	-6	1771	-253.43	-2.22	8.29
412	SLE FR 3	23	-4	1769	-253.21	-2.21	8.26
412	SLE FR 4	22	-7	1856	-261.7	-2.31	7.85
412	SLE FR 5	22	-6	1853	-261.47	-2.3	7.82
412	SLE FR 6	21	-7	1910	-266.98	-2.36	7.53
412	SLE QP 1	23	-4	1769	-253.21	-2.21	8.26
412	SLE QP 2	22	-6	1853	-261.47	-2.3	7.82
412	SLD 1	213	37	1629	-235.87	-1.56	74.56
412	SLD 2	177	62	1618	-234.42	-1.5	62.34
412	SLD 3	223	-58	1789	-248.52	-1.97	78.03
412	SLD 4	188	-33	1779	-247.07	-1.9	65.81
412	SLD 5	77	142	1546	-235.14	-1.49	27.09
412	SLD 6	40	168	1535	-233.63	-1.42	14.4
412	SLD 7	111	-175	2082	-277.31	-2.85	38.67
412	SLD 8	74	-149	2071	-275.8	-2.78	25.97
412	SLD 9	-30	137	1636	-247.14	-1.83	-10.32
412	SLD 10	-67	163	1625	-245.63	-1.76	-23.02
412	SLD 11	4	-179	2171	-289.31	-3.19	1.25
412	SLD 12	-32	-154	2161	-287.8	-3.12	-11.44
412	SLD 13	-144	21	1928	-275.87	-2.7	-50.16
412	SLD 14	-179	46	1917	-274.42	-2.63	-62.38
412	SLD 15	-133	-74	2088	-288.52	-3.11	-46.69
412	SLD 16	-169	-49	2078	-287.07	-3.04	-58.91
412	SLV 1	456	95	1337	-202.66	-0.61	159.74
412	SLV 2	375	152	1314	-199.33	-0.45	131.72
412	SLV 3	480	-127	1712	-232.39	-1.56	167.91
412	SLV 4	400	-70	1689	-229.06	-1.41	139.89
412	SLV 5	146	340	1138	-199.99	-0.41	51.56
412	SLV 6	61	400	1113	-196.48	-0.25	22.05
412	SLV 7	227	-400	2389	-299.09	-3.58	78.8
412	SLV 8	142	-341	2365	-295.59	-3.42	49.29
412	SLV 9	-98	329	1342	-227.35	-1.18	-33.64
412	SLV 10	-183	389	1318	-223.85	-1.02	-63.15
412	SLV 11	-17	-411	2593	-326.46	-4.36	-6.4
412	SLV 12	-102	-352	2569	-322.95	-4.2	-35.91
412	SLV 13	-355	59	2018	-293.88	-3.2	-124.24
412	SLV 14	-436	115	1994	-290.55	-3.05	-152.26
412	SLV 15	-331	-164	2393	-323.61	-4.15	-116.07
412	SLV 16	-412	-107	2370	-320.28	-4	-144.09
412	CRTFP Ux+	0	0	0	0	0	0
412	CRTFP Ux-	0	0	0	0	0	0
412	CRTFP Uy+	0	0	0	0	0	0
412	CRTFP Uy-	0	0	0	0	0	0
413	SLU 1	24	-1	1788	-308.02	-2.89	8.41
413	SLU 2	24	-11	1806	-310.48	-2.94	8.6
413	SLU 3	24	-1	1788	-308.02	-2.89	8.41
413	SLU 4	24	-7	1798	-309.49	-2.92	8.53
413	SLU 5	24	-11	1806	-310.48	-2.94	8.6
413	SLU 6	24	-1	1788	-308.02	-2.89	8.41
413	SLU 7	24	-7	1798	-309.49	-2.92	8.53
413	SLU 8	24	-1	1788	-308.02	-2.89	8.41
413	SLU 9	24	-7	1798	-309.49	-2.92	8.53
413	SLU 10	20	-15	2115	-351.58	-3.4	7.01
413	SLU 11	19	-5	2097	-349.12	-3.35	6.83
413	SLU 12	20	-11	2107	-350.6	-3.38	6.94
413	SLU 13	20	-15	2115	-351.58	-3.4	7.01
413	SLU 14	19	-5	2097	-349.12	-3.35	6.83
413	SLU 15	20	-11	2107	-350.6	-3.38	6.94
413	SLU 16	19	-5	2097	-349.12	-3.35	6.83
413	SLU 17	20	-11	2107	-350.6	-3.38	6.94
413	SLU 18	17	-6	2229	-366.74	-3.55	6.15
413	SLU 19	18	-12	2240	-368.22	-3.58	6.26
413	SLU 20	17	-6	2229	-366.74	-3.55	6.15
413	SLU 21	18	-12	2240	-368.22	-3.58	6.26
413	SLU 22	21	-3	2021	-339.3	-3.26	7.57
413	SLU 23	22	-13	2039	-341.76	-3.31	7.76
413	SLU 24	21	-3	2021	-339.3	-3.26	7.57
413	SLU 25	22	-9	2031	-340.77	-3.29	7.68
413	SLU 26	22	-13	2039	-341.76	-3.31	7.76
413	SLU 27	21	-3	2021	-339.3	-3.26	7.57
413	SLU 28	22	-9	2031	-340.77	-3.29	7.68
413	SLU 29	21	-3	2021	-339.3	-3.26	7.57
413	SLU 30	22	-9	2031	-340.77	-3.29	7.68
413	SLU 31	17	-17	2347	-382.86	-3.77	6.17
413	SLU 32	17	-7	2329	-380.41	-3.73	5.98
413	SLU 33	17	-13	2340	-381.88	-3.76	6.1
413	SLU 34	17	-17	2347	-382.86	-3.77	6.17
413	SLU 35	17	-7	2329	-380.41	-3.73	5.98
413	SLU 36	17	-13	2340	-381.88	-3.76	6.1
413	SLU 37	17	-7	2329	-380.41	-3.73	5.98
413	SLU 38	17	-13	2340	-381.88	-3.76	6.1
413	SLU 39	15	-9	2462	-398.02	-3.92	5.3



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
413	SLU 40	15	-15	2473	-399.5	-3.95	5.41
413	SLU 41	15	-9	2462	-398.02	-3.92	5.3
413	SLU 42	15	-15	2473	-399.5	-3.95	5.41
413	SLU 43	32	0	2244	-389.7	-3.62	11.23
413	SLU 44	32	-10	2262	-392.16	-3.67	11.41
413	SLU 45	32	0	2244	-389.7	-3.62	11.23
413	SLU 46	32	-6	2255	-391.17	-3.65	11.34
413	SLU 47	32	-10	2262	-392.16	-3.67	11.41
413	SLU 48	32	0	2244	-389.7	-3.62	11.23
413	SLU 49	32	-6	2255	-391.17	-3.65	11.34
413	SLU 50	32	0	2244	-389.7	-3.62	11.23
413	SLU 51	32	-6	2255	-391.17	-3.65	11.34
413	SLU 52	28	-14	2571	-433.26	-4.13	9.82
413	SLU 53	27	-4	2553	-430.8	-4.09	9.64
413	SLU 54	28	-10	2564	-432.28	-4.11	9.75
413	SLU 55	28	-14	2571	-433.26	-4.13	9.82
413	SLU 56	27	-4	2553	-430.8	-4.09	9.64
413	SLU 57	28	-10	2564	-432.28	-4.11	9.75
413	SLU 58	27	-4	2553	-430.8	-4.09	9.64
413	SLU 59	28	-10	2564	-432.28	-4.11	9.75
413	SLU 60	25	-6	2685	-448.42	-4.28	8.96
413	SLU 61	26	-12	2696	-449.9	-4.31	9.07
413	SLU 62	25	-6	2685	-448.42	-4.28	8.96
413	SLU 63	26	-12	2696	-449.9	-4.31	9.07
413	SLU 64	29	-3	2477	-420.98	-4	10.39
413	SLU 65	30	-13	2495	-423.44	-4.05	10.57
413	SLU 66	29	-3	2477	-420.98	-4	10.39
413	SLU 67	30	-9	2488	-422.45	-4.03	10.5
413	SLU 68	30	-13	2495	-423.44	-4.05	10.57
413	SLU 69	29	-3	2477	-420.98	-4	10.39
413	SLU 70	30	-9	2488	-422.45	-4.03	10.5
413	SLU 71	29	-3	2477	-420.98	-4	10.39
413	SLU 72	30	-9	2488	-422.45	-4.03	10.5
413	SLU 73	25	-17	2804	-464.54	-4.51	8.98
413	SLU 74	25	-7	2786	-462.09	-4.46	8.8
413	SLU 75	25	-13	2797	-463.56	-4.49	8.91
413	SLU 76	25	-17	2804	-464.54	-4.51	8.98
413	SLU 77	25	-7	2786	-462.09	-4.46	8.8
413	SLU 78	25	-13	2797	-463.56	-4.49	8.91
413	SLU 79	25	-7	2786	-462.09	-4.46	8.8
413	SLU 80	25	-13	2797	-463.56	-4.49	8.91
413	SLU 81	23	-8	2918	-479.7	-4.66	8.12
413	SLU 82	23	-14	2929	-481.18	-4.69	8.23
413	SLU 83	23	-8	2918	-479.7	-4.66	8.12
413	SLU 84	23	-14	2929	-481.18	-4.69	8.23
413	SLE RA 1	23	-2	1854	-316.95	-2.99	8.17
413	SLE RA 2	24	-8	1866	-318.59	-3.03	8.3
413	SLE RA 3	23	-2	1854	-316.95	-2.99	8.17
413	SLE RA 4	23	-6	1861	-317.94	-3.01	8.25
413	SLE RA 5	24	-8	1866	-318.59	-3.03	8.3
413	SLE RA 6	23	-2	1854	-316.95	-2.99	8.17
413	SLE RA 7	23	-6	1861	-317.94	-3.01	8.25
413	SLE RA 8	23	-2	1854	-316.95	-2.99	8.17
413	SLE RA 9	23	-6	1861	-317.94	-3.01	8.25
413	SLE RA 10	20	-11	2072	-346	-3.34	7.24
413	SLE RA 11	20	-4	2060	-344.36	-3.3	7.12
413	SLE RA 12	20	-8	2067	-345.34	-3.32	7.19
413	SLE RA 13	20	-11	2072	-346	-3.34	7.24
413	SLE RA 14	20	-4	2060	-344.36	-3.3	7.12
413	SLE RA 15	20	-8	2067	-345.34	-3.32	7.19
413	SLE RA 16	20	-4	2060	-344.36	-3.3	7.12
413	SLE RA 17	20	-8	2067	-345.34	-3.32	7.19
413	SLE RA 18	19	-5	2148	-356.1	-3.43	6.66
413	SLE RA 19	19	-9	2156	-357.09	-3.45	6.74
413	SLE RA 20	19	-5	2148	-356.1	-3.43	6.66
413	SLE RA 21	19	-9	2156	-357.09	-3.45	6.74
413	SLE FR 1	23	-2	1854	-316.95	-2.99	8.17
413	SLE FR 2	23	-3	1857	-317.28	-3	8.2
413	SLE FR 3	23	-2	1854	-316.95	-2.99	8.17
413	SLE FR 4	22	-4	1945	-329.03	-3.13	7.75
413	SLE FR 5	22	-3	1942	-328.7	-3.13	7.72
413	SLE FR 6	21	-3	2001	-336.53	-3.21	7.42
413	SLE QP 1	23	-2	1854	-316.95	-2.99	8.17
413	SLE QP 2	22	-3	1942	-328.7	-3.13	7.72
413	SLD 1	212	42	1691	-291.71	-2.24	74.38
413	SLD 2	177	71	1679	-289.61	-2.16	62.17
413	SLD 3	223	-59	1867	-309.96	-2.76	77.87
413	SLD 4	187	-31	1854	-307.86	-2.69	65.66
413	SLD 5	76	154	1605	-290.7	-2.09	26.93
413	SLD 6	40	183	1592	-288.52	-2.01	14.25
413	SLD 7	111	-184	2191	-351.53	-3.84	38.57
413	SLD 8	74	-154	2178	-349.35	-3.76	25.88
413	SLD 9	-31	149	1707	-308.05	-2.49	-10.44
413	SLD 10	-67	178	1694	-305.87	-2.41	-23.13
413	SLD 11	4	-189	2293	-368.88	-4.24	1.19
413	SLD 12	-33	-159	2280	-366.7	-4.16	-11.49
413	SLD 13	-144	25	2031	-349.54	-3.57	-50.22
413	SLD 14	-179	54	2018	-347.44	-3.49	-62.43
413	SLD 15	-133	-76	2206	-367.79	-4.09	-46.73
413	SLD 16	-169	-48	2194	-365.69	-4.01	-58.94
413	SLV 1	455	103	1365	-243.88	-1.09	159.46



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
413	SLV 2	374	168	1337	-239.06	-0.92	131.47
413	SLV 3	480	-134	1776	-286.55	-2.32	167.67
413	SLV 4	399	-69	1747	-281.73	-2.14	139.68
413	SLV 5	145	364	1158	-240.35	-0.73	51.33
413	SLV 6	60	432	1128	-235.28	-0.54	21.85
413	SLV 7	227	-426	2526	-382.58	-4.81	78.7
413	SLV 8	142	-357	2495	-377.51	-4.62	49.22
413	SLV 9	-98	352	1389	-279.89	-1.63	-33.78
413	SLV 10	-183	420	1359	-274.82	-1.45	-63.26
413	SLV 11	-16	-437	2757	-422.12	-5.71	-6.41
413	SLV 12	-101	-369	2727	-417.04	-5.53	-35.89
413	SLV 13	-355	64	2138	-375.67	-4.11	-124.24
413	SLV 14	-436	129	2109	-370.85	-3.94	-152.23
413	SLV 15	-331	-173	2548	-418.34	-5.34	-116.02
413	SLV 16	-412	-108	2520	-413.52	-5.16	-144.02
413	CRTFP Ux+	0	0	0	0	0	0
413	CRTFP Ux-	0	0	0	0	0	0
413	CRTFP Uy+	0	0	0	0	0	0
413	CRTFP Uy-	0	0	0	0	0	0
414	SLU 1	24	2	1895	-388.29	-3.68	8.32
414	SLU 2	24	-9	1915	-391.73	-3.74	8.51
414	SLU 3	24	2	1895	-388.29	-3.68	8.32
414	SLU 4	24	-5	1907	-390.36	-3.71	8.44
414	SLU 5	24	-9	1915	-391.73	-3.74	8.51
414	SLU 6	24	2	1895	-388.29	-3.68	8.32
414	SLU 7	24	-5	1907	-390.36	-3.71	8.44
414	SLU 8	24	2	1895	-388.29	-3.68	8.32
414	SLU 9	24	-5	1907	-390.36	-3.71	8.44
414	SLU 10	19	-12	2242	-448.73	-4.35	6.88
414	SLU 11	19	-1	2222	-445.29	-4.29	6.69
414	SLU 12	19	-8	2234	-447.36	-4.33	6.8
414	SLU 13	19	-12	2242	-448.73	-4.35	6.88
414	SLU 14	19	-1	2222	-445.29	-4.29	6.69
414	SLU 15	19	-8	2234	-447.36	-4.33	6.8
414	SLU 16	19	-1	2222	-445.29	-4.29	6.69
414	SLU 17	19	-8	2234	-447.36	-4.33	6.8
414	SLU 18	17	-2	2362	-469.72	-4.56	5.99
414	SLU 19	17	-9	2374	-471.79	-4.6	6.1
414	SLU 20	17	-2	2362	-469.72	-4.56	5.99
414	SLU 21	17	-9	2374	-471.79	-4.6	6.1
414	SLU 22	21	0	2143	-431.71	-4.17	7.45
414	SLU 23	22	-11	2162	-435.15	-4.23	7.64
414	SLU 24	21	0	2143	-431.71	-4.17	7.45
414	SLU 25	21	-7	2155	-433.78	-4.21	7.57
414	SLU 26	22	-11	2162	-435.15	-4.23	7.64
414	SLU 27	21	0	2143	-431.71	-4.17	7.45
414	SLU 28	21	-7	2155	-433.78	-4.21	7.57
414	SLU 29	21	0	2143	-431.71	-4.17	7.45
414	SLU 30	21	-7	2155	-433.78	-4.21	7.57
414	SLU 31	17	-14	2489	-492.16	-4.85	6.01
414	SLU 32	16	-3	2469	-488.72	-4.79	5.82
414	SLU 33	17	-9	2481	-490.78	-4.83	5.93
414	SLU 34	17	-14	2489	-492.16	-4.85	6.01
414	SLU 35	16	-3	2469	-488.72	-4.79	5.82
414	SLU 36	17	-9	2481	-490.78	-4.83	5.93
414	SLU 37	16	-3	2469	-488.72	-4.79	5.82
414	SLU 38	17	-9	2481	-490.78	-4.83	5.93
414	SLU 39	14	-4	2609	-513.15	-5.06	5.12
414	SLU 40	15	-11	2621	-515.21	-5.09	5.23
414	SLU 41	14	-4	2609	-513.15	-5.06	5.12
414	SLU 42	15	-11	2621	-515.21	-5.09	5.23
414	SLU 43	32	3	2379	-489.89	-4.61	11.12
414	SLU 44	32	-8	2399	-493.33	-4.67	11.31
414	SLU 45	32	3	2379	-489.89	-4.61	11.12
414	SLU 46	32	-4	2391	-491.95	-4.65	11.23
414	SLU 47	32	-8	2399	-493.33	-4.67	11.31
414	SLU 48	32	3	2379	-489.89	-4.61	11.12
414	SLU 49	32	-4	2391	-491.95	-4.65	11.23
414	SLU 50	32	3	2379	-489.89	-4.61	11.12
414	SLU 51	32	-4	2391	-491.95	-4.65	11.23
414	SLU 52	27	-11	2726	-550.33	-5.29	9.67
414	SLU 53	27	0	2706	-546.89	-5.23	9.48
414	SLU 54	27	-7	2718	-548.96	-5.26	9.6
414	SLU 55	27	-11	2726	-550.33	-5.29	9.67
414	SLU 56	27	0	2706	-546.89	-5.23	9.48
414	SLU 57	27	-7	2718	-548.96	-5.26	9.6
414	SLU 58	27	0	2706	-546.89	-5.23	9.48
414	SLU 59	27	-7	2718	-548.96	-5.26	9.6
414	SLU 60	25	-1	2846	-571.32	-5.49	8.79
414	SLU 61	25	-8	2858	-573.39	-5.53	8.9
414	SLU 62	25	-1	2846	-571.32	-5.49	8.79
414	SLU 63	25	-8	2858	-573.39	-5.53	8.9
414	SLU 64	29	1	2627	-533.31	-5.11	10.25
414	SLU 65	30	-10	2646	-536.75	-5.17	10.44
414	SLU 66	29	1	2627	-533.31	-5.11	10.25
414	SLU 67	29	-6	2638	-535.38	-5.14	10.36
414	SLU 68	30	-10	2646	-536.75	-5.17	10.44
414	SLU 69	29	1	2627	-533.31	-5.11	10.25
414	SLU 70	29	-6	2638	-535.38	-5.14	10.36
414	SLU 71	29	1	2627	-533.31	-5.11	10.25
414	SLU 72	29	-6	2638	-535.38	-5.14	10.36



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
414	SLU 73	25	-13	2973	-593.76	-5.78	8.8
414	SLU 74	24	-2	2953	-590.32	-5.72	8.61
414	SLU 75	25	-8	2965	-592.38	-5.76	8.73
414	SLU 76	25	-13	2973	-593.76	-5.78	8.8
414	SLU 77	24	-2	2953	-590.32	-5.72	8.61
414	SLU 78	25	-8	2965	-592.38	-5.76	8.73
414	SLU 79	24	-2	2953	-590.32	-5.72	8.61
414	SLU 80	25	-8	2965	-592.38	-5.76	8.73
414	SLU 81	22	-3	3093	-614.75	-5.99	7.91
414	SLU 82	23	-10	3105	-616.81	-6.02	8.03
414	SLU 83	22	-3	3093	-614.75	-5.99	7.91
414	SLU 84	23	-10	3105	-616.81	-6.02	8.03
414	SLE RA 1	23	1	1966	-400.7	-3.82	8.07
414	SLE RA 2	23	-6	1979	-402.99	-3.86	8.2
414	SLE RA 3	23	1	1966	-400.7	-3.82	8.07
414	SLE RA 4	23	-3	1974	-402.07	-3.84	8.15
414	SLE RA 5	23	-6	1979	-402.99	-3.86	8.2
414	SLE RA 6	23	1	1966	-400.7	-3.82	8.07
414	SLE RA 7	23	-3	1974	-402.07	-3.84	8.15
414	SLE RA 8	23	1	1966	-400.7	-3.82	8.07
414	SLE RA 9	23	-3	1974	-402.07	-3.84	8.15
414	SLE RA 10	20	-8	2197	-440.99	-4.27	7.11
414	SLE RA 11	20	-1	2184	-438.7	-4.23	6.98
414	SLE RA 12	20	-5	2192	-440.08	-4.25	7.06
414	SLE RA 13	20	-8	2197	-440.99	-4.27	7.11
414	SLE RA 14	20	-1	2184	-438.7	-4.23	6.98
414	SLE RA 15	20	-5	2192	-440.08	-4.25	7.06
414	SLE RA 16	20	-1	2184	-438.7	-4.23	6.98
414	SLE RA 17	20	-5	2192	-440.08	-4.25	7.06
414	SLE RA 18	18	-2	2277	-454.99	-4.41	6.52
414	SLE RA 19	19	-6	2285	-456.36	-4.43	6.59
414	SLE RA 20	18	-2	2277	-454.99	-4.41	6.52
414	SLE RA 21	19	-6	2285	-456.36	-4.43	6.59
414	SLE FR 1	23	1	1966	-400.7	-3.82	8.07
414	SLE FR 2	23	0	1969	-401.16	-3.83	8.1
414	SLE FR 3	23	1	1966	-400.7	-3.82	8.07
414	SLE FR 4	22	-1	2062	-417.44	-4	7.63
414	SLE FR 5	21	0	2059	-416.98	-4	7.61
414	SLE FR 6	21	0	2122	-427.84	-4.11	7.3
414	SLE QP 1	23	1	1966	-400.7	-3.82	8.07
414	SLE QP 2	21	0	2059	-416.98	-4	7.61
414	SLD 1	212	47	1777	-364.22	-2.95	74.17
414	SLD 2	176	79	1761	-361.24	-2.87	61.97
414	SLD 3	222	-61	1971	-392.51	-3.59	77.68
414	SLD 4	187	-29	1956	-389.54	-3.5	65.48
414	SLD 5	76	167	1685	-359.35	-2.75	26.76
414	SLD 6	39	200	1669	-356.25	-2.66	14.09
414	SLD 7	111	-194	2334	-453.65	-4.87	38.46
414	SLD 8	74	-161	2318	-450.56	-4.78	25.79
414	SLD 9	-31	161	1801	-383.41	-3.21	-10.57
414	SLD 10	-68	195	1785	-380.32	-3.12	-23.24
414	SLD 11	4	-200	2449	-477.72	-5.33	1.13
414	SLD 12	-33	-166	2434	-474.62	-5.24	-11.54
414	SLD 13	-144	30	2163	-444.43	-4.49	-50.27
414	SLD 14	-179	62	2148	-441.46	-4.4	-62.46
414	SLD 15	-133	-79	2357	-472.72	-5.12	-46.76
414	SLD 16	-169	-46	2342	-469.75	-5.04	-58.95
414	SLV 1	454	110	1410	-296	-1.61	159.13
414	SLV 2	374	184	1375	-289.18	-1.41	131.16
414	SLV 3	479	-143	1864	-362.06	-3.1	167.39
414	SLV 4	398	-70	1830	-355.24	-2.9	139.42
414	SLV 5	144	389	1189	-283.07	-1.09	51.07
414	SLV 6	59	467	1152	-275.88	-0.88	21.62
414	SLV 7	227	-454	2703	-503.27	-6.06	78.6
414	SLV 8	142	-377	2666	-496.08	-5.85	49.15
414	SLV 9	-99	377	1453	-337.89	-2.14	-33.93
414	SLV 10	-184	455	1416	-330.7	-1.93	-63.38
414	SLV 11	-16	-466	2967	-558.09	-7.11	-6.4
414	SLV 12	-101	-389	2930	-550.9	-6.9	-35.85
414	SLV 13	-355	70	2289	-478.73	-5.09	-124.21
414	SLV 14	-436	144	2254	-471.91	-4.89	-152.17
414	SLV 15	-331	-183	2743	-544.79	-6.58	-115.95
414	SLV 16	-411	-109	2709	-537.97	-6.38	-143.91
414	CRTFP Ux+	0	0	0	0	0	0
414	CRTFP Ux-	0	0	0	0	0	0
414	CRTFP Uy+	0	0	0	0	0	0
414	CRTFP Uy-	0	0	0	0	0	0
415	SLU 1	23	4	2029	-489.02	-4.45	8.22
415	SLU 2	24	-8	2051	-493.68	-4.52	8.41
415	SLU 3	23	4	2029	-489.02	-4.45	8.22
415	SLU 4	24	-3	2042	-491.82	-4.5	8.33
415	SLU 5	24	-8	2051	-493.68	-4.52	8.41
415	SLU 6	23	4	2029	-489.02	-4.45	8.22
415	SLU 7	24	-3	2042	-491.82	-4.5	8.33
415	SLU 8	23	4	2029	-489.02	-4.45	8.22
415	SLU 9	24	-3	2042	-491.82	-4.5	8.33
415	SLU 10	19	-10	2400	-570.46	-5.3	6.75
415	SLU 11	18	2	2379	-565.8	-5.23	6.55
415	SLU 12	19	-5	2392	-568.6	-5.27	6.67
415	SLU 13	19	-10	2400	-570.46	-5.3	6.75
415	SLU 14	18	2	2379	-565.8	-5.23	6.55



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
415	SLU 15	19	-5	2392	-568.6	-5.27	6.67
415	SLU 16	18	2	2379	-565.8	-5.23	6.55
415	SLU 17	19	-5	2392	-568.6	-5.27	6.67
415	SLU 18	16	1	2528	-598.7	-5.56	5.84
415	SLU 19	17	-6	2541	-601.5	-5.6	5.95
415	SLU 20	16	1	2528	-598.7	-5.56	5.84
415	SLU 21	17	-6	2541	-601.5	-5.6	5.95
415	SLU 22	21	3	2295	-547.58	-5.07	7.32
415	SLU 23	21	-9	2317	-552.24	-5.14	7.52
415	SLU 24	21	3	2295	-547.58	-5.07	7.32
415	SLU 25	21	-4	2308	-550.38	-5.11	7.44
415	SLU 26	21	-9	2317	-552.24	-5.14	7.52
415	SLU 27	21	3	2295	-547.58	-5.07	7.32
415	SLU 28	21	-4	2308	-550.38	-5.11	7.44
415	SLU 29	21	3	2295	-547.58	-5.07	7.32
415	SLU 30	21	-4	2308	-550.38	-5.11	7.44
415	SLU 31	16	-11	2666	-629.02	-5.91	5.85
415	SLU 32	16	1	2644	-624.36	-5.84	5.66
415	SLU 33	16	-6	2657	-627.16	-5.88	5.77
415	SLU 34	16	-11	2666	-629.02	-5.91	5.85
415	SLU 35	16	1	2644	-624.36	-5.84	5.66
415	SLU 36	16	-6	2657	-627.16	-5.88	5.77
415	SLU 37	16	1	2644	-624.36	-5.84	5.66
415	SLU 38	16	-6	2657	-627.16	-5.88	5.77
415	SLU 39	14	0	2794	-657.26	-6.17	4.94
415	SLU 40	14	-7	2807	-660.06	-6.21	5.06
415	SLU 41	14	0	2794	-657.26	-6.17	4.94
415	SLU 42	14	-7	2807	-660.06	-6.21	5.06
415	SLU 43	31	5	2547	-615.65	-5.58	10.99
415	SLU 44	32	-7	2569	-620.31	-5.65	11.18
415	SLU 45	31	5	2547	-615.65	-5.58	10.99
415	SLU 46	32	-2	2560	-618.45	-5.62	11.1
415	SLU 47	32	-7	2569	-620.31	-5.65	11.18
415	SLU 48	31	5	2547	-615.65	-5.58	10.99
415	SLU 49	32	-2	2560	-618.45	-5.62	11.1
415	SLU 50	31	5	2547	-615.65	-5.58	10.99
415	SLU 51	32	-2	2560	-618.45	-5.62	11.1
415	SLU 52	27	-8	2918	-697.09	-6.42	9.52
415	SLU 53	26	4	2896	-692.43	-6.35	9.32
415	SLU 54	27	-4	2909	-695.22	-6.39	9.44
415	SLU 55	27	-8	2918	-697.09	-6.42	9.52
415	SLU 56	26	4	2896	-692.43	-6.35	9.32
415	SLU 57	27	-4	2909	-695.22	-6.39	9.44
415	SLU 58	26	4	2896	-692.43	-6.35	9.32
415	SLU 59	27	-4	2909	-695.22	-6.39	9.44
415	SLU 60	24	3	3046	-725.33	-6.68	8.61
415	SLU 61	25	-4	3059	-728.13	-6.73	8.73
415	SLU 62	24	3	3046	-725.33	-6.68	8.61
415	SLU 63	25	-4	3059	-728.13	-6.73	8.73
415	SLU 64	29	4	2812	-674.21	-6.19	10.09
415	SLU 65	29	-8	2834	-678.87	-6.26	10.29
415	SLU 66	29	4	2812	-674.21	-6.19	10.09
415	SLU 67	29	-3	2825	-677.01	-6.24	10.21
415	SLU 68	29	-8	2834	-678.87	-6.26	10.29
415	SLU 69	29	4	2812	-674.21	-6.19	10.09
415	SLU 70	29	-3	2825	-677.01	-6.24	10.21
415	SLU 71	29	4	2812	-674.21	-6.19	10.09
415	SLU 72	29	-3	2825	-677.01	-6.24	10.21
415	SLU 73	24	-9	3184	-755.65	-7.04	8.62
415	SLU 74	24	3	3162	-750.99	-6.97	8.43
415	SLU 75	24	-5	3175	-753.78	-7.01	8.55
415	SLU 76	24	-9	3184	-755.65	-7.04	8.62
415	SLU 77	24	3	3162	-750.99	-6.97	8.43
415	SLU 78	24	-5	3175	-753.78	-7.01	8.55
415	SLU 79	24	3	3162	-750.99	-6.97	8.43
415	SLU 80	24	-5	3175	-753.78	-7.01	8.55
415	SLU 81	22	2	3312	-783.89	-7.3	7.71
415	SLU 82	22	-5	3325	-786.69	-7.34	7.83
415	SLU 83	22	2	3312	-783.89	-7.3	7.71
415	SLU 84	22	-5	3325	-786.69	-7.34	7.83
415	SLE RA 1	23	3	2105	-505.75	-4.63	7.96
415	SLE RA 2	23	-4	2120	-508.86	-4.68	8.09
415	SLE RA 3	23	3	2105	-505.75	-4.63	7.96
415	SLE RA 4	23	-1	2114	-507.62	-4.66	8.04
415	SLE RA 5	23	-4	2120	-508.86	-4.68	8.09
415	SLE RA 6	23	3	2105	-505.75	-4.63	7.96
415	SLE RA 7	23	-1	2114	-507.62	-4.66	8.04
415	SLE RA 8	23	3	2105	-505.75	-4.63	7.96
415	SLE RA 9	23	-1	2114	-507.62	-4.66	8.04
415	SLE RA 10	20	-6	2353	-560.05	-5.19	6.98
415	SLE RA 11	19	2	2338	-556.94	-5.15	6.85
415	SLE RA 12	20	-2	2347	-558.8	-5.17	6.93
415	SLE RA 13	20	-6	2353	-560.05	-5.19	6.98
415	SLE RA 14	19	2	2338	-556.94	-5.15	6.85
415	SLE RA 15	20	-2	2347	-558.8	-5.17	6.93
415	SLE RA 16	19	2	2338	-556.94	-5.15	6.85
415	SLE RA 17	20	-2	2347	-558.8	-5.17	6.93
415	SLE RA 18	18	2	2438	-578.87	-5.37	6.37
415	SLE RA 19	18	-3	2447	-580.74	-5.39	6.45
415	SLE RA 20	18	2	2438	-578.87	-5.37	6.37
415	SLE RA 21	18	-3	2447	-580.74	-5.39	6.45



Nodo	Cont.	Reazione a traslazione			Reazione a rotazione		
Ind.	N.br.	x	y	z	x	y	z
415	SLE FR 1	23	3	2105	-505.75	-4.63	7.96
415	SLE FR 2	23	2	2108	-506.37	-4.64	7.99
415	SLE FR 3	23	3	2105	-505.75	-4.63	7.96
415	SLE FR 4	21	1	2208	-528.31	-4.86	7.51
415	SLE FR 5	21	3	2205	-527.69	-4.85	7.48
415	SLE FR 6	20	3	2271	-542.31	-5	7.17
415	SLE QP 1	23	3	2105	-505.75	-4.63	7.96
415	SLE QP 2	21	3	2205	-527.69	-4.85	7.48
415	SLD 1	211	51	1885	-455.19	-3.66	73.94
415	SLD 2	176	88	1867	-451.07	-3.56	61.75
415	SLD 3	222	-64	2102	-497.07	-4.4	77.47
415	SLD 4	186	-28	2084	-492.95	-4.3	65.29
415	SLD 5	75	179	1787	-443.95	-3.4	26.56
415	SLD 6	38	217	1768	-439.67	-3.3	13.9
415	SLD 7	110	-206	2510	-583.54	-5.88	38.34
415	SLD 8	74	-168	2491	-579.26	-5.78	25.68
415	SLD 9	-32	174	1919	-476.12	-3.92	-10.72
415	SLD 10	-68	212	1900	-471.84	-3.82	-23.37
415	SLD 11	4	-211	2642	-615.71	-6.4	1.06
415	SLD 12	-33	-173	2623	-611.43	-6.3	-11.59
415	SLD 13	-144	34	2325	-562.42	-5.4	-50.32
415	SLD 14	-179	70	2307	-558.31	-5.3	-62.5
415	SLD 15	-134	-82	2542	-604.3	-6.14	-46.79
415	SLD 16	-169	-45	2524	-600.18	-6.04	-58.97
415	SLV 1	453	116	1472	-361.41	-2.11	158.75
415	SLV 2	373	199	1430	-351.96	-1.89	130.82
415	SLV 3	478	-154	1978	-459.17	-3.85	167.07
415	SLV 4	398	-71	1937	-449.73	-3.62	139.13
415	SLV 5	143	415	1232	-333.08	-1.48	50.77
415	SLV 6	58	503	1188	-323.14	-1.25	21.35
415	SLV 7	227	-485	2921	-658.97	-7.26	78.49
415	SLV 8	142	-398	2877	-649.02	-7.03	49.07
415	SLV 9	-99	404	1533	-406.36	-2.67	-34.1
415	SLV 10	-184	491	1489	-396.41	-2.44	-63.52
415	SLV 11	-16	-497	3221	-732.24	-8.45	-6.39
415	SLV 12	-101	-409	3177	-722.29	-8.22	-35.81
415	SLV 13	-355	77	2473	-605.65	-6.08	-124.17
415	SLV 14	-436	160	2431	-596.21	-5.86	-152.1
415	SLV 15	-330	-193	2980	-703.42	-7.81	-115.85
415	SLV 16	-411	-110	2938	-693.97	-7.59	-143.79
415	CRTFP Ux+	0	0	0	0	0	0
415	CRTFP Ux-	0	0	0	0	0	0
415	CRTFP Uy+	0	0	0	0	0	0
415	CRTFP Uy-	0	0	0	0	0	0
416	SLU 1	20	5	1847	-512.18	48.44	6.75
416	SLU 2	20	-6	1868	-517.3	48.97	7.23
416	SLU 3	20	5	1847	-512.18	48.44	6.75
416	SLU 4	20	-2	1859	-515.25	48.76	7.04
416	SLU 5	20	-6	1868	-517.3	48.97	7.23
416	SLU 6	20	5	1847	-512.18	48.44	6.75
416	SLU 7	20	-2	1859	-515.25	48.76	7.04
416	SLU 8	20	5	1847	-512.18	48.44	6.75
416	SLU 9	20	-2	1859	-515.25	48.76	7.04
416	SLU 10	16	-7	2186	-601.44	57.3	5.8
416	SLU 11	15	4	2166	-596.32	56.78	5.33
416	SLU 12	16	-2	2178	-599.39	57.09	5.61
416	SLU 13	16	-7	2186	-601.44	57.3	5.8
416	SLU 14	15	4	2166	-596.32	56.78	5.33
416	SLU 15	16	-2	2178	-599.39	57.09	5.61
416	SLU 16	15	4	2166	-596.32	56.78	5.33
416	SLU 17	16	-2	2178	-599.39	57.09	5.61
416	SLU 18	14	4	2302	-632.38	60.35	4.71
416	SLU 19	14	-3	2314	-635.45	60.67	5
416	SLU 20	14	4	2302	-632.38	60.35	4.71
416	SLU 21	14	-3	2314	-635.45	60.67	5
416	SLU 22	17	4	2090	-576.43	54.78	5.98
416	SLU 23	18	-6	2110	-581.54	55.3	6.46
416	SLU 24	17	4	2090	-576.43	54.78	5.98
416	SLU 25	18	-2	2102	-579.5	55.09	6.27
416	SLU 26	18	-6	2110	-581.54	55.3	6.46
416	SLU 27	17	4	2090	-576.43	54.78	5.98
416	SLU 28	18	-2	2102	-579.5	55.09	6.27
416	SLU 29	17	4	2090	-576.43	54.78	5.98
416	SLU 30	18	-2	2102	-579.5	55.09	6.27
416	SLU 31	14	-7	2429	-665.68	63.64	5.03
416	SLU 32	13	4	2408	-660.57	63.12	4.55
416	SLU 33	13	-3	2421	-663.64	63.43	4.84
416	SLU 34	14	-7	2429	-665.68	63.64	5.03
416	SLU 35	13	4	2408	-660.57	63.12	4.55
416	SLU 36	13	-3	2421	-663.64	63.43	4.84
416	SLU 37	13	4	2408	-660.57	63.12	4.55
416	SLU 38	13	-3	2421	-663.64	63.43	4.84
416	SLU 39	11	4	2545	-696.63	66.69	3.94
416	SLU 40	12	-3	2557	-699.7	67.01	4.23
416	SLU 41	11	4	2545	-696.63	66.69	3.94
416	SLU 42	12	-3	2557	-699.7	67.01	4.23
416	SLU 43	26	6	2318	-643.81	60.8	9.05
416	SLU 44	27	-5	2339	-648.93	61.32	9.52
416	SLU 45	26	6	2318	-643.81	60.8	9.05
416	SLU 46	27	0	2330	-646.88	61.11	9.33
416	SLU 47	27	-5	2339	-648.93	61.32	9.52



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
416	SLU 48	26	6	2318	-643.81	60.8	9.05
416	SLU 49	27	0	2330	-646.88	61.11	9.33
416	SLU 50	26	6	2318	-643.81	60.8	9.05
416	SLU 51	27	0	2330	-646.88	61.11	9.33
416	SLU 52	23	-5	2657	-733.07	69.66	8.1
416	SLU 53	22	6	2637	-727.95	69.14	7.62
416	SLU 54	22	-1	2649	-731.02	69.45	7.9
416	SLU 55	23	-5	2657	-733.07	69.66	8.1
416	SLU 56	22	6	2637	-727.95	69.14	7.62
416	SLU 57	22	-1	2649	-731.02	69.45	7.9
416	SLU 58	22	6	2637	-727.95	69.14	7.62
416	SLU 59	22	-1	2649	-731.02	69.45	7.9
416	SLU 60	20	5	2773	-764.01	72.71	7
416	SLU 61	21	-1	2785	-767.08	73.03	7.29
416	SLU 62	20	5	2773	-764.01	72.71	7
416	SLU 63	21	-1	2785	-767.08	73.03	7.29
416	SLU 64	24	6	2561	-708.06	67.14	8.27
416	SLU 65	25	-5	2581	-713.17	67.66	8.75
416	SLU 66	24	6	2561	-708.06	67.14	8.27
416	SLU 67	24	-1	2573	-711.13	67.45	8.56
416	SLU 68	25	-5	2581	-713.17	67.66	8.75
416	SLU 69	24	6	2561	-708.06	67.14	8.27
416	SLU 70	24	-1	2573	-711.13	67.45	8.56
416	SLU 71	24	6	2561	-708.06	67.14	8.27
416	SLU 72	24	-1	2573	-711.13	67.45	8.56
416	SLU 73	20	-5	2900	-797.31	76	7.32
416	SLU 74	20	5	2879	-792.2	75.48	6.84
416	SLU 75	20	-1	2892	-795.27	75.79	7.13
416	SLU 76	20	-5	2900	-797.31	76	7.32
416	SLU 77	20	5	2879	-792.2	75.48	6.84
416	SLU 78	20	-1	2892	-795.27	75.79	7.13
416	SLU 79	20	5	2879	-792.2	75.48	6.84
416	SLU 80	20	-1	2892	-795.27	75.79	7.13
416	SLU 81	18	5	3016	-828.26	79.05	6.23
416	SLU 82	18	-1	3028	-831.33	79.37	6.52
416	SLU 83	18	5	3016	-828.26	79.05	6.23
416	SLU 84	18	-1	3028	-831.33	79.37	6.52
416	SLE RA 1	19	4	1916	-530.54	50.25	6.53
416	SLE RA 2	19	-3	1930	-533.95	50.6	6.85
416	SLE RA 3	19	4	1916	-530.54	50.25	6.53
416	SLE RA 4	19	0	1925	-532.59	50.46	6.73
416	SLE RA 5	19	-3	1930	-533.95	50.6	6.85
416	SLE RA 6	19	4	1916	-530.54	50.25	6.53
416	SLE RA 7	19	0	1925	-532.59	50.46	6.73
416	SLE RA 8	19	4	1916	-530.54	50.25	6.53
416	SLE RA 9	19	0	1925	-532.59	50.46	6.73
416	SLE RA 10	17	-3	2142	-590.04	56.16	5.9
416	SLE RA 11	16	4	2129	-586.63	55.81	5.58
416	SLE RA 12	16	0	2137	-588.68	56.02	5.77
416	SLE RA 13	17	-3	2142	-590.04	56.16	5.9
416	SLE RA 14	16	4	2129	-586.63	55.81	5.58
416	SLE RA 15	16	0	2137	-588.68	56.02	5.77
416	SLE RA 16	16	4	2129	-586.63	55.81	5.58
416	SLE RA 17	16	0	2137	-588.68	56.02	5.77
416	SLE RA 18	15	4	2220	-610.67	58.19	5.17
416	SLE RA 19	15	0	2228	-612.72	58.4	5.36
416	SLE RA 20	15	4	2220	-610.67	58.19	5.17
416	SLE RA 21	15	0	2228	-612.72	58.4	5.36
416	SLE FR 1	19	4	1916	-530.54	50.25	6.53
416	SLE FR 2	19	3	1919	-531.22	50.32	6.6
416	SLE FR 3	19	4	1916	-530.54	50.25	6.53
416	SLE FR 4	18	3	2010	-555.26	52.7	6.19
416	SLE FR 5	18	4	2007	-554.58	52.63	6.13
416	SLE FR 6	17	4	2068	-570.61	54.22	5.85
416	SLE QP 1	19	4	1916	-530.54	50.25	6.53
416	SLE QP 2	18	4	2007	-554.58	52.63	6.13
416	SLD 1	179	46	1704	-474.38	44.96	61.65
416	SLD 2	149	81	1686	-469.77	44.52	50.32
416	SLD 3	188	-58	1908	-523.08	50.17	67.31
416	SLD 4	158	-23	1890	-518.48	49.73	55.98
416	SLD 5	63	162	1613	-458.35	42.6	18.38
416	SLD 6	32	198	1594	-453.57	42.14	6.61
416	SLD 7	94	-184	2294	-620.7	59.95	37.26
416	SLD 8	63	-149	2276	-615.92	59.5	25.49
416	SLD 9	-27	158	1739	-493.24	45.77	-13.24
416	SLD 10	-58	193	1721	-488.46	45.32	-25
416	SLD 11	3	-189	2421	-655.59	63.12	5.64
416	SLD 12	-28	-153	2402	-650.81	62.67	-6.13
416	SLD 13	-123	32	2125	-590.68	55.54	-43.73
416	SLD 14	-152	66	2107	-586.08	55.1	-55.06
416	SLD 15	-114	-72	2329	-639.38	60.74	-38.07
416	SLD 16	-143	-38	2311	-634.78	60.3	-49.4
416	SLV 1	384	103	1311	-370.56	35.03	132.45
416	SLV 2	316	182	1269	-360.01	34.02	106.48
416	SLV 3	406	-140	1788	-484.27	47.18	145.71
416	SLV 4	337	-61	1746	-473.72	46.17	119.74
416	SLV 5	121	373	1090	-330.89	29.3	33.69
416	SLV 6	49	455	1047	-319.78	28.24	6.33
416	SLV 7	192	-437	2681	-709.92	69.81	77.9
416	SLV 8	120	-354	2637	-698.8	68.75	50.55
416	SLV 9	-85	363	1378	-410.35	36.52	-38.29



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
416	SLV 10	-157	446	1334	-399.24	35.46	-65.65
416	SLV 11	-14	-447	2968	-789.38	77.03	5.92
416	SLV 12	-86	-364	2925	-778.27	75.97	-21.44
416	SLV 13	-302	70	2269	-635.44	59.1	-107.49
416	SLV 14	-370	148	2227	-624.89	58.09	-133.46
416	SLV 15	-281	-173	2746	-749.15	71.25	-94.23
416	SLV 16	-349	-94	2704	-738.6	70.24	-120.2
416	CRTFP Ux+	0	0	0	0	0	0
416	CRTFP Ux-	0	0	0	0	0	0
416	CRTFP Uy+	0	0	0	0	0	0
416	CRTFP Uy-	0	0	0	0	0	0
418	SLU 1	28	7	2853	-642.61	483.94	5.51
418	SLU 2	29	-9	2886	-649.45	489.46	8.66
418	SLU 3	28	7	2853	-642.61	483.94	5.51
418	SLU 4	28	-2	2872	-646.71	487.26	7.4
418	SLU 5	29	-9	2886	-649.45	489.46	8.66
418	SLU 6	28	7	2853	-642.61	483.94	5.51
418	SLU 7	28	-2	2872	-646.71	487.26	7.4
418	SLU 8	28	7	2853	-642.61	483.94	5.51
418	SLU 9	28	-2	2872	-646.71	487.26	7.4
418	SLU 10	22	-8	3379	-759.18	573.07	7.1
418	SLU 11	21	8	3347	-752.33	567.55	3.95
418	SLU 12	22	-2	3366	-756.44	570.86	5.84
418	SLU 13	22	-8	3379	-759.18	573.07	7.1
418	SLU 14	21	8	3347	-752.33	567.55	3.95
418	SLU 15	22	-2	3366	-756.44	570.86	5.84
418	SLU 16	21	8	3347	-752.33	567.55	3.95
418	SLU 17	22	-2	3366	-756.44	570.86	5.84
418	SLU 18	18	8	3558	-799.36	603.38	3.28
418	SLU 19	19	-2	3578	-803.47	606.7	5.17
418	SLU 20	18	8	3558	-799.36	603.38	3.28
418	SLU 21	19	-2	3578	-803.47	606.7	5.17
418	SLU 22	24	8	3230	-726.39	547.63	4.63
418	SLU 23	25	-8	3263	-733.24	553.15	7.78
418	SLU 24	24	8	3230	-726.39	547.63	4.63
418	SLU 25	25	-2	3249	-730.5	550.94	6.52
418	SLU 26	25	-8	3263	-733.24	553.15	7.78
418	SLU 27	24	8	3230	-726.39	547.63	4.63
418	SLU 28	25	-2	3249	-730.5	550.94	6.52
418	SLU 29	24	8	3230	-726.39	547.63	4.63
418	SLU 30	25	-2	3249	-730.5	550.94	6.52
418	SLU 31	19	-8	3757	-842.97	636.76	6.22
418	SLU 32	18	8	3724	-836.12	631.24	3.07
418	SLU 33	18	-2	3743	-840.23	634.55	4.96
418	SLU 34	19	-8	3757	-842.97	636.76	6.22
418	SLU 35	18	8	3724	-836.12	631.24	3.07
418	SLU 36	18	-2	3743	-840.23	634.55	4.96
418	SLU 37	18	8	3724	-836.12	631.24	3.07
418	SLU 38	18	-2	3743	-840.23	634.55	4.96
418	SLU 39	15	8	3935	-883.15	667.07	2.4
418	SLU 40	16	-1	3955	-887.26	670.39	4.29
418	SLU 41	15	8	3935	-883.15	667.07	2.4
418	SLU 42	16	-1	3955	-887.26	670.39	4.29
418	SLU 43	37	10	3579	-806.66	607.29	7.46
418	SLU 44	38	-7	3612	-813.51	612.81	10.61
418	SLU 45	37	10	3579	-806.66	607.29	7.46
418	SLU 46	38	0	3599	-810.77	610.6	9.35
418	SLU 47	38	-7	3612	-813.51	612.81	10.61
418	SLU 48	37	10	3579	-806.66	607.29	7.46
418	SLU 49	38	0	3599	-810.77	610.6	9.35
418	SLU 50	37	10	3579	-806.66	607.29	7.46
418	SLU 51	38	0	3599	-810.77	610.6	9.35
418	SLU 52	32	-6	4106	-923.23	696.42	9.05
418	SLU 53	31	10	4073	-916.39	690.9	5.9
418	SLU 54	32	0	4093	-920.5	694.21	7.79
418	SLU 55	32	-6	4106	-923.23	696.42	9.05
418	SLU 56	31	10	4073	-916.39	690.9	5.9
418	SLU 57	32	0	4093	-920.5	694.21	7.79
418	SLU 58	31	10	4073	-916.39	690.9	5.9
418	SLU 59	32	0	4093	-920.5	694.21	7.79
418	SLU 60	28	10	4285	-963.41	726.73	5.23
418	SLU 61	29	0	4305	-967.52	730.04	7.13
418	SLU 62	28	10	4285	-963.41	726.73	5.23
418	SLU 63	29	0	4305	-967.52	730.04	7.13
418	SLU 64	34	10	3956	-890.45	670.98	6.59
418	SLU 65	35	-6	3989	-897.29	676.5	9.74
418	SLU 66	34	10	3956	-890.45	670.98	6.59
418	SLU 67	34	0	3976	-894.56	674.29	8.48
418	SLU 68	35	-6	3989	-897.29	676.5	9.74
418	SLU 69	34	10	3956	-890.45	670.98	6.59
418	SLU 70	34	0	3976	-894.56	674.29	8.48
418	SLU 71	34	10	3956	-890.45	670.98	6.59
418	SLU 72	34	0	3976	-894.56	674.29	8.48
418	SLU 73	28	-6	4483	-1007.02	760.11	8.18
418	SLU 74	27	10	4450	-1000.18	754.59	5.03
418	SLU 75	28	1	4470	-1004.28	757.9	6.92
418	SLU 76	28	-6	4483	-1007.02	760.11	8.18
418	SLU 77	27	10	4450	-1000.18	754.59	5.03
418	SLU 78	28	1	4470	-1004.28	757.9	6.92
418	SLU 79	27	10	4450	-1000.18	754.59	5.03
418	SLU 80	28	1	4470	-1004.28	757.9	6.92



Nodo Ind.	Cont. N.br.	Reazione a traslazione			Reazione a rotazione		
		x	y	z	x	y	z
418	SLU 81	24	10	4662	-1047.2	790.42	4.36
418	SLU 82	25	1	4682	-1051.31	793.73	6.25
418	SLU 83	24	10	4662	-1047.2	790.42	4.36
418	SLU 84	25	1	4682	-1051.31	793.73	6.25
418	SLE RA 1	27	8	2960	-666.54	502.14	5.26
418	SLE RA 2	28	-3	2982	-671.11	505.82	7.36
418	SLE RA 3	27	8	2960	-666.54	502.14	5.26
418	SLE RA 4	27	1	2974	-669.28	504.35	6.52
418	SLE RA 5	28	-3	2982	-671.11	505.82	7.36
418	SLE RA 6	27	8	2960	-666.54	502.14	5.26
418	SLE RA 7	27	1	2974	-669.28	504.35	6.52
418	SLE RA 8	27	8	2960	-666.54	502.14	5.26
418	SLE RA 9	27	1	2974	-669.28	504.35	6.52
418	SLE RA 10	23	-3	3312	-744.26	561.56	6.32
418	SLE RA 11	22	8	3290	-739.7	557.88	4.22
418	SLE RA 12	23	1	3303	-742.44	560.09	5.48
418	SLE RA 13	23	-3	3312	-744.26	561.56	6.32
418	SLE RA 14	22	8	3290	-739.7	557.88	4.22
418	SLE RA 15	23	1	3303	-742.44	560.09	5.48
418	SLE RA 16	22	8	3290	-739.7	557.88	4.22
418	SLE RA 17	23	1	3303	-742.44	560.09	5.48
418	SLE RA 18	21	8	3431	-771.05	581.77	3.77
418	SLE RA 19	21	1	3444	-773.79	583.98	5.03
418	SLE RA 20	21	8	3431	-771.05	581.77	3.77
418	SLE RA 21	21	1	3444	-773.79	583.98	5.03
418	SLE FR 1	27	8	2960	-666.54	502.14	5.26
418	SLE FR 2	27	5	2965	-667.46	502.87	5.68
418	SLE FR 3	27	8	2960	-666.54	502.14	5.26
418	SLE FR 4	25	6	3106	-698.81	526.76	5.23
418	SLE FR 5	25	8	3102	-697.9	526.03	4.81
418	SLE FR 6	24	8	3196	-718.8	541.95	4.52
418	SLE QP 1	27	8	2960	-666.54	502.14	5.26
418	SLE QP 2	25	8	3102	-697.9	526.03	4.81
418	SLD 1	258	49	2616	-592.33	445.96	52.77
418	SLD 2	213	101	2586	-586.14	441.1	32.61
418	SLD 3	273	-106	2945	-660.21	501.26	83.74
418	SLD 4	228	-54	2915	-654.02	496.4	63.58
418	SLD 5	88	236	2467	-565.56	419.93	-20.33
418	SLD 6	42	290	2436	-559.13	414.89	-41.27
418	SLD 7	139	-281	3566	-791.83	604.26	82.91
418	SLD 8	92	-227	3535	-785.4	599.21	61.97
418	SLD 9	-43	242	2669	-610.39	452.84	-52.34
418	SLD 10	-89	297	2638	-603.96	447.79	-73.29
418	SLD 11	8	-275	3767	-836.66	637.17	50.9
418	SLD 12	-39	-220	3736	-830.23	632.12	29.95
418	SLD 13	-178	69	3288	-741.77	555.65	-53.95
418	SLD 14	-223	122	3258	-735.58	550.79	-74.11
418	SLD 15	-163	-86	3617	-809.65	610.95	-22.98
418	SLD 16	-208	-33	3587	-803.46	606.09	-43.14
418	SLV 1	555	105	1986	-455.62	342.21	113.23
418	SLV 2	453	225	1918	-441.43	331.07	67.01
418	SLV 3	590	-258	2756	-614.11	471.33	185.62
418	SLV 4	488	-137	2687	-599.92	460.19	139.4
418	SLV 5	169	541	1625	-390.18	279.24	-55.05
418	SLV 6	61	668	1553	-375.23	267.51	-103.73
418	SLV 7	287	-667	4191	-918.48	709.64	186.26
418	SLV 8	179	-540	4119	-903.53	697.91	137.58
418	SLV 9	-129	556	2084	-492.26	354.14	-127.96
418	SLV 10	-237	682	2012	-477.31	342.41	-176.64
418	SLV 11	-11	-653	4650	-1020.56	784.54	113.36
418	SLV 12	-119	-526	4578	-1005.61	772.81	64.68
418	SLV 13	-438	153	3516	-795.87	591.86	-129.78
418	SLV 14	-541	273	3447	-781.68	580.73	-176
418	SLV 15	-403	-210	4285	-954.36	720.98	-57.38
418	SLV 16	-505	-90	4217	-940.17	709.85	-103.6
418	CRTFP Ux+	0	0	0	0	0	0
418	CRTFP Ux-	0	0	0	0	0	0
418	CRTFP Uy+	0	0	0	-0.01	0	0
418	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 -8259.3 al nodo di indice 43, di coordinate x = -21.31, y = -18.04, z = -0.91, nel contesto SLU 81.
Spostamento estremo minimo -0.0027531 al nodo di indice 43, di coordinate x = -21.31, y = -18.04, z = -0.91, nel contesto SLU 81.



Spostamento estremo massimo -0.0007597 al nodo di indice 369, di coordinate x = -23.3, y = -9.39, z = -0.91, nel contesto SLV 6.

Nodo Ind.	Pressione minima			Pressione massima		
	Cont.	uz	Valore	Cont.	uz	Valore
6	SLU 81	-0.0026467	-7940.2	SLV 12	-0.0008839	-2651.8
23	SLU 81	-0.0025948	-7784.3	SLV 12	-0.0010129	-3038.7
25	SLU 81	-0.0025917	-7775.2	SLV 8	-0.0010122	-3036.6
43	SLU 81	-0.0027531	-8259.3	SLV 7	-0.0009178	-2753.3
45	SLU 81	-0.0027284	-8185.2	SLV 12	-0.0009307	-2792.2
46	SLU 81	-0.0024769	-7430.8	SLV 12	-0.0008725	-2617.5
47	SLU 81	-0.0022656	-6796.9	SLV 12	-0.0008281	-2484.2
48	SLU 81	-0.0020966	-6289.9	SLV 12	-0.0007968	-2390.5
49	SLU 81	-0.0019678	-5903.3	SLV 12	-0.0007777	-2330.9
50	SLU 81	-0.0018752	-5625.7	SLV 12	-0.0007664	-2299.3
51	SLU 81	-0.0018147	-5444.1	SLV 12	-0.0007634	-2290.2
52	SLU 81	-0.0017821	-5346.4	SLV 12	-0.0007664	-2299.3
53	SLU 81	-0.0017743	-5323	SLV 12	-0.0007746	-2323.9
54	SLU 81	-0.0017889	-5366.8	SLV 12	-0.0007874	-2362.1
55	SLU 81	-0.0018244	-5473.3	SLV 12	-0.0008043	-2412.9
56	SLU 81	-0.0018798	-5639.5	SLV 12	-0.0008253	-2475.9
57	SLU 81	-0.001954	-5861.9	SLV 12	-0.0008503	-2550.8
58	SLU 81	-0.0020449	-6134.7	SLV 12	-0.0008789	-2636.7
59	SLU 81	-0.0021486	-6445.9	SLV 12	-0.0009106	-2731.8
60	SLU 81	-0.0022578	-6773.4	SLV 12	-0.0009437	-2831.2
61	SLU 81	-0.00236	-7079.9	SLV 12	-0.0009751	-2925.3
62	SLU 81	-0.0024357	-7307	SLV 12	-0.000999	-2997.1
63	SLU 81	-0.0024581	-7374.3	SLV 12	-0.0010066	-3019.9
64	SLU 81	-0.0024311	-7293.2	SLV 8	-0.0009977	-2993.2
65	SLU 81	-0.0023512	-7053.6	SLV 8	-0.0009731	-2919.3
66	SLU 81	-0.0022452	-6735.5	SLV 7	-0.0009411	-2823.4
67	SLU 81	-0.0021328	-6398.5	SLV 7	-0.0009079	-2723.7
68	SLU 81	-0.002027	-6081.1	SLV 7	-0.0008768	-2630.3
69	SLU 81	-0.0019353	-5805.8	SLV 7	-0.0008492	-2547.6
70	SLU 81	-0.0018615	-5584.6	SLV 7	-0.0008258	-2477.5
71	SLU 81	-0.0018079	-5423.7	SLV 7	-0.0008069	-2420.6
72	SLU 81	-0.0017755	-5326.6	SLV 7	-0.0007925	-2377.4
73	SLU 81	-0.0017656	-5296.9	SLV 7	-0.0007829	-2348.6
74	SLU 81	-0.0017797	-5339	SLV 7	-0.0007784	-2335.1
75	SLU 81	-0.0018196	-5458.8	SLV 7	-0.0007795	-2338.5
76	SLU 81	-0.001888	-5664	SLV 7	-0.0007868	-2360.5
77	SLU 81	-0.0019873	-5962	SLV 7	-0.0008012	-2403.6
78	SLU 81	-0.0021196	-6358.8	SLV 7	-0.0008236	-2470.7
79	SLU 81	-0.002285	-6855.1	SLV 7	-0.0008546	-2563.8
80	SLU 81	-0.0024811	-7443.3	SLV 7	-0.0008943	-2683
81	SLU 81	-0.0027015	-8104.4	SLV 7	-0.0009417	-2825.1
83	SLU 81	-0.0024054	-7216.3	SLV 12	-0.000857	-2571
84	SLU 81	-0.0024614	-7384.2	SLV 12	-0.0010102	-3030.6
86	SLU 81	-0.0024583	-7375	SLV 8	-0.0010091	-3027.4
87	SLU 81	-0.0025365	-7609.6	SLV 7	-0.0009132	-2739.6
90	SLU 81	-0.0022086	-6625.8	SLV 12	-0.0008447	-2534.2
91	SLU 81	-0.0023675	-7102.4	SLV 12	-0.0010206	-3061.9
93	SLU 81	-0.0023642	-7092.7	SLV 8	-0.001019	-3057
94	SLU 81	-0.0023681	-7104.2	SLV 7	-0.0009234	-2770.1
97	SLU 81	-0.0020661	-6198.2	SLV 12	-0.0008515	-2554.6
98	SLU 81	-0.002303	-6908.9	SLV 12	-0.0010411	-3123.3
100	SLU 81	-0.0022996	-6898.7	SLV 8	-0.001039	-3116.9
101	SLU 81	-0.0022494	-6748.2	SLV 7	-0.0009487	-2846.1
104	SLU 81	-0.0019817	-5945.2	SLV 16	-0.000878	-2634
105	SLU 81	-0.0022598	-6779.4	SLV 12	-0.0010694	-3208.2
107	SLU 81	-0.0022562	-6768.5	SLV 8	-0.0010668	-3200.4
108	SLU 81	-0.0021774	-6532.1	SLV 7	-0.0009879	-2963.8
111	SLU 81	-0.0019556	-5866.8	SLV 16	-0.00089	-2669.9
112	SLU 81	-0.0022329	-6698.7	SLV 12	-0.0011045	-3313.6
114	SLU 81	-0.0022291	-6687.2	SLV 8	-0.0011015	-3304.4
115	SLU 81	-0.0021468	-6440.4	SLV 3	-0.000998	-2994
118	SLU 81	-0.0019843	-5953	SLV 16	-0.000922	-2765.9
119	SLU 81	-0.0022193	-6657.9	SLV 12	-0.001146	-3438
121	SLU 81	-0.0022152	-6645.7	SLV 8	-0.0011424	-3427.3
122	SLU 81	-0.0021514	-6454.2	SLV 3	-0.0010156	-3046.8
125	SLU 81	-0.0020612	-6183.7	SLV 16	-0.0009715	-2914.4
126	SLU 81	-0.0022171	-6651.4	SLV 12	-0.0011935	-3580.4
128	SLU 81	-0.0022128	-6638.3	SLV 8	-0.0011893	-3567.9
129	SLU 81	-0.0021839	-6551.8	SLV 3	-0.0010405	-3121.5
132	SLU 81	-0.0021756	-6526.7	SLV 16	-0.0010344	-3103.1
133	SLU 81	-0.0022245	-6673.5	SLV 12	-0.0012463	-3738.8
135	SLU 81	-0.0022199	-6659.7	SLV 8	-0.0012414	-3724.2
136	SLU 82	-0.0022357	-6707.2	SLV 3	-0.0010693	-3207.9
139	SLU 82	-0.0023112	-6933.7	SLV 16	-0.0011043	-3313
140	SLU 81	-0.0022389	-6716.8	SLV 12	-0.0013029	-3908.7
142	SLU 81	-0.002234	-6701.9	SLV 8	-0.0012972	-3891.6
144	SLU 82	-0.0024452	-7335.6	SLV 16	-0.0011719	-3515.7
145	SLU 82	-0.0022561	-6768.2	SLU 1	-0.0013262	-3978.7
147	SLU 81	-0.0022508	-6752.4	SLU 2	-0.0013218	-3965.3
149	SLU 82	-0.0025438	-7631.3	SLV 16	-0.0012231	-3669.3
150	SLU 82	-0.0022698	-6809.3	SLU 1	-0.0013312	-3993.5
152	SLU 82	-0.0022641	-6792.4	SLU 1	-0.0013264	-3979.3
154	SLU 82	-0.0027303	-8190.8	SLV 16	-0.0012712	-3813.6
155	SLU 82	-0.002616	-7847.9	SLV 16	-0.001251	-3753
156	SLU 82	-0.0025569	-7670.6	SLV 16	-0.001254	-3762.1
157	SLU 82	-0.0025275	-7582.6	SLV 16	-0.0012684	-3805.2
158	SLU 82	-0.0025108	-7532.5	SLV 16	-0.0012862	-3858.5
159	SLU 82	-0.0024979	-7493.8	SLV 16	-0.0013035	-3910.4
160	SLU 82	-0.0024851	-7455.3	SLV 16	-0.0013189	-3956.8
161	SLU 82	-0.0024712	-7413.7	SLV 16	-0.0013326	-3997.8



Nodo	Pressione minima			Pressione massima		
Ind.	Cont.	uz	Valore	Cont.	uz	Valore
162	SLU 82	-0.0024565	-7369.6	SLV 16	-0.001345	-4035
163	SLU 82	-0.0024414	-7324.1	SLV 16	-0.0013569	-4070.7
164	SLU 82	-0.0024259	-7277.8	SLV 16	-0.0013688	-4106.5
165	SLU 82	-0.00241	-7230	SLV 16	-0.0013811	-4143.4
166	SLU 82	-0.002393	-7179.1	SLV 16	-0.0013938	-4181.3
167	SLU 82	-0.0023742	-7122.7	SLU 1	-0.0013916	-4174.9
168	SLU 82	-0.0023528	-7058.4	SLU 1	-0.0013785	-4135.6
169	SLU 82	-0.0023287	-6986.2	SLU 1	-0.0013644	-4093.2
170	SLU 82	-0.0023035	-6910.4	SLU 1	-0.0013498	-4049.5
171	SLU 82	-0.0022812	-6843.6	SLU 1	-0.001337	-4010.9
172	SLU 82	-0.0022703	-6810.9	SLU 1	-0.0013299	-3989.7
173	SLU 82	-0.0022723	-6816.9	SLU 1	-0.0013291	-3987.2
174	SLU 82	-0.0022847	-6854.1	SLU 1	-0.0013329	-3998.7
175	SLU 82	-0.0022988	-6896.5	SLU 1	-0.0013372	-4011.7
176	SLU 82	-0.0023107	-6932	SLU 1	-0.0013403	-4020.9
177	SLU 82	-0.0023189	-6956.6	SLV 3	-0.001336	-4007.9
178	SLU 82	-0.0023234	-6970.3	SLV 3	-0.0013086	-3925.9
179	SLU 82	-0.0023247	-6974	SLV 3	-0.0012793	-3837.9
180	SLU 82	-0.0023225	-6967.6	SLV 3	-0.0012478	-3743.4
181	SLU 82	-0.0023163	-6948.9	SLV 3	-0.0012137	-3641.1
182	SLU 82	-0.0023045	-6913.4	SLV 3	-0.0011765	-3529.4
183	SLU 82	-0.0022852	-6855.6	SLV 3	-0.0011364	-3409.1
184	SLU 82	-0.0022572	-6771.6	SLV 3	-0.001095	-3284.9
185	SLU 82	-0.0022217	-6665.1	SLV 3	-0.0010564	-3169.1
186	SLU 82	-0.0021856	-6556.7	SLV 3	-0.0010274	-3082.1
187	SLU 82	-0.0024627	-7388	SLV 3	-0.0011935	-3580.6
190	SLU 82	-0.0025675	-7702.4	SLV 13	-0.0012381	-3714.2
207	SLU 82	-0.00227	-6809.9	SLU 1	-0.0013299	-3989.8
209	SLU 82	-0.0022642	-6792.6	SLU 1	-0.0013251	-3975.2
225	SLU 82	-0.0023622	-7086.7	SLV 3	-0.0011462	-3438.6
227	SLU 82	-0.0023602	-7080.7	SLV 3	-0.0011495	-3448.5
229	SLU 82	-0.0027275	-8182.5	SLV 13	-0.0012691	-3807.3
230	SLU 82	-0.002613	-7838.9	SLV 13	-0.0012485	-3745.5
231	SLU 82	-0.0025533	-7660	SLV 13	-0.0012507	-3752.2
232	SLU 82	-0.0025235	-7570.5	SLV 13	-0.0012642	-3792.6
233	SLU 82	-0.0025063	-7519	SLV 13	-0.0012811	-3843.3
234	SLU 82	-0.002493	-7479	SLV 13	-0.0012977	-3893.2
235	SLU 82	-0.0024797	-7439.2	SLV 13	-0.0013128	-3938.3
236	SLU 82	-0.0024655	-7396.6	SLV 13	-0.0013262	-3978.7
237	SLU 82	-0.0024505	-7351.6	SLV 13	-0.0013387	-4016.1
238	SLU 82	-0.0024351	-7305.4	SLV 13	-0.0013508	-4052.5
239	SLU 82	-0.0024195	-7258.5	SLV 13	-0.0013632	-4089.6
240	SLU 82	-0.0024035	-7210.4	SLV 13	-0.001376	-4128.1
241	SLU 82	-0.0023865	-7159.4	SLV 13	-0.0013893	-4168
242	SLU 82	-0.0023676	-7102.8	SLU 1	-0.001387	-4161.1
243	SLU 82	-0.0023462	-7038.7	SLU 1	-0.0013739	-4121.7
244	SLU 82	-0.0023222	-6966.6	SLU 1	-0.0013597	-4079.2
245	SLU 82	-0.0022969	-6890.8	SLU 1	-0.0013451	-4035.4
246	SLU 82	-0.0022748	-6824.3	SLU 1	-0.0013322	-3996.7
247	SLU 82	-0.0022639	-6791.6	SLU 1	-0.0013251	-3975.4
248	SLU 82	-0.0022644	-6793.2	SLU 1	-0.0013234	-3970.2
249	SLU 82	-0.0022742	-6822.7	SLU 1	-0.0013257	-3977
250	SLU 82	-0.0022858	-6857.3	SLU 1	-0.0013284	-3985.3
251	SLU 82	-0.002295	-6885	SLU 1	-0.0013299	-3989.8
252	SLU 82	-0.0023006	-6901.9	SLV 1	-0.0013225	-3967.5
253	SLU 82	-0.0023027	-6908	SLV 1	-0.0012926	-3877.7
254	SLU 82	-0.0023014	-6904.2	SLV 1	-0.0012607	-3782
255	SLU 82	-0.0022968	-6890.4	SLV 1	-0.0012267	-3680.2
256	SLU 82	-0.0022881	-6864.4	SLV 1	-0.0011903	-3570.9
257	SLU 82	-0.0022739	-6821.8	SLV 1	-0.0011511	-3453.2
258	SLU 82	-0.0022523	-6757	SLV 1	-0.0011092	-3327.6
259	SLU 82	-0.0022221	-6666.2	SLV 1	-0.0010664	-3199.3
260	SLU 82	-0.0021843	-6553	SLV 1	-0.0010272	-3081.5
261	SLU 82	-0.002146	-6438	SLV 3	-0.0009986	-2995.7
262	SLU 82	-0.0019577	-5873	SLV 3	-0.0008961	-2688.4
264	SLU 82	-0.0025411	-7623.2	SLV 13	-0.0012206	-3661.7
265	SLU 82	-0.0022619	-6785.6	SLU 1	-0.001325	-3975
267	SLU 82	-0.0022562	-6768.7	SLU 1	-0.0013202	-3960.7
268	SLU 82	-0.0023236	-6970.7	SLV 1	-0.0011425	-3427.4
271	SLU 82	-0.0024436	-7330.8	SLV 13	-0.0011696	-3508.8
272	SLU 82	-0.0022455	-6736.4	SLU 1	-0.0013169	-3950.6
274	SLU 82	-0.0022402	-6720.5	SLU 1	-0.0013124	-3937.2
275	SLU 82	-0.0022612	-6783.5	SLV 1	-0.0011097	-3329.2
278	SLU 82	-0.0023127	-6938.1	SLV 13	-0.0011036	-3310.9
279	SLU 82	-0.0022281	-6684.3	SLV 9	-0.0013035	-3910.5
281	SLU 82	-0.0022231	-6669.2	SLV 5	-0.0012963	-3888.9
282	SLU 82	-0.0021946	-6583.8	SLV 2	-0.0010682	-3204.5
285	SLU 82	-0.0021801	-6540.3	SLV 13	-0.0010359	-3107.6
286	SLU 82	-0.0022151	-6645.3	SLV 9	-0.0012464	-3739.2
288	SLU 82	-0.0022104	-6631.1	SLV 5	-0.0012399	-3719.8
289	SLU 82	-0.0021394	-6418.2	SLV 2	-0.0010287	-3086.1
292	SLU 82	-0.0020682	-6204.7	SLV 13	-0.0009753	-2925.9
293	SLU 82	-0.0022099	-6629.6	SLV 9	-0.0011933	-3580
295	SLU 82	-0.0022054	-6616.3	SLV 5	-0.0011875	-3562.5
296	SLU 82	-0.0021065	-6319.6	SLV 2	-0.000997	-2991
299	SLU 82	-0.0019925	-5977.4	SLV 13	-0.0009279	-2783.7
300	SLU 82	-0.0022146	-6643.7	SLV 9	-0.0011455	-3436.5
302	SLU 82	-0.0022104	-6631.2	SLV 5	-0.0011402	-3420.5
303	SLU 82	-0.002104	-6312	SLV 2	-0.0009765	-2929.6
306	SLU 82	-0.001963	-5888.9	SLV 13	-0.0008975	-2692.5
307	SLU 82	-0.0022309	-6692.8	SLV 9	-0.0011034	-3310.2



Nodo	Pressione minima			Pressione massima		
Ind.	Cont.	uz	Valore	Cont.	uz	Valore
309	SLU 82	-0.002227	-6681	SLV 5	-0.0010985	-3295.5
310	SLU 82	-0.0021382	-6414.7	SLV 6	-0.0009388	-2816.3
313	SLU 82	-0.0019857	-5957.2	SLV 9	-0.0008769	-2630.6
314	SLU 82	-0.0022608	-6782.5	SLV 9	-0.0010673	-3202
316	SLU 82	-0.0022571	-6771.3	SLV 5	-0.0010628	-3188.5
317	SLU 82	-0.0022144	-6643.3	SLV 6	-0.0008979	-2693.6
320	SLU 82	-0.0020634	-6190.2	SLV 9	-0.0008451	-2535.4
321	SLU 82	-0.0023073	-6922	SLV 9	-0.0010378	-3113.3
323	SLU 82	-0.0023038	-6911.4	SLV 5	-0.0010336	-3100.9
324	SLU 82	-0.0023364	-7009.3	SLV 6	-0.0008724	-2617.1
327	SLU 82	-0.0021952	-6585.6	SLV 9	-0.0008331	-2499.4
328	SLU 82	-0.0023754	-7126.1	SLV 9	-0.0010157	-3047.1
330	SLU 82	-0.002372	-7116.1	SLV 5	-0.001012	-3036.1
331	SLU 82	-0.0025061	-7518.2	SLV 6	-0.000862	-2586.1
334	SLU 82	-0.0023765	-7129.5	SLV 9	-0.0008383	-2514.9
335	SLU 82	-0.0024729	-7418.6	SLV 9	-0.0010032	-3009.7
337	SLU 82	-0.0024697	-7409.1	SLV 5	-0.0010001	-3000.3
338	SLU 82	-0.0026991	-8097.3	SLV 9	-0.0009137	-2741
339	SLU 82	-0.0025848	-7754.3	SLV 9	-0.0008866	-2659.8
340	SLU 82	-0.0023522	-7056.7	SLV 9	-0.0008355	-2506.6
341	SLU 82	-0.0021648	-6494.3	SLV 9	-0.0007994	-2398.1
342	SLU 82	-0.002021	-6063.1	SLV 9	-0.0007762	-2328.7
343	SLU 82	-0.0019172	-5751.7	SLV 9	-0.0007638	-2291.3
344	SLU 82	-0.0018484	-5545.2	SLV 9	-0.0007597	-2279.1
345	SLU 82	-0.0018097	-5429.1	SLV 9	-0.0007622	-2286.7
346	SLU 82	-0.0017972	-5391.5	SLV 9	-0.00077	-2309.9
347	SLU 82	-0.0018078	-5423.3	SLV 9	-0.0007821	-2346.4
348	SLU 82	-0.0018396	-5518.9	SLV 9	-0.0007983	-2394.9
349	SLU 82	-0.0018917	-5675	SLV 9	-0.0008184	-2455.2
350	SLU 82	-0.0019628	-5888.5	SLV 9	-0.0008425	-2527.6
351	SLU 82	-0.0020515	-6154.4	SLV 9	-0.0008706	-2611.8
352	SLU 82	-0.002154	-6462.1	SLV 9	-0.0009021	-2706.3
353	SLU 82	-0.0022634	-6790.3	SLV 9	-0.0009355	-2806.6
354	SLU 82	-0.0023672	-7101.7	SLV 9	-0.0009675	-2902.6
355	SLU 82	-0.0024451	-7335.4	SLV 9	-0.0009919	-2975.6
356	SLU 82	-0.0024687	-7406	SLV 5	-0.0009985	-2995.6
357	SLU 82	-0.0024452	-7335.6	SLV 5	-0.0009892	-2967.6
358	SLU 82	-0.0023748	-7124.3	SLV 6	-0.0009659	-2897.8
359	SLU 82	-0.0022802	-6840.6	SLV 6	-0.000936	-2808
360	SLU 82	-0.0021785	-6535.4	SLV 6	-0.0009049	-2714.6
361	SLU 82	-0.0020806	-6241.8	SLV 6	-0.0008753	-2625.8
362	SLU 82	-0.0019932	-5979.6	SLV 6	-0.0008486	-2545.9
363	SLU 82	-0.00192	-5760	SLV 6	-0.0008255	-2476.4
364	SLU 82	-0.0018628	-5588.4	SLV 6	-0.0008058	-2417.4
365	SLU 82	-0.0018226	-5467.9	SLV 6	-0.0007895	-2368.6
366	SLU 82	-0.0018002	-5400.7	SLV 6	-0.0007766	-2329.8
367	SLU 82	-0.0017966	-5389.9	SLV 6	-0.000767	-2301.1
368	SLU 82	-0.0018133	-5440	SLV 6	-0.0007612	-2283.7
369	SLU 82	-0.0018523	-5557	SLV 6	-0.0007597	-2279.1
370	SLU 82	-0.0019161	-5748.4	SLV 6	-0.0007633	-2289.8
371	SLU 82	-0.0020073	-6021.8	SLV 6	-0.0007729	-2318.8
372	SLU 82	-0.0021279	-6383.6	SLV 6	-0.0007898	-2369.3
373	SLU 82	-0.0022786	-6835.8	SLV 6	-0.0008145	-2443.5
374	SLU 82	-0.0024575	-7372.5	SLV 6	-0.0008473	-2541.8
375	SLU 82	-0.0026583	-7974.9	SLV 6	-0.0008869	-2660.6
379	SLU 82	-0.0025975	-7792.5	SLV 9	-0.0008562	-2568.6
396	SLU 82	-0.0026093	-7827.8	SLV 9	-0.0010035	-3010.4
398	SLU 82	-0.0026061	-7818.4	SLV 5	-0.0010007	-3002.2
417	SLV 11	-0.0027354	-8206.2	SLV 6	-0.0008652	-2595.7

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 -0.002222 al nodo di indice 43, di coordinate x = -21.31, y = -18.04, z = -0.91, nel contesto SLD 10.

Spostamento estremo massimo -0.0010052 al nodo di indice 52, di coordinate x = -32.5, y = -17.69, z = -0.91, nel contesto SLD 12.

Cedimento elastico estremo massimo 0.0003554 al nodo di indice 207, di coordinate x = -28.41, y = -13.52, z = -0.91, nel contesto SLE rara 19.

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.		
6	SLD 12	-1.4E-03	-4132.2	SLD 5	-2.1E-03	-6367.1	SLE RA 18	0.000019						
23	SLD 12	-1.4E-03	-4223.6	SLD 5	-2.0E-03	-5999.1	SLE RA 18	4.49E-05						
25	SLD 8	-1.4E-03	-4219	SLD 9	-2.0E-03	-5990.6	SLE RA 18	4.48E-05						
43	SLD 7	-1.4E-03	-4313.1	SLD 10	-2.2E-03	-6666	SLE RA 18	4.78E-05						
45	SLD 12	-1.4E-03	-4283.2	SLD 5	-2.2E-03	-6535.6	SLE RA 18	0.000038						
46	SLD 12	-1.3E-03	-3928.1	SLD 5	-2.0E-03	-5907.5	SLE RA 18	0.000018						
47	SLD 12	-1.2E-03	-3635.5	SLD 5	-1.8E-03	-5373.7	SLE RA 18	1.56E-05						
48	SLD 12	-1.1E-03	-3406.9	SLD 5	-1.6E-03	-4940.7	SLE RA 18	1.23E-05						
49	SLD 12	-1.1E-03	-3237.5	SLD 5	-1.5E-03	-4604.9	SLE RA 18	8.89E-06						
50	SLD 12	-1.0E-03	-3120.5	SLD 5	-1.5E-03	-4358.1	SLE RA 18	6.07E-06						
51	SLD 12	-1.0E-03	-3048.6	SLD 5	-1.4E-03	-4190.7	SLE RA 18	4.08E-06						
52	SLD 12	-1.0E-03	-3015.6	SLD 5	-1.4E-03	-4093.2	SLE RA 18	2.94E-06						
53	SLD 12	-1.0E-03	-3016.6	SLD 5	-1.4E-03	-4057.8	SLE RA 18	2.58E-06						
54	SLD 12	-1.0E-03	-3048.1	SLD 5	-1.4E-03	-4078.7	SLE RA 18	2.95E-06						
55	SLD 12	-1.0E-03	-3108.2	SLD 5	-1.4E-03	-4152	SLE RA 18	0.000004						
56	SLD 12	-1.1E-03	-3195.3	SLD 5	-1.4E-03	-4275.2	SLE RA 18	5.81E-06						
57	SLD 12	-1.1E-03	-3308.3	SLD 5	-1.5E-03	-4445.1	SLE RA 18	8.39E-06						
58	SLD 12	-1.1E-03	-3444.7	SLD 5	-1.6E-03	-4656.7	SLE RA 18	1.18E-05						
59	SLD 12	-1.2E-03	-3599.1	SLD 5	-1.6E-03	-4899.8	SLE RA 18	1.79E-05						
60	SLD 12	-1.3E-03	-3761.4	SLD 5	-1.7E-03	-5156.1	SLE RA 18	2.97E-05						
61	SLD 12	-1.3E-03	-3913.9	SLD 5	-1.8E-03	-5395.7	SLE RA 18	4.25E-05						
62	SLD 12	-1.3E-03	-4027.7	SLD 5	-1.9E-03	-5572	SLE RA 18	5.28E-05						
63	SLD 12	-1.4E-03	-4061.8	SLD 5	-1.9E-03	-5623	SLE RA 18	5.68E-05						
64	SLD 8	-1.3E-03	-4020.4	SLD 9	-1.9E-03	-5559.8	SLE RA 18	5.27E-05						
65	SLD 8	-1.3E-03	-3901.1	SLD 9	-1.8E-03	-5372.8	SLE RA 18	4.21E-05						
66	SLD 7	-1.2E-03	-3743.9	SLD 10	-1.7E-03	-5124.2	SLE RA 18	2.92E-05						
67	SLD 7	-1.2E-03	-3578.6	SLD 10	-1.6E-03	-4860.6	SLE RA 18	1.73E-05						
68	SLD 7	-1.1E-03	-3423.4	SLD 10	-1.5E-03	-4612.8	SLE RA 18	1.14E-05						
69	SLD 7	-1.1E-03	-3288.4	SLD 10	-1.5E-03	-4399.3	SLE RA 18	7.91E-06						
70	SLD 7	-1.1E-03	-3178.7	SLD 10	-1.4E-03	-4230.4	SLE RA 18	5.33E-06						
71	SLD 7	-1.0E-03	-3096.9	SLD 10	-1.4E-03	-4111.5	SLE RA 18	3.55E-06						
72	SLD 7	-1.0E-03	-3044.5	SLD 10	-1.3E-03	-4045.7	SLE RA 18	2.52E-06						
73	SLD 7	-1.0E-03	-3023.2	SLD 10	-1.3E-03	-4036.2	SLE RA 18	2.20E-06						
74	SLD 7	-1.0E-03	-3035	SLD 10	-1.4E-03	-4086.7	SLE RA 18	2.61E-06						
75	SLD 7	-1.0E-03	-3082.8	SLD 10	-1.4E-03	-4202.5	SLE RA 18	3.79E-06						
76	SLD 7	-1.1E-03	-3170.3	SLD 10	-1.5E-03	-4389.7	SLE RA 18	5.81E-06						
77	SLD 7	-1.1E-03	-3301.4	SLD 10	-1.6E-03	-4654.4	SLE RA 18	8.65E-06						
78	SLD 7	-1.2E-03	-3479.6	SLD 10	-1.7E-03	-5001	SLE RA 18	1.21E-05						
79	SLD 7	-1.2E-03	-3706.1	SLD 10	-1.8E-03	-5429.3	SLE RA 18	1.58E-05						
80	SLD 7	-1.3E-03	-3978.1	SLD 10	-2.0E-03	-5932.2	SLE RA 18	1.86E-05						
81	SLD 7	-1.4E-03	-4287	SLD 10	-2.2E-03	-6493.4	SLE RA 18	2.02E-05						
83	SLD 12	-1.3E-03	-3828.4	SLD 5	-1.9E-03	-5727.4	SLE RA 18	1.73E-05						
84	SLD 12	-1.4E-03	-4070	SLD 5	-1.9E-03	-5627.5	SLE RA 18	5.61E-05						
86	SLD 8	-1.4E-03	-4064.8	SLD 9	-1.9E-03	-5619.2	SLE RA 18	0.000056						
87	SLD 7	-1.4E-03	-4064.8	SLD 10	-2.0E-03	-6064.8	SLE RA 18	1.93E-05						
90	SLD 12	-1.2E-03	-3592.8	SLD 5	-1.7E-03	-5192.5	SLE RA 18	1.46E-05						
91	SLD 12	-1.3E-03	-3976.8	SLD 5	-1.8E-03	-5347.5	SLE RA 18	8.46E-05						
93	SLD 8	-1.3E-03	-3970.5	SLD 9	-1.8E-03	-5339.2	SLE RA 18	8.41E-05						
94	SLD 7	-1.3E-03	-3889.1	SLD 10	-1.9E-03	-5578.9	SLE RA 18	1.72E-05						
97	SLD 12	-1.1E-03	-3442	SLD 5	-1.6E-03	-4784	SLE RA 18	1.17E-05						
98	SLD 12	-1.3E-03	-3928.7	SLD 5	-1.7E-03	-5135.4	SLE RA 18	1.05E-04						
100	SLD 8	-1.3E-03	-3921.4	SLD 9	-1.7E-03	-5126.9	SLE RA 18	1.04E-04						
101	SLD 7	-1.3E-03	-3788.2	SLD 10	-1.7E-03	-5212.2	SLE RA 18	1.46E-05						
104	SLD 16	-1.1E-03	-3373.3	SLD 1	-1.5E-03	-4519.6	SLE RA 18	9.41E-06						
105	SLD 12	-1.3E-03	-3914.1	SLE RA 18	-1.7E-03	-4971.9	SLE RA 18	1.19E-04						
107	SLD 8	-1.3E-03	-3905.8	SLE RA 18	-1.7E-03	-4963.5	SLE RA 18	1.18E-04						
108	SLD 3	-1.3E-03	-3752.8	SLD 14	-1.7E-03	-4960.8	SLE RA 18	1.26E-05						
111	SLD 16	-1.1E-03	-3358.5	SLD 1	-1.5E-03	-4427.7	SLE RA 18	8.53E-06						
112	SLD 12	-1.3E-03	-3925.9	SLE RA 18	-1.6E-03	-4911	SLE RA 18	1.33E-04						
114	SLD 8	-1.3E-03	-3916.7	SLE RA 18	-1.6E-03	-4902	SLE RA 18	1.32E-04						
115	SLD 3	-1.2E-03	-3726.2	SLD 14	-1.6E-03	-4860.7	SLE RA 18	1.18E-05						
118	SLD 16	-1.1E-03	-3430.1	SLD 1	-1.5E-03	-4462.9	SLE RA 18	9.40E-06						
119	SLD 12	-1.3E-03	-3960.2	SLE RA 18	-1.6E-03	-4879.1	SLE RA 18	0.000167						
121	SLD 8	-1.3E-03	-3949.9	SLE RA 18	-1.6E-03	-4869.5	SLE RA 18	1.65E-04						
122	SLD 3	-1.3E-03	-3751.1	SLD 14	-1.6E-03	-4844	SLE RA 18	1.23E-05						
125	SLD 16	-1.2E-03	-3577.4	SLD 1	-1.5E-03	-4609.8	SLE RA 18	1.21E-05						
126	SLD 12	-1.3E-03	-4014.5	SLE RA 18	-1.6E-03	-4872	SLE RA 18	2.09E-04						
128	SLD 8	-1.3E-03	-4003	SLE RA 18	-1.6E-03	-4861.8	SLE RA 18	2.07E-04						
129	SLD 3	-1.3E-03	-3815.5	SLD 14	-1.6E-03	-4894.3	SLE RA 18	0.000014						
132	SLD 16	-1.3E-03	-3783.2	SLD 1	-1.6E-03	-4843.8	SLE RA 18	1.77E-05						
133	SLD 12	-1.4E-03	-4085.9	SLE RA 18	-1.6E-03	-4885.7	SLE RA 18	2.41E-04						
135	SLD 8	-1.4E-03	-4073.1	SLE RA 18	-1.6E-03	-4874.8	SLE RA 18	2.39E-04						
136	SLD 3	-1.3E-03	-3905.6	SLD 14	-1.7E-03	-4991.7	SLE RA 18	1.67E-05						
139	SLD 16	-1.3E-03	-4021.6	SLD 1	-1.7E-03	-5128	SLE RA 19	3.02E-05						
140	SLE RA 2	-1.4E-03	-4127.8	SLE RA 18	-1.6E-03	-4914.8	SLE RA 18	2.83E-04						
142	SLE RA 2	-1.4E-03	-4115.4	SLE RA 18	-1.6E-03	-4903.2	SLE RA 18	0.000281						
144	SLD 16	-1.4E-03	-4254.6	SLD 1	-1.8E-03	-5409.8	SLE RA 19	4.39E-05						
145	SLE RA 1	-1.4E-03	-4152.2	SLE RA 19	-0.00165	-4950.1	SLE RA 18	3.20E-04						
147	SLE RA 2	-1.4E-03	-4139	SLE RA 18	-1.6E-03	-4937.7	SLE RA 18	0.000318						
149	SLD 16	-1.5E-03	-4428	SLD 1	-1.9E-03	-5615.2	SLE RA 19	5.51E-05						
150	SLE RA 1	-1.4E-03	-4169.1	SLE RA 19	-1.7E-03	-4978.3	SLE RA 19	3.46E-04						
152	SLE RA 1	-1.4E-03	-4155.1	SLE RA 19	-1.7E-03	-4965.1	SLE RA 19	3.44E-04						
154	SLD 16	-1.6E-03	-4700.7	SLD 1	-2.0E-03	-6088.9	SLE RA 19	4.21E-05						
155	SLD 16	-1.5E-03	-4544.1	SLD 1	-1.9E-03	-5782.2	SLE RA 19	5.61E-05						
156	SLD 16	-1.5E-03	-4478.3	SLE RA 19	-1.9E-03	-5630.1	SLE RA 19	6.31E-05						
157	SLD 16	-1.5E-03	-4460.1	SLE RA 19	-1.9E-03	-5562.7	SLE RA 19	7.68E-05						



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.		
158	SLD 16	-1.5E-03	-4460.4		SLE RA 19	-1.8E-03	-5523.2		SLE RA 19	8.09E-05					
159	SLD 16	-1.5E-03	-4464.5		SLE RA 19	-1.8E-03	-5492.1		SLE RA 19	7.89E-05					
160	SLD 16	-1.5E-03	-4466.5		SLE RA 19	-1.8E-03	-5461.3		SLE RA 19	7.53E-05					
161	SLD 16	-1.5E-03	-4465.3		SLE RA 19	-1.8E-03	-5428.5		SLE RA 19	7.32E-05					
162	SLD 16	-1.5E-03	-4461.8		SLE RA 19	-1.8E-03	-5394.1		SLE RA 19	7.43E-05					
163	SLD 16	-1.5E-03	-4457.6		SLE RA 19	-1.8E-03	-5358.9		SLE RA 19	7.98E-05					
164	SLD 16	-1.5E-03	-4453.5		SLE RA 19	-1.8E-03	-5323.3		SLE RA 19	9.07E-05					
165	SLE RA 1	-1.5E-03	-4431.8		SLE RA 19	-1.8E-03	-5287.1		SLE RA 19	1.09E-04					
166	SLE RA 1	-1.5E-03	-4396.3		SLE RA 19	-1.7E-03	-5248.9		SLE RA 19	1.47E-04					
167	SLE RA 1	-1.5E-03	-4358.9		SLE RA 19	-1.7E-03	-5206.9		SLE RA 19	1.94E-04					
168	SLE RA 1	-1.4E-03	-4318.2		SLE RA 19	-1.7E-03	-5159.7		SLE RA 19	2.47E-04					
169	SLE RA 1	-1.4E-03	-4273.9		SLE RA 19	-1.7E-03	-5106.9		SLE RA 19	2.80E-04					
170	SLE RA 1	-1.4E-03	-4228.2		SLE RA 19	-1.7E-03	-5051.6		SLE RA 19	3.20E-04					
171	SLE RA 1	-1.4E-03	-4187.7		SLE RA 19	-1.7E-03	-5002.9		SLE RA 19	3.46E-04					
172	SLE RA 1	-1.4E-03	-4166		SLE RA 19	-1.7E-03	-4978.5		SLE RA 19	3.54E-04					
173	SLE RA 1	-1.4E-03	-4164.5		SLE RA 19	-1.7E-03	-4981.6		SLE RA 19	3.41E-04					
174	SLE RA 1	-1.4E-03	-4178.4		SLE RA 19	-1.7E-03	-5006.7		SLE RA 19	3.08E-04					
175	SLE RA 1	-1.4E-03	-4194.2		SLE RA 19	-1.7E-03	-5035.3		SLE RA 19	2.61E-04					
176	SLE RA 1	-1.4E-03	-4205.9		SLE RA 19	-1.7E-03	-5058.8		SLE RA 19	2.20E-04					
177	SLE RA 1	-1.4E-03	-4212		SLE RA 19	-1.7E-03	-5074.5		SLE RA 19	1.61E-04					
178	SLE RA 1	-1.4E-03	-4212.4		SLE RA 19	-1.7E-03	-5082.6		SLE RA 19	1.09E-04					
179	SLD 3	-1.4E-03	-4193		SLE RA 19	-1.7E-03	-5083.6		SLE RA 19	8.04E-05					
180	SLD 3	-1.4E-03	-4146.6		SLE RA 19	-1.7E-03	-5077.4		SLE RA 19	6.02E-05					
181	SLD 3	-1.4E-03	-4092.8		SLE RA 19	-1.7E-03	-5062.6		SLE RA 19	4.59E-05					
182	SLD 3	-1.3E-03	-4029.7		SLE RA 19	-1.7E-03	-5035.9		SLE RA 19	3.74E-05					
183	SLD 3	-1.3E-03	-3956.1		SLE RA 19	-1.7E-03	-4993.7		SLE RA 19	3.76E-05					
184	SLD 3	-1.3E-03	-3873.8		SLE RA 19	-1.6E-03	-4933.8		SLE RA 19	3.82E-05					
185	SLD 3	-1.3E-03	-3790.7		SLE RA 19	-1.6E-03	-4859.3		SLE RA 19	3.87E-05					
186	SLD 3	-1.2E-03	-3724.5		SLE RA 19	-1.6E-03	-4786.1		SLE RA 19	3.84E-05					
187	SLD 3	-1.4E-03	-4325.9	SLD 14		-1.8E-03	-5488.9		SLE RA 19	2.95E-05					
190	SLD 13	-1.5E-03	-4472.7	SLD 4		-1.9E-03	-5659.9		SLE RA 19	5.92E-05					
207	SLE RA 1	-1.4E-03	-4165.9	SLE RA 19		-1.7E-03	-4978		SLE RA 19	3.55E-04					
209	SLE RA 1	-1.4E-03	-4151.5	SLE RA 19		-1.7E-03	-4964.4		SLE RA 19	3.53E-04					
225	SLD 3	-1.4E-03	-4136.7	SLD 14		-1.7E-03	-5226.5		SLE RA 19	3.54E-05					
227	SLD 3	-1.4E-03	-4139	SLD 14		-1.7E-03	-5216.9		SLE RA 19	3.54E-05					
229	SLD 13	-1.6E-03	-4694.2	SLD 4		-2.0E-03	-6081.9		SLE RA 19	4.21E-05					
230	SLD 13	-1.5E-03	-4536.8	SLD 4		-1.9E-03	-5775.2		SLE RA 19	0.000056					
231	SLD 13	-1.5E-03	-4469.4	SLE RA 19		-1.9E-03	-5622.1		SLE RA 19	6.31E-05					
232	SLD 13	-1.5E-03	-4449.4	SLE RA 19		-1.9E-03	-5553.6		SLE RA 19	7.68E-05					
233	SLD 13	-1.5E-03	-4448	SLE RA 19		-1.8E-03	-5513		SLE RA 19	0.000081					
234	SLD 13	-1.5E-03	-4450.7	SLE RA 19		-1.8E-03	-5481		SLE RA 19	7.89E-05					
235	SLD 13	-1.5E-03	-4451.6	SLE RA 19		-1.8E-03	-5449.3		SLE RA 19	7.54E-05					
236	SLD 13	-1.5E-03	-4449.8	SLE RA 19		-1.8E-03	-5415.7		SLE RA 19	7.33E-05					
237	SLD 13	-1.5E-03	-4446	SLE RA 19		-1.8E-03	-5380.6		SLE RA 19	7.44E-05					
238	SLD 13	-1.5E-03	-4441.8	SLE RA 19		-1.8E-03	-5344.9		SLE RA 19	7.99E-05					
239	SLD 13	-1.5E-03	-4438.1	SLE RA 19		-1.8E-03	-5309		SLE RA 19	9.09E-05					
240	SLE RA 1	-1.5E-03	-4418.1	SLE RA 19		-1.8E-03	-5272.5		SLE RA 19	1.09E-04					
241	SLE RA 1	-1.5E-03	-4382.4	SLE RA 19		-1.7E-03	-5234.1		SLE RA 19	1.48E-04					
242	SLE RA 1	-1.4E-03	-4344.8	SLE RA 19		-1.7E-03	-5192.1		SLE RA 19	0.000194					
243	SLE RA 1	-1.4E-03	-4304	SLE RA 19		-1.7E-03	-5144.8		SLE RA 19	2.47E-04					
244	SLE RA 1	-1.4E-03	-4259.6	SLE RA 19		-1.7E-03	-5092.1		SLE RA 19	2.80E-04					
245	SLE RA 1	-1.4E-03	-4213.8	SLE RA 19		-1.7E-03	-5036.8		SLE RA 19	3.20E-04					
246	SLE RA 1	-1.4E-03	-4173.3	SLE RA 19		-1.7E-03	-4988.2		SLE RA 19	3.46E-04					
247	SLE RA 1	-1.4E-03	-4151.4	SLE RA 19		-1.7E-03	-4963.9		SLE RA 19	3.54E-04					
248	SLE RA 1	-1.4E-03	-4147.2	SLE RA 19		-1.7E-03	-4963.8		SLE RA 19	3.41E-04					
249	SLE RA 1	-1.4E-03	-4156.2	SLE RA 19		-1.7E-03	-4983.1		SLE RA 19	3.08E-04					
250	SLE RA 1	-1.4E-03	-4167.1	SLE RA 19		-1.7E-03	-5006		SLE RA 19	2.61E-04					
251	SLE RA 1	-1.4E-03	-4174	SLE RA 19		-1.7E-03	-5023.8		SLE RA 19	2.20E-04					
252	SLE RA 1	-1.4E-03	-4175.1	SLE RA 19		-1.7E-03	-5033.9		SLE RA 19	1.61E-04					
253	SLE RA 1	-1.4E-03	-4170.7	SLE RA 19		-1.7E-03	-5036.3		SLE RA 19	1.09E-04					
254	SLD 1	-1.4E-03	-4141.4	SLE RA 19		-1.7E-03	-5031.8		SLE RA 19	8.01E-05					
255	SLD 1	-1.4E-03	-4088.9	SLE RA 19		-1.7E-03	-5020.2		SLE RA 19	5.98E-05					
256	SLD 1	-1.3E-03	-4029.4	SLE RA 19		-1.7E-03	-4999.9		SLE RA 19	4.55E-05					
257	SLD 1	-1.3E-03	-3960.9	SLE RA 19		-1.7E-03	-4968		SLE RA 19	3.68E-05					
258	SLD 1	-1.3E-03	-3882.4	SLE RA 19		-1.6E-03	-4920.6		SLE RA 19	0.000037					
259	SLD 1	-1.3E-03	-3795.7	SLE RA 19		-1.6E-03	-4855.6		SLE RA 19	3.76E-05					
260	SLD 1	-1.2E-03	-3709.1	SLE RA 19		-1.6E-03	-4776.1		SLE RA 19	3.82E-05					
261	SLD 3	-1.2E-03	-3640.8	SLE RA 19		-1.6E-03	-4697.9		SLE RA 19	0.000038					
262	SLD 3	-1.1E-03	-3347.6	SLD 14		-1.5E-03	-4375.1		SLE RA 19	2.17E-05					
264	SLD 13	-1.5E-03	-4420.6	SLD 4		-1.9E-03	-5607.9		SLE RA 19	5.51E-05					
265	SLE RA 1	-1.4E-03	-4150.4	SLE RA 19		-1.7E-03	-4960.2		SLE RA 19	3.47E-04					
267	SLE RA 1	-1.4E-03	-4136.4	SLE RA 19		-1.6E-03	-4946.9		SLE RA 19	3.44E-04					
268	SLD 1	-1.4E-03	-4091.1	SLD 16		-1.7E-03	-5126.9		SLE RA 19	3.14E-05					
271	SLD 13	-1.4E-03	-4247.5	SLD 4		-1.8E-03	-5402.1		SLE RA 19	4.42E-05					
272	SLE RA 1	-1.4E-03	-4124.1	SLE RA 19		-1.6E-03	-4925.2		SLE RA 19	3.22E-04					
274	SLE RA 1	-1.4E-03	-4110.9	SLE RA 19		-1.6E-03	-4912.7		SLE RA 19	0.000319					
275	SLD 1	-1.3E-03	-3982.3	SLD 16		-1.7E-03	-5000.6		SLE RA 19	2.33E-05					
278	SLD 13	-1.3E-03	-4018.4	SLD 4		-1.7E-03	-5123		SLE RA 19	3.06E-05					
279	SLE RA 1	-1.4E-03	-4098.4	SLE RA 19		-1.6E-03	-4888.6		SLE RA 19	2.85E-04					
281	SLE RA 1	-1.4E-03	-4086.1	SLE RA 19		-1.6E-03	-4876.8		SLE RA 19	2.83E-04					
282	SLD 2	-1.3E-03	-3857.8	SLD 15		-1.6E-03	-4874.6		SLE RA 19	1.57E-05					
285	SLD 13	-1.3E-03	-3785.2	SLD 4		-1.6E-03	-4841.6		SLE RA 19	1.83E-05					
28															



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.	
302	SLD 5	-1.3E-03	-3930.4	SLE RA 19	-1.6E-03	-4854.2	SLE RA 19	1.70E-04					
303	SLD 2	-1.2E-03	-3645.3	SLD 15	-1.6E-03	-4753	SLE RA 19	1.07E-05					
306	SLD 13	-1.1E-03	-3367.5	SLD 4	-1.5E-03	-4414.3	SLE RA 19	8.75E-06					
307	SLD 9	-1.3E-03	-3909	SLE RA 19	-1.6E-03	-4901.1	SLE RA 19	0.000136					
309	SLD 5	-1.3E-03	-3897.3	SLE RA 19	-1.6E-03	-4891.9	SLE RA 19	1.35E-04					
310	SLD 6	-1.2E-03	-3642.6	SLD 11	-1.6E-03	-4891.8	SLE RA 19	1.17E-05					
313	SLD 9	-1.1E-03	-3373	SLD 8	-1.5E-03	-4494.9	SLE RA 19	9.52E-06					
314	SLD 9	-1.3E-03	-3897.2	SLE RA 19	-1.7E-03	-4967.7	SLE RA 19	1.21E-04					
316	SLD 5	-1.3E-03	-3886.4	SLE RA 19	-1.7E-03	-4959	SLE RA 19	1.21E-04					
317	SLD 6	-1.2E-03	-3675.1	SLD 11	-1.7E-03	-5157.4	SLE RA 19	1.38E-05					
320	SLD 9	-1.1E-03	-3417.4	SLD 8	-1.6E-03	-4748.7	SLE RA 19	1.16E-05					
321	SLD 9	-1.3E-03	-3911.6	SLD 8	-1.7E-03	-5106.7	SLE RA 19	1.07E-04					
323	SLD 5	-1.3E-03	-3901.7	SLD 12	-1.7E-03	-5100.5	SLE RA 19	1.07E-04					
324	SLD 6	-1.3E-03	-3777.9	SLD 11	-1.8E-03	-5530.1	SLE RA 19	1.63E-05					
327	SLD 9	-1.2E-03	-3546.7	SLD 8	-1.7E-03	-5126.6	SLE RA 19	1.43E-05					
328	SLD 9	-1.3E-03	-3959	SLD 8	-1.8E-03	-5324.5	SLE RA 19	8.68E-05					
330	SLD 5	-1.3E-03	-3950	SLD 12	-1.8E-03	-5318.5	SLE RA 19	8.64E-05					
331	SLD 6	-1.3E-03	-3953	SLD 11	-2.0E-03	-6015.3	SLE RA 19	1.84E-05					
334	SLD 9	-1.3E-03	-3752.7	SLD 8	-1.9E-03	-5618.9	SLE RA 19	1.66E-05					
335	SLD 9	-1.4E-03	-4050.8	SLD 8	-0.00187	-5609.9	SLE RA 19	5.65E-05					
337	SLD 5	-1.3E-03	-4042.7	SLD 12	-1.9E-03	-5604	SLE RA 19	5.64E-05					
338	SLD 9	-1.4E-03	-4206.8	SLD 8	-2.1E-03	-6417.4	SLE RA 19	3.93E-05					
339	SLD 9	-1.3E-03	-4045.3	SLD 8	-2.0E-03	-6134.7	SLE RA 19	1.83E-05					
340	SLD 9	-1.2E-03	-3722.1	SLD 8	-1.9E-03	-5554.6	SLE RA 19	1.65E-05					
341	SLD 9	-1.2E-03	-3467.6	SLD 8	-1.7E-03	-5079.7	SLE RA 19	1.37E-05					
342	SLD 9	-1.1E-03	-3278.2	SLD 8	-1.6E-03	-4709	SLE RA 19	1.03E-05					
343	SLD 9	-1.0E-03	-3146.5	SLD 8	-1.5E-03	-4434.7	SLE RA 19	7.25E-06					
344	SLD 9	-1.0E-03	-3064.2	SLD 8	-1.4E-03	-4246.1	SLE RA 19	0.000005					
345	SLD 9	-1.0E-03	-3023.6	SLD 8	-1.4E-03	-4132.3	SLE RA 19	3.62E-06					
346	SLD 9	-1.0E-03	-3018.5	SLD 8	-1.4E-03	-4083.9	SLE RA 19	3.08E-06					
347	SLD 9	-1.0E-03	-3044.6	SLD 8	-1.4E-03	-4093.7	SLE RA 19	3.29E-06					
348	SLD 9	-1.0E-03	-3099.3	SLD 8	-1.4E-03	-4156.9	SLE RA 19	4.22E-06					
349	SLD 9	-1.1E-03	-3181.1	SLD 8	-1.4E-03	-4270.5	SLE RA 19	5.89E-06					
350	SLD 9	-1.1E-03	-3289.2	SLD 8	-1.5E-03	-4431.7	SLE RA 19	8.34E-06					
351	SLD 9	-1.1E-03	-3421.6	SLD 8	-1.5E-03	-4635.8	SLE RA 19	1.17E-05					
352	SLD 9	-1.2E-03	-3573.7	SLD 8	-1.6E-03	-4873.7	SLE RA 19	1.72E-05					
353	SLD 9	-1.2E-03	-3735.8	SLD 8	-1.7E-03	-5128.1	SLE RA 19	2.91E-05					
354	SLD 9	-1.3E-03	-3890	SLD 8	-1.8E-03	-5369	SLE RA 19	4.22E-05					
355	SLD 9	-1.3E-03	-4006	SLD 8	-1.8E-03	-5549.4	SLE RA 19	5.31E-05					
356	SLD 5	-1.3E-03	-4040	SLD 12	-1.9E-03	-5604.1	SLE RA 19	5.73E-05					
357	SLD 5	-1.3E-03	-4002.1	SLD 12	-1.9E-03	-5551.6	SLE RA 19	5.36E-05					
358	SLD 6	-1.3E-03	-3895.5	SLD 11	-1.8E-03	-5390.1	SLE RA 19	0.000044					
359	SLD 6	-1.3E-03	-3754.2	SLD 11	-1.7E-03	-5172	SLE RA 19	3.19E-05					
360	SLD 6	-1.2E-03	-3603.8	SLD 11	-1.6E-03	-4936.7	SLE RA 19	2.04E-05					
361	SLD 6	-1.2E-03	-3459.9	SLD 11	-1.6E-03	-4710.4	SLE RA 19	0.000013					
362	SLD 6	-1.1E-03	-3331.3	SLD 11	-1.5E-03	-4509.4	SLE RA 19	9.56E-06					
363	SLD 6	-1.1E-03	-3222.9	SLD 11	-1.4E-03	-4343.1	SLE RA 19	6.89E-06					
364	SLD 6	-1.0E-03	-3136.6	SLD 11	-1.4E-03	-4216.6	SLE RA 19	4.94E-06					
365	SLD 6	-1.0E-03	-3073.6	SLD 11	-1.4E-03	-4132.9	SLE RA 19	3.64E-06					
366	SLD 6	-1.0E-03	-3034.6	SLD 11	-1.4E-03	-4094.4	SLE RA 19	2.94E-06					
367	SLD 6	-1.0E-03	-3020.9	SLD 11	-1.4E-03	-4103.9	SLE RA 19	2.85E-06					
368	SLD 6	-1.0E-03	-3034.5	SLD 11	-1.4E-03	-4165.2	SLE RA 19	3.38E-06					
369	SLD 6	-1.0E-03	-3078.6	SLD 11	-1.4E-03	-4283.4	SLE RA 19	4.58E-06					
370	SLD 6	-1.1E-03	-3156.9	SLD 11	-1.5E-03	-4464.1	SLE RA 19	6.50E-06					
371	SLD 6	-1.1E-03	-3273.6	SLD 11	-1.6E-03	-4713.5	SLE RA 19	9.13E-06					
372	SLD 6	-1.1E-03	-3432.4	SLD 11	-1.7E-03	-5035.7	SLE RA 19	1.23E-05					
373	SLD 6	-1.2E-03	-3634.8	SLD 11	-1.8E-03	-5431.8	SLE RA 19	1.54E-05					
374	SLD 6	-1.3E-03	-3879	SLD 11	-2.0E-03	-5896.2	SLE RA 19	1.79E-05					
375	SLD 6	-1.4E-03	-4156.4	SLD 11	-2.1E-03	-6413	SLE RA 19	1.92E-05					
379	SLD 9	-1.3E-03	-4018.8	SLD 8	-2.1E-03	-6204.5	SLE RA 19	0.000018					
396	SLD 9	-1.4E-03	-4201.4	SLD 8	-2.0E-03	-5985.1	SLE RA 19	4.53E-05					
398	SLD 5	-1.4E-03	-4194	SLD 12	-2.0E-03	-5979	SLE RA 19	4.53E-05					
417	SLD 6	-1.4E-03	-4194.9	SLD 11	-2.2E-03	-6606.9	SLE RA 19	4.66E-05					

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	-28.302	-13.527	-28.227	-13.538	-0.075	0.011
Primo	-28.165	-13.767	-28.177	-13.518	0.012	-0.25



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	192683198	83800356
Rialzato	Primo	89521222	52618263

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: 0.998557
Traslazione Y: 0.998033
Traslazione Z: 0
Rotazione X: 0.961319
Rotazione Y: 0.963687
Rotazione Z: 0.968982

Modo	Periodo	Massa X	Massa Y	Massa Z	Massa rot. X	Massa rot. Y	Massa rot. Z	Massa sX	Massa sY
1	0.652477159	0.000020476	0.020933468	0	0.028700776	0.000038974	0.010740529	0.000020476	0.020933468
2	0.592152613	0.028556796	0.000064435	0	0.000095966	0.037800202	0.006018839	0.028556796	0.000064435
3	0.575884846	0.002040986	0.002170096	0	0.002950746	0.002661101	0.000082094	0.002040986	0.002170096
4	0.56335602	0.001947222	0.008417901	0	0.011647254	0.002522791	0.012983553	0.001947222	0.008417901
5	0.558217993	0.000505485	0.032853895	0	0.045490025	0.000658853	0.022947296	0.000505485	0.032853895
6	0.548946858	0.002400847	0.007417999	0	0.010291677	0.003012649	0.00612251	0.002400847	0.007417999
7	0.53551839	0.000518689	0.008452849	0	0.011155484	0.000678761	0.011028169	0.000518689	0.008452849
8	0.532501806	0.001995546	0.028468188	0	0.038592881	0.002605448	0.02498266	0.001995546	0.028468188
9	0.520614602	0.019212159	0.000375292	0	0.000489665	0.024274684	0.002122766	0.019212159	0.000375292
10	0.477038319	0.000008115	0.002473765	0	0.003555816	0.000013472	0.002206377	0.000008115	0.002473765
11	0.472825421	0.000020457	0.00075477	0	0.001110155	0.00002198	0.001223503	0.000020457	0.00075477
12	0.44845866	0.024831259	0.000145086	0	0.000189616	0.03127566	0.003080879	0.024831259	0.000145086
13	0.444064441	0.000025634	0.000157645	0	0.000196051	0.000041948	0.000482007	0.000025634	0.000157645
14	0.361871457	0.000001881	0.00002223	0	0.000025089	0.000002628	0.000316104	0.000001881	0.00002223
15	0.346415097	0.000133501	0.000001448	0	0.000005172	0.000140988	0.000015464	0.000133501	0.000001448
16	0.324195924	0.002667315	0.000068801	0	0.000060188	0.003314399	0.00017517	0.002667315	0.000068801
17	0.320438096	0.000000693	0.002386208	0	0.002650529	0.000001177	0.001459705	0.000000693	0.002386208
18	0.305336455	0.002351149	0.000202896	0	0.000266652	0.003090897	0.000972942	0.002351149	0.000202896
19	0.302480122	0.000133088	0.000100273	0	0.000064443	0.000151057	0.000247638	0.000133088	0.000100273
20	0.27233159	0.000077505	0.000093512	0	0.000110113	0.000001501	0.000160848	0.000077505	0.000093512
21	0.267088992	0.00000577	0.003279915	0	0.004035314	0.000014289	0.003711464	0.00000577	0.003279915
22	0.252601799	0.000243658	0.008849791	0	0.010606474	0.000766581	0.008976383	0.000243658	0.008849791
23	0.239497427	0.000443548	0.012343335	0	0.014337056	0.001173557	0.00653167	0.000443548	0.012343335
24	0.208562003	0.000194026	0.078599902	0	0.087705105	0.000415194	0.064831971	0.000194026	0.078599902
25	0.197148293	0.007052092	0.003183333	0	0.003684084	0.006029285	0.000347178	0.007052092	0.003183333
26	0.180661764	0.005647287	0.056017242	0	0.046516378	0.000767316	0.061517385	0.005647287	0.056017242
27	0.171435081	0.037237464	0.020666648	0	0.015450734	0.009955796	0.002371728	0.037237464	0.020666648
28	0.159398105	0.000469136	0.527722059	0	0.311975758	0.000205901	0.419232436	0.000469136	0.527722059
29	0.140346463	0.328478342	0.000872512	0	0.001190139	0.224348328	0.046066467	0.328478342	0.000872512
30	0.127999042	0.007055324	0.111666445	0	0.249480901	0.006090093	0.112669927	0.007055324	0.111666445
31	0.120243382	0.432510449	0.000623858	0	0.001629181	0.451064648	0.068390754	0.432510449	0.000623858
32	0.094516354	0.045644607	0.000208143	0	0.000313047	0.069582358	0.011822714	0.045644607	0.000208143
33	0.082975095	0.000408069	0.006668	0	0.002983624	0.000373609	0.006490065	0.000408069	0.006668
34	0.041357589	0.000146179	0.051613782	0	0.053646368	0.000197565	0.042497723	0.000146179	0.051613782
35	0.039106377	0.045571805	0.000156784	0	0.000116422	0.080393696	0.00615533	0.045571805	0.000156784

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	-0.212	-182.302	-359970.828	4878388.25	-10148328.62	5131.3
Reazioni	0.212	182.302	359970.828	-4878388.25	10148328.62	-5131.3
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	-87606.249	1183253.09	-2466093.69	0
Reazioni	0	0	87606.249	-1183253.09	2466093.69	0
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	-79869.949	1079436.77	-2251931.51	0
Reazioni	0	0	79869.949	-1079436.77	2251931.51	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	0	1495.418	0	-5469.19	0	-42104.89
Reazioni	0	-1495.418	0	5469.19	0	42104.89
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	128504.026	0	0	0	523655.42	1741155.11
Reazioni	-128504.026	0	0	0	-523655.42	-1741155.11
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	141490.033	0	-576573.56	0	-3977673.13
Reazioni	0	-141490.033	0	576573.56	0	3977673.13
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	-34050.11
Reazioni	0	0	0	0	0	34050.11
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	37491.05
Reazioni	0	0	0	0	0	-37491.05
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	56388.232	0	0	0	229782.71	764027.89
Reazioni	-56388.232	0	0	0	-229782.71	-764027.89
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	60541.585	0	-246707.68	0	-1701990.11
Reazioni	0	-60541.585	0	246707.68	0	1701990.11
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	-14941.36
Reazioni	0	0	0	0	0	14941.36
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	16041.89
Reazioni	0	0	0	0	0	-16041.89
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	5.62	13.52
Reazioni	-1	0	0	0	-5.62	-13.52
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	-5.62	0	-28.18
Reazioni	0	-1	0	5.62	0	28.18
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	84151.74	3008.1	0	1.285E04	2.723E05	1.136E06	84151.74	0	87955.84	90	0	0
SLV Y	3008.1	87955.84	0	2.559E05	8522.0808	2.471E06	84151.74	0	87955.84	90	0	0
X SLD	36964.86	1307.41	0	5617.8276	1.195E05	4.988E05	36964.86	0	37633.61	90	0	0
Y SLD	1307.41	37633.61	0	1.096E05	3713.5015	1.057E06	36964.86	0	37633.61	90	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	18351
Elemento min. diagonale	4860.13262224
Elemento max diagonale	50330573049330.3
Rapporto max/min	10355802394.9884
Elementi non nulli	723257

TABULATI DI CALCOLO – VERIFICHE
CIVICI 29-31
STATO DI PROGETTO



Sommario

<i>1 Verifiche</i>	<i>3</i>
<i>1.1 Verifica regolarità strutturale</i>	<i>3</i>
<i>1.2 Verifiche travate C.A.</i>	<i>4</i>
<i>1.3 Verifica sismica globale</i>	<i>24</i>
<i>1.4 Verifiche maschi in muratura</i>	<i>29</i>
<i>1.5 Verifiche travi di accoppiamento in muratura</i>	<i>88</i>



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 - NO

L'edificio risulta NON regolare in pianta, in base alle condizioni indicate in NTC 2018 §7.2.1

Ok - Criterio A1 (Distribuzione masse) rispettato, con rapporto massimo 0,03 (limite=0,2) al livello Primo

No - Criterio A2 (Distribuzione rigidezze) NON rispettato, con rapporto massimo 1926832/838003.6=2.3 (limite=1,2) al livello Rialzato

Ok - Criterio A3 (Forma compatta) rispettato, con rapporto massimo 1 (limite=1,05) al livello Primo

Ok - Criterio B (Rapporto lati) rispettato, con rapporto massimo 1,57 (limite=4) al livello Primo

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 1,01 (limite=1,25) tra il livello Primo ed il precedente

No - Criterio E2 (Riduzione rigidezze) NON rispettato, con rapporto massimo 1926832/895212.2=2.2 (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 419.8/16.4=25.6 (limite=1) 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	1.69	0.08	14.66	0.01	1926832	838004	2.3	138.6138	138.6165	1	14.66	9.46	1.55	0	+	0
Primo	5.62	0.25	9.26	0.03	895212	526183	1.7	134.733	134.733	1	14.55	9.26	1.57	0	+	0

Verifiche di regolarità in elevazione

Rapporto di regolarità per la condizione D (Altezza elementi sismoresistenti): 6.53/6.53=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	5.62	1.69	102128	100634	1.01	192683198	89521222	2.15	192683198	192683198	1	419.8	16.4	25.59	0.08	9.46	0.01	0.08	9.46	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	1.69	SLV 1	324856	-66613	4.9	321773	-20425	15.8
Rialzato	1.69	SLV 2	324974	-66613	4.9	321669	-20425	15.7
Rialzato	1.69	SLV 3	324356	-66676	4.9	302978	19551	15.5
Rialzato	1.69	SLV 4	324475	-66676	4.9	302874	19551	15.5
Rialzato	1.69	SLV 5	326313	-19890	16.4	322902	-66842	4.8
Rialzato	1.69	SLV 6	326438	-19890	16.4	322792	-66842	4.8
Rialzato	1.69	SLV 7	324649	-20097	16.2	305470	66411	4.6
Rialzato	1.69	SLV 8	324774	-20097	16.2	305360	66411	4.6
Rialzato	1.69	SLV 9	327065	20097	16.3	324451	-66652	4.9
Rialzato	1.69	SLV 10	327190	20097	16.3	324342	-66652	4.9
Rialzato	1.69	SLV 11	325401	19890	16.4	307019	66601	4.6
Rialzato	1.69	SLV 12	325526	19890	16.4	306910	66601	4.6
Rialzato	1.69	SLV 13	327364	66675	4.9	326938	-19792	16.5
Rialzato	1.69	SLV 14	327483	66675	4.9	326833	-19792	16.5
Rialzato	1.69	SLV 15	326865	66613	4.9	327522	20184	16.2
Rialzato	1.69	SLV 16	326984	66613	4.9	327417	20184	16.2
Primo	5.62	SLV 1	524036	-20743	25.3	378533	-5490	68.9
Primo	5.62	SLV 2	524036	-20743	25.3	378532	-5490	68.9
Primo	5.62	SLV 3	512146	-24024	21.3	378538	6578	57.5
Primo	5.62	SLV 4	515511	-24024	21.5	378537	6578	57.5
Primo	5.62	SLV 5	524036	-1248	419.8	378553	-19950	19
Primo	5.62	SLV 6	520671	-1248	417.1	378552	-19950	19
Primo	5.62	SLV 7	519036	-12182	42.6	378569	20277	18.7
Primo	5.62	SLV 8	519036	-12182	42.6	378567	20277	18.7
Primo	5.62	SLV 9	520767	12182	42.7	378574	-20277	18.7
Primo	5.62	SLV 10	517594	12182	42.5	378573	-20277	18.7
Primo	5.62	SLV 11	515431	1248	412.9	378590	19950	19
Primo	5.62	SLV 12	517738	1248	414.8	378589	19950	19
Primo	5.62	SLV 13	505960	24024	21.1	378605	-6578	57.6
Primo	5.62	SLV 14	514485	24024	21.4	378604	-6578	57.6
Primo	5.62	SLV 15	497002	20743	24	378610	5490	69
Primo	5.62	SLV 16	502242	20743	24.2	378609	5490	69

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]

Size X: misura dell'impronta al suolo lungo X. [m]

Size Y: misura dell'impronta al suolo lungo Y. [m]

Sis.: indicazione combinazione sismica.

Cnd: indicazione condizione di carico (BT breve termine o LT lungo termine).

Fx: componente orizzontale del carico lungo x. [daN]



Fy: componente orizzontale del carico lungo y. [daN]
Fz: componente verticale del carico. [daN]
IncX: inclinazione del carico lungo x. [deg]
IncY: inclinazione del carico lungo y. [deg]
Phi: angolo di attrito di progetto. [deg]
Ad: adesione di progetto. [daN/m²]
RP: resistenza passiva laterale unitaria di progetto. [daN/m]
γR: coefficiente parziale sulla resistenza di progetto.
Rd: resistenza di progetto. [daN]
Ed: azione di progetto. [daN]
Rd/Ed: coefficiente di sicurezza allo scorrimento.
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).
Rd/Ed: coefficiente di sicurezza alla capacità portante.
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]
ys: 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).

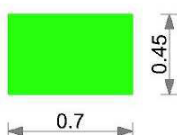
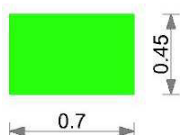
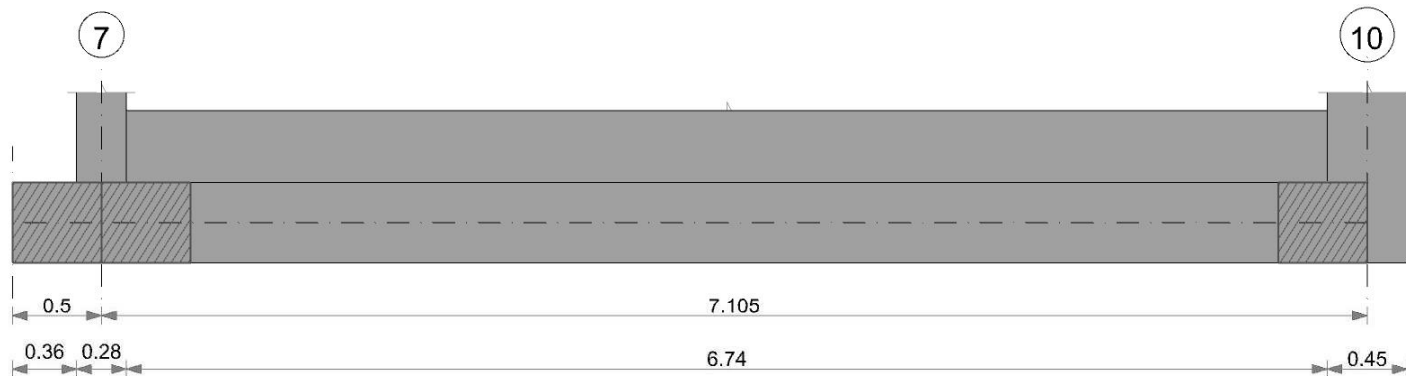
D- adm: distorsione angolare ammissibile. [deg]

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

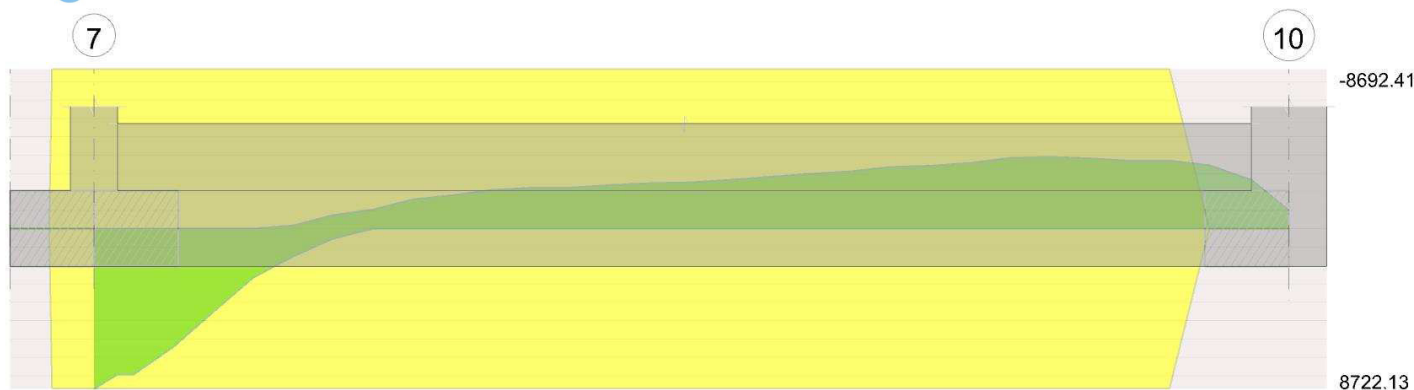
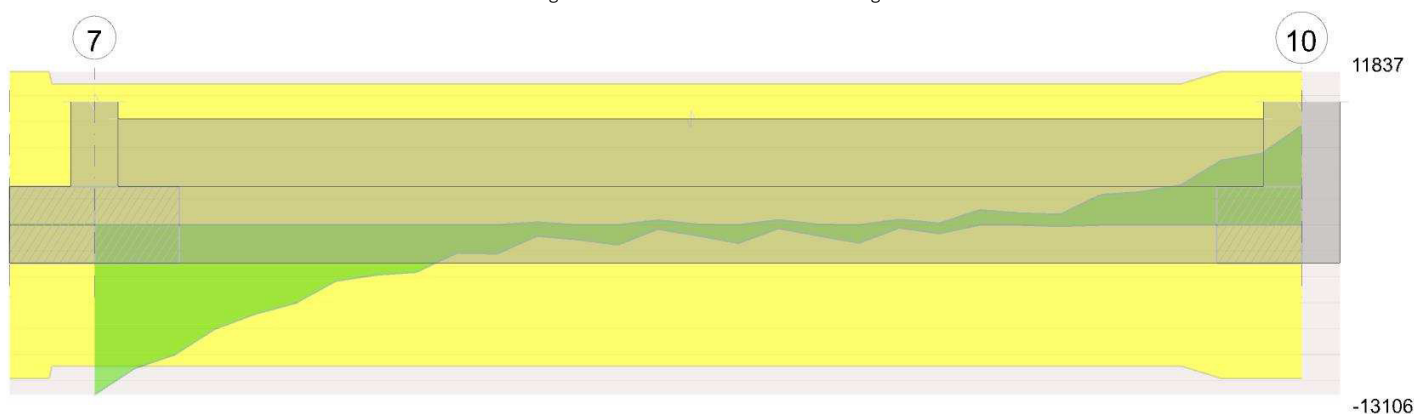


Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 7 - 10, sezione R 70x45, aste 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	1785	SLU 82	0.03	5680	4606	SLU 82	15877	Si
0.14	0.41	0.0004	1783	SLU 82	0.03	5680	4601	SLU 82	15877	Si
3.55	0.41	0.0004	1191	SLU 82	0.03	5680	3073	SLU 82	15877	Si
6.88	0.41	0.0004	1913	SLV 11	0.122	5468	4938	SLV 11	15877	Si

Verifiche delle tensioni di esercizio

x	d	Af	M	Comb	Rara				Quasi permanente				Verifica
					σc	σc limite	σf	σf limite	σc	σc limite	σf	σf limite	
0	0.41	0.00000357	1291	SLE RA 19	36477	1494000	452310	36000000	1110	SLE QP 2	31364	1120500	Si
0.14	0.41	0.00000357	1290	SLE RA 19	36436	1494000	451812	36000000	1109	SLE QP 2	31328	1120500	Si
3.55	0.41	0.00000357	860	SLE RA 19	24296	1494000	301268	36000000	737	SLE QP 2	20822	1120500	Si
6.88	0.41	0.00000357	1343	SLE RA 19	37932	1494000	470362	36000000	1176	SLE QP 2	33229	1120500	Si
7.1	0.42	0	1424	SLE RA 19	42194	1494000	0	36000000	1249	SLE QP 2	37014	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	29	14	159	SLV 12	0.36	1618	1.653	11.1	5.48	54.68	SLV 12	0.36	1618	1.653	Si
0.14	29	14	159	SLV 12	0.36	1618	1.653	11.09	5.48	54.68	SLV 12	0.36	1618	1.653	Si
3.55	19	10	159	SLV 11	0.36	1618	1.653	7.37	3.7	54.68	SLV 11	0.36	1618	1.653	Si
6.88	30	19	159	SLV 11	0.36	1618	1.653	11.76	7.37	54.68	SLV 11	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di scorrimento sul piano di posa

Size X	Size Y	Comb.	Sis.	Cnd	Fx	Fy	Fz	IncX	IncY	Phi	Ad	RPI	yR	Rd	Ed	Rd/Ed	Verifica
7.33	1.3	SLU 2	ST	LT	-457	252	-42276	-1	0	19	0	0	1.1	12859	522	24.65	Si
7.33	1.3	SLV 6	SIS	LT	-1210	-7275	-30382	-2	-13	19	0	0	1.1	9242	7375	1.25	Si

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	yR	Rd	Ed	Rd/Ed	Verifica
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19	7.33	1.3	SLU 82	ST	BT	2.3	306211	66975	4.57	Si
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19	7.33	1.3	SLV 11	SIS	BT	2.3	257820	59850	4.31	Si
1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19	7.33	1.3	SLD 11	SIS	BT	2.3	286737	51439	5.57	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	ys	Fi	Coes	Amax
0	315	-66975	-9306.53	-2093.32	0	0	-0.03	-0.14	1.02	7.27	1496	2060	0	14430	0.07
0	7488	-59850	-12480.16	1853.08	0	7	0.03	-0.21	0.88	7.27	1496	2060	0	14430	0.03
0	3266	-51439	-8743.23	328.18	0	4	0.01	-0.17	0.96	7.32	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	Ik	Ig	Bq	Bc	Bg	Gq	Gc	Gg	Pq	Pc	Pg	Eq	Ec	Eg
1	5	0	0	0.03	0	0	0.23	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.02	0	0	0.23	0	0	0.03	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.03	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

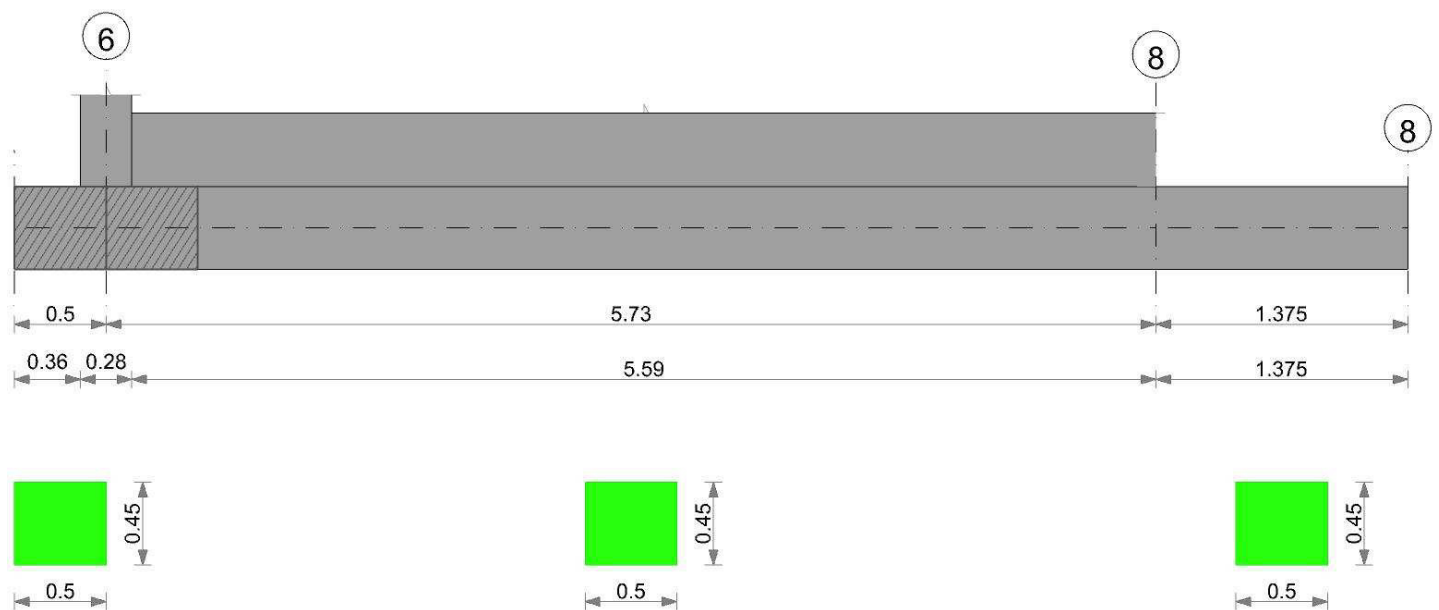
Tipo	Assoluto					Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.		Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	Ri adm	Ri	Comb.	
E	0.05	0	356	SLE RA 19		0.05	0	356	375	SLE RA 19	0.05	0	375	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	375	SLE RA 1		0.05	0	375	375	SLE RA 1	0.05	0	375	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	375	SLE RA 1		0.05	0	375	375	SLE RA 1	0.05	0	375	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	375	356	SLE RA 19	0.19	0	375	SLE RA 1	0.1	0	375	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	375	356	SLE RA 1	0.19	0	375	SLE RA 1	0.1	0	375	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	375	356	SLE RA 1	0.19	0	375	SLE RA 1	0.1	0	375	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	Copri ferro sup.	Copri ferro inf.	Copri ferro lat.
1	R 50x45	Rettangolare	0.5	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

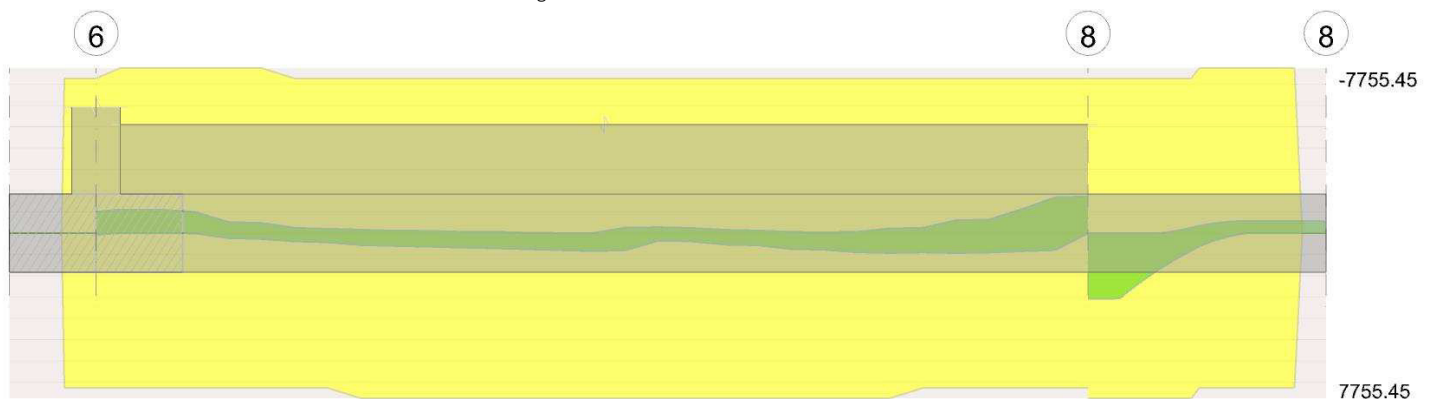


Diagramma verifica stato limite ultimo taglio



Output campate

Campata 3 tra i fili 8 - 8, sezione R 50x45, asta 52

Verifiche a flessione in famiglia SLV

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	3086.73	SLU 82	3086.73	7755.45	0.113	2.51							Si
0.69	0.000509	0.052	0.000509	0.052	-7.9	SLU 44	474.56	7755.45	0.113	16.34	-68.47	SLU 39	-410.46	-7755.45	0.113	18.89	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: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

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	2705.47	SLV 16	2705.47	7266.79	0.197	2.69							Si
0.69	0.000509	0.052	0.000509	0.052	66.2	SLV 12	467.31	7266.79	0.197	15.55	-114.16	SLV 5	-379.12	-7266.79	0.197	19.17	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	0.0000088	0.000509	0	-6739	SLU 82	-6739	-7764	-63178	-12299	-12299	1	1.83	Si
0.69	0.0000088	0.000509	0	-2468	SLU 82	-2468	-7764	-63178	-12299	-12299	1	4.98	Si
1.37	0	0	0	1576	SLU 82	1576	8455	71432	0	8455	1	5.36	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	0.0000088	0.000509	0	-5766	SLV 16	-5766	-7764	-63178	-12299	-12299	1	2.13	Si
0.69	0.0000088	0.000509	0	-2197	SLV 16	-2197	-7764	-63178	-12299	-12299	1	5.6	Si
1.37	0	0	0	1308	SLV 14	1308	8455	71432	0	8455	1	6.46	Si

Verifiche delle tensioni in esercizio

x	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.	Verifica
0	2244.33	19	2244.33	118711	1494000	1780659	36000000	1962.34	2	1962.34	103795	1120500			Si
0.69	-42.49	18	-292.07	15449	1494000	231728	36000000	-23.98	2	-239.35	12660	1120500			Si
1.37	-250.62	19	-390.19	-23122	1494000	0	36000000	-192.26	2	-318.76	-18890	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	-4249	-1517	-12299	SLV 16	0.36	1618	1.653	1962.34	743.13	7266.79	SLV 16	0.36	1618	1.653	Si
0.69	-1548	-649	-12299	SLV 16	0.36	1618	1.653	315.47	151.84	7266.79	SLV 16	0.36	1618	1.653	Si

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 6 - 8, sezione R 50x45, aste 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb.	x/d	Mult	V	Comb.	Vult	Verifica
0	0.41	0.0002	881	SLU 82	0.017	2735	3064	SLU 82	15877	Si
0.14	0.41	0.0002	880	SLU 82	0.017	2735	3062	SLU 82	15877	Si
2.87	0.41	0.0002	900	SLU 82	0.017	2735	3129	SLU 82	15877	Si
5.73	0.41	0.0004	823	SLU 82	0.037	6952	2861	SLU 82	17178	Si

Verifiche delle tensioni di esercizio

x	d	Af	M	Comb.	σ c	σ c limite	σ f	σ f limite	M	Comb.	σ c	σ c limite	Verifica
0	0.41	0.00000171	635	SLE RA 19	18373	1494000	227830	36000000	540	SLE OP 2	15647	1120500	Si
0.14	0.41	0.00000171	634	SLE RA 19	18357	1494000	227632	36000000	540	SLE OP 2	15629	1120500	Si
2.87	0.41	0.00000171	646	SLE RA 19	18698	1494000	231859	36000000	545	SLE OP 2	15777	1120500	Si
5.73	0.41	0.00000439	591	SLE RA 19	16511	1494000	204732	36000000	499	SLE OP 2	13953	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	0	56	SLV 16	0.36	1618	1.653	5.4	0.11	26.6	SLV 16	0.36	1618	1.653	Si
0.14	19	0	66	SLV 16	0.36	1618	1.653	5.4	0.14	26.6	SLV 16	0.36	1618	1.653	Si
2.87	19	4	159	SLV 16	0.36	1618	1.653	5.45	1.06	26.6	SLV 16	0.36	1618	1.653	Si
5.73	17	7	172	SLV 14	0.36	1618	1.653	4.99	1.9	66.75	SLV 14	0.36	1618	1.653	Si



Campata 3 tra i fili 8 - 8, sezione R 50x45, asta 52

Verifiche geotecniche

Verifiche geotecniche di scorrimento sul piano di posa

Size X	Size Y	Comb.	Sis.	Cnd	Fx	Fy	Fz	IncX	IncY	Phi	Ad	RPI	yR	Rd	Ed	Rd/Ed	Verifica
7.1	1.1	SLU 2	ST	LT	185	143	-36173	0	0	19	0	0	1.1	11003	234	47.03	Si
7.1	1.1	SLV 2	SIS	LT	-5692	-2256	-33848	-10	-4	19	0	0	1.1	10296	6122	1.68	Si

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb.	Type	Cond	yR	Rd	Ed	Rd/Ed	Verifica
38,39,40,41,42,43,44,45,46,47,48,49,50,51,52	7.1	1.1	SLU 81	ST	BT	2.3	323875	59789	5.42	Si
38,39,40,41,42,43,44,45,46,47,48,49,50,51,52	7.1	1.1	SLV 10	SIS	LT	2.3	266088	40581	6.56	Si
38,39,40,41,42,43,44,45,46,47,48,49,50,51,52	7.1	1.1	SLD 14	SIS	BT	2.3	318581	41781	7.62	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	ys	Fi	Coes	Amax
0	-15	-59789	436.67	-3518.01	0	0	-0.06	0.01	1.09	6.99	1496	2060	0	14430	0
0	-6317	-40581	3403.69	1314.49	0	-9	0.03	0.08	0.93	7.04	1496	2060	37	0	0.07
0	-875	-41781	735.54	1661.69	0	-1	0.04	0.02	1.06	7.03	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	1.1	1.1	0.95	1.16	1.27	1	0.73	0.72	0.61	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	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

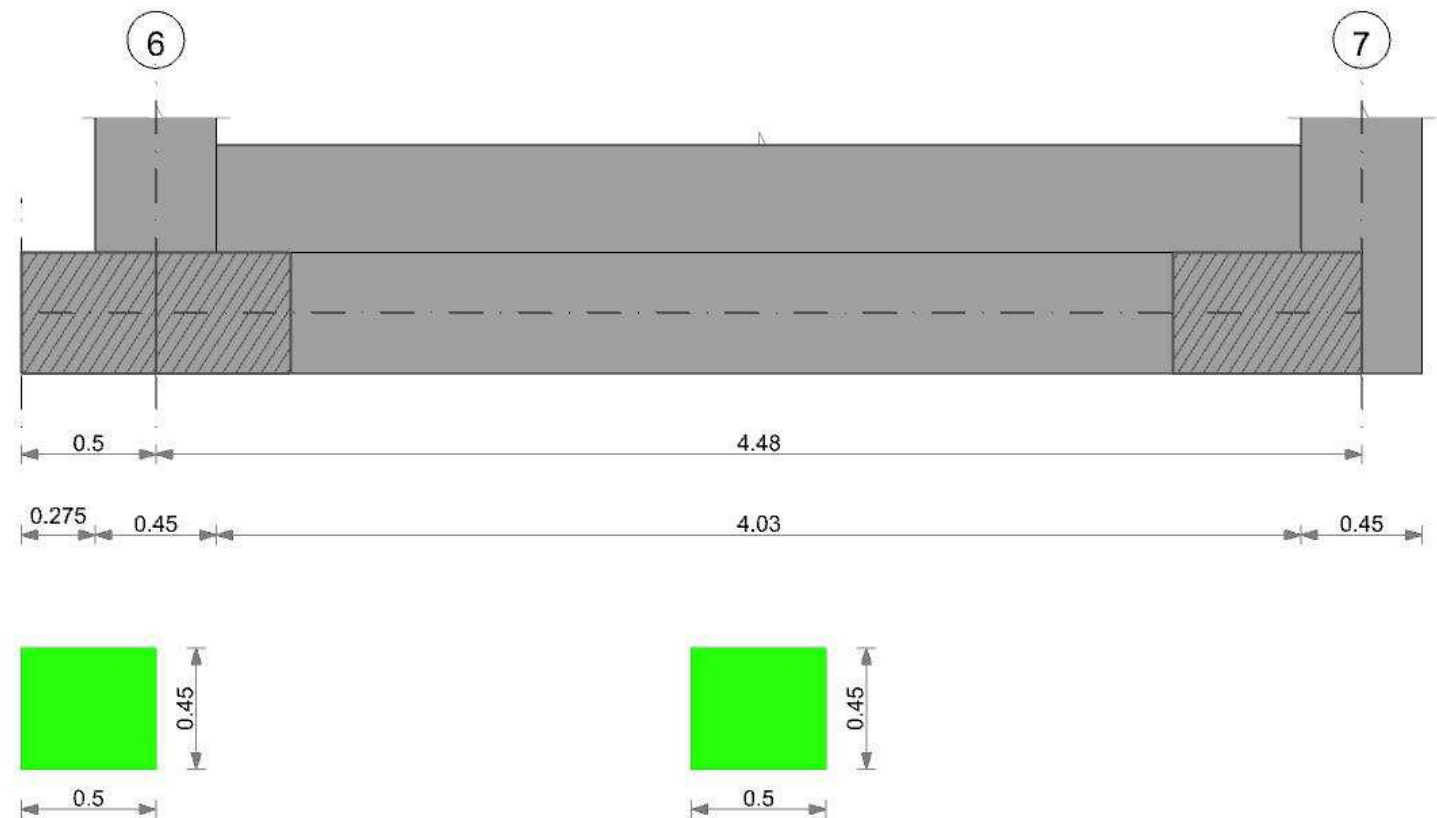
Elementi assoluti e differenziali																	
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo j	Comb.	Sr adm	Sr	Nodo	Comb.	Ri adm	Ri	Comb.	
E	0.05	0	247	SLE RA 19	0.05	0	247	262	SLE RA 19	0.05	0	261	SLE RA 19	0.0033	0	SLE RA 19	Si
D	0.05	0	262	SLE RA 1	0.05	0	262	262	SLE RA 1	0.05	0	261	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	262	SLE RA 1	0.05	0	262	262	SLE RA 1	0.05	0	261	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Elementi geometrici - Rotazioni assolute e relative																	
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	261	247	SLE RA 19	0.19	0	262	SLE RA 1	0.1	0	261	SLE RA 19	Si
D	0.19	0	SLE RA 1	0.19	0	262	261	SLE RA 1	0.19	0	262	SLE RA 1	0.1	0	261	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	262	261	SLE RA 1	0.19	0	262	SLE RA 1	0.1	0	261	SLE RA 1	Si

CORDOLO 3

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000

Calcestruzzo: C25/30 Rck 3000000



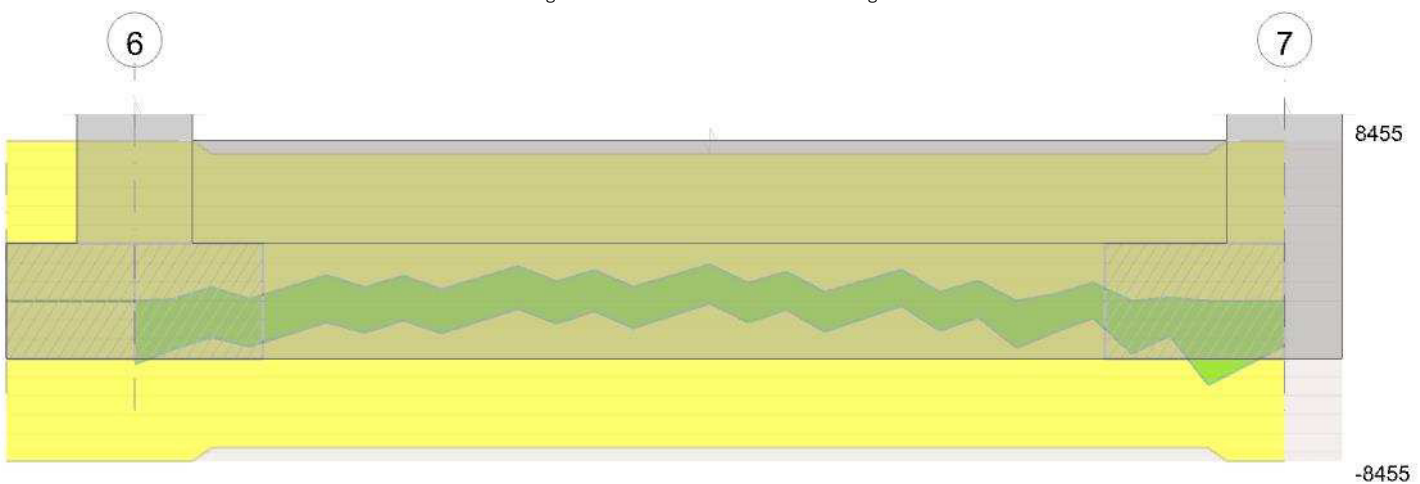
Elenco delle sezioni

N°	Descrizione	Tipo	Base	Altezza	Copri ferro sup.	Copri ferro inf.	Copri ferro 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 6 - 7, sezione R 50x45, aste 79, 78, 77, 76, 75, 74, 73, 72, 71, 70, 69, 68

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1161	SLU 82	0.017	2730	3518	SLU 82	15877	Si
0.23	0.41	0.0002	1159	SLU 82	0.017	2730	3511	SLU 82	15877	Si
2.24	0.41	0.0002	1126	SLU 82	0.017	2730	3411	SLU 82	15877	Si
4.26	0.41	0.0002	1327	SLU 82	0.017	2730	4023	SLU 82	15877	Si
4.48	0.41	0.0002	1384	SLU 82	0.017	2730	4195	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	836	SLE RA 19	24211	1494000	300222	36000000	712	SLE QP 2	20618	1120500	Si
0.23	0.41	0.00000171	835	SLE RA 19	24162	1494000	299603	36000000	710	SLE QP 2	20569	1120500	Si
2.24	0.41	0.00000171	812	SLE RA 19	23516	1494000	291603	36000000	694	SLE QP 2	20096	1120500	Si
4.26	0.41	0.00000171	960	SLE RA 19	27809	1494000	344830	36000000	826	SLE QP 2	23923	1120500	Si
4.48	0.41	0.00000171	1002	SLE RA 19	29012	1494000	359749	36000000	863	SLE QP 2	24981	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	22	1	79	SLV 16	0.36	1618	1.653	7.12	0.19	26.55	SLV 16	0.36	1618	1.653	Si
0.23	22	1	86	SLV 16	0.36	1618	1.653	7.1	0.22	26.55	SLV 12	0.36	1618	1.653	Si
2.24	21	6	159	SLV 12	0.36	1618	1.653	6.94	1.94	26.55	SLV 12	0.36	1618	1.653	Si
4.26	25	13	159	SLV 12	0.36	1618	1.653	8.26	4.19	26.55	SLV 12	0.36	1618	1.653	Si
4.48	26	14	159	SLV 12	0.36	1618	1.653	8.63	4.54	26.55	SLV 12	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di scorrimento sul piano di posa



Size X	Size Y	Comb.	Sis.	Cnd	Fx	Fy	Fz	IncX	IncY	Phi	Ad	RPI	yR	Rd	Ed	Rd/Ed	Verifica
4.71	1.1	SLU 2	ST	LT	83	18	-23916	0	0	19	0	0	1.1	7275	85	85.79	Si
4.71	1.1	SLV 10	SIS	LT	-4018	-1471	-21486	-11	-4	19	0	0	1.1	6536	4279	1.53	Si

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	yR	Rd	Ed	Rd/Ed	Verifica
79,78,77,76,75,74,73,72,71,70,69,68	4.71	1.1	SLU 82	ST	BT	2.3	220229	38800	5.68	Si
79,78,77,76,75,74,73,72,71,70,69,68	4.71	1.1	SLV 7	SIS	BT	2.3	194158	30129	6.44	Si
79,78,77,76,75,74,73,72,71,70,69,68	4.71	1.1	SLD 7	SIS	BT	2.3	207772	27656	7.51	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	ys	Fi	Coes	Amax
0	27	-38800	-24.59	1328.4	0	0	0.03	0	1.1	4.64	1496	2060	0	14430	
0	1509	-30129	-701.83	6352.21	0	3	0.21	-0.02	1.05	4.28	1496	2060	0	14430	0.07
0	669	-27656	-317.03	3243.32	0	1	0.12	-0.01	1.08	4.47	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

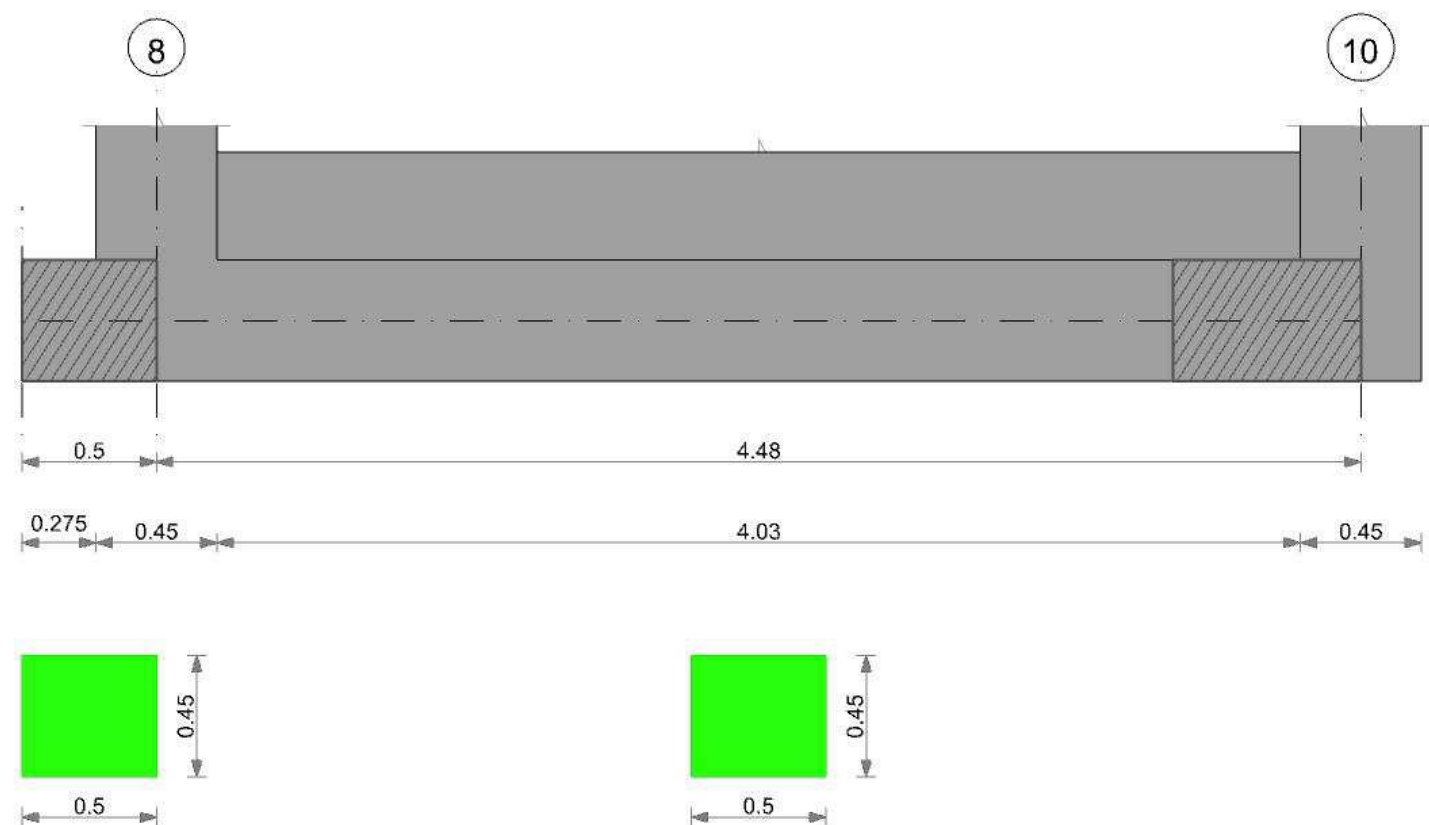
Tipo	Assoluto				Differenziale				Relativo				Rapp. inflessione				Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo J	Comb.	Sr adm	Sr	Nodo	Comb.	Ri adm	Ri	Comb.	
E	0.05	0	209	SLE RA 19	0.05	0	209	398	SLE RA 18	0.05	0	398	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	398	SLE RA 1	0.05	0	398	398	SLE RA 1	0.05	0	398	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	398	SLE RA 1	0.05	0	398	398	SLE RA 1	0.05	0	398	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Analisi globale - Rotazione assoluta e distorsione																	
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	398	209	SLE RA 18	0.19	0	398	SLE RA 1	0.1	0	398	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	398	209	SLE RA 1	0.19	0	398	SLE RA 1	0.1	0	398	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	398	209	SLE RA 1	0.19	0	398	SLE RA 1	0.1	0	398	SLE RA 1	Si

CORDOLO 4

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000

Calcestruzzo: C25/30 Rck 3000000

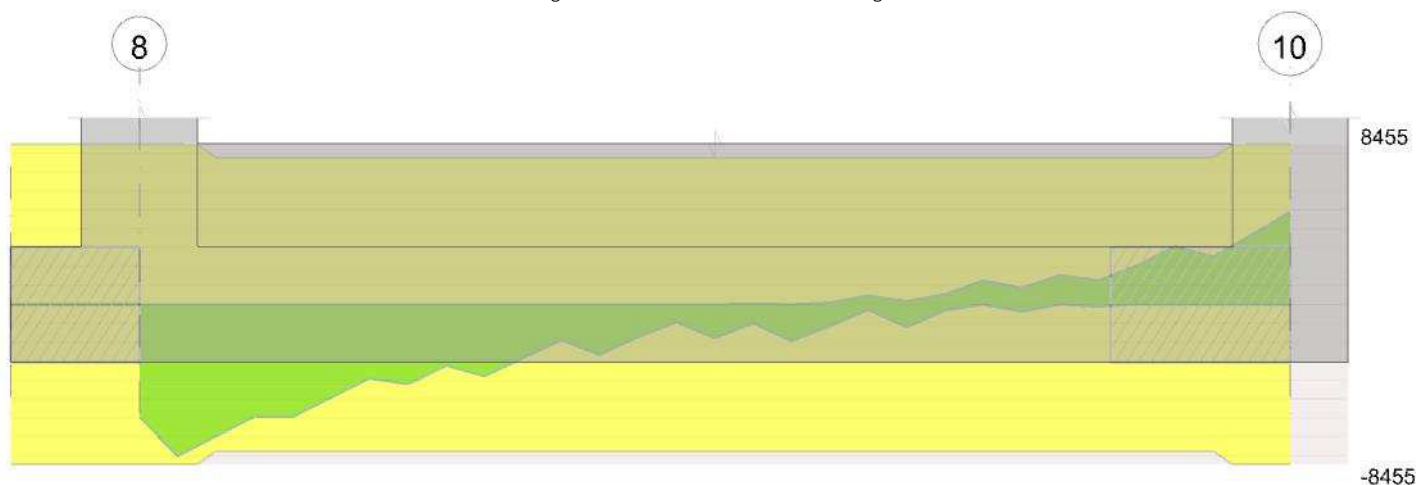
Elenco delle sezioni

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

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 8 - 10, sezione R 50x45, aste 112, 111, 110, 109, 108, 107, 106, 105, 104, 103, 102, 101

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	930	SLU 82	0.017	2730	3234	SLU 82	15877	Si
0.23	0.41	0.0002	926	SLU 82	0.017	2730	3221	SLU 82	15877	Si
2.24	0.41	0.0002	801	SLU 82	0.017	2730	2785	SLU 82	15877	Si
4.25	0.41	0.0002	1091	SLV 11	0.085	2655	3794	SLV 11	15877	Si
4.48	0.41	0.0002	1171	SLV 11	0.085	2655	4072	SLV 11	15877	Si

Verifiche delle tensioni di esercizio

x	d	Af	M	Comb	Rara				Quasi permanente				Verifica
					σ_c	$\sigma_{c\text{ limite}}$	σ_f	$\sigma_{f\text{ limite}}$	M	Comb	σ_c	$\sigma_{c\text{ limite}}$	
0	0.41	0.00000171	675	SLE RA 19	19535	1494000	242240	36000000	588	SLE QP 2	17023	1120500	Si
0.23	0.41	0.00000171	672	SLE RA 19	19457	1494000	241267	36000000	586	SLE QP 2	16955	1120500	Si
2.24	0.41	0.00000171	581	SLE RA 19	16835	1494000	208755	36000000	507	SLE QP 2	14687	1120500	Si
4.25	0.41	0.00000171	760	SLE RA 19	22014	1494000	272968	36000000	666	SLE QP 2	19289	1120500	Si
4.48	0.41	0.00000171	806	SLE RA 19	23341	1494000	289432	36000000	707	SLE QP 2	20466	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	7	159	SLV 14	0.36	1618	1.653	5.88	2.05	26.55	SLV 14	0.36	1618	1.653	Si
0.23	20	7	159	SLV 14	0.36	1618	1.653	5.86	2.01	26.55	SLV 14	0.36	1618	1.653	Si
2.24	18	7	159	SLV 15	0.36	1618	1.653	5.07	2.03	26.55	SLV 15	0.36	1618	1.653	Si
4.25	23	15	159	SLV 11	0.36	1618	1.653	6.66	4.25	26.55	SLV 11	0.36	1618	1.653	Si
4.48	25	16	159	SLV 11	0.36	1618	1.653	7.07	4.64	26.55	SLV 11	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di scorrimento sul piano di posa

Size X	Size Y	Comb.	Sis.	Cnd	Fx	Fy	Fz	IncX	IncY	Phi	Ad	RPI	yR	Rd	Ed	Rd/Ed	Verifica
4.7	1.1	SLU 43	ST	LT	-123	21	-30636	0	0	19	0	0	1.1	9319	125	74.46	Si
4.7	1.1	SLV 6	SIS	LT	-5539	795	-20031	-15	2	19	0	0	1.1	6093	5596	1.09	Si

Verifiche geotecniche di capacità portante sul piano di posa

Aste					Size X	Size Y	Comb	Type	Cond	yR	Rd	Ed	Rd/Ed	Verifica
112,111,110,109,108,107,106,105,104,103,102,101					4.7	1.1	SLU 82	ST	BT	2.3	184831	38478	4.8	Si



Aste	Size X	Size Y	Comb	Type	Cond	yR	Rd	Ed	Rd/Ed	Verifica
112,111,110,109,108,107,106,105,104,103,102,101	4.7	1.1	SLV 16	SIS	BT	2.3	153392	32595	4.71	Si
112,111,110,109,108,107,106,105,104,103,102,101	4.7	1.1	SLD 15	SIS	BT	2.3	170250	29001	5.87	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	ys	FI	Coes	Amax
0	-23	-38478	3397.75	921.34	0	0	0.02	0.09	0.92	4.66	1496	2060	0	14430	
0	-3837	-32595	4889.51	2259.86	0	-7	0.07	0.15	0.8	4.57	1496	2060	0	14430	0.07
0	-1507	-29001	3341	1623.22	0	-3	0.06	0.12	0.87	4.59	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	0.04	0	0	0.27	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0
1	5	0	0	0.04	0	0	0.27	0	0	0.03	0	0	0	0	0	0	0	1	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	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

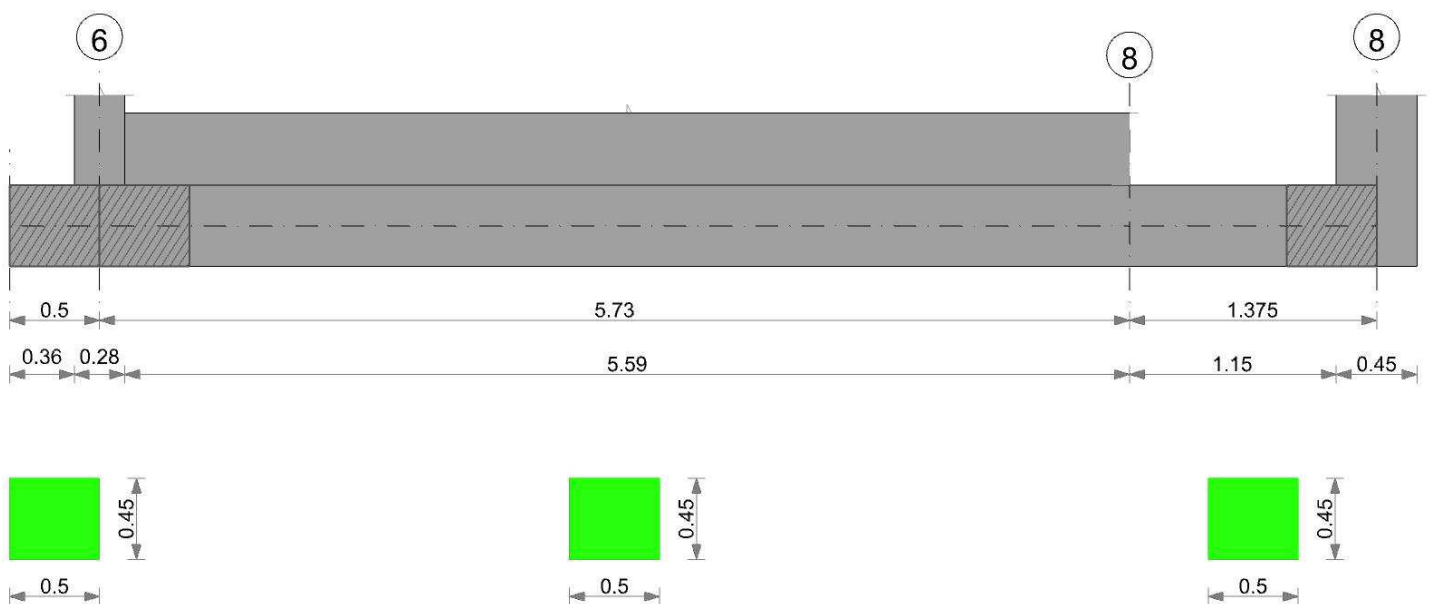
Tipo	Assoluto				Differenziale				Relativo				Rapp. inflessione				Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo J	Comb.	Sr adm	Sr	Nodo	Comb.	Ri adm	Ri	Comb.	
E	0.05	0	417	SLE RA 19	0.05	0	417	225	SLE RA 2	0.05	0	417	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	417	SLE RA 1	0.05	0	417	417	SLE RA 1	0.05	0	417	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	417	SLE RA 1	0.05	0	417	417	SLE RA 1	0.05	0	417	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	417	225	SLE RA 2	0.19	0	417	SLE RA 1	0.1	0	417	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	417	225	SLE RA 1	0.19	0	417	SLE RA 1	0.1	0	417	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	417	225	SLE RA 1	0.19	0	417	SLE RA 1	0.1	0	417	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 8 - 8, sezione R 50x45, asta 67

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							-4896.73	SLU 82	-5199.12	-7755.45	0.113	1.49	Si
0.69	0.000509	0.052	0.000509	0.052							-4931.66	SLU 81	-5217.43	-7755.45	0.113	1.49	Si
1.15	0.000509	0.052	0.000509	0.052							-3195.38	SLU 81	-4041.13	-7755.45	0.113	1.92	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: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

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	0.000082	0.052	0.000509	0.052							-4141.23	SLV 6	-4198.21	-7266.79	0.197	1.73	Si
0.69	0.000082	0.052	0.000509	0.052							-4042.2	SLV 14	-4155.48	-7266.79	0.197	1.75	Si
1.15	0.000082	0.052	0.000509	0.052							-3004.57	SLV 14	-3545.85	-7266.79	0.197	2.05	Si

Verifiche a taglio in famiglia SLU

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcl	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.000082	0.000509	0	-2278	SLU 81	-2278	-7764	-63178	-11450	-11450	1	5.03	Si
0.69	0.000082	0.000509	0	2303	SLU 44	2303	7764	63178	11450	11450	1	4.97	Si
1.15	0.000082	0.000509	0	5363	SLU 82	5363	7764	63178	11450	11450	1	2.13	Si
1.37	0	0.000509	0	6994	SLU 82	6994	8455	71432	0	8455	1	1.21	Si

Verifiche a taglio in famiglia SLV

x	A st	A sl	A sag	Vela	Comb.	Vdes	Vrd	Vrcl	Vrsd	Vult	cotgθ	coeff	Verifica
0	0.000082	0.000509	0	589	SLV 3	589	7764	63178	11450	11450	1	19.46	Si
0	0.000082	0.000509	0	-2791	SLV 14	-2791	-7764	-63178	-11450	-11450	1	4.1	Si
0.69	0.000082	0.000509	0	2610	SLV 3	2610	7764	63178	11450	11450	1	4.39	Si
1.15	0.000082	0.000509	0	4262	SLV 16	4262	7764	63178	11450	11450	1	2.69	Si
1.37	0	0.000509	0	5377	SLV 16	5377	8455	71432	0	8455	1	1.57	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	-3699.34	19	-3900.75	206324	1494000	3094860	36000000		-3578.29	2	-3709.66	196217	1120500				Si
0.69	-3654.18	18	-3880.39	205247	1494000	3078708	36000000		-3366.08	2	-3609.23	190905	1120500				Si
1.15	-2342.07	18	-2976.76	157451	1494000	2361769	36000000		-2096.27	2	-2700.01	142813	1120500				Si
1.37	-1308.03	18	-1308.03	-77513	1494000	0	36000000		-1127.36	2	-1127.36	-66806	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	-1101	-1690	-11450	SLV 14	0.36	1618	1.653	-3578.29	-562.94	-7266.79	SLV 6	0.36	1618	1.653	Si
0.69	1738	873	11450	SLV 3	0.36	1618	1.653	-2985.7	-793.61	-7266.79	SLV 14	0.36	1618	1.653	Si
1.15	3781	482	11450	SLV 16	0.36	1618	1.653	-2096.27	-908.3	-7266.79	SLV 14	0.36	1618	1.653	Si



Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 6 - 8, sezione R 50x45, aste 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	884	SLU 82	0.017	2735	3075	SLU 82	15877	Si
0.14	0.41	0.0002	884	SLU 82	0.017	2735	3073	SLU 82	15877	Si
2.87	0.41	0.0002	911	SLU 82	0.017	2735	3169	SLU 82	15877	Si
5.73	0.41	0.0004	842	SLU 82	0.034	6479	2929	SLU 82	15992	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	637	SLE RA 19	18443	1494000	228698	36000000	543	SLE QP 2	15719	1120500		Si
0.14	0.41	0.00000171	637	SLE RA 19	18429	1494000	228521	36000000	542	SLE QP 2	15703	1120500		Si
2.87	0.41	0.00000171	654	SLE RA 19	18946	1494000	234935	36000000	553	SLE QP 2	16009	1120500		Si
5.73	0.41	0.00000408	605	SLE RA 19	16984	1494000	210607	36000000	513	SLE QP 2	14388	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	0	22	SLV 16	0.36	1618	1.653	5.43	0.01	26.6	SLV 16	0.36	1618	1.653	Si
0.14	19	0	32	SLV 16	0.36	1618	1.653	5.42	0.21	26.6	SLV 10	0.36	1618	1.653	Si
2.87	19	4	159	SLV 14	0.36	1618	1.653	5.53	1.04	26.6	SLV 14	0.36	1618	1.653	Si
5.73	18	7	160	SLV 14	0.36	1618	1.653	5.13	1.89	62.27	SLV 14	0.36	1618	1.653	Si

Campata 3 tra i fili 8 - 8, sezione R 50x45, asta 67

Verifiche geotecniche

Verifiche geotecniche di scorrimento sul piano di posa

Size X	Size Y	Comb.	Sis.	Cnd	Fx	Fy	Fz	IncX	IncY	Phi	Ad	RPI	yR	Rd	Ed	Rd/Ed	Verifica
7.33	1.1	SLU 2	ST	LT	168	135	-37233	0	0	19	0	0	1.1	11325	215	52.61	Si
7.33	1.1	SLV 2	SIS	LT	-5777	-2327	-35405	-9	-4	19	0	0	1.1	10769	6228	1.73	Si

Verifiche geotecniche di capacità portante sul piano di posa

Aste				Size X	Size Y	Comb	Type	Cond	yR	Rd	Ed	Rd/Ed	Verifica
53,54,55,56,57,58,59,60,61,62,63,64,65,66,67				7.33	1.1	SLU 81	ST	BT	2.3	342060	61430	5.57	Si
53,54,55,56,57,58,59,60,61,62,63,64,65,66,67				7.33	1.1	SLV 10	SIS	LT	2.3	285985	43218	6.62	Si
53,54,55,56,57,58,59,60,61,62,63,64,65,66,67				7.33	1.1	SLD 14	SIS	BT	2.3	328230	43129	7.61	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	ys	Fi	Coes	Amax
0	-32	-61430	111.89	-550.41	0	0	-0.01	0	1.1	7.31	1496	2060	0	14430	
0	-6400	-43218	3200.25	2710.16	0	-8	0.06	0.07	0.95	7.2	1496	2060	37	0	0.07
0	-886	-43129	502.45	3683.93	0	-1	0.09	0.01	1.08	7.16	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	Ik	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	1.1	1.1	0.95	1.16	1.27	1	0.74	0.73	0.63	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	0	0	0	0	0	0	0	1	1	1	0	0	0

Verifiche geotecniche - Cedimenti assoluti e differenziali

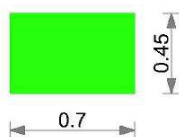
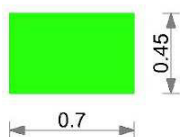
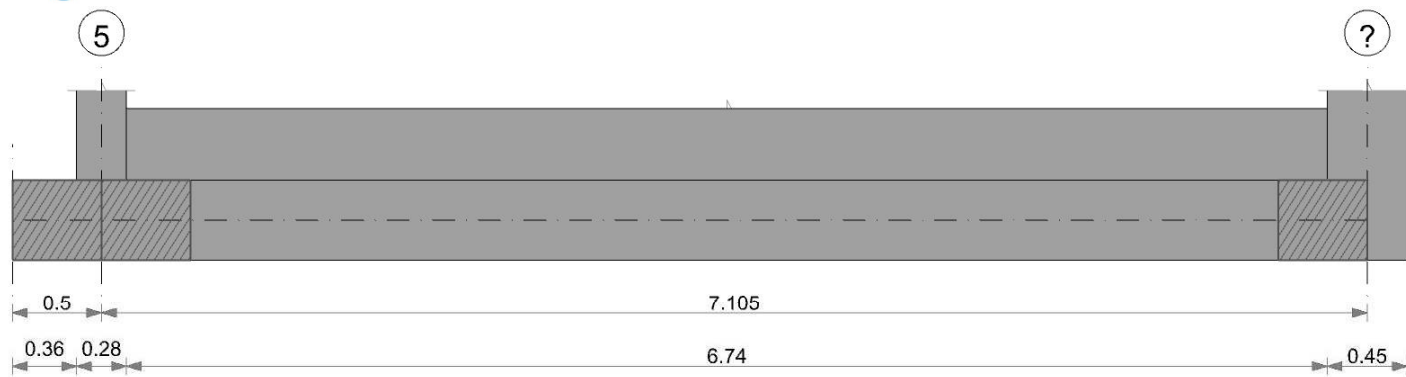
Tipo	Assoluto				Differenziale					Relativo				Rapp. inflessione			Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo J	Comb.	Sr adm	Sr	Nodo	Comb.	Rl adm	Rl	Comb.	
E	0.05	0	172	SLE RA 19	0.05	0	172	187	SLE RA 19	0.05	0	186	SLE RA 19	0.0033	0	SLE RA 19	Si
D	0.05	0	187	SLE RA 1	0.05	0	187	187	SLE RA 1	0.05	0	186	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	187	SLE RA 1	0.05	0	187	187	SLE RA 1	0.05	0	186	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	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	SLE RA 19	0.19	0	186	172	0.19	0	187	SLE RA 1	0.1	0	186	SLE RA 19	Si
D	0.19	0	SLE RA 1	0.19	0	187	186	0.19	0	187	SLE RA 1	0.1	0	186	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	187	186	0.19	0	187	SLE RA 1	0.1	0	186	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	Copri ferro sup.	Copri ferro inf.	Copri ferro lat.
1	R 70x45	Rettangolare	0.7	0.45	0.035	0.035	0.035

Diagramma verifica stato limite ultimo flessione

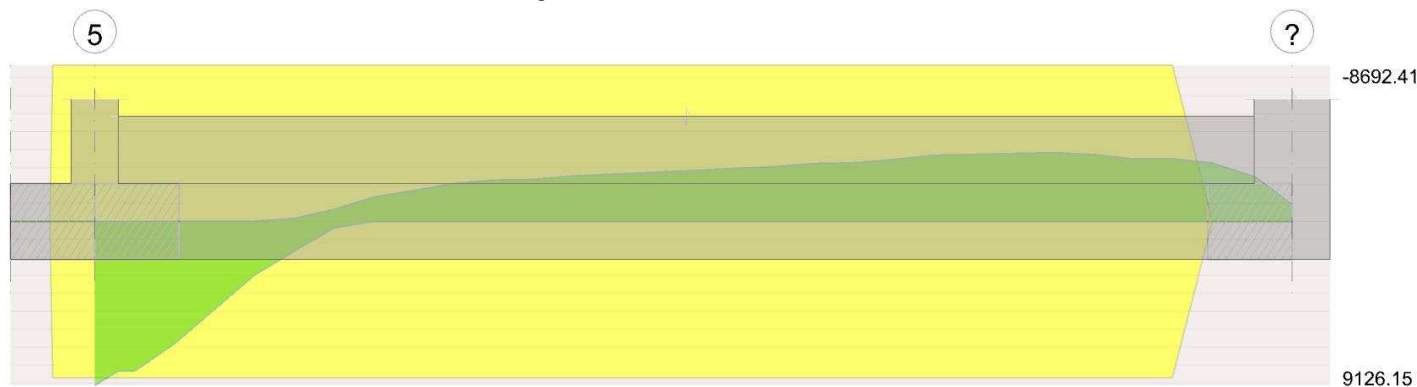
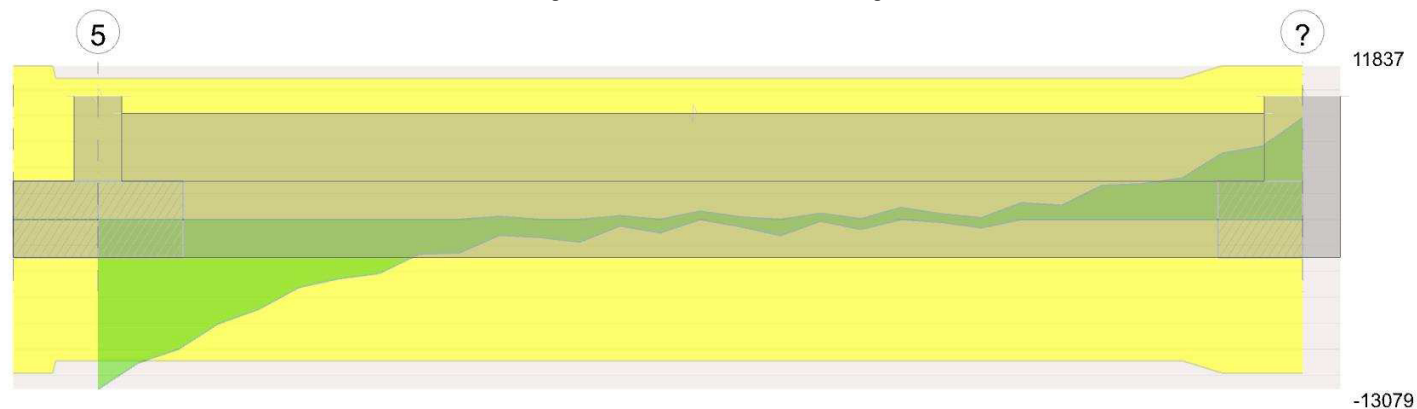


Diagramma verifica stato limite ultimo taglio



Output campate

Funzionamento trasversale della suola di fondazione

Campata 2 tra i fili 5 - ?, sezione R 70x45, aste 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0004	1775	SLU 81	0.03	5680	4582	SLU 81	15877	Si



x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0.14	0.41	0.0004	1773	SLU 81	0.03	5680	4577	SLU 81	15877	Si
3.55	0.41	0.0004	1160	SLU 81	0.03	5680	2995	SLU 81	15877	Si
6.88	0.41	0.0004	1925	SLV 10	0.122	5468	4966	SLV 10	15877	Si

Verifiche delle tensioni di esercizio

			Rara						Quasi permanente				Verifica
x	d	Af	M	Comb	σc	σc limite	σf	σf limite	M	Comb	σc	σc limite	
0	0.41	0.00000357	1287	SLE RA 18	36363	1494000	450902	36000000	1116	SLE QP 2	31537	1120500	Si
0.14	0.41	0.00000357	1286	SLE RA 18	36323	1494000	450400	36000000	1115	SLE QP 2	31501	1120500	Si
3.55	0.41	0.00000357	840	SLE RA 18	23732	1494000	294278	36000000	727	SLE QP 2	20531	1120500	Si
6.88	0.41	0.00000357	1369	SLE RA 18	38674	1494000	479552	36000000	1205	SLE QP 2	34041	1120500	Si
7.1	0.42	0	1454	SLE RA 18	43070	1494000	0	36000000	1281	SLE QP 2	37952	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	29	14	159	SLV 5	0.36	1618	1.653	11.16	5.47	54.68	SLV 5	0.36	1618	1.653	Si
0.14	29	14	159	SLV 9	0.36	1618	1.653	11.15	5.47	54.68	SLV 9	0.36	1618	1.653	Si
3.55	19	9	159	SLV 10	0.36	1618	1.653	7.27	3.51	54.68	SLV 10	0.36	1618	1.653	Si
6.88	31	19	159	SLV 10	0.36	1618	1.653	12.05	7.19	54.68	SLV 10	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di scorrimento sul piano di posa

Size X	Size Y	Comb.	Sis.	Cnd	Fx	Fy	Fz	IncX	IncY	Phi	Ad	RPI	yR	Rd	Ed	Rd/Ed	Verifica
7.33	1.3	SLU 43	ST	LT	-354	-196	-53138	0	0	19	0	0	1.1	16163	404	39.98	Si
7.33	1.3	SLV 11	SIS	LT	3484	7261	-33738	6	12	19	0	0	1.1	10262	8054	1.27	Si

Verifiche geotecniche di capacità portante sul piano di posa

Aste				Size X	Size Y	Comb	Type	Cond	yR	Rd	Ed	Rd/Ed	Verifica
20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37				7.33	1.3	SLU 81	ST	BT	2.3	306597	66639	4.6	Si
20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37				7.33	1.3	SLV 10	SIS	BT	2.3	256325	59448	4.31	Si
20,21,22,23,24,25,26,27,28,29,30,31,32,33,34,35,36,37				7.33	1.3	SLD 10	SIS	BT	2.3	284915	51305	5.55	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	ys	Fi	Coes	Amax
0	-275	-66639	9341.27	-1191.61	0	0	-0.02	0.14	1.02	7.29	1496	2060	0	14430	
0	-7466	-59448	12515.31	2085.68	0	-7	0.04	0.21	0.88	7.26	1496	2060	0	14430	0.07
0	-3294	-51305	8823.28	702.13	0	-4	0.01	0.17	0.96	7.3	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	0.23	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.02	0	0	0.23	0	0	0.03	0	0	0	0	0	0	0	1	1	1	0	0	0
1	5	0	0	0.03	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

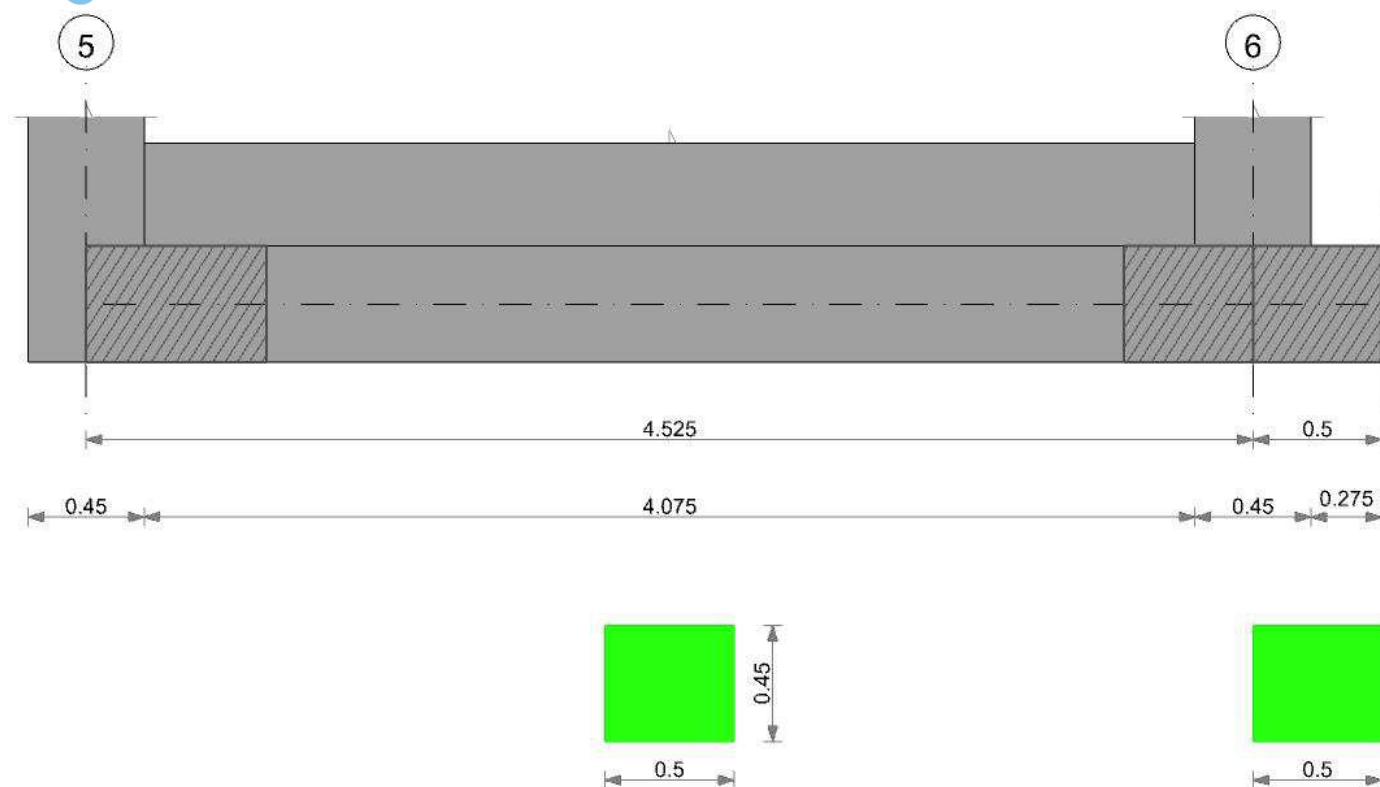
Tipo	Assoluto				Differenziale				Relativo				Rapp. inflessione				Verifica
	Sa adm	Sa	Nodo	Comb.	Sd adm	Sd	Nodo I	Nodo J	Comb.	Sr adm	Sr	Nodo	Comb.	Rl adm	Rl	Comb.	
E	0.05	0	63	SLE RA 18	0.05	0	63	81	SLE RA 18	0.05	0	81	SLE RA 1	0.0033	0	SLE RA 1	Si
D	0.05	0	81	SLE RA 1	0.05	0	81	81	SLE RA 1	0.05	0	81	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	81	SLE RA 1	0.05	0	81	81	SLE RA 1	0.05	0	81	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

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	81	63	SLE RA 18	0.19	0	81	SLE RA 1	0.1	0	81	SLE RA 1	Si
D	0.19	0	SLE RA 1	0.19	0	81	63	SLE RA 1	0.19	0	81	SLE RA 1	0.1	0	81	SLE RA 1	Si
Z	0.19	0	SIF RA 1	0.19	0	81	63	SIF RA 1	0.19	0	81	SIF RA 1	0.1	0	81	SIF 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

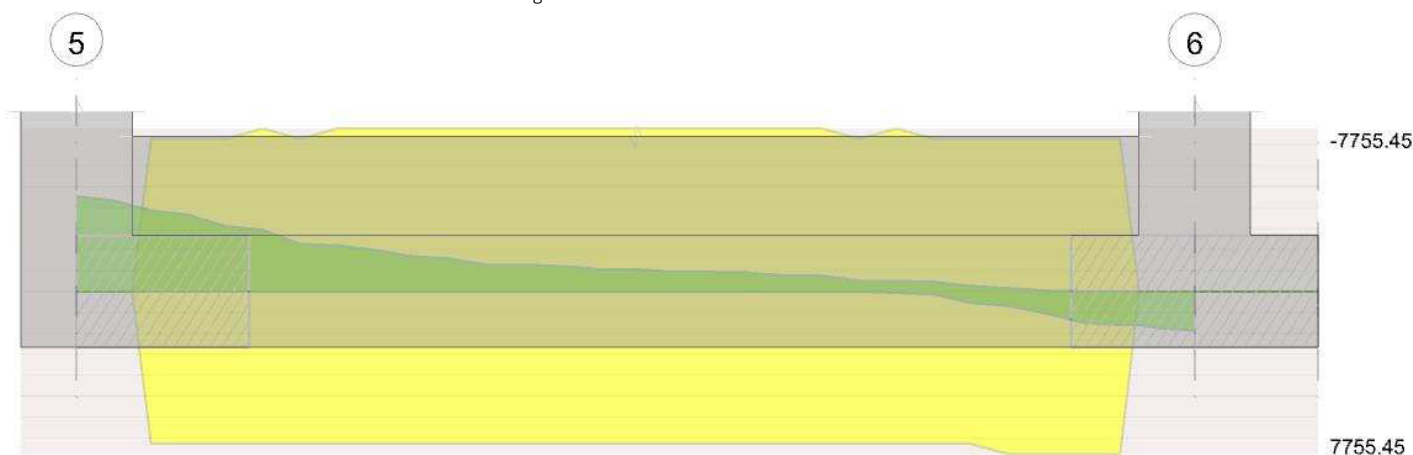
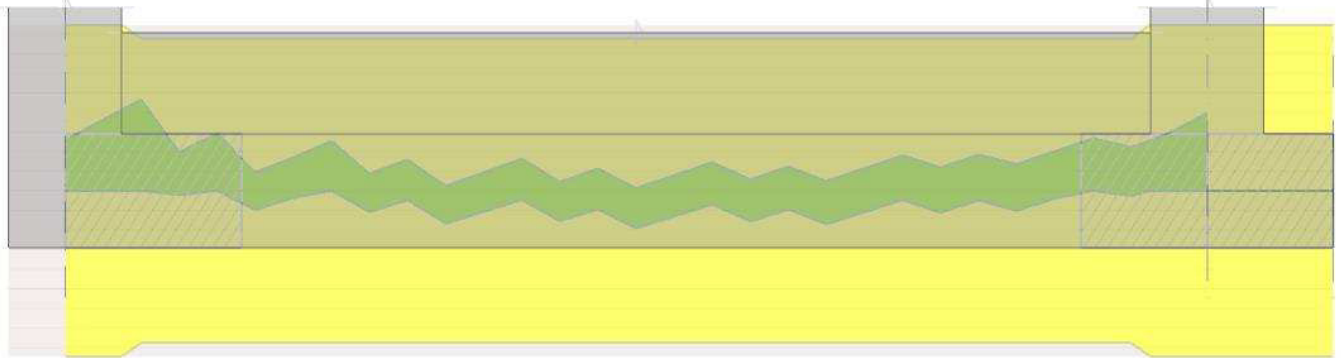


Diagramma verifica stato limite ultimo taglio



5

6



Output campate

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 5 - 6, sezione R 50x45, aste 91, 90, 89, 88, 87, 86, 85, 84, 83, 82, 81, 80

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb	x/d	Mult	V	Comb	Vult	Verifica
0	0.41	0.0002	1375	SLU 81	0.017	2704	4166	SLU 81	15877	Si
0.23	0.41	0.0002	1320	SLU 81	0.017	2704	3999	SLU 81	15877	Si
2.26	0.41	0.0002	1129	SLU 81	0.017	2704	3421	SLU 81	15877	Si
4.3	0.41	0.0002	1162	SLU 82	0.017	2704	3522	SLU 82	15877	Si
4.53	0.41	0.0002	1161	SLU 82	0.017	2704	3518	SLU 82	15877	Si

Verifiche delle tensioni di esercizio

x	d	Af	M	Comb	Rara				Quasi permanente				Verifica
					σc	$\sigma c \text{ limite}$	σf	$\sigma f \text{ limite}$	σc	$\sigma c \text{ limite}$	σf	$\sigma f \text{ limite}$	
0	0.41	0.00000169	998	SLE RA 18	28889	1494000	358222	36000000	867	SLE QP 2	25102	1120500	Si
0.23	0.41	0.00000169	957	SLE RA 18	27715	1494000	343665	36000000	831	SLE QP 2	24053	1120500	Si
2.26	0.41	0.00000169	816	SLE RA 18	23618	1494000	292867	36000000	701	SLE QP 2	20287	1120500	Si
4.3	0.41	0.00000169	837	SLE RA 19	24246	1494000	300644	36000000	713	SLE QP 2	20655	1120500	Si
4.53	0.41	0.00000169	836	SLE RA 19	24217	1494000	300288	36000000	712	SLE QP 2	20623	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	26	14	159	SLV 9	0.36	1618	1.653	8.67	4.5	26.3	SLV 9	0.36	1618	1.653	Si
0.23	25	13	159	SLV 9	0.36	1618	1.653	8.31	4.16	26.3	SLV 9	0.36	1618	1.653	Si
2.26	21	6	159	SLV 9	0.36	1618	1.653	7.01	1.99	26.3	SLV 9	0.36	1618	1.653	Si
4.3	22	0	49	SLV 16	0.36	1618	1.653	7.13	0.28	26.3	SLV 10	0.36	1618	1.653	Si
4.53	22	1	79	SLV 16	0.36	1618	1.653	7.12	0.19	26.3	SLV 16	0.36	1618	1.653	Si

Verifiche geotecniche

Verifiche geotecniche di scorrimento sul piano di posa

Size X	Size Y	Comb.	Sis.	Cnd	Fx	Fy	Fz	IncX	IncY	Phi	Ad	RPI	yR	Rd	Ed	Rd/Ed	Verifica
4.75	1.1	SLU 2	ST	LT	205	-38	-24073	0	0	19	0	0	1.1	7322	208	35.16	Si
4.75	1.1	SLV 11	SIS	LT	4188	-1612	-21748	11	-4	19	0	0	1.1	6615	4487	1.47	Si

Verifiche geotecniche di capacità portante sul piano di posa

Aste				Size X	Size Y	Comb	Type	Cond	yR	Rd	Ed	Rd/Ed	Verifica
91,90,89,88,87,86,85,84,83,82,81,80				4.75	1.1	SLU 81	ST	BT	2.3	222957	39218	5.69	Si
91,90,89,88,87,86,85,84,83,82,81,80				4.75	1.1	SLV 6	SIS	BT	2.3	196181	30637	6.4	Si
91,90,89,88,87,86,85,84,83,82,81,80				4.75	1.1	SLD 6	SIS	BT	2.3	210123	28096	7.48	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	ys	Fi	Coes	Amax
0	-42	-39218	6.5	-1145.83	0	0	-0.03	0	1.1	4.69	1496	2060	0	14430	
0	1541	-30637	-732.39	-6357.83	0	3	-0.21	-0.02	1.05	4.34	1496	2060	0	14430	0.07
0	652	-28096	-315.77	-3230.78	0	1	-0.11	-0.01	1.08	4.52	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	Ik	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	Sr adm	Sr	Nodo	Comb.	Rl adm	Rl	Nodo	Comb.	
E	0.05	0	209	SLE RA 19	0.05	0	209	25	0.05	0	209	SLE RA 1	0.0033	0	209	SLE RA 1	Si
D	0.05	0	209	SLE RA 1	0.05	0	209	209	0.05	0	209	SLE RA 1	0.0033	0	209	SLE RA 1	Si
Z	0.05	0	209	SLE RA 1	0.05	0	209	209	0.05	0	209	SLE RA 1	0.0033	0	209	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

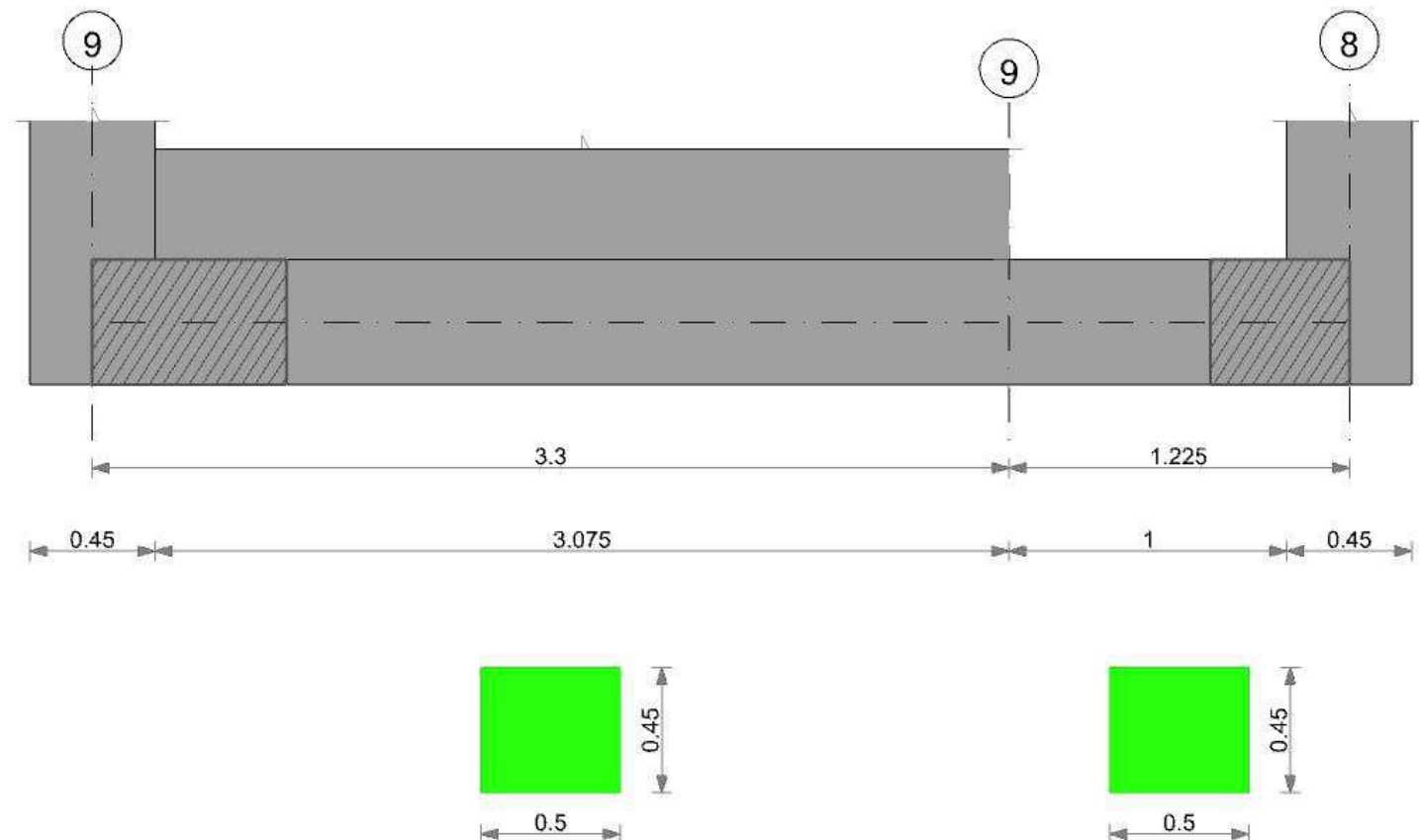
Tipo	Rotazione rigida		Rotazione assoluta				Distorsione angolare positiva				Distorsione angolare negativa				Verifica
	RR adm	RR	R Adm	R Max	Nodo I	Nodo J	D+ adm	D+	Nodo	Comb.	D- adm	D-	Nodo	Comb.	
E	0.19	0	0.19	0	209	25	0.19	0	209	SLE RA 1	0.1	0	209	SLE RA 1	Si



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.	
D	0.19	0	SLE RA 1	0.19	0	209	25	SLE RA 1	0.19	0	209	SLE RA 1	0.1	0	209	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	209	25	SLE RA 1	0.19	0	209	SLE RA 1	0.1	0	209	SLE RA 1	Si

CORDOLO 8

Geometria



Caratteristiche dei materiali

Acciaio: B450C Fyk 45000000

Calcestruzzo: C25/30 Rck 3000000

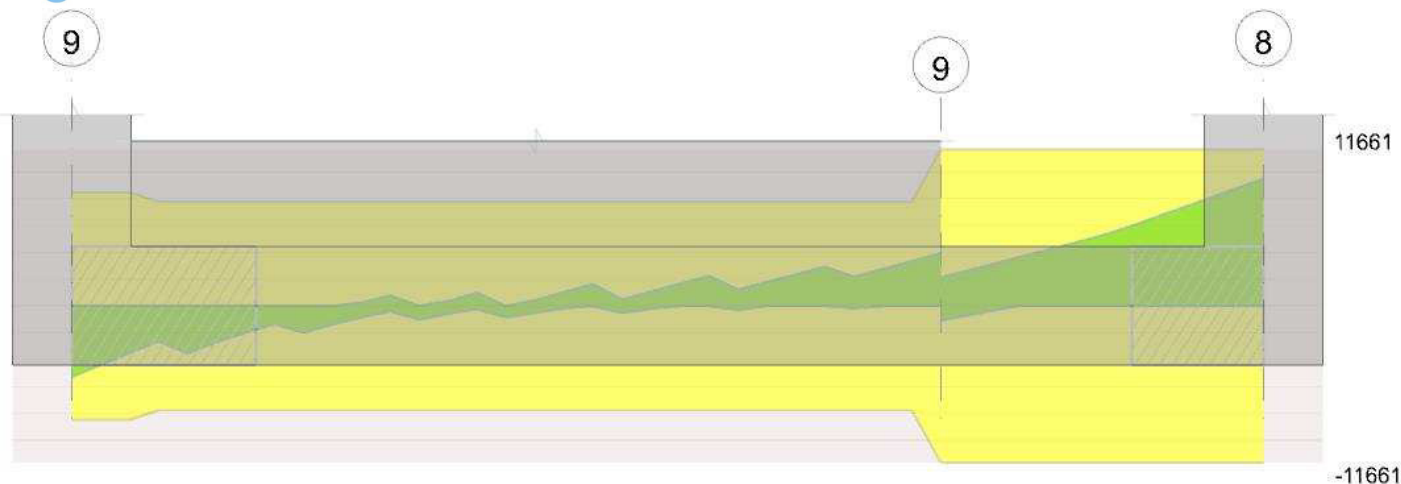
Elenco delle sezioni

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 2 tra i fili 9 - 8, sezione R 50x45, asta 92

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							-506.67	SLU 81	-506.67	-7755.45	0.113	15.31	Si
0.61	0.000509	0.052	0.000509	0.052	1384.35	SLU 81	2425.34	7755.45	0.113	3.2							Si
1	0.000509	0.052	0.000509	0.052	3917.77	SLU 81	3917.77	7755.45	0.113	1.98							Si
1.22	0.000509	0.052	0.000509	0.052	5871.17	SLU 81	4805.88	7755.45	0.113	1.61							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: $\epsilon_{c2} = 0.002$, $\epsilon_{yd} = 0.0019$

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	360.15	SLV 7	360.15	7266.79	0.197	20.18	-1009.23	SLV 10	-1009.23	-7266.79	0.197	7.2	Si
0.61	0.000509	0.052	0.000509	0.052	1584.81	SLV 14	2609.18	7266.79	0.197	2.79	61.99	SLV 3	-148.49	-7266.79	0.197	48.94	Si
1	0.000509	0.052	0.000509	0.052	4036.81	SLV 14	4036.81	7266.79	0.197	1.8							Si
1.22	0.000509	0.052	0.000509	0.052	5863.68	SLV 14	4882.06	7266.79	0.197	1.49							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	0.0000083	0.000509	0	1022	SLU 81	1022	7764	63178	11661	11661	1	11.4	Si
0.61	0.0000083	0.000509	0	5182	SLU 81	5182	7764	63178	11661	11661	1	2.25	Si
1	0.0000083	0.000509	0	7894	SLU 81	7894	7764	63178	11661	11661	1	1.48	Si
1.22	0.0000083	0.000509	0	9483	SLU 81	9483	7764	63178	11661	11661	1	1.23	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	0.0000083	0.000509	0	2123	SLV 10	2123	7764	63178	11661	11661	1	5.49	Si
0	0.0000083	0.000509	0	-1063	SLV 7	-1063	-7764	-63178	-11661	-11661	1	10.97	Si
0.61	0.0000083	0.000509	0	5258	SLV 14	5258	7764	63178	11661	11661	1	2.22	Si
1	0.0000083	0.000509	0	7513	SLV 14	7513	7764	63178	11661	11661	1	1.55	Si
1.22	0.0000083	0.000509	0	8836	SLV 14	8836	7764	63178	11661	11661	1	1.32	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	-369.09	18	-369.09	19523	1494000	292838	36000000	-324.54	2	-324.54	17166	1120500			Si
0.61	989.42	18	1743.6	92225	1494000	1383377	36000000	823.4	2	1476.46	78095	1120500			Si
1	2826.74	18	2826.74	149516	1494000	2242739	36000000	2419.04	2	2419.04	127951	1120500			Si
1.22	4246.26	18	3471.73	183632	1494000	2754475	36000000	3658.91	2	2981.43	157698	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	530	1593	11661	SLV 10	0.36	1618	1.653	-324.54	-684.69	-7266.79	SLV 10	0.36	1618	1.653	Si
0.61	3237	2022	11661	SLV 14	0.36	1618	1.653	1476.46	1132.71	7266.79	SLV 14	0.36	1618	1.653	Si
1	4999	2514	11661	SLV 14	0.36	1618	1.653	2419.04	1617.77	7266.79	SLV 14	0.36	1618	1.653	Si

Funzionamento trasversale della suola di fondazione

Campata 1 tra i fili 9 - 9, sezione R 50x45, aste 100, 99, 98, 97, 96, 95, 94, 93

Verifiche di resistenza della suola di fondazione

x	d	Af	M	Comb.	x/d	Mult	V	Comb.	Vult	Verifica
0	0.41	0.0002	1174	SLV 10	0.085	2658	4083	SLV 10	15877	Si
0.23	0.41	0.0002	1096	SLV 10	0.085	2658	3812	SLV 10	15877	Si
1.65	0.41	0.0002	838	SLU 81	0.017	2733	2915	SLU 81	15877	Si
3.3	0.41	0.0004	867	SLU 82	0.035	6596	3016	SLU 82	16287	Si

Verifiche delle tensioni di esercizio

x	d	Af	Rara					Quasi permanente					Verifica
			M	Comb.	σ c	σ c limite	σ f	σ f limite	M	Comb.	σ c	σ c limite	
0	0.41	0.00000171	819	SLE RA 18	23707	1494000	293971	36000000	722	SLE QP 2	20890	1120500	Si
0.23	0.41	0.00000171	774	SLE RA 18	22409	1494000	277872	36000000	681	SLE QP 2	19731	1120500	Si
1.65	0.41	0.00000171	609	SLE RA 18	17646	1494000	218811	36000000	534	SLE QP 2	15468	1120500	Si
3.3	0.41	0.00000416	630	SLE RA 19	17649	1494000	218846	36000000	549	SLE QP 2	15404	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	16	159	SLV 10	0.36	1618	1.653	7.22	4.52	26.58	SLV 10	0.36	1618	1.653	Si
0.23	24	14	159	SLV 10	0.36	1618	1.653	6.81	4.14	26.58	SLV 10	0.36	1618	1.653	Si
1.65	19	8	159	SLV 10	0.36	1618	1.653	5.34	2.3	26.58	SLV 10	0.36	1618	1.653	Si
3.3	19	7	163	SLV 14	0.36	1618	1.653	5.49	2.05	63.38	SLV 14	0.36	1618	1.653	Si

Campata 2 tra i fili 9 - 8, sezione R 50x45, asta 92

Verifiche geotecniche

Verifiche geotecniche di scorrimento sul piano di posa

Size X	Size Y	Comb.	Sis.	Cnd	Fx	Fy	Fz	IncX	IncY	Phi	Ad	RPI	yR	Rd	Ed	Rd/Ed	Verifica
4.98	1.1	SLU 43	ST	LT	-151	99	-31608	0	0	19	0	0	1.1	9614	181	53.15	Si
4.98	1.1	SLV 7	SIS	LT	5326	899	-20506	15	3	19	0	0	1.1	6237	5401	1.15	Si

Verifiche geotecniche di capacità portante sul piano di posa

Aste	Size X	Size Y	Comb	Type	Cond	yR	Rd	Ed	Rd/Ed	Verifica
100,99,98,97,96,95,94,93,92	4.98	1.1	SLU 81	ST	BT	2.3	196589	39584	4.97	Si
100,99,98,97,96,95,94,93,92	4.98	1.1	SLV 13	SIS	BT	2.3	165905	33788	4.91	Si
100,99,98,97,96,95,94,93,92	4.98	1.1	SLD 13	SIS	BT	2.3	181790	29891	6.08	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	ys	Fi	Coes	Amax
0	107	-39584	3316.18	-1233.27	0	0	-0.03	0.08	0.93	4.91	1496	2060	0	14430	
0	-3795	-33788	4764.67	-2516.91	0	-6	-0.07	0.14	0.82	4.83	1496	2060	0	14430	0.07
0	-1622	-29891	3329.15	-1595.41	0	-3	-0.05	0.11	0.88	4.87	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	0.04	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	0.04	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	43	SLE RA 18	0.05	0	43	136	SLE RA 18	0.05	0	136	SLE RA 18	0.0033	0	SLE RA 18	Si
D	0.05	0	225	SLE RA 1	0.05	0	225	225	SLE RA 1	0.05	0	136	SLE RA 1	0.0033	0	SLE RA 1	Si
Z	0.05	0	225	SLE RA 1	0.05	0	225	225	SLE RA 1	0.05	0	136	SLE RA 1	0.0033	0	SLE RA 1	Si

Verifiche geotecniche - Rotazioni assolute e differenziali

Verifica geometrica - 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 1	0.19	0	225	136	SLE RA 19	0.19	0	225	SLE RA 1	0.1	0	136	SLE RA 18	Si
D	0.19	0	SLE RA 1	0.19	0	225	136	SLE RA 1	0.19	0	225	SLE RA 1	0.1	0	136	SLE RA 1	Si
Z	0.19	0	SLE RA 1	0.19	0	225	136	SLE RA 1	0.19	0	225	SLE RA 1	0.1	0	136	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 (ZE): 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.

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 ($ag/g_{SLO} \cdot S^*ST$) $PGA, SLOrif = 0.081$

Accelerazione di aggancio SLD ($ag/g_{SLD} \cdot S^*ST$) $PGA, SLDrif = 0.101$

Accelerazione di aggancio SLV ($ag/g_{SLV} \cdot S^*ST$) $PGA, SLVrif = 0.244$

$Tr, SLOrif = 30$ anni

$Tr, SLDrif = 50$ anni

$Tr, SLVrif = 475$ anni

Indicatori minimi riferiti al solo materiale muratura

Desc.	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	$(TR/TRrif)^{.41}$	fa
Maschio 28	PF	0.3	SLV 1	0.0671	0.2747	20	0.2729	0.273
Maschio 5	V	2.378	SLV 5	0.3624	1.4833	1618	1.6529	1.4831
Maschio 22	PFFP	0.733	SLV 7	0.1763	0.7215	200	0.7014	0.7211
Maschio 34	R	1.442	SLV 14	0.3482	1.4251	1418	1.5658	1.4249
Trave di accoppiamento 10	PF	0.454	SLV 11	0.1066	0.4363	61	0.4311	0.4362
Trave di accoppiamento 6	V	0.675	SLV 3	0.1593	0.6521	158	0.6368	0.6508

Coefficienti di sicurezza riferiti al solo materiale muratura

Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 5	PF SLU	18.957	SLU 73	Si
Maschio 5	V SLU	28.257	SLU 73	Si
Maschio 5	PF	3.95	SLV 8	Si
Maschio 5	V	2.947	SLV 7	Si
Maschio 5	PFFP	18.542	SLV 4	Si
Maschio 5	R	3.478	SLV 14	Si
Maschio 6	PF SLU	4.602	SLU 44	Si
Maschio 6	V SLU	3.761	SLU 81	Si
Maschio 6	PF	2.433	SLV 4	Si
Maschio 6	V	4.392	SLV 4	Si
Maschio 6	PFFP	10.873	SLV 8	Si
Maschio 6	R	2.809	SLV 9	Si
Maschio 7	PF SLU	6.312	SLU 44	Si
Maschio 7	V SLU	6.576	SLU 81	Si
Maschio 7	PF	2.602	SLV 8	Si
Maschio 7	V	3.988	SLV 2	Si
Maschio 7	PFFP	6.496	SLV 7	Si
Maschio 7	R	3.745	SLV 10	Si
Maschio 8	PF SLU	8.177	SLU 81	Si
Maschio 8	V SLU	13.753	SLU 44	Si
Maschio 8	PF	3.705	SLV 2	Si
Maschio 8	V	5.267	SLV 6	Si
Maschio 8	PFFP	6.746	SLV 7	Si
Maschio 8	R	3.594	SLV 10	Si
Maschio 9	PF SLU	17.072	SLU 43	Si
Maschio 9	V SLU	9.249	SLU 81	Si
Maschio 9	PF	7.996	SLV 14	Si
Maschio 9	V	4.884	SLV 2	Si
Maschio 9	PFFP	29.569	SLV 3	Si
Maschio 9	R	2.54	SLV 16	Si
Maschio 11	PF SLU	6.389	SLU 82	Si
Maschio 11	V SLU	2.851	SLU 81	Si
Maschio 11	PF	3.237	SLV 1	Si
Maschio 11	V	3.848	SLV 1	Si
Maschio 11	PFFP	12.399	SLV 5	Si
Maschio 11	R	3.188	SLV 16	Si
Maschio 12	PF SLU	6.389	SLU 44	Si
Maschio 12	V SLU	6.466	SLU 65	Si
Maschio 12	PF	2.269	SLV 3	Si
Maschio 12	V	3.533	SLV 3	Si
Maschio 12	PFFP	10.105	SLV 5	Si
Maschio 12	R	3.6	SLV 16	Si
Maschio 13	PF SLU	5.475	SLU 44	Si
Maschio 13	V SLU	22.402	SLU 44	Si
Maschio 13	PF	0.719	SLV 10	No
Maschio 13	V	6.331	SLV 10	Si
Maschio 13	PFFP	5.484	SLV 10	Si
Maschio 13	R	3.831	SLV 3	Si
Maschio 14	PF SLU	3.621	SLU 52	Si
Maschio 14	V SLU	20.592	SLU 82	Si
Maschio 14	PF	0.619	SLV 7	No
Maschio 14	V	7.262	SLV 11	Si
Maschio 14	PFFP	6.169	SLV 7	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 14	R	4.896	SLV 14	Si
Maschio 15	PF SLU	4.965	SLU 81	Si
Maschio 15	V SLU	30.122	SLU 81	Si
Maschio 15	PF	2.547	SLV 6	Si
Maschio 15	V	6.757	SLV 10	Si
Maschio 15	PFFP	11.335	SLV 2	Si
Maschio 15	R	4.524	SLV 15	Si
Maschio 16	PF SLU	23.597	SLU 44	Si
Maschio 16	V SLU	159.855	SLU 64	Si
Maschio 16	PF	6.35	SLV 6	Si
Maschio 16	V	5.325	SLV 5	Si
Maschio 16	PFFP	0	SLV 1	No
Maschio 16	R	4.387	SLV 14	Si
Maschio 17	PF SLU	5.786	SLU 39	Si
Maschio 17	V SLU	10.601	SLU 44	Si
Maschio 17	PF	2.925	SLV 14	Si
Maschio 17	V	8.327	SLV 14	Si
Maschio 17	PFFP	2.217	SLV 16	Si
Maschio 17	R	1.53	SLV 1	Si
Maschio 18	PF SLU	8.108	SLU 43	Si
Maschio 18	V SLU	106.184	SLU 44	Si
Maschio 18	PF	2.534	SLV 14	Si
Maschio 18	V	58.989	SLV 16	Si
Maschio 18	PFFP	3.959	SLV 10	Si
Maschio 18	R	1.482	SLV 3	Si
Maschio 19	PF SLU	2.314	SLU 31	Si
Maschio 19	V SLU	6.783	SLU 82	Si
Maschio 19	PF	0.58	SLV 8	No
Maschio 19	V	4.67	SLV 8	Si
Maschio 19	PFFP	1.537	SLV 13	Si
Maschio 19	R	1.993	SLV 4	Si
Maschio 20	PF SLU	6.833	SLU 44	Si
Maschio 20	V SLU	27.973	SLU 43	Si
Maschio 20	PF	1.567	SLV 15	Si
Maschio 20	V	8.336	SLV 13	Si
Maschio 20	PFFP	0	SLV 7	No
Maschio 20	R	2.193	SLV 1	Si
Maschio 21	PF SLU	12.111	SLU 44	Si
Maschio 21	V SLU	37.384	SLU 65	Si
Maschio 21	PF	2.505	SLV 4	Si
Maschio 21	V	8.255	SLV 4	Si
Maschio 21	PFFP	2.191	SLV 9	Si
Maschio 21	R	2.071	SLV 3	Si
Maschio 22	PF SLU	1.908	SLU 44	Si
Maschio 22	V SLU	15.888	SLU 43	Si
Maschio 22	PF	0.4	SLV 8	No
Maschio 22	V	6.363	SLV 4	Si
Maschio 22	PFFP	0	SLV 7	No
Maschio 22	R	2.228	SLV 14	Si
Maschio 23	PF SLU	1.182	SLU 31	Si
Maschio 23	V SLU	5.136	SLU 82	Si
Maschio 23	PF	0.178	SLV 11	No
Maschio 23	V	4.463	SLV 11	Si
Maschio 23	PFFP	1.322	SLV 2	Si
Maschio 23	R	2.1	SLV 15	Si
Maschio 24	PF SLU	2.433	SLU 39	Si
Maschio 24	V SLU	13.425	SLU 81	Si
Maschio 24	PF	0	SLV 5	No
Maschio 24	V	6.255	SLV 1	Si
Maschio 24	PFFP	1.324	SLV 14	Si
Maschio 24	R	2.133	SLV 1	Si
Maschio 25	PF SLU	3.252	SLU 44	Si
Maschio 25	V SLU	9.715	SLU 82	Si
Maschio 25	PF	1.392	SLV 1	Si
Maschio 25	V	6.834	SLV 16	Si
Maschio 25	PFFP	1.573	SLV 9	Si
Maschio 25	R	2.001	SLV 16	Si
Maschio 26	PF SLU	3.217	SLU 43	Si
Maschio 26	V SLU	10.828	SLU 82	Si
Maschio 26	PF	0.258	SLV 14	No
Maschio 26	V	6.509	SLV 16	Si
Maschio 26	PFFP	1.701	SLV 14	Si
Maschio 26	R	2.076	SLV 3	Si
Maschio 27	PF SLU	19.592	SLU 44	Si
Maschio 27	V SLU	80.96	SLU 44	Si
Maschio 27	PF	1.637	SLV 14	Si
Maschio 27	V	6.446	SLV 1	Si
Maschio 27	PFFP	2.018	SLV 10	Si
Maschio 27	R	2.156	SLV 3	Si
Maschio 28	PF SLU	1.318	SLU 43	Si
Maschio 28	V SLU	11.628	SLU 44	Si
Maschio 28	PF	0	SLV 1	No
Maschio 28	V	4.864	SLV 1	Si
Maschio 28	PFFP	1.416	SLV 1	Si
Maschio 28	R	2.062	SLV 16	Si
Maschio 29	PF SLU	2.651	SLU 44	Si
Maschio 29	V SLU	12.661	SLU 82	Si
Maschio 29	PF	1.203	SLV 14	Si
Maschio 29	V	6.599	SLV 3	Si
Maschio 29	PFFP	1.416	SLV 10	Si
Maschio 29	R	1.986	SLV 3	Si



Desc.	Stato limite	Coeff.s.	Comb.	Verifica
Maschio 30	PF SLU	1.398	SLU 39	Si
Maschio 30	V SLU	8.775	SLU 81	Si
Maschio 30	PF	0	SLV 6	No
Maschio 30	V	6.177	SLV 14	Si
Maschio 30	PFFP	0	SLV 1	No
Maschio 30	R	2.124	SLV 14	Si
Maschio 31	PF SLU	34.193	SLU 43	Si
Maschio 31	V SLU	52.079	SLU 44	Si
Maschio 31	PF	4.518	SLV 16	Si
Maschio 31	V	9.471	SLV 14	Si
Maschio 31	PFFP	3.748	SLV 11	Si
Maschio 31	R	1.501	SLV 2	Si
Maschio 32	PF SLU	26.659	SLU 73	Si
Maschio 32	V SLU	58.406	SLU 73	Si
Maschio 32	PF	7.027	SLV 5	Si
Maschio 32	V	8.738	SLV 8	Si
Maschio 32	PFFP	0.663	SLV 1	No
Maschio 32	R	4.762	SLV 16	Si
Maschio 34	PF SLU	1.372	SLU 44	Si
Maschio 34	V SLU	9.068	SLU 44	Si
Maschio 34	PF	0.738	SLV 7	No
Maschio 34	V	5.787	SLV 3	Si
Maschio 34	PFFP	1.438	SLV 7	Si
Maschio 34	R	1.481	SLV 14	Si
Maschio 35	PF SLU	38.637	SLU 31	Si
Maschio 35	V SLU	181.637	SLU 73	Si
Maschio 35	PF	6.006	SLV 7	Si
Maschio 35	V	10.417	SLV 7	Si
Maschio 35	PFFP	1.483	SLV 2	Si
Maschio 35	R	3.84	SLV 3	Si

Verifica maschi in muratura

Maschio	Stato limite	Molt.	Comb.	PGA	iPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
5	PF	2.277	SLV 4	0.362	1.483	1618	1.653	Si
	V	2.378	SLV 5	0.362	1.483	1618	1.653	Si
	PFFP	1000	SLV 1	0.362	1.483	1618	1.653	Si
	R	2.376	SLV 14	0.362	1.483	1618	1.653	Si
6	PF	1.904	SLV 8	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.903	SLV 8	0.362	1.483	1618	1.653	Si
	R	2.122	SLV 9	0.362	1.483	1618	1.653	Si
7	PF	1.545	SLV 8	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.79	SLV 7	0.362	1.483	1618	1.653	Si
	R	2.392	SLV 10	0.362	1.483	1618	1.653	Si
8	PF	1.617	SLV 11	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.609	SLV 7	0.362	1.483	1618	1.653	Si
	R	2.415	SLV 10	0.362	1.483	1618	1.653	Si
9	PF	3.789	SLV 3	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	2.342	SLV 16	0.362	1.483	1618	1.653	Si
11	PF	2.306	SLV 5	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	2.227	SLV 5	0.362	1.483	1618	1.653	Si
	R	2.47	SLV 12	0.362	1.483	1618	1.653	Si
12	PF	1.974	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.449	SLV 3	0.362	1.483	1618	1.653	Si
	PFFP	2.778	SLV 5	0.362	1.483	1618	1.653	Si
	R	2.634	SLV 16	0.362	1.483	1618	1.653	Si
13	PF	0.918	SLV 10	0.223	0.914	374	0.907	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.552	SLV 10	0.362	1.483	1618	1.653	Si
	R	2.35	SLV 7	0.362	1.483	1618	1.653	Si
14	PF	0.791	SLV 7	0.191	0.783	248	0.766	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.58	SLV 7	0.362	1.483	1618	1.653	Si
	R	2.921	SLV 10	0.362	1.483	1618	1.653	Si
15	PF	1.804	SLV 6	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	2.399	SLV 2	0.362	1.483	1618	1.653	Si
	R	2.93	SLV 15	0.362	1.483	1618	1.653	Si
16	PF	3.19	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.393	SLV 5	0.362	1.483	1618	1.653	Si
	PFFP	0.826	SLV 1	0.198	0.811	273	0.797	No
	R	3.985	SLV 14	0.362	1.483	1618	1.653	Si
17	PF	2.146	SLV 16	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.378	SLV 16	0.333	1.363	1225	1.475	Si
	R	1.495	SLV 1	0.361	1.476	1594	1.643	Si
18	PF	2.058	SLV 10	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.646	SLV 10	0.362	1.483	1618	1.653	Si
	R	1.46	SLV 3	0.352	1.443	1476	1.592	Si
19	PF	0.663	SLV 8	0.158	0.646	155	0.632	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
	PFFP	1.37	SLV 13	0.331	1.355	1202	1.463	Si
	R	1.791	SLV 4	0.362	1.483	1618	1.653	Si
20	PF	1.276	SLV 8	0.308	1.262	951	1.329	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si



Maschio	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
21	PFFP	0.861	SLV 12	0.209	0.855	313	0.843	No
	R	2.079	SLV 1	0.362	1.483	1618	1.653	Si
	PF	2.325	SLV 15	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
22	PFFP	1.982	SLV 9	0.362	1.483	1618	1.653	Si
	R	1.992	SLV 3	0.362	1.483	1618	1.653	Si
	PF	0.743	SLV 8	0.179	0.733	208	0.713	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
23	PFFP	0.733	SLV 7	0.176	0.722	200	0.701	No
	R	2.104	SLV 14	0.362	1.483	1618	1.653	Si
	PF	0.331	SLV 11	0.078	0.318	28	0.313	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
24	PFFP	1.225	SLV 2	0.297	1.214	849	1.269	Si
	R	1.938	SLV 15	0.362	1.483	1618	1.653	Si
	PF	0.556	SLV 5	0.131	0.537	101	0.53	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
25	PFFP	1.205	SLV 14	0.292	1.195	810	1.245	Si
	R	1.968	SLV 1	0.362	1.483	1618	1.653	Si
	PF	1.122	SLV 1	0.273	1.117	660	1.144	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
26	PFFP	1.362	SLV 9	0.329	1.345	1172	1.448	Si
	R	1.857	SLV 16	0.362	1.483	1618	1.653	Si
	PF	0.55	SLV 14	0.128	0.523	95	0.517	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
27	PFFP	1.472	SLV 14	0.355	1.454	1516	1.609	Si
	R	1.893	SLV 3	0.362	1.483	1618	1.653	Si
	PF	1.47	SLV 14	0.355	1.452	1509	1.606	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
28	PFFP	1.736	SLV 10	0.362	1.483	1618	1.653	Si
	R	2.138	SLV 3	0.362	1.483	1618	1.653	Si
	PF	0.3	SLV 1	0.067	0.275	20	0.273	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
29	PFFP	1.275	SLV 1	0.309	1.263	955	1.332	Si
	R	1.867	SLV 16	0.362	1.483	1618	1.653	Si
	PF	1.073	SLV 14	0.261	1.07	581	1.086	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
30	PFFP	1.246	SLV 10	0.301	1.233	888	1.292	Si
	R	1.832	SLV 3	0.362	1.483	1618	1.653	Si
	PF	0.326	SLV 14	0.074	0.303	25	0.299	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
31	PFFP	0.903	SLV 3	0.218	0.894	352	0.884	No
	R	1.938	SLV 14	0.362	1.483	1618	1.653	Si
	PF	3.852	SLV 7	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
32	PFFP	2.587	SLV 11	0.362	1.483	1618	1.653	Si
	R	1.493	SLV 2	0.36	1.475	1587	1.64	Si
	PF	1.983	SLV 4	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
34	PFFP	0.762	SLV 1	0.182	0.744	217	0.725	No
	R	4.035	SLV 15	0.362	1.483	1618	1.653	Si
	PF	0.683	SLV 7	0.163	0.667	167	0.651	No
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
35	PFFP	1.009	SLV 7	0.246	1.009	487	1.01	Si
	R	1.442	SLV 14	0.348	1.425	1418	1.566	Si
	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	1.057	SLV 2	0.258	1.055	556	1.067	Si
	R	3.429	SLV 3	0.362	1.483	1618	1.653	Si

Verifica travi di collegamento in muratura

Trave	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
1	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.874	SLV 2	0.211	0.863	321	0.852	No
3	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.234	SLV 2	0.362	1.483	1618	1.653	Si
6	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.675	SLV 3	0.159	0.652	158	0.637	No
8	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.47	SLV 14	0.355	1.452	1509	1.606	Si
10	F	0.454	SLV 11	0.107	0.436	61	0.431	No
	V	1.073	SLV 11	0.261	1.069	580	1.085	Si
11	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.793	SLV 14	0.362	1.483	1618	1.653	Si
12	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.999	SLV 14	0.244	0.999	473	0.998	No
13	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.72	SLV 4	0.362	1.483	1618	1.653	Si
14	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.195	SLV 8	0.362	1.483	1618	1.653	Si
15	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.502	SLV 11	0.362	1.483	1618	1.653	Si
16	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.757	SLV 15	0.362	1.483	1618	1.653	Si
17	F	3.069	SLV 4	0.362	1.483	1618	1.653	Si
	V	1.983	SLV 8	0.362	1.483	1618	1.653	Si
18	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.285	SLV 4	0.362	1.483	1618	1.653	Si
19	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.364	SLV 11	0.362	1.483	1618	1.653	Si
20	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.027	SLV 11	0.362	1.483	1618	1.653	Si



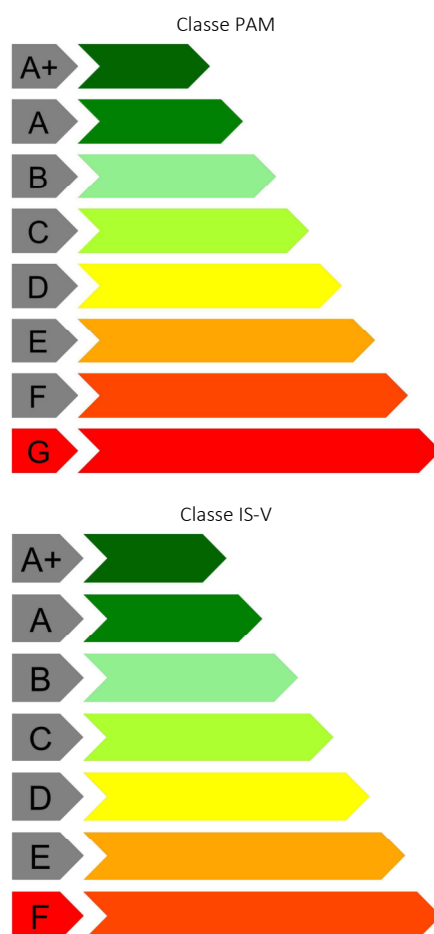
Trave	Stato limite	Molt.	Comb.	PGA	IPGA (ZE)	TR	(TR/TRrif)^.41	Verifica
21	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
22	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.116	SLV 16	0.271	1.111	650	1.137	Si
23	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
24	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.182	SLV 16	0.362	1.483	1618	1.653	Si
25	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.134	SLV 14	0.362	1.483	1618	1.653	Si
26	F	3.4	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.527	SLV 1	0.362	1.483	1618	1.653	Si
27	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	2.647	SLV 1	0.362	1.483	1618	1.653	Si
28	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	0.994	SLV 3	0.243	0.993	466	0.992	No
29	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1000	SLV 1	0.362	1.483	1618	1.653	Si
30	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	3.884	SLV 3	0.362	1.483	1618	1.653	Si
31	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.189	SLV 3	0.288	1.18	779	1.225	Si
32	F	1000	SLV 1	0.362	1.483	1618	1.653	Si
	V	1.117	SLV 7	0.271	1.111	650	1.137	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	0	0	475	0.244	flessione travi

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
0	475	8.22	G	0	F	flessione travi



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]
f_b: resistenza normalizzata a compressione verticale dei blocchi. [daN/m²]
f_k: resistenza caratteristica a compressione della muratura utilizzata. [daN/m²]
f_{vk0}: resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m²]
f_{medio}: 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]
f_{v0}: 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 ammortamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.
f_{v,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]
t_{fv}: spessore di calcolo equivalente verticale di uno strato di rinforzo.
t_{fo}: spessore di calcolo equivalente orizzontale di uno strato di rinforzo.
E: modulo di elasticità longitudinale. [daN/m²]
ε_u: 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.
elim,conv / e,CNR DT-200: dati relativi ai parametri per il calcolo della deformazione di progetto.
α_t: coefficiente che tiene conto della ridotta capacità estensionale delle fibre sollecitate a taglio secondo CNR-DT 215 §4.1.1.
α: coefficiente amplificativo tensione di distacco secondo CNR-DT 215 §3.1 ovvero secondo CNR-DT 200 R1/2013 §5.3.3.
elim,conv: deformazione limite convenzionale del rinforzo FRCCM.
ε_{f,d}: deformazione di progetto del rinforzo FRCCM ovvero CRM.
γ_{f,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 FRCCM ovvero CRM.
spessore intonaco: spessore intonaco. [m]
tipo blocco fibrenet: tipo blocco muratura per verifica a taglio tipo Fibrenet.
Comb.: combinazione.
Quota: quota della sezione di verifica. [m]
M: momento flettente nel piano. [daN*m]
N: sforzo normale. [daN]
ε_m: deformazione della muratura.
ε_m: deformazione elastica della muratura.
ε_{mu}: deformazione ultima della muratura.
df: distanza tra il lembo compresso e la fibra tesa più lontana. [m]
M_{0d}: momento resistente della sezione non rinforzata. [daN*m]
M_{1d}: momento resistente della sezione rinforzata. [daN*m]
M_{Rd}: 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.
N_{mur}: 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]

σ_N : tensione media nella zona compressa. [daN/m²]

f_{vd}: resistenza a taglio di calcolo. [daN/m²]

V_t: resistenza a taglio della muratura non rinforzata. [daN]

V_{t,f}: resistenza a taglio del rinforzo (CNR DT215 4.1a). [daN]

V_{t,c}: resistenza a taglio per schiacciamento delle bielle (CNR DT215 4.1b). [daN]

V_{t,c int.}: contributo di resistenza a taglio delle bielle dell'intonaco se considerato. [daN]

V_{t,R}: resistenza a taglio della sezione rinforzata. [daN]

res. > 50%: incremento resistenza superiore al 50% della resistenza non rinforzata in condizioni non sismiche.

S_a: 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]

α_0 : moltiplicatore secondo [C8.7.1.1].

M*: massa partecipante al cinematicismo. [daN/(m/s²)]

e*: frazione di massa partecipante della muratura [C8.7.1.5].

α_0^* : accelerazione spettrale di attivazione del meccanismo [C8.7.1.8]. [m/s²]

α_{lim} : 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.

f_d: resistenza a compressione di calcolo. [daN/m²]

S_a: accelerazione massima, adimensionalizzata rispetto a g, che l'elemento strutturale subisce durante il sisma.

σ_0 : tensione media di compressione. [daN/m²]

M_c: momento di collasso per azioni perpendicolari al piano. [daN*m]

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
-28.162	-18.044	-28.162	-9.039	L1	L2	9.005	0.28	2.6	2.6	2.6			

Caratteristiche del materiale

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

f _b	f _k	f _{vk0}	f _{medio}	τ_0	f _{v0}	μ	ϕ	f _{v,lim}	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRMC

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	e _u	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	elim,conv / e,CNR DT-200						CRM / Fibrenet?				
									α_t	α	elim,conv	e,f,d	y _F ,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 FRMC in combinazioni non sismiche, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLU 55	-0.91	692.83	-106130	-0.0000611	0.0004492	0.0035	9.0055	313262.95	394809.45	394809.45	569.85	No	Si
SLU 55	1.69	-9752.63	-32857	-0.0000216	0.0004492	0.0035	9.0055	132168.82	185138.8	185138.8	18.98	No	Si
SLU 82	-0.91	483.01	-124558	-0.0000724	0.0004492	0.0035	9.0055	334111.04	441404.63	441404.63	913.87	No	Si
SLU 82	1.69	-10745.99	-39552	-0.0000258	0.0004492	0.0035	9.0055	155230.06	211182.04	211182.04	19.65	No	Si
SLU 34	-0.91	1377.75	-100064	-0.0000576	0.0004492	0.0035	9.0055	304228.16	375030.93	375030.93	272.2	No	Si
SLU 34	1.69	-9291.72	-32104	-0.000021	0.0004492	0.0035	9.0055	129493.65	182210.25	182210.25	19.61	No	Si
SLU 65	-0.91	781.08	-101801	-0.0000585	0.0004492	0.0035	9.0055	306924.97	380694.05	380694.05	487.39	No	Si
SLU 65	1.69	-9044.37	-30809	-0.0000202	0.0004492	0.0035	9.0055	124854.11	177173.69	177173.69	19.59	No	Si
SLU 84	-0.91	483.01	-124558	-0.0000724	0.0004492	0.0035	9.0055	334111.04	441404.63	441404.63	913.87	No	Si
SLU 84	1.69	-10745.99	-39552	-0.0000258	0.0004492	0.0035	9.0055	155230.06	211182.04	211182.04	19.65	No	Si
SLU 73	-0.91	1023.17	-117769	-0.0000684	0.0004492	0.0035	9.0055	327585.26	424310.31	424310.31	414.7	No	Si
SLU 73	1.69	-10625.64	-37046	-0.0000243	0.0004492	0.0035	9.0055	146751.74	201434.14	201434.14	18.96	No	Si
SLU 52	-0.91	692.83	-106130	-0.0000611	0.0004492	0.0035	9.0055	313262.95	394809.45	394809.45	569.85	No	Si
SLU 52	1.69	-9752.63	-32857	-0.0000216	0.0004492	0.0035	9.0055	132168.82	185138.8	185138.8	18.98	No	Si
SLU 76	-0.91	1023.17	-117769	-0.0000684	0.0004492	0.0035	9.0055	327585.26	424310.31	424310.31	414.7	No	Si
SLU 76	1.69	-10625.64	-37046	-0.0000243	0.0004492	0.0035	9.0055	146751.74	201434.14	201434.14	18.96	No	Si
SLU 68	-0.91	781.08	-101801	-0.0000585	0.0004492	0.0035	9.0055	306924.97	380694.05	380694.05	487.39	No	Si
SLU 68	1.69	-9044.37	-30809	-0.0000202	0.0004492	0.0035	9.0055	124854.11	177173.69	177173.69	19.59	No	Si
SLU 31	-0.91	1377.75	-100064	-0.0000576	0.0004492	0.0035	9.0055	304228.16	375030.93	375030.93	272.2	No	Si
SLU 31	1.69	-9291.72	-32104	-0.000021	0.0004492	0.0035	9.0055	129493.65	182210.25	182210.25	19.61	No	Si



Verifica a pressoflessione nel piano delle sezioni rinforzate con FRM in combinazioni sismiche, $\gamma_M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	em	em_	emu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 12	-0.91	80343.66	-81062	-0.0000759	0.0006738	0.0035	9.0055		326451.45	326451.45	4.06		Si
SLV 12	1.69	-13.36	-27446	-0.0000149	0.0006738	0.0035	9.0055		165527.88	165527.88	12389.31		Si
SLV 5	-0.91	-81625.44	-79353	-0.0000754	0.0006738	0.0035	9.0055		363170.03	363170.03	4.45		Si
SLV 5	1.69	-12277.31	-21034	-0.0000159	0.0006738	0.0035	9.0055		139007.65	139007.65	11.32		Si
SLV 9	-0.91	-81627.44	-82106	-0.000077	0.0006738	0.0035	9.0055		372707.89	372707.89	4.57		Si
SLV 9	1.69	-11407.58	-28164	-0.0000195	0.0006738	0.0035	9.0055		168480.48	168480.48	14.77		Si
SLV 6	-0.91	-81585.91	-79339	-0.0000753	0.0006738	0.0035	9.0055		363121.65	363121.65	4.45		Si
SLV 6	1.69	-12188.31	-21038	-0.0000158	0.0006738	0.0035	9.0055		139024.91	139024.91	11.41		Si
SLV 7	-0.91	80306.14	-78322	-0.0000742	0.0006738	0.0035	9.0055		317425.73	317425.73	3.95		Si
SLV 7	1.69	-972.09	-20311	-0.0000114	0.0006738	0.0035	9.0055		135998.24	135998.24	139.9		Si
SLV 1	-0.91	-24946.05	-75779	-0.0000515	0.0006738	0.0035	9.0055		350309.49	350309.49	14.04		Si
SLV 1	1.69	-9332.93	-12462	-0.0000101	0.0006738	0.0035	9.0055		102961.38	102961.38	11.03		Si
SLV 8	-0.91	80345.67	-78309	-0.0000742	0.0006738	0.0035	9.0055		317381.45	317381.45	3.95		Si
SLV 8	1.69	-883.09	-20315	-0.0000113	0.0006738	0.0035	9.0055		136015.5	136015.5	154.02		Si
SLV 10	-0.91	-81587.91	-82093	-0.000077	0.0006738	0.0035	9.0055		372662.1	372662.1	4.57		Si
SLV 10	1.69	-11318.58	-28168	-0.0000195	0.0006738	0.0035	9.0055		168497.51	168497.51	14.89		Si
SLV 2	-0.91	-24908.52	-75766	-0.0000514	0.0006738	0.0035	9.0055		350263.55	350263.55	14.06		Si
SLV 2	1.69	-9248.42	-12466	-0.0000101	0.0006738	0.0035	9.0055		102978.14	102978.14	11.13		Si
SLV 11	-0.91	80304.13	-81076	-0.0000759	0.0006738	0.0035	9.0055		326495.73	326495.73	4.07		Si
SLV 11	1.69	-102.36	-27442	-0.000015	0.0006738	0.0035	9.0055		165510.85	165510.85	1616.94		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	oN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 68	-0.91	781.08	-101801	-72622	2106	9.0055	9.0055	-28801	10833	27317	81562	90617	45928	108878	No	51.69	Si
SLU 68	1.69	-9044.37	-30809	-21979	3388	9.0055	9.0055	-8716	9496	23943	81562	90617	45928	105505	No	31.14	Si
SLU 84	-0.91	483.01	-124558	-88857	1774	9.0055	9.0055	-35239	10833	27317	81562	90617	45928	108878	No	61.38	Si
SLU 84	1.69	-10745.99	-39552	-28216	3405	9.0055	9.0055	-11190	9825	24775	81562	90617	45928	106336	No	31.23	Si
SLU 31	-0.91	1377.75	-100064	-71383	2014	9.0055	9.0055	-28309	10833	27317	81562	90617	45928	108878	No	54.06	Si
SLU 31	1.69	-9291.72	-32104	-22902	3382	9.0055	9.0055	-9083	9544	24066	81562	90617	45928	105628	No	31.24	Si
SLU 52	-0.91	692.83	-106130	-75711	2119	9.0055	9.0055	-30026	10833	27317	81562	90617	45928	108878	No	51.37	Si
SLU 52	1.69	-9752.63	-32857	-23439	3520	9.0055	9.0055	-9296	9573	24138	81562	90617	45928	105700	No	30.03	Si
SLU 65	-0.91	781.08	-101801	-72622	2106	9.0055	9.0055	-28801	10833	27317	81562	90617	45928	108878	No	51.69	Si
SLU 65	1.69	-9044.37	-30809	-21979	3388	9.0055	9.0055	-8716	9496	23943	81562	90617	45928	105505	No	31.14	Si
SLU 73	-0.91	1023.17	-117769	-84014	2196	9.0055	9.0055	-33318	10833	27317	81562	90617	45928	108878	No	49.58	Si
SLU 73	1.69	-10625.64	-37046	-26428	3755	9.0055	9.0055	-10481	9731	24536	81562	90617	45928	106098	No	28.26	Si
SLU 76	-0.91	1023.17	-117769	-84014	2196	9.0055	9.0055	-33318	10833	27317	81562	90617	45928	108878	No	49.58	Si
SLU 76	1.69	-10625.64	-37046	-26428	3755	9.0055	9.0055	-10481	9731	24536	81562	90617	45928	106098	No	28.26	Si
SLU 55	-0.91	692.83	-106130	-75711	2119	9.0055	9.0055	-30026	10833	27317	81562	90617	45928	108878	No	51.37	Si
SLU 55	1.69	-9752.63	-32857	-23439	3520	9.0055	9.0055	-9296	9573	24138	81562	90617	45928	105700	No	30.03	Si
SLU 34	-0.91	1377.75	-100064	-71383	2014	9.0055	9.0055	-28309	10833	27317	81562	90617	45928	108878	No	54.06	Si
SLU 34	1.69	-9291.72	-32104	-22902	3382	9.0055	9.0055	-9083	9544	24066	81562	90617	45928	105628	No	31.24	Si
SLU 82	-0.91	483.01	-124558	-88857	1774	9.0055	9.0055	-35239	10833	27317	81562	90617	45928	108878	No	61.38	Si
SLU 82	1.69	-10745.99	-39552	-28216	3405	9.0055	9.0055	-11190	9825	24775	81562	90617	45928	106336	No	31.23	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	oN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 12	-0.91	80343.66	-81062	-57828	40269	9.0055	9.0055	-22934	16250	40975	81562	135926	45928	122536		3.04	Si
SLV 12	1.69	-13.36	-27446	-19579	38973	9.0055	9.0055	-7765	14053	35435	81562	135926	45928	116997		3	Si
SLV 7	-0.91	80306.14	-78322	-55873	40580	9.0055	9.0055	-22158	16250	40975	81562	135926	45928	122536		3.02	Si
SLV 7	1.69	-972.09	-20311	-14489	39359	9.0055	9.0055	-5746	13649	34417	81562	135926	45928	115979		2.95	Si
SLV 10	-0.91	-81587.91	-82093	-58563	-39095	9.0055	9.0055	-23225	16250	40975	81562	135926	45928	122536		3.13	Si
SLV 10	1.69	-11318.58	-28168	-20095	-35991	9.0055	9.0055	-7969	14094	35538	81562	135926	45928	117100		3.25	Si
SLV 9	-0.91	-81627.44	-82106	-58572	-38901	9.0055	9.0055	-23229	16250	40975	81562	135926	45928	122536		3.15	Si
SLV 9	1.69	-11407.58	-28164	-20092	-35796	9.0055	9.0055	-7968	14094	35537	81562	135926	45928	117099		3.27	Si
SLV 8	-0.91	80345.67	-78309	-55864	40387	9.0055	9.0055	-22155	16250	40975	81562	135926	45928	122536		3.03	Si
SLV 8	1.69	-883.09	-20315	-14492	39163	9.0055	9.0055	-5747	13649	34418	81562	135926	45928	115979		2.96	Si
SLV 6	-0.91	-81585.91	-79339	-56599	-38977	9.0055	9.0055	-22446	16250	40975	81562	135926	45928	122536		3.14	Si
SLV 6	1.69	-12188.31	-21038	-15008	-35801	9.0055	9.0055	-5952	13690	34521	81562	135926	45928	116082		3.24	Si
SLV 11	-0.91	80304.13	-81076	-57837	40463	9.0055	9.0055	-22937	16250	40975	81562	135926	45928	122536		3.03	Si
SLV 11	1.69	-102.36	-27442	-19576	39168	9.0055	9.0055	-7764	14053	35434	81562	135926	45928	116996		2.99	Si
SLV 5	-0.91	-81625.44	-79353	-56608	-38783	9.0055	9.0055	-22450	16250	40975	81562	135926	45928	122536		3.16	Si
SLV 5	1.69	-12277.31	-21034	-15005	-35605	9.0055	9.0055	-5951	13690	34520	81562	135926	45928	116082		3.26	Si
SLV 3	-0.91	23633.42	-75470	-53838	12936	9.0055	9.0055	-21352	16250	40975	81562	135926	45928	122536		9.47	Si
SLV 3	1.69	-5941.36	-12245	-8735	13338	9.0055	9.0055	-3464	13193	33266	81562	135926	45928	114828		8.61	Si
SLV 4	-0.91	23670.95	-75457	-53829	12752	9.0055	9.0055	-21348	16250	40975	81562	135926	45928	122536		9.61	Si
SLV 4	1.69	-5856.86	-12249	-8738	13153	9.0055	9.0055	-3465	13193	33267	81562	135926	45928	114828		8.73	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRM D.M. 17-01-18 (N.T.C.)

quota 0.39 Ta 0.04 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 4	-44745	0.27	367.43	5657.83	7967.96	6812.89	18.54	Si
SLV 3	-44747	0.27	367.43	5658.02	7968.2	6813.11	18.54	Si
SLV 2	-45134	0.27	367.43	5701.7	8025.57	6863.64	18.68	Si
SLV 1	-45136	0.27	367.43	5701.89	8025.82	6863.85	18.68	Si
SLV 8	-49631	0.27	367.43	6202.19	8692.48	7447.34	20.27	Si
SLV 7	-49633	0.27	367.43	6202.39	8692.74	7447.56	20.27	Si
SLV 6	-50928	0.27	367.43	6344.24	8885.09	7614.67	20.72	Si
SLV 5	-50930	0.27	367.43	6344.44	8885.35	7614.89	20.72	Si
SLV 12	-54209	0.27	367.43	6699.02	9372.81	8035.91	21.87	Si
SLV 11	-54210	0.27	367.43	6699.2	9373.07	8036.14	21.87	Si



Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.39 $W_a = 0.05$ $T_a = 0.0403$

Comb.	N top	N base	V orto	α_0	M*	e*	a0*	aLim	Verifica
SLV 14	-36235	-84945	1305	1.231	4618.5	0.943	18.96681	5.45401	Si
SLV 13	-36231	-84958	1305	1.231	4618.1	0.943	18.96852	5.45401	Si
SLV 16	-36018	-84636	1267	1.238	4596.5	0.943	19.07902	5.45401	Si
SLV 15	-36014	-84648	1267	1.238	4596.1	0.943	19.08075	5.45401	Si
SLV 10	-28168	-82093	-14	1.548	3802.1	0.933	24.10066	4.46444	Si
SLV 9	-28164	-82106	-14	1.548	3801.7	0.933	24.10374	4.46444	Si
SLV 12	-27446	-81062	-139	1.576	3729.1	0.932	24.57454	4.46444	Si
SLV 11	-27442	-81076	-138	1.576	3728.7	0.932	24.57774	4.46444	Si
SLV 6	-21038	-79339	-1182	1.9	3083.7	0.921	29.96778	4.46444	Si
SLV 5	-21034	-79353	-1182	1.9	3083.3	0.921	29.97264	4.46444	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	18.957	SLU 73	Si
V_SLU	28.257	SLU 73	Si
PF_SLV	3.95	SLV 8	Si
V_SLV	2.947	SLV 7	Si
PFFP_SLV	18.542	SLV 4	Si
R_SLV	3.478	SLV 14	Si

Maschio 6

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
-28.162	-18.044	-26.847	-18.044	L1	L2	1.315	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti

fb	fk	fvk0	fmedio	τ_0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	ϵ_{fd}	$y_{F,d}$	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 FRM in combinazioni non sismiche, $\gamma_m = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{m_u}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 46	1.09	-1223.38	-8107	-0.0000343	0.0003743	0.0035	1.315	4613.22	5779.06	5779.06	4.72	No	Si
SLU 46	1.49	-369.75	-9045	-0.0000268	0.0003743	0.0035	1.315	5054.06	6290.7	6290.7	17.01	No	Si
SLU 50	1.09	-1159.38	-7977	-0.0000332	0.0003743	0.0035	1.315	4550.32	5707.83	5707.83	4.92	No	Si
SLU 50	1.49	-196.23	-8932	-0.0000244	0.0003743	0.0035	1.315	5002.25	6229.39	6229.39	31.75	No	Si
SLU 48	1.09	-1159.38	-7977	-0.0000332	0.0003743	0.0035	1.315	4550.32	5707.83	5707.83	4.92	No	Si
SLU 48	1.49	-196.23	-8932	-0.0000244	0.0003743	0.0035	1.315	5002.25	6229.39	6229.39	31.75	No	Si
SLU 44	1.09	-1266.05	-8194	-0.0000351	0.0003743	0.0035	1.315	4654.94	5826.55	5826.55	4.6	No	Si
SLU 44	1.49	-485.43	-9120	-0.0000283	0.0003743	0.0035	1.315	5088.45	6331.57	6331.57	13.04	No	Si
SLU 2	1.09	-1011.7	-6774	-0.0000284	0.0003743	0.0035	1.315	3953.12	5051.1	5051.1	4.99	No	Si
SLU 2	1.49	-426.01	-7524	-0.0000235	0.0003743	0.0035	1.315	4329.4	5460.9	5460.9	12.82	No	Si
SLU 45	1.09	-1159.38	-7977	-0.0000332	0.0003743	0.0035	1.315	4550.32	5707.83	5707.83	4.92	No	Si
SLU 45	1.49	-196.23	-8932	-0.0000244	0.0003743	0.0035	1.315	5002.25	6229.39	6229.39	31.75	No	Si
SLU 43	1.09	-1159.38	-7977	-0.0000332	0.0003743	0.0035	1.315	4550.32	5707.83	5707.83	4.92	No	Si
SLU 43	1.49	-196.23	-8932	-0.0000244	0.0003743	0.0035	1.315	5002.25	6229.39	6229.39	31.75	No	Si
SLU 49	1.09	-1223.38	-8107	-0.0000343	0.0003743	0.0035	1.315	4613.22	5779.06	5779.06	4.72	No	Si
SLU 49	1.49	-369.75	-9045	-0.0000268	0.0003743	0.0035	1.315	5054.06	6290.7	6290.7	17.01	No	Si
SLU 51	1.09	-1223.38	-8107	-0.0000343	0.0003743	0.0035	1.315	4613.22	5779.06	5779.06	4.72	No	Si
SLU 51	1.49	-369.75	-9045	-0.0000268	0.0003743	0.0035	1.315	5054.06	6290.7	6290.7	17.01	No	Si
SLU 47	1.09	-1266.05	-8194	-0.0000351	0.0003743	0.0035	1.315	4654.94	5826.55	5826.55	4.6	No	Si
SLU 47	1.49	-485.43	-9120	-0.0000283	0.0003743	0.0035	1.315	5088.45	6331.57	6331.57	13.04	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRM in combinazioni sismiche, $\gamma_m = 2$

Verifica condotta secondo CNR-DT 215



Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 2	1.09	-1863.07	-7381	-0.0000396	0.0005615	0.0035	1.315		5485.65	5485.65	2.94		Si
SLV 2	1.49	-340.07	-8623	-0.0000251	0.0005615	0.0035	1.315		6189.78	6189.78	18.2		Si
SLV 8	1.09	-1068.3	-3816	-0.0000217	0.0005615	0.0035	1.315		3360.75	3360.75	3.15		Si
SLV 8	1.49	-797.96	-5699	-0.0000229	0.0005615	0.0035	1.315		4487.83	4487.83	5.62		Si
SLV 11	1.09	-475.21	-4743	-0.0000169	0.0005615	0.0035	1.315		3921.16	3921.16	8.25		Si
SLV 11	1.49	-566.9	-6200	-0.0000216	0.0005615	0.0035	1.315		4785.01	4785.01	8.44		Si
SLV 4	1.09	-1758.76	-5346	-0.0000353	0.0005615	0.0035	1.315		4278.68	4278.68	2.43		Si
SLV 4	1.49	-678.77	-7051	-0.000025	0.0005615	0.0035	1.315		5289.56	5289.56	7.79		Si
SLV 6	1.09	-1416.01	-10600	-0.0000425	0.0005615	0.0035	1.315		7305.09	7305.09	5.16		Si
SLV 6	1.49	331.03	-10940	-0.0000308	0.0005615	0.0035	1.315		6757.96	6757.96	20.42		Si
SLV 1	1.09	-1764.94	-7570	-0.0000388	0.0005615	0.0035	1.315		5595.27	5595.27	3.17		Si
SLV 1	1.49	-345.16	-8704	-0.0000253	0.0005615	0.0035	1.315		6235.72	6235.72	18.07		Si
SLV 7	1.09	-964.95	-4015	-0.0000207	0.0005615	0.0035	1.315		3482.16	3482.16	3.61		Si
SLV 7	1.49	-803.32	-5784	-0.0000232	0.0005615	0.0035	1.315		4538.65	4538.65	5.65		Si
SLV 12	1.09	-578.56	-4544	-0.0000176	0.0005615	0.0035	1.315		3803.28	3803.28	6.57		Si
SLV 12	1.49	-561.54	-6114	-0.0000213	0.0005615	0.0035	1.315		4734.19	4734.19	8.43		Si
SLV 3	1.09	-1660.63	-5535	-0.0000335	0.0005615	0.0035	1.315		4390.61	4390.61	2.64		Si
SLV 3	1.49	-683.86	-7132	-0.0000252	0.0005615	0.0035	1.315		5337.82	5337.82	7.81		Si
SLV 5	1.09	-1312.66	-10799	-0.0000418	0.0005615	0.0035	1.315		7411.67	7411.67	5.65		Si
SLV 5	1.49	325.67	-11026	-0.000031	0.0005615	0.0035	1.315		6805.13	6805.13	20.9		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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 62	1.09	-1290.81	-11275	-9020	-5734	1.315	1.315	-15243	8977	5312	81562	17720	6707	24426	No	4.26	Si
SLU 62	1.49	-178.44	-12571	-10057	-5933	1.315	1.315	-16995	9210	5450	81562	17720	6707	24426	No	4.12	Si
SLU 80	1.09	-1365.42	-12011	-9609	-5687	1.315	1.315	-16238	9109	5391	81562	17720	6707	24426	No	4.3	Si
SLU 80	1.49	-303.7	-13359	-10687	-5906	1.315	1.315	-18061	9353	5534	81562	17720	6707	24426	No	4.14	Si
SLU 81	1.09	-1340.85	-12870	-10296	-6244	1.315	1.315	-17399	9264	5482	81562	17720	6707	24426	No	3.91	Si
SLU 81	1.49	-124.84	-14339	-11471	-6495	1.315	1.315	-19385	9529	5639	81562	17720	6707	24426	No	3.76	Si
SLU 84	1.09	-1404.85	-13000	-10400	-5945	1.315	1.315	-17575	9288	5496	81562	17720	6707	24426	No	4.11	Si
SLU 84	1.49	-298.36	-14451	-11561	-6193	1.315	1.315	-19536	9549	5651	81562	17720	6707	24426	No	3.94	Si
SLU 74	1.09	-1301.42	-11880	-9504	-5986	1.315	1.315	-16061	9086	5377	81562	17720	6707	24426	No	4.08	Si
SLU 74	1.49	-130.18	-13247	-10598	-6208	1.315	1.315	-17909	9332	5522	81562	17720	6707	24426	No	3.93	Si
SLU 60	1.09	-1290.81	-11275	-9020	-5734	1.315	1.315	-15243	8977	5312	81562	17720	6707	24426	No	4.26	Si
SLU 60	1.49	-178.44	-12571	-10057	-5933	1.315	1.315	-16995	9210	5450	81562	17720	6707	24426	No	4.12	Si
SLU 83	1.09	-1340.85	-12870	-10296	-6244	1.315	1.315	-17399	9264	5482	81562	17720	6707	24426	No	3.91	Si
SLU 83	1.49	-124.84	-14339	-11471	-6495	1.315	1.315	-19385	9529	5639	81562	17720	6707	24426	No	3.76	Si
SLU 79	1.09	-1301.42	-11880	-9504	-5986	1.315	1.315	-16061	9086	5377	81562	17720	6707	24426	No	4.08	Si
SLU 79	1.49	-130.18	-13247	-10598	-6208	1.315	1.315	-17909	9332	5522	81562	17720	6707	24426	No	3.93	Si
SLU 77	1.09	-1301.42	-11880	-9504	-5986	1.315	1.315	-16061	9086	5377	81562	17720	6707	24426	No	4.08	Si
SLU 77	1.49	-130.18	-13247	-10598	-6208	1.315	1.315	-17909	9332	5522	81562	17720	6707	24426	No	3.93	Si
SLU 82	1.09	-1404.85	-13000	-10400	-5945	1.315	1.315	-17575	9288	5496	81562	17720	6707	24426	No	4.11	Si
SLU 82	1.49	-298.36	-14451	-11561	-6193	1.315	1.315	-19536	9549	5651	81562	17720	6707	24426	No	3.94	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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 6	1.09	-1416.01	-10600	-8480	-4996	1.315	1.315	-14331	13283	7860	81562	26579	6707	33286		6.66	Si
SLV 6	1.49	331.03	-10940	-8752	-5187	1.315	1.315	-14790	13375	7914	81562	26579	6707	33286		6.42	Si
SLV 4	1.09	-1758.76	-5346	-4277	-7578	1.315	0.9855	-9690	12355	5479	81562	26579	6707	33286		4.39	Si
SLV 4	1.49	-678.77	-7051	-5641	-7485	1.315	1.315	-9532	12323	7292	81562	26579	6707	33286		4.45	Si
SLV 8	1.09	-1068.3	-3816	-3053	-5702	1.315	1.1326	-6008	11618	5922	81562	26579	6707	33286		5.84	Si
SLV 8	1.49	-797.96	-5699	-4559	-5644	1.315	1.315	-7704	11957	7076	81562	26579	6707	33286		5.9	Si
SLV 12	1.09	-578.56	-4544	-3635	-3871	1.315	1.315	-6144	11645	6891	81562	26579	6707	33286		8.6	Si
SLV 12	1.49	-561.54	-6114	-4891	-3919	1.315	1.315	-8266	12070	7142	81562	26579	6707	33286		8.49	Si
SLV 1	1.09	-1764.94	-7570	-6056	-6925	1.315	1.2731	-10234	12463	7140	81562	26579	6707	33286		4.81	Si
SLV 1	1.49	-345.16	-8704	-6964	-6922	1.315	1.315	-11768	12770	7557	81562	26579	6707	33286		4.81	Si
SLV 7	1.09	-964.95	-4015	-3212	-5236	1.315	1.2515	-5719	11561	6510	81562	26579	6707	33286		6.36	Si
SLV 7	1.49	-803.32	-5784	-4627	-5195	1.315	1.315	-7820	11981	7090	81562	26579	6707	33286		6.41	Si
SLV 3	1.09	-1660.63	-5535	-4428	-7136	1.315	1.0724	-9217	12260	5916	81562	26579	6707	33286		4.66	Si
SLV 3	1.49	-683.86	-7132	-5706	-7059	1.315	1.315	-9642	12345	7305	81562	26579	6707	33286		4.72	Si
SLV 2	1.09	-1863.07	-7381	-5905	-7367	1.315	1.2153	-10853	12587	6884	81562	26579	6707	33286		4.52	Si
SLV 2	1.49	-340.07	-8623	-6898	-7348	1.315	1.315	-11658	12748	7544	81562	26579	6707	33286		4.53	Si
SLV 5	1.09	-1312.66	-10799	-8639	-4531	1.315	1.315	-14600	13337	7892	81562	26579	6707	33286		7.35	Si
SLV 5	1.49	325.67	-11026	-8821	-4738	1.315	1.315	-14906	13398	7928	81562	26579	6707	33286		7.03	Si
SLV 11	1.09	-475.21	-4743	-3794	-3406	1.315	1.315	-6412	11699	6923	81562	26579	6707	33286		9.77	Si
SLV 11	1.49	-566.9	-6200	-4960	-3470	1.315	1.315	-8382	12093	7156	81562	26579	6707	33286		9.59	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRM D.M. 17-01-18 (N.T.C.)

quota 0.39 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 8	-3392	0.27	82.83	734.49	1066.61	900.55	10.87	Si
SLV 7	-3570	0.27	82.83	771.52	1109.05	940.28	11.35	Si
SLV 12	-3875	0.27	82.83	834.48	1181.62	1008.05	12.17	Si
SLV 11	-4053	0.27	82.83	871.08	1224.07	1047.57	12.65	Si
SLV 4	-5020	0.27	82.83	1066.84	1453.44	1260.14	15.21	Si
SLV 3	-5190	0.27	82.83	1100.63	1493.48	1297.06	15.66	Si
SLV 16	-6631	0.27	82.83	1382.53	1833.75	1608.14	19.42	Si
SLV 15	-6800	0.27	82.83	1414.97	1873.45	1644.21	19.85	Si
SLV 2	-6896	0.27	82.83	1433.16	1895.81	1664.49	20.1	Si
SLV 1	-7065	0.27	82.83	1465.37	1935.51	1700.44	20.53	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	α0	M*	e*	α0*	aLim	Verifica
SLV 9	-11270	-9308	-254	0.66	1364.6	0.954	10.05336	3.57869	Si
SLV 10	-11142	-9280	-248	0.666	1351.6	0.953	10.15418	3.57869	Si
SLV 5	-10767	-9238	-280	0.681	1313.5	0.952	10.40008	3.57869	Si



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 6	-10639	-9210	-274	0.688	1300.5	0.952	10.50908	3.57869	Si
SLV 13	-9137	-7554	-219	0.779	1148.1	0.946	11.97047	4.02268	Si
SLV 14	-9016	-7527	-213	0.788	1135.8	0.945	12.10972	4.02268	Si
SLV 1	-7460	-7320	-305	0.901	978.2	0.938	13.95495	4.02268	Si
SLV 2	-7339	-7293	-299	0.913	965.9	0.937	14.15068	4.02268	Si
SLV 15	-6809	-5980	-214	0.976	912.3	0.934	15.18823	4.02268	Si
SLV 16	-6688	-5954	-208	0.991	900.1	0.934	15.41963	4.02268	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	4.602	SLU 44	Si
V_SLU	3.761	SLU 81	Si
PF_SLV	2.433	SLV 4	Si
V_SLV	4.392	SLV 4	Si
PFFP_SLV	10.873	SLV 8	Si
R_SLV	2.809	SLV 9	Si

Maschio 7

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
-25.847	-18.044	-23.332	-18.044	L1	L2	2.515	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti

fb	fk	fvk0	fmedio	t0	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRMC

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

Rinforzo a matrice inorganica

									elim,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	elim,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 FRMC in combinazioni non sismiche, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 50	1.09	-2188.79	-11604	-0.000023	0.0003743	0.0035	2.515	13122.64	15238.47	15238.47	6.96	No	Si
SLU 50	1.49	-90.03	-11024	-0.0000153	0.0003743	0.0035	2.515	12536.62	14612.79	14612.79	162.31	No	Si
SLU 2	1.09	-1722.01	-8347	-0.0000169	0.0003743	0.0035	2.515	9735.48	11685.47	11685.47	6.79	No	Si
SLU 2	1.49	-116.92	-7897	-0.000011	0.0003743	0.0035	2.515	9249.59	11180.55	11180.55	95.62	No	Si
SLU 5	1.09	-1722.01	-8347	-0.0000169	0.0003743	0.0035	2.515	9735.48	11685.47	11685.47	6.79	No	Si
SLU 5	1.49	-116.92	-7897	-0.000011	0.0003743	0.0035	2.515	9249.59	11180.55	11180.55	95.62	No	Si
SLU 44	1.09	-2202.36	-10360	-0.0000213	0.0003743	0.0035	2.515	11856.32	13902.22	13902.22	6.31	No	Si
SLU 44	1.49	-139.7	-9780	-0.0000137	0.0003743	0.0035	2.515	11254.55	13278.21	13278.21	95.05	No	Si
SLU 49	1.09	-2196.93	-10858	-0.0000219	0.0003743	0.0035	2.515	12366.91	14433.76	14433.76	6.57	No	Si
SLU 49	1.49	-119.84	-10278	-0.0000143	0.0003743	0.0035	2.515	11771.43	13814.43	13814.43	115.28	No	Si
SLU 46	1.09	-2196.93	-10858	-0.0000219	0.0003743	0.0035	2.515	12366.91	14433.76	14433.76	6.57	No	Si
SLU 46	1.49	-119.84	-10278	-0.0000143	0.0003743	0.0035	2.515	11771.43	13814.43	13814.43	115.28	No	Si
SLU 51	1.09	-2196.93	-10858	-0.0000219	0.0003743	0.0035	2.515	12366.91	14433.76	14433.76	6.57	No	Si
SLU 51	1.49	-119.84	-10278	-0.0000143	0.0003743	0.0035	2.515	11771.43	13814.43	13814.43	115.28	No	Si
SLU 45	1.09	-2188.79	-11604	-0.000023	0.0003743	0.0035	2.515	13122.64	15238.47	15238.47	6.96	No	Si
SLU 45	1.49	-90.03	-11024	-0.0000153	0.0003743	0.0035	2.515	12536.62	14612.79	14612.79	162.31	No	Si
SLU 47	1.09	-2202.36	-10360	-0.0000213	0.0003743	0.0035	2.515	11856.32	13902.22	13902.22	6.31	No	Si
SLU 47	1.49	-139.7	-9780	-0.0000137	0.0003743	0.0035	2.515	11254.55	13278.21	13278.21	95.05	No	Si
SLU 48	1.09	-2188.79	-11604	-0.000023	0.0003743	0.0035	2.515	13122.64	15238.47	15238.47	6.96	No	Si
SLU 48	1.49	-90.03	-11024	-0.0000153	0.0003743	0.0035	2.515	12536.62	14612.79	14612.79	162.31	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche, $\gamma_M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 8	1.09	-3036.13	-4975	-0.0000173	0.0005615	0.0035	2.515		7900.56	7900.56	2.6		Si
SLV 8	1.49	-602.24	-4582	-0.000008	0.0005615	0.0035	2.515		7432.05	7432.05	12.34		Si
SLV 1	1.09	-3617.6	-12518	-0.0000287	0.0005615	0.0035	2.515		16583.46	16583.46	4.58		Si
SLV 1	1.49	609.31	-11906	-0.000018	0.0005615	0.0035	2.515		14447.24	14447.24	23.71		Si
SLV 2	1.09	-4058.1	-12589	-0.0000302	0.0005615	0.0035	2.515		16661.6	16661.6	4.11		Si



Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 2	1.49	539.82	-11976	-0.0000179	0.0005615	0.0035	2.515		14527.15	14527.15	26.91		Si
SLV 4	1.09	-4288.96	-8874	-0.0000259	0.0005615	0.0035	2.515		12453.03	12453.03	2.9		Si
SLV 4	1.49	157.51	-8321	-0.0000117	0.0005615	0.0035	2.515		10355.73	10355.73	65.75		Si
SLV 12	1.09	-1721.38	-5346	-0.0000126	0.0005615	0.0035	2.515		8342.8	8342.8	4.85		Si
SLV 12	1.49	-869.56	-5031	-0.0000095	0.0005615	0.0035	2.515		7966.87	7966.87	9.16		Si
SLV 5	1.09	-1802.68	-17283	-0.0000294	0.0005615	0.0035	2.515		21761.45	21761.45	12.07		Si
SLV 5	1.49	745.31	-16691	-0.0000251	0.0005615	0.0035	2.515		19697.8	19697.8	26.43		Si
SLV 7	1.09	-2572.21	-4900	-0.000015	0.0005615	0.0035	2.515		7811.43	7811.43	3.04		Si
SLV 7	1.49	-529.06	-4507	-0.0000077	0.0005615	0.0035	2.515		7342.91	7342.91	13.88		Si
SLV 11	1.09	-1257.46	-5271	-0.0000111	0.0005615	0.0035	2.515		8253.84	8253.84	6.56		Si
SLV 11	1.49	-796.38	-4956	-0.0000092	0.0005615	0.0035	2.515		7877.75	7877.75	9.89		Si
SLV 3	1.09	-3848.46	-8803	-0.0000242	0.0005615	0.0035	2.515		12372.63	12372.63	3.21		Si
SLV 3	1.49	226.99	-8250	-0.0000118	0.0005615	0.0035	2.515		10273.15	10273.15	45.26		Si
SLV 6	1.09	-2266.6	-17358	-0.000031	0.0005615	0.0035	2.515		21839.21	21839.21	9.64		Si
SLV 6	1.49	672.13	-16766	-0.000025	0.0005615	0.0035	2.515		19778.46	19778.46	29.43		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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 75	1.09	-2384.53	-16891	-15014	-5705	2.515	2.515	-13266	8713	9861	28547	33890	6413	38408	No	6.73	Si
SLU 75	1.49	-101.89	-16297	-14486	-5705	2.515	2.515	-12800	8651	9791	28547	33890	6413	38337	No	6.72	Si
SLU 77	1.09	-2376.39	-17638	-15678	-5759	2.515	2.515	-13853	8791	9950	28547	33890	6413	38496	No	6.68	Si
SLU 77	1.49	-72.09	-17044	-15150	-5759	2.515	2.515	-13386	8729	9879	28547	33890	6413	38426	No	6.67	Si
SLU 81	1.09	-2416.58	-19144	-17017	-5871	2.515	2.515	-15036	8949	10128	28547	33890	6413	38675	No	6.59	Si
SLU 81	1.49	-67.66	-18550	-16489	-5871	2.515	2.515	-14569	8887	10058	28547	33890	6413	38604	No	6.58	Si
SLU 79	1.09	-2376.39	-17638	-15678	-5759	2.515	2.515	-13853	8791	9950	28547	33890	6413	38496	No	6.68	Si
SLU 79	1.49	-72.09	-17044	-15150	-5759	2.515	2.515	-13386	8729	9879	28547	33890	6413	38426	No	6.67	Si
SLU 83	1.09	-2416.58	-19144	-17017	-5871	2.515	2.515	-15036	8949	10128	28547	33890	6413	38675	No	6.59	Si
SLU 83	1.49	-67.66	-18550	-16489	-5871	2.515	2.515	-14569	8887	10058	28547	33890	6413	38604	No	6.58	Si
SLU 82	1.09	-2424.72	-18397	-16353	-5817	2.515	2.515	-14449	8871	10040	28547	33890	6413	38586	No	6.63	Si
SLU 82	1.49	-97.46	-17803	-15825	-5817	2.515	2.515	-13983	8809	9969	28547	33890	6413	38516	No	6.62	Si
SLU 80	1.09	-2384.53	-16891	-15014	-5705	2.515	2.515	-13266	8713	9861	28547	33890	6413	38408	No	6.73	Si
SLU 80	1.49	-101.89	-16297	-14486	-5705	2.515	2.515	-12800	8651	9791	28547	33890	6413	38337	No	6.72	Si
SLU 74	1.09	-2376.39	-17638	-15678	-5759	2.515	2.515	-13853	8791	9950	28547	33890	6413	38496	No	6.68	Si
SLU 74	1.49	-72.09	-17044	-15150	-5759	2.515	2.515	-13386	8729	9879	28547	33890	6413	38426	No	6.67	Si
SLU 84	1.09	-2424.72	-18397	-16353	-5817	2.515	2.515	-14449	8871	10040	28547	33890	6413	38586	No	6.63	Si
SLU 84	1.49	-97.46	-17803	-15825	-5817	2.515	2.515	-13983	8809	9969	28547	33890	6413	38516	No	6.62	Si
SLU 78	1.09	-2384.53	-16891	-15014	-5705	2.515	2.515	-13266	8713	9861	28547	33890	6413	38408	No	6.73	Si
SLU 78	1.49	-101.89	-16297	-14486	-5705	2.515	2.515	-12800	8651	9791	28547	33890	6413	38337	No	6.72	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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 4	1.09	-4288.96	-8874	-7888	-9375	2.515	2.3226	-7571	11931	12470	28547	50834	6413	41016		4.38	Si
SLV 4	1.49	157.51	-8321	-7397	-9457	2.515	2.515	-6536	11724	13268	28547	50834	6413	41815		4.42	Si
SLV 2	1.09	-4058.1	-12589	-11190	-10675	2.515	2.515	-9888	12394	14027	28547	50834	6413	42574		3.99	Si
SLV 2	1.49	539.82	-11976	-10646	-10203	2.515	2.515	-9406	12298	13918	28547	50834	6413	42465		4.16	Si
SLV 8	1.09	-3036.13	-4975	-4422	-4163	2.515	1.9417	-5071	11431	9988	28547	50834	6413	38534		9.26	Si
SLV 8	1.49	-602.24	-4582	-4073	-5028	2.515	2.515	-3599	11136	12604	28547	50834	6413	41150		8.18	Si
SLV 5	1.09	-1802.68	-17283	-15363	-7522	2.515	2.515	-13574	13132	14862	28547	50834	6413	43408		5.77	Si
SLV 5	1.49	745.31	-16691	-14836	-6540	2.515	2.515	-13109	13039	14756	28547	50834	6413	43303		6.62	Si
SLV 6	1.09	-2266.6	-17358	-15429	-8499	2.515	2.515	-13633	13143	14875	28547	50834	6413	43421		5.11	Si
SLV 6	1.49	672.13	-16766	-14903	-7517	2.515	2.515	-13168	13050	14770	28547	50834	6413	43316		5.76	Si
SLV 3	1.09	-3848.46	-8803	-7825	-8447	2.515	2.461	-7089	11835	13106	28547	50834	6413	41653		4.93	Si
SLV 3	1.49	226.99	-8250	-7334	-8529	2.515	2.515	-6480	11713	13256	28547	50834	6413	41802		4.9	Si
SLV 7	1.09	-2572.21	-4900	-4356	-3186	2.515	2.1978	-4413	11299	11175	28547	50834	6413	39721		12.47	Si
SLV 7	1.49	-529.06	-4507	-4007	-4051	2.515	2.515	-3540	11125	12590	28547	50834	6413	41137		10.15	Si
SLV 9	1.09	-487.93	-17654	-15693	-4335	2.515	2.515	-13866	13190	14928	28547	50834	6413	43474		10.03	Si
SLV 9	1.49	477.99	-17139	-15235	-3469	2.515	2.515	-13461	13109	14836	28547	50834	6413	43383		12.5	Si
SLV 1	1.09	-3617.6	-12518	-11127	-9748	2.515	2.515	-9832	12383	14015	28547	50834	6413	42561		4.37	Si
SLV 1	1.49	609.31	-11906	-10583	-9276	2.515	2.515	-9351	12287	13906	28547	50834	6413	42452		4.58	Si
SLV 10	1.09	-951.85	-17729	-15759	-5311	2.515	2.515	-13924	13202	14941	28547	50834	6413	43487		8.19	Si
SLV 10	1.49	404.81	-17214	-15301	-4446	2.515	2.515	-13520	13121	14849	28547	50834	6413	43396		9.76	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 7	179667	0.27	4154	-4701	158.41	1029.02	6.5	Si
SLV 8	179667	0.27	4255	-4816	158.41	1053.35	6.65	Si
SLV 11	179667	0.27	4591	-5196	158.41	1133.95	7.16	Si
SLV 12	179667	0.27	4692	-5310	158.41	1158.14	7.31	Si
SLV 3	179667	0.27	6141	-6950	158.41	1500.94	9.47	Si
SLV 4	179667	0.27	6237	-7059	158.41	1523.41	9.62	Si
SLV 15	179667	0.27	7598	-8599	158.41	1838.59	11.61	Si
SLV 16	179667	0.27	7694	-8708	158.41	1860.59	11.75	Si
SLV 1	179667	0.27	8279	-9370	158.41	1994.02	12.59	Si
SLV 2	179667	0.27	8376	-9479	158.41	2015.8	12.73	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 é 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 = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 10	-14459	-13869	1029	0.866	1890.2	0.939	13.40204	3.57869	Si



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 9	-14398	-13781	1032	0.868	1883.9	0.938	13.44556	3.57869	Si
SLV 6	-14197	-12967	1014	0.879	1863.6	0.938	13.61486	3.57869	Si
SLV 5	-14135	-12878	1016	0.881	1857.4	0.938	13.65988	3.57869	Si
SLV 14	-11053	-12501	264	1.115	1546	0.928	17.46923	4.02268	Si
SLV 13	-10994	-12417	267	1.119	1540.2	0.927	17.53937	4.02268	Si
SLV 2	-10179	-9492	212	1.189	1458	0.924	18.69963	4.02268	Si
SLV 1	-10120	-9408	214	1.194	1452.2	0.924	18.78054	4.02268	Si
SLV 16	-7872	-10428	-408	1.412	1226.8	0.914	22.45953	4.02268	Si
SLV 15	-7814	-10344	-405	1.42	1221	0.914	22.58785	4.02268	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	6.312	SLU 44	Si
V_SLU	6.576	SLU 81	Si
PF_SLV	2.602	SLV 8	Si
V_SLV	3.988	SLV 2	Si
PFFP_SLV	6.496	SLV 7	Si
R_SLV	3.745	SLV 10	Si

Maschio 8

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
-22.332	-18.044	-21.057	-18.044	L1	L2	1.275	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti

fb	fk	fvk0	fmedio	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
600000			431200	11200	25000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRMC

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

Rinforzo a matrice inorganica

									elim,conv / e_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	elim,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 FRMC in combinazioni non sismiche, $\gamma M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 83	1.09	-717.9	-9911	-0.0000365	0.0003743	0.0035	1.2748	5245.34	5870.17	5870.17	8.18	No	Si
SLU 83	1.49	-557.1	-9216	-0.0000324	0.0003743	0.0035	1.2748	4947.25	5534.7	5534.7	9.93	No	Si
SLU 24	1.09	-500.28	-6567	-0.0000241	0.0003743	0.0035	1.2748	3715.13	4187.83	4187.83	8.37	No	Si
SLU 24	1.49	-329.28	-6002	-0.0000203	0.0003743	0.0035	1.2748	3432.54	3887.95	3887.95	11.81	No	Si
SLU 66	1.09	-591.36	-7828	-0.0000288	0.0003743	0.0035	1.2748	4320.73	4841.35	4841.35	8.19	No	Si
SLU 66	1.49	-339.42	-7068	-0.0000234	0.0003743	0.0035	1.2748	3960.02	4451.17	4451.17	13.11	No	Si
SLU 77	1.09	-679.94	-9286	-0.0000342	0.0003743	0.0035	1.2748	4977.91	5568.74	5568.74	8.19	No	Si
SLU 77	1.49	-491.8	-8571	-0.0000297	0.0003743	0.0035	1.2748	4661.65	5219.22	5219.22	10.61	No	Si
SLU 81	1.09	-717.9	-9911	-0.0000365	0.0003743	0.0035	1.2748	5245.34	5870.17	5870.17	8.18	No	Si
SLU 81	1.49	-557.1	-9216	-0.0000324	0.0003743	0.0035	1.2748	4947.25	5534.7	5534.7	9.93	No	Si
SLU 79	1.09	-679.94	-9286	-0.0000342	0.0003743	0.0035	1.2748	4977.91	5568.74	5568.74	8.19	No	Si
SLU 79	1.49	-491.8	-8571	-0.0000297	0.0003743	0.0035	1.2748	4661.65	5219.22	5219.22	10.61	No	Si
SLU 64	1.09	-591.36	-7828	-0.0000288	0.0003743	0.0035	1.2748	4320.73	4841.35	4841.35	8.19	No	Si
SLU 64	1.49	-339.42	-7068	-0.0000234	0.0003743	0.0035	1.2748	3960.02	4451.17	4451.17	13.11	No	Si
SLU 74	1.09	-679.94	-9286	-0.0000342	0.0003743	0.0035	1.2748	4977.91	5568.74	5568.74	8.19	No	Si
SLU 74	1.49	-491.8	-8571	-0.0000297	0.0003743	0.0035	1.2748	4661.65	5219.22	5219.22	10.61	No	Si
SLU 71	1.09	-591.36	-7828	-0.0000288	0.0003743	0.0035	1.2748	4320.73	4841.35	4841.35	8.19	No	Si
SLU 71	1.49	-339.42	-7068	-0.0000234	0.0003743	0.0035	1.2748	3960.02	4451.17	4451.17	13.11	No	Si
SLU 69	1.09	-591.36	-7828	-0.0000288	0.0003743	0.0035	1.2748	4320.73	4841.35	4841.35	8.19	No	Si
SLU 69	1.49	-339.42	-7068	-0.0000234	0.0003743	0.0035	1.2748	3960.02	4451.17	4451.17	13.11	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche, $\gamma M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 4	1.09	-781.12	-5068	-0.0000233	0.0005615	0.0035	1.2748		3433	3433	4.39		Si
SLV 4	1.49	-693.25	-5079	-0.0000222	0.0005615	0.0035	1.2748		3439.59	3439.59	4.96		Si
SLV 12	1.09	260.34	-3644	-0.0000129	0.0005615	0.0035	1.2748		2335.17	2335.17	8.97		Si



Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 12	1.49	530.35	-3066	-0.0000147	0.0005615	0.0035	1.2748		1990.83	1990.83	3.75		Si
SLV 1	1.09	-1029.39	-6557	-0.0000305	0.0005615	0.0035	1.2748		4285.64	4285.64	4.16		Si
SLV 1	1.49	-1069.83	-6564	-0.0000311	0.0005615	0.0035	1.2748		4289.48	4289.48	4.01		Si
SLV 6	1.09	-1340.21	-8918	-0.0000411	0.0005615	0.0035	1.2748		5583.07	5583.07	4.17		Si
SLV 6	1.49	-1074.25	-8176	-0.0000356	0.0005615	0.0035	1.2748		5179.37	5179.37	4.82		Si
SLV 5	1.09	-1180.39	-8748	-0.0000386	0.0005615	0.0035	1.2748		5490.76	5490.76	4.65		Si
SLV 5	1.49	-1078.99	-8165	-0.0000356	0.0005615	0.0035	1.2748		5173.1	5173.1	4.79		Si
SLV 3	1.09	-629.37	-4906	-0.0000209	0.0005615	0.0035	1.2748		3339.6	3339.6	5.31		Si
SLV 3	1.49	-697.75	-5068	-0.0000222	0.0005615	0.0035	1.2748		3433.3	3433.3	4.92		Si
SLV 2	1.09	-1181.14	-6719	-0.0000329	0.0005615	0.0035	1.2748		4376.71	4376.71	3.71		Si
SLV 2	1.49	-1065.33	-6575	-0.000031	0.0005615	0.0035	1.2748		4295.61	4295.61	4.03		Si
SLV 16	1.09	109.34	-5834	-0.0000169	0.0005615	0.0035	1.2748		3611.58	3611.58	33.03		Si
SLV 16	1.49	521.18	-4667	-0.0000189	0.0005615	0.0035	1.2748		2937.77	2937.77	5.64		Si
SLV 10	1.09	-1073.07	-9148	-0.0000383	0.0005615	0.0035	1.2748		5707.71	5707.71	5.32		Si
SLV 10	1.49	-709.92	-8052	-0.0000306	0.0005615	0.0035	1.2748		5111.76	5111.76	7.2		Si
SLV 11	1.09	420.16	-3473	-0.0000144	0.0005615	0.0035	1.2748		2233.84	2233.84	5.32		Si
SLV 11	1.49	525.61	-3055	-0.0000146	0.0005615	0.0035	1.2748		1983.91	1983.91	3.77		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	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 49	1.09	-429.4	-6691	-5947	-1286	1.2748	1.2748	-10367	8327	4777	28547	17178	3251	20429	No	15.89	Si
SLU 49	1.49	-53.45	-5837	-5189	-1298	1.2748	1.2748	-9045	8150	4676	28547	17178	3251	20429	No	15.74	Si
SLU 68	1.09	-474.42	-7771	-6908	-1290	1.2748	1.2748	-12042	8550	4905	28547	17178	3251	20429	No	15.84	Si
SLU 68	1.49	-92.62	-6921	-6152	-1303	1.2748	1.2748	-10724	8374	4804	28547	17178	3251	20429	No	15.68	Si
SLU 51	1.09	-429.4	-6691	-5947	-1286	1.2748	1.2748	-10367	8327	4777	28547	17178	3251	20429	No	15.89	Si
SLU 51	1.49	-53.45	-5837	-5189	-1298	1.2748	1.2748	-9045	8150	4676	28547	17178	3251	20429	No	15.74	Si
SLU 52	1.09	-471.2	-8126	-7223	-1242	1.2748	1.2748	-12592	8623	4947	28547	17178	3251	20429	No	16.45	Si
SLU 52	1.49	-107.11	-7282	-6473	-1256	1.2748	1.2748	-11283	8449	4847	28547	17178	3251	20429	No	16.27	Si
SLU 44	1.09	-382.62	-6668	-5927	-1474	1.2748	1.2748	-10332	8322	4774	28547	17178	3251	20429	No	13.86	Si
SLU 44	1.49	45.27	-5778	-5136	-1485	1.2748	1.2748	-8954	8138	4669	28547	17178	3251	20429	No	13.75	Si
SLU 47	1.09	-382.62	-6668	-5927	-1474	1.2748	1.2748	-10332	8322	4774	28547	17178	3251	20429	No	13.86	Si
SLU 47	1.49	45.27	-5778	-5136	-1485	1.2748	1.2748	-8954	8138	4669	28547	17178	3251	20429	No	13.75	Si
SLU 2	1.09	-291.55	-5407	-4806	-1193	1.2748	1.2748	-8378	8062	4625	28547	17178	3251	20429	No	17.12	Si
SLU 2	1.49	55.41	-4712	-4189	-1202	1.2748	1.2748	-7302	7918	4542	28547	17178	3251	20429	No	16.99	Si
SLU 65	1.09	-474.42	-7771	-6908	-1290	1.2748	1.2748	-12042	8550	4905	28547	17178	3251	20429	No	15.84	Si
SLU 65	1.49	-92.62	-6921	-6152	-1303	1.2748	1.2748	-10724	8374	4804	28547	17178	3251	20429	No	15.68	Si
SLU 46	1.09	-429.4	-6691	-5947	-1286	1.2748	1.2748	-10367	8327	4777	28547	17178	3251	20429	No	15.89	Si
SLU 46	1.49	-53.45	-5837	-5189	-1298	1.2748	1.2748	-9045	8150	4676	28547	17178	3251	20429	No	15.74	Si
SLU 55	1.09	-471.2	-8126	-7223	-1242	1.2748	1.2748	-12592	8623	4947	28547	17178	3251	20429	No	16.45	Si
SLU 55	1.49	-107.11	-7282	-6473	-1256	1.2748	1.2748	-11283	8449	4847	28547	17178	3251	20429	No	16.27	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	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 15	1.09	261.09	-5672	-5042	2745	1.2748	1.2748	-8789	12174	6984	28547	25767	3251	29018		10.57	Si
SLV 15	1.49	516.69	-4656	-4138	2572	1.2748	1.2748	-7214	11860	6803	28547	25767	3251	29018		11.28	Si
SLV 12	1.09	260.34	-3644	-3239	3635	1.2748	1.2748	-5646	11546	6623	28547	25767	3251	29018		7.98	Si
SLV 12	1.49	530.35	-3066	-2726	3538	1.2748	1.2748	-4751	11367	6521	28547	25767	3251	29018		8.2	Si
SLV 5	1.09	-1180.39	-8748	-7776	-4845	1.2748	1.2748	-13555	13128	7531	28547	25767	3251	29018		5.99	Si
SLV 5	1.49	-1078.99	-8165	-7257	-4771	1.2748	1.2748	-12651	12947	7427	28547	25767	3251	29018		6.08	Si
SLV 9	1.09	-913.25	-8977	-7980	-3749	1.2748	1.2748	-13911	13199	7572	28547	25767	3251	29018		7.74	Si
SLV 9	1.49	-714.66	-8041	-7147	-3764	1.2748	1.2748	-12459	12908	7405	28547	25767	3251	29018		7.71	Si
SLV 2	1.09	-1181.14	-6719	-5973	-3955	1.2748	1.2748	-10412	12499	7170	28547	25767	3251	29018		7.34	Si
SLV 2	1.49	-1065.33	-6575	-5845	-3805	1.2748	1.2748	-10188	12454	7145	28547	25767	3251	29018		7.63	Si
SLV 7	1.09	153.02	-3243	-2883	3202	1.2748	1.2748	-5026	11422	6552	28547	25767	3251	29018		9.06	Si
SLV 7	1.49	161.28	-3179	-2826	3195	1.2748	1.2748	-4925	11402	6541	28547	25767	3251	29018		9.08	Si
SLV 10	1.09	-1073.07	-9148	-8131	-4413	1.2748	1.2748	-14175	13252	7602	28547	25767	3251	29018		6.58	Si
SLV 10	1.49	-709.92	-8052	-7158	-4428	1.2748	1.2748	-12477	12912	7407	28547	25767	3251	29018		6.55	Si
SLV 11	1.09	420.16	-3473	-3087	4299	1.2748	1.2748	-5382	11493	6593	28547	25767	3251	29018		6.75	Si
SLV 11	1.49	525.61	-3055	-2715	4202	1.2748	1.2748	-4734	11363	6519	28547	25767	3251	29018		6.91	Si
SLV 1	1.09	-1029.39	-6557	-5829	-3325	1.2748	1.2748	-10161	12449	7141	28547	25767	3251	29018		8.73	Si
SLV 1	1.49	-1069.83	-6564	-5835	-3175	1.2748	1.2748	-10171	12451	7143	28547	25767	3251	29018		9.14	Si
SLV 6	1.09	-1340.21	-8918	-7927	-5509	1.2748	1.2748	-13819	13180	7561	28547	25767	3251	29018		5.27	Si
SLV 6	1.49	-1074.25	-8176	-7268	-5435	1.2748	1.2748	-12669	12950	7429	28547	25767	3251	29018		5.34	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 7	179667	0.27	4319	-2477	80.3	541.66	6.75	Si
SLV 8	179667	0.27	4485	-2573	80.3	561.92	7	Si
SLV 11	179667	0.27	5516	-3164	80.3	686.23	8.55	Si
SLV 12	179667	0.27	5682	-3260	80.3	706.16	8.79	Si
SLV 3	179667	0.27	6247	-3584	80.3	773.36	9.63	Si
SLV 4	179667	0.27	6405	-3675	80.3	792.09	9.86	Si
SLV 1	179667	0.27	9094	-5217	80.3	1103.89	13.75	Si
SLV 2	179667	0.27	9252	-5308	80.3	1121.85	13.97	Si
SLV 15	179667	0.27	10238	-5873	80.3	1232.86	15.35	Si
SLV 16	179667	0.27	10396	-5964	80.3	1250.52	15.57	Si

Per la verifica della tabella precedente non è 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 = 0.39 Wa = 0.08 Ta = 0.0251



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 10	-8071	-9236	-241	0.834	1033.2	0.942	12.86062	3.57869	Si
SLV 9	-7994	-9136	-237	0.84	1025.5	0.942	12.96711	3.57869	Si
SLV 6	-7970	-8260	-250	0.841	1023	0.942	12.97823	3.57869	Si
SLV 5	-7893	-8160	-246	0.848	1015.3	0.942	13.08694	3.57869	Si
SLV 14	-5896	-8689	-142	1.072	813.2	0.93	16.76038	4.02268	Si
SLV 13	-5823	-8594	-138	1.083	805.9	0.929	16.93459	4.02268	Si
SLV 2	-5559	-5434	-171	1.116	779.3	0.927	17.49305	4.02268	Si
SLV 1	-5486	-5339	-167	1.128	772	0.927	17.68423	4.02268	Si
SLV 16	-3932	-7245	-66	1.454	616	0.913	23.13284	4.02268	Si
SLV 15	-3859	-7150	-62	1.474	608.8	0.913	23.4675	4.02268	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	8.177	SLU 81	Si
V_SLU	13.753	SLU 44	Si
PF_SLV	3.705	SLV 2	Si
V_SLV	5.267	SLV 6	Si
PFFP_SLV	6.746	SLV 7	Si
R_SLV	3.594	SLV 10	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
-28.162	-13.519	-22.432	-13.519	L1	L2	5.73	0.45	2.6	2.6	2.6			

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	$\tau 0$	fv0	μ	ϕ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRMC

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

Rinforzo a matrice inorganica

									elim,conv / $\epsilon_{\text{CNR DT-200}}$							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	αt	α	elim,conv	ϵ_{fd}	$\gamma_{\text{F,d}}$	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 FRMC in combinazioni non sismiche, $\gamma_m = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 69	-0.91	4861.09	-72848	-0.0000453	0.0004492	0.0035	5.73	160452.55	177807.98	177807.98	36.58	No	Si
SLU 69	1.19	9197.27	-63382	-0.0000423	0.0004492	0.0035	5.73	145057.51	157998.84	157998.84	17.18	No	Si
SLU 50	-0.91	3271.31	-62694	-0.0000381	0.0004492	0.0035	5.73	143875.14	156559.21	156559.21	47.86	No	Si
SLU 50	1.19	7952.42	-52755	-0.0000351	0.0004492	0.0035	5.73	125834.45	135762.62	135762.62	17.07	No	Si
SLU 48	-0.91	3271.31	-62694	-0.0000381	0.0004492	0.0035	5.73	143875.14	156559.21	156559.21	47.86	No	Si
SLU 48	1.19	7952.42	-52755	-0.0000351	0.0004492	0.0035	5.73	125834.45	135762.62	135762.62	17.07	No	Si
SLU 51	-0.91	3242.51	-62742	-0.0000381	0.0004492	0.0035	5.73	143958.18	156659.97	156659.97	48.31	No	Si
SLU 51	1.19	7897.81	-52807	-0.0000351	0.0004492	0.0035	5.73	125933.63	135871.55	135871.55	17.2	No	Si
SLU 71	-0.91	4861.09	-72848	-0.0000453	0.0004492	0.0035	5.73	160452.55	177807.98	177807.98	36.58	No	Si
SLU 71	1.19	9197.27	-63382	-0.0000423	0.0004492	0.0035	5.73	145057.51	157998.84	157998.84	17.18	No	Si
SLU 43	-0.91	3271.31	-62694	-0.0000381	0.0004492	0.0035	5.73	143875.14	156559.21	156559.21	47.86	No	Si
SLU 43	1.19	7952.42	-52755	-0.0000351	0.0004492	0.0035	5.73	125834.45	135762.62	135762.62	17.07	No	Si
SLU 45	-0.91	3271.31	-62694	-0.0000381	0.0004492	0.0035	5.73	143875.14	156559.21	156559.21	47.86	No	Si
SLU 45	1.19	7952.42	-52755	-0.0000351	0.0004492	0.0035	5.73	125834.45	135762.62	135762.62	17.07	No	Si
SLU 49	-0.91	3242.51	-62742	-0.0000381	0.0004492	0.0035	5.73	143958.18	156659.97	156659.97	48.31	No	Si
SLU 49	1.19	7897.81	-52807	-0.0000351	0.0004492	0.0035	5.73	125933.63	135871.55	135871.55	17.2	No	Si
SLU 64	-0.91	4861.09	-72848	-0.0000453	0.0004492	0.0035	5.73	160452.55	177807.98	177807.98	36.58	No	Si
SLU 64	1.19	9197.27	-63382	-0.0000423	0.0004492	0.0035	5.73	145057.51	157998.84	157998.84	17.18	No	Si
SLU 66	-0.91	4861.09	-72848	-0.0000453	0.0004492	0.0035	5.73	160452.55	177807.98	177807.98	36.58	No	Si
SLU 66	1.19	9197.27	-63382	-0.0000423	0.0004492	0.0035	5.73	145057.51	157998.84	157998.84	17.18	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche, $\gamma_m = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 13	-0.91	22178.98	-68690	-0.0000528	0.0006738	0.0035	5.73		177354.12	177354.12	8		Si
SLV 13	1.19	7771.36	-54651	-0.0000356	0.0006738	0.0035	5.73		146559.5	146559.5	18.86		Si



Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 1	-0.91	-12911.55	-47979	-0.0000349	0.0006738	0.0035	5.73		145760.87	145760.87	11.29		Si
SLV 1	1.19	9673.61	-47251	-0.0000325	0.0006738	0.0035	5.73		128548.21	128548.21	13.29		Si
SLV 2	-0.91	-12886.97	-48064	-0.0000349	0.0006738	0.0035	5.73		145967.04	145967.04	11.33		Si
SLV 2	1.19	9732.02	-47370	-0.0000326	0.0006738	0.0035	5.73		128843.8	128843.8	13.24		Si
SLV 4	-0.91	-14125.64	-46979	-0.000035	0.0006738	0.0035	5.73		143346.43	143346.43	10.15		Si
SLV 4	1.19	6733.94	-46857	-0.0000305	0.0006738	0.0035	5.73		127575.71	127575.71	18.95		Si
SLV 5	-0.91	814.59	-56492	-0.0000325	0.0006738	0.0035	5.73		150961.51	150961.51	185.32		Si
SLV 5	1.19	12504.03	-50436	-0.0000361	0.0006738	0.0035	5.73		136349.15	136349.15	10.9		Si
SLV 16	-0.91	20964.89	-67690	-0.0000514	0.0006738	0.0035	5.73		175241.06	175241.06	8.36		Si
SLV 16	1.19	4831.68	-54258	-0.0000336	0.0006738	0.0035	5.73		145618.52	145618.52	30.14		Si
SLV 3	-0.91	-14150.22	-46894	-0.000035	0.0006738	0.0035	5.73		143140.27	143140.27	10.12		Si
SLV 3	1.19	6675.53	-46738	-0.0000304	0.0006738	0.0035	5.73		127280.12	127280.12	19.07		Si
SLV 14	-0.91	22203.56	-68776	-0.0000528	0.0006738	0.0035	5.73		177534.55	177534.55	8		Si
SLV 14	1.19	7829.77	-54771	-0.0000357	0.0006738	0.0035	5.73		146845.51	146845.51	18.75		Si
SLV 6	-0.91	840.47	-56582	-0.0000326	0.0006738	0.0035	5.73		151176.57	151176.57	179.87		Si
SLV 6	1.19	12565.55	-50562	-0.0000362	0.0006738	0.0035	5.73		136655.42	136655.42	10.88		Si
SLV 15	-0.91	20940.31	-67605	-0.0000513	0.0006738	0.0035	5.73		175060.63	175060.63	8.36		Si
SLV 15	1.19	4773.27	-54138	-0.0000335	0.0006738	0.0035	5.73		145332.5	145332.5	30.45		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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 81	-0.91	8044.94	-92995	-74396	-5207	5.73	5.73	-28852	10833	27934	81562	92665	29223	109495	No	21.03	Si
SLU 81	1.19	11454.37	-85055	-68044	-11839	5.73	5.73	-26389	10833	27934	81562	92665	29223	109495	No	9.25	Si
SLU 78	-0.91	7060.98	-86999	-69599	-4931	5.73	5.73	-26992	10833	27934	81562	92665	29223	109495	No	22.2	Si
SLU 78	1.19	10722.64	-78605	-62884	-11116	5.73	5.73	-24388	10833	27934	81562	92665	29223	109495	No	9.85	Si
SLU 83	-0.91	8044.94	-92995	-74396	-5207	5.73	5.73	-28852	10833	27934	81562	92665	29223	109495	No	21.03	Si
SLU 83	1.19	11454.37	-85055	-68044	-11839	5.73	5.73	-26389	10833	27934	81562	92665	29223	109495	No	9.25	Si
SLU 77	-0.91	7089.79	-86951	-69561	-4939	5.73	5.73	-26977	10833	27934	81562	92665	29223	109495	No	22.17	Si
SLU 77	1.19	10777.24	-78553	-62843	-11122	5.73	5.73	-24372	10833	27934	81562	92665	29223	109495	No	9.84	Si
SLU 82	-0.91	8016.13	-93043	-74434	-5199	5.73	5.73	-28867	10833	27934	81562	92665	29223	109495	No	21.06	Si
SLU 82	1.19	11399.77	-85107	-68086	-11832	5.73	5.73	-26405	10833	27934	81562	92665	29223	109495	No	9.25	Si
SLU 80	-0.91	7060.98	-86999	-69599	-4931	5.73	5.73	-26992	10833	27934	81562	92665	29223	109495	No	22.2	Si
SLU 80	1.19	10722.64	-78605	-62884	-11116	5.73	5.73	-24388	10833	27934	81562	92665	29223	109495	No	9.85	Si
SLU 75	-0.91	7060.98	-86999	-69599	-4931	5.73	5.73	-26992	10833	27934	81562	92665	29223	109495	No	22.2	Si
SLU 75	1.19	10722.64	-78605	-62884	-11116	5.73	5.73	-24388	10833	27934	81562	92665	29223	109495	No	9.85	Si
SLU 84	-0.91	8016.13	-93043	-74434	-5199	5.73	5.73	-28867	10833	27934	81562	92665	29223	109495	No	21.06	Si
SLU 84	1.19	11399.77	-85107	-68086	-11832	5.73	5.73	-26405	10833	27934	81562	92665	29223	109495	No	9.25	Si
SLU 79	-0.91	7089.79	-86951	-69561	-4939	5.73	5.73	-26977	10833	27934	81562	92665	29223	109495	No	22.17	Si
SLU 79	1.19	10777.24	-78553	-62843	-11122	5.73	5.73	-24372	10833	27934	81562	92665	29223	109495	No	9.84	Si
SLU 74	-0.91	7089.79	-86951	-69561	-4939	5.73	5.73	-26977	10833	27934	81562	92665	29223	109495	No	22.17	Si
SLU 74	1.19	10777.24	-78553	-62843	-11122	5.73	5.73	-24372	10833	27934	81562	92665	29223	109495	No	9.84	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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 2	-0.91	-12886.97	-48064	-38451	-21722	5.73	5.73	-14912	15482	39922	81562	138997	29223	121483		5.59	Si
SLV 2	1.19	9732.02	-47370	-37896	-24851	5.73	5.73	-14697	15439	39810	81562	138997	29223	121372		4.88	Si
SLV 13	-0.91	22178.98	-68690	-54952	13503	5.73	5.73	-21312	16250	41901	81562	138997	29223	123462		9.14	Si
SLV 13	1.19	7771.36	-54651	-43721	8128	5.73	5.73	-16956	15891	40975	81562	138997	29223	122537		15.08	Si
SLV 4	-0.91	-14125.64	-46979	-37583	-20306	5.73	5.73	-14576	15415	39748	81562	138997	29223	121309		5.97	Si
SLV 4	1.19	6733.94	-46857	-37486	-23093	5.73	5.73	-14538	15408	39728	81562	138997	29223	121290		5.25	Si
SLV 3	-0.91	-14150.22	-46894	-37515	-20247	5.73	5.73	-14549	15410	39734	81562	138997	29223	121296		5.99	Si
SLV 3	1.19	6675.53	-46738	-37390	-23027	5.73	5.73	-14501	15400	39709	81562	138997	29223	121271		5.27	Si
SLV 14	-0.91	22203.56	-68776	-55021	13445	5.73	5.73	-21338	16250	41901	81562	138997	29223	123462		9.18	Si
SLV 14	1.19	7829.77	-54771	-43817	8062	5.73	5.73	-16993	15899	40995	81562	138997	29223	122556		15.2	Si
SLV 16	-0.91	20964.89	-67690	-54152	14861	5.73	5.73	-21001	16250	41901	81562	138997	29223	123462		8.31	Si
SLV 16	1.19	4831.68	-54258	-43406	9819	5.73	5.73	-16834	15867	40913	81562	138997	29223	122474		12.47	Si
SLV 15	-0.91	20940.31	-67605	-54084	14919	5.73	5.73	-20975	16250	41901	81562	138997	29223	123462		8.28	Si
SLV 15	1.19	4773.27	-54138	-43311	9886	5.73	5.73	-16797	15859	40893	81562	138997	29223	122455		12.39	Si
SLV 6	-0.91	840.47	-56582	-45265	-11067	5.73	5.73	-17555	16011	41284	81562	138997	29223	122846		11.1	Si
SLV 6	1.19	12565.55	-50562	-40450	-15383	5.73	5.73	-15687	15637	40321	81562	138997	29223	121883		7.92	Si
SLV 1	-0.91	-12911.55	-47979	-38383	-21663	5.73	5.73	-14886	15477	39908	81562	138997	29223	121469		5.61	Si
SLV 1	1.19	9673.61	-47251	-37800	-24784	5.73	5.73	-14660	15432	39791	81562	138997	29223	121353		4.9	Si
SLV 5	-0.91	814.59	-56492	-45193	-11006	5.73	5.73	-17527	16005	41270	81562	138997	29223	122832		11.16	Si
SLV 5	1.19	12504.03	-50436	-40349	-15313	5.73	5.73	-15648	15630	40301	81562	138997	29223	121863		7.96	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRDM D.M. 17-01-18 (N.T.C.)

quota 0.39 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 3	-46895	0.27	367.01	9504.43	12199.61	10852.02	29.57	Si
SLV 4	-47001	0.27	367.01	9523.56	12224.12	10873.84	29.63	Si
SLV 1	-47428	0.27	367.01	9600.33	12322.64	10961.48	29.87	Si
SLV 2	-47534	0.27	367.01	9619.41	12347.16	10983.28	29.93	Si
SLV 7	-50841	0.27	367.01	10208.67	13111.57	11660.12	31.77	Si
SLV 8	-50953	0.27	367.01	10228.4	13137.41	11682.9	31.83	Si
SLV 5	-52616	0.27	367.01	10520.61	13520.56	12020.58	32.75	Si
SLV 6	-52728	0.27	367.01	10540.14	13546.24	12043.19	32.81	Si
SLV 11	-54759	0.27	367.01	10893.1	14011.82	12452.46	33.93	Si
SLV 12	-54870	0.27	367.01	10912.41	14037.36	12474.88	33.99	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 16	-48747	-67690	-728	0.67	5909.6	0.953	10.21926	4.02268	Si
SLV 15	-48642	-67605	-726	0.671	5898.9	0.953	10.23765	4.02268	Si
SLV 14	-49026	-68776	-297	0.675	5938	0.953	10.29143	4.02268	Si
SLV 13	-48922	-68690	-295	0.676	5927.3	0.953	10.30986	4.02268	Si
SLV 4	-41784	-46979	-680	0.756	5202.6	0.948	11.59776	4.02268	Si



Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-41679	-46894	-678	0.758	5192	0.948	11.62206	4.02268	Si
SLV 2	-42064	-48064	-249	0.761	5231	0.948	11.67261	4.02268	Si
SLV 1	-41959	-47979	-247	0.763	5220.4	0.948	11.69693	4.02268	Si
SLV 12	-45986	-59177	-1215	0.692	5629.2	0.951	10.5716	3.57869	Si
SLV 11	-45876	-59088	-1213	0.693	5618	0.951	10.5928	3.57869	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	17.072	SLU 43	Si
V_SLU	9.249	SLU 81	Si
PF_SLV	7.996	SLV 14	Si
V_SLV	4.884	SLV 2	Si
PFFP_SLV	29.569	SLV 3	Si
R_SLV	2.54	SLV 16	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 l.	Quota.s	l	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-28.162	-9.039	-27.067	-9.039	L1	L2	1.095	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti

fb	fk	fvk0	fmedio	t0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / ε _c 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	elim,conv	ε _s fd	y _F ,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, $\gamma M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLU 79	1.09	-522.31	-10528	-0.0000408	0.0003743	0.0035	1.095	4554.4	5503.18	5503.18	10.54	No	Si
SLU 79	1.49	899.27	-12427	-0.0000536	0.0003743	0.0035	1.095	5118.54	5808.2	5808.2	6.46	No	Si
SLU 75	1.09	-518.35	-10542	-0.0000408	0.0003743	0.0035	1.095	4558.89	5509.08	5509.08	10.63	No	Si
SLU 75	1.49	901.33	-12432	-0.0000537	0.0003743	0.0035	1.095	5119.67	5809.83	5809.83	6.45	No	Si
SLU 83	1.09	-522.92	-11412	-0.0000437	0.0003743	0.0035	1.095	4826.81	5857.91	5857.91	11.2	No	Si
SLU 83	1.49	970.74	-13447	-0.0000583	0.0003743	0.0035	1.095	5388.89	6213.93	6213.93	6.4	No	Si
SLU 80	1.09	-518.35	-10542	-0.0000408	0.0003743	0.0035	1.095	4558.89	5509.08	5509.08	10.63	No	Si
SLU 80	1.49	901.33	-12432	-0.0000537	0.0003743	0.0035	1.095	5119.67	5809.83	5809.83	6.45	No	Si
SLU 73	1.09	-515.71	-10551	-0.0000408	0.0003743	0.0035	1.095	4561.87	5513.01	5513.01	10.69	No	Si
SLU 73	1.49	902.71	-12434	-0.0000537	0.0003743	0.0035	1.095	5120.42	5810.92	5810.92	6.44	No	Si
SLU 76	1.09	-515.71	-10551	-0.0000408	0.0003743	0.0035	1.095	4561.87	5513.01	5513.01	10.69	No	Si
SLU 76	1.49	902.71	-12434	-0.0000537	0.0003743	0.0035	1.095	5120.42	5810.92	5810.92	6.44	No	Si
SLU 82	1.09	-518.96	-11426	-0.0000436	0.0003743	0.0035	1.095	4831.02	5863.48	5863.48	11.3	No	Si
SLU 82	1.49	972.81	-13451	-0.0000584	0.0003743	0.0035	1.095	5389.93	6215.56	6215.56	6.39	No	Si
SLU 81	1.09	-522.92	-11412	-0.0000437	0.0003743	0.0035	1.095	4826.81	5857.91	5857.91	11.2	No	Si
SLU 81	1.49	970.74	-13447	-0.0000583	0.0003743	0.0035	1.095	5388.89	6213.93	6213.93	6.4	No	Si
SLU 78	1.09	-518.35	-10542	-0.0000408	0.0003743	0.0035	1.095	4558.89	5509.08	5509.08	10.63	No	Si
SLU 78	1.49	901.33	-12432	-0.0000537	0.0003743	0.0035	1.095	5119.67	5809.83	5809.83	6.45	No	Si
SLU 84	1.09	-518.96	-11426	-0.0000436	0.0003743	0.0035	1.095	4831.02	5863.48	5863.48	11.3	No	Si
SLU 84	1.49	972.81	-13451	-0.0000584	0.0003743	0.0035	1.095	5389.93	6215.56	6215.56	6.39	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, $\gamma M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 4	1.09	-854.13	-6819	-0.0000342	0.0005615	0.0035	1.095		3978.09	3978.09	4.66		Si
SLV 4	1.49	683.75	-8810	-0.0000375	0.0005615	0.0035	1.095		4578.97	4578.97	6.7		Si
SLV 6	1.09	-666.17	-4617	-0.0000244	0.0005615	0.0035	1.095		2902.68	2902.68	4.36		Si
SLV 6	1.49	580.15	-6371	-0.0000283	0.0005615	0.0035	1.095		3428.14	3428.14	5.91		Si
SLV 10	1.09	-347.02	-5033	-0.0000204	0.0005615	0.0035	1.095		3110.61	3110.61	8.96		Si
SLV 10	1.49	521.89	-6279	-0.000027	0.0005615	0.0035	1.095		3383.86	3383.86	6.48		Si
SLV 9	1.09	-422.18	-4806	-0.000021	0.0005615	0.0035	1.095		2997.33	2997.33	7.1		Si



Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 9	1.49	533.41	-6124	-0.0000268	0.0005615	0.0035	1.095		3309.33	3309.33	6.2		Si
SLV 13	1.09	52.37	-6749	-0.0000207	0.0005615	0.0035	1.095		3610.42	3610.42	68.95		Si
SLV 13	1.49	484.17	-7279	-0.0000295	0.0005615	0.0035	1.095		3862.91	3862.91	7.98		Si
SLV 7	1.09	-454.75	-8535	-0.0000328	0.0005615	0.0035	1.095		4786.52	4786.52	10.53		Si
SLV 7	1.49	646.04	-9810	-0.0000399	0.0005615	0.0035	1.095		5016.86	5016.86	7.77		Si
SLV 5	1.09	-741.33	-4390	-0.0000249	0.0005615	0.0035	1.095		2789.39	2789.39	3.76		Si
SLV 5	1.49	591.67	-6216	-0.000028	0.0005615	0.0035	1.095		3353.62	3353.62	5.67		Si
SLV 2	1.09	-940.11	-5576	-0.0000318	0.0005615	0.0035	1.095		3381.38	3381.38	3.6		Si
SLV 2	1.49	667.44	-7732	-0.0000339	0.0005615	0.0035	1.095		4077.74	4077.74	6.11		Si
SLV 3	1.09	-925.5	-6604	-0.0000347	0.0005615	0.0035	1.095		3875.15	3875.15	4.19		Si
SLV 3	1.49	694.69	-8663	-0.0000372	0.0005615	0.0035	1.095		4511.65	4511.65	6.49		Si
SLV 1	1.09	-1011.47	-5360	-0.0000323	0.0005615	0.0035	1.095		3273.82	3273.82	3.24		Si
SLV 1	1.49	678.38	-7585	-0.0000336	0.0005615	0.0035	1.095		4008.12	4008.12	5.91		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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 75	1.09	-518.35	-10542	-8434	-6380	1.095	1.095	-17115	9226	4546	81562	14755	5585	20340	No	3.19	Si
SLU 75	1.49	901.33	-12432	-9945	-6740	1.095	1.095	-20183	9636	4748	81562	14755	5585	20340	No	3.02	Si
SLU 80	1.09	-518.35	-10542	-8434	-6380	1.095	1.095	-17115	9226	4546	81562	14755	5585	20340	No	3.19	Si
SLU 80	1.49	901.33	-12432	-9945	-6740	1.095	1.095	-20183	9636	4748	81562	14755	5585	20340	No	3.02	Si
SLU 79	1.09	-522.31	-10528	-8422	-6399	1.095	1.095	-17092	9223	4545	81562	14755	5585	20340	No	3.18	Si
SLU 79	1.49	899.27	-12427	-9942	-6757	1.095	1.095	-20176	9635	4747	81562	14755	5585	20340	No	3.01	Si
SLU 84	1.09	-518.96	-11426	-9141	-6717	1.095	1.095	-18551	9418	4641	81562	14755	5585	20340	No	3.03	Si
SLU 84	1.49	972.81	-13451	-10761	-7118	1.095	1.095	-21839	9856	4857	81562	14755	5585	20340	No	2.86	Si
SLU 74	1.09	-522.31	-10528	-8422	-6399	1.095	1.095	-17092	9223	4545	81562	14755	5585	20340	No	3.18	Si
SLU 74	1.49	899.27	-12427	-9942	-6757	1.095	1.095	-20176	9635	4747	81562	14755	5585	20340	No	3.01	Si
SLU 83	1.09	-522.92	-11412	-9130	-6735	1.095	1.095	-18528	9415	4639	81562	14755	5585	20340	No	3.02	Si
SLU 83	1.49	970.74	-13447	-10758	-7134	1.095	1.095	-21832	9855	4856	81562	14755	5585	20340	No	2.85	Si
SLU 81	1.09	-522.92	-11412	-9130	-6735	1.095	1.095	-18528	9415	4639	81562	14755	5585	20340	No	3.02	Si
SLU 81	1.49	970.74	-13447	-10758	-7134	1.095	1.095	-21832	9855	4856	81562	14755	5585	20340	No	2.85	Si
SLU 77	1.09	-522.31	-10528	-8422	-6399	1.095	1.095	-17092	9223	4545	81562	14755	5585	20340	No	3.18	Si
SLU 77	1.49	899.27	-12427	-9942	-6757	1.095	1.095	-20176	9635	4747	81562	14755	5585	20340	No	3.01	Si
SLU 78	1.09	-518.35	-10542	-8434	-6380	1.095	1.095	-17115	9226	4546	81562	14755	5585	20340	No	3.19	Si
SLU 78	1.49	901.33	-12432	-9945	-6740	1.095	1.095	-20183	9636	4748	81562	14755	5585	20340	No	3.02	Si
SLU 82	1.09	-518.96	-11426	-9141	-6717	1.095	1.095	-18551	9418	4641	81562	14755	5585	20340	No	3.03	Si
SLU 82	1.49	972.81	-13451	-10761	-7118	1.095	1.095	-21839	9856	4857	81562	14755	5585	20340	No	2.86	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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 8	1.09	-379.59	-8762	-7009	-4256	1.095	1.095	-14225	13262	6535	81562	22133	5585	27717		6.51	Si
SLV 8	1.49	634.52	-9964	-7971	-4461	1.095	1.095	-16178	13652	6727	81562	22133	5585	27717		6.21	Si
SLV 5	1.09	-741.33	-4390	-3512	-6006	1.095	1.095	-7127	11842	5835	81562	22133	5585	27717		4.61	Si
SLV 5	1.49	591.67	-6216	-4973	-6137	1.095	1.095	-10092	12435	6127	81562	22133	5585	27717		4.52	Si
SLV 9	1.09	-422.18	-4806	-3845	-4581	1.095	1.095	-7803	11977	5902	81562	22133	5585	27717		6.05	Si
SLV 9	1.49	533.41	-6124	-4899	-4805	1.095	1.095	-9943	12405	6113	81562	22133	5585	27717		5.77	Si
SLV 2	1.09	-940.11	-5576	-4461	-6854	1.095	1.095	-9052	12227	6025	81562	22133	5585	27717		4.04	Si
SLV 2	1.49	667.44	-7732	-6185	-6914	1.095	1.095	-12553	12927	6370	81562	22133	5585	27717		4.01	Si
SLV 10	1.09	-347.02	-5033	-4027	-4257	1.095	1.095	-8172	12051	5938	81562	22133	5585	27717		6.51	Si
SLV 10	1.49	521.89	-6279	-5023	-4500	1.095	1.095	-10194	12455	6137	81562	22133	5585	27717		6.16	Si
SLV 7	1.09	-454.75	-8535	-6828	-4580	1.095	1.095	-13857	13188	6498	81562	22133	5585	27717		6.05	Si
SLV 7	1.49	646.04	-9810	-7848	-4767	1.095	1.095	-15927	13602	6702	81562	22133	5585	27717		5.81	Si
SLV 6	1.09	-666.17	-4617	-3693	-5682	1.095	1.095	-7495	11916	5871	81562	22133	5585	27717		4.88	Si
SLV 6	1.49	580.15	-6371	-5097	-5832	1.095	1.095	-10343	12485	6152	81562	22133	5585	27717		4.75	Si
SLV 1	1.09	-1011.47	-5360	-4288	-7161	1.095	1.0764	-8702	12157	5889	81562	22133	5585	27717		3.87	Si
SLV 1	1.49	678.38	-7585	-6068	-7204	1.095	1.095	-12315	12880	6346	81562	22133	5585	27717		3.85	Si
SLV 3	1.09	-925.5	-6604	-5283	-6734	1.095	1.095	-10721	12561	6189	81562	22133	5585	27717		4.12	Si
SLV 3	1.49	694.69	-8663	-6930	-6793	1.095	1.095	-14065	13230	6519	81562	22133	5585	27717		4.08	Si
SLV 4	1.09	-854.13	-6819	-5455	-6426	1.095	1.095	-11071	12631	6224	81562	22133	5585	27717		4.31	Si
SLV 4	1.49	683.75	-8810	-7048	-6503	1.095	1.095	-14303	13277	6542	81562	22133	5585	27717		4.26	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRMC D.M. 17-01-18 (N.T.C.)

quota 0.39 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 5	-3389	0.27	68.97	728.18	982.17	855.17	12.4	Si
SLV 6	-3543	0.27	68.97	759.59	1018.76	889.17	12.89	Si
SLV 9	-3730	0.27	68.97	797.58	1063.25	930.41	13.49	Si
SLV 10	-3883	0.27	68.97	828.68	1099.72	964.2	13.98	Si
SLV 1	-4429	0.27	68.97	937.9	1228.74	1083.32	15.71	Si
SLV 2	-4575	0.27	68.97	966.82	1263.25	1115.04	16.17	Si
SLV 13	-5565	0.27	68.97	1159.48	1497.01	1328.25	19.26	Si
SLV 3	-5658	0.27	68.97	1177.35	1518.92	1348.13	19.55	Si
SLV 14	-5711	0.27	68.97	1187.41	1531.28	1359.34	19.71	Si
SLV 4	-5804	0.27	68.97	1205.19	1553.17	1379.18	20	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzera = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 16	-7193	-6610	21	0.833	913.9	0.944	12.8259	4.02268	Si
SLV 12	-8053	-8249	108	0.754	1001.1	0.948	11.55548	3.57869	Si
SLV 15	-6997	-6576	21	0.851	894	0.943	13.11691	4.02268	Si
SLV 11	-7846	-8213	108	0.769	980.2	0.947	11.80191	3.57869	Si
SLV 8	-7794	-8208	103	0.774	974.8	0.947	11.8749	3.57869	Si
SLV 7	-7587	-8172	103	0.79	953.9	0.946	12.1367	3.57869	Si
SLV 4	-6329	-6475	6	0.921	826.4	0.939	14.26005	4.02268	Si
SLV 14	-6201	-5166	-58	0.929	813.5	0.938	14.38696	4.02268	Si
SLV 3	-6133	-6441	6	0.944	806.6	0.938	14.62695	4.02268	Si
SLV 13	-6005	-5132	-58	0.952	793.6	0.937	14.76474	4.02268	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	6.389	SLU 82	Si
V_SLU	2.851	SLU 81	Si
PF_SLV	3.237	SLV 1	Si
V_SLV	3.848	SLV 1	Si
PFFP_SLV	12.399	SLV 5	Si
R_SLV	3.188	SLV 16	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
-26.067	-9.039	-23.277	-9.039	L1	L2	2.79	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti

fb	fk	fvk0	fmedio	t0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	e,fd	yF,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	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLU 45	1.09	-3094.34	-13981	-0.0000255	0.0003743	0.0035	2.79	17369.93	20003.99	20003.99	6.46	No	Si
SLU 45	1.49	-765.51	-12891	-0.0000178	0.0003743	0.0035	2.79	16169.17	18716.39	18716.39	24.45	No	Si
SLU 43	1.09	-3094.34	-13981	-0.0000255	0.0003743	0.0035	2.79	17369.93	20003.99	20003.99	6.46	No	Si
SLU 43	1.49	-765.51	-12891	-0.0000178	0.0003743	0.0035	2.79	16169.17	18716.39	18716.39	24.45	No	Si
SLU 46	1.09	-3120.46	-14004	-0.0000256	0.0003743	0.0035	2.79	17395.23	20030.56	20030.56	6.42	No	Si
SLU 46	1.49	-782.79	-12914	-0.0000179	0.0003743	0.0035	2.79	16195.02	18744.35	18744.35	23.95	No	Si
SLU 2	1.09	-2411.4	-11657	-0.0000207	0.0003743	0.0035	2.79	14778.85	17240.09	17240.09	7.15	No	Si
SLU 2	1.49	-582.87	-10816	-0.0000147	0.0003743	0.0035	2.79	13811.53	16241.25	16241.25	27.86	No	Si
SLU 50	1.09	-3094.34	-13981	-0.0000255	0.0003743	0.0035	2.79	17369.93	20003.99	20003.99	6.46	No	Si
SLU 50	1.49	-765.51	-12891	-0.0000178	0.0003743	0.0035	2.79	16169.17	18716.39	18716.39	24.45	No	Si
SLU 48	1.09	-3094.34	-13981	-0.0000255	0.0003743	0.0035	2.79	17369.93	20003.99	20003.99	6.46	No	Si
SLU 48	1.49	-765.51	-12891	-0.0000178	0.0003743	0.0035	2.79	16169.17	18716.39	18716.39	24.45	No	Si
SLU 44	1.09	-3137.87	-14019	-0.0000256	0.0003743	0.0035	2.79	17412.09	20048.27	20048.27	6.39	No	Si
SLU 44	1.49	-794.31	-12930	-0.000018	0.0003743	0.0035	2.79	16212.24	18762.99	18762.99	23.62	No	Si
SLU 49	1.09	-3120.46	-14004	-0.0000256	0.0003743	0.0035	2.79	17395.23	20030.56	20030.56	6.42	No	Si
SLU 49	1.49	-782.79	-12914	-0.0000179	0.0003743	0.0035	2.79	16195.02	18744.35	18744.35	23.95	No	Si
SLU 47	1.09	-3137.87	-14019	-0.0000256	0.0003743	0.0035	2.79	17412.09	20048.27	20048.27	6.39	No	Si
SLU 47	1.49	-794.31	-12930	-0.000018	0.0003743	0.0035	2.79	16212.24	18762.99	18762.99	23.62	No	Si
SLU 51	1.09	-3120.46	-14004	-0.0000256	0.0003743	0.0035	2.79	17395.23	20030.56	20030.56	6.42	No	Si
SLU 51	1.49	-782.79	-12914	-0.0000179	0.0003743	0.0035	2.79	16195.02	18744.35	18744.35	23.95	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	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 2	1.09	-5594.95	-10579	-0.0000277	0.0005615	0.0035	2.79		16187.3	16187.3	2.89		Si
SLV 2	1.49	-1810.19	-9711	-0.0000165	0.0005615	0.0035	2.79		15092.13	15092.13	8.34		Si
SLV 4	1.09	-6551.03	-11792	-0.0000319	0.0005615	0.0035	2.79		17723.74	17723.74	2.71		Si
SLV 4	1.49	-2307.74	-11020	-0.0000194	0.0005615	0.0035	2.79		16744.53	16744.53	7.26		Si
SLV 3	1.09	-7538.5	-11302	-0.0000354	0.0005615	0.0035	2.79		17102.47	17102.47	2.27		Si
SLV 3	1.49	-2856.12	-10530	-0.0000202	0.0005615	0.0035	2.79		16125.34	16125.34	5.65		Si
SLV 13	1.09	1910.59	-16093	-0.0000247	0.0005615	0.0035	2.79		21356.17	21356.17	11.18		Si
SLV 13	1.49	1360.73	-15176	-0.0000221	0.0005615	0.0035	2.79		20239.17	20239.17	14.87		Si
SLV 11	1.09	-3159.72	-16606	-0.0000287	0.0005615	0.0035	2.79		23654.41	23654.41	7.49		Si
SLV 11	1.49	-1033.63	-15915	-0.0000221	0.0005615	0.0035	2.79		22810.63	22810.63	22.07		Si
SLV 5	1.09	-2520.7	-10763	-0.0000197	0.0005615	0.0035	2.79		16419.6	16419.6	6.51		Si
SLV 5	1.49	-490.92	-9765	-0.0000131	0.0005615	0.0035	2.79		15160.73	15160.73	30.88		Si
SLV 8	1.09	-4667.65	-15321	-0.000031	0.0005615	0.0035	2.79		22088.16	22088.16	4.73		Si
SLV 8	1.49	-1571.88	-14644	-0.000022	0.0005615	0.0035	2.79		21266.87	21266.87	13.53		Si



Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 7	1.09	-5707.62	-14805	-0.0000332	0.0005615	0.0035	2.79		21462.37	21462.37	3.76		Si
SLV 7	1.49	-2149.42	-14128	-0.0000229	0.0005615	0.0035	2.79		20642.02	20642.02	9.6		Si
SLV 1	1.09	-6582.42	-10090	-0.0000308	0.0005615	0.0035	2.79		15569.3	15569.3	2.37		Si
SLV 1	1.49	-2358.57	-9221	-0.0000173	0.0005615	0.0035	2.79		14476.49	14476.49	6.14		Si
SLV 14	1.09	2898.06	-16582	-0.0000279	0.0005615	0.0035	2.79		21948.86	21948.86	7.57		Si
SLV 14	1.49	1909.1	-15665	-0.0000242	0.0005615	0.0035	2.79		20838.21	20838.21	10.92		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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 65	1.09	-3090.88	-17296	-15374	-6060	2.79	2.79	-12246	8577	10769	28547	37595	7114	39315	No	6.49	Si
SLU 65	1.49	-662.41	-16195	-14396	-6060	2.79	2.79	-11466	8473	10638	28547	37595	7114	39185	No	6.47	Si
SLU 76	1.09	-2971.1	-22153	-19691	-6136	2.79	2.79	-15684	9036	11344	28547	37595	7114	39891	No	6.5	Si
SLU 76	1.49	-512.36	-21051	-18712	-6136	2.79	2.79	-14904	8932	11214	28547	37595	7114	39760	No	6.48	Si
SLU 68	1.09	-3090.88	-17296	-15374	-6060	2.79	2.79	-12246	8577	10769	28547	37595	7114	39315	No	6.49	Si
SLU 68	1.49	-662.41	-16195	-14396	-6060	2.79	2.79	-11466	8473	10638	28547	37595	7114	39185	No	6.47	Si
SLU 72	1.09	-3073.47	-17281	-15361	-6046	2.79	2.79	-12235	8576	10767	28547	37595	7114	39313	No	6.5	Si
SLU 72	1.49	-650.89	-16180	-14382	-6046	2.79	2.79	-11455	8472	10636	28547	37595	7114	39183	No	6.48	Si
SLU 67	1.09	-3073.47	-17281	-15361	-6046	2.79	2.79	-12235	8576	10767	28547	37595	7114	39313	No	6.5	Si
SLU 67	1.49	-650.89	-16180	-14382	-6046	2.79	2.79	-11455	8472	10636	28547	37595	7114	39183	No	6.48	Si
SLU 75	1.09	-2953.69	-22137	-19677	-6121	2.79	2.79	-15673	9034	11342	28547	37595	7114	39889	No	6.52	Si
SLU 75	1.49	-500.84	-21036	-18699	-6121	2.79	2.79	-14893	8930	11212	28547	37595	7114	39758	No	6.5	Si
SLU 70	1.09	-3073.47	-17281	-15361	-6046	2.79	2.79	-12235	8576	10767	28547	37595	7114	39313	No	6.5	Si
SLU 70	1.49	-650.89	-16180	-14382	-6046	2.79	2.79	-11455	8472	10636	28547	37595	7114	39183	No	6.48	Si
SLU 73	1.09	-2971.1	-22153	-19691	-6136	2.79	2.79	-15684	9036	11344	28547	37595	7114	39891	No	6.5	Si
SLU 73	1.49	-512.36	-21051	-18712	-6136	2.79	2.79	-14904	8932	11214	28547	37595	7114	39760	No	6.48	Si
SLU 80	1.09	-2953.69	-22137	-19677	-6121	2.79	2.79	-15673	9034	11342	28547	37595	7114	39889	No	6.52	Si
SLU 80	1.49	-500.84	-21036	-18699	-6121	2.79	2.79	-14893	8930	11212	28547	37595	7114	39758	No	6.5	Si
SLU 78	1.09	-2953.69	-22137	-19677	-6121	2.79	2.79	-15673	9034	11342	28547	37595	7114	39889	No	6.52	Si
SLU 78	1.49	-500.84	-21036	-18699	-6121	2.79	2.79	-14893	8930	11212	28547	37595	7114	39758	No	6.5	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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 1	1.09	-6582.42	-10090	-8969	-10575	2.79	2.2278	-8982	12213	12244	28547	56393	7114	40790		3.86	Si
SLV 1	1.49	-2358.57	-9221	-8197	-10452	2.79	2.79	-6529	11722	14717	28547	56393	7114	43264		4.14	Si
SLV 12	1.09	-2119.74	-17122	-15219	-3882	2.79	2.79	-12122	12841	16122	28547	56393	7114	44669		11.51	Si
SLV 12	1.49	-456.09	-16430	-14605	-3863	2.79	2.79	-11633	12743	15999	28547	56393	7114	44546		11.53	Si
SLV 3	1.09	-7538.5	-11302	-10046	-11548	2.79	2.184	-10269	12471	12256	28547	56393	7114	40803		3.53	Si
SLV 3	1.49	-2856.12	-10530	-9360	-11390	2.79	2.79	-7455	11908	14950	28547	56393	7114	43497		3.82	Si
SLV 8	1.09	-4667.65	-15321	-13618	-7425	2.79	2.79	-10847	12586	15802	28547	56393	7114	44348		5.97	Si
SLV 8	1.49	-1571.88	-14644	-13017	-7322	2.79	2.79	-10368	12490	15681	28547	56393	7114	44228		6.04	Si
SLV 6	1.09	-1480.72	-11279	-10025	-4179	2.79	2.79	-7985	12014	15083	28547	56393	7114	43630		10.44	Si
SLV 6	1.49	86.61	-10281	-9139	-4197	2.79	2.79	-7279	11872	14906	28547	56393	7114	43452		10.35	Si
SLV 2	1.09	-5594.95	-10579	-9404	-9477	2.79	2.5984	-8070	12031	14067	28547	56393	7114	42614		4.5	Si
SLV 2	1.49	-1810.19	-9711	-8632	-9355	2.79	2.79	-6875	11792	14804	28547	56393	7114	43351		4.63	Si
SLV 4	1.09	-6551.03	-11792	-10482	-10451	2.79	2.5183	-9282	12273	13908	28547	56393	7114	42455		4.06	Si
SLV 4	1.49	-2307.74	-11020	-9795	-10292	2.79	2.79	-7802	11977	15037	28547	56393	7114	43584		4.23	Si
SLV 11	1.09	-3159.72	-16606	-14761	-5038	2.79	2.79	-11757	12768	16030	28547	56393	7114	44577		8.85	Si
SLV 11	1.49	-1033.63	-15915	-14146	-5020	2.79	2.79	-11267	12670	15907	28547	56393	7114	44454		8.86	Si
SLV 5	1.09	-2520.7	-10763	-9567	-5335	2.79	2.79	-7620	11941	14992	28547	56393	7114	43538		8.16	Si
SLV 5	1.49	-490.92	-9765	-8680	-5353	2.79	2.79	-6914	11799	14814	28547	56393	7114	43361		8.1	Si
SLV 7	1.09	-5707.62	-14805	-13160	-8581	2.79	2.79	-10482	12513	15710	28547	56393	7114	44257		5.16	Si
SLV 7	1.49	-2149.42	-14128	-12558	-8478	2.79	2.79	-10003	12417	15590	28547	56393	7114	44136		5.21	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 5	179667	0.27	6569	-8247	175.73	1775.83	10.11	Si
SLV 6	179667	0.27	6748	-8472	175.73	1822.04	10.37	Si
SLV 1	179667	0.27	6784	-8517	175.73	1831.22	10.42	Si
SLV 2	179667	0.27	6954	-8731	175.73	1874.96	10.67	Si
SLV 9	179667	0.27	7640	-9592	175.73	2050.13	11.67	Si
SLV 10	179667	0.27	7819	-9816	175.73	2095.63	11.93	Si
SLV 3	179667	0.27	8035	-10088	175.73	2150.3	12.24	Si
SLV 4	179667	0.27	8205	-10301	175.73	2193.26	12.48	Si
SLV 13	179667	0.27	10353	-12998	175.73	2726.23	15.51	Si
SLV 14	179667	0.27	10523	-13211	175.73	2767.73	15.75	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 é 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 = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	α0	M*	e*	α0*	aLim	Verifica
SLV 16	-15301	-14183	-479	0.933	2022.1	0.937	14.48297	4.02268	Si
SLV 15	-14741	-14227	-479	0.96	1965.4	0.935	14.92358	4.02268	Si
SLV 14	-14194	-11865	330	0.997	1910.2	0.934	15.51674	4.02268	Si
SLV 12	-14573	-15599	-1408	0.916	1948.5	0.935	14.23537	3.57869	Si
SLV 13	-13634	-11909	330	1.028	1853.6	0.932	16.02387	4.02268	Si
SLV 11	-13983	-15646	-1408	0.945	1888.9	0.933	14.71152	3.57869	Si
SLV 8	-12830	-14496	-1396	1.008	1772.5	0.93	15.76031	3.57869	Si
SLV 7	-12240	-14543	-1396	1.044	1713	0.928	16.35473	3.57869	Si
SLV 10	-10884	-7872	1288	1.146	1576.5	0.923	18.04171	3.57869	Si
SLV 4	-9490	-10506	-438	1.333	1436.7	0.917	21.11749	4.02268	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	6.389	SLU 44	Si
V_SLU	6.466	SLU 65	Si
PF_SLV	2.269	SLV 3	Si
V_SLV	3.533	SLV 3	Si
PFFP_SLV	10.105	SLV 5	Si
R_SLV	3.6	SLV 16	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
-22.277	-9.039	-21.057	-9.039	L1	L2	1.22	0.45	2.6	2.6	2.6			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti

fb	fk	fvk0	fmedio	t0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,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	elim,conv	ε,fd	yF,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	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLU 47	1.09	-616.68	-5358	-0.0000236	0.0003743	0.0035	1.2198	2954.51	3376.58	3376.58	5.48	No	Si
SLU 47	1.49	-314.55	-4820	-0.0000178	0.0003743	0.0035	1.2198	2686.18	3093.22	3093.22	9.83	No	Si
SLU 51	1.09	-603.53	-5348	-0.0000234	0.0003743	0.0035	1.2198	2949.58	3371.33	3371.33	5.59	No	Si
SLU 51	1.49	-309.1	-4821	-0.0000178	0.0003743	0.0035	1.2198	2686.76	3093.83	3093.83	10.01	No	Si
SLU 44	1.09	-616.68	-5358	-0.0000236	0.0003743	0.0035	1.2198	2954.51	3376.58	3376.58	5.48	No	Si
SLU 44	1.49	-314.55	-4820	-0.0000178	0.0003743	0.0035	1.2198	2686.18	3093.22	3093.22	9.83	No	Si
SLU 43	1.09	-583.8	-5333	-0.0000231	0.0003743	0.0035	1.2198	2942.17	3363.45	3363.45	5.76	No	Si
SLU 43	1.49	-300.92	-4823	-0.0000176	0.0003743	0.0035	1.2198	2687.63	3094.74	3094.74	10.28	No	Si
SLU 46	1.09	-603.53	-5348	-0.0000234	0.0003743	0.0035	1.2198	2949.58	3371.33	3371.33	5.59	No	Si
SLU 46	1.49	-309.1	-4821	-0.0000178	0.0003743	0.0035	1.2198	2686.76	3093.83	3093.83	10.01	No	Si
SLU 48	1.09	-583.8	-5333	-0.0000231	0.0003743	0.0035	1.2198	2942.17	3363.45	3363.45	5.76	No	Si
SLU 48	1.49	-300.92	-4823	-0.0000176	0.0003743	0.0035	1.2198	2687.63	3094.74	3094.74	10.28	No	Si
SLU 50	1.09	-583.8	-5333	-0.0000231	0.0003743	0.0035	1.2198	2942.17	3363.45	3363.45	5.76	No	Si
SLU 50	1.49	-300.92	-4823	-0.0000176	0.0003743	0.0035	1.2198	2687.63	3094.74	3094.74	10.28	No	Si
SLU 45	1.09	-583.8	-5333	-0.0000231	0.0003743	0.0035	1.2198	2942.17	3363.45	3363.45	5.76	No	Si
SLU 45	1.49	-300.92	-4823	-0.0000176	0.0003743	0.0035	1.2198	2687.63	3094.74	3094.74	10.28	No	Si
SLU 2	1.09	-478.94	-4313	-0.0000186	0.0003743	0.0035	1.2198	2427.55	2824.34	2824.34	5.9	No	Si
SLU 2	1.49	-263.1	-3907	-0.0000145	0.0003743	0.0035	1.2198	2216.11	2606.18	2606.18	9.91	No	Si
SLU 49	1.09	-603.53	-5348	-0.0000234	0.0003743	0.0035	1.2198	2949.58	3371.33	3371.33	5.59	No	Si
SLU 49	1.49	-309.1	-4821	-0.0000178	0.0003743	0.0035	1.2198	2686.76	3093.83	3093.83	10.01	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	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 7	1.09	-1863.55	-8303	-0.0000496	0.0005615	0.0035	1.2198		5010.11	5010.11	2.69		Si
SLV 7	1.49	-720.39	-7143	-0.0000299	0.0005615	0.0035	1.2198		4404.52	4404.52	6.11		Si
SLV 6	1.09	-452.18	-2164	-0.0000121	0.0005615	0.0035	1.2198		1375.76	1375.76	3.04		Si
SLV 6	1.49	-94.2	-2476	-0.0000081	0.0005615	0.0035	1.2198		1824.91	1824.91	19.37		Si
SLV 10	1.09	1042.22	-1103	-0.0053964	0.0005615	0.0035	0.9758		749.83	749.83	0.72		No
SLV 10	1.49	176.78	-1587	-0.0000067	0.0005615	0.0035	1.2198		1035.75	1035.75	5.86		Si
SLV 9	1.09	690.99	-1776	-0.0000181	0.0005615	0.0035	1.2198		1147.25	1147.25	1.66		Si
SLV 9	1.49	33.72	-2105	-0.0000063	0.0005615	0.0035	1.2198		1341.49	1341.49	39.79		Si
SLV 1	1.09	-1266.15	-5972	-0.0000342	0.0005615	0.0035	1.2198		3778.9	3778.9	2.98		Si
SLV 1	1.49	-718.89	-5471	-0.0000251	0.0005615	0.0035	1.2198		3503.77	3503.77	4.87		Si
SLV 3	1.09	-1855.5	-7611	-0.0000478	0.0005615	0.0035	1.2198		4649.48	4649.48	2.51		Si
SLV 3	1.49	-863.82	-6715	-0.0000307	0.0005615	0.0035	1.2198		4179.13	4179.13	4.84		Si
SLV 14	1.09	1034.17	-1795	-0.0001237	0.0005615	0.0035	0.9758		1158.5	1158.5	1.12		Si
SLV 14	1.49	320.22	-2014	-0.0000099	0.0005615	0.0035	1.2198		1287.79	1287.79	4.02		Si



Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 13	1.09	700.66	-2434	-0.000017	0.0005615	0.0035	1.2198		1531.84	1531.84	2.19		Si
SLV 13	1.49	184.38	-2507	-0.0000094	0.0005615	0.0035	1.2198		1574.06	1574.06	8.54		Si
SLV 8	1.09	-1512.32	-7631	-0.0000425	0.0005615	0.0035	1.2198		4659.45	4659.45	3.08		Si
SLV 8	1.49	-577.32	-6624	-0.0000265	0.0005615	0.0035	1.2198		4130.15	4130.15	7.15		Si
SLV 4	1.09	-1521.99	-6973	-0.0000407	0.0005615	0.0035	1.2198		4315.47	4315.47	2.84		Si
SLV 4	1.49	-727.98	-6223	-0.0000274	0.0005615	0.0035	1.2198		3914.77	3914.77	5.38		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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 43	1.09	-583.8	-5333	-4740	-782	1.2198	1.2198	-8636	8096	4444	28547	16437	3110	19547	No	25	Si
SLU 43	1.49	-300.92	-4823	-4287	-780	1.2198	1.2198	-7810	7986	4383	28547	16437	3110	19547	No	25.06	Si
SLU 2	1.09	-478.94	-4313	-3834	-616	1.2198	1.2198	-6985	7876	4323	28547	16437	3110	19547	No	31.74	Si
SLU 2	1.49	-263.1	-3907	-3473	-614	1.2198	1.2198	-6326	7788	4275	28547	16437	3110	19547	No	31.83	Si
SLU 50	1.09	-583.8	-5333	-4740	-782	1.2198	1.2198	-8636	8096	4444	28547	16437	3110	19547	No	25	Si
SLU 50	1.49	-300.92	-4823	-4287	-780	1.2198	1.2198	-7810	7986	4383	28547	16437	3110	19547	No	25.06	Si
SLU 45	1.09	-583.8	-5333	-4740	-782	1.2198	1.2198	-8636	8096	4444	28547	16437	3110	19547	No	25	Si
SLU 45	1.49	-300.92	-4823	-4287	-780	1.2198	1.2198	-7810	7986	4383	28547	16437	3110	19547	No	25.06	Si
SLU 49	1.09	-603.53	-5348	-4754	-836	1.2198	1.2198	-8660	8099	4446	28547	16437	3110	19547	No	23.37	Si
SLU 49	1.49	-309.1	-4821	-4285	-834	1.2198	1.2198	-7807	7985	4383	28547	16437	3110	19547	No	23.43	Si
SLU 46	1.09	-603.53	-5348	-4754	-836	1.2198	1.2198	-8660	8099	4446	28547	16437	3110	19547	No	23.37	Si
SLU 46	1.49	-309.1	-4821	-4285	-834	1.2198	1.2198	-7807	7985	4383	28547	16437	3110	19547	No	23.43	Si
SLU 47	1.09	-616.68	-5358	-4763	-873	1.2198	1.2198	-8676	8101	4447	28547	16437	3110	19547	No	22.4	Si
SLU 47	1.49	-314.55	-4820	-4284	-871	1.2198	1.2198	-7805	7985	4383	28547	16437	3110	19547	No	22.45	Si
SLU 44	1.09	-616.68	-5358	-4763	-873	1.2198	1.2198	-8676	8101	4447	28547	16437	3110	19547	No	22.4	Si
SLU 44	1.49	-314.55	-4820	-4284	-871	1.2198	1.2198	-7805	7985	4383	28547	16437	3110	19547	No	22.45	Si
SLU 51	1.09	-603.53	-5348	-4754	-836	1.2198	1.2198	-8660	8099	4446	28547	16437	3110	19547	No	23.37	Si
SLU 51	1.49	-309.1	-4821	-4285	-834	1.2198	1.2198	-7807	7985	4383	28547	16437	3110	19547	No	23.43	Si
SLU 48	1.09	-583.8	-5333	-4740	-782	1.2198	1.2198	-8636	8096	4444	28547	16437	3110	19547	No	25	Si
SLU 48	1.49	-300.92	-4823	-4287	-780	1.2198	1.2198	-7810	7986	4383	28547	16437	3110	19547	No	25.06	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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 6	1.09	452.18	-2164	-1924	2394	1.2198	1.2029	-3505	11118	6018	28547	24655	3110	27766		11.6	Si
SLV 6	1.49	-94.2	-2476	-2201	2438	1.2198	1.2198	-4009	11218	6158	28547	24655	3110	27766		11.39	Si
SLV 7	1.09	-1863.55	-8303	-7381	-4142	1.2198	1.1564	-13446	13106	6820	28547	24655	3110	27766		6.7	Si
SLV 7	1.49	-720.39	-7143	-6349	-4118	1.2198	1.2198	-11567	12730	6988	28547	24655	3110	27766		6.74	Si
SLV 10	1.09	1042.22	-1103	-980	3508	0.9758	0	0	0	0	28547	19724	2488	22213		6.33	Si
SLV 10	1.49	176.78	-1587	-1410	3488	1.2198	1.2198	-2569	10931	6000	28547	24655	3110	27766		7.96	Si
SLV 3	1.09	-1855.5	-7611	-6766	-3400	1.2198	1.0984	-13765	13170	6509	28547	24655	3110	27766		8.17	Si
SLV 3	1.49	-863.82	-6715	-5969	-3293	1.2198	1.2198	-10874	12592	6912	28547	24655	3110	27766		8.43	Si
SLV 12	1.09	-922.27	-6569	-5839	-2274	1.2198	1.2198	-10638	12544	6886	28547	24655	3110	27766		12.21	Si
SLV 12	1.49	-306.34	-5735	-5098	-2314	1.2198	1.2198	-9287	12274	6737	28547	24655	3110	27766		12	Si
SLV 11	1.09	-1273.51	-7242	-6437	-3028	1.2198	1.2198	-11727	12762	7005	28547	24655	3110	27766		9.17	Si
SLV 11	1.49	-449.41	-6254	-5559	-3069	1.2198	1.2198	-10127	12442	6830	28547	24655	3110	27766		9.05	Si
SLV 8	1.09	-1512.32	-7631	-6783	-3388	1.2198	1.2198	-12357	12888	7074	28547	24655	3110	27766		8.2	Si
SLV 8	1.49	-577.32	-6624	-5888	-3364	1.2198	1.2198	-10727	12562	6895	28547	24655	3110	27766		8.25	Si
SLV 9	1.09	690.99	-1776	-1579	2754	1.2198	0.6624	-2876	10992	3276	28547	24655	3110	27766		10.08	Si
SLV 9	1.49	33.72	-2105	-1871	2734	1.2198	1.2198	-3409	11099	6092	28547	24655	3110	27766		10.16	Si
SLV 14	1.09	1034.17	-1795	-1595	2766	0.9758	0.1012	0	0	0	28547	19724	2488	22213		8.03	Si
SLV 14	1.49	320.22	-2014	-1790	2663	1.2198	1.2198	-3262	11069	6076	28547	24655	3110	27766		10.43	Si
SLV 4	1.09	-1521.99	-6973	-6198	-2683	1.2198	1.1749	-11291	12675	6701	28547	24655	3110	27766		10.35	Si
SLV 4	1.49	-727.98	-6223	-5531	-2577	1.2198	1.2198	-10077	12432	6824	28547	24655	3110	27766		10.77	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 0.39 Wa 0.08 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 10	179667	0.27	3491	-1916	76.83	421.34	5.48	Si
SLV 6	179667	0.27	3820	-2097	76.83	460.04	5.99	Si
SLV 9	179667	0.27	4091	-2246	76.83	491.73	6.4	Si
SLV 5	179667	0.27	4420	-2426	76.83	530.11	6.9	Si
SLV 14	179667	0.27	5990	-3288	76.83	710.74	9.25	Si
SLV 13	179667	0.27	6559	-3600	76.83	775.28	10.09	Si
SLV 2	179667	0.27	7087	-3890	76.83	834.63	10.86	Si
SLV 1	179667	0.27	7656	-4203	76.83	898.16	11.69	Si
SLV 16	179667	0.27	8447	-4637	76.83	985.57	12.83	Si
SLV 15	179667	0.27	9017	-4949	76.83	1047.85	13.64	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 é 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 = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	α0	M*	e*	α0*	aLim	Verifica
SLV 3	-6199	-5306	-202	0.99	834.5	0.934	15.4098	4.02268	Si
SLV 7	-6715	-8132	-511	0.893	886.6	0.937	13.85309	3.57869	Si
SLV 4	-5606	-5152	-203	1.068	774.6	0.93	16.69189	4.02268	Si
SLV 8	-6090	-7969	-513	0.961	823.5	0.933	14.97397	3.57869	Si
SLV 11	-5691	-8900	-485	1.015	783.2	0.93	15.86201	3.57869	Si
SLV 1	-4747	-3656	90	1.226	688.1	0.923	19.31077	4.02268	Si
SLV 12	-5066	-8737	-486	1.106	720.2	0.925	17.37627	3.57869	Si
SLV 2	-4154	-3502	89	1.351	628.6	0.917	21.39851	4.02268	Si
SLV 15	-2787	-7867	-113	1.769	492.8	0.903	28.48273	4.02268	Si
SLV 16	-2194	-7713	-115	2.056	434.8	0.896	33.35288	4.02268	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	5.475	SLU 44	Si
V_SLU	22.402	SLU 44	Si
PF_SLV	0.719	SLV 10	No
V_SLV	6.331	SLV 10	Si
PFFP_SLV	5.484	SLV 10	Si
R_SLV	3.831	SLV 3	Si

Maschio 14

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
-21.057	-18.044	-21.057	-14.744	L1	L2	3.3	0.45	2.6	2.6	2.6			

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	t0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	e,fd	yF,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	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLU 44	-0.91	-1254.27	-17158	-0.0000191	0.0004492	0.0035	3.3005	25638.1	32689.88	32689.88	26.06	No	Si
SLU 44	1.19	-5983.52	-9700	-0.0000202	0.0004492	0.0035	3.3005	15152.06	21697.95	21697.95	3.63	No	Si
SLU 55	-0.91	-1705.62	-19627	-0.0000224	0.0004492	0.0035	3.3005	28885.73	36214.91	36214.91	21.23	No	Si
SLU 55	1.19	-6868.34	-11807	-0.0000239	0.0004492	0.0035	3.3005	18216.4	24868.36	24868.36	3.62	No	Si
SLU 68	-0.91	-1566.22	-19016	-0.0000215	0.0004492	0.0035	3.3005	28092.93	35343.2	35343.2	22.57	No	Si
SLU 68	1.19	-6558.51	-11130	-0.0000226	0.0004492	0.0035	3.3005	17240.36	23849.43	23849.43	3.64	No	Si
SLU 61	-0.91	-1938.55	-20673	-0.0000238	0.0004492	0.0035	3.3005	30228.43	37708.58	37708.58	19.45	No	Si
SLU 61	1.19	-6990.66	-12562	-0.0000248	0.0004492	0.0035	3.3005	19294.55	26004.14	26004.14	3.72	No	Si
SLU 47	-0.91	-1254.27	-17158	-0.0000191	0.0004492	0.0035	3.3005	25638.1	32689.88	32689.88	26.06	No	Si
SLU 47	1.19	-5983.52	-9700	-0.0000202	0.0004492	0.0035	3.3005	15152.06	21697.95	21697.95	3.63	No	Si
SLU 63	-0.91	-1938.55	-20673	-0.0000238	0.0004492	0.0035	3.3005	30228.43	37708.58	37708.58	19.45	No	Si
SLU 63	1.19	-6990.66	-12562	-0.0000248	0.0004492	0.0035	3.3005	19294.55	26004.14	26004.14	3.72	No	Si
SLU 73	-0.91	-2017.57	-21485	-0.0000248	0.0004492	0.0035	3.3005	31257.15	38846.71	38846.71	19.25	No	Si
SLU 73	1.19	-7443.33	-13236	-0.0000263	0.0004492	0.0035	3.3005	20249.93	27019.84	27019.84	3.63	No	Si
SLU 76	-0.91	-2017.57	-21485	-0.0000248	0.0004492	0.0035	3.3005	31257.15	38846.71	38846.71	19.25	No	Si
SLU 76	1.19	-7443.33	-13236	-0.0000263	0.0004492	0.0035	3.3005	20249.93	27019.84	27019.84	3.63	No	Si
SLU 52	-0.91	-1705.62	-19627	-0.0000224	0.0004492	0.0035	3.3005	28885.73	36214.91	36214.91	21.23	No	Si
SLU 52	1.19	-6868.34	-11807	-0.0000239	0.0004492	0.0035	3.3005	18216.4	24868.36	24868.36	3.62	No	Si
SLU 65	-0.91	-1566.22	-19016	-0.0000215	0.0004492	0.0035	3.3005	28092.93	35343.2	35343.2	22.57	No	Si
SLU 65	1.19	-6558.51	-11130	-0.0000226	0.0004492	0.0035	3.3005	17240.36	23849.43	23849.43	3.64	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	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 15	-0.91	283.6	-18139	-0.0000182	0.0006738	0.0035	3.3005		29482	29482	103.96		Si
SLV 15	1.19	-7447.94	-9043	-0.0000235	0.0006738	0.0035	3.3005		20844.69	20844.69	2.8		Si
SLV 5	-0.91	-5798.61	-17337	-0.0000273	0.0006738	0.0035	3.3005		33425.18	33425.18	5.76		Si
SLV 5	1.19	405.6	-14569	-0.0000149	0.0006738	0.0035	3.3005		24108.36	24108.36	59.44		Si
SLV 7	-0.91	3716.09	-9787	-0.0000161	0.0006738	0.0035	3.3005		16760.88	16760.88	4.51		Si
SLV 7	1.19	-10791.75	-50	-0.0003782	0.0006738	0.0035	2.6404		6674.86	6674.86	0.62		No
SLV 6	-0.91	-6357.63	-17382	-0.0000283	0.0006738	0.0035	3.3005		33491.12	33491.12	5.27		Si
SLV 6	1.19	1717.7	-15281	-0.0000179	0.0006738	0.0035	3.3005		25190.31	25190.31	14.67		Si
SLV 3	-0.91	419.34	-9357	-0.0000098	0.0006738	0.0035	3.3005		16087.55	16087.55	38.36		Si
SLV 3	1.19	-6511.96	-3053	-0.0001369	0.0006738	0.0035	2.6404		11465.85	11465.85	1.76		Si
SLV 4	-0.91	-111.46	-9400	-0.0000093	0.0006738	0.0035	3.3005		21395.99	21395.99	191.97		Si
SLV 4	1.19	-5266.11	-3730	-0.0000316	0.0006738	0.0035	2.6404		12535.15	12535.15	2.38		Si
SLV 16	-0.91	-247.2	-18182	-0.0000181	0.0006738	0.0035	3.3005		34661.28	34661.28	140.22		Si
SLV 16	1.19	-6202.09	-9719	-0.0000206	0.0006738	0.0035	3.3005		21890.2	21890.2	3.53		Si



Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 8	-0.91	3157.07	-9833	-0.0000151	0.0006738	0.0035	3.3005		16831.43	16831.43	5.33		Si
SLV 8	1.19	-9479.65	-763	-0.0003187	0.0006738	0.0035	2.6404		7816.11	7816.11	0.82		No
SLV 11	-0.91	3675.37	-12422	-0.0000186	0.0006738	0.0035	3.3005		20832.61	20832.61	5.67		Si
SLV 11	1.19	-11072.54	-1847	-0.0003615	0.0006738	0.0035	2.6404		9548.08	9548.08	0.86		No
SLV 12	-0.91	3116.35	-12467	-0.0000176	0.0006738	0.0035	3.3005		20902.14	20902.14	6.71		Si
SLV 12	1.19	-9760.45	-2560	-0.0002904	0.0006738	0.0035	2.6404		10680.61	10680.61	1.09		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	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 76	-0.91	-2017.57	-21485	-17188	2883	3.3005	3.3005	-11573	9876	14668	81562	53375	16832	70207	No	24.35	Si
SLU 76	1.19	-7443.33	-13236	-10589	3231	3.3005	3.2637	-7243	9299	13657	81562	53375	16832	70207	No	21.73	Si
SLU 79	-0.91	-2116.31	-21455	-17164	2798	3.3005	3.3005	-11556	9874	14665	81562	53375	16832	70207	No	25.1	Si
SLU 79	1.19	-6801.1	-12866	-10293	3132	3.3005	3.3005	-6930	9257	13749	81562	53375	16832	70207	No	22.42	Si
SLU 75	-0.91	-2057.06	-21473	-17178	2849	3.3005	3.3005	-11566	9875	14667	81562	53375	16832	70207	No	24.64	Si
SLU 75	1.19	-7186.44	-13088	-10471	3191	3.3005	3.3005	-7050	9273	13773	81562	53375	16832	70207	No	22	Si
SLU 84	-0.91	-2250.5	-22531	-18024	3048	3.3005	3.3005	-12136	9951	14780	81562	53375	16832	70207	No	23.03	Si
SLU 84	1.19	-7565.65	-13991	-11193	3409	3.3005	3.3005	-7536	9338	13869	81562	53375	16832	70207	No	20.59	Si
SLU 82	-0.91	-2250.5	-22531	-18024	3048	3.3005	3.3005	-12136	9951	14780	81562	53375	16832	70207	No	23.03	Si
SLU 82	1.19	-7565.65	-13991	-11193	3409	3.3005	3.3005	-7536	9338	13869	81562	53375	16832	70207	No	20.59	Si
SLU 80	-0.91	-2057.06	-21473	-17178	2849	3.3005	3.3005	-11566	9875	14667	81562	53375	16832	70207	No	24.64	Si
SLU 80	1.19	-7186.44	-13088	-10471	3191	3.3005	3.3005	-7050	9273	13773	81562	53375	16832	70207	No	22	Si
SLU 83	-0.91	-2309.75	-22513	-18010	2997	3.3005	3.3005	-12126	9950	14778	81562	53375	16832	70207	No	23.42	Si
SLU 83	1.19	-7180.31	-13769	-11015	3350	3.3005	3.3005	-7417	9322	13845	81562	53375	16832	70207	No	20.96	Si
SLU 81	-0.91	-2309.75	-22513	-18010	2997	3.3005	3.3005	-12126	9950	14778	81562	53375	16832	70207	No	23.42	Si
SLU 81	1.19	-7180.31	-13769	-11015	3350	3.3005	3.3005	-7417	9322	13845	81562	53375	16832	70207	No	20.96	Si
SLU 73	-0.91	-2017.57	-21485	-17188	2883	3.3005	3.3005	-11573	9876	14668	81562	53375	16832	70207	No	24.35	Si
SLU 73	1.19	-7443.33	-13236	-10589	3231	3.3005	3.2637	-7243	9299	13657	81562	53375	16832	70207	No	21.73	Si
SLU 78	-0.91	-2057.06	-21473	-17178	2849	3.3005	3.3005	-11566	9875	14667	81562	53375	16832	70207	No	24.64	Si
SLU 78	1.19	-7186.44	-13088	-10471	3191	3.3005	3.3005	-7050	9273	13773	81562	53375	16832	70207	No	22	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	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 7	-0.91	3716.09	-9787	-7830	10405	3.3005	3.3005	-5272	13554	20131	81562	80062	16832	96894		9.31	Si
SLV 7	1.19	-10791.75	-50	-40	10092	2.6404	0	0	0	0	81562	64050	13466	77516		7.68	Si
SLV 9	-0.91	-5839.33	-19971	-15977	-5282	3.3005	3.3005	-10757	14651	21760	81562	80062	16832	96894		18.34	Si
SLV 9	1.19	124.81	-16366	-13093	-4509	3.3005	3.3005	-8815	14263	21184	81562	80062	16832	96894		21.49	Si
SLV 5	-0.91	-5798.61	-17337	-13869	-5895	3.3005	3.3005	-9338	14368	21339	81562	80062	16832	96894		16.44	Si
SLV 5	1.19	405.6	-14569	-11655	-5092	3.3005	3.3005	-7847	14069	20896	81562	80062	16832	96894		19.03	Si
SLV 6	-0.91	-6357.63	-17382	-13905	-7309	3.3005	3.3005	-9363	14373	21346	81562	80062	16832	96894		13.26	Si
SLV 6	1.19	1717.7	-15281	-12225	-6506	3.3005	3.3005	-8231	14146	21010	81562	80062	16832	96894		14.89	Si
SLV 12	-0.91	3116.35	-12467	-9974	9604	3.3005	3.3005	-6715	13843	20560	81562	80062	16832	96894		10.09	Si
SLV 12	1.19	-9760.45	-2560	-2048	9260	2.6404	0	0	0	0	81562	64050	13466	77516		8.37	Si
SLV 8	-0.91	3157.07	-9833	-7866	8991	3.3005	3.3005	-5296	13559	20138	81562	80062	16832	96894		10.78	Si
SLV 8	1.19	-9479.65	-763	-610	8677	2.6404	0	0	0	0	81562	64050	13466	77516		8.93	Si
SLV 15	-0.91	283.6	-18139	-14511	5993	3.3005	3.3005	-9771	14454	21467	81562	80062	16832	96894		16.17	Si
SLV 15	1.19	-7447.94	-9043	-7235	6004	3.3005	2.4799	-6499	13800	15400	81562	80062	16832	96894		16.14	Si
SLV 11	-0.91	3675.37	-12422	-9938	11018	3.3005	3.3005	-6691	13838	20553	81562	80062	16832	96894		8.79	Si
SLV 11	1.19	-11072.54	-1847	-1478	10674	2.6404	0	0	0	0	81562	64050	13466	77516		7.26	Si
SLV 3	-0.91	419.34	-9357	-7486	3949	3.3005	3.3005	-5040	13508	20062	81562	80062	16832	96894		24.53	Si
SLV 3	1.19	-6511.96	-3053	-2443	4063	2.6404	0	0	0	0	81562	64050	13466	77516		19.08	Si
SLV 10	-0.91	-6398.35	-20016	-16013	-6697	3.3005	3.3005	-10782	14656	21768	81562	80062	16832	96894		14.47	Si
SLV 10	1.19	1436.91	-17078	-13662	-5924	3.3005	3.3005	-9199	14340	21298	81562	80062	16832	96894		16.36	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRM D.M. 17-01-18 (N.T.C.)

quota 0.39 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 7	-4208	0.27	211.4	932.12	1676.21	1304.17	6.17	Si
SLV 8	-4624	0.27	211.4	1022.82	1776	1399.41	6.62	Si
SLV 3	-5979	0.27	211.4	1315.7	2100.25	1707.97	8.08	Si
SLV 11	-6215	0.27	211.4	1366.54	2156.86	1761.7	8.33	Si
SLV 4	-6374	0.27	211.4	1400.66	2194.9	1797.78	8.5	Si
SLV 12	-6632	0.27	211.4	1455.85	2256.54	1856.19	8.78	Si
SLV 1	-9496	0.27	211.4	2061.96	2937.94	2499.95	11.83	Si
SLV 2	-9891	0.27	211.4	2144.63	3031.68	2588.15	12.24	Si
SLV 15	-12671	0.27	211.4	2718.25	3689.16	3203.7	15.16	Si
SLV 16	-13066	0.27	211.4	2798.84	3782.74	3290.79	15.57	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	α0	M*	e*	α0*	aLim	Verifica
SLV 14	-12488	-20447	-285	1.249	1826.1	0.922	19.69504	4.02268	Si
SLV 10	-14551	-20016	-162	1.123	2033.5	0.928	17.58551	3.57869	Si
SLV 13	-12031	-20404	-286	1.283	1780.1	0.92	20.26874	4.02268	Si
SLV 9	-14068	-19971	-163	1.151	1985	0.926	18.05767	3.57869	Si
SLV 6	-12984	-17382	0	1.231	1875.8	0.923	19.38239	3.57869	Si
SLV 5	-12502	-17337	0	1.266	1827.4	0.922	19.95966	3.57869	Si
SLV 16	-9164	-18182	-227	1.559	1493.8	0.909	24.91659	4.02268	Si
SLV 15	-8707	-18139	-228	1.614	1448.4	0.907	25.85306	4.02268	Si
SLV 2	-7266	-11665	258	1.816	1306.3	0.901	29.28739	4.02268	Si
SLV 1	-6808	-11622	257	1.894	1261.4	0.899	30.59743	4.02268	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	3.621	SLU 52	Si



Stato limite	Coeff.s.	Comb.	Verifica
V_SLV	20.592	SLV 82	Si
PF_SLV	0.619	SLV 7	No
V_SLV	7.262	SLV 11	Si
PFFP_SLV	6.169	SLV 7	Si
R_SLV	4.896	SLV 14	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
-21.057	-13.794	-21.057	-9.039	L1	L2	4.755	0.45	2.6	2.6	2.6			

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	t0	fv0	μ	φ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRMC

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

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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 FRMC 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	-0.91	-19475.75	-39228	-0.0000444	0.0004492	0.0035	4.755	79271.14	96694.46	96694.46	4.96	No	Si
SLU 81	1.19	-13504.62	-28089	-0.000031	0.0004492	0.0035	4.755	59607.56	74736.51	74736.51	5.53	No	Si
SLU 84	-0.91	-19291.98	-39279	-0.0000443	0.0004492	0.0035	4.755	79356	96793.79	96793.79	5.02	No	Si
SLU 84	1.19	-13812.32	-28222	-0.0000314	0.0004492	0.0035	4.755	59854.68	75009.12	75009.12	5.43	No	Si
SLU 56	-0.91	-17229.12	-34132	-0.0000387	0.0004492	0.0035	4.755	70555.02	86771.76	86771.76	5.04	No	Si
SLU 56	1.19	-11142.69	-23633	-0.0000258	0.0004492	0.0035	4.755	51109.06	65566.57	65566.57	5.88	No	Si
SLU 60	-0.91	-18021.78	-35959	-0.0000407	0.0004492	0.0035	4.755	73734.36	90329.39	90329.39	5.01	No	Si
SLU 60	1.19	-12002.54	-25299	-0.0000277	0.0004492	0.0035	4.755	54328.49	68994.75	68994.75	5.75	No	Si
SLU 82	-0.91	-19291.98	-39279	-0.0000443	0.0004492	0.0035	4.755	79356	96793.79	96793.79	5.02	No	Si
SLU 82	1.19	-13812.32	-28222	-0.0000314	0.0004492	0.0035	4.755	59854.68	75009.12	75009.12	5.43	No	Si
SLU 77	-0.91	-18683.09	-37401	-0.0000424	0.0004492	0.0035	4.755	76200.42	93136.83	93136.83	4.99	No	Si
SLU 77	1.19	-12644.77	-26423	-0.0000291	0.0004492	0.0035	4.755	56472.66	71308.33	71308.33	5.64	No	Si
SLU 74	-0.91	-18683.09	-37401	-0.0000424	0.0004492	0.0035	4.755	76200.42	93136.83	93136.83	4.99	No	Si
SLU 74	1.19	-12644.77	-26423	-0.0000291	0.0004492	0.0035	4.755	56472.66	71308.33	71308.33	5.64	No	Si
SLU 83	-0.91	-19475.75	-39228	-0.0000444	0.0004492	0.0035	4.755	79271.14	96694.46	96694.46	4.96	No	Si
SLU 83	1.19	-13504.62	-28089	-0.000031	0.0004492	0.0035	4.755	59607.56	74736.51	74736.51	5.53	No	Si
SLU 62	-0.91	-18021.78	-35959	-0.0000407	0.0004492	0.0035	4.755	73734.36	90329.39	90329.39	5.01	No	Si
SLU 62	1.19	-12002.54	-25299	-0.0000277	0.0004492	0.0035	4.755	54328.49	68994.75	68994.75	5.75	No	Si
SLU 79	-0.91	-18683.09	-37401	-0.0000424	0.0004492	0.0035	4.755	76200.42	93136.83	93136.83	4.99	No	Si
SLU 79	1.19	-12644.77	-26423	-0.0000291	0.0004492	0.0035	4.755	56472.66	71308.33	71308.33	5.64	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC 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	-0.91	-2797.29	-31390	-0.0000237	0.0006738	0.0035	4.755		82838.49	82838.49	29.61		Si
SLV 11	1.19	-17823.06	-26246	-0.0000332	0.0006738	0.0035	4.755		72003.2	72003.2	4.04		Si
SLV 14	-0.91	-20484.8	-32432	-0.0000398	0.0006738	0.0035	4.755		85032.95	85032.95	4.15		Si
SLV 14	1.19	-8812.07	-21124	-0.0000218	0.0006738	0.0035	4.755		61052.37	61052.37	6.93		Si
SLV 7	-0.91	-686.93	-26949	-0.0000188	0.0006738	0.0035	4.755		73482.46	73482.46	106.97		Si
SLV 7	1.19	-15695.09	-22922	-0.000029	0.0006738	0.0035	4.755		64958.08	64958.08	4.14		Si
SLV 10	-0.91	-25628.63	-25032	-0.00004	0.0006738	0.0035	4.755		69444.16	69444.16	2.71		Si
SLV 10	1.19	-1157.99	-12744	-0.0000095	0.0006738	0.0035	4.755		42582.09	42582.09	36.77		Si
SLV 13	-0.91	-19358.98	-32452	-0.0000389	0.0006738	0.0035	4.755		85075.64	85075.64	4.39		Si
SLV 13	1.19	-10745.62	-21780	-0.0000239	0.0006738	0.0035	4.755		62476.64	62476.64	5.81		Si
SLV 9	-0.91	-24442.95	-25053	-0.0000387	0.0006738	0.0035	4.755		69489.12	69489.12	2.84		Si
SLV 9	1.19	-3194.35	-13434	-0.0000117	0.0006738	0.0035	4.755		44119.77	44119.77	13.81		Si
SLV 6	-0.91	-23518.27	-20590	-0.000036	0.0006738	0.0035	4.755		59891.91	59891.91	2.55		Si
SLV 6	1.19	969.98	-9420	-0.0000071	0.0006738	0.0035	4.755		24104.98	24104.98	24.85		Si
SLV 2	-0.91	-13450.27	-17627	-0.0000234	0.0006738	0.0035	4.755		53401.74	53401.74	3.97		Si
SLV 2	1.19	-1718.84	-10042	-0.0000082	0.0006738	0.0035	4.755		36530.02	36530.02	21.25		Si
SLV 1	-0.91	-12324.46	-17648	-0.0000225	0.0006738	0.0035	4.755		53446.35	53446.35	4.34		Si
SLV 1	1.19	-3652.39	-10698	-0.0000103	0.0006738	0.0035	4.755		38005.21	38005.21	10.41		Si
SLV 5	-0.91	-22332.59	-20612	-0.0000344	0.0006738	0.0035	4.755		59938.28	59938.28	2.68		Si



Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 5	1.19	-1066.39	-10110	-0.0000077	0.0006738	0.0035	4.755		36681.62	36681.62	34.4		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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 83	-0.91	-19475.75	-39228	-31382	-3033	4.755	4.755	-14666	10289	22016	81562	76897	24251	101148	No	33.34	Si
SLU 83	1.19	-13504.62	-28089	-22471	-3358	4.755	4.755	-10502	9734	20827	81562	76897	24251	101148	No	30.12	Si
SLU 79	-0.91	-18683.09	-37401	-29921	-2895	4.755	4.755	-13983	10198	21821	81562	76897	24251	101148	No	34.94	Si
SLU 79	1.19	-12644.77	-26423	-21139	-3203	4.755	4.755	-9879	9651	20650	81562	76897	24251	101148	No	31.58	Si
SLU 77	-0.91	-18683.09	-37401	-29921	-2895	4.755	4.755	-13983	10198	21821	81562	76897	24251	101148	No	34.94	Si
SLU 77	1.19	-12644.77	-26423	-21139	-3203	4.755	4.755	-9879	9651	20650	81562	76897	24251	101148	No	31.58	Si
SLU 82	-0.91	-19291.98	-39279	-31423	-2707	4.755	4.755	-14685	10291	22021	81562	76897	24251	101148	No	37.37	Si
SLU 82	1.19	-13812.32	-28222	-22577	-3032	4.755	4.755	-10551	9740	20842	81562	76897	24251	101148	No	33.36	Si
SLU 84	-0.91	-19291.98	-39279	-31423	-2707	4.755	4.755	-14685	10291	22021	81562	76897	24251	101148	No	37.37	Si
SLU 84	1.19	-13812.32	-28222	-22577	-3032	4.755	4.755	-10551	9740	20842	81562	76897	24251	101148	No	33.36	Si
SLU 62	-0.91	-18021.78	-35959	-28767	-2776	4.755	4.755	-13444	10126	21667	81562	76897	24251	101148	No	36.44	Si
SLU 62	1.19	-12002.54	-25299	-20239	-3071	4.755	4.755	-9459	9594	20530	81562	76897	24251	101148	No	32.93	Si
SLU 81	-0.91	-19475.75	-39228	-31382	-3033	4.755	4.755	-14666	10289	22016	81562	76897	24251	101148	No	33.34	Si
SLU 81	1.19	-13504.62	-28089	-22471	-3358	4.755	4.755	-10502	9734	20827	81562	76897	24251	101148	No	30.12	Si
SLU 53	-0.91	-17229.12	-34132	-27306	-2637	4.755	4.755	-12761	10035	21472	81562	76897	24251	101148	No	38.35	Si
SLU 53	1.19	-11142.69	-23633	-18907	-2916	4.755	4.755	-8836	9511	20352	81562	76897	24251	101148	No	34.69	Si
SLU 60	-0.91	-18021.78	-35959	-28767	-2776	4.755	4.755	-13444	10126	21667	81562	76897	24251	101148	No	36.44	Si
SLU 60	1.19	-12002.54	-25299	-20239	-3071	4.755	4.755	-9459	9594	20530	81562	76897	24251	101148	No	32.93	Si
SLU 74	-0.91	-18683.09	-37401	-29921	-2895	4.755	4.755	-13983	10198	21821	81562	76897	24251	101148	No	34.94	Si
SLU 74	1.19	-12644.77	-26423	-21139	-3203	4.755	4.755	-9879	9651	20650	81562	76897	24251	101148	No	31.58	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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 2	-0.91	-13450.27	-17627	-14102	-5769	4.755	4.755	-6590	13818	29567	81562	115346	24251	111129		19.26	Si
SLV 2	1.19	-1718.84	-10042	-8034	-6123	4.755	4.755	-3755	13251	28354	81562	115346	24251	109915		17.95	Si
SLV 7	-0.91	-686.93	-26949	-21559	12019	4.755	4.755	-10075	14515	31059	81562	115346	24251	112620		9.37	Si
SLV 7	1.19	-15695.09	-22922	-18338	10909	4.755	4.755	-8570	14214	30414	81562	115346	24251	111976		10.26	Si
SLV 9	-0.91	-24442.95	-25053	-20042	-13754	4.755	4.2056	-10639	14628	27683	81562	115346	24251	109245		7.94	Si
SLV 9	1.19	-3194.35	-13434	-10748	-13069	4.755	4.755	-5023	13505	28896	81562	115346	24251	110458		8.45	Si
SLV 12	-0.91	-3982.97	-31369	-25095	9066	4.755	4.755	-11728	14846	31766	81562	115346	24251	113327		12.5	Si
SLV 12	1.19	-15786.69	-25556	-20445	8185	4.755	4.755	-9555	14411	30836	81562	115346	24251	112397		13.73	Si
SLV 5	-0.91	-22332.59	-20612	-16489	-13094	4.755	3.882	-9476	14395	25147	81562	115346	24251	106709		8.15	Si
SLV 5	1.19	-1066.39	-10110	-8088	-12636	4.755	4.755	-3780	13256	28364	81562	115346	24251	109926		8.7	Si
SLV 8	-0.91	-1872.61	-26927	-21542	9726	4.755	4.755	-10067	14513	31055	81562	115346	24251	112617		11.58	Si
SLV 8	1.19	-13658.72	-22232	-17785	8618	4.755	4.755	-8312	14162	30304	81562	115346	24251	111866		12.98	Si
SLV 10	-0.91	-25628.63	-25032	-20025	-16046	4.755	4.061	-11010	14702	26867	81562	115346	24251	108428		6.76	Si
SLV 10	1.19	-1157.99	-12744	-10195	-15359	4.755	4.755	-4765	13453	28786	81562	115346	24251	110348		7.18	Si
SLV 11	-0.91	-2797.29	-31390	-25112	11358	4.755	4.755	-11736	14847	31769	81562	115346	24251	113331		9.98	Si
SLV 11	1.19	-17823.06	-26246	-20997	10476	4.755	4.755	-9813	14463	30946	81562	115346	24251	112508		10.74	Si
SLV 14	-0.91	-20484.8	-32432	-25945	-7969	4.755	4.755	-12125	14925	31936	81562	115346	24251	113498		14.24	Si
SLV 14	1.19	-8812.07	-21124	-16900	-7566	4.755	4.755	-7898	14080	30127	81562	115346	24251	111688		14.76	Si
SLV 6	-0.91	-23518.27	-20590	-16472	-15386	4.755	3.7059	-9915	14483	24153	81562	115346	24251	105714		6.87	Si
SLV 6	1.19	969.98	-9420	-7536	-14926	4.755	4.755	-3522	13204	28254	81562	115346	24251	109816		7.36	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRDM D.M. 17-01-18 (N.T.C.)

quota 0.39 Ta 0.03 Wa 0.08 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 2	-13033	0.27	304.56	2834.88	4069.16	3452.02	11.33	Si
SLV 1	-13448	0.27	304.56	2922.13	4167.63	3544.88	11.64	Si
SLV 6	-13633	0.27	304.56	2960.89	4211.45	3586.17	11.77	Si
SLV 5	-14071	0.27	304.56	3052.47	4315.16	3683.82	12.1	Si
SLV 4	-16107	0.27	304.56	3475.17	4796.46	4135.81	13.58	Si
SLV 3	-16523	0.27	304.56	3560.95	4894.74	4227.84	13.88	Si
SLV 10	-17232	0.27	304.56	3706.87	5062.47	4384.67	14.4	Si
SLV 9	-17670	0.27	304.56	3796.64	5166	4481.32	14.71	Si
SLV 8	-23881	0.27	304.56	5045.95	6624.43	5835.19	19.16	Si
SLV 7	-24319	0.27	304.56	5132.37	6727.07	5929.72	19.47	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 0.39 Wa = 0.08 Ta = 0.0251

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 15	-19842	-34353	492	1.159	2816.8	0.926	18.19962	4.02268	Si
SLV 16	-19418	-34333	490	1.178	2774.2	0.925	18.51058	4.02268	Si
SLV 11	-20127	-31390	145	1.161	2845.5	0.926	18.21359	3.57869	Si
SLV 12	-19681	-31369	143	1.18	2800.6	0.925	18.53782	3.57869	Si
SLV 13	-16606	-32452	540	1.317	2491.7	0.918	20.85059	4.02268	Si
SLV 14	-16182	-32432	537	1.342	2449.4	0.917	21.26534	4.02268	Si
SLV 7	-17126	-26949	-105	1.308	2543.9	0.92	20.6754	3.57869	Si
SLV 8	-16680	-26927	-107	1.333	2499.2	0.918	21.09483	3.57869	Si
SLV 3	-9838	-19549	-342	1.892	1820.2	0.899	30.56821	4.02268	Si
SLV 4	-9415	-19528	-344	1.945	1778.9	0.898	31.46561	4.02268	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	4.965	SLU 81	Si
V_SLU	30.122	SLU 81	Si
PF_SLV	2.547	SLV 6	Si
V_SLV	6.757	SLV 10	Si
PFFP_SLV	11.335	SLV 2	Si
R_SLV	4.524	SLV 15	Si



Maschio 16

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
-35.332	-17.999	-35.332	-9.039	L2	L3	8.96	0.25	3.93	3.93	3.93			

Caratteristiche del materiale

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

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

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200						CRM / Fibrenet?				
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	ϵ_{fd}	$y_{F,d}$	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 FRMC 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	1.69	-4097.31	-17255	-0.0000132	0.0003743	0.0035	8.96	71453.62	96683.63	96683.63	23.6	No	Si
SLU 47	5.62	-89.19	-325	-0.0000003	0.0003743	0.0035	8.96	1456.12	25970.33	25970.33	291.18	No	Si
SLU 2	1.69	-3430.81	-14023	-0.0000108	0.0003743	0.0035	8.96	58961.24	83815.01	83815.01	24.43	No	Si
SLU 2	5.62	-86.87	-339	-0.0000003	0.0003743	0.0035	8.96	1517.38	26030.97	26030.97	299.65	No	Si
SLU 5	1.69	-3430.81	-14023	-0.0000108	0.0003743	0.0035	8.96	58961.24	83815.01	83815.01	24.43	No	Si
SLU 5	5.62	-86.87	-339	-0.0000003	0.0003743	0.0035	8.96	1517.38	26030.97	26030.97	299.65	No	Si
SLU 76	1.69	-4870.79	-24050	-0.0000182	0.0003743	0.0035	8.96	96383.13	123153.54	123153.54	25.28	No	Si
SLU 76	5.62	-228.05	-1286	-0.0000009	0.0003743	0.0035	8.96	5727.05	30186.59	30186.59	132.37	No	Si
SLU 52	1.69	-4582.8	-21455	-0.0000163	0.0003743	0.0035	8.96	87076.59	113109.72	113109.72	24.68	No	Si
SLU 52	5.62	-182.17	-952	-0.0000007	0.0003743	0.0035	8.96	4245.89	28725.15	28725.15	157.68	No	Si
SLU 73	1.69	-4870.79	-24050	-0.0000182	0.0003743	0.0035	8.96	96383.13	123153.54	123153.54	25.28	No	Si
SLU 73	5.62	-228.05	-1286	-0.0000009	0.0003743	0.0035	8.96	5727.05	30186.59	30186.59	132.37	No	Si
SLU 65	1.69	-4385.29	-19850	-0.0000151	0.0003743	0.0035	8.96	81188.41	107014.09	107014.09	24.4	No	Si
SLU 65	5.62	-135.07	-659	-0.0000005	0.0003743	0.0035	8.96	2945.49	27442.13	27442.13	203.17	No	Si
SLU 44	1.69	-4097.31	-17255	-0.0000132	0.0003743	0.0035	8.96	71453.62	96683.63	96683.63	23.6	No	Si
SLU 44	5.62	-89.19	-325	-0.0000003	0.0003743	0.0035	8.96	1456.12	25970.33	25970.33	291.18	No	Si
SLU 55	1.69	-4582.8	-21455	-0.0000163	0.0003743	0.0035	8.96	87076.59	113109.72	113109.72	24.68	No	Si
SLU 55	5.62	-182.17	-952	-0.0000007	0.0003743	0.0035	8.96	4245.89	28725.15	28725.15	157.68	No	Si
SLU 68	1.69	-4385.29	-19850	-0.0000151	0.0003743	0.0035	8.96	81188.41	107014.09	107014.09	24.4	No	Si
SLU 68	5.62	-135.07	-659	-0.0000005	0.0003743	0.0035	8.96	2945.49	27442.13	27442.13	203.17	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC 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 12	1.69	8415.07	-16064	-0.0000143	0.0005615	0.0035	8.96		73025.87	73025.87	8.68		Si
SLV 12	5.62	-771.93	-708	-0.0000008	0.0005615	0.0035	8.96		27616.04	27616.04	35.78		Si
SLV 1	1.69	-8474.58	-12366	-0.0000118	0.0005615	0.0035	8.96		77614.77	77614.77	9.16		Si
SLV 1	5.62	113.3	-336	-0.0000003	0.0005615	0.0035	8.96		5450.64	5450.64	48.11		Si
SLV 2	1.69	-8602.82	-12283	-0.0000118	0.0005615	0.0035	8.96		77265.27	77265.27	8.98		Si
SLV 2	5.62	-33.84	-355	-0.0000002	0.0005615	0.0035	8.96		26056.77	26056.77	769.89		Si
SLV 8	1.69	6838.85	-13936	-0.0000121	0.0005615	0.0035	8.96		64155.37	64155.37	9.38		Si
SLV 8	5.62	-797.52	-551	-0.0000007	0.0005615	0.0035	8.96		26923	26923	33.76		Si
SLV 6	1.69	-14093.68	-15209	-0.0000162	0.0005615	0.0035	8.96		89487.9	89487.9	6.35		Si
SLV 6	5.62	417.28	-533	-0.0000005	0.0005615	0.0035	8.96		6325.64	6325.64	15.16		Si
SLV 10	1.69	-12517.45	-17336	-0.0000169	0.0005615	0.0035	8.96		98174.46	98174.46	7.84		Si
SLV 10	5.62	442.87	-690	-0.0000006	0.0005615	0.0035	8.96		7023.02	7023.02	15.86		Si
SLV 9	1.69	-12382.4	-17424	-0.0000169	0.0005615	0.0035	8.96		98525.45	98525.45	7.96		Si
SLV 9	5.62	597.84	-669	-0.0000007	0.0005615	0.0035	8.96		6932.56	6932.56	11.6		Si
SLV 5	1.69	-13958.63	-15296	-0.0000162	0.0005615	0.0035	8.96		89851.67	89851.67	6.44		Si
SLV 5	5.62	572.25	-512	-0.0000006	0.0005615	0.0035	8.96		6234.81	6234.81	10.9		Si
SLV 11	1.69	8550.12	-16151	-0.0000144	0.0005615	0.0035	8.96		73390.16	73390.16	8.58		Si
SLV 11	5.62	-616.95	-688	-0.0000007	0.0005615	0.0035	8.96		27525.97	27525.97	44.62		Si
SLV 7	1.69	6973.9	-14024	-0.0000123	0.0005615	0.0035	8.96		64525.4	64525.4	9.25		Si
SLV 7	5.62	-642.54	-531	-0.0000006	0.0005615	0.0035	8.96		26832.66	26832.66	41.76		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 31	1.69	-4204.29	-20819	-16995	389	8.96	8.96	-7587	7956	17822	45199	67076	22848	63020	No	162.14	Si
SLU 31	5.62	-225.73	-1299	-1061	-81	8.96	8.96	-474	7008	15697	45199	67076	22848	60896	No	749.29	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 48	1.69	-3217.28	-16970	-13853	-82	8.96	8.96	-6184	7769	17403	45199	67076	22848	62601	No	759.41	Si
SLU 48	5.62	-62.48	-322	-263	-365	8.96	8.96	-117	6960	15591	45199	67076	22848	60789	No	166.33	Si
SLU 43	1.69	-3217.28	-16970	-13853	-82	8.96	8.96	-6184	7769	17403	45199	67076	22848	62601	No	759.41	Si
SLU 43	5.62	-62.48	-322	-263	-365	8.96	8.96	-117	6960	15591	45199	67076	22848	60789	No	166.33	Si
SLU 69	1.69	-3505.26	-19565	-15972	-64	8.96	8.96	-7130	7895	17685	45199	67076	22848	62884	No	981.71	Si
SLU 69	5.62	-108.36	-656	-536	-381	8.96	8.96	-239	6976	15627	45199	67076	22848	60826	No	159.85	Si
SLU 45	1.69	-3217.28	-16970	-13853	-82	8.96	8.96	-6184	7769	17403	45199	67076	22848	62601	No	759.41	Si
SLU 45	5.62	-62.48	-322	-263	-365	8.96	8.96	-117	6960	15591	45199	67076	22848	60789	No	166.33	Si
SLU 71	1.69	-3505.26	-19565	-15972	-64	8.96	8.96	-7130	7895	17685	45199	67076	22848	62884	No	981.71	Si
SLU 71	5.62	-108.36	-656	-536	-381	8.96	8.96	-239	6976	15627	45199	67076	22848	60826	No	159.85	Si
SLU 64	1.69	-3505.26	-19565	-15972	-64	8.96	8.96	-7130	7895	17685	45199	67076	22848	62884	No	981.71	Si
SLU 64	5.62	-108.36	-656	-536	-381	8.96	8.96	-239	6976	15627	45199	67076	22848	60826	No	159.85	Si
SLU 50	1.69	-3217.28	-16970	-13853	-82	8.96	8.96	-6184	7769	17403	45199	67076	22848	62601	No	759.41	Si
SLU 50	5.62	-62.48	-322	-263	-365	8.96	8.96	-117	6960	15591	45199	67076	22848	60789	No	166.33	Si
SLU 66	1.69	-3505.26	-19565	-15972	-64	8.96	8.96	-7130	7895	17685	45199	67076	22848	62884	No	981.71	Si
SLU 66	5.62	-108.36	-656	-536	-381	8.96	8.96	-239	6976	15627	45199	67076	22848	60826	No	159.85	Si
SLU 34	1.69	-4204.29	-20819	-16995	389	8.96	8.96	-7587	7956	17822	45199	67076	22848	63020	No	162.14	Si
SLU 34	5.62	-225.73	-1299	-1061	-81	8.96	8.96	-474	7008	15697	45199	67076	22848	60896	No	749.29	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_m = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 12	1.69	8415.07	-16064	-13113	13279	8.96	8.96	-5854	11587	25956	45199	100613	22848	71155		5.36	Si
SLV 12	5.62	-771.93	-708	-578	8074	8.96	8.96	-258	10468	23449	45199	100613	22848	68648		8.5	Si
SLV 11	1.69	8550.12	-16151	-13185	10854	8.96	8.96	-5886	11594	25970	45199	100613	22848	71169		6.56	Si
SLV 11	5.62	-616.95	-688	-561	5648	8.96	8.96	-251	10467	23446	45199	100613	22848	68644		12.15	Si
SLV 5	1.69	-13958.63	-15296	-12487	-13338	8.96	8.96	-5574	11532	25831	45199	100613	22848	71029		5.33	Si
SLV 5	5.62	572.25	-512	-418	-8638	8.96	8.96	-187	10454	23417	45199	100613	22848	68616		7.94	Si
SLV 7	1.69	6973.9	-14024	-11448	10434	8.96	8.96	-5111	11439	25623	45199	100613	22848	70822		6.79	Si
SLV 7	5.62	-642.54	-531	-433	5732	8.96	8.96	-193	10455	23420	45199	100613	22848	68619		11.97	Si
SLV 6	1.69	-14093.68	-15209	-12415	-10913	8.96	8.96	-5542	11525	25816	45199	100613	22848	71015		6.51	Si
SLV 6	5.62	417.28	-533	-435	-6212	8.96	8.96	-194	10455	23420	45199	100613	22848	68619		11.05	Si
SLV 10	1.69	-12517.45	-17336	-14152	-10493	8.96	8.96	-6318	11680	26164	45199	100613	22848	71362		6.8	Si
SLV 10	5.62	442.87	-690	-563	-6296	8.96	8.96	-251	10467	23446	45199	100613	22848	68645		10.9	Si
SLV 16	1.69	2931.03	-18993	-15505	5388	8.96	8.96	-6922	11801	26434	45199	100613	22848	71633		13.3	Si
SLV 16	5.62	-312.98	-885	-722	2884	8.96	8.96	-322	10481	23478	45199	100613	22848	68676		23.81	Si
SLV 8	1.69	6838.85	-13936	-11376	12859	8.96	8.96	-5079	11432	25609	45199	100613	22848	70807		5.51	Si
SLV 8	5.62	-797.52	-551	-450	8158	8.96	8.96	-201	10457	23423	45199	100613	22848	68622		8.41	Si
SLV 9	1.69	-12382.4	-17424	-14223	-12918	8.96	8.96	-6350	11687	26178	45199	100613	22848	71377		5.53	Si
SLV 9	5.62	597.84	-669	-546	-8722	8.96	8.96	-244	10465	23443	45199	100613	22848	68641		7.87	Si
SLV 1	1.69	-8474.58	-12366	-10095	-5447	8.96	8.96	-4507	11318	25352	45199	100613	22848	70551		12.95	Si
SLV 1	5.62	113.3	-336	-274	-3448	8.96	8.96	-122	10441	23388	45199	100613	22848	68587		19.89	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore $8 \gamma_m = 2$

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 9	179667	0.48	0	-9843	1305.24	0	0	No, $e > t/2$
SLV 6	179667	0.48	0	-9398	1305.24	0	0	No, $e > t/2$
SLV 3	179667	0.48	0	-8717	1305.24	0	0	No, $e > t/2$
SLV 10	179667	0.48	0	-9951	1305.24	0	0	No, $e > t/2$
SLV 4	179667	0.48	0	-8820	1305.24	0	0	No, $e > t/2$
SLV 1	179667	0.48	0	-8685	1305.24	0	0	No, $e > t/2$
SLV 8	179667	0.48	0	-9506	1305.24	0	0	No, $e > t/2$
SLV 7	179667	0.48	0	-9398	1305.24	0	0	No, $e > t/2$
SLV 5	179667	0.48	0	-9290	1305.24	0	0	No, $e > t/2$
SLV 2	179667	0.48	0	-8788	1305.24	0	0	No, $e > t/2$

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 é 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 = 3.655 Wa = 0.05 Ta = 0.1032

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 14	-879	-19375	576	5.713	1631.5	0.957	86.758	19.77735	Si
SLV 16	-885	-18993	546	5.713	1631.7	0.957	86.77436	19.77735	Si
SLV 13	-860	-19458	576	5.725	1630.9	0.958	86.88266	19.77735	Si
SLV 15	-865	-19076	546	5.725	1631.1	0.958	86.89911	19.77735	Si
SLV 4	-361	-11902	-577	6.068	1618.3	0.98	90.02884	19.77735	Si
SLV 2	-355	-12283	-547	6.076	1618.2	0.98	90.11637	19.77735	Si
SLV 3	-341	-11985	-577	6.082	1618	0.981	90.14806	19.77735	Si
SLV 1	-336	-12366	-547	6.09	1617.9	0.981	90.23558	19.77735	Si
SLV 10	-690	-17336	218	5.879	1625.7	0.964	88.59282	17.25976	Si
SLV 12	-708	-16064	118	5.878	1626.2	0.964	88.64965	17.25976	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	23.597	SLU 44	Si
V_SLU	159.855	SLU 64	Si
PF_SLV	6.35	SLV 6	Si
V_SLV	5.325	SLV 5	Si
PFFP_SLV	0	SLV 1	No
R_SLV	4.387	SLV 14	Si



Maschio 17

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
-35.332	-13.489	-33.207	-13.489	L2	L3	2.125	0.3	3.93	3.93	3.93			

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 FRM

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

Rinforzo a matrice inorganica

									elim,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	elim,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 FRM 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	1.69	779.11	-20963	-0.0000525	0.0004492	0.0035	2.125	16279.13	18982.14	18982.14	24.36	No	Si
SLU 83	3.79	2119.48	-14018	-0.0000448	0.0004492	0.0035	2.125	12213.54	13569.84	13569.84	6.4	No	Si
SLU 84	1.69	768.77	-21028	-0.0000526	0.0004492	0.0035	2.125	16310.63	19032.26	19032.26	24.76	No	Si
SLU 84	3.79	2120.31	-14038	-0.0000449	0.0004492	0.0035	2.125	12227.22	13585.53	13585.53	6.41	No	Si
SLU 40	1.69	332.61	-18188	-0.0000429	0.0004492	0.0035	2.125	14812.67	16819.77	16819.77	50.57	No	Si
SLU 40	3.79	2216.26	-13074	-0.0000432	0.0004492	0.0035	2.125	11559.36	12834.21	12834.21	5.79	No	Si
SLU 39	1.69	342.95	-18124	-0.0000428	0.0004492	0.0035	2.125	14776.19	16769.65	16769.65	48.9	No	Si
SLU 39	3.79	2215.44	-13054	-0.0000432	0.0004492	0.0035	2.125	11545.14	12818.53	12818.53	5.79	No	Si
SLU 35	1.69	520.04	-16715	-0.0000407	0.0004492	0.0035	2.125	13948.8	15671.83	15671.83	30.14	No	Si
SLU 35	3.79	1774.32	-11390	-0.0000365	0.0004492	0.0035	2.125	10331.94	11493.61	11493.61	6.48	No	Si
SLU 41	1.69	342.95	-18124	-0.0000428	0.0004492	0.0035	2.125	14776.19	16769.65	16769.65	48.9	No	Si
SLU 41	3.79	2215.44	-13054	-0.0000432	0.0004492	0.0035	2.125	11545.14	12818.53	12818.53	5.79	No	Si
SLU 81	1.69	779.11	-20963	-0.0000525	0.0004492	0.0035	2.125	16279.13	18982.14	18982.14	24.36	No	Si
SLU 81	3.79	2119.48	-14018	-0.0000448	0.0004492	0.0035	2.125	12213.54	13569.84	13569.84	6.4	No	Si
SLU 37	1.69	520.04	-16715	-0.0000407	0.0004492	0.0035	2.125	13948.8	15671.83	15671.83	30.14	No	Si
SLU 37	3.79	1774.32	-11390	-0.0000365	0.0004492	0.0035	2.125	10331.94	11493.61	11493.61	6.48	No	Si
SLU 82	1.69	768.77	-21028	-0.0000526	0.0004492	0.0035	2.125	16310.63	19032.26	19032.26	24.76	No	Si
SLU 82	3.79	2120.31	-14038	-0.0000449	0.0004492	0.0035	2.125	12227.22	13585.53	13585.53	6.41	No	Si
SLU 42	1.69	332.61	-18188	-0.0000429	0.0004492	0.0035	2.125	14812.67	16819.77	16819.77	50.57	No	Si
SLU 42	3.79	2216.26	-13074	-0.0000432	0.0004492	0.0035	2.125	11559.36	12834.21	12834.21	5.79	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRM 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 1	1.69	-837.64	-15255	-0.0000388	0.0006738	0.0035	2.125		17243.3	17243.3	20.59		Si
SLV 1	3.79	2897.83	-9877	-0.0000397	0.0006738	0.0035	2.125		10337.52	10337.52	3.57		Si
SLV 15	1.69	2733.05	-10820	-0.0000408	0.0006738	0.0035	2.125		11220.24	11220.24	4.11		Si
SLV 15	3.79	-1474.73	-4564	-0.0000189	0.0006738	0.0035	2.125		7241.31	7241.31	4.91		Si
SLV 4	1.69	-2110.25	-14235	-0.0000446	0.0006738	0.0035	2.125		16327.54	16327.54	7.74		Si
SLV 4	3.79	2284.95	-9204	-0.0000343	0.0006738	0.0035	2.125		9698.57	9698.57	4.24		Si
SLV 2	1.69	-755.6	-15272	-0.0000384	0.0006738	0.0035	2.125		17258.44	17258.44	22.84		Si
SLV 2	3.79	2843.07	-9806	-0.0000392	0.0006738	0.0035	2.125		10271.16	10271.16	3.61		Si
SLV 3	1.69	-2192.29	-14218	-0.0000451	0.0006738	0.0035	2.125		16312.41	16312.41	7.44		Si
SLV 3	3.79	2339.72	-9275	-0.0000348	0.0006738	0.0035	2.125		9765.94	9765.94	4.17		Si
SLV 14	1.69	4169.75	-11873	-0.0000523	0.0006738	0.0035	2.125		12196.09	12196.09	2.92		Si
SLV 14	3.79	-971.37	-5096	-0.000017	0.0006738	0.0035	2.125		7765.56	7765.56	7.99		Si
SLV 13	1.69	4087.7	-11857	-0.0000518	0.0006738	0.0035	2.125		12180.55	12180.55	2.98		Si
SLV 13	3.79	-916.61	-5167	-0.0000168	0.0006738	0.0035	2.125		7835.32	7835.32	8.55		Si
SLV 16	1.69	2815.1	-10837	-0.0000414	0.0006738	0.0035	2.125		11236.02	11236.02	3.99		Si
SLV 16	3.79	-1529.49	-4493	-0.0000191	0.0006738	0.0035	2.125		7170.75	7170.75	4.69		Si
SLV 10	1.69	4028.48	-14273	-0.000057	0.0006738	0.0035	2.125		14376.05	14376.05	3.57		Si
SLV 10	3.79	1013.36	-7446	-0.0000225	0.0006738	0.0035	2.125		8012.98	8012.98	7.91		Si
SLV 9	1.69	3942.08	-14255	-0.0000564	0.0006738	0.0035	2.125		14360.18	14360.18	3.64		Si
SLV 9	3.79	1071.03	-7520	-0.000023	0.0006738	0.0035	2.125		8084.99	8084.99	7.55		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 51	1.69	1602.02	-14482	-10532	3084	2.125	2.125	-16521	10536	6717	129139	22910	10837	33748	No	10.94	Si
SLU 51	3.79	152.99	-6488	-4718	3172	2.125	2.125	-7401	9320	5942	129139	22910	10837	33748	No	10.64	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 45	1.69	1612.36	-14417	-10485	3068	2.125	2.125	-16448	10526	6711	129139	22910	10837	33748	No	11	Si
SLU 45	3.79	152.16	-6468	-4704	3154	2.125	2.125	-7378	9317	5940	129139	22910	10837	33748	No	10.7	Si
SLU 49	1.69	1602.02	-14482	-10532	3084	2.125	2.125	-16521	10536	6717	129139	22910	10837	33748	No	10.94	Si
SLU 49	3.79	152.99	-6488	-4718	3172	2.125	2.125	-7401	9320	5942	129139	22910	10837	33748	No	10.64	Si
SLU 47	1.69	1595.13	-14525	-10563	3095	2.125	2.125	-16570	10543	6721	129139	22910	10837	33748	No	10.9	Si
SLU 47	3.79	153.54	-6501	-4728	3184	2.125	2.125	-7417	9322	5943	129139	22910	10837	33748	No	10.6	Si
SLU 43	1.69	1612.36	-14417	-10485	3068	2.125	2.125	-16448	10526	6711	129139	22910	10837	33748	No	11	Si
SLU 43	3.79	152.16	-6468	-4704	3154	2.125	2.125	-7378	9317	5940	129139	22910	10837	33748	No	10.7	Si
SLU 68	1.69	1352.18	-16374	-11909	2608	2.125	2.125	-18680	10824	6900	129139	22910	10837	33748	No	12.94	Si
SLU 68	3.79	650.5	-8505	-6185	2710	2.125	2.125	-9702	9627	6137	129139	22910	10837	33748	No	12.45	Si
SLU 48	1.69	1612.36	-14417	-10485	3068	2.125	2.125	-16448	10526	6711	129139	22910	10837	33748	No	11	Si
SLU 48	3.79	152.16	-6468	-4704	3154	2.125	2.125	-7378	9317	5940	129139	22910	10837	33748	No	10.7	Si
SLU 44	1.69	1595.13	-14525	-10563	3095	2.125	2.125	-16570	10543	6721	129139	22910	10837	33748	No	10.9	Si
SLU 44	3.79	153.54	-6501	-4728	3184	2.125	2.125	-7417	9322	5943	129139	22910	10837	33748	No	10.6	Si
SLU 46	1.69	1602.02	-14482	-10532	3084	2.125	2.125	-16521	10536	6717	129139	22910	10837	33748	No	10.94	Si
SLU 46	3.79	152.99	-6488	-4718	3172	2.125	2.125	-7401	9320	5942	129139	22910	10837	33748	No	10.64	Si
SLU 50	1.69	1612.36	-14417	-10485	3068	2.125	2.125	-16448	10526	6711	129139	22910	10837	33748	No	11	Si
SLU 50	3.79	152.16	-6468	-4704	3154	2.125	2.125	-7378	9317	5940	129139	22910	10837	33748	No	10.7	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 4	1.69	-2110.25	-14235	-10353	-1708	2.125	2.125	-16240	15748	10039	129139	34365	10837	45203		26.47	Si
SLV 4	3.79	2284.95	-9204	-6694	-797	2.125	2.125	-10500	14600	9307	129139	34365	10837	45203		56.72	Si
SLV 9	1.69	3942.08	-14255	-10367	3956	2.125	2.125	-16263	15753	10042	129139	34365	10837	45203		11.43	Si
SLV 9	3.79	1071.03	-7520	-5469	3743	2.125	2.125	-8579	14216	9063	129139	34365	10837	45203		12.08	Si
SLV 3	1.69	-2192.29	-14218	-10341	-1818	2.125	2.125	-16221	15744	10037	129139	34365	10837	45203		24.87	Si
SLV 3	3.79	2339.72	-9275	-6745	-906	2.125	2.125	-10581	14616	9318	129139	34365	10837	45203		49.87	Si
SLV 13	1.69	4087.7	-11857	-8623	5319	2.125	2.125	-13526	15205	9693	129139	34365	10837	45203		8.5	Si
SLV 13	3.79	-916.61	-5167	-3758	4568	2.125	2.125	-5894	13679	8720	129139	34365	10837	45203		9.9	Si
SLV 10	1.69	4028.48	-14273	-10380	4071	2.125	2.125	-16283	15757	10045	129139	34365	10837	45203		11.1	Si
SLV 10	3.79	1013.36	-7446	-5415	3858	2.125	2.125	-8494	14199	9052	129139	34365	10837	45203		11.72	Si
SLV 16	1.69	2815.1	-10837	-7881	4678	2.125	2.125	-12363	14973	9545	129139	34365	10837	45203		9.66	Si
SLV 16	3.79	-1529.49	-4493	-3268	3956	2.125	2.125	-5126	13525	8622	129139	34365	10837	45203		11.43	Si
SLV 5	1.69	2464.47	-15275	-11109	2040	2.125	2.125	-17426	15985	10191	129139	34365	10837	45203		22.16	Si
SLV 5	3.79	2215.36	-8933	-6497	2317	2.125	2.125	-10191	14538	9268	129139	34365	10837	45203		19.51	Si
SLV 6	1.69	2550.88	-15292	-11122	2156	2.125	2.125	-17446	15989	10193	129139	34365	10837	45203		20.97	Si
SLV 6	3.79	2157.69	-8859	-6443	2432	2.125	2.125	-10106	14521	9257	129139	34365	10837	45203		18.58	Si
SLV 15	1.69	2733.05	-10820	-7869	4569	2.125	2.125	-12343	14969	9543	129139	34365	10837	45203		9.89	Si
SLV 15	3.79	-1474.73	-4564	-3319	3847	2.125	2.125	-5207	13541	8633	129139	34365	10837	45203		11.75	Si
SLV 14	1.69	4169.75	-11873	-8635	5429	2.125	2.125	-13545	15209	9696	129139	34365	10837	45203		8.33	Si
SLV 14	3.79	-971.37	-5096	-3706	4678	2.125	2.125	-5813	13663	8710	129139	34365	10837	45203		9.66	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRM D.M. 17-01-18 (N.T.C.)

quota 3.655 Ta 0.09 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 16	-4498	0.48	378.2	648.75	1028.38	838.56	2.22	Si
SLV 15	-4569	0.48	378.2	658.55	1040.04	849.29	2.25	Si
SLV 14	-5168	0.48	378.2	740.96	1138.63	939.8	2.48	Si
SLV 13	-5239	0.48	378.2	750.64	1150.28	950.46	2.51	Si
SLV 12	-5351	0.48	378.2	765.91	1168.65	967.28	2.56	Si
SLV 11	-5426	0.48	378.2	776.07	1180.9	978.49	2.59	Si
SLV 8	-6754	0.48	378.2	954.55	1397.57	1176.06	3.11	Si
SLV 7	-6829	0.48	378.2	964.44	1409.73	1187.09	3.14	Si
SLV 10	-7585	0.48	378.2	1063.91	1532.9	1298.41	3.43	Si
SLV 9	-7660	0.48	378.2	1073.64	1545.05	1309.34	3.46	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 1	-4577	-15255	30	1.794	834	0.9	28.94731	18.92268	Si
SLV 2	-4570	-15272	30	1.795	833.4	0.9	28.97739	18.92268	Si
SLV 3	-4555	-14218	-55	1.796	831.9	0.9	28.98569	18.92268	Si
SLV 4	-4548	-14235	-55	1.797	831.2	0.9	29.01706	18.92268	Si
SLV 13	-4023	-11857	55	1.944	780.1	0.897	31.50868	18.92268	Si
SLV 14	-4016	-11873	55	1.946	779.4	0.897	31.54423	18.92268	Si
SLV 15	-4001	-10820	-30	1.955	777.9	0.897	31.68864	18.92268	Si
SLV 16	-3994	-10837	-30	1.957	777.2	0.897	31.72578	18.92268	Si
SLV 5	-4409	-15275	138	1.821	817.6	0.899	29.43536	13.88289	Si
SLV 6	-4402	-15292	138	1.823	816.9	0.899	29.46836	13.88289	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	5.786	SLU 39	Si
V_SLU	10.601	SLU 44	Si
PF_SLV	2.925	SLV 14	Si
V_SLV	8.327	SLV 14	Si
PFFP_SLV	2.217	SLV 16	Si
R_SLV	1.53	SLV 1	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-32.407	-13.489	-32.087	-13.489	L2	L3	0.32	0.3	3.93	3.93	3.93			

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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	$\varepsilon_f d$	$\gamma_F d$	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	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLU 44	1.69	50.51	-3068	-0.0000608	0.0004492	0.0035	0.32	362.52	423.26	423.26	8.38	No	Si
SLU 44	3.79	-50	-2582	-0.0000528	0.0004492	0.0035	0.32	322.23	405.72	405.72	8.11	No	Si
SLU 43	1.69	50.45	-3061	-0.0000607	0.0004492	0.0035	0.32	361.92	422.25	422.25	8.37	No	Si
SLU 43	3.79	-49.93	-2575	-0.0000527	0.0004492	0.0035	0.32	321.52	404.78	404.78	8.11	No	Si
SLU 47	1.69	50.51	-3068	-0.0000608	0.0004492	0.0035	0.32	362.52	423.26	423.26	8.38	No	Si
SLU 47	3.79	-50	-2582	-0.0000528	0.0004492	0.0035	0.32	322.23	405.72	405.72	8.11	No	Si
SLU 50	1.69	50.45	-3061	-0.0000607	0.0004492	0.0035	0.32	361.92	422.25	422.25	8.37	No	Si
SLU 50	3.79	-49.93	-2575	-0.0000527	0.0004492	0.0035	0.32	321.52	404.78	404.78	8.11	No	Si
SLU 49	1.69	50.48	-3065	-0.0000608	0.0004492	0.0035	0.32	362.28	422.86	422.86	8.38	No	Si
SLU 49	3.79	-49.97	-2579	-0.0000528	0.0004492	0.0035	0.32	321.94	405.34	405.34	8.11	No	Si
SLU 51	1.69	50.48	-3065	-0.0000608	0.0004492	0.0035	0.32	362.28	422.86	422.86	8.38	No	Si
SLU 51	3.79	-49.97	-2579	-0.0000528	0.0004492	0.0035	0.32	321.94	405.34	405.34	8.11	No	Si
SLU 48	1.69	50.45	-3061	-0.0000607	0.0004492	0.0035	0.32	361.92	422.25	422.25	8.37	No	Si
SLU 48	3.79	-49.93	-2575	-0.0000527	0.0004492	0.0035	0.32	321.52	404.78	404.78	8.11	No	Si
SLU 46	1.69	50.48	-3065	-0.0000608	0.0004492	0.0035	0.32	362.28	422.86	422.86	8.38	No	Si
SLU 46	3.79	-49.97	-2579	-0.0000528	0.0004492	0.0035	0.32	321.94	405.34	405.34	8.11	No	Si
SLU 45	1.69	50.45	-3061	-0.0000607	0.0004492	0.0035	0.32	361.92	422.25	422.25	8.37	No	Si
SLU 45	3.79	-49.93	-2575	-0.0000527	0.0004492	0.0035	0.32	321.52	404.78	404.78	8.11	No	Si
SLU 1	1.69	38.59	-2500	-0.0000482	0.0004492	0.0035	0.32	314.71	350.9	350.9	9.09	No	Si
SLU 1	3.79	-37.9	-2123	-0.0000421	0.0004492	0.0035	0.32	278.15	348.74	348.74	9.2	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	em	em_	emu	df	M0d	M1d	MRd	c.s.	Incremento > 50%	Verifica
SLV 1	1.69	-59.16	-3065	-0.000062	0.0006738	0.0035	0.32		479.25	479.25	8.1		Si
SLV 1	3.79	12.93	-2822	-0.0000451	0.0006738	0.0035	0.32		401.5	401.5	31.05		Si
SLV 14	1.69	129.53	-2250	-0.0000695	0.0006738	0.0035	0.32		328.2	328.2	2.53		Si
SLV 14	3.79	-84.69	-1731	-0.0000487	0.0006738	0.0035	0.32		303.08	303.08	3.58		Si
SLV 2	1.69	-56.76	-3060	-0.0000612	0.0006738	0.0035	0.32		478.68	478.68	8.43		Si
SLV 2	3.79	10.41	-2817	-0.0000443	0.0006738	0.0035	0.32		400.91	400.91	38.51		Si
SLV 13	1.69	127.13	-2255	-0.0000689	0.0006738	0.0035	0.32		328.8	328.8	2.59		Si
SLV 13	3.79	-82.16	-1736	-0.000048	0.0006738	0.0035	0.32		303.73	303.73	3.7		Si
SLV 15	1.69	131.72	-2869	-0.0000798	0.0006738	0.0035	0.32		407.54	407.54	3.09		Si
SLV 15	3.79	-82.17	-2350	-0.0000575	0.0006738	0.0035	0.32		387.3	387.3	4.71		Si
SLV 16	1.69	134.12	-2864	-0.0000804	0.0006738	0.0035	0.32		406.94	406.94	3.03		Si
SLV 16	3.79	-84.69	-2346	-0.0000581	0.0006738	0.0035	0.32		386.68	386.68	4.57		Si
SLV 11	1.69	71.8	-3868	-0.0000783	0.0006738	0.0035	0.32		535.77	535.77	7.46		Si
SLV 11	3.79	-48.82	-3447	-0.000065	0.0006738	0.0035	0.32		526.24	526.24	10.78		Si
SLV 10	1.69	59.05	-1817	-0.0000428	0.0006738	0.0035	0.32		272.67	272.67	4.62		Si
SLV 10	3.79	-51.47	-1394	-0.0000343	0.0006738	0.0035	0.32		255.78	255.78	4.97		Si
SLV 12	1.69	74.33	-3864	-0.000079	0.0006738	0.0035	0.32		535.14	535.14	7.2		Si
SLV 12	3.79	-51.48	-3442	-0.0000657	0.0006738	0.0035	0.32		525.64	525.64	10.21		Si
SLV 9	1.69	56.52	-1822	-0.0000422	0.0006738	0.0035	0.32		273.3	273.3	4.84		Si
SLV 9	3.79	-48.81	-1399	-0.0000337	0.0006738	0.0035	0.32		256.49	256.49	5.25		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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 45	1.69	50.45	-3061	-2226	48	0.32	0.32	-23186	10833	1040	129139	3450	1632	5082	No	106.33	Si
SLU 45	3.79	-49.93	-2575	-1872	48	0.32	0.32	-19504	10833	1040	129139	3450	1632	5082	No	106.33	Si
SLU 46	1.69	50.48	-3065	-2229	48	0.32	0.32	-23222	10833	1040	129139	3450	1632	5082	No	106.24	Si
SLU 46	3.79	-49.97	-2579	-1876	48	0.32	0.32	-19540	10833	1040	129139	3450	1632	5082	No	106.24	Si
SLU 43	1.69	50.45	-3061	-2226	48	0.32	0.32	-23186	10833	1040	129139	3450	1632	5082	No	106.33	Si
SLU 43	3.79	-49.93	-2575	-1872	48	0.32	0.32	-19504	10833	1040	129139	3450	1632	5082	No	106.33	Si
SLU 50	1.69	50.45	-3061	-2226	48	0.32	0.32	-23186	10833	1040	129139	3450	1632	5082	No	106.33	Si
SLU 50	3.79	-49.93	-2575	-1872	48	0.32	0.32	-19504	10833	1040	129139	3450	1632	5082	No	106.33	Si
SLU 48	1.69	50.45	-3061	-2226	48	0.32	0.32	-23186	10833	1040	129139	3450	1632	5082	No	106.33	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 48	3.79	-49.93	-2575	-1872	48	0.32	0.32	-19504	10833	1040	129139	3450	1632	5082	No	106.33	Si
SLU 68	1.69	49.67	-3620	-2632	47	0.32	0.32	-27421	10833	1040	129139	3450	1632	5082	No	109.17	Si
SLU 68	3.79	-48.08	-3121	-2270	47	0.32	0.32	-23646	10833	1040	129139	3450	1632	5082	No	109.17	Si
SLU 44	1.69	50.51	-3068	-2232	48	0.32	0.32	-23246	10833	1040	129139	3450	1632	5082	No	106.18	Si
SLU 44	3.79	-50	-2582	-1878	48	0.32	0.32	-19564	10833	1040	129139	3450	1632	5082	No	106.18	Si
SLU 49	1.69	50.48	-3065	-2229	48	0.32	0.32	-23222	10833	1040	129139	3450	1632	5082	No	106.24	Si
SLU 49	3.79	-49.97	-2579	-1876	48	0.32	0.32	-19540	10833	1040	129139	3450	1632	5082	No	106.24	Si
SLU 47	1.69	50.51	-3068	-2232	48	0.32	0.32	-23246	10833	1040	129139	3450	1632	5082	No	106.18	Si
SLU 47	3.79	-50	-2582	-1878	48	0.32	0.32	-19564	10833	1040	129139	3450	1632	5082	No	106.18	Si
SLU 51	1.69	50.48	-3065	-2229	48	0.32	0.32	-23222	10833	1040	129139	3450	1632	5082	No	106.24	Si
SLU 51	3.79	-49.97	-2579	-1876	48	0.32	0.32	-19540	10833	1040	129139	3450	1632	5082	No	106.24	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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 13	1.69	127.13	-2255	-1640	111	0.32	0.3108	-17082	15916	1484	129139	5175	1632	6807		61.06	Si
SLV 13	3.79	-82.16	-1736	-1262	42	0.32	0.32	-13151	15130	1452	129139	5175	1632	6807		163.58	Si
SLV 16	1.69	134.12	-2864	-2083	115	0.32	0.32	-21697	16250	1560	129139	5175	1632	6807		58.99	Si
SLV 16	3.79	-84.69	-2346	-1706	46	0.32	0.32	-17770	16054	1541	129139	5175	1632	6807		146.51	Si
SLV 9	1.69	56.52	-1822	-1325	55	0.32	0.32	-13804	15261	1465	129139	5175	1632	6807		124.62	Si
SLV 9	3.79	-48.81	-1399	-1018	32	0.32	0.32	-10600	14620	1404	129139	5175	1632	6807		211.03	Si
SLV 3	1.69	-54.57	-3678	-2675	-44	0.32	0.32	-27867	16250	1560	129139	5175	1632	6807		154.86	Si
SLV 3	3.79	12.93	-3436	-2499	26	0.32	0.32	-26031	16250	1560	129139	5175	1632	6807		262.73	Si
SLV 15	1.69	131.72	-2869	-2086	113	0.32	0.32	-21733	16250	1560	129139	5175	1632	6807		60.21	Si
SLV 15	3.79	-82.17	-2350	-1709	44	0.32	0.32	-17805	16061	1542	129139	5175	1632	6807		154.3	Si
SLV 1	1.69	-59.16	-3065	-2229	-46	0.32	0.32	-23216	16250	1560	129139	5175	1632	6807		149.5	Si
SLV 1	3.79	12.93	-2822	-2052	23	0.32	0.32	-21376	16250	1560	129139	5175	1632	6807		290.83	Si
SLV 14	1.69	129.53	-2250	-1636	114	0.32	0.3073	-17046	15909	1467	129139	5175	1632	6807		59.8	Si
SLV 14	3.79	-84.69	-1731	-1259	44	0.32	0.32	-13115	15123	1452	129139	5175	1632	6807		154.86	Si
SLV 10	1.69	59.05	-1817	-1322	57	0.32	0.32	-13767	15253	1464	129139	5175	1632	6807		119.23	Si
SLV 10	3.79	-51.47	-1394	-1014	35	0.32	0.32	-10563	14613	1403	129139	5175	1632	6807		196.02	Si
SLV 12	1.69	74.33	-3864	-2810	62	0.32	0.32	-29269	16250	1560	129139	5175	1632	6807		109.19	Si
SLV 12	3.79	-51.48	-3442	-2504	43	0.32	0.32	-26079	16250	1560	129139	5175	1632	6807		158.04	Si
SLV 11	1.69	71.8	-3868	-2813	60	0.32	0.32	-29306	16250	1560	129139	5175	1632	6807		113.69	Si
SLV 11	3.79	-48.82	-3447	-2507	41	0.32	0.32	-26116	16250	1560	129139	5175	1632	6807		167.65	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRCC D.M. 17-01-18 (N.T.C.)

quota 3.655 Ta 0.09 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 10	-1394	0.48	56.95	192.57	258.35	225.46	3.96	Si
SLV 9	-1399	0.48	56.95	193.19	259.14	226.17	3.97	Si
SLV 6	-1720	0.48	56.95	232.78	310.97	271.88	4.77	Si
SLV 5	-1725	0.48	56.95	233.37	311.76	272.57	4.79	Si
SLV 14	-1731	0.48	56.95	234.13	312.77	273.45	4.8	Si
SLV 13	-1736	0.48	56.95	234.69	313.51	274.1	4.81	Si
SLV 16	-2346	0.48	56.95	304.94	410.79	357.87	6.28	Si
SLV 15	-2350	0.48	56.95	305.45	411.53	358.49	6.29	Si
SLV 2	-2817	0.48	56.95	354.9	485.15	420.02	7.37	Si
SLV 1	-2822	0.48	56.95	355.37	485.88	420.63	7.39	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 3	-707	-3678	-31	1.739	127.3	0.901	28.03733	18.92268	Si
SLV 4	-706	-3674	-31	1.739	127.3	0.901	28.04363	18.92268	Si
SLV 1	-705	-3065	28	1.744	127.2	0.901	28.12872	18.92268	Si
SLV 2	-705	-3060	28	1.745	127.2	0.901	28.13504	18.92268	Si
SLV 15	-677	-2869	-29	1.791	124.4	0.9	28.93047	18.92268	Si
SLV 16	-676	-2864	-29	1.792	124.3	0.9	28.93716	18.92268	Si
SLV 13	-675	-2255	30	1.793	124.2	0.9	28.95276	18.92268	Si
SLV 14	-675	-2250	30	1.793	124.2	0.9	28.95945	18.92268	Si
SLV 7	-698	-4111	-99	1.688	126.4	0.901	27.23346	13.88289	Si
SLV 8	-697	-4106	-99	1.688	126.4	0.901	27.23995	13.88289	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	8.108	SLU 43	Si
V_SLU	106.184	SLU 44	Si
PF_SLV	2.534	SLV 14	Si
V_SLV	58.989	SLV 16	Si
PFFP_SLV	3.959	SLV 10	Si
R_SLV	1.482	SLV 3	Si

Maschio 19

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	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-35.267	-17.999	-34.232	-17.999	L2	L3	1.035	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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, $\gamma M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 33	2.69	-592.74	-3132	-0.0000323	0.0003743	0.0035	1.0346	1459.58	1739.18	1739.18	2.93	No	Si
SLU 33	4.59	845.44	-4306	-0.0000461	0.0003743	0.0035	1.0346	1924.04	2011.94	2011.94	2.38	No	Si
SLU 73	2.69	-707.62	-3615	-0.0000383	0.0003743	0.0035	1.0346	1656.05	1949.5	1949.5	2.76	No	Si
SLU 73	4.59	940.4	-4752	-0.0000514	0.0003743	0.0035	1.0346	2088.5	2184.78	2184.78	2.32	No	Si
SLU 42	2.69	-654.07	-3429	-0.0000356	0.0003743	0.0035	1.0346	1581.37	1868.86	1868.86	2.86	No	Si
SLU 42	4.59	965.95	-4919	-0.0000531	0.0003743	0.0035	1.0346	2148.4	2250.26	2250.26	2.33	No	Si
SLU 34	2.69	-659.97	-3096	-0.0000345	0.0003743	0.0035	1.0346	1444.66	1723.41	1723.41	2.61	No	Si
SLU 34	4.59	887.51	-4414	-0.0000481	0.0003743	0.0035	1.0346	1964.49	2053.56	2053.56	2.31	No	Si
SLU 84	2.69	-701.71	-3948	-0.0000396	0.0003743	0.0035	1.0346	1787.1	2092.53	2092.53	2.98	No	Si
SLU 84	4.59	1018.84	-5256	-0.0000565	0.0003743	0.0035	1.0346	2266.83	2384.04	2384.04	2.34	No	Si
SLU 76	2.69	-707.62	-3615	-0.0000383	0.0003743	0.0035	1.0346	1656.05	1949.5	1949.5	2.76	No	Si
SLU 76	4.59	940.4	-4752	-0.0000514	0.0003743	0.0035	1.0346	2088.5	2184.78	2184.78	2.32	No	Si
SLU 31	2.69	-659.97	-3096	-0.0000345	0.0003743	0.0035	1.0346	1444.66	1723.41	1723.41	2.61	No	Si
SLU 31	4.59	887.51	-4414	-0.0000481	0.0003743	0.0035	1.0346	1964.49	2053.56	2053.56	2.31	No	Si
SLU 40	2.69	-654.07	-3429	-0.0000356	0.0003743	0.0035	1.0346	1581.37	1868.86	1868.86	2.86	No	Si
SLU 40	4.59	965.95	-4919	-0.0000531	0.0003743	0.0035	1.0346	2148.4	2250.26	2250.26	2.33	No	Si
SLU 36	2.69	-592.74	-3132	-0.0000323	0.0003743	0.0035	1.0346	1459.58	1739.18	1739.18	2.93	No	Si
SLU 36	4.59	845.44	-4306	-0.0000461	0.0003743	0.0035	1.0346	1924.04	2011.94	2011.94	2.38	No	Si
SLU 82	2.69	-701.71	-3948	-0.0000396	0.0003743	0.0035	1.0346	1787.1	2092.53	2092.53	2.98	No	Si
SLU 82	4.59	1018.84	-5256	-0.0000565	0.0003743	0.0035	1.0346	2266.83	2384.04	2384.04	2.34	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, $\gamma M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 3	2.69	-1049.36	-1869	-0.0004041	0.0005615	0.0035	0.8277		1174.26	1174.26	1.12		Si
SLV 3	4.59	1034.54	-3611	-0.0000531	0.0005615	0.0035	1.0346		1826.38	1826.38	1.77		Si
SLV 7	2.69	-1171.13	-1467	-0.0010794	0.0005615	0.0035	0.8277		978.99	978.99	0.84		No
SLV 7	4.59	1039.69	-3776	-0.0000531	0.0005615	0.0035	1.0346		1902.31	1902.31	1.83		Si
SLV 11	2.69	-821.13	-1733	-0.0001196	0.0005615	0.0035	0.8277		1108.53	1108.53	1.35		Si
SLV 11	4.59	742.49	-3262	-0.0000378	0.0005615	0.0035	1.0346		1665.74	1665.74	2.24		Si
SLV 12	2.69	-1009.79	-1345	-0.0007914	0.0005615	0.0035	0.8277		919.09	919.09	0.91		No
SLV 12	4.59	925.29	-3623	-0.0000467	0.0005615	0.0035	1.0346		1831.77	1831.77	1.98		Si
SLV 9	2.69	707.1	-3792	-0.0000385	0.0005615	0.0035	1.0346		1909.63	1909.63	2.7		Si
SLV 9	4.59	-276.11	-1050	-0.0000136	0.0005615	0.0035	1.0346		773.42	773.42	2.8		Si
SLV 4	2.69	-1228.5	-1501	-0.0012027	0.0005615	0.0035	0.8277		995.49	995.49	0.81		No
SLV 4	4.59	1208.12	-3953	-0.0000639	0.0005615	0.0035	1.0346		1982.36	1982.36	1.64		Si
SLV 2	2.69	-770.04	-2119	-0.0000463	0.0005615	0.0035	0.8277		1294.58	1294.58	1.68		Si
SLV 2	4.59	902.54	-3290	-0.0000457	0.0005615	0.0035	1.0346		1678.54	1678.54	1.86		Si
SLV 8	2.69	-1359.8	-1080	-0.0021918	0.0005615	0.0035	0.8277		788.25	788.25	0.58		No
SLV 8	4.59	1222.5	-4137	-0.0000638	0.0005615	0.0035	1.0346		2064.93	2064.93	1.69		Si
SLV 1	2.69	-590.89	-2487	-0.0000296	0.0005615	0.0035	1.0346		1468.55	1468.55	2.49		Si
SLV 1	4.59	728.96	-2947	-0.0000366	0.0005615	0.0035	1.0346		1518.83	1518.83	2.08		Si
SLV 13	2.69	575.8	-3371	-0.0000325	0.0005615	0.0035	1.0346		1716.16	1716.16	2.98		Si
SLV 13	4.59	-261.73	-1234	-0.0000133	0.0005615	0.0035	1.0346		863.98	863.98	3.3		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 83	2.69	-600.87	-4002	-3370	-1604	1.0346	1.0346	-10857	8392	2605	45199	9294	2638	11932	No	7.44	Si
SLU 83	4.59	955.74	-5094	-4290	-1600	1.0346	0.9891	-13822	8787	2607	45199	9294	2638	11932	No	7.46	Si
SLU 34	2.69	-659.97	-3096	-2607	-1559	1.0346	0.9124	-9591	8223	2251	45199	9294	2638	11932	No	7.65	Si
SLU 34	4.59	887.51	-4414	-3717	-1576	1.0346	0.9487	-11976	8541	2431	45199	9294	2638	11932	No	7.57	Si
SLU 82	2.69	-701.71	-3948	-3325	-1751	1.0346	1.0187	-10711	8373	2559	45199	9294	2638	11932	No	6.81	Si
SLU 82	4.59	1018.84	-5256	-4426	-1759	1.0346	0.9704	-14261	8846	2575	45199	9294	2638	11932	No	6.78	Si
SLU 31	2.69	-659.97	-3096	-2607	-1559	1.0346	0.9124	-9591	8223	2251	45199	9294	2638	11932	No	7.65	Si
SLU 31	4.59	887.51	-4414	-3717	-1576	1.0346	0.9487	-11976	8541	2431	45199	9294	2638	11932	No	7.57	Si
SLU 73	2.69	-707.62	-3615	-3044	-1656	1.0346	0.9646	-9808	8252	2388	45199	9294	2638	11932	No	7.2	Si
SLU 73	4.59	940.4	-4752	-4002	-1673	1.0346	0.9582	-12892	8663	2490	45199	9294	2638	11932	No	7.13	Si
SLU 84	2.69	-701.71	-3948	-3325	-1751	1.0346	1.0187	-10711	8373	2559	45199	9294	2638	11932	No	6.81	Si
SLU 84	4.59	1018.84	-5256	-4426	-1759	1.0346	0.9704	-14261	8846	2575	45199	9294	2638	11932	No	6.78	Si
SLU 76	2.69	-707.62	-3615	-3044	-1656	1.0346	0.9646	-9808	8252	2388	45199	9294	2638	11932	No	7.2	Si
SLU 76	4.59	940.4	-4752	-4002	-1673	1.0346	0.9582	-12892	8663	2490	45199	9294	2638	11932	No	7.13	Si
SLU 40	2.69	-654.07	-3429	-2888	-1654	1.0346	0.9797	-9304	8185	2406	45199	9294	2638	11932	No	7.21	Si
SLU 40	4.59	965.95	-4919	-4142	-1663	1.0346	0.9628	-13345	8724	2520	45199	9294	2638	11932	No	7.18	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 42	2.69	-654.07	-3429	-2888	-1654	1.0346	0.9797	-9304	8185	2406	45199	9294	2638	11932	No	7.21	Si
SLU 42	4.59	965.95	-4919	-4142	-1663	1.0346	0.9628	-13345	8724	2520	45199	9294	2638	11932	No	7.18	Si
SLU 81	2.69	-600.87	-4002	-3370	-1604	1.0346	1.0346	-10857	8392	2605	45199	9294	2638	11932	No	7.44	Si
SLU 81	4.59	955.74	-5094	-4290	-1600	1.0346	0.9891	-13822	8787	2607	45199	9294	2638	11932	No	7.46	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 8	2.69	-1359.8	-1080	-910	-2840	0.8277	0	0	0	0	45199	11153	2111	13264		4.67	Si
SLV 8	4.59	1222.5	-4137	-3484	-2574	1.0346	0.6654	-11224	12662	2527	45199	13941	2638	16579		6.44	Si
SLV 9	2.69	707.1	-3792	-3194	1214	1.0346	0.9925	-10289	12475	3714	45199	13941	2638	16579		13.66	Si
SLV 9	4.59	-276.11	-1050	-884	953	1.0346	0.763	-3868	11190	2562	45199	13941	2638	16579		17.4	Si
SLV 12	2.69	-1009.79	-1345	-1133	-2052	0.8277	0	0	0	0	45199	11153	2111	13264		6.47	Si
SLV 12	4.59	925.29	-3623	-3051	-2052	1.0346	0.7857	-9829	12383	2919	45199	13941	2638	16579		8.08	Si
SLV 7	2.69	-1171.13	-1467	-1236	-2415	0.8277	0	0	0	0	45199	11153	2111	13264		5.49	Si
SLV 7	4.59	1039.69	-3776	-3180	-2149	1.0346	0.726	-10246	12466	2715	45199	13941	2638	16579		7.71	Si
SLV 11	2.69	-821.13	-1733	-1459	-1627	0.8277	0.1302	0	0	0	45199	11153	2111	13264		8.15	Si
SLV 11	4.59	742.49	-3262	-2747	-1627	1.0346	0.8691	-8851	12187	3178	45199	13941	2638	16579		10.19	Si
SLV 4	2.69	-1228.5	-1501	-1264	-2755	0.8277	0	0	0	0	45199	11153	2111	13264		4.81	Si
SLV 4	4.59	1208.12	-3953	-3329	-2269	1.0346	0.6351	-10726	12562	2394	45199	13941	2638	16579		7.31	Si
SLV 2	2.69	-770.04	-2119	-1785	-1903	0.8277	0.4618	0	0	0	45199	11153	2111	13264		6.97	Si
SLV 2	4.59	902.54	-3290	-2770	-1495	1.0346	0.7288	-8925	12202	2668	45199	13941	2638	16579		11.09	Si
SLV 3	2.69	-1049.36	-1869	-1574	-2352	0.8277	0	0	0	0	45199	11153	2111	13264		5.64	Si
SLV 3	4.59	1034.54	-3611	-3041	-1866	1.0346	0.6924	-9797	12376	2571	45199	13941	2638	16579		8.88	Si
SLV 1	2.69	-590.89	-2487	-2094	-1500	1.0346	0.8391	-8350	12087	3043	45199	13941	2638	16579		11.06	Si
SLV 1	4.59	728.96	-2947	-2482	-1092	1.0346	0.8099	-7997	12016	2920	45199	13941	2638	16579		15.18	Si
SLV 13	2.69	575.8	-3371	-2839	1129	1.0346	1.0346	-9147	12246	3801	45199	13941	2638	16579		14.69	Si
SLV 13	4.59	-261.73	-1234	-1039	648	1.0346	0.9154	-3784	11173	3068	45199	13941	2638	16579		25.58	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 13	179667	0.48	6179	-1918	179.64	276.02	1.54	Si
SLV 14	179667	0.48	6406	-1988	179.64	285.72	1.59	Si
SLV 9	179667	0.48	6613	-2053	179.64	294.55	1.64	Si
SLV 15	179667	0.48	6698	-2079	179.64	298.17	1.66	Si
SLV 10	179667	0.48	6852	-2127	179.64	304.71	1.7	Si
SLV 16	179667	0.48	6925	-2149	179.64	307.8	1.71	Si
SLV 5	179667	0.48	7510	-2331	179.64	332.46	1.85	Si
SLV 6	179667	0.48	7749	-2405	179.64	342.49	1.91	Si
SLV 11	179667	0.48	8345	-2590	179.64	367.29	2.04	Si
SLV 12	179667	0.48	8584	-2664	179.64	377.19	2.1	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 4	-1420	-4647	-133	2.311	328.2	0.891	37.70891	18.92268	Si
SLV 3	-1372	-4766	-133	2.354	323.7	0.89	38.43998	18.92268	Si
SLV 2	-1326	-3893	-83	2.419	319.4	0.89	39.50492	18.92268	Si
SLV 1	-1279	-4011	-83	2.466	315	0.889	40.29665	18.92268	Si
SLV 16	-979	-2753	80	2.818	287.8	0.889	46.05627	18.92268	Si
SLV 15	-931	-2872	80	2.883	283.5	0.89	47.10566	18.92268	Si
SLV 14	-886	-1999	130	2.923	279.6	0.89	47.73747	18.92268	Si
SLV 13	-838	-2118	130	2.994	275.4	0.891	48.86204	18.92268	Si
SLV 8	-1375	-4861	-116	2.358	324	0.89	38.49485	13.88289	Si
SLV 7	-1325	-4986	-117	2.406	319.3	0.89	39.294	13.88289	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	2.314	SLU 31	Si
V_SLU	6.783	SLU 82	Si
PF_SLV	0.58	SLV 8	No
V_SLV	4.67	SLV 8	Si
PFFP_SLV	1.537	SLV 13	Si
R_SLV	1.993	SLV 4	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-33.232	-17.999	-30.572	-17.999	L2	L3	2.66	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	ϵ_{fd}	$\gamma_{f,d}$	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, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 2	2.69	893.8	-5313	-0.0000138	0.0003743	0.0035	2.66	6603.8	7070.32	7070.32	7.91	No	Si
SLU 2	4.59	-605.49	-2454	-0.0000071	0.0003743	0.0035	2.66	3165.25	5090.32	5090.32	8.41	No	Si
SLU 51	2.69	1171.99	-6786	-0.0000178	0.0003743	0.0035	2.66	8271.16	8815.33	8815.33	7.52	No	Si
SLU 51	4.59	-854.1	-3092	-0.0000093	0.0003743	0.0035	2.66	3956	5877.8	5877.8	6.88	No	Si
SLU 49	2.69	1171.99	-6786	-0.0000178	0.0003743	0.0035	2.66	8271.16	8815.33	8815.33	7.52	No	Si
SLU 49	4.59	-854.1	-3092	-0.0000093	0.0003743	0.0035	2.66	3956	5877.8	5877.8	6.88	No	Si
SLU 45	2.69	1178.11	-7133	-0.0000185	0.0003743	0.0035	2.66	8654.23	9220.32	9220.32	7.83	No	Si
SLU 45	4.59	-907.2	-3440	-0.0000102	0.0003743	0.0035	2.66	4381.09	6305.25	6305.25	6.95	No	Si
SLU 44	2.69	1167.92	-6554	-0.0000173	0.0003743	0.0035	2.66	8013.59	8545.11	8545.11	7.32	No	Si
SLU 44	4.59	-818.7	-2860	-0.0000088	0.0003743	0.0035	2.66	3670.41	5594.42	5594.42	6.83	No	Si
SLU 48	2.69	1178.11	-7133	-0.0000185	0.0003743	0.0035	2.66	8654.23	9220.32	9220.32	7.83	No	Si
SLU 48	4.59	-907.2	-3440	-0.0000102	0.0003743	0.0035	2.66	4381.09	6305.25	6305.25	6.95	No	Si
SLU 47	2.69	1167.92	-6554	-0.0000173	0.0003743	0.0035	2.66	8013.59	8545.11	8545.11	7.32	No	Si
SLU 47	4.59	-818.7	-2860	-0.0000088	0.0003743	0.0035	2.66	3670.41	5594.42	5594.42	6.83	No	Si
SLU 50	2.69	1178.11	-7133	-0.0000185	0.0003743	0.0035	2.66	8654.23	9220.32	9220.32	7.83	No	Si
SLU 50	4.59	-907.2	-3440	-0.0000102	0.0003743	0.0035	2.66	4381.09	6305.25	6305.25	6.95	No	Si
SLU 43	2.69	1178.11	-7133	-0.0000185	0.0003743	0.0035	2.66	8654.23	9220.32	9220.32	7.83	No	Si
SLU 43	4.59	-907.2	-3440	-0.0000102	0.0003743	0.0035	2.66	4381.09	6305.25	6305.25	6.95	No	Si
SLU 46	2.69	1171.99	-6786	-0.0000178	0.0003743	0.0035	2.66	8271.16	8815.33	8815.33	7.52	No	Si
SLU 46	4.59	-854.1	-3092	-0.0000093	0.0003743	0.0035	2.66	3956	5877.8	5877.8	6.88	No	Si

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

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 3	2.69	-2062.82	-6434	-0.0000207	0.0005615	0.0035	2.66		10045.67	10045.67	4.87		Si
SLV 3	4.59	1625.55	-3859	-0.000014	0.0005615	0.0035	2.66		5356.45	5356.45	3.3		Si
SLV 13	2.69	4807.23	-7990	-0.0000368	0.0005615	0.0035	2.66		10436.08	10436.08	2.17		Si
SLV 13	4.59	-3880.68	-4810	-0.0000306	0.0005615	0.0035	2.128		8068.84	8068.84	2.08		Si
SLV 15	2.69	4042.75	-5810	-0.0000306	0.0005615	0.0035	2.66		7787.21	7787.21	1.93		Si
SLV 15	4.59	-3724.49	-3032	-0.0000815	0.0005615	0.0035	2.128		5837.41	5837.41	1.57		Si
SLV 4	2.69	-3025.7	-6409	-0.0000248	0.0005615	0.0035	2.66		10015.21	10015.21	3.31		Si
SLV 4	4.59	2513.4	-3834	-0.0000188	0.0005615	0.0035	2.66		5324.47	5324.47	2.12		Si
SLV 16	2.69	3079.87	-5784	-0.0000241	0.0005615	0.0035	2.66		7756.12	7756.12	2.52		Si
SLV 16	4.59	-2836.64	-3007	-0.0000257	0.0005615	0.0035	2.128		5805.34	5805.34	2.05		Si
SLV 14	2.69	3844.34	-7965	-0.0000314	0.0005615	0.0035	2.66		10405.89	10405.89	2.71		Si
SLV 14	4.59	-2992.84	-4785	-0.0000225	0.0005615	0.0035	2.66		8037.55	8037.55	2.69		Si
SLV 9	2.69	3587.76	-10754	-0.0000357	0.0005615	0.0035	2.66		13687.4	13687.4	3.82		Si
SLV 9	4.59	-2214.01	-7175	-0.0000228	0.0005615	0.0035	2.66		10940.34	10940.34	4.94		Si
SLV 2	2.69	-2261.23	-8590	-0.0000257	0.0005615	0.0035	2.66		12648.05	12648.05	5.59		Si
SLV 2	4.59	2357.2	-5612	-0.0000204	0.0005615	0.0035	2.66		7544.6	7544.6	3.2		Si
SLV 11	2.69	1039.52	-3485	-0.0000108	0.0005615	0.0035	2.66		4883.52	4883.52	4.7		Si
SLV 11	4.59	-1693.35	-1248	-0.0000619	0.0005615	0.0035	2.128		3558.66	3558.66	2.1		Si
SLV 8	2.69	-1806.24	-3646	-0.0000144	0.0005615	0.0035	2.66		6611.22	6611.22	3.66		Si
SLV 8	4.59	846.72	-1470	-0.000064	0.0005615	0.0035	2.66		2297.92	2297.92	2.71		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 50	2.69	1178.11	-7133	-6007	1097	2.66	2.66	-7527	7948	6343	45199	23896	6783	30679	No	27.97	Si
SLU 50	4.59	-907.2	-3440	-2897	1097	2.66	2.66	-3630	7428	5928	45199	23896	6783	30679	No	27.97	Si
SLU 66	2.69	1169.59	-8668	-7300	1085	2.66	2.66	-9147	8164	6515	45199	23896	6783	30679	No	28.29	Si
SLU 66	4.59	-892.57	-4908	-4133	1085	2.66	2.66	-5180	7635	6093	45199	23896	6783	30679	No	28.29	Si
SLU 69	2.69	1169.59	-8668	-7300	1085	2.66	2.66	-9147	8164	6515	45199	23896	6783	30679	No	28.29	Si
SLU 69	4.59	-892.57	-4908	-4133	1085	2.66	2.66	-5180	7635	6093	45199	23896	6783	30679	No	28.29	Si
SLU 48	2.69	1178.11	-7133	-6007	1097	2.66	2.66	-7527	7948	6343	45199	23896	6783	30679	No	27.97	Si
SLU 48	4.59	-907.2	-3440	-2897	1097	2.66	2.66	-3630	7428	5928	45199	23896	6783	30679	No	27.97	Si
SLU 64	2.69	1169.59	-8668	-7300	1085	2.66	2.66	-9147	8164	6515	45199	23896	6783	30679	No	28.29	Si
SLU 64	4.59	-892.57	-4908	-4133	1085	2.66	2.66	-5180	7635	6093	45199	23896	6783	30679	No	28.29	Si
SLU 46	2.69	1171.99	-6786	-5714	1066	2.66	2.66	-7161	7899	6304	45199	23896	6783	30679	No	28.79	Si
SLU 46	4.59	-854.1	-3092	-2604	1066	2.66	2.66	-3263	7380	5889	45199	23896	6783	30679	No	28.79	Si
SLU 45	2.69	1178.11	-7133	-6007	1097	2.66	2.66	-7527	7948	6343	45199	23896	6783	30679	No	27.97	Si
SLU 45	4.59	-907.2	-3440	-2897	1097	2.66	2.66	-3630	7428	5928	45199	23896	6783	30679	No	27.97	Si
SLU 49	2.69	1171.99	-6786	-5714	1066	2.66	2.66	-7161	7899	6304	45199	23896	6783	30679	No	28.79	Si
SLU 49	4.59	-854.1	-3092	-2604	1066	2.66	2.66	-3263	7380	5889	45199	23896	6783	30679	No	28.79	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 43	2.69	1178.11	-7133	-6007	1097	2.66	2.66	-7527	7948	6343	45199	23896	6783	30679	No	27.97	Si
SLU 43	4.59	-907.2	-3440	-2897	1097	2.66	2.66	-3630	7428	5928	45199	23896	6783	30679	No	27.97	Si
SLU 71	2.69	1169.59	-8668	-7300	1085	2.66	2.66	-9147	8164	6515	45199	23896	6783	30679	No	28.29	Si
SLU 71	4.59	-892.57	-4908	-4133	1085	2.66	2.66	-5180	7635	6093	45199	23896	6783	30679	No	28.29	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 2	2.69	-2261.23	-8590	-7233	-3027	2.66	2.66	-9065	12230	9759	45199	35843	6783	42626		14.08	Si
SLV 2	4.59	2357.2	-5612	-4726	-2287	2.66	2.66	-5922	11601	9258	45199	35843	6783	42626		18.64	Si
SLV 9	2.69	3587.76	-10754	-9056	2500	2.66	2.66	-11348	12686	10124	45199	35843	6783	42626		17.05	Si
SLV 9	4.59	-2214.01	-7175	-6042	2397	2.66	2.66	-7571	11931	9521	45199	35843	6783	42626		17.78	Si
SLV 14	2.69	3844.34	-7965	-6707	3791	2.66	2.542	-8405	12098	9226	45199	35843	6783	42626		11.25	Si
SLV 14	4.59	-2992.84	-4785	-4029	3117	2.66	2.1135	-6371	11691	7413	45199	35843	6783	42626		13.68	Si
SLV 15	2.69	4042.75	-5810	-4892	4683	2.66	1.9024	-6131	11643	6645	45199	35843	6783	42626		9.1	Si
SLV 15	4.59	-3724.49	-3032	-2553	3943	2.128	0.305	0	0	0	45199	28675	5426	34101		8.65	Si
SLV 3	2.69	-2062.82	-6434	-5418	-2135	2.66	2.66	-6790	11775	9396	45199	35843	6783	42626		19.97	Si
SLV 3	4.59	1625.55	-3859	-3250	-1461	2.66	2.66	-4073	11231	8963	45199	35843	6783	42626		29.18	Si
SLV 16	2.69	3079.87	-5784	-4871	3709	2.66	2.3926	-6104	11637	8353	45199	35843	6783	42626		11.49	Si
SLV 16	4.59	-2836.64	-3007	-2532	2969	2.128	1.1598	0	0	0	45199	28675	5426	34101		11.48	Si
SLV 4	2.69	-3025.7	-6409	-5397	-3109	2.66	2.5737	-6763	11769	9087	45199	35843	6783	42626		13.71	Si
SLV 4	4.59	2513.4	-3834	-3229	-2435	2.66	2.0234	-4046	11226	6814	45199	35843	6783	42626		17.51	Si
SLV 11	2.69	1039.52	-3485	-2935	2227	2.66	2.66	-3678	11152	8899	45199	35843	6783	42626		19.14	Si
SLV 11	4.59	-1693.35	-1248	-1051	1906	2.128	0	0	0	0	45199	28675	5426	34101		17.89	Si
SLV 13	2.69	4807.23	-7990	-6729	4765	2.66	2.1851	-8432	12103	7934	45199	35843	6783	42626		8.95	Si
SLV 13	4.59	-3880.68	-4810	-4051	4091	2.128	1.5697	0	0	0	45199	28675	5426	34101		8.34	Si
SLV 1	2.69	-1298.35	-8615	-7255	-2053	2.66	2.66	-9091	12235	9763	45199	35843	6783	42626		20.77	Si
SLV 1	4.59	1469.35	-5637	-4747	-1313	2.66	2.66	-5949	11606	9262	45199	35843	6783	42626		32.46	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 8	179667	0.48	0	-2506	461.85	0	0	No, $e > t/2$
SLV 7	179667	0.48	0	-2533	461.85	0	0	No, $e > t/2$
SLV 11	179667	0.48	0	-2293	461.85	0	0	No, $e > t/2$
SLV 12	179667	0.48	0	-2266	461.85	0	0	No, $e > t/2$
SLV 16	179667	0.48	5187	-4139	461.85	599.74	1.3	Si
SLV 15	179667	0.48	5218	-4164	461.85	603.28	1.31	Si
SLV 4	179667	0.48	6189	-4939	461.85	710.8	1.54	Si
SLV 3	179667	0.48	6221	-4964	461.85	714.28	1.55	Si
SLV 14	179667	0.48	7498	-5983	461.85	853.42	1.85	Si
SLV 13	179667	0.48	7529	-6009	461.85	856.84	1.86	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 1	-3115	-8132	203	2.538	794	0.889	41.49279	18.92268	Si
SLV 2	-3113	-8087	203	2.539	793.8	0.889	41.50563	18.92268	Si
SLV 13	-2965	-5731	210	2.602	780.2	0.889	42.53991	18.92268	Si
SLV 14	-2963	-5686	210	2.603	780.1	0.889	42.55335	18.92268	Si
SLV 3	-2837	-5114	-215	2.659	768.6	0.889	43.47718	18.92268	Si
SLV 4	-2835	-5070	-215	2.66	768.4	0.889	43.4912	18.92268	Si
SLV 15	-2687	-2714	-208	2.732	755	0.889	44.66182	18.92268	Si
SLV 16	-2685	-2669	-208	2.733	754.9	0.889	44.67652	18.92268	Si
SLV 5	-3387	-10813	693	2.35	819.2	0.89	38.3871	13.88289	Si
SLV 6	-3385	-10766	693	2.351	819	0.89	38.39915	13.88289	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	6.833	SLU 44	Si
V_SLU	27.973	SLU 43	Si
PF_SLV	1.567	SLV 15	Si
V_SLV	8.336	SLV 13	Si
PFFP_SLV	0	SLV 7	No
R_SLV	2.193	SLV 1	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-29.572	-17.999	-26.842	-17.999	L2	L3	2.73	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 44	2.69	-1039.6	-8295	-0.0000195	0.0003743	0.0035	2.73	10195.8	12590.62	12590.62	12.11	No	Si
SLU 44	4.59	628.29	-8489	-0.0000182	0.0003743	0.0035	2.73	10407.55	11083.65	11083.65	17.64	No	Si
SLU 47	2.69	-1039.6	-8295	-0.0000195	0.0003743	0.0035	2.73	10195.8	12590.62	12590.62	12.11	No	Si
SLU 47	4.59	628.29	-8489	-0.0000182	0.0003743	0.0035	2.73	10407.55	11083.65	11083.65	17.64	No	Si
SLU 51	2.69	-989.83	-8242	-0.0000192	0.0003743	0.0035	2.73	10138.49	12528.7	12528.7	12.66	No	Si
SLU 51	4.59	615.89	-8300	-0.0000178	0.0003743	0.0035	2.73	10201.23	10869.7	10869.7	17.65	No	Si
SLU 65	2.69	-1076.25	-9979	-0.0000229	0.0003743	0.0035	2.73	11991.09	14517.15	14517.15	13.49	No	Si
SLU 65	4.59	599.88	-10459	-0.0000219	0.0003743	0.0035	2.73	12486.16	13048.08	13048.08	21.75	No	Si
SLU 2	2.69	-838.07	-6855	-0.000016	0.0003743	0.0035	2.73	8587.67	10911.81	10911.81	13.02	No	Si
SLU 2	4.59	482.96	-7159	-0.0000151	0.0003743	0.0035	2.73	8932.73	9522.76	9522.76	19.72	No	Si
SLU 68	2.69	-1076.25	-9979	-0.0000229	0.0003743	0.0035	2.73	11991.09	14517.15	14517.15	13.49	No	Si
SLU 68	4.59	599.88	-10459	-0.0000219	0.0003743	0.0035	2.73	12486.16	13048.08	13048.08	21.75	No	Si
SLU 49	2.69	-989.83	-8242	-0.0000192	0.0003743	0.0035	2.73	10138.49	12528.7	12528.7	12.66	No	Si
SLU 49	4.59	615.89	-8300	-0.0000178	0.0003743	0.0035	2.73	10201.23	10869.7	10869.7	17.65	No	Si
SLU 5	2.69	-838.07	-6855	-0.000016	0.0003743	0.0035	2.73	8587.67	10911.81	10911.81	13.02	No	Si
SLU 5	4.59	482.96	-7159	-0.0000151	0.0003743	0.0035	2.73	8932.73	9522.76	9522.76	19.72	No	Si
SLU 46	2.69	-989.83	-8242	-0.0000192	0.0003743	0.0035	2.73	10138.49	12528.7	12528.7	12.66	No	Si
SLU 46	4.59	615.89	-8300	-0.0000178	0.0003743	0.0035	2.73	10201.23	10869.7	10869.7	17.65	No	Si
SLU 45	2.69	-915.19	-8164	-0.0000188	0.0003743	0.0035	2.73	10052.36	12435.93	12435.93	13.59	No	Si
SLU 45	4.59	597.29	-8016	-0.0000172	0.0003743	0.0035	2.73	9889.56	10538.08	10538.08	17.64	No	Si

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

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 8	2.69	-2617.11	-7536	-0.0000243	0.0005615	0.0035	2.73		11880.9	11880.9	4.54		Si
SLV 8	4.59	1835.61	-10271	-0.0000263	0.0005615	0.0035	2.73		13511.99	13511.99	7.36		Si
SLV 15	2.69	3512.72	-7502	-0.0000278	0.0005615	0.0035	2.73		10135.61	10135.61	2.89		Si
SLV 15	4.59	-2981.65	-8435	-0.0000275	0.0005615	0.0035	2.73		13001.16	13001.16	4.36		Si
SLV 4	2.69	-5123.03	-8299	-0.0000372	0.0005615	0.0035	2.73		12832.13	12832.13	2.5		Si
SLV 4	4.59	3855.28	-9310	-0.0000327	0.0005615	0.0035	2.73		12352.34	12352.34	3.2		Si
SLV 3	2.69	-4213.33	-8305	-0.0000323	0.0005615	0.0035	2.73		12839.98	12839.98	3.05		Si
SLV 3	4.59	2977.54	-9307	-0.0000291	0.0005615	0.0035	2.73		12349.28	12349.28	4.15		Si
SLV 16	2.69	2603.02	-7496	-0.0000241	0.0005615	0.0035	2.73		10127.82	10127.82	3.89		Si
SLV 16	4.59	-2103.9	-8437	-0.0000239	0.0005615	0.0035	2.73		13004.27	13004.27	6.18		Si
SLV 2	2.69	-4973.88	-8711	-0.0000368	0.0005615	0.0035	2.73		13339.91	13339.91	2.68		Si
SLV 2	4.59	3818.68	-8225	-0.0000305	0.0005615	0.0035	2.73		11030.38	11030.38	2.89		Si
SLV 13	2.69	3661.87	-7914	-0.0000292	0.0005615	0.0035	2.73		10646.59	10646.59	2.91		Si
SLV 13	4.59	-3018.25	-7350	-0.0000255	0.0005615	0.0035	2.73		11649.29	11649.29	3.86		Si
SLV 14	2.69	2752.17	-7908	-0.0000255	0.0005615	0.0035	2.73		10638.81	10638.81	3.87		Si
SLV 14	4.59	-2140.51	-7352	-0.0000222	0.0005615	0.0035	2.73		11652.42	11652.42	5.44		Si
SLV 6	2.69	-2119.94	-8911	-0.0000249	0.0005615	0.0035	2.73		13582.95	13582.95	6.41		Si
SLV 6	4.59	1713.6	-6653	-0.000019	0.0005615	0.0035	2.73		9077.67	9077.67	5.3		Si
SLV 1	2.69	-4064.18	-8718	-0.0000324	0.0005615	0.0035	2.73		13347.56	13347.56	3.28		Si
SLV 1	4.59	2940.93	-8222	-0.0000269	0.0005615	0.0035	2.73		11027.3	11027.3	3.75		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 46	2.69	-989.83	-8242	-6941	-809	2.73	2.73	-8475	8074	6613	45199	24525	6962	31486	No	38.91	Si
SLU 46	4.59	615.89	-8300	-6989	-807	2.73	2.73	-8534	8082	6619	45199	24525	6962	31486	No	39.01	Si
SLU 47	2.69	-1039.6	-8295	-6985	-839	2.73	2.73	-8529	8082	6619	45199	24525	6962	31486	No	37.52	Si
SLU 47	4.59	628.29	-8489	-7148	-839	2.73	2.73	-8728	8108	6641	45199	24525	6962	31486	No	37.53	Si
SLU 49	2.69	-989.83	-8242	-6941	-809	2.73	2.73	-8475	8074	6613	45199	24525	6962	31486	No	38.91	Si
SLU 49	4.59	615.89	-8300	-6989	-807	2.73	2.73	-8534	8082	6619	45199	24525	6962	31486	No	39.01	Si
SLU 70	2.69	-1026.49	-9927	-8359	-812	2.73	2.73	-10207	8305	6802	45199	24525	6962	31486	No	38.76	Si
SLU 70	4.59	587.48	-10270	-8649	-806	2.73	2.73	-10560	8352	6841	45199	24525	6962	31486	No	39.04	Si
SLU 68	2.69	-1076.25	-9979	-8403	-842	2.73	2.73	-10260	8313	6808	45199	24525	6962	31486	No	37.38	Si
SLU 68	4.59	599.88	-10459	-8808	-838	2.73	2.73	-10754	8378	6862	45199	24525	6962	31486	No	37.55	Si
SLU 72	2.69	-1026.49	-9927	-8359	-812	2.73	2.73	-10207	8305	6802	45199	24525	6962	31486	No	38.76	Si
SLU 72	4.59	587.48	-10270	-8649	-806	2.73	2.73	-10560	8352	6841	45199	24525	6962	31486	No	39.04	Si
SLU 51	2.69	-989.83	-8242	-6941	-809	2.73	2.73	-8475	8074	6613	45199	24525	6962	31486	No	38.91	Si
SLU 51	4.59	615.89	-8300	-6989	-807	2.73	2.73	-8534	8082	6619	45199	24525	6962	31486	No	39.01	Si
SLU 65	2.69	-1076.25	-9979	-8403	-842	2.73	2.73	-10260	8313	6808	45199	24525	6962	31486	No	37.38	Si
SLU 65	4.59	599.88	-10459	-8808	-838	2.73	2.73	-10754	8378	6862	45199	24525	6962	31486	No	37.55	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 44	2.69	-1039.6	-8295	-6985	-839	2.73	2.73	-8529	8082	6619	45199	24525	6962	31486	No	37.52	Si
SLU 44	4.59	628.29	-8489	-7148	-839	2.73	2.73	-8728	8108	6641	45199	24525	6962	31486	No	37.53	Si
SLU 67	2.69	-1026.49	-9927	-8359	-812	2.73	2.73	-10207	8305	6802	45199	24525	6962	31486	No	38.76	Si
SLU 67	4.59	587.48	-10270	-8649	-806	2.73	2.73	-10560	8352	6841	45199	24525	6962	31486	No	39.04	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 3	2.69	-4213.33	-8305	-6994	-4359	2.73	2.5731	-9096	12236	9445	45199	36787	6962	43748		10.04	Si
SLV 3	4.59	2977.54	-9307	-7838	-3595	2.73	2.73	-9570	12331	10099	45199	36787	6962	43748		12.17	Si
SLV 15	2.69	3512.72	-7502	-6317	4064	2.73	2.6903	-7714	11959	9652	45199	36787	6962	43748		10.76	Si
SLV 15	4.59	-2981.65	-8435	-7103	3275	2.73	2.73	-8673	12151	9952	45199	36787	6962	43748		13.36	Si
SLV 8	2.69	-2617.11	-7536	-6346	-2468	2.73	2.73	-7749	11966	9801	45199	36787	6962	43748		17.73	Si
SLV 8	4.59	1835.61	-10271	-8649	-2295	2.73	2.73	-10561	12529	10261	45199	36787	6962	43748		19.06	Si
SLV 2	2.69	-4973.88	-8711	-7336	-5222	2.73	2.3821	-10315	12480	8918	45199	36787	6962	43748		8.38	Si
SLV 2	4.59	3818.68	-8225	-6926	-4418	2.73	2.7021	-8457	12108	9815	45199	36787	6962	43748		9.9	Si
SLV 4	2.69	-5123.03	-8299	-6989	-5300	2.73	2.2431	-10435	12504	8414	45199	36787	6962	43748		8.25	Si
SLV 4	4.59	3855.28	-9310	-7840	-4536	2.73	2.73	-9573	12331	10099	45199	36787	6962	43748		9.64	Si
SLV 13	2.69	3661.87	-7914	-6665	4142	2.73	2.707	-8138	12044	9781	45199	36787	6962	43748		10.56	Si
SLV 13	4.59	-3018.25	-7350	-6189	3394	2.73	2.73	-7557	11928	9769	45199	36787	6962	43748		12.89	Si
SLV 14	2.69	2752.17	-7908	-6660	3202	2.73	2.73	-8131	12043	9863	45199	36787	6962	43748		13.66	Si
SLV 14	4.59	-2140.51	-7352	-6191	2453	2.73	2.73	-7559	11929	9769	45199	36787	6962	43748		17.83	Si
SLV 6	2.69	-2119.94	-8911	-7504	-2207	2.73	2.73	-9163	12249	10032	45199	36787	6962	43748		19.82	Si
SLV 6	4.59	1713.6	-6653	-5603	-1899	2.73	2.73	-6841	11785	9652	45199	36787	6962	43748		23.03	Si
SLV 16	2.69	2603.02	-7496	-6312	3124	2.73	2.73	-7707	11958	9794	45199	36787	6962	43748		14.01	Si
SLV 16	4.59	-2103.9	-8437	-7105	2334	2.73	2.73	-8675	12152	9952	45199	36787	6962	43748		18.74	Si
SLV 1	2.69	-4064.18	-8718	-7341	-4281	2.73	2.6964	-8964	12209	9876	45199	36787	6962	43748		10.22	Si
SLV 1	4.59	2940.93	-8222	-6924	-3477	2.73	2.73	-8454	12107	9916	45199	36787	6962	43748		12.58	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 9	179667	0.48	8982	-7356	474.01	1038.51	2.19	Si
SLV 10	179667	0.48	8982	-7357	474.01	1038.59	2.19	Si
SLV 5	179667	0.48	9142	-7487	474.01	1055.81	2.23	Si
SLV 6	179667	0.48	9142	-7487	474.01	1055.89	2.23	Si
SLV 13	179667	0.48	9386	-7687	474.01	1082.19	2.28	Si
SLV 14	179667	0.48	9386	-7688	474.01	1082.25	2.28	Si
SLV 15	179667	0.48	9892	-8102	474.01	1136.51	2.4	Si
SLV 16	179667	0.48	9893	-8102	474.01	1136.58	2.4	Si
SLV 1	179667	0.48	9918	-8123	474.01	1139.34	2.4	Si
SLV 2	179667	0.48	9919	-8124	474.01	1139.41	2.4	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-3643	-13399	-1	2.4	856.3	0.89	39.18028	18.92268	Si
SLV 4	-3640	-13394	-1	2.401	856	0.89	39.19473	18.92268	Si
SLV 1	-3465	-11590	31	2.461	839.7	0.89	40.1997	18.92268	Si
SLV 2	-3463	-11584	31	2.462	839.5	0.89	40.21488	18.92268	Si
SLV 15	-3316	-11027	-21	2.521	825.8	0.889	41.19537	18.92268	Si
SLV 16	-3314	-11021	-21	2.522	825.6	0.889	41.21123	18.92268	Si
SLV 13	-3139	-9217	12	2.595	809.5	0.889	42.42484	18.92268	Si
SLV 14	-3136	-9212	12	2.596	809.3	0.889	42.44158	18.92268	Si
SLV 7	-3735	-14680	-46	2.36	865	0.89	38.51875	13.88289	Si
SLV 8	-3733	-14675	-46	2.361	864.7	0.89	38.53352	13.88289	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	12.111	SLU 44	Si
V_SLU	37.384	SLU 65	Si
PF_SLV	2.505	SLV 4	Si
V_SLV	8.255	SLV 4	Si
PFFP_SLV	2.191	SLV 9	Si
R_SLV	2.071	SLV 3	Si

Maschio 22

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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-25.842	-17.999	-23.182	-17.999	L2	L3	2.66	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	e,fd	γ_f,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	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, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 5	2.69	-1559.33	-4614	-0.0000152	0.0003743	0.0035	2.66	5788.24	7758.05	7758.05	4.98	No	Si
SLU 5	4.59	1140.3	-1738	-0.0000085	0.0003743	0.0035	2.66	2262.48	2637.2	2637.2	2.31	No	Si
SLU 46	2.69	-2039.71	-5998	-0.00002	0.0003743	0.0035	2.66	7388.84	9407.36	9407.36	4.61	No	Si
SLU 46	4.59	1596.49	-2283	-0.000012	0.0003743	0.0035	2.66	2950.58	3329	3329	2.09	No	Si
SLU 49	2.69	-2039.71	-5998	-0.00002	0.0003743	0.0035	2.66	7388.84	9407.36	9407.36	4.61	No	Si
SLU 49	4.59	1596.49	-2283	-0.000012	0.0003743	0.0035	2.66	2950.58	3329	3329	2.09	No	Si
SLU 2	2.69	-1559.33	-4614	-0.0000152	0.0003743	0.0035	2.66	5788.24	7758.05	7758.05	4.98	No	Si
SLU 2	4.59	1140.3	-1738	-0.0000085	0.0003743	0.0035	2.66	2262.48	2637.2	2637.2	2.31	No	Si
SLU 44	2.69	-2056.6	-5722	-0.0000195	0.0003743	0.0035	2.66	7074.35	9075.08	9075.08	4.41	No	Si
SLU 44	4.59	1560.74	-2006	-0.000012	0.0003743	0.0035	2.66	2602.48	2977.88	2977.88	1.91	No	Si
SLU 50	2.69	-2014.36	-6413	-0.0000207	0.0003743	0.0035	2.66	7855.88	9909.04	9909.04	4.92	No	Si
SLU 50	4.59	1650.11	-2697	-0.0000124	0.0003743	0.0035	2.66	3468.04	3852.37	3852.37	2.33	No	Si
SLU 51	2.69	-2039.71	-5998	-0.00002	0.0003743	0.0035	2.66	7388.84	9407.36	9407.36	4.61	No	Si
SLU 51	4.59	1596.49	-2283	-0.000012	0.0003743	0.0035	2.66	2950.58	3329	3329	2.09	No	Si
SLU 45	2.69	-2014.36	-6413	-0.0000207	0.0003743	0.0035	2.66	7855.88	9909.04	9909.04	4.92	No	Si
SLU 45	4.59	1650.11	-2697	-0.0000124	0.0003743	0.0035	2.66	3468.04	3852.37	3852.37	2.33	No	Si
SLU 43	2.69	-2014.36	-6413	-0.0000207	0.0003743	0.0035	2.66	7855.88	9909.04	9909.04	4.92	No	Si
SLU 43	4.59	1650.11	-2697	-0.0000124	0.0003743	0.0035	2.66	3468.04	3852.37	3852.37	2.33	No	Si
SLU 47	2.69	-2056.6	-5722	-0.0000195	0.0003743	0.0035	2.66	7074.35	9075.08	9075.08	4.41	No	Si
SLU 47	4.59	1560.74	-2006	-0.000012	0.0003743	0.0035	2.66	2602.48	2977.88	2977.88	1.91	No	Si

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

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 4	2.69	-4870.36	-5012	-0.000047	0.0005615	0.0035	2.128		8318.37	8318.37	1.71		Si
SLV 4	4.59	4537.04	-2225	-0.0059789	0.0005615	0.0035	2.128		3272.69	3272.69	0.72		No
SLV 2	2.69	-5372.49	-7238	-0.0000414	0.0005615	0.0035	2.66		11016.72	11016.72	2.05		Si
SLV 2	4.59	4638.01	-4068	-0.0000738	0.0005615	0.0035	2.66		5618.24	5618.24	1.21		Si
SLV 3	2.69	-3939.67	-4993	-0.0000308	0.0005615	0.0035	2.128		8294.65	8294.65	2.11		Si
SLV 3	4.59	3646.34	-2205	-0.0020011	0.0005615	0.0035	2.128		3247.96	3247.96	0.89		No
SLV 6	2.69	-3698.68	-10116	-0.0000349	0.0005615	0.0035	2.66		14424.13	14424.13	3.9		Si
SLV 6	4.59	2644.23	-6558	-0.0000234	0.0005615	0.0035	2.66		8704.93	8704.93	3.29		Si
SLV 1	2.69	-4441.81	-7218	-0.0000338	0.0005615	0.0035	2.66		10993.32	10993.32	2.47		Si
SLV 1	4.59	3747.31	-4048	-0.0000335	0.0005615	0.0035	2.66		5594.07	5594.07	1.49		Si
SLV 13	2.69	2085	-8022	-0.0000239	0.0005615	0.0035	2.66		10473.98	10473.98	5.02		Si
SLV 13	4.59	-2353.44	-5020	-0.0000193	0.0005615	0.0035	2.66		8328.02	8328.02	3.54		Si
SLV 8	2.69	-2024.89	-2698	-0.0000153	0.0005615	0.0035	2.128		5412.69	5412.69	2.67		Si
SLV 8	4.59	2307.66	-415	-0.0061281	0.0005615	0.0035	2.128		923.45	923.45	0.4		No
SLV 12	2.69	-66.85	-2939	-0.0000057	0.0005615	0.0035	2.66		5718.9	5718.9	85.55		Si
SLV 12	4.59	477.44	-706	-0.0000035	0.0005615	0.0035	2.66		1305.23	1305.23	2.73		Si
SLV 15	2.69	2587.14	-5797	-0.0000217	0.0005615	0.0035	2.66		7771.15	7771.15	3		Si
SLV 15	4.59	-2454.41	-3177	-0.0000188	0.0005615	0.0035	2.128		6020.35	6020.35	2.45		Si
SLV 7	2.69	-1044.72	-2677	-0.0000093	0.0005615	0.0035	2.66		5386.96	5386.96	5.16		Si
SLV 7	4.59	1369.6	-395	-0.0018486	0.0005615	0.0035	2.128		896.88	896.88	0.65		No

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	α_N	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 64	2.69	-1891.44	-7823	-6588	-1787	2.66	2.66	-8255	8045	6420	45199	23896	6783	30679	No	17.17	Si
SLU 64	4.59	1499.77	-4041	-3403	-1787	2.66	2.66	-4264	7513	5995	45199	23896	6783	30679	No	17.17	Si
SLU 47	2.69	-2056.6	-5722	-4819	-1906	2.66	2.66	-6038	7750	6184	45199	23896	6783	30679	No	16.09	Si
SLU 47	4.59	1560.74	-2006	-1690	-1906	2.66	1.6562	-2117	7227	3591	45199	23896	6783	30679	No	16.09	Si
SLU 48	2.69	-2014.36	-6413	-5400	-1931	2.66	2.66	-6767	7847	6262	45199	23896	6783	30679	No	15.89	Si
SLU 48	4.59	1650.11	-2697	-2271	-1931	2.66	2.1546	-2846	7324	4734	45199	23896	6783	30679	No	15.89	Si
SLU 49	2.69	-2039.71	-5998	-5051	-1916	2.66	2.66	-6330	7788	6215	45199	23896	6783	30679	No	16.01	Si
SLU 49	4.59	1596.49	-2283	-1922	-1916	2.66	1.8918	-2409	7266	4123	45199	23896	6783	30679	No	16.01	Si
SLU 51	2.69	-2039.71	-5998	-5051	-1916	2.66	2.66	-6330	7788	6215	45199	23896	6783	30679	No	16.01	Si
SLU 51	4.59	1596.49	-2283	-1922	-1916	2.66	1.8918	-2409	7266	4123	45199	23896	6783	30679	No	16.01	Si
SLU 44	2.69	-2056.6	-5722	-4819	-1906	2.66	2.66	-6038	7750	6184	45199	23896	6783	30679	No	16.09	Si
SLU 44	4.59	1560.74	-2006	-1690	-1906	2.66	1.6562	-2117	7227	3591	45199	23896	6783	30679	No	16.09	Si
SLU 50	2.69	-2014.36	-6413	-5400	-1931	2.66	2.66	-6767	7847	6262	45199	23896	6783	30679	No	15.89	Si
SLU 50	4.59	1650.11	-2697	-2271	-1931	2.66	2.1546	-2846	7324	4734	45199	23896	6783	30679	No	15.89	Si
SLU 45	2.69	-2014.36	-6413	-5400	-1931	2.66	2.66	-6767	7847	6262	45199	23896	6783	30679	No	15.89	Si
SLU 45	4.59	1650.11	-2697	-2271	-1931	2.66	2.1546	-2846	7324	4734	45199	23896	6783	30679	No	15.89	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 43	2.69	-2014.36	-6413	-5400	-1931	2.66	2.66	-6767	7847	6262	45199	23896	6783	30679	No	15.89	Si
SLU 43	4.59	1650.11	-2697	-2271	-1931	2.66	2.1546	-2846	7324	4734	45199	23896	6783	30679	No	15.89	Si
SLU 46	2.69	-2039.71	-5998	-5051	-1916	2.66	2.66	-6330	7788	6215	45199	23896	6783	30679	No	16.01	Si
SLU 46	4.59	1596.49	-2283	-1922	-1916	2.66	1.8918	-2409	7266	4123	45199	23896	6783	30679	No	16.01	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 4	2.69	-4870.36	-5012	-4221	-5360	2.128	1.0749	0	0	0	45199	28675	5426	34101		6.36	Si
SLV 4	4.59	4537.04	-2225	-1873	-4681	2.128	0	0	0	0	45199	28675	5426	34101		7.28	Si
SLV 2	2.69	-5372.49	-7238	-6095	-5332	2.66	1.7631	-11581	12733	6735	45199	35844	6783	42627		7.99	Si
SLV 2	4.59	4638.01	-4068	-3425	-4698	2.66	0.5692	-20242	14466	2470	45199	35844	6783	42627		9.07	Si
SLV 5	2.69	-2718.51	-10095	-8501	-1825	2.66	2.66	-10653	12547	10013	45199	35844	6783	42627		23.35	Si
SLV 5	4.59	1706.16	-6538	-5506	-1703	2.66	2.66	-6899	11797	9414	45199	35844	6783	42627		25.03	Si
SLV 6	2.69	-3698.68	-10116	-8518	-2835	2.66	2.66	-10675	12552	10016	45199	35844	6783	42627		15.04	Si
SLV 6	4.59	2644.23	-6558	-5523	-2713	2.66	2.66	-6921	11801	9417	45199	35844	6783	42627		15.71	Si
SLV 13	2.69	-2085	-8022	-6755	2741	2.66	2.66	-8465	12110	9664	45199	35844	6783	42627		15.55	Si
SLV 13	4.59	-2353.44	-5020	-4227	2062	2.66	2.5836	-5297	11476	8895	45199	35844	6783	42627		20.67	Si
SLV 15	2.69	2587.14	-5797	-4881	2713	2.66	2.651	-6117	11640	9257	45199	35844	6783	42627		15.71	Si
SLV 15	4.59	-2454.41	-3177	-2675	2079	2.128	1.6723	0	0	0	45199	28675	5426	34101		16.4	Si
SLV 1	2.69	-4441.81	-7218	-6079	-4373	2.66	2.1439	-9491	12315	7921	45199	35844	6783	42627		9.75	Si
SLV 1	4.59	3747.31	-4048	-3409	-3739	2.66	1.213	-4272	11271	4102	45199	35844	6783	42627		11.4	Si
SLV 8	2.69	-2024.89	-2698	-2272	-2928	2.128	1.7381	0	0	0	45199	28675	5426	34101		11.65	Si
SLV 8	4.59	2307.66	-415	-349	-2656	2.128	0	0	0	0	45199	28675	5426	34101		12.84	Si
SLV 7	2.69	-1044.72	-2677	-2255	-1918	2.66	2.66	-2825	10982	8763	45199	35844	6783	42627		22.22	Si
SLV 7	4.59	1369.6	-395	-332	-1647	2.128	0	0	0	0	45199	28675	5426	34101		20.71	Si
SLV 3	2.69	-3939.67	-4993	-4205	-4401	2.128	1.6228	0	0	0	45199	28675	5426	34101		7.75	Si
SLV 3	4.59	3646.34	-2205	-1857	-3722	2.128	0	0	0	0	45199	28675	5426	34101		9.16	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 7	179667	0.48	0	-1399	461.85	0	0	No, $e > t/2$
SLV 11	179667	0.48	0	-1667	461.85	0	0	No, $e > t/2$
SLV 8	179667	0.48	0	-1419	461.85	0	0	No, $e > t/2$
SLV 12	179667	0.48	0	-1687	461.85	0	0	No, $e > t/2$
SLV 3	179667	0.48	4187	-3341	461.85	487.47	1.06	Si
SLV 4	179667	0.48	4211	-3361	461.85	490.2	1.06	Si
SLV 15	179667	0.48	5308	-4236	461.85	613.34	1.33	Si
SLV 16	179667	0.48	5333	-4255	461.85	616.02	1.33	Si
SLV 1	179667	0.48	6610	-5275	461.85	756.94	1.64	Si
SLV 2	179667	0.48	6634	-5294	461.85	759.57	1.64	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 14	-3017	-7633	211	2.579	785	0.889	42.16237	18.92268	Si
SLV 13	-3016	-7573	211	2.58	784.9	0.889	42.17127	18.92268	Si
SLV 2	-2858	-6211	195	2.653	770.5	0.889	43.37527	18.92268	Si
SLV 1	-2857	-6151	195	2.654	770.4	0.889	43.38463	18.92268	Si
SLV 16	-2735	-4754	-200	2.71	759.3	0.889	44.30889	18.92268	Si
SLV 15	-2734	-4694	-200	2.711	759.2	0.889	44.31858	18.92268	Si
SLV 4	-2576	-3332	-216	2.786	745.1	0.889	45.53655	18.92268	Si
SLV 3	-2575	-3272	-216	2.786	745	0.889	45.54673	18.92268	Si
SLV 10	-3291	-10496	684	2.388	810.2	0.889	39.01459	13.88289	Si
SLV 9	-3290	-10433	684	2.388	810.1	0.889	39.02294	13.88289	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	1.908	SLU 44	Si
V_SLU	15.888	SLU 43	Si
PF_SLV	0.4	SLV 8	No
V_SLV	6.363	SLV 4	Si
PFFP_SLV	0	SLV 7	No
R_SLV	2.228	SLV 14	Si

Maschio 23

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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-22.182	-17.999	-21.057	-17.999	L2	L3	1.125	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	ϵ_{fd}	$\gamma_{f,d}$	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, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 42	2.69	1011.83	-2280	-0.0000677	0.0003743	0.0035	1.125	1197.44	1285.87	1285.87	1.27	No	Si
SLU 42	4.59	-1222.5	-5272	-0.0000553	0.0003743	0.0035	1.125	2510.32	2964.41	2964.41	2.42	No	Si
SLU 40	2.69	1011.83	-2280	-0.0000677	0.0003743	0.0035	1.125	1197.44	1285.87	1285.87	1.27	No	Si
SLU 40	4.59	-1222.5	-5272	-0.0000553	0.0003743	0.0035	1.125	2510.32	2964.41	2964.41	2.42	No	Si
SLU 10	2.69	830.29	-1885	-0.0000536	0.0003743	0.0035	1.125	1002.07	1083.65	1083.65	1.31	No	Si
SLU 10	4.59	-883.01	-3845	-0.0000394	0.0003743	0.0035	1.125	1920.81	2316.36	2316.36	2.62	No	Si
SLU 13	2.69	830.29	-1885	-0.0000536	0.0003743	0.0035	1.125	1002.07	1083.65	1083.65	1.31	No	Si
SLU 13	4.59	-883.01	-3845	-0.0000394	0.0003743	0.0035	1.125	1920.81	2316.36	2316.36	2.62	No	Si
SLU 76	2.69	1032.48	-2530	-0.000057	0.0003743	0.0035	1.125	1318.5	1411.53	1411.53	1.37	No	Si
SLU 76	4.59	-1128.85	-4977	-0.0000512	0.0003743	0.0035	1.125	2394.1	2833.64	2833.64	2.51	No	Si
SLU 36	2.69	895.61	-2141	-0.0000513	0.0003743	0.0035	1.125	1129.33	1214.94	1214.94	1.36	No	Si
SLU 36	4.59	-1047.48	-4573	-0.0000471	0.0003743	0.0035	1.125	2229.83	2652.69	2652.69	2.53	No	Si
SLU 33	2.69	895.61	-2141	-0.0000513	0.0003743	0.0035	1.125	1129.33	1214.94	1214.94	1.36	No	Si
SLU 33	4.59	-1047.48	-4573	-0.0000471	0.0003743	0.0035	1.125	2229.83	2652.69	2652.69	2.53	No	Si
SLU 38	2.69	895.61	-2141	-0.0000513	0.0003743	0.0035	1.125	1129.33	1214.94	1214.94	1.36	No	Si
SLU 38	4.59	-1047.48	-4573	-0.0000471	0.0003743	0.0035	1.125	2229.83	2652.69	2652.69	2.53	No	Si
SLU 31	2.69	986.83	-2045	-0.0000927	0.0003743	0.0035	1.125	1082.01	1165.98	1165.98	1.18	No	Si
SLU 31	4.59	-1097.32	-4684	-0.0000492	0.0003743	0.0035	1.125	2275.79	2702.98	2702.98	2.46	No	Si
SLU 34	2.69	986.83	-2045	-0.0000927	0.0003743	0.0035	1.125	1082.01	1165.98	1165.98	1.18	No	Si
SLU 34	4.59	-1097.32	-4684	-0.0000492	0.0003743	0.0035	1.125	2275.79	2702.98	2702.98	2.46	No	Si

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

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 12	2.69	1454.1	-738	-0.0227058	0.0005615	0.0035	0.9		478.9	478.9	0.33		No
SLV 12	4.59	-1166.5	-3925	-0.0000501	0.0005615	0.0035	1.125		2404.74	2404.74	2.06		Si
SLV 14	2.69	698.71	-1687	-0.0000382	0.0005615	0.0035	1.125		991.33	991.33	1.42		Si
SLV 14	4.59	-858.3	-3196	-0.0000364	0.0005615	0.0035	1.125		2039.95	2039.95	2.38		Si
SLV 16	2.69	1250.31	-1001	-0.0150764	0.0005615	0.0035	0.9		622.52	622.52	0.5		No
SLV 16	4.59	-1194.98	-3884	-0.0000516	0.0005615	0.0035	0.9		2384.69	2384.69	2		Si
SLV 15	2.69	1449.16	-684	-0.0232729	0.0005615	0.0035	0.9		449.66	449.66	0.31		No
SLV 15	4.59	-1386.61	-4238	-0.0000615	0.0005615	0.0035	0.9		2559.75	2559.75	1.85		Si
SLV 8	2.69	1081.71	-1190	-0.0093248	0.0005615	0.0035	0.9		724.97	724.97	0.67		No
SLV 8	4.59	-809.78	-3279	-0.0000348	0.0005615	0.0035	1.125		2081.71	2081.71	2.57		Si
SLV 6	2.69	-756.95	-3474	-0.0000337	0.0005615	0.0035	1.125		2179.52	2179.52	2.88		Si
SLV 6	4.59	312.48	-984	-0.0000132	0.0005615	0.0035	1.125		612.8	612.8	1.96		Si
SLV 11	2.69	1663.52	-404	-0.0318006	0.0005615	0.0035	0.9		295.35	295.35	0.18		No
SLV 11	4.59	-1368.32	-4297	-0.00006	0.0005615	0.0035	0.9		2588.98	2588.98	1.89		Si
SLV 13	2.69	897.56	-1369	-0.0025758	0.0005615	0.0035	0.9		821.76	821.76	0.92		No
SLV 13	4.59	-1049.93	-3550	-0.0000449	0.0005615	0.0035	1.125		2217.66	2217.66	2.11		Si
SLV 7	2.69	1291.13	-856	-0.017667	0.0005615	0.0035	0.9		543.1	543.1	0.42		No
SLV 7	4.59	-1011.6	-3651	-0.0000431	0.0005615	0.0035	1.125		2268.54	2268.54	2.24		Si
SLV 2	2.69	-542.58	-3193	-0.000027	0.0005615	0.0035	1.125		2038.52	2038.52	3.76		Si
SLV 2	4.59	330.77	-1043	-0.000014	0.0005615	0.0035	1.125		645	645	1.95		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	σ_N	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 82	2.69	1057.48	-2765	-2328	2500	1.125	0.5402	-6899	7864	1274	45199	10106	2869	12975	No	5.19	Si
SLU 82	4.59	-1254.02	-5564	-4686	2526	1.125	1.0114	-15598	9024	2738	45199	10106	2869	12975	No	5.14	Si
SLU 42	2.69	1011.83	-2280	-1920	2413	1.125	0.3562	-18225	9375	1002	45199	10106	2869	12975	No	5.38	Si
SLU 42	4.59	-1222.5	-5272	-4439	2438	1.125	0.9918	-15051	8951	2663	45199	10106	2869	12975	No	5.32	Si
SLU 81	2.69	920.66	-2909	-2449	2303	1.125	0.738	-7258	7912	1752	45199	10106	2869	12975	No	5.63	Si
SLU 81	4.59	-1179.25	-5396	-4544	2315	1.125	1.0319	-14827	8921	2762	45199	10106	2869	12975	No	5.61	Si
SLU 76	2.69	1032.48	-2530	-2131	2312	1.125	0.4634	-6314	7786	1082	45199	10106	2869	12975	No	5.61	Si
SLU 76	4.59	-1128.85	-4977	-4191	2348	1.125	1.0071	-13993	8810	2662	45199	10106	2869	12975	No	5.53	Si
SLU 31	2.69	986.83	-2045	-1722	2225	1.125	0.2401	-24371	10195	734	45199	10106	2869	12975	No	5.83	Si
SLU 31	4.59	-1097.32	-4684	-3945	2260	1.125	0.9848	-13488	8743	2583	45199	10106	2869	12975	No	5.74	Si
SLU 83	2.69	920.66	-2909	-2449	2303	1.125	0.738	-7258	7912	1752	45199	10106	2869	12975	No	5.63	Si
SLU 83	4.59	-1179.25	-5396	-4544	2315	1.125	1.0319	-14827	8921	2762	45199	10106	2869	12975	No	5.61	Si
SLU 84	2.69	1057.48	-2765	-2328	2500	1.125	0.5402	-6899	7864	1274	45199	10106	2869	12975	No	5.19	Si
SLU 84	4.59	-1254.02	-5564	-4686	2526	1.125	1.0114	-15598	9024	2738	45199	10106	2869	12975	No	5.14	Si
SLU 34	2.69	986.83	-2045	-1722	2225	1.125	0.2401	-24371	10195	734	45199	10106	2869	12975	No	5.83	Si
SLU 34	4.59	-1097.32	-4684	-3945	2260	1.125	0.9848	-13488	8743	2583	45199	10106	2869	12975	No	5.74	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 73	2.69	1032.48	-2530	-2131	2312	1.125	0.4634	-6314	7786	1082	45199	10106	2869	12975	No	5.61	Si
SLU 73	4.59	-1128.85	-4977	-4191	2348	1.125	1.0071	-13993	8810	2662	45199	10106	2869	12975	No	5.53	Si
SLU 40	2.69	1011.83	-2280	-1920	2413	1.125	0.3562	-18225	9375	1002	45199	10106	2869	12975	No	5.38	Si
SLU 40	4.59	-1222.5	-5272	-4439	2438	1.125	0.9918	-15051	8951	2663	45199	10106	2869	12975	No	5.32	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 6	2.69	-756.95	-3474	-2925	-1074	1.125	1.0337	-9468	12310	3818	45199	15159	2869	18028		16.78	Si
SLV 6	4.59	312.48	-984	-828	-824	1.125	0.7343	-2454	10907	2403	45199	15159	2869	18028		21.87	Si
SLV 14	2.69	698.71	-1687	-1420	1918	1.125	0.4447	-4208	11258	1502	45199	15159	2869	18028		9.4	Si
SLV 14	4.59	-858.3	-3196	-2691	1375	1.125	0.8818	-10218	12460	3296	45199	15159	2869	18028		13.11	Si
SLV 12	2.69	1454.1	-738	-621	2806	0.9	0	0	0	0	45199	12127	2295	14422		5.14	Si
SLV 12	4.59	-1166.5	-3925	-3305	2570	1.125	0.7959	-13933	13203	3152	45199	15159	2869	18028		7.01	Si
SLV 13	2.69	897.56	-1369	-1153	2322	0.9	0	0	0	0	45199	12127	2295	14422		6.21	Si
SLV 13	4.59	-1049.93	-3550	-2989	1779	1.125	0.8002	-12524	12922	3102	45199	15159	2869	18028		10.13	Si
SLV 11	2.69	1663.52	-404	-340	3232	0.9	0	0	0	0	45199	12127	2295	14422		4.46	Si
SLV 11	4.59	-1368.32	-4297	-3619	2996	0.9	0.7323	0	0	0	45199	12127	2295	14422		4.81	Si
SLV 2	2.69	-542.58	-3193	-2689	-1061	1.125	1.125	-7967	12010	4053	45199	15159	2869	18028		16.99	Si
SLV 2	4.59	330.77	-1043	-878	-461	1.125	0.7358	-2602	10937	2414	45199	15159	2869	18028		39.14	Si
SLV 16	2.69	1250.31	-1001	-843	2814	0.9	0	0	0	0	45199	12127	2295	14422		5.12	Si
SLV 16	4.59	-1194.98	-3884	-3271	2228	0.9	0.7646	0	0	0	45199	12127	2295	14422		6.47	Si
SLV 15	2.69	1449.16	-684	-576	3219	0.9	0	0	0	0	45199	12127	2295	14422		4.48	Si
SLV 15	4.59	-1386.61	-4238	-3569	2632	0.9	0.706	0	0	0	45199	12127	2295	14422		5.48	Si
SLV 7	2.69	1291.13	-856	-720	2338	0.9	0	0	0	0	45199	12127	2295	14422		6.17	Si
SLV 7	4.59	-1011.6	-3651	-3075	2445	1.125	0.8564	-12029	12823	3294	45199	15159	2869	18028		7.37	Si
SLV 8	2.69	1081.71	-1190	-1002	1912	0.9	0	0	0	0	45199	12127	2295	14422		7.54	Si
SLV 8	4.59	-809.78	-3279	-2761	2020	1.125	0.9466	-9767	12370	3513	45199	15159	2869	18028		8.93	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 2	179667	0.48	5284	-1783	195.33	258.26	1.32	Si
SLV 1	179667	0.48	5574	-1881	195.33	271.88	1.39	Si
SLV 6	179667	0.48	5719	-1930	195.33	278.68	1.43	Si
SLV 4	179667	0.48	5744	-1939	195.33	279.86	1.43	Si
SLV 5	179667	0.48	6024	-2033	195.33	292.94	1.5	Si
SLV 3	179667	0.48	6034	-2036	195.33	293.4	1.5	Si
SLV 10	179667	0.48	6558	-2213	195.33	317.75	1.63	Si
SLV 9	179667	0.48	6863	-2316	195.33	331.84	1.7	Si
SLV 8	179667	0.48	7252	-2448	195.33	349.7	1.79	Si
SLV 7	179667	0.48	7557	-2551	195.33	363.65	1.86	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 15	-1451	-2664	-32	2.432	348.2	0.89	39.72926	18.92268	Si
SLV 16	-1402	-2736	-32	2.478	343.6	0.89	40.48618	18.92268	Si
SLV 13	-1354	-2395	-11	2.532	339.2	0.889	41.37991	18.92268	Si
SLV 14	-1304	-2468	-12	2.581	334.6	0.889	42.19401	18.92268	Si
SLV 3	-1163	-2636	13	2.734	321.7	0.889	44.69314	18.92268	Si
SLV 4	-1113	-2708	13	2.791	317.3	0.889	45.63237	18.92268	Si
SLV 1	-1065	-2367	33	2.841	313	0.889	46.42943	18.92268	Si
SLV 2	-1016	-2439	33	2.903	308.6	0.89	47.43727	18.92268	Si
SLV 11	-1465	-2965	-40	2.417	349.5	0.89	39.47088	13.88289	Si
SLV 12	-1413	-3041	-40	2.464	344.6	0.89	40.25999	13.88289	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	1.182	SLU 31	Si
V_SLU	5.136	SLU 82	Si
PF_SLV	0.178	SLV 11	No
V_SLV	4.463	SLV 11	Si
PFFP_SLV	1.322	SLV 2	Si
R_SLV	2.1	SLV 15	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-35.332	-9.039	-34.307	-9.039	L2	L3	1.025	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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, $\gamma M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 37	1.69	-609.38	-3757	-0.0000364	0.0003743	0.0035	1.025	1694.4	1991.17	1991.17	3.27	No	Si
SLU 37	4.69	691.92	-3665	-0.0000386	0.0003743	0.0035	1.025	1658.49	1747.28	1747.28	2.53	No	Si
SLU 40	1.69	-689.33	-4059	-0.0000404	0.0003743	0.0035	1.025	1810.67	2119	2119	3.07	No	Si
SLU 40	4.69	805.43	-4247	-0.0000452	0.0003743	0.0035	1.025	1881.44	1966.77	1966.77	2.44	No	Si
SLU 83	1.69	-740.79	-4757	-0.0000458	0.0003743	0.0035	1.025	2067.54	2405.06	2405.06	3.25	No	Si
SLU 83	4.69	841.68	-4492	-0.0000476	0.0003743	0.0035	1.025	1971.89	2060.58	2060.58	2.45	No	Si
SLU 42	1.69	-689.33	-4059	-0.0000404	0.0003743	0.0035	1.025	1810.67	2119	2119	3.07	No	Si
SLU 42	4.69	805.43	-4247	-0.0000452	0.0003743	0.0035	1.025	1881.44	1966.77	1966.77	2.44	No	Si
SLU 35	1.69	-609.38	-3757	-0.0000364	0.0003743	0.0035	1.025	1694.4	1991.17	1991.17	3.27	No	Si
SLU 35	4.69	691.92	-3665	-0.0000386	0.0003743	0.0035	1.025	1658.49	1747.28	1747.28	2.53	No	Si
SLU 84	1.69	-732.1	-4758	-0.0000455	0.0003743	0.0035	1.025	2068.03	2405.6	2405.6	3.29	No	Si
SLU 84	4.69	836.69	-4480	-0.0000473	0.0003743	0.0035	1.025	1967.49	2055.95	2055.95	2.46	No	Si
SLU 81	1.69	-740.79	-4757	-0.0000458	0.0003743	0.0035	1.025	2067.54	2405.06	2405.06	3.25	No	Si
SLU 81	4.69	841.68	-4492	-0.0000476	0.0003743	0.0035	1.025	1971.89	2060.58	2060.58	2.45	No	Si
SLU 39	1.69	-698.01	-4058	-0.0000473	0.0003743	0.0035	1.025	1810.14	2118.42	2118.42	3.03	No	Si
SLU 39	4.69	810.42	-4259	-0.0000454	0.0003743	0.0035	1.025	1885.94	1971.36	1971.36	2.43	No	Si
SLU 41	1.69	-698.01	-4058	-0.0000473	0.0003743	0.0035	1.025	1810.14	2118.42	2118.42	3.03	No	Si
SLU 41	4.69	810.42	-4259	-0.0000454	0.0003743	0.0035	1.025	1885.94	1971.36	1971.36	2.43	No	Si
SLU 82	1.69	-732.1	-4758	-0.0000455	0.0003743	0.0035	1.025	2068.03	2405.6	2405.6	3.29	No	Si
SLU 82	4.69	836.69	-4480	-0.0000473	0.0003743	0.0035	1.025	1967.49	2055.95	2055.95	2.46	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, $\gamma M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 4	1.69	-1208.83	-3173	-0.0000833	0.0005615	0.0035	0.82		1772.88	1772.88	1.47		Si
SLV 4	4.69	817.11	-2801	-0.0000427	0.0005615	0.0035	1.025		1435.13	1435.13	1.76		Si
SLV 2	1.69	-1489.04	-1660	-0.0018903	0.0005615	0.0035	0.82		1063.77	1063.77	0.71		No
SLV 2	4.69	1068.12	-3121	-0.0000627	0.0005615	0.0035	1.025		1583.55	1583.55	1.48		Si
SLV 1	1.69	-1734.3	-1097	-0.0040599	0.0005615	0.0035	0.82		789.63	789.63	0.46		No
SLV 1	4.69	1287.65	-3476	-0.0000851	0.0005615	0.0035	1.025		1746.38	1746.38	1.36		Si
SLV 6	1.69	-1041.84	-526	-0.0018801	0.0005615	0.0035	0.82		508.2	508.2	0.49		No
SLV 6	4.69	891.92	-2810	-0.0000487	0.0005615	0.0035	1.025		1439.55	1439.55	1.61		Si
SLV 16	1.69	984.33	-4931	-0.0000535	0.0005615	0.0035	1.025		2372.99	2372.99	2.41		Si
SLV 16	4.69	-506.3	-872	-0.0002084	0.0005615	0.0035	0.82		678.92	678.92	1.34		Si
SLV 5	1.69	-1300.14	67	-0.004939	0.0005615	0.0035	0.82		0	0	0		No
SLV 5	4.69	1123.13	-3184	-0.0000684	0.0005615	0.0035	1.025		1612.8	1612.8	1.44		Si
SLV 12	1.69	550.16	-6095	-0.0000463	0.0005615	0.0035	1.025		2815.94	2815.94	5.12		Si
SLV 12	4.69	-341.78	-1164	-0.0000176	0.0005615	0.0035	0.82		822.19	822.19	2.41		Si
SLV 10	1.69	-383.89	-1054	-0.0000235	0.0005615	0.0035	0.82		768.44	768.44	2		Si
SLV 10	4.69	494.9	-2231	-0.0000255	0.0005615	0.0035	1.025		1167.53	1167.53	2.36		Si
SLV 3	1.69	-1454.09	-2609	-0.0006334	0.0005615	0.0035	0.82		1512.62	1512.62	1.04		Si
SLV 3	4.69	1036.64	-3156	-0.0000584	0.0005615	0.0035	1.025		1599.67	1599.67	1.54		Si
SLV 9	1.69	-642.19	-460	-0.0007895	0.0005615	0.0035	0.82		475.41	475.41	0.74		No
SLV 9	4.69	726.1	-2606	-0.0000374	0.0005615	0.0035	1.025		1343.89	1343.89	1.85		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 84	1.69	-732.1	-4758	-4007	-874	1.025	1.025	-13031	8682	2670	45199	9208	2614	11822	No	13.53	Si
SLU 84	4.69	836.69	-4480	-3773	-842	1.025	0.9772	-12269	8580	2516	45199	9208	2614	11822	No	14.04	Si
SLU 74	1.69	-652.15	-4456	-3752	-760	1.025	1.025	-12203	8572	2636	45199	9208	2614	11822	No	15.56	Si
SLU 74	4.69	723.18	-3898	-3283	-730	1.025	0.9809	-10675	8368	2462	45199	9208	2614	11822	No	16.19	Si
SLU 39	1.69	-698.01	-4058	-3417	-849	1.025	1.0215	-11113	8426	2582	45199	9208	2614	11822	No	13.92	Si
SLU 39	4.69	810.42	-4259	-3587	-821	1.025	0.9667	-11665	8500	2465	45199	9208	2614	11822	No	14.39	Si
SLU 81	1.69	-740.79	-4757	-4006	-881	1.025	1.025	-13027	8681	2670	45199	9208	2614	11822	No	13.43	Si
SLU 81	4.69	841.68	-4492	-3783	-849	1.025	0.9754	-12302	8585	2512	45199	9208	2614	11822	No	13.93	Si
SLU 40	1.69	-689.33	-4059	-3418	-842	1.025	1.025	-11117	8427	2591	45199	9208	2614	11822	No	14.03	Si
SLU 40	4.69	805.43	-4247	-3577	-815	1.025	0.9686	-11632	8495	2469	45199	9208	2614	11822	No	14.51	Si
SLU 82	1.69	-732.1	-4758	-4007	-874	1.025	1.025	-13031	8682	2670	45199	9208	2614	11822	No	13.53	Si
SLU 82	4.69	836.69	-4480	-3773	-842	1.025	0.9772	-12269	8580	2516	45199	9208	2614	11822	No	14.04	Si
SLU 83	1.69	-740.79	-4757	-4006	-881	1.025	1.025	-13027	8681	2670	45199	9208	2614	11822	No	13.43	Si
SLU 83	4.69	841.68	-4492	-3783	-849	1.025	0.9754	-12302	8585	2512	45199	9208	2614	11822	No	13.93	Si
SLU 42	1.69	-689.33	-4059	-3418	-842	1.025	1.025	-11117	8427	2591	45199	9208	2614	11822	No	14.03	Si
SLU 42	4.69	805.43	-4247	-3577	-815	1.025	0.9686	-11632	8495	2469	45199	9208	2614	11822	No	14.51	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 77	1.69	-652.15	-4456	-3752	-760	1.025	1.025	-12203	8572	2636	45199	9208	2614	11822	No	15.56	Si
SLU 77	4.69	723.18	-3898	-3283	-730	1.025	0.9809	-10675	8368	2462	45199	9208	2614	11822	No	16.19	Si
SLU 41	1.69	-698.01	-4058	-3417	-849	1.025	1.0215	-11113	8426	2582	45199	9208	2614	11822	No	13.92	Si
SLU 41	4.69	810.42	-4259	-3587	-821	1.025	0.9667	-11665	8500	2465	45199	9208	2614	11822	No	14.39	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 12	1.69	550.16	-6095	-5133	987	1.025	1.025	-16692	13755	4230	45199	13812	2614	16426		16.64	Si
SLV 12	4.69	-341.78	-1164	-980	761	0.82	0.6563	0	0	0	45199	11050	2091	13141		17.26	Si
SLV 4	1.69	-1208.83	-3173	-2672	-1277	0.82	0.3946	0	0	0	45199	11050	2091	13141		10.29	Si
SLV 4	4.69	817.11	-2801	-2358	-315	1.025	0.6622	-7670	11951	2374	45199	13812	2614	16426		52.07	Si
SLV 6	1.69	-1041.84	-526	-443	-1484	0.82	0	0	0	0	45199	11050	2091	13141		8.86	Si
SLV 6	4.69	891.92	-2810	-2366	-1220	1.025	0.5853	-7696	11956	2099	45199	13812	2614	16426		13.46	Si
SLV 5	1.69	-1300.14	67	57	-1813	0.82	0	0	0	0	45199	11050	2091	13141		7.25	Si
SLV 5	4.69	1123.13	-3184	-2682	-1549	1.025	0.4794	-8720	12161	1749	45199	13812	2614	16426		10.61	Si
SLV 1	1.69	-1734.3	-1097	-924	-2101	0.82	0	0	0	0	45199	11050	2091	13141		6.25	Si
SLV 1	4.69	1287.65	-3476	-2927	-1160	1.025	0.4263	-9520	12321	1576	45199	13812	2614	16426		14.16	Si
SLV 3	1.69	-1454.09	-2609	-2197	-1589	0.82	0	0	0	0	45199	11050	2091	13141		8.27	Si
SLV 3	4.69	1036.64	-3156	-2658	-627	1.025	0.5521	-8643	12145	2012	45199	13812	2614	16426		26.19	Si
SLV 2	1.69	-1489.04	-1660	-1398	-1789	0.82	0	0	0	0	45199	11050	2091	13141		7.35	Si
SLV 2	4.69	1068.12	-3121	-2628	-848	1.025	0.5108	-8547	12126	1858	45199	13812	2614	16426		19.37	Si
SLV 10	1.69	-383.89	-1054	-887	-718	0.82	0.4444	0	0	0	45199	11050	2091	13141		18.3	Si
SLV 10	4.69	494.9	-2231	-1879	-1014	1.025	0.8722	-6111	11639	3045	45199	13812	2614	16426		16.2	Si
SLV 9	1.69	-642.19	-460	-387	-1047	0.82	0	0	0	0	45199	11050	2091	13141		12.55	Si
SLV 9	4.69	726.1	-2606	-2194	-1342	1.025	0.7015	-7136	11844	2492	45199	13812	2614	16426		12.24	Si
SLV 16	1.69	984.33	-4931	-4152	1275	1.025	0.9386	-13504	13117	3694	45199	13812	2614	16426		12.88	Si
SLV 16	4.69	-506.3	-872	-734	372	0.82	0	0	0	0	45199	11050	2091	13141		35.3	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 14	179667	0.48	5290	-1627	177.97	235.57	1.32	Si
SLV 16	179667	0.48	5423	-1668	177.97	241.25	1.36	Si
SLV 13	179667	0.48	5724	-1760	177.97	254.14	1.43	Si
SLV 15	179667	0.48	5857	-1801	177.97	259.78	1.46	Si
SLV 10	179667	0.48	6593	-2027	177.97	290.96	1.63	Si
SLV 12	179667	0.48	7034	-2163	177.97	309.51	1.74	Si
SLV 9	179667	0.48	7050	-2168	177.97	310.15	1.74	Si
SLV 11	179667	0.48	7491	-2303	177.97	328.58	1.85	Si
SLV 6	179667	0.48	7851	-2414	177.97	343.52	1.93	Si
SLV 8	179667	0.48	8293	-2550	177.97	361.73	2.03	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 1	-1282	-1097	33	2.471	313.5	0.89	40.36976	18.92268	Si
SLV 2	-1237	-1660	33	2.519	309.3	0.889	41.15909	18.92268	Si
SLV 3	-1242	-2609	16	2.52	309.8	0.889	41.18451	18.92268	Si
SLV 4	-1197	-3173	16	2.57	305.6	0.889	42.00156	18.92268	Si
SLV 13	-988	-2855	-17	2.824	286.7	0.889	46.16803	18.92268	Si
SLV 15	-948	-4367	-34	2.871	283.1	0.889	46.91143	18.92268	Si
SLV 14	-942	-3418	-17	2.887	282.6	0.889	47.17498	18.92268	Si
SLV 16	-902	-4931	-34	2.936	279.1	0.89	47.94959	18.92268	Si
SLV 5	-1227	67	36	2.528	308.4	0.889	41.31354	13.88289	Si, Trazione
SLV 6	-1179	-526	36	2.58	304	0.889	42.18232	13.88289	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	2.433	SLU 39	Si
V_SLU	13.425	SLU 81	Si
PF_SLV	0	SLV 5	No
V_SLV	6.255	SLV 1	Si
PFFP_SLV	1.324	SLV 14	Si
R_SLV	2.133	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-32.907	-9.039	-31.937	-9.039	L2	L3	0.97	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 47	3.69	354.67	-2850	-0.0000263	0.0003743	0.0035	0.97	1249.18	1336.39	1336.39	3.77	No	Si
SLU 47	4.69	-375.94	-2170	-0.0000233	0.0003743	0.0035	0.97	975.3	1222.75	1222.75	3.25	No	Si
SLU 51	3.69	353.83	-2843	-0.0000262	0.0003743	0.0035	0.97	1246.73	1334.03	1334.03	3.77	No	Si
SLU 51	4.69	-373.29	-2163	-0.0000232	0.0003743	0.0035	0.97	972.52	1219.79	1219.79	3.27	No	Si
SLU 49	3.69	353.83	-2843	-0.0000262	0.0003743	0.0035	0.97	1246.73	1334.03	1334.03	3.77	No	Si
SLU 49	4.69	-373.29	-2163	-0.0000232	0.0003743	0.0035	0.97	972.52	1219.79	1219.79	3.27	No	Si
SLU 48	3.69	352.58	-2834	-0.0000261	0.0003743	0.0035	0.97	1243.05	1330.49	1330.49	3.77	No	Si
SLU 48	4.69	-369.31	-2153	-0.000023	0.0003743	0.0035	0.97	968.34	1215.33	1215.33	3.29	No	Si
SLU 43	3.69	352.58	-2834	-0.0000261	0.0003743	0.0035	0.97	1243.05	1330.49	1330.49	3.77	No	Si
SLU 43	4.69	-369.31	-2153	-0.000023	0.0003743	0.0035	0.97	968.34	1215.33	1215.33	3.29	No	Si
SLU 44	3.69	354.67	-2850	-0.0000263	0.0003743	0.0035	0.97	1249.18	1336.39	1336.39	3.77	No	Si
SLU 44	4.69	-375.94	-2170	-0.0000233	0.0003743	0.0035	0.97	975.3	1222.75	1222.75	3.25	No	Si
SLU 46	3.69	353.83	-2843	-0.0000262	0.0003743	0.0035	0.97	1246.73	1334.03	1334.03	3.77	No	Si
SLU 46	4.69	-373.29	-2163	-0.0000232	0.0003743	0.0035	0.97	972.52	1219.79	1219.79	3.27	No	Si
SLU 50	3.69	352.58	-2834	-0.0000261	0.0003743	0.0035	0.97	1243.05	1330.49	1330.49	3.77	No	Si
SLU 50	4.69	-369.31	-2153	-0.000023	0.0003743	0.0035	0.97	968.34	1215.33	1215.33	3.29	No	Si
SLU 68	3.69	420.83	-3666	-0.0000329	0.0003743	0.0035	0.97	1557.87	1629.01	1629.01	3.87	No	Si
SLU 68	4.69	-455.04	-2880	-0.0000297	0.0003743	0.0035	0.97	1261.15	1523.05	1523.05	3.35	No	Si
SLU 45	3.69	352.58	-2834	-0.0000261	0.0003743	0.0035	0.97	1243.05	1330.49	1330.49	3.77	No	Si
SLU 45	4.69	-369.31	-2153	-0.000023	0.0003743	0.0035	0.97	968.34	1215.33	1215.33	3.29	No	Si

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

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 16	3.69	782.18	-3863	-0.0000462	0.0005615	0.0035	0.97		1807.19	1807.19	2.31		Si
SLV 16	4.69	-1190.67	-3751	-0.0000773	0.0005615	0.0035	0.776		1925.42	1925.42	1.62		Si
SLV 10	3.69	381.61	-2468	-0.0000248	0.0005615	0.0035	0.97		1203.46	1203.46	3.15		Si
SLV 10	4.69	-290.96	-2021	-0.0000196	0.0005615	0.0035	0.97		1171.14	1171.14	4.03		Si
SLV 13	3.69	596.65	-3128	-0.0000356	0.0005615	0.0035	0.97		1492.81	1492.81	2.5		Si
SLV 13	4.69	-752.39	-2877	-0.0000434	0.0005615	0.0035	0.776		1548.2	1548.2	2.06		Si
SLV 12	3.69	628.58	-4200	-0.0000421	0.0005615	0.0035	0.97		1944.31	1944.31	3.09		Si
SLV 12	4.69	-1039.56	-3782	-0.0000615	0.0005615	0.0035	0.776		1938.54	1938.54	1.86		Si
SLV 14	3.69	708.09	-3343	-0.0000412	0.0005615	0.0035	0.97		1586.02	1586.02	2.24		Si
SLV 14	4.69	-966.09	-3223	-0.0000593	0.0005615	0.0035	0.776		1698.22	1698.22	1.76		Si
SLV 1	3.69	-97.65	-2343	-0.0000151	0.0005615	0.0035	0.97		1313.68	1313.68	13.45		Si
SLV 1	4.69	444.18	-1177	-0.0000366	0.0005615	0.0035	0.97		618.41	618.41	1.39		Si
SLV 15	3.69	670.74	-3647	-0.0000407	0.0005615	0.0035	0.97		1716.11	1716.11	2.56		Si
SLV 15	4.69	-976.97	-3406	-0.0000585	0.0005615	0.0035	0.776		1777.28	1777.28	1.82		Si
SLV 11	3.69	511.21	-3973	-0.0000371	0.0005615	0.0035	0.97		1852.63	1852.63	3.62		Si
SLV 11	4.69	-814.5	-3418	-0.0000468	0.0005615	0.0035	0.97		1782.44	1782.44	2.19		Si
SLV 8	3.69	420.29	-3964	-0.0000341	0.0005615	0.0035	0.97		1849.05	1849.05	4.4		Si
SLV 8	4.69	-680.58	-3271	-0.0000397	0.0005615	0.0035	0.97		1719.31	1719.31	2.53		Si
SLV 5	3.69	55.95	-2006	-0.000012	0.0005615	0.0035	0.97		996.93	996.93	17.82		Si
SLV 5	4.69	293.07	-1147	-0.0000165	0.0005615	0.0035	0.97		604.26	604.26	2.06		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 79	3.69	540.19	-5311	-4472	1057	0.97	0.97	-15368	8994	2617	45199	8714	2474	11187	No	10.58	Si
SLU 79	4.69	-608.35	-4325	-3642	738	0.97	0.97	-12516	8613	2506	45199	8714	2474	11187	No	15.15	Si
SLU 80	3.69	541.45	-5320	-4480	1062	0.97	0.97	-15395	8997	2618	45199	8714	2474	11187	No	10.53	Si
SLU 80	4.69	-612.34	-4335	-3651	745	0.97	0.97	-12546	8617	2508	45199	8714	2474	11187	No	15.01	Si
SLU 75	3.69	541.45	-5320	-4480	1062	0.97	0.97	-15395	8997	2618	45199	8714	2474	11187	No	10.53	Si
SLU 75	4.69	-612.34	-4335	-3651	745	0.97	0.97	-12546	8617	2508	45199	8714	2474	11187	No	15.01	Si
SLU 73	3.69	542.28	-5326	-4485	1066	0.97	0.97	-15413	9000	2619	45199	8714	2474	11187	No	10.5	Si
SLU 73	4.69	-614.99	-4342	-3656	750	0.97	0.97	-12565	8620	2508	45199	8714	2474	11187	No	14.92	Si
SLU 78	3.69	541.45	-5320	-4480	1062	0.97	0.97	-15395	8997	2618	45199	8714	2474	11187	No	10.53	Si
SLU 78	4.69	-612.34	-4335	-3651	745	0.97	0.97	-12546	8617	2508	45199	8714	2474	11187	No	15.01	Si
SLU 83	3.69	592.24	-6022	-5071	1146	0.97	0.97	-17428	9268	2697	45199	8714	2474	11187	No	9.76	Si
SLU 83	4.69	-676.9	-4952	-4170	809	0.97	0.97	-14329	8855	2577	45199	8714	2474	11187	No	13.83	Si
SLU 82	3.69	593.5	-6032	-5079	1152	0.97	0.97	-17455	9272	2698	45199	8714	2474	11187	No	9.72	Si
SLU 82	4.69	-680.89	-4962	-4178	816	0.97	0.97	-14358	8859	2578	45199	8714	2474	11187	No	13.71	Si
SLU 76	3.69	542.28	-5326	-4485	1066	0.97	0.97	-15413	9000	2619	45199	8714	2474	11187	No	10.5	Si
SLU 76	4.69	-614.99	-4342	-3656	750	0.97	0.97	-12565	8620	2508	45199	8714	2474	11187	No	14.92	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 81	3.69	592.24	-6022	-5071	1146	0.97	0.97	-17428	9268	2697	45199	8714	2474	11187	No	9.76	Si
SLU 81	4.69	-676.9	-4952	-4170	809	0.97	0.97	-14329	8855	2577	45199	8714	2474	11187	No	13.83	Si
SLU 84	3.69	593.5	-6032	-5079	1152	0.97	0.97	-17455	9272	2698	45199	8714	2474	11187	No	9.72	Si
SLU 84	4.69	-680.89	-4962	-4178	816	0.97	0.97	-14358	8859	2578	45199	8714	2474	11187	No	13.71	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	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 12	3.69	628.58	-4200	-3537	1779	0.97	0.97	-12153	12847	3739	45199	13071	2474	15544		8.74	Si
SLV 12	4.69	-1039.56	-3782	-3184	1571	0.776	0.6303	0	0	0	45199	10457	1979	12435		7.91	Si
SLV 14	3.69	708.09	-3343	-2815	1966	0.97	0.8196	-9674	12351	3037	45199	13071	2474	15544		7.91	Si
SLV 14	4.69	-966.09	-3223	-2714	1357	0.776	0.5557	0	0	0	45199	10457	1979	12435		9.16	Si
SLV 7	3.69	302.92	-3738	-3148	623	0.97	0.97	-10816	12580	3661	45199	13071	2474	15544		24.96	Si
SLV 7	4.69	-455.53	-2908	-2449	659	0.97	0.97	-8415	12100	3521	45199	13071	2474	15544		23.6	Si
SLV 15	3.69	670.74	-3647	-3071	1880	0.97	0.9033	-10555	12528	3395	45199	13071	2474	15544		8.27	Si
SLV 15	4.69	-976.97	-3406	-2868	1391	0.776	0.5944	0	0	0	45199	10457	1979	12435		8.94	Si
SLV 13	3.69	596.65	-3128	-2634	1572	0.97	0.8827	-9051	12227	3238	45199	13071	2474	15544		9.89	Si
SLV 13	4.69	-752.39	-2877	-2423	1005	0.776	0.6706	0	0	0	45199	10457	1979	12435		12.38	Si
SLV 10	3.69	381.61	-2468	-2078	751	0.97	0.97	-7142	11845	3447	45199	13071	2474	15544		20.69	Si
SLV 10	4.69	-290.96	-2021	-1702	283	0.97	0.97	-5847	11586	3372	45199	13071	2474	15544		54.95	Si
SLV 11	3.69	511.21	-3973	-3346	1364	0.97	0.97	-11497	12716	3700	45199	13071	2474	15544		11.39	Si
SLV 11	4.69	-814.5	-3418	-2878	1201	0.97	0.7401	-13036	13024	2892	45199	13071	2474	15544		12.95	Si
SLV 1	3.69	-97.65	-2343	-1973	-900	0.97	0.97	-6781	11773	3426	45199	13071	2474	15544		17.26	Si
SLV 1	4.69	444.18	-1177	-991	-802	0.97	0.3231	-3407	11098	1076	45199	13071	2474	15544		19.38	Si
SLV 16	3.69	782.18	-3863	-3253	2275	0.97	0.8475	-11178	12652	3217	45199	13071	2474	15544		6.83	Si
SLV 16	4.69	-1190.67	-3751	-3159	1743	0.776	0.5027	0	0	0	45199	10457	1979	12435		7.13	Si
SLV 8	3.69	420.29	-3964	-3338	1038	0.97	0.97	-11472	12711	3699	45199	13071	2474	15544		14.98	Si
SLV 8	4.69	-680.58	-3271	-2755	1029	0.97	0.8309	-11110	12639	3150	45199	13071	2474	15544		15.1	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 γM = 2

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 9	179667	0.48	6334	-1843	168.42	265.01	1.57	Si
SLV 5	179667	0.48	6387	-1859	168.42	267.15	1.59	Si
SLV 10	179667	0.48	6607	-1923	168.42	275.91	1.64	Si
SLV 6	179667	0.48	6660	-1938	168.42	278.05	1.65	Si
SLV 13	179667	0.48	7869	-2290	168.42	325.8	1.93	Si
SLV 1	179667	0.48	8048	-2342	168.42	332.78	1.98	Si
SLV 14	179667	0.48	8128	-2365	168.42	335.92	1.99	Si
SLV 2	179667	0.48	8307	-2417	168.42	342.88	2.04	Si
SLV 15	179667	0.48	9233	-2687	168.42	378.66	2.25	Si
SLV 3	179667	0.48	9412	-2739	168.42	385.5	2.29	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 16	-1346	-269	-67	2.32	309.1	0.891	37.85886	18.92268	Si
SLV 15	-1299	-838	-67	2.367	304.7	0.89	38.6362	18.92268	Si
SLV 14	-1268	-367	55	2.403	301.8	0.89	39.24567	18.92268	Si
SLV 13	-1221	-936	55	2.453	297.4	0.89	40.07565	18.92268	Si
SLV 4	-1113	-4812	-54	2.575	287.4	0.889	42.08912	18.92268	Si
SLV 3	-1065	-5381	-54	2.632	283.1	0.889	43.03367	18.92268	Si
SLV 2	-1034	-4909	67	2.665	280.3	0.889	43.56732	18.92268	Si
SLV 1	-987	-5478	67	2.726	276	0.889	44.57513	18.92268	Si
SLV 12	-1357	-1730	-204	2.252	310.2	0.891	36.74392	13.88289	Si
SLV 11	-1307	-2330	-204	2.299	305.5	0.89	37.53572	13.88289	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	3.252	SLU 44	Si
V_SLU	9.715	SLU 82	Si
PF_SLV	1.392	SLV 1	Si
V_SLV	6.834	SLV 16	Si
PFFP_SLV	1.573	SLV 9	Si
R_SLV	2.001	SLV 16	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-31.437	-9.039	-30.367	-9.039	L2	L3	1.07	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	ϵ_{fd}	$\gamma_{F,d}$	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, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 46	3.69	113.24	-2635	-0.0000153	0.0003743	0.0035	1.07	1296.01	1398.17	1398.17	12.35	No	Si
SLU 46	4.59	-305.25	-1431	-0.0000147	0.0003743	0.0035	1.07	731.84	985.11	985.11	3.23	No	Si
SLU 51	3.69	113.24	-2635	-0.0000153	0.0003743	0.0035	1.07	1296.01	1398.17	1398.17	12.35	No	Si
SLU 51	4.59	-305.25	-1431	-0.0000147	0.0003743	0.0035	1.07	731.84	985.11	985.11	3.23	No	Si
SLU 44	3.69	113.62	-2638	-0.0000153	0.0003743	0.0035	1.07	1297.4	1399.63	1399.63	12.32	No	Si
SLU 44	4.59	-304.96	-1433	-0.0000147	0.0003743	0.0035	1.07	732.95	986.23	986.23	3.23	No	Si
SLU 47	3.69	113.62	-2638	-0.0000153	0.0003743	0.0035	1.07	1297.4	1399.63	1399.63	12.32	No	Si
SLU 47	4.59	-304.96	-1433	-0.0000147	0.0003743	0.0035	1.07	732.95	986.23	986.23	3.23	No	Si
SLU 43	3.69	112.68	-2630	-0.0000153	0.0003743	0.0035	1.07	1293.93	1395.99	1395.99	12.39	No	Si
SLU 43	4.59	-305.68	-1427	-0.0000147	0.0003743	0.0035	1.07	730.18	983.42	983.42	3.22	No	Si
SLU 48	3.69	112.68	-2630	-0.0000153	0.0003743	0.0035	1.07	1293.93	1395.99	1395.99	12.39	No	Si
SLU 48	4.59	-305.68	-1427	-0.0000147	0.0003743	0.0035	1.07	730.18	983.42	983.42	3.22	No	Si
SLU 1	3.69	85.03	-2241	-0.0000127	0.0003743	0.0035	1.07	1116.55	1210.59	1210.59	14.24	No	Si
SLU 1	4.59	-238.21	-1271	-0.0000121	0.0003743	0.0035	1.07	653.52	905.44	905.44	3.8	No	Si
SLU 50	3.69	112.68	-2630	-0.0000153	0.0003743	0.0035	1.07	1293.93	1395.99	1395.99	12.39	No	Si
SLU 50	4.59	-305.68	-1427	-0.0000147	0.0003743	0.0035	1.07	730.18	983.42	983.42	3.22	No	Si
SLU 45	3.69	112.68	-2630	-0.0000153	0.0003743	0.0035	1.07	1293.93	1395.99	1395.99	12.39	No	Si
SLU 45	4.59	-305.68	-1427	-0.0000147	0.0003743	0.0035	1.07	730.18	983.42	983.42	3.22	No	Si
SLU 49	3.69	113.24	-2635	-0.0000153	0.0003743	0.0035	1.07	1296.01	1398.17	1398.17	12.35	No	Si
SLU 49	4.59	-305.25	-1431	-0.0000147	0.0003743	0.0035	1.07	731.84	985.11	985.11	3.23	No	Si

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

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 3	3.69	-339.4	-4303	-0.0000291	0.0005615	0.0035	1.07		2388.65	2388.65	7.04		Si
SLV 3	4.59	597.46	-3658	-0.0000329	0.0005615	0.0035	1.07		1918.21	1918.21	3.21		Si
SLV 14	3.69	487.95	-1606	-0.0000223	0.0005615	0.0035	1.07		911.05	911.05	1.87		Si
SLV 14	4.59	-1076.16	-47	-0.0031583	0.0005615	0.0035	0.856		277.61	277.61	0.26		No
SLV 13	3.69	364.36	-1864	-0.0000181	0.0005615	0.0035	1.07		1040.81	1040.81	2.86		Si
SLV 13	4.59	-879.71	-429	-0.0013628	0.0005615	0.0035	0.856		477.4	477.4	0.54		No
SLV 10	3.69	106.57	-2207	-0.000013	0.0005615	0.0035	1.07		1212.51	1212.51	11.38		Si
SLV 10	4.59	-638.1	-785	-0.0004479	0.0005615	0.0035	0.856		661.87	661.87	1.04		Si
SLV 1	3.69	-430.62	-4141	-0.0000308	0.0005615	0.0035	1.07		2314.42	2314.42	5.37		Si
SLV 1	4.59	548.85	-3406	-0.0000303	0.0005615	0.0035	1.07		1797.8	1797.8	3.28		Si
SLV 12	3.69	410.64	-2746	-0.0000235	0.0005615	0.0035	1.07		1478.25	1478.25	3.6		Si
SLV 12	4.59	-476.06	-1625	-0.0000223	0.0005615	0.0035	0.856		1090.96	1090.96	2.29		Si
SLV 16	3.69	579.18	-1767	-0.0000284	0.0005615	0.0035	1.07		992.45	992.45	1.71		Si
SLV 16	4.59	-1027.54	-299	-0.0020917	0.0005615	0.0035	0.856		409.88	409.88	0.4		No
SLV 4	3.69	-215.8	-4045	-0.0000246	0.0005615	0.0035	1.07		2268.65	2268.65	10.51		Si
SLV 4	4.59	401.01	-3277	-0.0000258	0.0005615	0.0035	1.07		1735.45	1735.45	4.33		Si
SLV 15	3.69	455.58	-2025	-0.0000216	0.0005615	0.0035	1.07		1121.89	1121.89	2.46		Si
SLV 15	4.59	-831.09	-681	-0.0009393	0.0005615	0.0035	0.856		608.03	608.03	0.73		No
SLV 9	3.69	-23.59	-2479	-0.0000121	0.0005615	0.0035	1.07		1514.55	1514.55	64.2		Si
SLV 9	4.59	-431.2	-1187	-0.0000229	0.0005615	0.0035	0.856		868.17	868.17	2.01		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 83	3.69	61.63	-5846	-4923	1138	1.07	1.07	-15335	8989	2886	45199	9612	2728	12341	No	10.84	Si
SLU 83	4.59	-306.4	-4055	-3415	881	1.07	1.07	-10638	8363	2684	45199	9612	2728	12341	No	14	Si
SLU 81	3.69	61.63	-5846	-4923	1138	1.07	1.07	-15335	8989	2886	45199	9612	2728	12341	No	10.84	Si
SLU 81	4.59	-306.4	-4055	-3415	881	1.07	1.07	-10638	8363	2684	45199	9612	2728	12341	No	14	Si
SLU 84	3.69	62.19	-5850	-4926	1140	1.07	1.07	-15347	8991	2886	45199	9612	2728	12341	No	10.83	Si
SLU 84	4.59	-305.97	-4058	-3418	880	1.07	1.07	-10647	8364	2685	45199	9612	2728	12341	No	14.03	Si
SLU 80	3.69	75.63	-5133	-4322	1082	1.07	1.07	-13465	8740	2805	45199	9612	2728	12341	No	11.4	Si
SLU 80	4.59	-309.24	-3467	-2920	847	1.07	1.07	-9095	8157	2618	45199	9612	2728	12341	No	14.57	Si
SLU 76	3.69	76.01	-5136	-4325	1083	1.07	1.07	-13474	8741	2806	45199	9612	2728	12341	No	11.39	Si
SLU 76	4.59	-308.96	-3469	-2921	846	1.07	1.07	-9101	8158	2619	45199	9612	2728	12341	No	14.59	Si
SLU 73	3.69	76.01	-5136	-4325	1083	1.07	1.07	-13474	8741	2806	45199	9612	2728	12341	No	11.39	Si
SLU 73	4.59	-308.96	-3469	-2921	846	1.07	1.07	-9101	8158	2619	45199	9612	2728	12341	No	14.59	Si
SLU 75	3.69	75.63	-5133	-4322	1082	1.07	1.07	-13465	8740	2805	45199	9612	2728	12341	No	11.4	Si
SLU 75	4.59	-309.24	-3467	-2920	847	1.07	1.07	-9095	8157	2618	45199	9612	2728	12341	No	14.57	Si
SLU 79	3.69	75.06	-5128	-4319	1081	1.07	1.07	-13453	8738	2805	45199	9612	2728	12341	No	11.41	Si
SLU 79	4.59	-309.67	-3464	-2917	849	1.07	1.07	-9086	8156	2618	45199	9612	2728	12341	No	14.54	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 82	3.69	62.19	-5850	-4926	1140	1.07	1.07	-15347	8991	2886	45199	9612	2728	12341	No	10.83	Si
SLU 82	4.59	-305.97	-4058	-3418	880	1.07	1.07	-10647	8364	2685	45199	9612	2728	12341	No	14.03	Si
SLU 78	3.69	75.63	-5133	-4322	1082	1.07	1.07	-13465	8740	2805	45199	9612	2728	12341	No	11.4	Si
SLU 78	4.59	-309.24	-3467	-2920	847	1.07	1.07	-9095	8157	2618	45199	9612	2728	12341	No	14.57	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 15	3.69	455.58	-2025	-1706	2185	1.07	0.9302	-5314	11479	3204	45199	14418	2728	17147		7.85	Si
SLV 15	4.59	-831.09	-681	-573	1506	0.856	0	0	0	0	45199	11535	2183	13717		9.11	Si
SLV 10	3.69	106.57	-2207	-1859	1186	1.07	1.07	-5790	11575	3715	45199	14418	2728	17147		14.46	Si
SLV 10	4.59	-638.1	-785	-661	1308	0.856	0	0	0	0	45199	11535	2183	13717		10.49	Si
SLV 1	3.69	-430.62	-4141	-3487	-1144	1.07	1.07	-10864	12589	4041	45199	14418	2728	17147		14.99	Si
SLV 1	4.59	548.85	-3406	-2869	-634	1.07	1.07	-8936	12204	3917	45199	14418	2728	17147		27.06	Si
SLV 16	3.69	579.18	-1767	-1488	2634	1.07	0.6219	-4637	11344	2117	45199	14418	2728	17147		6.51	Si
SLV 16	4.59	-1027.54	-299	-252	1833	0.856	0	0	0	0	45199	11535	2183	13717		7.48	Si
SLV 14	3.69	487.95	-1606	-1352	2472	1.07	0.6933	-4212	11259	2342	45199	14418	2728	17147		6.94	Si
SLV 14	4.59	-1076.16	-47	-40	1951	0.856	0	0	0	0	45199	11535	2183	13717		7.03	Si
SLV 11	3.69	280.48	-3018	-2542	1254	1.07	1.07	-7918	12000	3852	45199	14418	2728	17147		13.67	Si
SLV 11	4.59	-269.16	-2027	-1707	569	1.07	1.07	-5318	11480	3685	45199	14418	2728	17147		30.12	Si
SLV 13	3.69	364.36	-1864	-1569	2022	1.07	1.0185	-4889	11395	3482	45199	14418	2728	17147		8.48	Si
SLV 13	4.59	-879.71	-429	-361	1625	0.856	0	0	0	0	45199	11535	2183	13717		8.44	Si
SLV 9	3.69	-23.59	-2479	-2088	712	1.07	1.07	-6503	11717	3761	45199	14418	2728	17147		24.07	Si
SLV 9	4.59	-431.2	-1187	-1000	964	0.856	0.5153	0	0	0	45199	11535	2183	13717		14.24	Si
SLV 3	3.69	-339.4	-4303	-3624	-982	1.07	1.07	-11288	12674	4068	45199	14418	2728	17147		17.47	Si
SLV 3	4.59	597.46	-3658	-3081	-752	1.07	1.07	-9597	12336	3960	45199	14418	2728	17147		22.8	Si
SLV 12	3.69	410.64	-2746	-2313	1728	1.07	1.07	-7205	11858	3806	45199	14418	2728	17147		9.92	Si
SLV 12	4.59	-476.06	-1625	-1369	913	0.856	0.7263	0	0	0	45199	11535	2183	13717		15.02	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 14	179667	0.48	6874	-2207	185.78	316.11	1.7	Si
SLV 10	179667	0.48	6920	-2221	185.78	318.11	1.71	Si
SLV 13	179667	0.48	7085	-2274	185.78	325.31	1.75	Si
SLV 9	179667	0.48	7142	-2293	185.78	327.8	1.76	Si
SLV 16	179667	0.48	7738	-2484	185.78	353.71	1.9	Si
SLV 6	179667	0.48	7828	-2513	185.78	357.59	1.92	Si
SLV 15	179667	0.48	7948	-2551	185.78	362.8	1.95	Si
SLV 5	179667	0.48	8050	-2584	185.78	367.16	1.98	Si
SLV 12	179667	0.48	9799	-3145	185.78	441.54	2.38	Si
SLV 2	179667	0.48	9900	-3178	185.78	445.78	2.4	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-1411	-2815	-27	2.405	334	0.89	39.27575	18.92268	Si
SLV 1	-1385	-2354	38	2.425	331.6	0.89	39.60479	18.92268	Si
SLV 4	-1356	-3015	-27	2.458	328.9	0.89	40.14642	18.92268	Si
SLV 2	-1330	-2554	38	2.478	326.5	0.89	40.49058	18.92268	Si
SLV 15	-975	-3665	-38	2.889	294.3	0.889	47.19678	18.92268	Si
SLV 13	-949	-3205	27	2.929	292	0.89	47.84771	18.92268	Si
SLV 16	-920	-3865	-38	2.965	289.5	0.89	48.41492	18.92268	Si
SLV 14	-894	-3404	27	3.007	287.2	0.89	49.09386	18.92268	Si
SLV 7	-1290	-3645	-107	2.49	322.8	0.889	40.7	13.88289	Si
SLV 8	-1232	-3855	-107	2.55	317.4	0.889	41.69172	13.88289	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	3.217	SLU 43	Si
V_SLU	10.828	SLU 82	Si
PF_SLV	0.258	SLV 14	No
V_SLV	6.509	SLV 16	Si
PFFP_SLV	1.701	SLV 14	Si
R_SLV	2.076	SLV 3	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-29.367	-9.039	-27.097	-9.039	L2	L3	2.27	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato 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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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	em	em_	emu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 48	2.69	-346.82	-6972	-0.0000175	0.0003743	0.0035	2.27	7117.49	8650.55	8650.55	24.94	No	Si
SLU 48	4.59	368.25	-6591	-0.0000168	0.0003743	0.0035	2.27	6769.63	7235.56	7235.56	19.65	No	Si
SLU 43	2.69	-346.82	-6972	-0.0000175	0.0003743	0.0035	2.27	7117.49	8650.55	8650.55	24.94	No	Si
SLU 43	4.59	368.25	-6591	-0.0000168	0.0003743	0.0035	2.27	6769.63	7235.56	7235.56	19.65	No	Si
SLU 51	2.69	-349.97	-6978	-0.0000175	0.0003743	0.0035	2.27	7122.86	8656.45	8656.45	24.74	No	Si
SLU 51	4.59	368.73	-6588	-0.0000167	0.0003743	0.0035	2.27	6766.75	7232.51	7232.51	19.61	No	Si
SLU 46	2.69	-349.97	-6978	-0.0000175	0.0003743	0.0035	2.27	7122.86	8656.45	8656.45	24.74	No	Si
SLU 46	4.59	368.73	-6588	-0.0000167	0.0003743	0.0035	2.27	6766.75	7232.51	7232.51	19.61	No	Si
SLU 2	2.69	-256.44	-5761	-0.0000142	0.0003743	0.0035	2.27	5995.85	7460.81	7460.81	29.09	No	Si
SLU 2	4.59	266.06	-5515	-0.0000137	0.0003743	0.0035	2.27	5761.43	6167.72	6167.72	23.18	No	Si
SLU 50	2.69	-346.82	-6972	-0.0000175	0.0003743	0.0035	2.27	7117.49	8650.55	8650.55	24.94	No	Si
SLU 50	4.59	368.25	-6591	-0.0000168	0.0003743	0.0035	2.27	6769.63	7235.56	7235.56	19.65	No	Si
SLU 45	2.69	-346.82	-6972	-0.0000175	0.0003743	0.0035	2.27	7117.49	8650.55	8650.55	24.94	No	Si
SLU 45	4.59	368.25	-6591	-0.0000168	0.0003743	0.0035	2.27	6769.63	7235.56	7235.56	19.65	No	Si
SLU 47	2.69	-352.06	-6982	-0.0000175	0.0003743	0.0035	2.27	7126.44	8660.38	8660.38	24.6	No	Si
SLU 47	4.59	369.06	-6586	-0.0000167	0.0003743	0.0035	2.27	6764.82	7230.47	7230.47	19.59	No	Si
SLU 49	2.69	-349.97	-6978	-0.0000175	0.0003743	0.0035	2.27	7122.86	8656.45	8656.45	24.74	No	Si
SLU 49	4.59	368.73	-6588	-0.0000167	0.0003743	0.0035	2.27	6766.75	7232.51	7232.51	19.61	No	Si
SLU 44	2.69	-352.06	-6982	-0.0000175	0.0003743	0.0035	2.27	7126.44	8660.38	8660.38	24.6	No	Si
SLU 44	4.59	369.06	-6586	-0.0000167	0.0003743	0.0035	2.27	6764.82	7230.47	7230.47	19.59	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	em	em_	emu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 15	2.69	3183.06	-7423	-0.0000352	0.0005615	0.0035	2.27		8239.58	8239.58	2.59		Si
SLV 15	4.59	-2503.55	-6577	-0.0000291	0.0005615	0.0035	2.27		8404.77	8404.77	3.36		Si
SLV 2	2.69	-3599.61	-6490	-0.0000375	0.0005615	0.0035	2.27		8314.49	8314.49	2.31		Si
SLV 2	4.59	2929.92	-7294	-0.0000332	0.0005615	0.0035	2.27		8108.53	8108.53	2.77		Si
SLV 16	2.69	4082.65	-7435	-0.0000427	0.0005615	0.0035	2.27		8250.98	8250.98	2.02		Si
SLV 16	4.59	-3272.14	-6566	-0.0000345	0.0005615	0.0035	2.27		8392.99	8392.99	2.56		Si
SLV 3	2.69	-4429.08	-8121	-0.0000465	0.0005615	0.0035	2.27		9960	9960	2.25		Si
SLV 3	4.59	3349.02	-7454	-0.0000364	0.0005615	0.0035	2.27		8270.83	8270.83	2.47		Si
SLV 5	2.69	-1940.66	-4318	-0.0000209	0.0005615	0.0035	2.27		6064.24	6064.24	3.12		Si
SLV 5	4.59	2078.28	-6825	-0.0000271	0.0005615	0.0035	2.27		7632.18	7632.18	3.67		Si
SLV 4	2.69	-3529.5	-8132	-0.0000389	0.0005615	0.0035	2.27		9971.18	9971.18	2.83		Si
SLV 4	4.59	2580.44	-7443	-0.0000315	0.0005615	0.0035	2.27		8259.33	8259.33	3.2		Si
SLV 1	2.69	-4499.19	-6479	-0.0000497	0.0005615	0.0035	1.816		8302.79	8302.79	1.85		Si
SLV 1	4.59	3698.51	-7306	-0.000039	0.0005615	0.0035	2.27		8120.04	8120.04	2.2		Si
SLV 10	2.69	1290.4	-4121	-0.0000164	0.0005615	0.0035	2.27		4811.7	4811.7	3.73		Si
SLV 10	4.59	-486.95	-6550	-0.0000172	0.0005615	0.0035	2.27		8376.96	8376.96	17.2		Si
SLV 13	2.69	3112.95	-5781	-0.0000324	0.0005615	0.0035	2.27		6555.78	6555.78	2.11		Si
SLV 13	4.59	-2154.07	-6428	-0.0000267	0.0005615	0.0035	2.27		8250.13	8250.13	3.83		Si
SLV 14	2.69	4012.53	-5792	-0.0000441	0.0005615	0.0035	2.27		6567.44	6567.44	1.64		Si
SLV 14	4.59	-2922.65	-6417	-0.0000315	0.0005615	0.0035	2.27		8238.3	8238.3	2.82		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	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 48	2.69	-346.82	-6972	-5871	-320	2.27	2.27	-8621	8094	5512	45199	20392	5789	26181	No	81.9	Si
SLU 48	4.59	368.25	-6591	-5550	-311	2.27	2.27	-8150	8031	5469	45199	20392	5789	26181	No	84.08	Si
SLU 49	2.69	-349.97	-6978	-5876	-322	2.27	2.27	-8629	8095	5513	45199	20392	5789	26181	No	81.33	Si
SLU 49	4.59	368.73	-6588	-5548	-313	2.27	2.27	-8146	8031	5469	45199	20392	5789	26181	No	83.52	Si
SLU 47	2.69	-352.06	-6982	-5879	-323	2.27	2.27	-8634	8096	5513	45199	20392	5789	26181	No	80.96	Si
SLU 47	4.59	369.06	-6586	-5546	-315	2.27	2.27	-8144	8030	5469	45199	20392	5789	26181	No	83.16	Si
SLU 50	2.69	-346.82	-6972	-5871	-320	2.27	2.27	-8621	8094	5512	45199	20392	5789	26181	No	81.9	Si
SLU 50	4.59	368.25	-6591	-5550	-311	2.27	2.27	-8150	8031	5469	45199	20392	5789	26181	No	84.08	Si
SLU 68	2.69	-292.95	-8455	-7120	-252	2.27	2.27	-10455	8338	5678	45199	20392	5789	26181	No	103.8	Si
SLU 68	4.59	300.75	-8292	-6983	-240	2.27	2.27	-10254	8312	5660	45199	20392	5789	26181	No	109.25	Si
SLU 51	2.69	-349.97	-6978	-5876	-322	2.27	2.27	-8629	8095	5513	45199	20392	5789	26181	No	81.33	Si
SLU 51	4.59	368.73	-6588	-5548	-313	2.27	2.27	-8146	8031	5469	45199	20392	5789	26181	No	83.52	Si
SLU 46	2.69	-349.97	-6978	-5876	-322	2.27	2.27	-8629	8095	5513	45199	20392	5789	26181	No	81.33	Si
SLU 46	4.59	368.73	-6588	-5548	-313	2.27	2.27	-8146	8031	5469	45199	20392	5789	26181	No	83.52	Si
SLU 43	2.69	-346.82	-6972	-5871	-320	2.27	2.27	-8621	8094	5512	45199	20392	5789	26181	No	81.9	Si
SLU 43	4.59	368.25	-6591	-5550	-311	2.27	2.27	-8150	8031	5469	45199	20392	5789	26181	No	84.08	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 44	2.69	-352.06	-6982	-5879	-323	2.27	2.27	-8634	8096	5513	45199	20392	5789	26181	No	80.96	Si
SLU 44	4.59	-369.06	-6586	-5546	-315	2.27	2.27	-8144	8030	5469	45199	20392	5789	26181	No	83.16	Si
SLU 45	2.69	-346.82	-6972	-5871	-320	2.27	2.27	-8621	8094	5512	45199	20392	5789	26181	No	81.9	Si
SLU 45	4.59	-368.25	-6591	-5550	-311	2.27	2.27	-8150	8031	5469	45199	20392	5789	26181	No	84.08	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 15	2.69	3183.06	-7423	-6251	3290	2.27	2.1186	-9180	12253	7788	45199	30588	5789	36377		11.06	Si
SLV 15	4.59	-2503.55	-6577	-5538	2691	2.27	2.263	-8133	12043	8176	45199	30588	5789	36377		13.52	Si
SLV 7	2.69	-1706.95	-9792	-8246	-1706	2.27	2.27	-12109	12838	8743	45199	30588	5789	36377		21.32	Si
SLV 7	4.59	913.32	-7321	-6165	-1436	2.27	2.27	-9053	12227	8327	45199	30588	5789	36377		25.33	Si
SLV 16	2.69	4082.65	-7435	-6261	4167	2.27	1.7576	-9193	12255	6462	45199	30588	5789	36377		8.73	Si
SLV 16	4.59	-3272.14	-6566	-5529	3569	2.27	1.9099	-9693	12355	7079	45199	30588	5789	36377		10.19	Si
SLV 14	2.69	4012.53	-5792	-4878	4112	2.27	1.3268	-7163	11849	4717	45199	30588	5789	36377		8.85	Si
SLV 14	4.59	-2922.65	-6417	-5404	3471	2.27	2.0386	-8862	12189	7455	45199	30588	5789	36377		10.48	Si
SLV 3	2.69	-4429.08	-8121	-6839	-4459	2.27	1.7689	-12962	13009	6903	45199	30588	5789	36377		8.16	Si
SLV 3	4.59	3349.02	-7454	-6277	-3798	2.27	2.0572	-9218	12260	7566	45199	30588	5789	36377		9.58	Si
SLV 5	2.69	-1940.66	-4318	-3637	-1891	2.27	2.0568	-5905	11598	7156	45199	30588	5789	36377		19.24	Si
SLV 5	4.59	2078.28	-6825	-5748	-1761	2.27	2.27	-8440	12105	8243	45199	30588	5789	36377		20.65	Si
SLV 2	2.69	-3599.61	-6490	-5465	-3638	2.27	1.7411	-10509	12519	6539	45199	30588	5789	36377		10	Si
SLV 2	4.59	2929.92	-7294	-6142	-3018	2.27	2.2	-9020	12221	8065	45199	30588	5789	36377		12.05	Si
SLV 4	2.69	-3529.5	-8132	-6848	-3582	2.27	2.103	-10906	12598	7948	45199	30588	5789	36377		10.16	Si
SLV 4	4.59	2580.44	-7443	-6268	-2920	2.27	2.27	-9204	12257	8347	45199	30588	5789	36377		12.46	Si
SLV 13	2.69	3112.95	-5781	-4868	3234	2.27	1.7896	-7149	11846	6360	45199	30588	5789	36377		11.25	Si
SLV 13	4.59	-2154.07	-6428	-5413	2593	2.27	2.27	-7949	12006	8176	45199	30588	5789	36377		14.03	Si
SLV 1	2.69	-4499.19	-6479	-5456	-4515	1.816	1.3217	0	0	0	45199	24471	4631	29101		6.45	Si
SLV 1	4.59	3698.51	-7306	-6152	-3895	2.27	1.8862	-9034	12223	6917	45199	30588	5789	36377		9.34	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 10	179667	0.48	8231	-5605	394.14	795.48	2.02	Si
SLV 9	179667	0.48	8236	-5609	394.14	795.94	2.02	Si
SLV 6	179667	0.48	8394	-5716	394.14	810.32	2.06	Si
SLV 5	179667	0.48	8399	-5720	394.14	810.78	2.06	Si
SLV 14	179667	0.48	9130	-6217	394.14	876.85	2.22	Si
SLV 13	179667	0.48	9135	-6221	394.14	877.29	2.23	Si
SLV 2	179667	0.48	9673	-6587	394.14	925.53	2.35	Si
SLV 1	179667	0.48	9678	-6591	394.14	925.96	2.35	Si
SLV 16	179667	0.48	10063	-6853	394.14	960.21	2.44	Si
SLV 15	179667	0.48	10068	-6856	394.14	960.64	2.44	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-2809	-10542	-12	2.497	691.5	0.889	40.80571	18.92268	Si
SLV 4	-2807	-10533	-12	2.498	691.3	0.889	40.81724	18.92268	Si
SLV 1	-2811	-8853	2	2.498	691.6	0.889	40.82185	18.92268	Si
SLV 2	-2809	-8845	2	2.499	691.5	0.889	40.83329	18.92268	Si
SLV 15	-2741	-9300	-10	2.53	685.2	0.889	41.3482	18.92268	Si
SLV 13	-2743	-7612	4	2.53	685.4	0.889	41.35322	18.92268	Si
SLV 16	-2739	-9292	-10	2.531	685	0.889	41.36	18.92268	Si
SLV 14	-2741	-7603	4	2.531	685.2	0.889	41.36494	18.92268	Si
SLV 5	-2789	-6449	19	2.505	689.6	0.889	40.9377	13.88289	Si
SLV 6	-2788	-6440	19	2.506	689.5	0.889	40.94983	13.88289	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	19.592	SLU 44	Si
V_SLU	80.96	SLU 44	Si
PF_SLV	1.637	SLV 14	Si
V_SLV	6.446	SLV 1	Si
PFFP_SLV	2.018	SLV 10	Si
R_SLV	2.156	SLV 3	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-26.097	-9.039	-24.997	-9.039	L2	L3	1.1	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 1	3.69	-88.18	-1984	-0.0000112	0.0003743	0.0035	1.1	1026.88	1371.2	1371.2	15.55	No	Si
SLU 1	4.59	343.39	-961	-0.0000166	0.0003743	0.0035	1.1	513.3	581.1	581.1	1.69	No	Si
SLU 46	3.69	-129.68	-2288	-0.0000136	0.0003743	0.0035	1.1	1172.72	1521.8	1521.8	11.74	No	Si
SLU 46	4.59	458.18	-1006	-0.0000361	0.0003743	0.0035	1.1	536.68	604.8	604.8	1.32	No	Si
SLU 51	3.69	-129.68	-2288	-0.0000136	0.0003743	0.0035	1.1	1172.72	1521.8	1521.8	11.74	No	Si
SLU 51	4.59	458.18	-1006	-0.0000361	0.0003743	0.0035	1.1	536.68	604.8	604.8	1.32	No	Si
SLU 49	3.69	-129.68	-2288	-0.0000136	0.0003743	0.0035	1.1	1172.72	1521.8	1521.8	11.74	No	Si
SLU 49	4.59	458.18	-1006	-0.0000361	0.0003743	0.0035	1.1	536.68	604.8	604.8	1.32	No	Si
SLU 48	3.69	-129.07	-2285	-0.0000136	0.0003743	0.0035	1.1	1171.11	1520.14	1520.14	11.78	No	Si
SLU 48	4.59	458.17	-1004	-0.0000364	0.0003743	0.0035	1.1	535.66	603.76	603.76	1.32	No	Si
SLU 45	3.69	-129.07	-2285	-0.0000136	0.0003743	0.0035	1.1	1171.11	1520.14	1520.14	11.78	No	Si
SLU 45	4.59	458.17	-1004	-0.0000364	0.0003743	0.0035	1.1	535.66	603.76	603.76	1.32	No	Si
SLU 50	3.69	-129.07	-2285	-0.0000136	0.0003743	0.0035	1.1	1171.11	1520.14	1520.14	11.78	No	Si
SLU 50	4.59	458.17	-1004	-0.0000364	0.0003743	0.0035	1.1	535.66	603.76	603.76	1.32	No	Si
SLU 47	3.69	-130.08	-2290	-0.0000136	0.0003743	0.0035	1.1	1173.79	1522.9	1522.9	11.71	No	Si
SLU 47	4.59	458.18	-1007	-0.000036	0.0003743	0.0035	1.1	537.37	605.5	605.5	1.32	No	Si
SLU 43	3.69	-129.07	-2285	-0.0000136	0.0003743	0.0035	1.1	1171.11	1520.14	1520.14	11.78	No	Si
SLU 43	4.59	458.17	-1004	-0.0000364	0.0003743	0.0035	1.1	535.66	603.76	603.76	1.32	No	Si
SLU 44	3.69	-130.08	-2290	-0.0000136	0.0003743	0.0035	1.1	1173.79	1522.9	1522.9	11.71	No	Si
SLU 44	4.59	458.18	-1007	-0.000036	0.0003743	0.0035	1.1	537.37	605.5	605.5	1.32	No	Si

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

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 16	3.69	449.38	-4296	-0.0000308	0.0005615	0.0035	1.1		2271.78	2271.78	5.06		Si
SLV 16	4.59	-652.89	-3600	-0.0000326	0.0005615	0.0035	1.1		2192.38	2192.38	3.36		Si
SLV 6	3.69	-178.63	-1907	-0.000013	0.0005615	0.0035	1.1		1345.65	1345.65	7.53		Si
SLV 6	4.59	612.68	-721	-0.0044382	0.0005615	0.0035	0.88		456.61	456.61	0.75		No
SLV 4	3.69	-389.41	-1797	-0.0000178	0.0005615	0.0035	1.1		1288.83	1288.83	3.31		Si
SLV 4	4.59	954.13	-336	-0.0178875	0.0005615	0.0035	0.88		249.9	249.9	0.26		No
SLV 1	3.69	-550.74	-1156	-0.0000497	0.0005615	0.0035	0.88		955.28	955.28	1.73		Si
SLV 1	4.59	1270	425	-0.0310426	0.0005615	0.0035	0.88		0	0	0		No
SLV 2	3.69	-429.12	-1440	-0.0000189	0.0005615	0.0035	1.1		1103.77	1103.77	2.57		Si
SLV 2	4.59	1058.72	18	-0.0255381	0.0005615	0.0035	0.88		56.91	56.91	0.05		No
SLV 3	3.69	-511.04	-1513	-0.0000236	0.0005615	0.0035	0.88		1141.61	1141.61	2.23		Si
SLV 3	4.59	1165.41	71	-0.0288479	0.0005615	0.0035	0.88		0	0	0		No
SLV 5	3.69	-306.72	-1607	-0.0000148	0.0005615	0.0035	1.1		1190.86	1190.86	3.88		Si
SLV 5	4.59	835.19	-292	-0.0156262	0.0005615	0.0035	0.88		226.06	226.06	0.27		No
SLV 9	3.69	-55.08	-2357	-0.000012	0.0005615	0.0035	1.1		1575.72	1575.72	28.61		Si
SLV 9	4.59	353.09	-1271	-0.0000154	0.0005615	0.0035	1.1		749.17	749.17	2.12		Si
SLV 7	3.69	-174.37	-2796	-0.000017	0.0005615	0.0035	1.1		1794.6	1794.6	10.29		Si
SLV 7	4.59	486.54	-1475	-0.0000222	0.0005615	0.0035	1.1		855.6	855.6	1.76		Si
SLV 14	3.69	409.67	-3940	-0.0000281	0.0005615	0.0035	1.1		2099.47	2099.47	5.12		Si
SLV 14	4.59	-548.29	-3245	-0.0000283	0.0005615	0.0035	1.1		2018.67	2018.67	3.68		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 46	3.69	-129.68	-2288	-1927	-1090	1.1	1.1	-5839	7723	2549	45199	9882	2805	12687	No	11.64	Si
SLU 46	4.59	458.18	-1006	-847	-925	1.1	0.2835	-10028	8282	704	45199	9882	2805	12687	No	13.72	Si
SLU 68	3.69	-87.98	-3150	-2653	-1084	1.1	1.1	-8039	8016	2645	45199	9882	2805	12687	No	11.7	Si
SLU 68	4.59	423.88	-1722	-1450	-930	1.1	0.9115	-4394	7530	2059	45199	9882	2805	12687	No	13.64	Si
SLU 44	3.69	-130.08	-2290	-1929	-1091	1.1	1.1	-5844	7724	2549	45199	9882	2805	12687	No	11.63	Si
SLU 44	4.59	458.18	-1007	-848	-924	1.1	0.2853	-9979	8275	708	45199	9882	2805	12687	No	13.73	Si
SLU 45	3.69	-129.07	-2285	-1924	-1088	1.1	1.1	-5830	7722	2548	45199	9882	2805	12687	No	11.66	Si
SLU 45	4.59	458.17	-1004	-845	-926	1.1	0.2809	-10105	8292	699	45199	9882	2805	12687	No	13.7	Si
SLU 48	3.69	-129.07	-2285	-1924	-1088	1.1	1.1	-5830	7722	2548	45199	9882	2805	12687	No	11.66	Si
SLU 48	4.59	458.17	-1004	-845	-926	1.1	0.2809	-10105	8292	699	45199	9882	2805	12687	No	13.7	Si
SLU 49	3.69	-129.68	-2288	-1927	-1090	1.1	1.1	-5839	7723	2549	45199	9882	2805	12687	No	11.64	Si
SLU 49	4.59	458.18	-1006	-847	-925	1.1	0.2835	-10028	8282	704	45199	9882	2805	12687	No	13.72	Si
SLU 51	3.69	-129.68	-2288	-1927	-1090	1.1	1.1	-5839	7723	2549	45199	9882	2805	12687	No	11.64	Si
SLU 51	4.59	458.18	-1006	-847	-925	1.1	0.2835	-10028	8282	704	45199	9882	2805	12687	No	13.72	Si
SLU 47	3.69	-130.08	-2290	-1929	-1091	1.1	1.1	-5844	7724	2549	45199	9882	2805	12687	No	11.63	Si
SLU 47	4.59	458.18	-1007	-848	-924	1.1	0.2853	-9979	8275	708	45199	9882	2805	12687	No	13.73	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 50	3.69	-129.07	-2285	-1924	-1088	1.1	1.1	-5830	7722	2548	45199	9882	2805	12687	No	11.66	Si
SLU 50	4.59	458.17	-1204	-845	-926	1.1	0.2809	-10105	8292	699	45199	9882	2805	12687	No	13.7	Si
SLU 43	3.69	-129.07	-2285	-1924	-1088	1.1	1.1	-5830	7722	2548	45199	9882	2805	12687	No	11.66	Si
SLU 43	4.59	458.17	-1204	-845	-926	1.1	0.2809	-10105	8292	699	45199	9882	2805	12687	No	13.7	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 14	3.69	409.67	-3940	-3318	1032	1.1	1.1	-10054	12427	4101	45199	14823	2805	17628		17.08	Si
SLV 14	4.59	-548.29	-3245	-2733	530	1.1	1.1	-8281	12073	3984	45199	14823	2805	17628		33.27	Si
SLV 9	3.69	-55.08	-2357	-1985	-920	1.1	1.1	-6015	11620	3835	45199	14823	2805	17628		19.15	Si
SLV 9	4.59	353.09	-1271	-1071	-897	1.1	0.8168	-3244	11065	2711	45199	14823	2805	17628		19.64	Si
SLV 3	3.69	-511.04	-1513	-1274	-2675	0.88	0.6366	0	0	0	45199	11858	2244	14102		5.27	Si
SLV 3	4.59	1165.41	71	59	-1945	0.88	0	0	0	0	45199	11858	2244	14102		7.25	Si
SLV 7	3.69	-174.37	-2796	-2355	-1211	1.1	1.1	-7135	11844	3908	45199	14823	2805	17628		14.55	Si
SLV 7	4.59	486.54	-1475	-1242	-864	1.1	0.6601	-3763	11169	2212	45199	14823	2805	17628		20.4	Si
SLV 16	3.69	449.38	-4296	-3618	1257	1.1	1.1	-10964	12609	4161	45199	14823	2805	17628		14.03	Si
SLV 16	4.59	-652.89	-3600	-3031	753	1.1	1.1	-9186	12254	4044	45199	14823	2805	17628		23.41	Si
SLV 6	3.69	-178.63	-1907	-1606	-1472	1.1	1.1	-4865	11390	3759	45199	14823	2805	17628		11.98	Si
SLV 6	4.59	612.68	-721	-607	-1262	0.88	0	0	0	0	45199	11858	2244	14102		11.17	Si
SLV 2	3.69	-429.12	-1440	-1213	-2435	1.1	0.7562	-5357	11488	2606	45199	14823	2805	17628		7.24	Si
SLV 2	4.59	1058.72	18	15	-1840	0.88	0	0	0	0	45199	11858	2244	14102		7.67	Si
SLV 5	3.69	-306.72	-1607	-1354	-1961	1.1	1.0776	-4102	11237	3633	45199	14823	2805	17628		8.99	Si
SLV 5	4.59	835.19	-292	-246	-1608	0.88	0	0	0	0	45199	11858	2244	14102		8.77	Si
SLV 1	3.69	-550.74	-1156	-974	-2899	0.88	0.221	0	0	0	45199	11858	2244	14102		4.86	Si
SLV 1	4.59	1270	425	358	-2168	0.88	0	0	0	0	45199	11858	2244	14102		6.5	Si
SLV 4	3.69	-389.41	-1797	-1513	-2210	1.1	0.9998	-5052	11427	3428	45199	14823	2805	17628		7.98	Si
SLV 4	4.59	954.13	-336	-283	-1616	0.88	0	0	0	0	45199	11858	2244	14102		8.72	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 1	179667	0.48	5676	-1873	190.99	270.5	1.42	Si
SLV 5	179667	0.48	5796	-1913	190.99	276.04	1.45	Si
SLV 2	179667	0.48	5940	-1960	190.99	282.61	1.48	Si
SLV 6	179667	0.48	6075	-2005	190.99	288.77	1.51	Si
SLV 3	179667	0.48	6510	-2148	190.99	308.52	1.62	Si
SLV 9	179667	0.48	6741	-2225	190.99	318.95	1.67	Si
SLV 4	179667	0.48	6775	-2236	190.99	320.49	1.68	Si
SLV 10	179667	0.48	7020	-2317	190.99	331.51	1.74	Si
SLV 7	179667	0.48	8579	-2831	190.99	400.81	2.1	Si
SLV 13	179667	0.48	8824	-2912	190.99	411.54	2.15	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 16	-1469	-2988	-24	2.39	345.1	0.89	39.01421	18.92268	Si
SLV 14	-1429	-2455	37	2.421	341.4	0.89	39.53982	18.92268	Si
SLV 15	-1407	-3153	-24	2.446	339.4	0.89	39.95275	18.92268	Si
SLV 13	-1367	-2619	37	2.479	335.6	0.89	40.50388	18.92268	Si
SLV 4	-970	-3526	-36	2.933	299.7	0.89	47.91326	18.92268	Si
SLV 2	-930	-2993	24	2.994	296.2	0.89	48.8875	18.92268	Si
SLV 3	-908	-3690	-36	3.019	294.3	0.89	49.27892	18.92268	Si
SLV 1	-868	-3157	24	3.084	290.9	0.891	50.29992	18.92268	Si
SLV 12	-1343	-3795	-99	2.478	333.4	0.889	40.49301	13.88289	Si
SLV 11	-1278	-3968	-99	2.543	327.4	0.889	41.56452	13.88289	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	1.318	SLU 43	Si
V_SLU	11.628	SLU 44	Si
PF_SLV	0	SLV 1	No
V_SLV	4.864	SLV 1	Si
PFFP_SLV	1.416	SLV 1	Si
R_SLV	2.062	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-24.497	-9.039	-23.507	-9.039	L2	L3	0.99	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	e,fd	yF,d	connettori	tipo di muratura	CRM	intonaco	spessore intonaco	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, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 48	3.69	-383.91	-2896	-0.0000266	0.0003743	0.0035	0.99	1296.05	1561.98	1561.98	4.07	No	Si
SLU 48	4.69	418.12	-2269	-0.0000245	0.0003743	0.0035	0.99	1038.89	1121.55	1121.55	2.68	No	Si
SLU 44	3.69	-386.27	-2914	-0.0000268	0.0003743	0.0035	0.99	1303.58	1569.92	1569.92	4.06	No	Si
SLU 44	4.69	426.42	-2289	-0.0000249	0.0003743	0.0035	0.99	1047.38	1130.43	1130.43	2.65	No	Si
SLU 47	3.69	-386.27	-2914	-0.0000268	0.0003743	0.0035	0.99	1303.58	1569.92	1569.92	4.06	No	Si
SLU 47	4.69	426.42	-2289	-0.0000249	0.0003743	0.0035	0.99	1047.38	1130.43	1130.43	2.65	No	Si
SLU 51	3.69	-385.33	-2907	-0.0000267	0.0003743	0.0035	0.99	1300.57	1566.75	1566.75	4.07	No	Si
SLU 51	4.69	423.1	-2281	-0.0000247	0.0003743	0.0035	0.99	1043.98	1126.88	1126.88	2.66	No	Si
SLU 43	3.69	-383.91	-2896	-0.0000266	0.0003743	0.0035	0.99	1296.05	1561.98	1561.98	4.07	No	Si
SLU 43	4.69	418.12	-2269	-0.0000245	0.0003743	0.0035	0.99	1038.89	1121.55	1121.55	2.68	No	Si
SLU 45	3.69	-383.91	-2896	-0.0000266	0.0003743	0.0035	0.99	1296.05	1561.98	1561.98	4.07	No	Si
SLU 45	4.69	418.12	-2269	-0.0000245	0.0003743	0.0035	0.99	1038.89	1121.55	1121.55	2.68	No	Si
SLU 2	3.69	-307.63	-2445	-0.0000219	0.0003743	0.0035	0.99	1112.37	1368.49	1368.49	4.45	No	Si
SLU 2	4.69	333.29	-1933	-0.00002	0.0003743	0.0035	0.99	895.58	972.43	972.43	2.92	No	Si
SLU 49	3.69	-385.33	-2907	-0.0000267	0.0003743	0.0035	0.99	1300.57	1566.75	1566.75	4.07	No	Si
SLU 49	4.69	423.1	-2281	-0.0000247	0.0003743	0.0035	0.99	1043.98	1126.88	1126.88	2.66	No	Si
SLU 50	3.69	-383.91	-2896	-0.0000266	0.0003743	0.0035	0.99	1296.05	1561.98	1561.98	4.07	No	Si
SLU 50	4.69	418.12	-2269	-0.0000245	0.0003743	0.0035	0.99	1038.89	1121.55	1121.55	2.68	No	Si
SLU 46	3.69	-385.33	-2907	-0.0000267	0.0003743	0.0035	0.99	1300.57	1566.75	1566.75	4.07	No	Si
SLU 46	4.69	423.1	-2281	-0.0000247	0.0003743	0.0035	0.99	1043.98	1126.88	1126.88	2.66	No	Si

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

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	ϵ_m	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 10	3.69	-66.52	-1829	-0.0000112	0.0005615	0.0035	0.99		1106.69	1106.69	16.64		Si
SLV 10	4.69	-326.71	-946	-0.0000209	0.0005615	0.0035	0.792		692.87	692.87	2.12		Si
SLV 8	3.69	-490.3	-4065	-0.0000358	0.0005615	0.0035	0.99		2102.01	2102.01	4.29		Si
SLV 8	4.69	759.15	-3608	-0.0000427	0.0005615	0.0035	0.99		1738.46	1738.46	2.29		Si
SLV 1	3.69	-736.43	-3499	-0.0000414	0.0005615	0.0035	0.99		1855.35	1855.35	2.52		Si
SLV 1	4.69	1073.26	-3335	-0.000066	0.0005615	0.0035	0.99		1618.39	1618.39	1.51		Si
SLV 16	3.69	62.48	-2658	-0.0000153	0.0005615	0.0035	0.99		1317	1317	21.08		Si
SLV 16	4.69	-394.17	-1604	-0.0000213	0.0005615	0.0035	0.99		1002.67	1002.67	2.54		Si
SLV 2	3.69	-625.21	-3249	-0.000036	0.0005615	0.0035	0.99		1745.31	1745.31	2.79		Si
SLV 2	4.69	839.06	-2969	-0.0000472	0.0005615	0.0035	0.99		1456.37	1456.37	1.74		Si
SLV 4	3.69	-685.07	-3816	-0.0000407	0.0005615	0.0035	0.99		1994.31	1994.31	2.91		Si
SLV 4	4.69	1036.1	-3589	-0.0000593	0.0005615	0.0035	0.99		1730.14	1730.14	1.67		Si
SLV 13	3.69	11.11	-2342	-0.0000121	0.0005615	0.0035	0.99		1173.68	1173.68	105.62		Si
SLV 13	4.69	-357	-1350	-0.0000194	0.0005615	0.0035	0.792		883.75	883.75	2.48		Si
SLV 7	3.69	-607.44	-4328	-0.0000409	0.0005615	0.0035	0.99		2212.24	2212.24	3.64		Si
SLV 7	4.69	1005.8	-3994	-0.0000559	0.0005615	0.0035	0.99		1905.01	1905.01	1.89		Si
SLV 3	3.69	-796.29	-4065	-0.0000458	0.0005615	0.0035	0.99		2102.25	2102.25	2.64		Si
SLV 3	4.69	1270.3	-3955	-0.0000788	0.0005615	0.0035	0.99		1888.56	1888.56	1.49		Si
SLV 14	3.69	122.33	-2092	-0.0000142	0.0005615	0.0035	0.99		1059.38	1059.38	8.66		Si
SLV 14	4.69	-591.2	-984	-0.0003082	0.0005615	0.0035	0.792		711.2	711.2	1.2		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	α_N	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 78	3.69	-496.29	-5191	-4371	-891	0.99	0.99	-14718	8907	2645	45199	8893	2524	11418	No	12.81	Si
SLU 78	4.69	474.02	-4231	-3563	-524	0.99	0.99	-11996	8544	2538	45199	8893	2524	11418	No	21.8	Si
SLU 63	3.69	-489.89	-5093	-4289	-892	0.99	0.99	-14441	8870	2634	45199	8893	2524	11418	No	12.8	Si
SLU 63	4.69	477.61	-4161	-3504	-537	0.99	0.99	-11797	8517	2530	45199	8893	2524	11418	No	21.26	Si
SLU 76	3.69	-497.23	-5198	-4378	-896	0.99	0.99	-14739	8910	2646	45199	8893	2524	11418	No	12.75	Si
SLU 76	4.69	477.34	-4239	-3570	-529	0.99	0.99	-12019	8547	2538	45199	8893	2524	11418	No	21.57	Si
SLU 80	3.69	-496.29	-5191	-4371	-891	0.99	0.99	-14718	8907	2645	45199	8893	2524	11418	No	12.81	Si
SLU 80	4.69	474.02	-4231	-3563	-524	0.99	0.99	-11996	8544	2538	45199	8893	2524	11418	No	21.8	Si
SLU 83	3.69	-526.24	-5835	-4914	-895	0.99	0.99	-16546	9151	2718	45199	8893	2524	11418	No	12.75	Si
SLU 83	4.69	485.39	-4783	-4027	-505	0.99	0.99	-13560	8753	2599	45199	8893	2524	11418	No	22.61	Si
SLU 82	3.69	-527.65	-5847	-4924	-902	0.99	0.99	-16578	9155	2719	45199	8893	2524	11418	No	12.66	Si
SLU 82	4.69	490.37	-4795	-4038	-513	0.99	0.99	-13595	8757	2601	45199	8893	2524	11418	No	22.24	Si
SLU 81	3.69	-526.24	-5835	-4914	-895	0.99	0.99	-16546	9151	2718	45199	8893	2524	11418	No	12.75	Si
SLU 81	4.69	485.39	-4783	-4027	-505	0.99	0.99	-13560	8753	2599	45199	8893	2524	11418	No	22.61	Si
SLU 61	3.69	-489.89	-5093	-4289	-892	0.99	0.99	-14441	8870	2634	45199	8893	2524	11418	No	12.8	Si
SLU 61	4.69	477.61	-4161	-3504	-537	0.99	0.99	-11797	8517	2530	45199	8893	2524	11418	No	21.26	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 73	3.69	-497.23	-5198	-4378	-896	0.99	0.99	-14739	8910	2646	45199	8893	2524	11418	No	12.75	Si
SLU 73	4.69	477.34	-4239	-3570	-529	0.99	0.99	-12019	8547	2538	45199	8893	2524	11418	No	21.57	Si
SLU 84	3.69	-527.65	-5847	-4924	-902	0.99	0.99	-16578	9155	2719	45199	8893	2524	11418	No	12.66	Si
SLU 84	4.69	490.37	-4795	-4038	-513	0.99	0.99	-13595	8757	2601	45199	8893	2524	11418	No	22.24	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 11	3.69	-383.18	-3981	-3352	-957	0.99	0.99	-11287	12674	3764	45199	13340	2524	15865		16.58	Si
SLV 11	4.69	576.72	-3398	-2862	-909	0.99	0.9758	-9635	12344	3614	45199	13340	2524	15865		17.46	Si
SLV 2	3.69	-625.21	-3249	-2736	-1701	0.99	0.9077	-9212	12259	3338	45199	13340	2524	15865		9.33	Si
SLV 2	4.69	839.06	-2969	-2500	-1094	0.99	0.6372	-8418	12100	2313	45199	13340	2524	15865		14.5	Si
SLV 10	3.69	-66.52	-1829	-1541	454	0.99	0.99	-5187	11454	3402	45199	13340	2524	15865		34.93	Si
SLV 10	4.69	-326.71	-946	-796	714	0.792	0.4486	0	0	0	45199	10672	2020	12692		17.78	Si
SLV 3	3.69	-796.29	-4065	-3423	-2404	0.99	0.8974	-12782	12973	3493	45199	13340	2524	15865		6.6	Si
SLV 3	4.69	1270.3	-3955	-3331	-1839	0.99	0.5214	-11214	12659	1980	45199	13340	2524	15865		8.63	Si
SLV 14	3.69	122.33	-2092	-1762	1070	0.99	0.99	-5931	11603	3446	45199	13340	2524	15865		14.83	Si
SLV 14	4.69	-591.2	-984	-829	1012	0.792	0	0	0	0	45199	10672	2020	12692		12.54	Si
SLV 1	3.69	-736.43	-3499	-2946	-2110	0.99	0.8536	-11569	12731	3260	45199	13340	2524	15865		7.52	Si
SLV 1	4.69	1073.26	-3335	-2808	-1472	0.99	0.5195	-9455	12308	1918	45199	13340	2524	15865		10.78	Si
SLV 4	3.69	-685.07	-3816	-3213	-1995	0.99	0.9464	-10818	12580	3572	45199	13340	2524	15865		7.95	Si
SLV 4	4.69	1036.1	-3589	-3022	-1462	0.99	0.619	-10177	12452	2312	45199	13340	2524	15865		10.85	Si
SLV 7	3.69	-607.44	-4328	-3645	-1788	0.99	0.99	-12271	12871	3823	45199	13340	2524	15865		8.87	Si
SLV 7	4.69	1005.8	-3994	-3363	-1541	0.99	0.7294	-11323	12681	2775	45199	13340	2524	15865		10.3	Si
SLV 5	3.69	-407.92	-2440	-2054	-808	0.99	0.9834	-6917	11800	3481	45199	13340	2524	15865		19.63	Si
SLV 5	4.69	349.02	-1926	-1622	-316	0.99	0.9415	-5462	11509	3251	45199	13340	2524	15865		50.23	Si
SLV 8	3.69	-490.3	-4065	-3423	-1357	0.99	0.99	-11525	12722	3778	45199	13340	2524	15865		11.69	Si
SLV 8	4.69	759.15	-3608	-3039	-1143	0.99	0.8538	-10231	12463	3192	45199	13340	2524	15865		13.88	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma M = 2$

Comb.	fd	Sa	$\sigma 0$	N	M	Mc	Coeff.s.	Verifica
SLV 10	179667	0.48	5673	-1685	171.89	243.35	1.42	Si
SLV 6	179667	0.48	5898	-1752	171.89	252.61	1.47	Si
SLV 9	179667	0.48	6050	-1797	171.89	258.86	1.51	Si
SLV 5	179667	0.48	6275	-1864	171.89	268.07	1.56	Si
SLV 14	179667	0.48	7201	-2139	171.89	305.68	1.78	Si
SLV 13	179667	0.48	7559	-2245	171.89	320.09	1.86	Si
SLV 2	179667	0.48	7951	-2361	171.89	335.77	1.95	Si
SLV 1	179667	0.48	8309	-2468	171.89	350.02	2.04	Si
SLV 16	179667	0.48	8728	-2592	171.89	366.59	2.13	Si
SLV 15	179667	0.48	9086	-2698	171.89	380.68	2.21	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 3	-1391	-536	-70	2.304	317.1	0.891	37.58438	18.92268	Si
SLV 4	-1338	-1078	-70	2.354	312.1	0.89	38.42269	18.92268	Si
SLV 1	-1311	-125	71	2.38	309.5	0.89	38.86116	18.92268	Si
SLV 2	-1258	-668	71	2.434	304.6	0.89	39.75394	18.92268	Si
SLV 15	-1102	-5083	-71	2.607	290.3	0.889	42.61365	18.92268	Si
SLV 16	-1050	-5626	-71	2.671	285.5	0.889	43.67224	18.92268	Si
SLV 13	-1022	-4672	70	2.706	283	0.889	44.24584	18.92268	Si
SLV 14	-970	-5215	70	2.776	278.3	0.889	45.37901	18.92268	Si
SLV 7	-1385	-2592	-236	2.241	316.5	0.891	36.56831	13.88289	Si
SLV 8	-1329	-3164	-236	2.293	311.3	0.89	37.42977	13.88289	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	2.651	SLU 44	Si
V_SLU	12.661	SLU 82	Si
PF_SLV	1.203	SLV 14	Si
V_SLV	6.599	SLV 3	Si
PFFP_SLV	1.416	SLV 10	Si
R_SLV	1.986	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-22.107	-9.039	-21.057	-9.039	L2	L3	1.05	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

(Circolare 7 21-01-19 C8.5.I) Muratura in mattoni pieni e malta di calce LC2 intonaco armato solo su un lato_Corti



fb	fk	fvk0	fmedio	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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, $\gamma M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 33	1.69	583.49	-1784	-0.0000304	0.0003743	0.0035	1.05	884.42	967.78	967.78	1.66	No	Si
SLU 33	4.69	-875.16	-3752	-0.0000441	0.0003743	0.0035	1.05	1739.24	2039.99	2039.99	2.33	No	Si
SLU 38	1.69	583.49	-1784	-0.0000304	0.0003743	0.0035	1.05	884.42	967.78	967.78	1.66	No	Si
SLU 38	4.69	-875.16	-3752	-0.0000441	0.0003743	0.0035	1.05	1739.24	2039.99	2039.99	2.33	No	Si
SLU 40	1.69	695.26	-1807	-0.0000442	0.0003743	0.0035	1.05	895.24	978.95	978.95	1.41	No	Si
SLU 40	4.69	-1048.58	-4421	-0.0000532	0.0003743	0.0035	1.05	2001.24	2327.55	2327.55	2.22	No	Si
SLU 32	1.69	590.75	-1790	-0.000031	0.0003743	0.0035	1.05	887.49	970.94	970.94	1.64	No	Si
SLU 32	4.69	-881.05	-3769	-0.0000444	0.0003743	0.0035	1.05	1746.04	2047.39	2047.39	2.32	No	Si
SLU 41	1.69	702.52	-1814	-0.0000452	0.0003743	0.0035	1.05	898.3	982.11	982.11	1.4	No	Si
SLU 41	4.69	-1054.47	-4438	-0.0000535	0.0003743	0.0035	1.05	2007.67	2334.77	2334.77	2.21	No	Si
SLU 39	1.69	702.52	-1814	-0.0000452	0.0003743	0.0035	1.05	898.3	982.11	982.11	1.4	No	Si
SLU 39	4.69	-1054.47	-4438	-0.0000535	0.0003743	0.0035	1.05	2007.67	2334.77	2334.77	2.21	No	Si
SLU 35	1.69	590.75	-1790	-0.000031	0.0003743	0.0035	1.05	887.49	970.94	970.94	1.64	No	Si
SLU 35	4.69	-881.05	-3769	-0.0000444	0.0003743	0.0035	1.05	1746.04	2047.39	2047.39	2.32	No	Si
SLU 37	1.69	590.75	-1790	-0.000031	0.0003743	0.0035	1.05	887.49	970.94	970.94	1.64	No	Si
SLU 37	4.69	-881.05	-3769	-0.0000444	0.0003743	0.0035	1.05	1746.04	2047.39	2047.39	2.32	No	Si
SLU 36	1.69	583.49	-1784	-0.0000304	0.0003743	0.0035	1.05	884.42	967.78	967.78	1.66	No	Si
SLU 36	4.69	-875.16	-3752	-0.0000441	0.0003743	0.0035	1.05	1739.24	2039.99	2039.99	2.33	No	Si
SLU 42	1.69	695.26	-1807	-0.0000442	0.0003743	0.0035	1.05	895.24	978.95	978.95	1.41	No	Si
SLU 42	4.69	-1048.58	-4421	-0.0000532	0.0003743	0.0035	1.05	2001.24	2327.55	2327.55	2.22	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche, $\gamma M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 13	1.69	1018.54	17	-0.0236618	0.0005615	0.0035	0.84		65.07	65.07	0.06		No
SLV 13	4.69	-1147.92	-3326	-0.0000632	0.0005615	0.0035	0.84		1888.7	1888.7	1.65		Si
SLV 5	1.69	267.8	-399	-0.0006314	0.0005615	0.0035	0.84		281.32	281.32	1.05		Si
SLV 5	4.69	-518.4	-2111	-0.0000251	0.0005615	0.0035	1.05		1309.43	1309.43	2.53		Si
SLV 7	1.69	-343.14	-4412	-0.0000305	0.0005615	0.0035	1.05		2390.7	2390.7	6.97		Si
SLV 7	4.69	308.04	-837	-0.0000176	0.0005615	0.0035	1.05		504.98	504.98	1.64		Si
SLV 9	1.69	710.37	436	0.0289069	0.0005615	0.0035	0.84		0	0	0		No
SLV 9	4.69	-939.58	-2872	-0.0000491	0.0005615	0.0035	0.84		1674.5	1674.5	1.78		Si
SLV 14	1.69	1231.47	467	-0.0218323	0.0005615	0.0035	0.84		0	0	0		No
SLV 14	4.69	-1382.27	-3756	-0.0000829	0.0005615	0.0035	0.84		2090	2090	1.51		Si
SLV 6	1.69	492.05	75	-0.0118703	0.0005615	0.0035	0.84		0	0	0		No
SLV 6	4.69	-765.21	-2564	-0.000038	0.0005615	0.0035	0.84		1527.38	1527.38	2		Si
SLV 10	1.69	934.63	910	0.01415507	0.0005615	0.0035	0.84		0	0	0		No
SLV 10	4.69	-1186.39	-3325	-0.0000677	0.0005615	0.0035	0.84		1888.45	1888.45	1.59		Si
SLV 16	1.69	1048.19	-737	-0.0147448	0.0005615	0.0035	0.84		453.9	453.9	0.43		No
SLV 16	4.69	-1134.34	-3374	-0.000061	0.0005615	0.0035	0.84		1911.32	1911.32	1.68		Si
SLV 3	1.69	-639.99	-3970	-0.0000365	0.0005615	0.0035	1.05		2190.15	2190.15	3.42		Si
SLV 3	4.69	503.92	-406	-0.005826	0.0005615	0.0035	0.84		284.84	284.84	0.57		No
SLV 15	1.69	835.26	-1187	-0.0048439	0.0005615	0.0035	0.84		682.16	682.16	0.82		No
SLV 15	4.69	-899.99	-2944	-0.0000453	0.0005615	0.0035	0.84		1708.34	1708.34	1.9		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	σ_N	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 77	1.69	591.89	-2311	-1946	1158	1.05	0.8066	-6178	7768	1880	45199	9433	2678	12110	No	10.46	Si
SLU 77	4.69	-886.41	-3916	-3298	1172	1.05	0.896	-12382	8595	2310	45199	9433	2678	12110	No	10.34	Si
SLU 83	1.69	703.66	-2334	-1966	1366	1.05	0.6706	-6240	7776	1564	45199	9433	2678	12110	No	8.87	Si
SLU 83	4.69	-1059.83	-4586	-3862	1380	1.05	0.8817	-14763	8913	2357	45199	9433	2678	12110	No	8.78	Si
SLU 40	1.69	695.26	-1807	-1522	1336	1.05	0.4207	-4831	7589	958	45199	9433	2678	12110	No	9.06	Si
SLU 40	4.69	-1048.58	-4421	-3723	1349	1.05	0.8635	-14529	8882	2301	45199	9433	2678	12110	No	8.98	Si
SLU 39	1.69	702.52	-1814	-1527	1343	1.05	0.4129	-4848	7591	940	45199	9433	2678	12110	No	9.02	Si
SLU 39	4.69	-1054.47	-4438	-3738	1355	1.05	0.8623	-14607	8892	2300	45199	9433	2678	12110	No	8.94	Si
SLU 74	1.69	591.89	-2311	-1946	1158	1.05	0.8066	-6178	7768	1880	45199	9433	2678	12110	No	10.46	Si
SLU 74	4.69	-886.41	-3916	-3298	1172	1.05	0.896	-12382	8595	2310	45199	9433	2678	12110	No	10.34	Si
SLU 81	1.69	703.66	-2334	-1966	1366	1.05	0.6706	-6240	7776	1564	45199	9433	2678	12110	No	8.87	Si
SLU 81	4.69	-1059.83	-4586	-3862	1380	1.05	0.8817	-14763	8913	2357	45199	9433	2678	12110	No	8.78	Si
SLU 82	1.69	696.39	-2328	-1960	1360	1.05	0.6774	-6222	7774	1580	45199	9433	2678	12110	No	8.91	Si
SLU 82	4.69	-1053.94	-4569	-3848	1374	1.05	0.883	-14686	8903	2358	45199	9433	2678	12110	No	8.81	Si
SLU 42	1.69	695.26	-1807	-1522	1336	1.05	0.4207	-4831	7589	958	45199	9433	2678	12110	No	9.06	Si
SLU 42	4.69	-1048.58	-4421	-3723	1349	1.05	0.8635	-14529	8882	2301	45199	9433	2678	12110	No	8.98	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 41	1.69	702.52	-1814	-1527	1343	1.05	0.4129	-4848	7591	940	45199	9433	2678	12110	No	9.02	Si
SLU 41	4.69	-1054.47	-4438	-3738	1355	1.05	0.8623	-14607	8892	2300	45199	9433	2678	12110	No	8.94	Si
SLU 84	1.69	696.39	-2328	-1960	1360	1.05	0.6774	-6222	7774	1580	45199	9433	2678	12110	No	8.91	Si
SLU 84	4.69	-1053.94	-4569	-3848	1374	1.05	0.883	-14686	8903	2358	45199	9433	2678	12110	No	8.81	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 14	1.69	1231.47	467	394	2179	0.84	0	0	0	0	45199	11319	2142	13461		6.18	Si
SLV 14	4.69	-1382.27	-3756	-3163	1637	0.84	0.4709	0	0	0	45199	11319	2142	13461		8.22	Si
SLV 15	1.69	835.26	-1187	-999	1458	0.84	0	0	0	0	45199	11319	2142	13461		9.23	Si
SLV 15	4.69	-899.99	-2944	-2479	889	0.84	0.6577	0	0	0	45199	11319	2142	13461		15.14	Si
SLV 4	1.69	-427.06	-3520	-2964	-680	1.05	1.05	-9410	12299	3874	45199	14149	2678	16826		24.74	Si
SLV 4	4.69	269.58	-836	-704	-120	1.05	0.608	-2236	10864	1982	45199	14149	2678	16826		140	Si
SLV 13	1.69	1018.54	17	15	1876	0.84	0	0	0	0	45199	11319	2142	13461		7.17	Si
SLV 13	4.69	-1147.92	-3326	-2801	1334	0.84	0.5395	0	0	0	45199	11319	2142	13461		10.09	Si
SLV 10	1.69	934.63	910	766	1821	0.84	0	0	0	0	45199	11319	2142	13461		7.39	Si
SLV 10	4.69	-1186.39	-3325	-2800	1705	0.84	0.5046	0	0	0	45199	11319	2142	13461		7.89	Si
SLV 3	1.69	-639.99	-3970	-3343	-983	1.05	1.05	-10613	12539	3950	45199	14149	2678	16826		17.11	Si
SLV 3	4.69	503.92	-406	-342	-423	0.84	0	0	0	0	45199	11319	2142	13461		31.79	Si
SLV 9	1.69	710.37	436	367	1502	0.84	0	0	0	0	45199	11319	2142	13461		8.96	Si
SLV 9	4.69	-939.58	-2872	-2419	1386	0.84	0.5936	0	0	0	45199	11319	2142	13461		9.71	Si
SLV 6	1.69	492.05	75	63	1088	0.84	0	0	0	0	45199	11319	2142	13461		12.37	Si
SLV 6	4.69	-765.21	-2564	-2159	1311	0.84	0.6796	0	0	0	45199	11319	2142	13461		10.26	Si
SLV 16	1.69	1048.19	-737	-620	1761	0.84	0	0	0	0	45199	11319	2142	13461		7.64	Si
SLV 16	4.69	-1134.34	-3374	-2841	1192	0.84	0.5663	0	0	0	45199	11319	2142	13461		11.29	Si
SLV 5	1.69	267.8	-399	-336	769	0.84	0	0	0	0	45199	11319	2142	13461		17.5	Si
SLV 5	4.69	-518.4	-2111	-1778	992	1.05	0.8382	-7090	11835	2976	45199	14149	2678	16826		16.96	Si

Verifica a pressoflessione fuori piano D.M. 17-01-18 (N.T.C.)

quota 3.655 Wa 0.05 denominatore 8 $\gamma_M = 2$

Comb.	fd	Sa	σ0	N	M	Mc	Coeff.s.	Verifica
SLV 1	179667	0.48	0	-1104	182.31	0	0	No, $e > t/2$
SLV 3	179667	0.48	0	-1025	182.31	0	0	No, $e > t/2$
SLV 4	179667	0.48	3990	-1257	182.31	183.62	1.01	Si
SLV 2	179667	0.48	4240	-1335	182.31	194.76	1.07	Si
SLV 7	179667	0.48	4858	-1530	182.31	222.25	1.22	Si
SLV 8	179667	0.48	5633	-1774	182.31	256.33	1.41	Si
SLV 5	179667	0.48	5689	-1792	182.31	258.78	1.42	Si
SLV 6	179667	0.48	6463	-2036	182.31	292.47	1.6	Si
SLV 11	179667	0.48	6498	-2047	182.31	293.99	1.61	Si
SLV 12	179667	0.48	7273	-2291	182.31	327.28	1.8	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 é 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 = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 14	-1328	467	26	2.46	322.5	0.89	40.18458	18.92268	Si, Trazione
SLV 16	-1277	-737	10	2.518	317.8	0.889	41.15596	18.92268	Si
SLV 13	-1268	17	26	2.521	317	0.889	41.19355	18.92268	Si, Trazione
SLV 15	-1217	-1187	10	2.582	312.3	0.889	42.20828	18.92268	Si
SLV 2	-969	-2316	-11	2.884	289.9	0.889	47.13167	18.92268	Si
SLV 4	-918	-3520	-27	2.948	285.4	0.89	48.1518	18.92268	Si
SLV 1	-909	-2766	-11	2.968	284.6	0.89	48.47803	18.92268	Si
SLV 3	-858	-3970	-27	3.036	280.2	0.891	49.55244	18.92268	Si
SLV 10	-1264	910	32	2.523	316.6	0.889	41.23075	13.88289	Si, Trazione
SLV 9	-1201	436	32	2.59	310.8	0.889	42.34752	13.88289	Si, Trazione

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	1.398	SLU 39	Si
V_SLU	8.775	SLU 81	Si
PF_SLV	0	SLV 6	No
V_SLV	6.177	SLV 14	Si
PFFP_SLV	0	SLV 1	No
R_SLV	2.124	SLV 14	Si

Maschio 31

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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-31.287	-13.489	-25.157	-13.489	L2	L3	6.13	0.3	3.93	3.93	3.93			

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	τ_0	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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	ϵ_{fd}	$\gamma_{f,d}$	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, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 1	1.69	2582.55	-33547	-0.0000276	0.0004492	0.0035	6.13	87470.55	97027.44	97027.44	37.57	No	Si
SLU 1	3.79	-261.44	-22230	-0.000017	0.0004492	0.0035	6.13	61395.03	85705.74	85705.74	327.82	No	Si
SLU 45	1.69	3372.45	-41331	-0.0000344	0.0004492	0.0035	6.13	103378.33	115315.39	115315.39	34.19	No	Si
SLU 45	3.79	-528.73	-26678	-0.0000207	0.0004492	0.0035	6.13	72059.43	97482.3	97482.3	184.37	No	Si
SLU 51	1.69	3367.66	-41421	-0.0000345	0.0004492	0.0035	6.13	103553.7	115516.07	115516.07	34.3	No	Si
SLU 51	3.79	-536.05	-26707	-0.0000207	0.0004492	0.0035	6.13	72128.69	97560.78	97560.78	182	No	Si
SLU 47	1.69	3364.47	-41482	-0.0000345	0.0004492	0.0035	6.13	103670.48	115649.86	115649.86	34.37	No	Si
SLU 47	3.79	-540.94	-26727	-0.0000207	0.0004492	0.0035	6.13	72174.85	97613.1	97613.1	180.45	No	Si
SLU 48	1.69	3372.45	-41331	-0.0000344	0.0004492	0.0035	6.13	103378.33	115315.39	115315.39	34.19	No	Si
SLU 48	3.79	-528.73	-26678	-0.0000207	0.0004492	0.0035	6.13	72059.43	97482.3	97482.3	184.37	No	Si
SLU 44	1.69	3364.47	-41482	-0.0000345	0.0004492	0.0035	6.13	103670.48	115649.86	115649.86	34.37	No	Si
SLU 44	3.79	-540.94	-26727	-0.0000207	0.0004492	0.0035	6.13	72174.85	97613.1	97613.1	180.45	No	Si
SLU 50	1.69	3372.45	-41331	-0.0000344	0.0004492	0.0035	6.13	103378.33	115315.39	115315.39	34.19	No	Si
SLU 50	3.79	-528.73	-26678	-0.0000207	0.0004492	0.0035	6.13	72059.43	97482.3	97482.3	184.37	No	Si
SLU 43	1.69	3372.45	-41331	-0.0000344	0.0004492	0.0035	6.13	103378.33	115315.39	115315.39	34.19	No	Si
SLU 43	3.79	-528.73	-26678	-0.0000207	0.0004492	0.0035	6.13	72059.43	97482.3	97482.3	184.37	No	Si
SLU 49	1.69	3367.66	-41421	-0.0000345	0.0004492	0.0035	6.13	103553.7	115516.07	115516.07	34.3	No	Si
SLU 49	3.79	-536.05	-26707	-0.0000207	0.0004492	0.0035	6.13	72128.69	97560.78	97560.78	182	No	Si
SLU 46	1.69	3367.66	-41421	-0.0000345	0.0004492	0.0035	6.13	103553.7	115516.07	115516.07	34.3	No	Si
SLU 46	3.79	-536.05	-26707	-0.0000207	0.0004492	0.0035	6.13	72128.69	97560.78	97560.78	182	No	Si

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

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 8	1.69	760.23	-34983	-0.0000271	0.0006738	0.0035	6.13		103022.08	103022.08	135.52		Si
SLV 8	3.79	11901.02	-24193	-0.0000271	0.0006738	0.0035	6.13		73764.89	73764.89	6.2		Si
SLV 7	1.69	287.6	-34977	-0.0000267	0.0006738	0.0035	6.13		103006.13	103006.13	358.16		Si
SLV 7	3.79	12116.1	-24169	-0.0000273	0.0006738	0.0035	6.13		73699.06	73699.06	6.08		Si
SLV 1	1.69	-18544.41	-41379	-0.0000456	0.0006738	0.0035	6.13		137613.02	137613.02	7.42		Si
SLV 1	3.79	1891.5	-29004	-0.0000233	0.0006738	0.0035	6.13		86955.79	86955.79	45.97		Si
SLV 15	1.69	23118.33	-36290	-0.0000451	0.0006738	0.0035	6.13		106470.13	106470.13	4.61		Si
SLV 15	3.79	-1330.31	-26159	-0.0000207	0.0006738	0.0035	6.13		97380.46	97380.46	73.2		Si
SLV 16	1.69	23567.09	-36296	-0.0000454	0.0006738	0.0035	6.13		106485.02	106485.02	4.52		Si
SLV 16	3.79	-1534.53	-26181	-0.0000209	0.0006738	0.0035	6.13		97441.86	97441.86	63.5		Si
SLV 11	1.69	12082.61	-34213	-0.0000351	0.0006738	0.0035	6.13		100966.18	100966.18	8.36		Si
SLV 11	3.79	9275.78	-23949	-0.000025	0.0006738	0.0035	6.13		73092.41	73092.41	7.88		Si
SLV 2	1.69	-18095.65	-41385	-0.0000453	0.0006738	0.0035	6.13		137627.64	137627.64	7.61		Si
SLV 2	3.79	1687.27	-29027	-0.0000232	0.0006738	0.0035	6.13		87017.29	87017.29	51.57		Si
SLV 12	1.69	12555.23	-34219	-0.0000354	0.0006738	0.0035	6.13		100982.13	100982.13	8.04		Si
SLV 12	3.79	9060.69	-23973	-0.0000248	0.0006738	0.0035	6.13		73158.24	73158.24	8.07		Si
SLV 13	1.69	20772.28	-38834	-0.0000453	0.0006738	0.0035	6.13		113154.39	113154.39	5.45		Si
SLV 13	3.79	-7576.26	-28272	-0.0000227	0.0006738	0.0035	6.13		103110.19	103110.19	13.61		Si
SLV 14	1.69	21221.04	-38840	-0.0000457	0.0006738	0.0035	6.13		113169.28	113169.28	5.33		Si
SLV 14	3.79	-7780.48	-28294	-0.0000272	0.0006738	0.0035	6.13		103171.59	103171.59	13.26		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 51	1.69	3367.66	-41421	-30125	1719	6.13	6.13	-16381	10517	19342	129139	66089	31263	97352	No	56.65	Si
SLU 51	3.79	-536.05	-26707	-19424	1869	6.13	6.13	-10562	9742	17915	129139	66089	31263	97352	No	52.1	Si
SLU 50	1.69	3372.45	-41331	-30059	1718	6.13	6.13	-16345	10513	19333	129139	66089	31263	97352	No	56.66	Si
SLU 50	3.79	-528.73	-26678	-19402	1868	6.13	6.13	-10550	9740	17912	129139	66089	31263	97352	No	52.13	Si
SLU 45	1.69	3372.45	-41331	-30059	1718	6.13	6.13	-16345	10513	19333	129139	66089	31263	97352	No	56.66	Si
SLU 45	3.79	-528.73	-26678	-19402	1868	6.13	6.13	-10550	9740	17912	129139	66089	31263	97352	No	52.13	Si
SLU 43	1.69	3372.45	-41331	-30059	1718	6.13	6.13	-16345	10513	19333	129139	66089	31263	97352	No	56.66	Si
SLU 43	3.79	-528.73	-26678	-19402	1868	6.13	6.13	-10550	9740	17912	129139	66089	31263	97352	No	52.13	Si
SLU 48	1.69	3372.45	-41331	-30059	1718	6.13	6.13	-16345	10513	19333	129139	66089	31263	97352	No	56.66	Si
SLU 48	3.79	-528.73	-26678	-19402	1868	6.13	6.13	-10550	9740	17912	129139	66089	31263	97352	No	52.13	Si
SLU 44	1.69	3364.47	-41482	-30169	1719	6.13	6.13	-16405	10521	19347	129139	66089	31263	97352	No	56.64	Si
SLU 44	3.79	-540.94	-26727	-19438	1869	6.13	6.13	-10570	9743	17917	129139	66089	31263	97352	No	52.08	Si
SLU 47	1.69	3364.47	-41482	-30169	1719	6.13	6.13	-16405	10521	19347	129139	66089	31263	97352	No	56.64	Si
SLU 47	3.79	-540.94	-26727	-19438	1869	6.13	6.13	-10570	9743	17917	129139	66089	31263	97352	No	52.08	Si
SLU 68	1.69	3320.3	-48132	-35005	1421	6.13	6.13	-19035	10833	19923	129139	66089	31263	97352	No	68.52	Si
SLU 68	3.79	9.88	-33207	-24151	1594	6.13	6.13	-13132	10084	18545	129139	66089	31263	97352	No	61.06	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 46	1.69	3367.66	-41421	-30125	1719	6.13	6.13	-16381	10517	19342	129139	66089	31263	97352	No	56.65	Si
SLU 46	3.79	-536.05	-26707	-19424	1869	6.13	6.13	-10562	9742	17915	129139	66089	31263	97352	No	52.1	Si
SLU 49	1.69	3367.66	-41421	-30125	1719	6.13	6.13	-16381	10517	19342	129139	66089	31263	97352	No	56.65	Si
SLU 49	3.79	-536.05	-26707	-19424	1869	6.13	6.13	-10562	9742	17915	129139	66089	31263	97352	No	52.1	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 2	1.69	-18095.65	-41385	-30098	-11306	6.13	6.13	-16367	15773	29007	129139	99134	31263	130397		11.53	Si
SLV 2	3.79	1687.27	-29027	-21110	-8920	6.13	6.13	-11479	14796	27210	129139	99134	31263	130397		14.62	Si
SLV 4	1.69	-15749.6	-38841	-28248	-11478	6.13	6.13	-15361	15572	28637	129139	99134	31263	130397		11.36	Si
SLV 4	3.79	7933.22	-26914	-19574	-10019	6.13	6.13	-10644	14629	26902	129139	99134	31263	130397		13.02	Si
SLV 15	1.69	23118.33	-36290	-26393	13285	6.13	6.13	-14352	15370	28266	129139	99134	31263	130397		9.82	Si
SLV 15	3.79	-1330.31	-26159	-19024	11175	6.13	6.13	-10345	14569	26792	129139	99134	31263	130397		11.67	Si
SLV 14	1.69	21221.04	-38840	-28247	13768	6.13	6.13	-15360	15572	28637	129139	99134	31263	130397		9.47	Si
SLV 14	3.79	-7780.48	-28294	-20578	12584	6.13	6.13	-11190	14738	27103	129139	99134	31263	130397		10.36	Si
SLV 10	1.69	4735.08	-42699	-31054	5201	6.13	6.13	-16886	15877	29198	129139	99134	31263	130397		25.07	Si
SLV 10	3.79	-11759.14	-31017	-22557	6347	6.13	6.13	-12266	14953	27499	129139	99134	31263	130397		20.54	Si
SLV 16	1.69	23567.09	-36296	-26397	13596	6.13	6.13	-14354	15371	28267	129139	99134	31263	130397		9.59	Si
SLV 16	3.79	-1534.53	-26181	-19041	11486	6.13	6.13	-10354	14571	26796	129139	99134	31263	130397		11.35	Si
SLV 3	1.69	-16198.36	-38835	-28244	-11789	6.13	6.13	-15358	15572	28636	129139	99134	31263	130397		11.06	Si
SLV 3	3.79	8137.45	-26891	-19557	-10330	6.13	6.13	-10635	14627	26899	129139	99134	31263	130397		12.62	Si
SLV 13	1.69	20772.28	-38834	-28243	13457	6.13	6.13	-15358	15572	28636	129139	99134	31263	130397		9.69	Si
SLV 13	3.79	-7576.26	-28272	-20561	12273	6.13	6.13	-11181	14736	27100	129139	99134	31263	130397		10.62	Si
SLV 9	1.69	4262.45	-42693	-31049	4874	6.13	6.13	-16884	15877	29197	129139	99134	31263	130397		26.75	Si
SLV 9	3.79	-11544.06	-30993	-22540	6019	6.13	6.13	-12257	14951	27496	129139	99134	31263	130397		21.66	Si
SLV 1	1.69	-18544.41	-41379	-30094	-11617	6.13	6.13	-16364	15773	29006	129139	99134	31263	130397		11.23	Si
SLV 1	3.79	1891.5	-29004	-21094	-9232	6.13	6.13	-11470	14794	27206	129139	99134	31263	130397		14.13	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRDM D.M. 17-01-18 (N.T.C.)

quota 3.655 Ta 0.09 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 11	-24236	0.48	1091	3373.99	4803.9	4088.95	3.75	Si
SLV 12	-24260	0.48	1091	3377.05	4807.74	4092.4	3.75	Si
SLV 7	-24458	0.48	1091	3402.52	4839.68	4121.1	3.78	Si
SLV 8	-24482	0.48	1091	3405.58	4843.51	4124.54	3.78	Si
SLV 15	-26280	0.48	1091	3634.65	5132.46	4383.55	4.02	Si
SLV 16	-26303	0.48	1091	3637.51	5136.1	4386.81	4.02	Si
SLV 3	-27021	0.48	1091	3728.23	5251.61	4489.92	4.12	Si
SLV 4	-27044	0.48	1091	3731.08	5255.25	4493.16	4.12	Si
SLV 13	-28254	0.48	1091	3882.82	5449.9	4666.36	4.28	Si
SLV 14	-28277	0.48	1091	3885.65	5453.54	4669.59	4.28	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 2	-13558	-41385	108	1.761	2440.8	0.901	28.4029	18.92268	Si
SLV 1	-13557	-41379	108	1.762	2440.6	0.901	28.40558	18.92268	Si
SLV 14	-13483	-38840	134	1.767	2433.4	0.901	28.49279	18.92268	Si
SLV 13	-13481	-38834	134	1.767	2433.2	0.901	28.49549	18.92268	Si
SLV 4	-13359	-38841	-140	1.777	2421.3	0.901	28.67009	18.92268	Si
SLV 3	-13357	-38835	-140	1.777	2421.1	0.901	28.67283	18.92268	Si
SLV 16	-13283	-36296	-114	1.785	2413.8	0.901	28.80458	18.92268	Si
SLV 15	-13281	-36290	-114	1.785	2413.7	0.901	28.80733	18.92268	Si
SLV 6	-13764	-43462	406	1.729	2461	0.902	27.86846	13.88289	Si
SLV 5	-13763	-43456	406	1.729	2460.9	0.902	27.8712	13.88289	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	34.193	SLU 43	Si
V_SLU	52.079	SLU 44	Si
PF_SLV	4.518	SLV 16	Si
V_SLV	9.471	SLV 14	Si
PFFP_SLV	3.748	SLV 11	Si
R_SLV	1.501	SLV 2	Si

Maschio 32

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	I	Sp.	h netta	h ini.	h fin.	a	a.s.sx	a.s.dx
-28.207	-17.999	-28.207	-9.039	L2	L3	8.96	0.21	3.93	3.93	3.93			

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	t0	fv0	μ	φ	fv,lim	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRDM

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



Rinforzo a matrice inorganica

materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	elim.conv / e,CNR DT-200							CRM / Fibrenet?			
									αt	α	elim,conv	e,fd	yF,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 FRMC in combinazioni non sismiche, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 76	1.69	-6560.28	-30908	-0.000025	0.0004492	0.0035	8.96	119851.68	174892.53	174892.53	26.66	No	Si
SLU 76	5.62	-232.67	-2345	-0.0000017	0.0004492	0.0035	8.96	10398.87	59258.61	59258.61	254.69	No	Si
SLU 55	1.69	-6069.81	-27585	-0.0000223	0.0004492	0.0035	8.96	108754.76	162049.32	162049.32	26.7	No	Si
SLU 55	5.62	-230.83	-1851	-0.0000014	0.0004492	0.0035	8.96	8224.86	57132.86	57132.86	247.51	No	Si
SLU 34	1.69	-5722.35	-26699	-0.0000215	0.0004492	0.0035	8.96	105719.61	158620.74	158620.74	27.72	No	Si
SLU 34	5.62	-194.38	-2262	-0.0000017	0.0004492	0.0035	8.96	10034.44	58901.62	58901.62	303.03	No	Si
SLU 73	1.69	-6560.28	-30908	-0.000025	0.0004492	0.0035	8.96	119851.68	174892.53	174892.53	26.66	No	Si
SLU 73	5.62	-232.67	-2345	-0.0000017	0.0004492	0.0035	8.96	10398.87	59258.61	59258.61	254.69	No	Si
SLU 47	1.69	-5125.12	-22395	-0.0000182	0.0004492	0.0035	8.96	90555.56	141982.74	141982.74	27.7	No	Si
SLU 47	5.62	-226.79	-932	-0.0000007	0.0004492	0.0035	8.96	4157.97	53180.98	53180.98	234.49	No	Si
SLU 31	1.69	-5722.35	-26699	-0.0000215	0.0004492	0.0035	8.96	105719.61	158620.74	158620.74	27.72	No	Si
SLU 31	5.62	-194.38	-2262	-0.0000017	0.0004492	0.0035	8.96	10034.44	58901.62	58901.62	303.03	No	Si
SLU 52	1.69	-6069.81	-27585	-0.0000223	0.0004492	0.0035	8.96	108754.76	162049.32	162049.32	26.7	No	Si
SLU 52	5.62	-230.83	-1851	-0.0000014	0.0004492	0.0035	8.96	8224.86	57132.86	57132.86	247.51	No	Si
SLU 44	1.69	-5125.12	-22395	-0.0000182	0.0004492	0.0035	8.96	90555.56	141982.74	141982.74	27.7	No	Si
SLU 44	5.62	-226.79	-932	-0.0000007	0.0004492	0.0035	8.96	4157.97	53180.98	53180.98	234.49	No	Si
SLU 68	1.69	-5615.6	-25717	-0.0000208	0.0004492	0.0035	8.96	102324.55	154825.95	154825.95	27.57	No	Si
SLU 68	5.62	-228.63	-1426	-0.0000011	0.0004492	0.0035	8.96	6349.68	55306.73	55306.73	241.9	No	Si
SLU 65	1.69	-5615.6	-25717	-0.0000208	0.0004492	0.0035	8.96	102324.55	154825.95	154825.95	27.57	No	Si
SLU 65	5.62	-228.63	-1426	-0.0000011	0.0004492	0.0035	8.96	6349.68	55306.73	55306.73	241.9	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche, $\gamma_M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 5	1.69	-17477.87	-17450	-0.0000204	0.0006738	0.0035	8.96		122823.07	122823.07	7.03		Si
SLV 5	5.62	1320.91	-1101	-0.0000014	0.0006738	0.0035	8.96		12806.18	12806.18	9.69		Si
SLV 1	1.69	-8152.05	-9782	-0.0000106	0.0006738	0.0035	8.96		90847.04	90847.04	11.14		Si
SLV 1	5.62	280.24	-747	-0.0000006	0.0006738	0.0035	8.96		11254.75	11254.75	40.16		Si
SLV 11	1.69	9884.82	-23059	-0.0000208	0.0006738	0.0035	8.96		105960.77	105960.77	10.72		Si
SLV 11	5.62	-1577.55	-1390	-0.0000017	0.0006738	0.0035	8.96		55113.64	55113.64	34.94		Si
SLV 2	1.69	-8089.7	-9790	-0.0000106	0.0006738	0.0035	8.96		90884.41	90884.41	11.23		Si
SLV 2	5.62	274.36	-747	-0.0000006	0.0006738	0.0035	8.96		11254.83	11254.83	41.02		Si
SLV 10	1.69	-17245.54	-23811	-0.0000248	0.0006738	0.0035	8.96		148816.39	148816.39	8.63		Si
SLV 10	5.62	1331.88	-1401	-0.0000016	0.0006738	0.0035	8.96		14121.19	14121.19	10.6		Si
SLV 9	1.69	-17311.2	-23801	-0.0000248	0.0006738	0.0035	8.96		148779.57	148779.57	8.59		Si
SLV 9	5.62	1338.08	-1401	-0.0000016	0.0006738	0.0035	8.96		14121.1	14121.1	10.55		Si
SLV 7	1.69	9718.15	-16708	-0.0000162	0.0006738	0.0035	8.96		79679.73	79679.73	8.2		Si
SLV 7	5.62	-1594.72	-1090	-0.0000015	0.0006738	0.0035	8.96		53821.15	53821.15	33.75		Si
SLV 6	1.69	-17412.21	-17460	-0.0000204	0.0006738	0.0035	8.96		122861.58	122861.58	7.06		Si
SLV 6	5.62	1314.71	-1101	-0.0000014	0.0006738	0.0035	8.96		12806.26	12806.26	9.74		Si
SLV 8	1.69	9783.82	-16718	-0.0000162	0.0006738	0.0035	8.96		79718.46	79718.46	8.15		Si
SLV 8	5.62	-1600.92	-1090	-0.0000015	0.0006738	0.0035	8.96		53821.24	53821.24	33.62		Si
SLV 12	1.69	9950.48	-23069	-0.0000208	0.0006738	0.0035	8.96		105998.91	105998.91	10.65		Si
SLV 12	5.62	-1583.75	-1390	-0.0000017	0.0006738	0.0035	8.96		55113.72	55113.72	34.8		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 34	1.69	-5722.35	-26699	-17385	1728	8.96	8.96	-9240	9565	17998	129139	67620	45696	113316	No	65.56	Si
SLU 34	5.62	-194.38	-2262	-1473	161	8.96	8.96	-783	8438	15876	129139	67620	45696	113316	No	706.01	Si
SLU 73	1.69	-6560.28	-30908	-20126	1940	8.96	8.96	-10696	9759	18363	129139	67620	45696	113316	No	58.41	Si
SLU 73	5.62	-232.67	-2345	-1527	208	8.96	8.96	-812	8442	15884	129139	67620	45696	113316	No	544.42	Si
SLU 55	1.69	-6069.81	-27585	-17963	1835	8.96	8.96	-9546	9606	18075	129139	67620	45696	113316	No	61.74	Si
SLU 55	5.62	-230.83	-1851	-1205	243	8.96	8.96	-641	8419	15841	129139	67620	45696	113316	No	466.77	Si
SLU 68	1.69	-5615.6	-25717	-16746	1767	8.96	8.96	-8900	9520	17913	129139	67620	45696	113316	No	64.14	Si
SLU 68	5.62	-228.63	-1426	-929	273	8.96	8.96	-494	8399	15804	129139	67620	45696	113316	No	415	Si
SLU 65	1.69	-5615.6	-25717	-16746	1767	8.96	8.96	-8900	9520	17913	129139	67620	45696	113316	No	64.14	Si
SLU 65	5.62	-228.63	-1426	-929	273	8.96	8.96	-494	8399	15804	129139	67620	45696	113316	No	415	Si
SLU 84	1.69	-6591.73	-32989	-21481	1765	8.96	8.96	-11416	9856	18544	129139	67620	45696	113316	No	64.21	Si
SLU 84	5.62	-210.89	-2736	-1782	124	8.96	8.96	-947	8460	15918	129139	67620	45696	113316	No	913.87	Si
SLU 76	1.69	-6560.28	-30908	-20126	1940	8.96	8.96	-10696	9759	18363	129139	67620	45696	113316	No	58.41	Si
SLU 76	5.62	-232.67	-2345	-1527	208	8.96	8.96	-812	8442	15884	129139	67620	45696	113316	No	544.42	Si
SLU 52	1.69	-6069.81	-27585	-17963	1835	8.96	8.96	-9546	9606	18075	129139	67620	45696	113316	No	61.74	Si
SLU 52	5.62	-230.83	-1851	-1205	243	8.96	8.96	-641	8419	15841	129139	67620	45696	113316	No	466.77	Si
SLU 82	1.69	-6591.73	-32989	-21481	1765	8.96	8.96	-11416	9856	18544	129139	67620	45696	113316	No	64.21	Si
SLU 82	5.62	-210.89	-2736	-1782	124	8.96	8.96	-947	8460	15918	129139	67620	45696	113316	No	913.87	Si
SLU 31	1.69	-5722.35	-26699	-17385	1728	8.96	8.96	-9240	9565	17998	129139	67620	45696	113316	No	65.56	Si
SLU 31	5.62	-194.38	-2262	-1473	161	8.96	8.96	-783	8438	15876	129139	67620	45696	113316	No	706.01	Si



Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σ_N	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 3	1.69	6.76	-9559	-6224	6183	8.96	8.96	-3308	13162	24765	129139	101430	45696	147126		23.79	Si
SLV 3	5.62	-594.44	-743	-484	3237	8.96	8.96	-257	12551	23617	129139	101430	45696	147126		45.45	Si
SLV 8	1.69	9783.82	-16718	-10886	16838	8.96	8.96	-5785	13657	25697	129139	101430	45696	147126		8.74	Si
SLV 8	5.62	-1600.92	-1090	-710	10244	8.96	8.96	-377	12575	23662	129139	101430	45696	147126		14.36	Si
SLV 10	1.69	-17245.54	-23811	-15505	-14954	8.96	8.96	-8240	14148	26621	129139	101430	45696	147126		9.84	Si
SLV 10	5.62	1331.88	-1401	-912	-9990	8.96	8.96	-485	12597	23702	129139	101430	45696	147126		14.73	Si
SLV 6	1.69	-17412.21	-17460	-11369	-14596	8.96	8.96	-6042	13708	25794	129139	101430	45696	147126		10.08	Si
SLV 6	5.62	1314.71	-1101	-717	-9894	8.96	8.96	-381	12576	23663	129139	101430	45696	147126		14.87	Si
SLV 7	1.69	9718.15	-16708	-10880	16766	8.96	8.96	-5782	13656	25696	129139	101430	45696	147126		8.78	Si
SLV 7	5.62	-1594.72	-1090	-710	10171	8.96	8.96	-377	12575	23662	129139	101430	45696	147126		14.46	Si
SLV 12	1.69	9950.48	-23069	-15021	16480	8.96	8.96	-7983	14097	26524	129139	101430	45696	147126		8.93	Si
SLV 12	5.62	-1583.75	-1390	-905	10148	8.96	8.96	-481	12596	23701	129139	101430	45696	147126		14.5	Si
SLV 9	1.69	-17311.2	-23801	-15499	-15027	8.96	8.96	-8237	14147	26620	129139	101430	45696	147126		9.79	Si
SLV 9	5.62	1338.08	-1401	-912	-10063	8.96	8.96	-485	12597	23702	129139	101430	45696	147126		14.62	Si
SLV 11	1.69	9884.82	-23059	-15015	16407	8.96	8.96	-7980	14096	26523	129139	101430	45696	147126		8.97	Si
SLV 11	5.62	-1577.55	-1390	-905	10075	8.96	8.96	-481	12596	23701	129139	101430	45696	147126		14.6	Si
SLV 5	1.69	-17477.87	-17450	-11363	-14669	8.96	8.96	-6039	13708	25793	129139	101430	45696	147126		10.03	Si
SLV 5	5.62	1320.91	-1101	-717	-9967	8.96	8.96	-381	12576	23663	129139	101430	45696	147126		14.76	Si
SLV 4	1.69	69.11	-9568	-6230	6252	8.96	8.96	-3311	13162	24766	129139	101430	45696	147126		23.53	Si
SLV 4	5.62	-600.33	-744	-484	3306	8.96	8.96	-257	12551	23617	129139	101430	45696	147126		44.5	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRM D.M. 17-01-18 (N.T.C.)

quota 3.655 Ta 0.12 Wa 0.04 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 1	-5757	0.48	1143.82	0	1517.65	758.82	0.66	No
SLV 2	-5758	0.48	1143.82	0	1517.71	758.85	0.66	No
SLV 3	-5759	0.48	1143.82	0	1517.84	758.92	0.66	No
SLV 4	-5759	0.48	1143.82	0	1517.9	758.95	0.66	No
SLV 5	-11091	0.48	1143.82	1127.12	2178.26	1652.69	1.44	Si
SLV 6	-11092	0.48	1143.82	1127.17	2178.32	1652.75	1.44	Si
SLV 7	-11096	0.48	1143.82	1127.62	2178.89	1653.25	1.45	Si
SLV 8	-11097	0.48	1143.82	1127.67	2178.95	1653.31	1.45	Si
SLV 9	-15665	0.48	1143.82	1570.09	2732.7	2151.39	1.88	Si
SLV 10	-15665	0.48	1143.82	1570.14	2732.76	2151.45	1.88	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzeria = 3.655 Wa = 0.04 Ta = 0.1228

Comb.	N top	N base	V orto	$\alpha 0$	M*	e*	a0*	aLim	Verifica
SLV 16	-1744	-30738	444	5.987	1417.9	0.924	94.17154	19.77735	Si
SLV 15	-1744	-30729	444	5.987	1417.9	0.924	94.17168	19.77735	Si
SLV 14	-1747	-30960	419	5.988	1418.1	0.924	94.18867	19.77735	Si
SLV 13	-1747	-30951	419	5.988	1418.1	0.924	94.18881	19.77735	Si
SLV 12	-1390	-23069	181	6.282	1398.6	0.933	97.82549	19.67045	Si
SLV 11	-1390	-23059	181	6.282	1398.6	0.933	97.82564	19.67045	Si
SLV 10	-1401	-23811	97	6.284	1399.1	0.933	97.88463	19.67045	Si
SLV 9	-1401	-23801	97	6.284	1399.1	0.933	97.88478	19.67045	Si
SLV 6	-1101	-17460	-153	6.519	1384.7	0.943	100.50749	19.67045	Si
SLV 5	-1101	-17450	-153	6.519	1384.7	0.943	100.50769	19.67045	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	26.659	SLU 73	Si
V_SLU	58.406	SLU 73	Si
PF_SLV	7.027	SLV 5	Si
V_SLV	8.738	SLV 8	Si
PFFP_SLV	0.663	SLV 1	No
R_SLV	4.762	SLV 16	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-23.207	-13.489	-21.057	-13.489	L2	L3	2.15	0.3	3.93	3.93	3.93			

Caratteristiche del materiale

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

f _b	f _k	f _{vk0}	f _{med}	t ₀	f _{v0}	μ	φ	f _{v,lim}	E	G	FC
600000			517500	13500	30000	0.58	0.77	32500	320000000	128000000	1.2

Materiale per FRM

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica



									elim,conv / e,CNR DT-200						CRM / Fibrenet?				
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α t	α	elim,conv	ϵ ,fd	γ F,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 FRCC in combinazioni non sismiche, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 48	1.69	-7687.49	-7996	-0.0002115	0.0004492	0.0035	1.72	7723.35	10568.17	10568.17	1.37	No	Si
SLU 48	3.79	-1340.87	-4845	-0.000185	0.0004492	0.0035	2.15	4888.63	7545.81	7545.81	5.63	No	Si
SLU 51	1.69	-7697.25	-7994	-0.0002132	0.0004492	0.0035	1.72	7722.28	10567	10567	1.37	No	Si
SLU 51	3.79	-1343.66	-4844	-0.000185	0.0004492	0.0035	2.15	4887.46	7544.59	7544.59	5.61	No	Si
SLU 43	1.69	-7687.49	-7996	-0.0002115	0.0004492	0.0035	1.72	7723.35	10568.17	10568.17	1.37	No	Si
SLU 43	3.79	-1340.87	-4845	-0.000185	0.0004492	0.0035	2.15	4888.63	7545.81	7545.81	5.63	No	Si
SLU 44	1.69	-7703.75	-7994	-0.0002144	0.0004492	0.0035	1.72	7721.57	10566.23	10566.23	1.37	No	Si
SLU 44	3.79	-1345.52	-4843	-0.000185	0.0004492	0.0035	2.15	4886.67	7543.77	7543.77	5.61	No	Si
SLU 50	1.69	-7687.49	-7996	-0.0002115	0.0004492	0.0035	1.72	7723.35	10568.17	10568.17	1.37	No	Si
SLU 50	3.79	-1340.87	-4845	-0.000185	0.0004492	0.0035	2.15	4888.63	7545.81	7545.81	5.63	No	Si
SLU 2	1.69	-5929.4	-6790	-0.0001083	0.0004492	0.0035	1.72	6670.33	9443.78	9443.78	1.59	No	Si
SLU 2	3.79	-1079.23	-4341	-0.000158	0.0004492	0.0035	2.15	4409.52	7050.6	7050.6	6.53	No	Si
SLU 47	1.69	-7703.75	-7994	-0.0002144	0.0004492	0.0035	1.72	7721.57	10566.23	10566.23	1.37	No	Si
SLU 47	3.79	-1345.52	-4843	-0.000185	0.0004492	0.0035	2.15	4886.67	7543.77	7543.77	5.61	No	Si
SLU 45	1.69	-7687.49	-7996	-0.0002115	0.0004492	0.0035	1.72	7723.35	10568.17	10568.17	1.37	No	Si
SLU 45	3.79	-1340.87	-4845	-0.000185	0.0004492	0.0035	2.15	4888.63	7545.81	7545.81	5.63	No	Si
SLU 46	1.69	-7697.25	-7994	-0.0002132	0.0004492	0.0035	1.72	7722.28	10567	10567	1.37	No	Si
SLU 46	3.79	-1343.66	-4844	-0.000185	0.0004492	0.0035	2.15	4887.46	7544.59	7544.59	5.61	No	Si
SLU 49	1.69	-7697.25	-7994	-0.0002132	0.0004492	0.0035	1.72	7722.28	10567	10567	1.37	No	Si
SLU 49	3.79	-1343.66	-4844	-0.000185	0.0004492	0.0035	2.15	4887.46	7544.59	7544.59	5.61	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche, $\gamma_M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 1	1.69	-8540.78	-7099	-0.0004921	0.0006738	0.0035	1.72		9832.51	9832.51	1.15		Si
SLV 1	3.79	-57.03	-4954	-0.000109	0.0006738	0.0035	2.15		7709.09	7709.09	135.18		Si
SLV 8	1.69	-9990.91	-4727	-0.0011123	0.0006738	0.0035	1.72		7483.07	7483.07	0.75		No
SLV 8	3.79	1527.17	-2862	-0.000162	0.0006738	0.0035	2.15		3512.42	3512.42	2.3		Si
SLV 11	1.69	-7913.77	-6267	-0.0004932	0.0006738	0.0035	1.72		9014.51	9014.51	1.14		Si
SLV 11	3.79	486.87	-4119	-0.000117	0.0006738	0.0035	2.15		4798.06	4798.06	9.85		Si
SLV 12	1.69	-7860.47	-6334	-0.0004737	0.0006738	0.0035	1.72		9080.23	9080.23	1.16		Si
SLV 12	3.79	438.11	-4186	-0.000116	0.0006738	0.0035	2.15		4866.15	4866.15	11.11		Si
SLV 10	1.69	-1725.71	-12968	-0.000387	0.0006738	0.0035	2.15		15373.32	15373.32	8.91		Si
SLV 10	3.79	-4026.98	-9880	-0.000462	0.0006738	0.0035	2.15		12493.17	12493.17	3.1		Si
SLV 7	1.69	-10044.21	-4660	-0.0011316	0.0006738	0.0035	1.72		7416.42	7416.42	0.74		No
SLV 7	3.79	1575.94	-2795	-0.000168	0.0006738	0.0035	2.15		3443.37	3443.37	2.18		Si
SLV 4	1.69	-10330.6	-5172	-0.0011393	0.0006738	0.0035	1.72		7926.7	7926.7	0.77		No
SLV 4	3.79	1236.19	-3309	-0.000145	0.0006738	0.0035	2.15		3972.88	3972.88	3.21		Si
SLV 3	1.69	-10381.21	-5109	-0.0011585	0.0006738	0.0035	1.72		7863.48	7863.48	0.76		No
SLV 3	3.79	1282.5	-3246	-0.000146	0.0006738	0.0035	2.15		3908.23	3908.23	3.05		Si
SLV 9	1.69	-1779.01	-12901	-0.000389	0.0006738	0.0035	2.15		15312.56	15312.56	8.61		Si
SLV 9	3.79	-3978.22	-9813	-0.000458	0.0006738	0.0035	2.15		12429.42	12429.42	3.12		Si
SLV 2	1.69	-8490.17	-7162	-0.0004723	0.0006738	0.0035	1.72		9894.91	9894.91	1.17		Si
SLV 2	3.79	-103.34	-5017	-0.000113	0.0006738	0.0035	2.15		7772.3	7772.3	75.21		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	σ_N	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 49	1.69	-7697.25	-7994	-5814	-3010	1.72	0.3365	0	0	0	129139	18544	8772	27316	No	9.07	Si
SLU 49	3.79	-1343.66	-4844	-3523	-3010	2.15	2.15	-5462	9062	5845	129139	23180	10965	34145	No	11.34	Si
SLU 48	1.69	-7687.49	-7996	-5815	-3007	1.72	0.3406	0	0	0	129139	18544	8772	27316	No	9.08	Si
SLU 48	3.79	-1340.87	-4845	-3524	-3007	2.15	2.15	-5464	9062	5845	129139	23180	10965	34145	No	11.36	Si
SLU 50	1.69	-7687.49	-7996	-5815	-3007	1.72	0.3406	0	0	0	129139	18544	8772	27316	No	9.08	Si
SLU 50	3.79	-1340.87	-4845	-3524	-3007	2.15	2.15	-5464	9062	5845	129139	23180	10965	34145	No	11.36	Si
SLU 45	1.69	-7687.49	-7996	-5815	-3007	1.72	0.3406	0	0	0	129139	18544	8772	27316	No	9.08	Si
SLU 45	3.79	-1340.87	-4845	-3524	-3007	2.15	2.15	-5464	9062	5845	129139	23180	10965	34145	No	11.36	Si
SLU 68	1.69	-7702.54	-10426	-7582	-2935	1.72	1.0086	0	0	0	129139	18544	8772	27316	No	9.31	Si
SLU 68	3.79	-1509.1	-7178	-5221	-2934	2.15	2.15	-8094	9413	6071	129139	23180	10965	34145	No	11.64	Si
SLU 43	1.69	-7687.49	-7996	-5815	-3007	1.72	0.3406	0	0	0	129139	18544	8772	27316	No	9.08	Si
SLU 43	3.79	-1340.87	-4845	-3524	-3007	2.15	2.15	-5464	9062	5845	129139	23180	10965	34145	No	11.36	Si
SLU 44	1.69	-7703.75	-7994	-5814	-3012	1.72	0.3338	0	0	0	129139	18544	8772	27316	No	9.07	Si
SLU 44	3.79	-1345.52	-4843	-3522	-3012	2.15	2.15	-5461	9061	5845	129139	23180	10965	34145	No	11.34	Si
SLU 47	1.69	-7703.75	-7994	-5814	-3012	1.72	0.3338	0	0	0	129139	18544	8772	27316	No	9.07	Si
SLU 47	3.79	-1345.52	-4843	-3522	-3012	2.15	2.15	-5461	9061	5845	129139	23180	10965	34145	No	11.34	Si
SLU 51	1.69	-7697.25	-7994	-5814	-3010	1.72	0.3365	0	0	0	129139	18544	8772	27316	No	9.07	Si
SLU 51	3.79	-1343.66	-4844	-3523	-3010	2.15	2.15	-5462	9062	5845	129139	23180	10965	34145	No	11.34	Si
SLU 46	1.69	-7697.25	-7994	-5814	-3010	1.72	0.3365	0	0	0	129139	18544	8772	27316	No	9.07	Si
SLU 46	3.79	-1343.66	-4844	-3523	-3010	2.15	2.15	-5462	9062	5845	129139	23180	10965	34145	No	11.34	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	σ_N	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 7	1.69	-10044.21	-4660	-3389	-5687	1.72	0	0	0	0	129139	27816	8772	36588		6.43	Si
SLV 7	3.79	1575.94	-2795	-2033	-5345	2.15	1.5337	-3152	13130	6041	129139	34770	10965	45735		8.56	Si
SLV 14	1.69	-1388.71	-12520	-9105	1908	2.15	2.15	-14117	15323	9884	129139	34770	10965	45735		23.97	Si
SLV 14	3.79	-3733.54	-9429	-6858	697	2.15	2.0371	-11275	14755	9017	129139	34770	10965	45735		65.58	Si
SLV 2	1.69	-8490.17	-7162	-5209	-4807	1.72	0	0	0	0	129139	27816	8772	36588		7.61	Si
SLV 2	3.79	-103.34	-5017	-3649	-3583	2.15	2.15	-5657	13631	8792	129139	34770	10965	45735		12.76	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 3	1.69	-10381.21	-5109	-3716	-6323	1.72	0	0	0	0	129139	27816	8772	36588		5.79	Si
SLV 3	3.79	1282.5	-3246	-2361	-5112	2.15	2.0396	-3660	13232	8096	129139	34770	10965	45735		8.95	Si
SLV 4	1.69	-10330.6	-5172	-3762	-6277	1.72	0	0	0	0	129139	27816	8772	36588		5.83	Si
SLV 4	3.79	1236.19	-3309	-2407	-5066	2.15	2.1043	-3731	13246	8362	129139	34770	10965	45735		9.03	Si
SLV 8	1.69	-9990.91	-4727	-3438	-5639	1.72	0	0	0	0	129139	27816	8772	36588		6.49	Si
SLV 8	3.79	1527.17	-2862	-2082	-5296	2.15	1.6243	-3227	13145	6406	129139	34770	10965	45735		8.64	Si
SLV 1	1.69	-8540.78	-7099	-5163	-4854	1.72	0	0	0	0	129139	27816	8772	36588		7.54	Si
SLV 1	3.79	-57.03	-4954	-3603	-3629	2.15	2.15	-5586	13617	8783	129139	34770	10965	45735		12.6	Si
SLV 11	1.69	-7913.77	-6267	-4558	-3673	1.72	0	0	0	0	129139	27816	8772	36588		9.96	Si
SLV 11	3.79	486.87	-4119	-2996	-4060	2.15	2.15	-4644	13429	8662	129139	34770	10965	45735		11.26	Si
SLV 13	1.69	-1439.32	-12456	-9059	1862	2.15	2.15	-14045	15309	9874	129139	34770	10965	45735		24.56	Si
SLV 13	3.79	-3687.24	-9366	-6811	651	2.15	2.0439	-11162	14732	9033	129139	34770	10965	45735		70.22	Si
SLV 12	1.69	-7860.47	-6334	-4607	-3624	1.72	0	0	0	0	129139	27816	8772	36588		10.1	Si
SLV 12	3.79	438.11	-4186	-3044	-4012	2.15	2.15	-4720	13444	8671	129139	34770	10965	45735		11.4	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRM D.M. 17-01-18 (N.T.C.)

quota 3.655 Ta 0.09 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 7	-2613	0.48	382.65	383.3	717.17	550.24	1.44	Si
SLV 8	-2680	0.48	382.65	392.88	728.27	560.57	1.46	Si
SLV 3	-3188	0.48	382.65	465.36	812.75	639.06	1.67	Si
SLV 4	-3252	0.48	382.65	474.36	823.29	648.82	1.7	Si
SLV 11	-3949	0.48	382.65	572.5	938.18	755.34	1.97	Si
SLV 12	-4015	0.48	382.65	581.84	949.17	765.51	2	Si
SLV 1	-5015	0.48	382.65	720.41	1113.7	917.06	2.4	Si
SLV 2	-5079	0.48	382.65	729.11	1124.14	926.62	2.42	Si
SLV 15	-7640	0.48	382.65	1071.92	1542.14	1307.03	3.42	Si
SLV 16	-7703	0.48	382.65	1080.2	1552.46	1316.33	3.44	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzera = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 14	-4694	-12520	312	1.737	850.1	0.901	28.02446	18.92268	Si
SLV 13	-4689	-12456	313	1.738	849.6	0.901	28.04509	18.92268	Si
SLV 16	-4537	-10529	-321	1.775	834.7	0.9	28.66848	18.92268	Si
SLV 15	-4532	-10466	-320	1.776	834.2	0.9	28.69037	18.92268	Si
SLV 2	-4397	-7162	299	1.815	821	0.899	29.34048	18.92268	Si
SLV 1	-4392	-7099	299	1.816	820.5	0.899	29.36302	18.92268	Si
SLV 4	-4240	-5172	-334	1.852	805.7	0.898	29.97679	18.92268	Si
SLV 3	-4235	-5109	-334	1.853	805.2	0.898	30.00068	18.92268	Si
SLV 10	-4773	-12968	1046	1.614	857.8	0.901	26.02435	13.88289	Si
SLV 9	-4768	-12901	1046	1.615	857.3	0.901	26.04427	13.88289	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	1.372	SLU 44	Si
V_SLU	9.068	SLU 44	Si
PF_SLV	0.738	SLV 7	No
V_SLV	5.787	SLV 3	Si
PFFP_SLV	1.438	SLV 7	Si
R_SLV	1.481	SLV 14	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	I	Sp.	h netta	h ini.	h fin.	a	a.s.,sx	a.s.,dx
-21.057	-17.999	-21.057	-9.039	L2	L3	8.96	0.3	3.93	3.93	3.93			

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 FRM

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

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200						CRM / Fibrenet?				
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	ϵ_{fd}	$\gamma_{F,d}$	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 FRCC in combinazioni non sismiche, $\gamma_M = 3$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLU 76	1.69	-4921.2	-38634	-0.0000218	0.0004492	0.0035	8.96	152719.77	207078.3	207078.3	42.08	No	Si
SLU 76	5.62	-99.82	-919	-0.0000005	0.0004492	0.0035	8.96	4106.1	53238.4	53238.4	533.34	No	Si
SLU 52	1.69	-4547.33	-35580	-0.0000201	0.0004492	0.0035	8.96	142130.47	195262.58	195262.58	42.94	No	Si
SLU 52	5.62	-45.12	-727	-0.0000004	0.0004492	0.0035	8.96	3247.81	52404.49	52404.49	1161.53	No	Si
SLU 10	1.69	-4358.39	-29316	-0.0000167	0.0004492	0.0035	8.96	119611.77	171024.2	171024.2	39.24	No	Si
SLU 10	5.62	-83.89	-682	-0.0000004	0.0004492	0.0035	8.96	3050.62	52213.05	52213.05	622.41	No	Si
SLU 13	1.69	-4358.39	-29316	-0.0000167	0.0004492	0.0035	8.96	119611.77	171024.2	171024.2	39.24	No	Si
SLU 13	5.62	-83.89	-682	-0.0000004	0.0004492	0.0035	8.96	3050.62	52213.05	52213.05	622.41	No	Si
SLU 40	1.69	-4281.89	-33872	-0.0000191	0.0004492	0.0035	8.96	136096.16	188653.19	188653.19	44.06	No	Si
SLU 40	5.62	-165.11	-998	-0.0000006	0.0004492	0.0035	8.96	4457.05	53579.66	53579.66	324.5	No	Si
SLU 31	1.69	-4732.26	-32369	-0.0000184	0.0004492	0.0035	8.96	130722.92	182839.93	182839.93	38.64	No	Si
SLU 31	5.62	-138.59	-875	-0.0000005	0.0004492	0.0035	8.96	3909.14	53046.95	53046.95	382.76	No	Si
SLU 73	1.69	-4921.2	-38634	-0.0000218	0.0004492	0.0035	8.96	152719.77	207078.3	207078.3	42.08	No	Si
SLU 73	5.62	-99.82	-919	-0.0000005	0.0004492	0.0035	8.96	4106.1	53238.4	53238.4	533.34	No	Si
SLU 55	1.69	-4547.33	-35580	-0.0000201	0.0004492	0.0035	8.96	142130.47	195262.58	195262.58	42.94	No	Si
SLU 55	5.62	-45.12	-727	-0.0000004	0.0004492	0.0035	8.96	3247.81	52404.49	52404.49	1161.53	No	Si
SLU 42	1.69	-4281.89	-33872	-0.0000191	0.0004492	0.0035	8.96	136096.16	188653.19	188653.19	44.06	No	Si
SLU 42	5.62	-165.11	-998	-0.0000006	0.0004492	0.0035	8.96	4457.05	53579.66	53579.66	324.5	No	Si
SLU 34	1.69	-4732.26	-32369	-0.0000184	0.0004492	0.0035	8.96	130722.92	182839.93	182839.93	38.64	No	Si
SLU 34	5.62	-138.59	-875	-0.0000005	0.0004492	0.0035	8.96	3909.14	53046.95	53046.95	382.76	No	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche, $\gamma_M = 2$

Verifica condotta secondo CNR-DT 215

Comb.	Quota	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	c.s.	incremento > 50%	Verifica
SLV 12	1.69	17645.43	-28509	-0.0000208	0.0006738	0.0035	8.96		129667.02	129667.02	7.35		Si
SLV 12	5.62	-490.71	-523	-0.0000004	0.0006738	0.0035	8.96		51504.87	51504.87	104.96		Si
SLV 7	1.69	19445.44	-25395	-0.0000198	0.0006738	0.0035	8.96		116795.58	116795.58	6.01		Si
SLV 7	5.62	-370.84	-582	-0.0000004	0.0006738	0.0035	8.96		51762.2	51762.2	139.58		Si
SLV 5	1.69	-20573.33	-24378	-0.0000197	0.0006738	0.0035	8.96		152411.1	152411.1	7.41		Si
SLV 5	5.62	533.05	-494	-0.0000004	0.0006738	0.0035	8.96		10191.9	10191.9	19.12		Si
SLV 11	1.69	18502.76	-28581	-0.0000211	0.0006738	0.0035	8.96		129962.1	129962.1	7.02		Si
SLV 11	5.62	-575.66	-554	-0.0000005	0.0006738	0.0035	8.96		51638.82	51638.82	89.7		Si
SLV 4	1.69	5702.99	-21253	-0.0000129	0.0006738	0.0035	8.96		99526.32	99526.32	17.45		Si
SLV 4	5.62	267.27	-554	-0.0000004	0.0006738	0.0035	8.96		10458.9	10458.9	39.13		Si
SLV 6	1.69	-21430.66	-24306	-0.0000199	0.0006738	0.0035	8.96		152113.23	152113.23	7.1		Si
SLV 6	5.62	618	-463	-0.0000004	0.0006738	0.0035	8.96		10056.28	10056.28	16.27		Si
SLV 9	1.69	-21516.01	-27563	-0.0000217	0.0006738	0.0035	8.96		165497.9	165497.9	7.69		Si
SLV 9	5.62	328.24	-465	-0.0000003	0.0006738	0.0035	8.96		10066.98	10066.98	30.67		Si
SLV 8	1.69	18588.11	-25323	-0.0000195	0.0006738	0.0035	8.96		116495.9	116495.9	6.27		Si
SLV 8	5.62	-285.9	-551	-0.0000004	0.0006738	0.0035	8.96		51628.25	51628.25	180.58		Si
SLV 3	1.69	6517.03	-21321	-0.0000132	0.0006738	0.0035	8.96		99810.86	99810.86	15.32		Si
SLV 3	5.62	186.62	-584	-0.0000004	0.0006738	0.0035	8.96		10587.66	10587.66	56.74		Si
SLV 10	1.69	-22373.34	-27491	-0.0000219	0.0006738	0.0035	8.96		165203.98	165203.98	7.38		Si
SLV 10	5.62	413.19	-434	-0.0000004	0.0006738	0.0035	8.96		9931.37	9931.37	24.04		Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni non sismiche secondo metodo CNR DT215, $\gamma_M = 3$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLU 73	1.69	-4921.2	-38634	-28097	783	8.96	8.96	-10453	9727	26146	129139	96600	45696	142296	No	181.64	Si
SLU 73	5.62	-99.82	-919	-668	528	8.96	8.96	-249	8366	22489	129139	96600	45696	142296	No	269.35	Si
SLU 34	1.69	-4732.26	-32369	-23541	737	8.96	8.96	-8758	9501	25539	129139	96600	45696	142296	No	193.14	Si
SLU 34	5.62	-138.59	-875	-636	492	8.96	8.96	-237	8365	22485	129139	96600	45696	142296	No	289.33	Si
SLU 31	1.69	-4732.26	-32369	-23541	737	8.96	8.96	-8758	9501	25539	129139	96600	45696	142296	No	193.14	Si
SLU 31	5.62	-138.59	-875	-636	492	8.96	8.96	-237	8365	22485	129139	96600	45696	142296	No	289.33	Si
SLU 65	1.69	-3871.01	-34433	-25042	717	8.96	8.96	-9316	9576	25739	129139	96600	45696	142296	No	198.43	Si
SLU 65	5.62	4.9	-619	-450	473	8.96	8.96	-167	8356	22460	129139	96600	45696	142296	No	301.14	Si
SLU 13	1.69	-4358.39	-29316	-21321	673	8.96	8.96	-7932	9391	25243	129139	96600	45696	142296	No	211.44	Si
SLU 13	5.62	-83.89	-682	-496	433	8.96	8.96	-185	8358	22466	129139	96600	45696	142296	No	328.27	Si
SLU 76	1.69	-4921.2	-38634	-28097	783	8.96	8.96	-10453	9727	26146	129139	96600	45696	142296	No	181.64	Si
SLU 76	5.62	-99.82	-919	-668	528	8.96	8.96	-249	8366	22489	129139	96600	45696	142296	No	269.35	Si
SLU 55	1.69	-4547.33	-35580	-25876	720	8.96	8.96	-9627	9617	25850	129139	96600	45696	142296	No	197.73	Si
SLU 55	5.62	-45.12	-727	-528	470	8.96	8.96	-197	8360	22470	129139	96600	45696	142296	No	302.79	Si
SLU 68	1.69	-3871.01	-34433	-25042	717	8.96	8.96	-9316	9576	25739	129139	96600	45696	142296	No	198.43	Si
SLU 68	5.62	4.9	-619	-450	473	8.96	8.96	-167	8356	22460	129139	96600	45696	142296	No	301.14	Si
SLU 10	1.69	-4358.39	-29316	-21321	673	8.96	8.96	-7932	9391	25243	129139	96600	45696	142296	No	211.44	Si
SLU 10	5.62	-83.89	-682	-496	433	8.96	8.96	-185	8358	22466	129139	96600	45696	142296	No	328.27	Si
SLU 52	1.69	-4547.33	-35580	-25876	720	8.96	8.96	-9627	9617	25850	129139	96600	45696	142296	No	197.73	Si
SLU 52	5.62	-45.12	-727	-528	470	8.96	8.96	-197	8360	22470	129139	96600	45696	142296	No	302.79	Si

Verifica a taglio nel piano delle sezioni rinforzate con rete a fibra in combinazioni sismiche secondo metodo CNR DT215, $\gamma_M = 2$

Comb.	Quota	M	N	Nmur	V	df	I'	αN	fvd	Vt	Vt,f	Vt,c	Vt,c.int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 6	1.69	-21430.66	-24306	-17677	-15229	8.96	8.96	-6576	13815	37135	129139	144900	45696	166275		10.92	Si
SLV 6	5.62	618	-463	-337	-9649	8.96	8.96	-125	12525	33667	129139	144900	45696	162807		16.87	Si
SLV 8	1.69	18588.11	-25323	-18417	13477	8.96	8.96	-6852	13870	37283	129139	144900	45696	166423		12.35	Si
SLV 8	5.62	-285.9	-551	-401	7800	8.96	8.96	-149	12530	33680	129139	144900	45696	162819		20.87	Si
SLV 10	1.69	-22373.34	-27491	-19994	-15445	8.96	8.96	-7438	13988	37599	129139	144900	45696	166738		10.8	Si
SLV 10	5.62	413.19	-434	-316	-9858	8.96	8.96	-118	12524	33663	129139	144900	45696	162802		16.52	Si
SLV 3	1.69	6517.03	-21321	-15506	6119	8.96	8.96	-5769	13654	36701	129139	144900	45696	165840		27.1	Si
SLV 3	5.62	186.62	-584	-424	4373	8.96	8.96	-158	12532	33685	129139	144900	45696	162824		37.23	Si
SLV 7	1.69	19445.44	-25395	-18469	15976	8.96	8.96	-6871	13874	37294	129139	144900	45696	166433		10.42	Si
SLV 7	5.62	-370.84	-582	-423	10299	8.96	8.96	-158	12532	33685	129139	144900	45696	162824		15.81	Si
SLV 9	1.69	-21516.01	-27563	-20046	-12946	8.96	8.96	-7458	13992	37609	129139	144900	45696	166748		12.88	Si
SLV 9	5.62	328.24	-465	-338	-7359	8.96	8.96	-126	12525	33668	129139	144900	45696	162807		22.12	Si



Comb.	Quota	M	N	Nmur	V	df	I'	σN	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	res. > 50%	c.s.	Verifica
SLV 12	1.69	17645.43	-28509	-20734	13261	8.96	8.96	-7713	14043	37747	129139	144900	45696	166886		12.58	Si
SLV 12	5.62	-490.71	-523	-380	7591	8.96	8.96	-142	12528	33676	129139	144900	45696	162815		21.45	Si
SLV 5	1.69	-20573.33	-24378	-17729	-12730	8.96	8.96	-6596	13819	37146	129139	144900	45696	166285		13.06	Si
SLV 5	5.62	533.05	-494	-359	-7150	8.96	8.96	-134	12527	33672	129139	144900	45696	162811		22.77	Si
SLV 14	1.69	-9444.93	-31566	-22957	-5587	8.96	8.96	-8541	14208	38191	129139	144900	45696	167331		29.95	Si
SLV 14	5.62	-144.27	-433	-315	-3931	8.96	8.96	-117	12523	33663	129139	144900	45696	162802		41.41	Si
SLV 11	1.69	18502.76	-28581	-20786	15760	8.96	8.96	-7733	14047	37757	129139	144900	45696	166896		10.59	Si
SLV 11	5.62	-575.66	-554	-403	10090	8.96	8.96	-150	12530	33681	129139	144900	45696	162820		16.14	Si

Verifica a pressoflessione fuori piano muratura rinforzata con FRM D.M. 17-01-18 (N.T.C.)

quota 3.655 Ta 0.09 Wa 0.05 denominatore 8

Comb.	N	Sa	M	M0d	M1d	MRd	Coeff.s.	Verifica
SLV 2	-11347	0.48	1594.68	1662.81	3066	2364.4	1.48	Si
SLV 1	-11530	0.48	1594.68	1688.98	3096.55	2392.77	1.5	Si
SLV 4	-11673	0.48	1594.68	1709.41	3120.35	2414.88	1.51	Si
SLV 3	-11856	0.48	1594.68	1735.54	3150.81	2443.17	1.53	Si
SLV 6	-11967	0.48	1594.68	1751.42	3169.33	2460.37	1.54	Si
SLV 5	-12160	0.48	1594.68	1778.91	3201.4	2490.16	1.56	Si
SLV 10	-12828	0.48	1594.68	1874.15	3312.72	2593.43	1.63	Si
SLV 9	-13021	0.48	1594.68	1901.54	3344.79	2623.16	1.64	Si
SLV 8	-13053	0.48	1594.68	1906.08	3350.11	2628.09	1.65	Si
SLV 7	-13246	0.48	1594.68	1933.44	3382.17	2657.81	1.67	Si

Verifica dei meccanismi locali di collasso con analisi cinematica lineare

forza di aggancio al piano = 5617 quota mezzera = 3.655 Wa = 0.05 Ta = 0.086

Comb.	N top	N base	V orto	α0	M*	e*	a0*	aLim	Verifica
SLV 3	-584	-21321	-1964	4.867	1944.8	0.973	72.65967	18.92268	Si
SLV 1	-557	-21015	-1979	4.878	1944.3	0.975	72.75044	18.92268	Si
SLV 4	-554	-21253	-1964	4.881	1944.2	0.975	72.78353	18.92268	Si
SLV 2	-528	-20947	-1978	4.892	1943.7	0.976	72.87397	18.92268	Si
SLV 15	-489	-31939	1978	4.911	1943	0.977	73.03757	18.92268	Si
SLV 16	-460	-31871	1978	4.926	1942.4	0.978	73.15962	18.92268	Si
SLV 13	-462	-31634	1963	4.926	1942.5	0.978	73.17034	18.92268	Si
SLV 14	-433	-31566	1964	4.94	1942	0.98	73.29208	18.92268	Si
SLV 7	-582	-25395	-568	5.006	1944.8	0.974	74.73155	13.88289	Si
SLV 11	-554	-28581	615	5.015	1944.2	0.975	74.78452	13.88289	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	38.637	SLU 31	Si
V_SLU	181.637	SLU 73	Si
PF_SLV	6.006	SLV 7	Si
V_SLV	10.417	SLV 7	Si
PFFP_SLV	1.483	SLV 2	Si
R_SLV	3.84	SLV 3	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_o: resistenza normalizzata a compressione in direzione orizzontale dei blocchi. [daN/m²]

f_{hk}: resistenza caratteristica a compressione della muratura utilizzata in direzione orizzontale. [daN/m²]

f_{vk0}: resistenza caratteristica a taglio in assenza di carichi verticali. [daN/m²]

f_{hmedio}: 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]

f_{vo}: 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 ammortamento o ingranamento secondo Circolare 7 21-01-19 §C8.7.1.3.1.1.

f_{vk,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]

t_{fv}: spessore di calcolo equivalente verticale di uno strato di rinforzo.

t_{fo}: spessore di calcolo equivalente orizzontale di uno strato di rinforzo.

E: modulo di elasticità longitudinale. [daN/m²]

eu: 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.

elim,conv / ε,CNR DT-200: dati relativi ai parametri per il calcolo della deformazione di progetto.

α: coefficiente che tiene conto della ridotta capacità estensionale delle fibre sollecitate a taglio secondo CNR-DT 215 §4.1.1.

α: coefficiente amplificativo tensione di distacco secondo CNR-DT 215 §3.1 ovvero secondo CNR-DT 200 R1/2013 §5.3.3.

elim,conv: deformazione limite convenzionale del rinforzo FRCCM.

ε_{f,d}: deformazione di progetto del rinforzo FRCCM ovvero CRM.

γ_{f,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 FRCCM ovvero CRM.

spessore intonaco: spessore intonaco. [m]

tipo blocco fibrenet: tipo blocco muratura per verifica a taglio tipo Fibrenet.

Comb.: combinazione.

Sez.: sezione di verifica.

M: momento flettente nel piano. [daN*m]

N: sforzo normale. [daN]

em: deformazione della muratura.

em_e: deformazione elastica della muratura.

emu: deformazione ultima della muratura.

df: distanza tra il lembo compresso e la fibra tesa più lontana. [m]

M_{0d}: momento resistente della sezione non rinforzata. [daN*m]

M_{1d}: momento resistente della sezione rinforzata. [daN*m]

M_{Rd}: 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]

f_{vd}: resistenza a taglio di calcolo. [daN/m²]

V_t: resistenza a taglio della muratura non rinforzata. [daN]

V_{t,f}: resistenza a taglio del rinforzo (CNR DT215 4.1a). [daN]

V_{t,c}: resistenza a taglio per schiacciamento delle bielle (CNR DT215 4.1b). [daN]

V_{t,c int.}: contributo di resistenza a taglio delle bielle dell'intonaco se considerato. [daN]

V_{t,R}: resistenza a taglio della sezione rinforzata. [daN]

Stato limite: p_F_SLV=Presso flessione per azioni sismiche; V_SLV=Taglio per azioni sismiche.

Coeff.s.: coefficiente di sicurezza.

Trave di accoppiamento 1

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
-26.847	-18.044	-0.91	1.09	2	-25.847	-18.044	-0.91	1.09	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 solo su un lato. Corti

f _b	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCCM

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio



Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	e,fd	yF,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 FRCC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 83	ini.	-2090.29	-3087	-0.0002277	0.0001872	0.0035	2		10737.13	10737.13	No	5.14	Si
SLU 83	fin.	3229.32	-4940	-0.0003765	0.0001872	0.0035	2		10722.86	10722.86	No	3.32	Si
SLU 77	ini.	-2033.07	-2893	-0.0002207	0.0001872	0.0035	2		10737.13	10737.13	No	5.28	Si
SLU 77	fin.	3065.77	-4692	-0.0003541	0.0001872	0.0035	2		10722.86	10722.86	No	3.5	Si
SLU 79	ini.	-2033.07	-2893	-0.0002207	0.0001872	0.0035	2		10737.13	10737.13	No	5.28	Si
SLU 79	fin.	3065.77	-4692	-0.0003541	0.0001872	0.0035	2		10722.86	10722.86	No	3.5	Si
SLU 78	ini.	-1927.89	-2990	-0.000208	0.0001872	0.0035	2		10737.13	10737.13	No	5.57	Si
SLU 78	fin.	2984.44	-4674	-0.0003431	0.0001872	0.0035	2		10722.86	10722.86	No	3.59	Si
SLU 82	ini.	-1985.11	-3184	-0.0002149	0.0001872	0.0035	2		10737.13	10737.13	No	5.41	Si
SLU 82	fin.	3147.99	-4923	-0.0003654	0.0001872	0.0035	2		10722.86	10722.86	No	3.41	Si
SLU 84	ini.	-1985.11	-3184	-0.0002149	0.0001872	0.0035	2		10737.13	10737.13	No	5.41	Si
SLU 84	fin.	3147.99	-4923	-0.0003654	0.0001872	0.0035	2		10722.86	10722.86	No	3.41	Si
SLU 75	ini.	-1927.89	-2990	-0.000208	0.0001872	0.0035	2		10737.13	10737.13	No	5.57	Si
SLU 75	fin.	2984.44	-4674	-0.0003431	0.0001872	0.0035	2		10722.86	10722.86	No	3.59	Si
SLU 81	ini.	-2090.29	-3087	-0.0002277	0.0001872	0.0035	2		10737.13	10737.13	No	5.14	Si
SLU 81	fin.	3229.32	-4940	-0.0003765	0.0001872	0.0035	2		10722.86	10722.86	No	3.32	Si
SLU 80	ini.	-1927.89	-2990	-0.000208	0.0001872	0.0035	2		10737.13	10737.13	No	5.57	Si
SLU 80	fin.	2984.44	-4674	-0.0003431	0.0001872	0.0035	2		10722.86	10722.86	No	3.59	Si
SLU 74	ini.	-2033.07	-2893	-0.0002207	0.0001872	0.0035	2		10737.13	10737.13	No	5.28	Si
SLU 74	fin.	3065.77	-4692	-0.0003541	0.0001872	0.0035	2		10722.86	10722.86	No	3.5	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 82	ini.	-1985.11	7333	2	0	1304	7930	13475	5100	9234	No	1.26	Si
SLU 82	fin.	3147.99	8125	2	0	1304	7930	13475	5100	9234	No	1.14	Si
SLU 75	ini.	-1927.89	7088	2	0	1304	7930	13475	5100	9234	No	1.3	Si
SLU 75	fin.	2984.44	7721	2	0	1304	7930	13475	5100	9234	No	1.2	Si
SLU 78	ini.	-1927.89	7088	2	0	1304	7930	13475	5100	9234	No	1.3	Si
SLU 78	fin.	2984.44	7721	2	0	1304	7930	13475	5100	9234	No	1.2	Si
SLU 77	ini.	-2033.07	7372	2	0	1304	7930	13475	5100	9234	No	1.25	Si
SLU 77	fin.	3065.77	8037	2	0	1304	7930	13475	5100	9234	No	1.15	Si
SLU 83	ini.	-2090.29	7618	2	0	1304	7930	13475	5100	9234	No	1.21	Si
SLU 83	fin.	3229.32	8441	2	0	1304	7930	13475	5100	9234	No	1.09	Si
SLU 81	ini.	-2090.29	7618	2	0	1304	7930	13475	5100	9234	No	1.21	Si
SLU 81	fin.	3229.32	8441	2	0	1304	7930	13475	5100	9234	No	1.09	Si
SLU 80	ini.	-1927.89	7088	2	0	1304	7930	13475	5100	9234	No	1.3	Si
SLU 80	fin.	2984.44	7721	2	0	1304	7930	13475	5100	9234	No	1.2	Si
SLU 79	ini.	-2033.07	7372	2	0	1304	7930	13475	5100	9234	No	1.25	Si
SLU 79	fin.	3065.77	8037	2	0	1304	7930	13475	5100	9234	No	1.15	Si
SLU 84	ini.	-1985.11	7333	2	0	1304	7930	13475	5100	9234	No	1.26	Si
SLU 84	fin.	3147.99	8125	2	0	1304	7930	13475	5100	9234	No	1.14	Si
SLU 74	ini.	-2033.07	7372	2	0	1304	7930	13475	5100	9234	No	1.25	Si
SLU 74	fin.	3065.77	8037	2	0	1304	7930	13475	5100	9234	No	1.15	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 12	ini.	-318.03	-956	-0.0000317	0.0002807	0.0035	2		15648.46	15648.46		49.2	Si
SLV 12	fin.	1979.06	134	-0.0002085	0.0002807	0.0035	2		15635.95	15635.95		7.9	Si
SLV 10	ini.	-2089.65	-3452	-0.0002208	0.0002807	0.0035	2		15648.46	15648.46		7.49	Si
SLV 10	fin.	1588.12	-6559	-0.000165	0.0002807	0.0035	2		15635.95	15635.95		9.85	Si
SLV 2	ini.	-2970.43	-968	-0.0003253	0.0002807	0.0035	2		15648.46	15648.46		5.27	Si
SLV 2	fin.	3579.53	-4661	-0.0004033	0.0002807	0.0035	2		15635.95	15635.95		4.37	Si
SLV 8	ini.	-1012.57	-210	-0.0001031	0.0002807	0.0035	2		15648.46	15648.46		15.45	Si
SLV 8	fin.	2837.37	-73	-0.0003092	0.0002807	0.0035	2		15635.95	15635.95		5.51	Si
SLV 5	ini.	-2626.36	-2925	-0.0002835	0.0002807	0.0035	2		15648.46	15648.46		5.96	Si
SLV 5	fin.	2244.24	-6609	-0.0002388	0.0002807	0.0035	2		15635.95	15635.95		6.97	Si
SLV 4	ini.	-2438.95	-219	-0.0002612	0.0002807	0.0035	2		15648.46	15648.46		6.42	Si
SLV 4	fin.	3696.81	-2653	-0.0004188	0.0002807	0.0035	2		15635.95	15635.95		4.23	Si
SLV 3	ini.	-2289.09	-427	-0.0002438	0.0002807	0.0035	2		15648.46	15648.46		6.84	Si
SLV 3	fin.	3504.82	-2504	-0.0003936	0.0002807	0.0035	2		15635.95	15635.95		4.46	Si
SLV 1	ini.	-2820.58	-1176	-0.0003069	0.0002807	0.0035	2		15648.46	15648.46		5.55	Si
SLV 1	fin.	3387.54	-4512	-0.0003783	0.0002807	0.0035	2		15635.95	15635.95		4.62	Si
SLV 7	ini.	-854.74	-429	-0.0000866	0.0002807	0.0035	2		15648.46	15648.46		18.31	Si
SLV 7	fin.	2635.18	83	-0.0002848	0.0002807	0.0035	2		15635.95	15635.95		5.93	Si
SLV 6	ini.	-2784.19	-2707	-0.0003025	0.0002807	0.0035	2		15648.46	15648.46		5.62	Si
SLV 6	fin.	2446.44	-6766	-0.0002624	0.0002807	0.0035	2		15635.95	15635.95		6.39	Si



Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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.	-854.74	6807	2	0	1957	7930	20213	5100	9886		1.45	Si
SLV 7	fin.	2635.18	4962	2	0	1957	7930	20213	5100	9886		1.99	Si
SLV 5	ini.	-2626.36	5635	2	0	1957	7930	20213	5100	9886		1.75	Si
SLV 5	fin.	2244.24	7923	2	0	1957	7930	20213	5100	9886		1.25	Si
SLV 1	ini.	-2820.58	9082	2	0	1957	7930	20213	5100	9886		1.09	Si
SLV 1	fin.	3387.54	9807	2	0	1957	7930	20213	5100	9886		1.01	Si
SLV 2	ini.	-2970.43	9769	2	0	1957	7930	20213	5100	9886		1.01	Si
SLV 2	fin.	3579.53	10506	2	0	1957	7930	20213	5100	9886		0.94	No
SLV 3	ini.	-2289.09	9433	2	0	1957	7930	20213	5100	9886		1.05	Si
SLV 3	fin.	3504.82	8919	2	0	1957	7930	20213	5100	9886		1.11	Si
SLV 8	ini.	-1012.57	7531	2	0	1957	7930	20213	5100	9886		1.31	Si
SLV 8	fin.	2837.37	5698	2	0	1957	7930	20213	5100	9886		1.74	Si
SLV 9	ini.	-1931.82	3048	2	0	1957	7930	20213	5100	9886		3.24	Si
SLV 9	fin.	1385.93	5435	2	0	1957	7930	20213	5100	9886		1.82	Si
SLV 4	ini.	-2438.95	10121	2	0	1957	7930	20213	5100	9886		0.98	No
SLV 4	fin.	3696.81	9618	2	0	1957	7930	20213	5100	9886		1.03	Si
SLV 6	ini.	-2784.19	6359	2	0	1957	7930	20213	5100	9886		1.55	Si
SLV 6	fin.	2446.44	8659	2	0	1957	7930	20213	5100	9886		1.14	Si
SLV 10	ini.	-2089.65	3772	2	0	1957	7930	20213	5100	9886		2.62	Si
SLV 10	fin.	1588.12	6171	2	0	1957	7930	20213	5100	9886		1.6	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLV	4.23	SLV 4	Si
V SLV	0.941	SLV 2	No
PF SLU	3.32	SLU 81	Si
V SLU	1.094	SLU 81	Si

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
-23.332	-18.044	-0.91	1.09	2	-22.332	-18.044	-0.91	1.09	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 solo su un lato_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRMC

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	elim,conv / e,CNR DT-200						CRM / Fibrenet?				
									α _t	α	elim,conv	e,f,d	γ _f ,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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _m _	ε _{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 47	ini.	-190.89	-1079	-0.000019	0.0001872	0.0035	2		10737.13	10737.13	No	56.25	Si
SLU 47	fin.	698.24	-1716	-0.000071	0.0001872	0.0035	2		10722.86	10722.86	No	15.36	Si
SLU 46	ini.	-150.7	-1077	-0.000015	0.0001872	0.0035	2		10737.13	10737.13	No	71.25	Si
SLU 46	fin.	638.25	-1645	-0.0000648	0.0001872	0.0035	2		10722.86	10722.86	No	16.8	Si
SLU 55	ini.	35.07	-1318	-0.000035	0.0001872	0.0035	2		10722.86	10722.86	No	305.74	Si
SLU 55	fin.	640.19	-1822	-0.000065	0.0001872	0.0035	2		10722.86	10722.86	No	16.75	Si
SLU 65	ini.	-49.61	-1232	-0.000049	0.0001872	0.0035	2		10737.13	10737.13	No	216.45	Si
SLU 65	fin.	661.74	-1783	-0.0000672	0.0001872	0.0035	2		10722.86	10722.86	No	16.2	Si
SLU 76	ini.	176.35	-1471	-0.0000176	0.0001872	0.0035	2		10722.86	10722.86	No	60.8	Si
SLU 76	fin.	603.69	-1888	-0.0000612	0.0001872	0.0035	2		10722.86	10722.86	No	17.76	Si
SLU 51	ini.	-150.7	-1077	-0.000015	0.0001872	0.0035	2		10737.13	10737.13	No	71.25	Si
SLU 51	fin.	638.25	-1645	-0.0000648	0.0001872	0.0035	2		10722.86	10722.86	No	16.8	Si
SLU 49	ini.	-150.7	-1077	-0.000015	0.0001872	0.0035	2		10737.13	10737.13	No	71.25	Si
SLU 49	fin.	638.25	-1645	-0.0000648	0.0001872	0.0035	2		10722.86	10722.86	No	16.8	Si
SLU 44	ini.	-190.89	-1079	-0.000019	0.0001872	0.0035	2		10737.13	10737.13	No	56.25	Si
SLU 44	fin.	698.24	-1716	-0.000071	0.0001872	0.0035	2		10722.86	10722.86	No	15.36	Si
SLU 52	ini.	35.07	-1318	-0.000035	0.0001872	0.0035	2		10722.86	10722.86	No	305.74	Si
SLU 52	fin.	640.19	-1822	-0.000065	0.0001872	0.0035	2		10722.86	10722.86	No	16.75	Si
SLU 68	ini.	-49.61	-1232	-0.000049	0.0001872	0.0035	2		10737.13	10737.13	No	216.45	Si
SLU 68	fin.	661.74	-1783	-0.0000672	0.0001872	0.0035	2		10722.86	10722.86	No	16.2	Si



Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 42	ini.	371.5	-1312	2	0	1304	7930	13475	5100	9234	No	7.04	Si
SLU 42	fin.	382.67	252	2	0	1304	7930	13475	5100	9234	No	36.71	Si
SLU 41	ini.	431.78	-1583	2	0	1304	7930	13475	5100	9234	No	5.83	Si
SLU 41	fin.	292.67	14	2	0	1304	7930	13475	5100	9234	No	647.11	Si
SLU 83	ini.	373.65	-1410	2	0	1304	7930	13475	5100	9234	No	6.55	Si
SLU 83	fin.	428.82	242	2	0	1304	7930	13475	5100	9234	No	38.12	Si
SLU 81	ini.	373.65	-1410	2	0	1304	7930	13475	5100	9234	No	6.55	Si
SLU 81	fin.	428.82	242	2	0	1304	7930	13475	5100	9234	No	38.12	Si
SLU 37	ini.	334.94	-1260	2	0	1304	7930	13475	5100	9234	No	7.33	Si
SLU 37	fin.	317.55	131	2	0	1304	7930	13475	5100	9234	No	70.47	Si
SLU 32	ini.	334.94	-1260	2	0	1304	7930	13475	5100	9234	No	7.33	Si
SLU 32	fin.	317.55	131	2	0	1304	7930	13475	5100	9234	No	70.47	Si
SLU 35	ini.	334.94	-1260	2	0	1304	7930	13475	5100	9234	No	7.33	Si
SLU 35	fin.	317.55	131	2	0	1304	7930	13475	5100	9234	No	70.47	Si
SLU 47	ini.	-190.89	625	2	0	1304	7930	13475	5100	9234	No	14.77	Si
SLU 47	fin.	698.24	1193	2	0	1304	7930	13475	5100	9234	No	7.74	Si
SLU 39	ini.	431.78	-1583	2	0	1304	7930	13475	5100	9234	No	5.83	Si
SLU 39	fin.	292.67	14	2	0	1304	7930	13475	5100	9234	No	647.11	Si
SLU 40	ini.	371.5	-1312	2	0	1304	7930	13475	5100	9234	No	7.04	Si
SLU 40	fin.	382.67	252	2	0	1304	7930	13475	5100	9234	No	36.71	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 11	ini.	2429.9	1515	-0.0002604	0.0002807	0.0035	2		15635.95	15635.95		6.43	Si
SLV 11	fin.	-226.64	2043	-0.0000225	0.0002807	0.0035	2		15648.46	15648.46		69.05	Si
SLV 2	ini.	-1696.29	-1166	-0.0001767	0.0002807	0.0035	2		15648.46	15648.46		9.23	Si
SLV 2	fin.	1382.2	-2818	-0.0001426	0.0002807	0.0035	2		15635.95	15635.95		11.31	Si
SLV 16	ini.	1486.87	-962	-0.0001539	0.0002807	0.0035	2		15635.95	15635.95		10.52	Si
SLV 16	fin.	-468.18	-74	-0.0000469	0.0002807	0.0035	2		15648.46	15648.46		33.42	Si
SLV 7	ini.	1809.83	1923	-0.0001895	0.0002807	0.0035	2		15635.95	15635.95		8.64	Si
SLV 7	fin.	277.35	1749	-0.0000277	0.0002807	0.0035	2		15635.95	15635.95		56.38	Si
SLV 12	ini.	2056.35	1334	-0.0002172	0.0002807	0.0035	2		15635.95	15635.95		7.6	Si
SLV 12	fin.	-75.16	1631	-0.0000074	0.0002807	0.0035	2		15648.46	15648.46		208.22	Si
SLV 10	ini.	-1664.57	-3880	-0.0001732	0.0002807	0.0035	2		15648.46	15648.46		9.4	Si
SLV 10	fin.	492.83	-4249	-0.0000494	0.0002807	0.0035	2		15635.95	15635.95		31.73	Si
SLV 8	ini.	1436.28	1742	-0.0001485	0.0002807	0.0035	2		15635.95	15635.95		10.89	Si
SLV 8	fin.	428.84	1337	-0.0000429	0.0002807	0.0035	2		15635.95	15635.95		36.46	Si
SLV 5	ini.	-1911.09	-3291	-0.0002006	0.0002807	0.0035	2		15648.46	15648.46		8.19	Si
SLV 5	fin.	845.34	-4132	-0.0000857	0.0002807	0.0035	2		15635.95	15635.95		18.5	Si
SLV 6	ini.	-2284.63	-3472	-0.0002432	0.0002807	0.0035	2		15648.46	15648.46		6.85	Si
SLV 6	fin.	996.83	-4543	-0.0001016	0.0002807	0.0035	2		15635.95	15635.95		15.69	Si
SLV 15	ini.	1841.55	-791	-0.000193	0.0002807	0.0035	2		15635.95	15635.95		8.49	Si
SLV 15	fin.	-612.01	317	-0.0000616	0.0002807	0.0035	2		15648.46	15648.46		25.57	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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.	2429.9	-1062	2	0	1957	7930	20213	5100	9886		9.31	Si
SLV 11	fin.	-226.64	-3656	2	0	1957	7930	20213	5100	9886		2.7	Si
SLV 14	ini.	370.59	-3727	2	0	1957	7930	20213	5100	9886		2.65	Si
SLV 14	fin.	-297.78	-1365	2	0	1957	7930	20213	5100	9886		7.24	Si
SLV 4	ini.	-580.02	3706	2	0	1957	7930	20213	5100	9886		2.67	Si
SLV 4	fin.	1211.8	2981	2	0	1957	7930	20213	5100	9886		3.32	Si
SLV 6	ini.	-2284.63	342	2	0	1957	7930	20213	5100	9886		28.9	Si
SLV 6	fin.	996.83	4545	2	0	1957	7930	20213	5100	9886		2.18	Si
SLV 1	ini.	-1341.61	2577	2	0	1957	7930	20213	5100	9886		3.84	Si
SLV 1	fin.	1238.36	3942	2	0	1957	7930	20213	5100	9886		2.51	Si
SLV 16	ini.	1486.87	-3297	2	0	1957	7930	20213	5100	9886		3	Si
SLV 16	fin.	-468.18	-3053	2	0	1957	7930	20213	5100	9886		3.24	Si
SLV 2	ini.	-1696.29	3276	2	0	1957	7930	20213	5100	9886		3.02	Si
SLV 2	fin.	1382.2	4668	2	0	1957	7930	20213	5100	9886		2.12	Si
SLV 15	ini.	1841.55	-3996	2	0	1957	7930	20213	5100	9886		2.47	Si
SLV 15	fin.	-612.01	-3780	2	0	1957	7930	20213	5100	9886		2.62	Si
SLV 5	ini.	-1911.09	-394	2	0	1957	7930	20213	5100	9886		25.09	Si
SLV 5	fin.	845.34	3780	2	0	1957	7930	20213	5100	9886		2.62	Si
SLV 13	ini.	725.28	-4426	2	0	1957	7930	20213	5100	9886		2.23	Si
SLV 13	fin.	-441.62	-2092	2	0	1957	7930	20213	5100	9886		4.73	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	6.435	SLV 11	Si
V_SLV	2.118	SLV 2	Si
PF_SLU	15.357	SLU 44	Si
V_SLU	5.833	SLU 39	Si

Trave di accoppiamento 6

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
-27.067	-9.039	-0.91	1.09	2	-26.067	-9.039	-0.91	1.09	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 solo su un lato_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,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	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	elim.conv / e,CNR DT-200						CRM / Fibrenet?				
									αt	α	elim,conv	ε,f,d	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

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 83	ini.	-1494.95	-1898	-0.0001576	0.0001872	0.0035	2		10737.13	10737.13	No	7.18	Si
SLU 83	fin.	3521.78	-5547	-0.0004175	0.0001872	0.0035	2		10722.86	10722.86	No	3.04	Si
SLU 80	ini.	-1438.3	-1777	-0.0001512	0.0001872	0.0035	2		10737.13	10737.13	No	7.47	Si
SLU 80	fin.	3303.28	-5278	-0.0003868	0.0001872	0.0035	2		10722.86	10722.86	No	3.25	Si
SLU 74	ini.	-1446.66	-1760	-0.0001522	0.0001872	0.0035	2		10737.13	10737.13	No	7.42	Si
SLU 74	fin.	3314.54	-5250	-0.0003884	0.0001872	0.0035	2		10722.86	10722.86	No	3.24	Si
SLU 82	ini.	-1486.59	-1915	-0.0001567	0.0001872	0.0035	2		10737.13	10737.13	No	7.22	Si
SLU 82	fin.	3510.51	-5575	-0.0004159	0.0001872	0.0035	2		10722.86	10722.86	No	3.05	Si
SLU 79	ini.	-1446.66	-1760	-0.0001522	0.0001872	0.0035	2		10737.13	10737.13	No	7.42	Si
SLU 79	fin.	3314.54	-5250	-0.0003884	0.0001872	0.0035	2		10722.86	10722.86	No	3.24	Si
SLU 81	ini.	-1494.95	-1898	-0.0001576	0.0001872	0.0035	2		10737.13	10737.13	No	7.18	Si
SLU 81	fin.	3521.78	-5547	-0.0004175	0.0001872	0.0035	2		10722.86	10722.86	No	3.04	Si
SLU 78	ini.	-1438.3	-1777	-0.0001512	0.0001872	0.0035	2		10737.13	10737.13	No	7.47	Si
SLU 78	fin.	3303.28	-5278	-0.0003868	0.0001872	0.0035	2		10722.86	10722.86	No	3.25	Si
SLU 84	ini.	-1486.59	-1915	-0.0001567	0.0001872	0.0035	2		10737.13	10737.13	No	7.22	Si
SLU 84	fin.	3510.51	-5575	-0.0004159	0.0001872	0.0035	2		10722.86	10722.86	No	3.05	Si
SLU 77	ini.	-1446.66	-1760	-0.0001522	0.0001872	0.0035	2		10737.13	10737.13	No	7.42	Si
SLU 77	fin.	3314.54	-5250	-0.0003884	0.0001872	0.0035	2		10722.86	10722.86	No	3.24	Si
SLU 75	ini.	-1438.3	-1777	-0.0001512	0.0001872	0.0035	2		10737.13	10737.13	No	7.47	Si
SLU 75	fin.	3303.28	-5278	-0.0003868	0.0001872	0.0035	2		10722.86	10722.86	No	3.25	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 79	ini.	-1446.66	8852	2	0	1304	7930	13475	5100	9234	No	1.04	Si
SLU 79	fin.	3314.54	10407	2	0	1304	7930	13475	5100	9234	No	0.89	No
SLU 84	ini.	-1486.59	9236	2	0	1304	7930	13475	5100	9234	No	1	No
SLU 84	fin.	3510.51	11016	2	0	1304	7930	13475	5100	9234	No	0.84	No
SLU 76	ini.	-1432.73	8834	2	0	1304	7930	13475	5100	9234	No	1.05	Si
SLU 76	fin.	3295.77	10412	2	0	1304	7930	13475	5100	9234	No	0.89	No
SLU 81	ini.	-1494.95	9247	2	0	1304	7930	13475	5100	9234	No	1	No
SLU 81	fin.	3521.78	11013	2	0	1304	7930	13475	5100	9234	No	0.84	No
SLU 83	ini.	-1494.95	9247	2	0	1304	7930	13475	5100	9234	No	1	No
SLU 83	fin.	3521.78	11013	2	0	1304	7930	13475	5100	9234	No	0.84	No
SLU 82	ini.	-1486.59	9236	2	0	1304	7930	13475	5100	9234	No	1	No
SLU 82	fin.	3510.51	11016	2	0	1304	7930	13475	5100	9234	No	0.84	No
SLU 78	ini.	-1438.3	8841	2	0	1304	7930	13475	5100	9234	No	1.04	Si
SLU 78	fin.	3303.28	10410	2	0	1304	7930	13475	5100	9234	No	0.89	No
SLU 80	ini.	-1438.3	8841	2	0	1304	7930	13475	5100	9234	No	1.04	Si
SLU 80	fin.	3303.28	10410	2	0	1304	7930	13475	5100	9234	No	0.89	No
SLU 73	ini.	-1432.73	8834	2	0	1304	7930	13475	5100	9234	No	1.05	Si
SLU 73	fin.	3295.77	10412	2	0	1304	7930	13475	5100	9234	No	0.89	No
SLU 75	ini.	-1438.3	8841	2	0	1304	7930	13475	5100	9234	No	1.04	Si
SLU 75	fin.	3303.28	10410	2	0	1304	7930	13475	5100	9234	No	0.89	No

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 7	ini.	-773.58	-1577	-0.0000782	0.0002807	0.0035	2		15648.46	15648.46		20.23	Si
SLV 7	fin.	2251.49	-5568	-0.0002396	0.0002807	0.0035	2		15635.95	15635.95		6.94	Si
SLV 5	ini.	-1742.83	573	-0.0001819	0.0002807	0.0035	2		15648.46	15648.46		8.98	Si
SLV 5	fin.	2998.78	-1982	-0.0003291	0.0002807	0.0035	2		15635.95	15635.95		5.21	Si
SLV 9	ini.	-1340.74	-410	-0.000138	0.0002807	0.0035	2		15648.46	15648.46		11.67	Si
SLV 9	fin.	2357.07	-1767	-0.0002519	0.0002807	0.0035	2		15635.95	15635.95		6.63	Si
SLV 8	ini.	-736.58	-1881	-0.0000744	0.0002807	0.0035	2		15648.46	15648.46		21.24	Si
SLV 8	fin.	2128.07	-5418	-0.0002254	0.0002807	0.0035	2		15635.95	15635.95		7.35	Si



Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 3	ini.	-1581	315	-0.0001641	0.0002807	0.0035	2		15648.46	15648.46		9.9	Si
SLV 3	fin.	3258.6	-4561	-0.0003618	0.0002807	0.0035	2		15635.95	15635.95		4.8	Si
SLV 2	ini.	-1836.64	672	-0.0001923	0.0002807	0.0035	2		15648.46	15648.46		8.52	Si
SLV 2	fin.	3365.59	-3343	-0.0003755	0.0002807	0.0035	2		15635.95	15635.95		4.65	Si
SLV 6	ini.	-1705.83	270	-0.0001778	0.0002807	0.0035	2		15648.46	15648.46		9.17	Si
SLV 6	fin.	2875.36	-1832	-0.0003139	0.0002807	0.0035	2		15635.95	15635.95		5.44	Si
SLV 1	ini.	-1871.77	960	-0.0001962	0.0002807	0.0035	2		15648.46	15648.46		8.36	Si
SLV 1	fin.	3482.79	-3486	-0.0003907	0.0002807	0.0035	2		15635.95	15635.95		4.49	Si
SLV 10	ini.	-1303.73	-714	-0.000134	0.0002807	0.0035	2		15648.46	15648.46		12	Si
SLV 10	fin.	2233.64	-1616	-0.0002376	0.0002807	0.0035	2		15635.95	15635.95		7	Si
SLV 4	ini.	-1545.86	27	-0.0001602	0.0002807	0.0035	2		15648.46	15648.46		10.12	Si
SLV 4	fin.	3141.41	-4418	-0.000347	0.0002807	0.0035	2		15635.95	15635.95		4.98	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC 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 12	ini.	-334.48	4618	2	0	1957	7930	20213	5100	9886		2.14	Si
SLV 12	fin.	1486.35	6463	2	0	1957	7930	20213	5100	9886		1.53	Si
SLV 8	ini.	-736.58	6949	2	0	1957	7930	20213	5100	9886		1.42	Si
SLV 8	fin.	2128.07	8629	2	0	1957	7930	20213	5100	9886		1.15	Si
SLV 5	ini.	-1742.83	7812	2	0	1957	7930	20213	5100	9886		1.27	Si
SLV 5	fin.	2998.78	7735	2	0	1957	7930	20213	5100	9886		1.28	Si
SLV 1	ini.	-1871.77	10424	2	0	1957	7930	20213	5100	9886		0.95	No
SLV 1	fin.	3482.79	10774	2	0	1957	7930	20213	5100	9886		0.92	No
SLV 6	ini.	-1705.83	7213	2	0	1957	7930	20213	5100	9886		1.37	Si
SLV 6	fin.	2875.36	7121	2	0	1957	7930	20213	5100	9886		1.39	Si
SLV 3	ini.	-1581	10345	2	0	1957	7930	20213	5100	9886		0.96	No
SLV 3	fin.	3258.6	11226	2	0	1957	7930	20213	5100	9886		0.88	No
SLV 2	ini.	-1836.64	9855	2	0	1957	7930	20213	5100	9886		1	Si
SLV 2	fin.	3365.59	10191	2	0	1957	7930	20213	5100	9886		0.97	No
SLV 7	ini.	-773.58	7548	2	0	1957	7930	20213	5100	9886		1.31	Si
SLV 7	fin.	2251.49	9243	2	0	1957	7930	20213	5100	9886		1.07	Si
SLV 4	ini.	-1545.86	9776	2	0	1957	7930	20213	5100	9886		1.01	Si
SLV 4	fin.	3141.41	10643	2	0	1957	7930	20213	5100	9886		0.93	No
SLV 11	ini.	-371.49	5217	2	0	1957	7930	20213	5100	9886		1.9	Si
SLV 11	fin.	1609.78	7077	2	0	1957	7930	20213	5100	9886		1.4	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.489	SLV 1	Si
V_SLV	0.881	SLV 3	No
PF_SLU	3.045	SLU 81	Si
V_SLU	0.838	SLU 82	No

Trave di accoppiamento 8

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
-23.277	-9.039	-0.91	1.09	2	-22.277	-9.039	-0.91	1.09	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 solo su un lato_Corti

f _b	f _{hk}	f _{vk0}	f _{hmedio}	t ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCC

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	ε _u	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / ε _c CNR DT-200						CRM / Fibrenet?				
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α _t	α	elim,conv	ε _{f,d}	γ _{f,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 FRCC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 83	ini.	944.1	-1781	-0.0000971	0.0001872	0.0035	2		10722.86	10722.86	No	11.36	Si
SLU 83	fin.	-187.5	-1601	-0.0000187	0.0001872	0.0035	2		10737.13	10737.13	No	57.27	Si
SLU 41	ini.	1035.68	-1588	-0.0001069	0.0001872	0.0035	2		10722.86	10722.86	No	10.35	Si
SLU 41	fin.	-293.66	-1271	-0.0000294	0.0001872	0.0035	2		10737.13	10737.13	No	36.56	Si
SLU 81	ini.	944.1	-1781	-0.0000971	0.0001872	0.0035	2		10722.86	10722.86	No	11.36	Si
SLU 81	fin.	-187.5	-1601	-0.0000187	0.0001872	0.0035	2		10737.13	10737.13	No	57.27	Si
SLU 35	ini.	814.52	-1434	-0.0000833	0.0001872	0.0035	2		10722.86	10722.86	No	13.16	Si



Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 35	fin.	-190.86	-1244	-0.000019	0.0001872	0.0035	2		10737.13	10737.13	No	56.26	Si
SLU 82	ini.	910.39	-1810	-0.0000935	0.0001872	0.0035	2		10722.86	10722.86	No	11.78	Si
SLU 82	fin.	-179.41	-1638	-0.0000179	0.0001872	0.0035	2		10737.13	10737.13	No	59.85	Si
SLU 39	ini.	1035.68	-1588	-0.0001069	0.0001872	0.0035	2		10722.86	10722.86	No	10.35	Si
SLU 39	fin.	-293.66	-1271	-0.0000294	0.0001872	0.0035	2		10737.13	10737.13	No	36.56	Si
SLU 84	ini.	910.39	-1810	-0.0000935	0.0001872	0.0035	2		10722.86	10722.86	No	11.78	Si
SLU 84	fin.	-179.41	-1638	-0.0000179	0.0001872	0.0035	2		10737.13	10737.13	No	59.85	Si
SLU 32	ini.	814.52	-1434	-0.0000833	0.0001872	0.0035	2		10722.86	10722.86	No	13.16	Si
SLU 32	fin.	-190.86	-1244	-0.000019	0.0001872	0.0035	2		10737.13	10737.13	No	56.26	Si
SLU 42	ini.	1001.97	-1617	-0.0001033	0.0001872	0.0035	2		10722.86	10722.86	No	10.7	Si
SLU 42	fin.	-285.57	-1308	-0.0000285	0.0001872	0.0035	2		10737.13	10737.13	No	37.6	Si
SLU 40	ini.	1001.97	-1617	-0.0001033	0.0001872	0.0035	2		10722.86	10722.86	No	10.7	Si
SLU 40	fin.	-285.57	-1308	-0.0000285	0.0001872	0.0035	2		10737.13	10737.13	No	37.6	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 35	ini.	814.52	-2543	2	0	1304	7930	13475	5100	9234	No	3.63	Si
SLU 35	fin.	-190.86	-1274	2	0	1304	7930	13475	5100	9234	No	7.25	Si
SLU 83	ini.	944.1	-2955	2	0	1304	7930	13475	5100	9234	No	3.13	Si
SLU 83	fin.	-187.5	-1450	2	0	1304	7930	13475	5100	9234	No	6.37	Si
SLU 37	ini.	814.52	-2543	2	0	1304	7930	13475	5100	9234	No	3.63	Si
SLU 37	fin.	-190.86	-1274	2	0	1304	7930	13475	5100	9234	No	7.25	Si
SLU 41	ini.	1035.68	-3135	2	0	1304	7930	13475	5100	9234	No	2.95	Si
SLU 41	fin.	-293.66	-1671	2	0	1304	7930	13475	5100	9234	No	5.53	Si
SLU 42	ini.	1001.97	-3096	2	0	1304	7930	13475	5100	9234	No	2.98	Si
SLU 42	fin.	-285.57	-1617	2	0	1304	7930	13475	5100	9234	No	5.71	Si
SLU 39	ini.	1035.68	-3135	2	0	1304	7930	13475	5100	9234	No	2.95	Si
SLU 39	fin.	-293.66	-1671	2	0	1304	7930	13475	5100	9234	No	5.53	Si
SLU 40	ini.	1001.97	-3096	2	0	1304	7930	13475	5100	9234	No	2.98	Si
SLU 40	fin.	-285.57	-1617	2	0	1304	7930	13475	5100	9234	No	5.71	Si
SLU 84	ini.	910.39	-2915	2	0	1304	7930	13475	5100	9234	No	3.17	Si
SLU 84	fin.	-179.41	-1395	2	0	1304	7930	13475	5100	9234	No	6.62	Si
SLU 82	ini.	910.39	-2915	2	0	1304	7930	13475	5100	9234	No	3.17	Si
SLU 82	fin.	-179.41	-1395	2	0	1304	7930	13475	5100	9234	No	6.62	Si
SLU 81	ini.	944.1	-2955	2	0	1304	7930	13475	5100	9234	No	3.13	Si
SLU 81	fin.	-187.5	-1450	2	0	1304	7930	13475	5100	9234	No	6.37	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 14	ini.	2818.34	-1305	-0.0003069	0.0002807	0.0035	2		15635.95	15635.95		5.55	Si
SLV 14	fin.	-1414.38	215	-0.000146	0.0002807	0.0035	2		15648.46	15648.46		11.06	Si
SLV 9	ini.	2197.85	382	-0.0002334	0.0002807	0.0035	2		15635.95	15635.95		7.11	Si
SLV 9	fin.	-748.08	953	-0.0000756	0.0002807	0.0035	2		15648.46	15648.46		20.92	Si
SLV 3	ini.	-2329.02	-762	-0.0002484	0.0002807	0.0035	2		15648.46	15648.46		6.72	Si
SLV 3	fin.	1578.56	-2559	-0.0001639	0.0002807	0.0035	2		15635.95	15635.95		9.91	Si
SLV 10	ini.	2818.98	470	-0.000307	0.0002807	0.0035	2		15635.95	15635.95		5.55	Si
SLV 10	fin.	-1024.07	1369	-0.0001043	0.0002807	0.0035	2		15648.46	15648.46		15.28	Si
SLV 16	ini.	1776.51	-2330	-0.0001858	0.0002807	0.0035	2		15635.95	15635.95		8.8	Si
SLV 16	fin.	-1046.12	-1088	-0.0001067	0.0002807	0.0035	2		15648.46	15648.46		14.96	Si
SLV 7	ini.	-2329.66	-2538	-0.0002485	0.0002807	0.0035	2		15648.46	15648.46		6.72	Si
SLV 7	fin.	1188.24	-3713	-0.0001218	0.0002807	0.0035	2		15635.95	15635.95		13.16	Si
SLV 13	ini.	2228.57	-1390	-0.000237	0.0002807	0.0035	2		15635.95	15635.95		7.02	Si
SLV 13	fin.	-1152.33	-180	-0.0001179	0.0002807	0.0035	2		15648.46	15648.46		13.58	Si
SLV 8	ini.	-1708.52	-2449	-0.0001781	0.0002807	0.0035	2		15648.46	15648.46		9.16	Si
SLV 8	fin.	912.26	-3296	-0.0000927	0.0002807	0.0035	2		15635.95	15635.95		17.14	Si
SLV 4	ini.	-1739.25	-678	-0.0001815	0.0002807	0.0035	2		15648.46	15648.46		9	Si
SLV 4	fin.	1316.5	-2164	-0.0001355	0.0002807	0.0035	2		15635.95	15635.95		11.88	Si
SLV 6	ini.	1764.26	966	-0.0001844	0.0002807	0.0035	2		15635.95	15635.95		8.86	Si
SLV 6	fin.	-315.28	1046	-0.0000314	0.0002807	0.0035	2		15648.46	15648.46		49.63	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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 10	ini.	2818.98	-5337	2	0	1957	7930	20213	5100	9886		1.85	Si
SLV 10	fin.	-1024.07	-5274	2	0	1957	7930	20213	5100	9886		1.87	Si
SLV 13	ini.	2228.57	-5892	2	0	1957	7930	20213	5100	9886		1.68	Si
SLV 13	fin.	-1152.33	-4856	2	0	1957	7930	20213	5100	9886		2.04	Si
SLV 7	ini.	-2329.66	3402	2	0	1957	7930	20213	5100	9886		2.91	Si
SLV 7	fin.	1188.24	4774	2	0	1957	7930	20213	5100	9886		2.07	Si
SLV 15	ini.	1186.74	-4495	2	0	1957	7930	20213	5100	9886		2.2	Si
SLV 15	fin.	-784.07	-2979	2	0	1957	7930	20213	5100	9886		3.32	Si
SLV 4	ini.	-1739.25	3957	2	0	1957	7930	20213	5100	9886		2.5	Si
SLV 4	fin.	1316.5	4356	2	0	1957	7930	20213	5100	9886		2.27	Si
SLV 14	ini.	2818.34	-7034	2	0	1957	7930	20213	5100	9886		1.41	Si
SLV 14	fin.	-1414.38	-6029	2	0	1957	7930	20213	5100	9886		1.64	Si
SLV 1	ini.	-1287.18	3701	2	0	1957	7930	20213	5100	9886		2.67	Si
SLV 1	fin.	1210.29	3652	2	0	1957	7930	20213	5100	9886		2.71	Si
SLV 16	ini.	1776.51	-5637	2	0	1957	7930	20213	5100	9886		1.75	Si
SLV 16	fin.	-1046.12	-4152	2	0	1957	7930	20213	5100	9886		2.38	Si
SLV 3	ini.	-2329.02	5099	2	0	1957	7930	20213	5100	9886		1.94	Si
SLV 3	fin.	1578.56	5530	2	0	1957	7930	20213	5100	9886		1.79	Si
SLV 9	ini.	2197.85	-4135	2	0	1957	7930	20213	5100	9886		2.39	Si
SLV 9	fin.	-748.08	-4038	2	0	1957	7930	20213	5100	9886		2.45	Si



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	5.547	SLV 10	Si
V_SLV	1.405	SLV 14	Si
PF_SLU	10.353	SLU 39	Si
V_SLU	2.945	SLU 39	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
-21.057	-14.744	1.19	1.69	0.5	-21.057	-13.794	1.19	1.69	0.5	0.95	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	fhmmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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 FRM in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 79	ini.	442.05	979	-0.0009722	0.0002246	0.0035	0.5		722.25	722.25	No	1.63	Si
SLU 79	fin.	-727.9	-1106	-0.0020435	0.0002246	0.0035	0.5		725.96	725.96	No	1	No
SLU 76	ini.	471.02	1033	-0.0010581	0.0002246	0.0035	0.5		722.25	722.25	No	1.53	Si
SLU 76	fin.	-758.51	-1160	-0.0022112	0.0002246	0.0035	0.5		725.96	725.96	No	0.96	No
SLU 83	ini.	446.99	973	-0.0009866	0.0002246	0.0035	0.5		722.25	722.25	No	1.62	Si
SLU 83	fin.	-744.96	-1163	-0.0021351	0.0002246	0.0035	0.5		725.96	725.96	No	0.97	No
SLU 84	ini.	464.37	1005	-0.0010381	0.0002246	0.0035	0.5		722.25	722.25	No	1.56	Si
SLU 84	fin.	-763.32	-1196	-0.002239	0.0002246	0.0035	0.5		725.96	725.96	No	0.95	No
SLU 81	ini.	446.99	973	-0.0009866	0.0002246	0.0035	0.5		722.25	722.25	No	1.62	Si
SLU 81	fin.	-744.96	-1163	-0.0021351	0.0002246	0.0035	0.5		725.96	725.96	No	0.97	No
SLU 80	ini.	459.43	1011	-0.0010233	0.0002246	0.0035	0.5		722.25	722.25	No	1.57	Si
SLU 80	fin.	-746.27	-1139	-0.0021423	0.0002246	0.0035	0.5		725.96	725.96	No	0.97	No
SLU 82	ini.	464.37	1005	-0.0010381	0.0002246	0.0035	0.5		722.25	722.25	No	1.56	Si
SLU 82	fin.	-763.32	-1196	-0.002239	0.0002246	0.0035	0.5		725.96	725.96	No	0.95	No
SLU 78	ini.	459.43	1011	-0.0010233	0.0002246	0.0035	0.5		722.25	722.25	No	1.57	Si
SLU 78	fin.	-746.27	-1139	-0.0021423	0.0002246	0.0035	0.5		725.96	725.96	No	0.97	No
SLU 73	ini.	471.02	1033	-0.0010581	0.0002246	0.0035	0.5		722.25	722.25	No	1.53	Si
SLU 73	fin.	-758.51	-1160	-0.0022112	0.0002246	0.0035	0.5		725.96	725.96	No	0.96	No
SLU 75	ini.	459.43	1011	-0.0010233	0.0002246	0.0035	0.5		722.25	722.25	No	1.57	Si
SLU 75	fin.	-746.27	-1139	-0.0021423	0.0002246	0.0035	0.5		725.96	725.96	No	0.97	No

Verifica a taglio nel piano delle sezioni rinforzate con FRM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 84	ini.	464.37	-968	0.5	0	217	3965	4043	1275	4182	No	4.32	Si
SLU 84	fin.	-763.32	-2762	0.5	0	217	3965	4043	1275	4182	No	1.51	Si
SLU 75	ini.	459.43	-956	0.5	0	217	3965	4043	1275	4182	No	4.38	Si
SLU 75	fin.	-746.27	-2702	0.5	0	217	3965	4043	1275	4182	No	1.55	Si
SLU 80	ini.	459.43	-956	0.5	0	217	3965	4043	1275	4182	No	4.38	Si
SLU 80	fin.	-746.27	-2702	0.5	0	217	3965	4043	1275	4182	No	1.55	Si
SLU 76	ini.	471.02	-990	0.5	0	217	3965	4043	1275	4182	No	4.22	Si
SLU 76	fin.	-758.51	-2740	0.5	0	217	3965	4043	1275	4182	No	1.53	Si
SLU 77	ini.	442.05	-904	0.5	0	217	3965	4043	1275	4182	No	4.63	Si
SLU 77	fin.	-727.9	-2644	0.5	0	217	3965	4043	1275	4182	No	1.58	Si
SLU 73	ini.	471.02	-990	0.5	0	217	3965	4043	1275	4182	No	4.22	Si
SLU 73	fin.	-758.51	-2740	0.5	0	217	3965	4043	1275	4182	No	1.53	Si
SLU 82	ini.	464.37	-968	0.5	0	217	3965	4043	1275	4182	No	4.32	Si
SLU 82	fin.	-763.32	-2762	0.5	0	217	3965	4043	1275	4182	No	1.51	Si
SLU 83	ini.	446.99	-917	0.5	0	217	3965	4043	1275	4182	No	4.56	Si
SLU 83	fin.	-744.96	-2705	0.5	0	217	3965	4043	1275	4182	No	1.55	Si
SLU 78	ini.	459.43	-956	0.5	0	217	3965	4043	1275	4182	No	4.38	Si
SLU 78	fin.	-746.27	-2702	0.5	0	217	3965	4043	1275	4182	No	1.55	Si
SLU 81	ini.	446.99	-917	0.5	0	217	3965	4043	1275	4182	No	4.56	Si
SLU 81	fin.	-744.96	-2705	0.5	0	217	3965	4043	1275	4182	No	1.55	Si



Verifica a pressoflessione nel piano delle sezioni rinforzate con FRM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 4	ini.	477.48	1413	-0.0010073	0.0003369	0.0035	0.5		858.55	858.55		1.8	Si
SLV 4	fin.	-566.29	-711	-0.0012682	0.0003369	0.0035	0.5		861.84	861.84		1.52	Si
SLV 16	ini.	458.7	620	-0.000955	0.0003369	0.0035	0.5		858.55	858.55		1.87	Si
SLV 16	fin.	-765.68	-1307	-0.0020588	0.0003369	0.0035	0.5		861.84	861.84		1.13	Si
SLV 14	ini.	72.74	-102	-0.0001191	0.0003369	0.0035	0.5		858.55	858.55		11.8	Si
SLV 14	fin.	-385.94	-607	-0.0007609	0.0003369	0.0035	0.5		861.84	861.84		2.23	Si
SLV 13	ini.	185.61	103	-0.0003217	0.0003369	0.0035	0.5		858.55	858.55		4.63	Si
SLV 13	fin.	-499.39	-817	-0.0010652	0.0003369	0.0035	0.5		861.84	861.84		1.73	Si
SLV 7	ini.	1037.04	2188	-0.0039183	0.0003369	0.0035	0.5		858.55	858.55		0.83	No
SLV 7	fin.	-1195.58	-1953	-0.0048945	0.0003369	0.0035	0.5		861.84	861.84		0.72	No
SLV 15	ini.	571.56	825	-0.0012912	0.0003369	0.0035	0.5		858.55	858.55		1.5	Si
SLV 15	fin.	-879.13	-1517	-0.0027388	0.0003369	0.0035	0.5		861.84	861.84		0.98	No
SLV 3	ini.	590.34	1618	-0.001353	0.0003369	0.0035	0.5		858.55	858.55		1.45	Si
SLV 3	fin.	-679.74	-921	-0.0016714	0.0003369	0.0035	0.5		861.84	861.84		1.27	Si
SLV 11	ini.	1031.41	1950	-0.0038801	0.0003369	0.0035	0.5		858.55	858.55		0.83	No
SLV 11	fin.	-1255.39	-2131	-0.0052465	0.0003369	0.0035	0.5		861.84	861.84		0.69	No
SLV 12	ini.	912.55	1734	-0.0030068	0.0003369	0.0035	0.5		858.55	858.55		0.94	No
SLV 12	fin.	-1135.91	-1910	-0.004532	0.0003369	0.0035	0.5		861.84	861.84		0.76	No
SLV 8	ini.	918.18	1972	-0.00305	0.0003369	0.0035	0.5		858.55	858.55		0.94	No
SLV 8	fin.	-1076.09	-1731	-0.0041535	0.0003369	0.0035	0.5		861.84	861.84		0.8	No

Verifica a taglio nel piano delle sezioni rinforzate con FRM 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.	458.7	-943	0.5	0	326	3965	6064	1275	4291		4.55	Si
SLV 16	fin.	-765.68	-2624	0.5	0	326	3965	6064	1275	4291		1.64	Si
SLV 15	ini.	571.56	-1289	0.5	0	326	3965	6064	1275	4291		3.33	Si
SLV 15	fin.	-879.13	-2973	0.5	0	326	3965	6064	1275	4291		1.44	Si
SLV 4	ini.	477.48	-1259	0.5	0	326	3965	6064	1275	4291		3.41	Si
SLV 4	fin.	-566.29	-2056	0.5	0	326	3965	6064	1275	4291		2.09	Si
SLV 10	ini.	-373.96	1551	0.5	0	326	3965	6064	1275	4291		2.77	Si
SLV 10	fin.	129.89	83	0.5	0	326	3965	6064	1275	4291		51.41	Si
SLV 8	ini.	918.18	-2537	0.5	0	326	3965	6064	1275	4291		1.69	Si
SLV 8	fin.	-1076.09	-3592	0.5	0	326	3965	6064	1275	4291		1.19	Si
SLV 13	ini.	185.61	-91	0.5	0	326	3965	6064	1275	4291		47.2	Si
SLV 13	fin.	-499.39	-1819	0.5	0	326	3965	6064	1275	4291		2.36	Si
SLV 3	ini.	590.34	-1604	0.5	0	326	3965	6064	1275	4291		2.67	Si
SLV 3	fin.	-679.74	-2405	0.5	0	326	3965	6064	1275	4291		1.78	Si
SLV 7	ini.	1037.04	-2901	0.5	0	326	3965	6064	1275	4291		1.48	Si
SLV 7	fin.	-1195.58	-3959	0.5	0	326	3965	6064	1275	4291		1.08	Si
SLV 12	ini.	912.55	-2442	0.5	0	326	3965	6064	1275	4291		1.76	Si
SLV 12	fin.	-1135.91	-3762	0.5	0	326	3965	6064	1275	4291		1.14	Si
SLV 11	ini.	1031.41	-2806	0.5	0	326	3965	6064	1275	4291		1.53	Si
SLV 11	fin.	-1255.39	-4129	0.5	0	326	3965	6064	1275	4291		1.04	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	0.687	SLV 11	No
V_SLV	1.039	SLV 11	Si
PF_SLU	0.951	SLU 82	No
V_SLU	1.514	SLU 82	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
-33.207	-13.489	3.79	5.62	1.83	-32.407	-13.489	3.79	5.62	1.83	0.8	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

f _b	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	e _u	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / ε _s CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α _t	α	elim,conv	ε _s ,fd	y _F ,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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 75	ini.	1108.37	651	-0.0001374	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.26	Si
SLU 75	fin.	615.59	-484	-0.0000746	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.28	Si
SLU 80	ini.	1108.37	651	-0.0001374	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.26	Si
SLU 80	fin.	615.59	-484	-0.0000746	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.28	Si
SLU 81	ini.	1115.54	543	-0.0001383	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.19	Si
SLU 81	fin.	729.71	-542	-0.0000889	0.0002246	0.0035	1.83		12481.35	12481.35	No	17.1	Si
SLU 78	ini.	1108.37	651	-0.0001374	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.26	Si
SLU 78	fin.	615.59	-484	-0.0000746	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.28	Si
SLU 79	ini.	1107.48	651	-0.0001372	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.27	Si
SLU 79	fin.	616.51	-483	-0.0000747	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.25	Si
SLU 83	ini.	1115.54	543	-0.0001383	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.19	Si
SLU 83	fin.	729.71	-542	-0.0000889	0.0002246	0.0035	1.83		12481.35	12481.35	No	17.1	Si
SLU 76	ini.	1108.96	652	-0.0001374	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.25	Si
SLU 76	fin.	614.98	-486	-0.0000745	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.3	Si
SLU 84	ini.	1116.43	544	-0.0001384	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.18	Si
SLU 84	fin.	728.78	-544	-0.0000887	0.0002246	0.0035	1.83		12481.35	12481.35	No	17.13	Si
SLU 82	ini.	1116.43	544	-0.0001384	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.18	Si
SLU 82	fin.	728.78	-544	-0.0000887	0.0002246	0.0035	1.83		12481.35	12481.35	No	17.13	Si
SLU 73	ini.	1108.96	652	-0.0001374	0.0002246	0.0035	1.83		12481.35	12481.35	No	11.25	Si
SLU 73	fin.	614.98	-486	-0.0000745	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.3	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 76	ini.	1108.96	249	1.83	0	796	6344	9865	4667	7139	No	28.72	Si
SLU 76	fin.	614.98	-4331	1.83	0	796	6344	9865	4667	7139	No	1.65	Si
SLU 77	ini.	1107.48	257	1.83	0	796	6344	9865	4667	7139	No	27.76	Si
SLU 77	fin.	616.51	-4322	1.83	0	796	6344	9865	4667	7139	No	1.65	Si
SLU 82	ini.	1116.43	719	1.83	0	796	6344	9865	4667	7139	No	9.93	Si
SLU 82	fin.	728.78	-4499	1.83	0	796	6344	9865	4667	7139	No	1.59	Si
SLU 75	ini.	1108.37	252	1.83	0	796	6344	9865	4667	7139	No	28.32	Si
SLU 75	fin.	615.59	-4328	1.83	0	796	6344	9865	4667	7139	No	1.65	Si
SLU 84	ini.	1116.43	719	1.83	0	796	6344	9865	4667	7139	No	9.93	Si
SLU 84	fin.	728.78	-4499	1.83	0	796	6344	9865	4667	7139	No	1.59	Si
SLU 81	ini.	1115.54	724	1.83	0	796	6344	9865	4667	7139	No	9.86	Si
SLU 81	fin.	729.71	-4494	1.83	0	796	6344	9865	4667	7139	No	1.59	Si
SLU 80	ini.	1108.37	252	1.83	0	796	6344	9865	4667	7139	No	28.32	Si
SLU 80	fin.	615.59	-4328	1.83	0	796	6344	9865	4667	7139	No	1.65	Si
SLU 78	ini.	1108.37	252	1.83	0	796	6344	9865	4667	7139	No	28.32	Si
SLU 78	fin.	615.59	-4328	1.83	0	796	6344	9865	4667	7139	No	1.65	Si
SLU 83	ini.	1115.54	724	1.83	0	796	6344	9865	4667	7139	No	9.86	Si
SLU 83	fin.	729.71	-4494	1.83	0	796	6344	9865	4667	7139	No	1.59	Si
SLU 73	ini.	1108.96	249	1.83	0	796	6344	9865	4667	7139	No	28.72	Si
SLU 73	fin.	614.98	-4331	1.83	0	796	6344	9865	4667	7139	No	1.65	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 14	ini.	1862.82	1681	-0.0002342	0.0003369	0.0035	1.83		11816.35	11816.35		6.34	Si
SLV 14	fin.	464.11	-615	-0.0000556	0.0003369	0.0035	1.83		11816.35	11816.35		25.46	Si
SLV 12	ini.	1429.52	1682	-0.0001769	0.0003369	0.0035	1.83		11816.35	11816.35		8.27	Si
SLV 12	fin.	572.95	772	-0.0000689	0.0003369	0.0035	1.83		11816.35	11816.35		20.62	Si
SLV 7	ini.	737.35	903	-0.0000891	0.0003369	0.0035	1.83		11816.35	11816.35		16.03	Si
SLV 7	fin.	445.66	775	-0.0000534	0.0003369	0.0035	1.83		11816.35	11816.35		26.51	Si
SLV 16	ini.	2009.09	2068	-0.000254	0.0003369	0.0035	1.83		11816.35	11816.35		5.88	Si
SLV 16	fin.	579.21	22	-0.0000696	0.0003369	0.0035	1.83		11816.35	11816.35		20.4	Si
SLV 9	ini.	893.86	333	-0.0001086	0.0003369	0.0035	1.83		11816.35	11816.35		13.22	Si
SLV 9	fin.	182.59	-1354	-0.0000217	0.0003369	0.0035	1.83		11816.35	11816.35		64.71	Si
SLV 10	ini.	941.93	392	-0.0001146	0.0003369	0.0035	1.83		11816.35	11816.35		12.54	Si
SLV 10	fin.	189.28	-1351	-0.0000225	0.0003369	0.0035	1.83		11816.35	11816.35		62.43	Si
SLV 11	ini.	1381.45	1623	-0.0001706	0.0003369	0.0035	1.83		11816.35	11816.35		8.55	Si
SLV 11	fin.	566.26	769	-0.0000681	0.0003369	0.0035	1.83		11816.35	11816.35		20.87	Si
SLV 8	ini.	785.42	962	-0.0000951	0.0003369	0.0035	1.83		11816.35	11816.35		15.04	Si
SLV 8	fin.	452.34	778	-0.0000542	0.0003369	0.0035	1.83		11816.35	11816.35		26.12	Si
SLV 13	ini.	1817.18	1625	-0.0002281	0.0003369	0.0035	1.83		11816.35	11816.35		6.5	Si
SLV 13	fin.	457.76	-618	-0.0000548	0.0003369	0.0035	1.83		11816.35	11816.35		25.81	Si
SLV 15	ini.	1963.45	2012	-0.0002478	0.0003369	0.0035	1.83		11816.35	11816.35		6.02	Si
SLV 15	fin.	572.86	19	-0.0000689	0.0003369	0.0035	1.83		11816.35	11816.35		20.63	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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 5	ini.	249.77	-92	1.83	0	1193	6344	14797	4667	7537		81.96	Si
SLV 5	fin.	61.98	-2588	1.83	0	1193	6344	14797	4667	7537		2.91	Si
SLV 16	ini.	2009.09	-2659	1.83	0	1193	6344	14797	4667	7537		2.84	Si
SLV 16	fin.	579.21	-5404	1.83	0	1193	6344	14797	4667	7537		1.39	Si
SLV 15	ini.	1963.45	-2549	1.83	0	1193	6344	14797	4667	7537		2.96	Si
SLV 15	fin.	572.86	-5294	1.83	0	1193	6344	14797	4667	7537		1.42	Si
SLV 11	ini.	1381.45	-685	1.83	0	1193	6344	14797	4667	7537		11	Si
SLV 11	fin.	566.26	-3460	1.83	0	1193	6344	14797	4667	7537		2.18	Si
SLV 14	ini.	1862.82	-2890	1.83	0	1193	6344	14797	4667	7537		2.61	Si
SLV 14	fin.	464.11	-5565	1.83	0	1193	6344	14797	4667	7537		1.35	Si



Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 12	ini.	1429.52	-801	1.83	0	1193	6344	14797	4667	7537		9.41	Si
SLV 12	fin.	572.95	-3576	1.83	0	1193	6344	14797	4667	7537		2.11	Si
SLV 6	ini.	297.84	-208	1.83	0	1193	6344	14797	4667	7537		36.29	Si
SLV 6	fin.	68.67	-2704	1.83	0	1193	6344	14797	4667	7537		2.79	Si
SLV 10	ini.	941.93	-1571	1.83	0	1193	6344	14797	4667	7537		4.8	Si
SLV 10	fin.	189.28	-4113	1.83	0	1193	6344	14797	4667	7537		1.83	Si
SLV 13	ini.	1817.18	-2780	1.83	0	1193	6344	14797	4667	7537		2.71	Si
SLV 13	fin.	457.76	-5455	1.83	0	1193	6344	14797	4667	7537		1.38	Si
SLV 9	ini.	893.86	-1456	1.83	0	1193	6344	14797	4667	7537		5.18	Si
SLV 9	fin.	182.59	-3997	1.83	0	1193	6344	14797	4667	7537		1.89	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	5.881	SLV 16	Si
V_SLV	1.354	SLV 14	Si
PF_SLU	11.18	SLU 82	Si
V_SLU	1.587	SLU 82	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
-32.087	-13.489	3.79	5.62	1.83	-31.287	-13.489	3.79	5.62	1.83	0.8	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	fthk	fvk0	fthmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	e,fd	yF,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 FRM in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 46	ini.	128.31	-997	-0.0000152	0.0002246	0.0035	1.83		12481.35	12481.35	No	97.28	Si
SLU 46	fin.	-967.82	-2475	-0.000119	0.0002246	0.0035	1.83		12492.59	12492.59	No	12.91	Si
SLU 45	ini.	129.48	-994	-0.0000154	0.0002246	0.0035	1.83		12481.35	12481.35	No	96.39	Si
SLU 45	fin.	-966.44	-2473	-0.0001189	0.0002246	0.0035	1.83		12492.59	12492.59	No	12.93	Si
SLU 68	ini.	269.49	-1108	-0.0000322	0.0002246	0.0035	1.83		12481.35	12481.35	No	46.31	Si
SLU 68	fin.	-940.08	-2766	-0.0001155	0.0002246	0.0035	1.83		12492.59	12492.59	No	13.29	Si
SLU 47	ini.	127.52	-998	-0.0000151	0.0002246	0.0035	1.83		12481.35	12481.35	No	97.88	Si
SLU 47	fin.	-968.74	-2477	-0.0001192	0.0002246	0.0035	1.83		12492.59	12492.59	No	12.9	Si
SLU 51	ini.	128.31	-997	-0.0000152	0.0002246	0.0035	1.83		12481.35	12481.35	No	97.28	Si
SLU 51	fin.	-967.82	-2475	-0.000119	0.0002246	0.0035	1.83		12492.59	12492.59	No	12.91	Si
SLU 43	ini.	129.48	-994	-0.0000154	0.0002246	0.0035	1.83		12481.35	12481.35	No	96.39	Si
SLU 43	fin.	-966.44	-2473	-0.0001189	0.0002246	0.0035	1.83		12492.59	12492.59	No	12.93	Si
SLU 49	ini.	128.31	-997	-0.0000152	0.0002246	0.0035	1.83		12481.35	12481.35	No	97.28	Si
SLU 49	fin.	-967.82	-2475	-0.000119	0.0002246	0.0035	1.83		12492.59	12492.59	No	12.91	Si
SLU 48	ini.	129.48	-994	-0.0000154	0.0002246	0.0035	1.83		12481.35	12481.35	No	96.39	Si
SLU 48	fin.	-966.44	-2473	-0.0001189	0.0002246	0.0035	1.83		12492.59	12492.59	No	12.93	Si
SLU 50	ini.	129.48	-994	-0.0000154	0.0002246	0.0035	1.83		12481.35	12481.35	No	96.39	Si
SLU 50	fin.	-966.44	-2473	-0.0001189	0.0002246	0.0035	1.83		12492.59	12492.59	No	12.93	Si
SLU 44	ini.	127.52	-998	-0.0000151	0.0002246	0.0035	1.83		12481.35	12481.35	No	97.88	Si
SLU 44	fin.	-968.74	-2477	-0.0001192	0.0002246	0.0035	1.83		12492.59	12492.59	No	12.9	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 81	ini.	680.22	-2253	1.83	0	796	6344	9865	4667	7139	No	3.17	Si
SLU 81	fin.	-799.71	-7412	1.83	0	796	6344	9865	4667	7139	No	0.96	No
SLU 78	ini.	556.41	-2223	1.83	0	796	6344	9865	4667	7139	No	3.21	Si
SLU 78	fin.	-842.51	-6744	1.83	0	796	6344	9865	4667	7139	No	1.06	Si
SLU 75	ini.	556.41	-2223	1.83	0	796	6344	9865	4667	7139	No	3.21	Si
SLU 75	fin.	-842.51	-6744	1.83	0	796	6344	9865	4667	7139	No	1.06	Si
SLU 76	ini.	555.62	-2224	1.83	0	796	6344	9865	4667	7139	No	3.21	Si
SLU 76	fin.	-843.43	-6745	1.83	0	796	6344	9865	4667	7139	No	1.06	Si
SLU 73	ini.	555.62	-2224	1.83	0	796	6344	9865	4667	7139	No	3.21	Si



Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 73	fin.	-843.43	-6745	1.83	0	796	6344	9865	4667	7139	No	1.06	Si
SLU 82	ini.	679.04	-2253	1.83	0	796	6344	9865	4667	7139	No	3.17	Si
SLU 82	fin.	-801.09	-7413	1.83	0	796	6344	9865	4667	7139	No	0.96	No
SLU 83	ini.	680.22	-2253	1.83	0	796	6344	9865	4667	7139	No	3.17	Si
SLU 83	fin.	-799.71	-7412	1.83	0	796	6344	9865	4667	7139	No	0.96	No
SLU 79	ini.	557.59	-2223	1.83	0	796	6344	9865	4667	7139	No	3.21	Si
SLU 79	fin.	-841.13	-6744	1.83	0	796	6344	9865	4667	7139	No	1.06	Si
SLU 84	ini.	679.04	-2253	1.83	0	796	6344	9865	4667	7139	No	3.17	Si
SLU 84	fin.	-801.09	-7413	1.83	0	796	6344	9865	4667	7139	No	0.96	No
SLU 80	ini.	556.41	-2223	1.83	0	796	6344	9865	4667	7139	No	3.21	Si
SLU 80	fin.	-842.51	-6744	1.83	0	796	6344	9865	4667	7139	No	1.06	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 6	ini.	104.94	-1883	-0.0000124	0.0003369	0.0035	1.83		11816.35	11816.35		112.61	Si
SLV 6	fin.	-1060.89	-3238	-0.0001295	0.0003369	0.0035	1.83		11828.63	11828.63		11.15	Si
SLV 3	ini.	321.42	332	-0.0000383	0.0003369	0.0035	1.83		11816.35	11816.35		36.76	Si
SLV 3	fin.	714.04	479	-0.0000862	0.0003369	0.0035	1.83		11816.35	11816.35		16.55	Si
SLV 4	ini.	324.2	307	-0.0000387	0.0003369	0.0035	1.83		11816.35	11816.35		36.45	Si
SLV 4	fin.	672.59	402	-0.0000811	0.0003369	0.0035	1.83		11816.35	11816.35		17.57	Si
SLV 14	ini.	197.3	-2091	-0.0000234	0.0003369	0.0035	1.83		11816.35	11816.35		59.89	Si
SLV 14	fin.	-2114.15	-4891	-0.0002682	0.0003369	0.0035	1.83		11828.63	11828.63		5.59	Si
SLV 16	ini.	293.59	-1348	-0.000035	0.0003369	0.0035	1.83		11816.35	11816.35		40.25	Si
SLV 16	fin.	-1697.44	-3908	-0.0002119	0.0003369	0.0035	1.83		11828.63	11828.63		6.97	Si
SLV 5	ini.	102.01	-1857	-0.0000121	0.0003369	0.0035	1.83		11816.35	11816.35		115.83	Si
SLV 5	fin.	-1017.25	-3157	-0.000124	0.0003369	0.0035	1.83		11828.63	11828.63		11.63	Si
SLV 15	ini.	290.81	-1323	-0.0000347	0.0003369	0.0035	1.83		11816.35	11816.35		40.63	Si
SLV 15	fin.	-1655.99	-3831	-0.0002064	0.0003369	0.0035	1.83		11828.63	11828.63		7.14	Si
SLV 10	ini.	95.75	-2380	-0.0000113	0.0003369	0.0035	1.83		11816.35	11816.35		123.41	Si
SLV 10	fin.	-1771.9	-4531	-0.0002218	0.0003369	0.0035	1.83		11828.63	11828.63		6.68	Si
SLV 9	ini.	92.83	-2354	-0.000011	0.0003369	0.0035	1.83		11816.35	11816.35		127.29	Si
SLV 9	fin.	-1728.25	-4450	-0.000216	0.0003369	0.0035	1.83		11828.63	11828.63		6.84	Si
SLV 13	ini.	194.52	-2066	-0.0000231	0.0003369	0.0035	1.83		11816.35	11816.35		60.75	Si
SLV 13	fin.	-2072.7	-4814	-0.0002625	0.0003369	0.0035	1.83		11828.63	11828.63		5.71	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC 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 12	ini.	416.71	-1195	1.83	0	1193	6344	14797	4667	7537		6.31	Si
SLV 12	fin.	-382.86	-3641	1.83	0	1193	6344	14797	4667	7537		2.07	Si
SLV 11	ini.	413.79	-1074	1.83	0	1193	6344	14797	4667	7537		7.02	Si
SLV 11	fin.	-339.22	-3520	1.83	0	1193	6344	14797	4667	7537		2.14	Si
SLV 6	ini.	104.94	-2248	1.83	0	1193	6344	14797	4667	7537		3.35	Si
SLV 6	fin.	-1060.89	-4982	1.83	0	1193	6344	14797	4667	7537		1.51	Si
SLV 14	ini.	197.3	-4897	1.83	0	1193	6344	14797	4667	7537		1.54	Si
SLV 14	fin.	-2114.15	-7539	1.83	0	1193	6344	14797	4667	7537		1	No
SLV 10	ini.	95.75	-3911	1.83	0	1193	6344	14797	4667	7537		1.93	Si
SLV 10	fin.	-1771.9	-6649	1.83	0	1193	6344	14797	4667	7537		1.13	Si
SLV 13	ini.	194.52	-4782	1.83	0	1193	6344	14797	4667	7537		1.58	Si
SLV 13	fin.	-2072.7	-7424	1.83	0	1193	6344	14797	4667	7537		1.02	Si
SLV 15	ini.	290.81	-3968	1.83	0	1193	6344	14797	4667	7537		1.9	Si
SLV 15	fin.	-1655.99	-6522	1.83	0	1193	6344	14797	4667	7537		1.16	Si
SLV 16	ini.	293.59	-4082	1.83	0	1193	6344	14797	4667	7537		1.85	Si
SLV 16	fin.	-1697.44	-6636	1.83	0	1193	6344	14797	4667	7537		1.14	Si
SLV 5	ini.	102.01	-2127	1.83	0	1193	6344	14797	4667	7537		3.54	Si
SLV 5	fin.	-1017.25	-4861	1.83	0	1193	6344	14797	4667	7537		1.55	Si
SLV 9	ini.	92.83	-3790	1.83	0	1193	6344	14797	4667	7537		1.99	Si
SLV 9	fin.	-1728.25	-6528	1.83	0	1193	6344	14797	4667	7537		1.15	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	5.595	SLV 14	Si
V_SLV	1	SLV 14	No
PF_SLU	12.896	SLU 44	Si
V_SLU	0.963	SLU 82	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
-34.232	-17.999	1.69	2.69	1	-33.232	-17.999	1.69	2.69	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 solo su un lato_Corti

fb_	fhk	fvk0	fmedio	t0	fv0	μ	φ	fvk_lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCC

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



Rinforzo a matrice inorganica

									elim,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	elim,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 FRCC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 80	ini.	-262.37	40	-0.0001081	0.0001872	0.0035	1		3649.64	3649.64	No	13.91	Si
SLU 80	fin.	464.55	-2216	-0.0001996	0.0001872	0.0035	1		3643.26	3643.26	No	7.84	Si
SLU 34	ini.	-271.87	119	-0.0001122	0.0001872	0.0035	1		3649.64	3649.64	No	13.42	Si
SLU 34	fin.	460.05	-2114	-0.0001975	0.0001872	0.0035	1		3643.26	3643.26	No	7.92	Si
SLU 78	ini.	-262.37	40	-0.0001081	0.0001872	0.0035	1		3649.64	3649.64	No	13.91	Si
SLU 78	fin.	464.55	-2216	-0.0001996	0.0001872	0.0035	1		3643.26	3643.26	No	7.84	Si
SLU 84	ini.	-302.51	103	-0.0001255	0.0001872	0.0035	1		3649.64	3649.64	No	12.06	Si
SLU 84	fin.	508.55	-2428	-0.0002208	0.0001872	0.0035	1		3643.26	3643.26	No	7.16	Si
SLU 82	ini.	-302.51	103	-0.0001255	0.0001872	0.0035	1		3649.64	3649.64	No	12.06	Si
SLU 82	fin.	508.55	-2428	-0.0002208	0.0001872	0.0035	1		3643.26	3643.26	No	7.16	Si
SLU 40	ini.	-294.69	168	-0.0001221	0.0001872	0.0035	1		3649.64	3649.64	No	12.38	Si
SLU 40	fin.	467.75	-2210	-0.0002012	0.0001872	0.0035	1		3643.26	3643.26	No	7.79	Si
SLU 75	ini.	-262.37	40	-0.0001081	0.0001872	0.0035	1		3649.64	3649.64	No	13.91	Si
SLU 75	fin.	464.55	-2216	-0.0001996	0.0001872	0.0035	1		3643.26	3643.26	No	7.84	Si
SLU 42	ini.	-294.69	168	-0.0001221	0.0001872	0.0035	1		3649.64	3649.64	No	12.38	Si
SLU 42	fin.	467.75	-2210	-0.0002012	0.0001872	0.0035	1		3643.26	3643.26	No	7.79	Si
SLU 76	ini.	-279.68	54	-0.0001156	0.0001872	0.0035	1		3649.64	3649.64	No	13.05	Si
SLU 76	fin.	500.85	-2332	-0.000217	0.0001872	0.0035	1		3643.26	3643.26	No	7.27	Si
SLU 73	ini.	-279.68	54	-0.0001156	0.0001872	0.0035	1		3649.64	3649.64	No	13.05	Si
SLU 73	fin.	500.85	-2332	-0.000217	0.0001872	0.0035	1		3643.26	3643.26	No	7.27	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 41	ini.	-268.72	1014	1	0	435	7930	4492	2550	7042	No	6.94	Si
SLU 41	fin.	413.3	2946	1	0	435	7930	4492	2550	7042	No	2.39	Si
SLU 39	ini.	-268.72	1014	1	0	435	7930	4492	2550	7042	No	6.94	Si
SLU 39	fin.	413.3	2946	1	0	435	7930	4492	2550	7042	No	2.39	Si
SLU 76	ini.	-279.68	1363	1	0	435	7930	4492	2550	7042	No	5.17	Si
SLU 76	fin.	500.85	3007	1	0	435	7930	4492	2550	7042	No	2.34	Si
SLU 81	ini.	-276.54	1054	1	0	435	7930	4492	2550	7042	No	6.68	Si
SLU 81	fin.	454.1	3197	1	0	435	7930	4492	2550	7042	No	2.2	Si
SLU 73	ini.	-279.68	1363	1	0	435	7930	4492	2550	7042	No	5.17	Si
SLU 73	fin.	500.85	3007	1	0	435	7930	4492	2550	7042	No	2.34	Si
SLU 82	ini.	-302.51	1321	1	0	435	7930	4492	2550	7042	No	5.33	Si
SLU 82	fin.	508.55	3295	1	0	435	7930	4492	2550	7042	No	2.14	Si
SLU 42	ini.	-294.69	1282	1	0	435	7930	4492	2550	7042	No	5.49	Si
SLU 42	fin.	467.75	3044	1	0	435	7930	4492	2550	7042	No	2.31	Si
SLU 84	ini.	-302.51	1321	1	0	435	7930	4492	2550	7042	No	5.33	Si
SLU 84	fin.	508.55	3295	1	0	435	7930	4492	2550	7042	No	2.14	Si
SLU 40	ini.	-294.69	1282	1	0	435	7930	4492	2550	7042	No	5.49	Si
SLU 40	fin.	467.75	3044	1	0	435	7930	4492	2550	7042	No	2.31	Si
SLU 83	ini.	-276.54	1054	1	0	435	7930	4492	2550	7042	No	6.68	Si
SLU 83	fin.	454.1	3197	1	0	435	7930	4492	2550	7042	No	2.2	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 12	ini.	-371.84	313	-0.0001535	0.0002807	0.0035	1		3671.29	3671.29		9.87	Si
SLV 12	fin.	647.05	-2524	-0.0002788	0.0002807	0.0035	1		3664.83	3664.83		5.66	Si
SLV 8	ini.	-578.99	865	-0.0002463	0.0002807	0.0035	1		3671.29	3671.29		6.34	Si
SLV 8	fin.	816.8	-3125	-0.0003624	0.0002807	0.0035	1		3664.83	3664.83		4.49	Si
SLV 1	ini.	-332.06	574	-0.0001364	0.0002807	0.0035	1		3671.29	3671.29		11.06	Si
SLV 1	fin.	357.52	-1686	-0.0001476	0.0002807	0.0035	1		3664.83	3664.83		10.25	Si
SLV 4	ini.	-609.23	1122	-0.0002604	0.0002807	0.0035	1		3671.29	3671.29		6.03	Si
SLV 4	fin.	713.17	-2859	-0.0003107	0.0002807	0.0035	1		3664.83	3664.83		5.14	Si
SLV 9	ini.	328.2	-1008	-0.000135	0.0002807	0.0035	1		3664.83	3664.83		11.17	Si
SLV 9	fin.	-311.95	583	-0.0001278	0.0002807	0.0035	1		3671.29	3671.29		11.77	Si
SLV 2	ini.	-430.23	797	-0.0001791	0.0002807	0.0035	1		3671.29	3671.29		8.53	Si
SLV 2	fin.	456.85	-2038	-0.0001912	0.0002807	0.0035	1		3664.83	3664.83		8.02	Si
SLV 11	ini.	-268.45	79	-0.0001094	0.0002807	0.0035	1		3671.29	3671.29		13.68	Si
SLV 11	fin.	542.44	-2153	-0.0002299	0.0002807	0.0035	1		3664.83	3664.83		6.76	Si
SLV 3	ini.	-511.05	900	-0.0002152	0.0002807	0.0035	1		3671.29	3671.29		7.18	Si
SLV 3	fin.	613.84	-2507	-0.0002631	0.0002807	0.0035	1		3664.83	3664.83		5.97	Si
SLV 13	ini.	358.44	-1266	-0.000148	0.0002807	0.0035	1		3664.83	3664.83		10.22	Si
SLV 13	fin.	-208.32	317	-0.0000842	0.0002807	0.0035	1		3671.29	3671.29		17.62	Si
SLV 7	ini.	-475.6	630	-0.0001992	0.0002807	0.0035	1		3671.29	3671.29		7.72	Si
SLV 7	fin.	712.19	-2754	-0.0003102	0.0002807	0.0035	1		3664.83	3664.83		5.15	Si



Verifica a taglio nel piano delle sezioni rinforzate con FRCC 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 4	ini.	-609.23	2951	1	0	652	7930	6738	2550	8582		2.91	Si
SLV 4	fin.	713.17	4225	1	0	652	7930	6738	2550	8582		2.03	Si
SLV 1	ini.	-332.06	1136	1	0	652	7930	6738	2550	8582		7.55	Si
SLV 1	fin.	357.52	2899	1	0	652	7930	6738	2550	8582		2.96	Si
SLV 3	ini.	-511.05	2452	1	0	652	7930	6738	2550	8582		3.5	Si
SLV 3	fin.	613.84	3722	1	0	652	7930	6738	2550	8582		2.31	Si
SLV 7	ini.	-475.6	2899	1	0	652	7930	6738	2550	8582		2.96	Si
SLV 7	fin.	712.19	3361	1	0	652	7930	6738	2550	8582		2.55	Si
SLV 2	ini.	-430.23	1635	1	0	652	7930	6738	2550	8582		5.25	Si
SLV 2	fin.	456.85	3402	1	0	652	7930	6738	2550	8582		2.52	Si
SLV 11	ini.	-268.45	1976	1	0	652	7930	6738	2550	8582		4.34	Si
SLV 11	fin.	542.44	2239	1	0	652	7930	6738	2550	8582		3.83	Si
SLV 9	ini.	328.2	-2411	1	0	652	7930	6738	2550	8582		3.56	Si
SLV 9	fin.	-311.95	-504	1	0	652	7930	6738	2550	8582		17.03	Si
SLV 13	ini.	358.44	-1938	1	0	652	7930	6738	2550	8582		4.43	Si
SLV 13	fin.	-208.32	-839	1	0	652	7930	6738	2550	8582		10.23	Si
SLV 8	ini.	-578.99	3424	1	0	652	7930	6738	2550	8582		2.51	Si
SLV 8	fin.	816.8	3890	1	0	652	7930	6738	2550	8582		2.21	Si
SLV 12	ini.	-371.84	2502	1	0	652	7930	6738	2550	8582		3.43	Si
SLV 12	fin.	647.05	2769	1	0	652	7930	6738	2550	8582		3.1	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLV	4.487	SLV 8	Si
V SLV	2.031	SLV 4	Si
PF SLU	7.164	SLU 82	Si
V SLU	2.137	SLU 82	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
-34.232	-17.999	4.59	5.62	1.03	-33.232	-17.999	4.59	5.62	1.03	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 solo su un lato_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCC

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / ε _c CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α _t	α	elim,conv	ε _{f,d}	γ _{f,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 FRCC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _m _	ε _{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 34	ini.	-249.7	-553	-0.0000966	0.0001872	0.0035	1.03		3855.92	3855.92	No	15.44	Si
SLU 34	fin.	334.76	673	-0.0001317	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.5	Si
SLU 73	ini.	-263.47	-576	-0.0001022	0.0001872	0.0035	1.03		3855.92	3855.92	No	14.64	Si
SLU 73	fin.	351.1	715	-0.0001385	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.96	Si
SLU 82	ini.	-254.46	-555	-0.0000985	0.0001872	0.0035	1.03		3855.92	3855.92	No	15.15	Si
SLU 82	fin.	370.97	698	-0.0001469	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.38	Si
SLU 31	ini.	-249.7	-553	-0.0000966	0.0001872	0.0035	1.03		3855.92	3855.92	No	15.44	Si
SLU 31	fin.	334.76	673	-0.0001317	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.5	Si
SLU 83	ini.	-207.24	-444	-0.0000796	0.0001872	0.0035	1.03		3855.92	3855.92	No	18.61	Si
SLU 83	fin.	335.76	582	-0.0001321	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.46	Si
SLU 76	ini.	-263.47	-576	-0.0001022	0.0001872	0.0035	1.03		3855.92	3855.92	No	14.64	Si
SLU 76	fin.	351.1	715	-0.0001385	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.96	Si
SLU 81	ini.	-207.24	-444	-0.0000796	0.0001872	0.0035	1.03		3855.92	3855.92	No	18.61	Si
SLU 81	fin.	335.76	582	-0.0001321	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.46	Si
SLU 84	ini.	-254.46	-555	-0.0000985	0.0001872	0.0035	1.03		3855.92	3855.92	No	15.15	Si
SLU 84	fin.	370.97	698	-0.0001469	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.38	Si
SLU 42	ini.	-240.7	-531	-0.000093	0.0001872	0.0035	1.03		3855.92	3855.92	No	16.02	Si
SLU 42	fin.	354.63	656	-0.00014	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.85	Si
SLU 40	ini.	-240.7	-531	-0.000093	0.0001872	0.0035	1.03		3855.92	3855.92	No	16.02	Si
SLU 40	fin.	354.63	656	-0.00014	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.85	Si



Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 42	ini.	-240.7	2904	1.03	0	448	7930	4626	2627	7253	No	2.5	Si
SLU 42	fin.	354.63	-727	1.03	0	448	7930	4626	2627	7253	No	9.98	Si
SLU 83	ini.	-207.24	2862	1.03	0	448	7930	4626	2627	7253	No	2.53	Si
SLU 83	fin.	335.76	-965	1.03	0	448	7930	4626	2627	7253	No	7.52	Si
SLU 73	ini.	-263.47	2833	1.03	0	448	7930	4626	2627	7253	No	2.56	Si
SLU 73	fin.	351.1	-484	1.03	0	448	7930	4626	2627	7253	No	14.98	Si
SLU 82	ini.	-254.46	3062	1.03	0	448	7930	4626	2627	7253	No	2.37	Si
SLU 82	fin.	370.97	-765	1.03	0	448	7930	4626	2627	7253	No	9.48	Si
SLU 41	ini.	-193.47	2705	1.03	0	448	7930	4626	2627	7253	No	2.68	Si
SLU 41	fin.	319.42	-926	1.03	0	448	7930	4626	2627	7253	No	7.83	Si
SLU 39	ini.	-193.47	2705	1.03	0	448	7930	4626	2627	7253	No	2.68	Si
SLU 39	fin.	319.42	-926	1.03	0	448	7930	4626	2627	7253	No	7.83	Si
SLU 84	ini.	-254.46	3062	1.03	0	448	7930	4626	2627	7253	No	2.37	Si
SLU 84	fin.	370.97	-765	1.03	0	448	7930	4626	2627	7253	No	9.48	Si
SLU 76	ini.	-263.47	2833	1.03	0	448	7930	4626	2627	7253	No	2.56	Si
SLU 76	fin.	351.1	-484	1.03	0	448	7930	4626	2627	7253	No	14.98	Si
SLU 81	ini.	-207.24	2862	1.03	0	448	7930	4626	2627	7253	No	2.53	Si
SLU 81	fin.	335.76	-965	1.03	0	448	7930	4626	2627	7253	No	7.52	Si
SLU 40	ini.	-240.7	2904	1.03	0	448	7930	4626	2627	7253	No	2.5	Si
SLU 40	fin.	354.63	-727	1.03	0	448	7930	4626	2627	7253	No	9.98	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 9	ini.	369.15	776	-0.0001436	0.0002807	0.0035	1.03		3887.91	3887.91		10.53	Si
SLV 9	fin.	-316.88	-1258	-0.0001223	0.0002807	0.0035	1.03		3894.56	3894.56		12.29	Si
SLV 2	ini.	-286.97	-499	-0.0001104	0.0002807	0.0035	1.03		3894.56	3894.56		13.57	Si
SLV 2	fin.	428.42	1118	-0.000168	0.0002807	0.0035	1.03		3887.91	3887.91		9.08	Si
SLV 13	ini.	280.36	510	-0.0001079	0.0002807	0.0035	1.03		3887.91	3887.91		13.87	Si
SLV 13	fin.	-298.5	-1149	-0.000115	0.0002807	0.0035	1.03		3894.56	3894.56		13.05	Si
SLV 12	ini.	-449.45	-987	-0.0001764	0.0002807	0.0035	1.03		3894.56	3894.56		8.67	Si
SLV 12	fin.	459.98	1311	-0.0001811	0.0002807	0.0035	1.03		3887.91	3887.91		8.45	Si
SLV 1	ini.	-180.71	-281	-0.0000686	0.0002807	0.0035	1.03		3894.56	3894.56		21.55	Si
SLV 1	fin.	315.59	754	-0.000122	0.0002807	0.0035	1.03		3887.91	3887.91		12.32	Si
SLV 3	ini.	-392.72	-741	-0.000153	0.0002807	0.0035	1.03		3894.56	3894.56		9.92	Si
SLV 3	fin.	512.99	1410	-0.0002034	0.0002807	0.0035	1.03		3887.91	3887.91		7.58	Si
SLV 8	ini.	-587.77	-1224	-0.0002351	0.0002807	0.0035	1.03		3894.56	3894.56		6.63	Si
SLV 8	fin.	644.21	1882	-0.0002603	0.0002807	0.0035	1.03		3887.91	3887.91		6.04	Si
SLV 4	ini.	-498.98	-959	-0.0001971	0.0002807	0.0035	1.03		3894.56	3894.56		7.81	Si
SLV 4	fin.	625.83	1773	-0.0002522	0.0002807	0.0035	1.03		3887.91	3887.91		6.21	Si
SLV 11	ini.	-337.54	-758	-0.0001306	0.0002807	0.0035	1.03		3894.56	3894.56		11.54	Si
SLV 11	fin.	341.15	928	-0.0001323	0.0002807	0.0035	1.03		3887.91	3887.91		11.4	Si
SLV 7	ini.	-475.86	-995	-0.0001874	0.0002807	0.0035	1.03		3894.56	3894.56		8.18	Si
SLV 7	fin.	525.37	1499	-0.0002087	0.0002807	0.0035	1.03		3887.91	3887.91		7.4	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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 10	ini.	257.25	-288	1.03	0	672	7930	6940	2627	8601		29.89	Si
SLV 10	fin.	-198.05	-2137	1.03	0	672	7930	6940	2627	8601		4.02	Si
SLV 13	ini.	280.36	-482	1.03	0	672	7930	6940	2627	8601		17.85	Si
SLV 13	fin.	-298.5	-2331	1.03	0	672	7930	6940	2627	8601		3.69	Si
SLV 11	ini.	-337.54	2430	1.03	0	672	7930	6940	2627	8601		3.54	Si
SLV 11	fin.	341.15	586	1.03	0	672	7930	6940	2627	8601		14.68	Si
SLV 3	ini.	-392.72	2794	1.03	0	672	7930	6940	2627	8601		3.08	Si
SLV 3	fin.	512.99	952	1.03	0	672	7930	6940	2627	8601		9.04	Si
SLV 2	ini.	-286.97	2334	1.03	0	672	7930	6940	2627	8601		3.69	Si
SLV 2	fin.	428.42	489	1.03	0	672	7930	6940	2627	8601		17.58	Si
SLV 8	ini.	-587.77	3665	1.03	0	672	7930	6940	2627	8601		2.35	Si
SLV 8	fin.	644.21	1823	1.03	0	672	7930	6940	2627	8601		4.72	Si
SLV 12	ini.	-449.45	2976	1.03	0	672	7930	6940	2627	8601		2.89	Si
SLV 12	fin.	459.98	1132	1.03	0	672	7930	6940	2627	8601		7.6	Si
SLV 4	ini.	-498.98	3313	1.03	0	672	7930	6940	2627	8601		2.6	Si
SLV 4	fin.	625.83	1470	1.03	0	672	7930	6940	2627	8601		5.85	Si
SLV 7	ini.	-475.86	3119	1.03	0	672	7930	6940	2627	8601		2.76	Si
SLV 7	fin.	525.37	1277	1.03	0	672	7930	6940	2627	8601		6.74	Si
SLV 9	ini.	369.15	-834	1.03	0	672	7930	6940	2627	8601		10.32	Si
SLV 9	fin.	-316.88	-2684	1.03	0	672	7930	6940	2627	8601		3.21	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	6.035	SLV 8	Si
V_SLV	2.347	SLV 8	Si
PF_SLU	10.376	SLU 82	Si
V_SLU	2.369	SLU 82	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
-30.572	-17.999	1.69	2.69	1	-29.572	-17.999	1.69	2.69	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 solo su un lato_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	elim,conv / e,CNR DT-200						CRM / Fibrenet?				
									α _t	α	elim,conv	e,f,d	yF,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 FRM in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _{m_}	ε _{mu}	df	M _{0d}	M _{1d}	M _{Rd}	incremento > 50%	c.s.	Verifica
SLU 75	ini.	579.7	-2844	-0.0002559	0.0001872	0.0035	1		3643.26	3643.26	No	6.28	Si
SLU 75	fin.	-379.9	447	-0.0001601	0.0001872	0.0035	1		3649.64	3649.64	No	9.61	Si
SLU 83	ini.	587.11	-2957	-0.0002596	0.0001872	0.0035	1		3643.26	3643.26	No	6.21	Si
SLU 83	fin.	-352.23	315	-0.0001476	0.0001872	0.0035	1		3649.64	3649.64	No	10.36	Si
SLU 73	ini.	602.72	-2916	-0.0002675	0.0001872	0.0035	1		3643.26	3643.26	No	6.04	Si
SLU 73	fin.	-408.16	524	-0.000173	0.0001872	0.0035	1		3649.64	3649.64	No	8.94	Si
SLU 78	ini.	579.7	-2844	-0.0002559	0.0001872	0.0035	1		3643.26	3643.26	No	6.28	Si
SLU 78	fin.	-379.9	447	-0.0001601	0.0001872	0.0035	1		3649.64	3649.64	No	9.61	Si
SLU 63	ini.	564.96	-2775	-0.0002485	0.0001872	0.0035	1		3643.26	3643.26	No	6.45	Si
SLU 63	fin.	-369.87	435	-0.0001555	0.0001872	0.0035	1		3649.64	3649.64	No	9.87	Si
SLU 81	ini.	587.11	-2957	-0.0002596	0.0001872	0.0035	1		3643.26	3643.26	No	6.21	Si
SLU 81	fin.	-352.23	315	-0.0001476	0.0001872	0.0035	1		3649.64	3649.64	No	10.36	Si
SLU 84	ini.	621.64	-3065	-0.0002772	0.0001872	0.0035	1		3643.26	3643.26	No	5.86	Si
SLU 84	fin.	-394.63	432	-0.0001668	0.0001872	0.0035	1		3649.64	3649.64	No	9.25	Si
SLU 76	ini.	602.72	-2916	-0.0002675	0.0001872	0.0035	1		3643.26	3643.26	No	6.04	Si
SLU 76	fin.	-408.16	524	-0.000173	0.0001872	0.0035	1		3649.64	3649.64	No	8.94	Si
SLU 82	ini.	621.64	-3065	-0.0002772	0.0001872	0.0035	1		3643.26	3643.26	No	5.86	Si
SLU 82	fin.	-394.63	432	-0.0001668	0.0001872	0.0035	1		3649.64	3649.64	No	9.25	Si
SLU 80	ini.	579.7	-2844	-0.0002559	0.0001872	0.0035	1		3643.26	3643.26	No	6.28	Si
SLU 80	fin.	-379.9	447	-0.0001601	0.0001872	0.0035	1		3649.64	3649.64	No	9.61	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	f _{vd}	V _t	V _{t,f}	V _{t,c}	V _{t,c int.}	V _{t,R}	incremento > 50%	c.s.	Verifica
SLU 78	ini.	579.7	-4105	1	0	435	7930	4492	2550	7042	No	1.72	Si
SLU 78	fin.	-379.9	-1662	1	0	435	7930	4492	2550	7042	No	4.24	Si
SLU 83	ini.	587.11	-4323	1	0	435	7930	4492	2550	7042	No	1.63	Si
SLU 83	fin.	-352.23	-1443	1	0	435	7930	4492	2550	7042	No	4.88	Si
SLU 73	ini.	602.72	-4177	1	0	435	7930	4492	2550	7042	No	1.69	Si
SLU 73	fin.	-408.16	-1837	1	0	435	7930	4492	2550	7042	No	3.83	Si
SLU 80	ini.	579.7	-4105	1	0	435	7930	4492	2550	7042	No	1.72	Si
SLU 80	fin.	-379.9	-1662	1	0	435	7930	4492	2550	7042	No	4.24	Si
SLU 76	ini.	602.72	-4177	1	0	435	7930	4492	2550	7042	No	1.69	Si
SLU 76	fin.	-408.16	-1837	1	0	435	7930	4492	2550	7042	No	3.83	Si
SLU 84	ini.	621.64	-4431	1	0	435	7930	4492	2550	7042	No	1.59	Si
SLU 84	fin.	-394.63	-1706	1	0	435	7930	4492	2550	7042	No	4.13	Si
SLU 63	ini.	564.96	-4015	1	0	435	7930	4492	2550	7042	No	1.75	Si
SLU 63	fin.	-369.87	-1613	1	0	435	7930	4492	2550	7042	No	4.36	Si
SLU 81	ini.	587.11	-4323	1	0	435	7930	4492	2550	7042	No	1.63	Si
SLU 81	fin.	-352.23	-1443	1	0	435	7930	4492	2550	7042	No	4.88	Si
SLU 82	ini.	621.64	-4431	1	0	435	7930	4492	2550	7042	No	1.59	Si
SLU 82	fin.	-394.63	-1706	1	0	435	7930	4492	2550	7042	No	4.13	Si
SLU 75	ini.	579.7	-4105	1	0	435	7930	4492	2550	7042	No	1.72	Si
SLU 75	fin.	-379.9	-1662	1	0	435	7930	4492	2550	7042	No	4.24	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _{m_}	ε _{mu}	df	M _{0d}	M _{1d}	M _{Rd}	incremento > 50%	c.s.	Verifica
SLV 8	ini.	492.89	-2359	-0.0002074	0.0002807	0.0035	1		3664.83	3664.83		7.44	Si
SLV 8	fin.	-443.99	803	-0.0001852	0.0002807	0.0035	1		3671.29	3671.29		8.27	Si
SLV 12	ini.	686	-3051	-0.0002975	0.0002807	0.0035	1		3664.83	3664.83		5.34	Si
SLV 12	fin.	-691.86	1433	-0.0002998	0.0002807	0.0035	1		3671.29	3671.29		5.31	Si
SLV 16	ini.	723.71	-3118	-0.0003159	0.0002807	0.0035	1		3664.83	3664.83		5.06	Si
SLV 16	fin.	-715.69	1488	-0.0003114	0.0002807	0.0035	1		3671.29	3671.29		5.13	Si
SLV 14	ini.	561.13	-2477	-0.0002385	0.0002807	0.0035	1		3664.83	3664.83		6.53	Si
SLV 14	fin.	-485.97	899	-0.0002039	0.0002807	0.0035	1		3671.29	3671.29		7.55	Si



Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 2	ini.	-82.59	-170	-0.0000329	0.0002807	0.0035	1		3671.29	3671.29		44.45	Si
SLV 2	fin.	340.27	-1202	-0.0001402	0.0002807	0.0035	1		3664.83	3664.83		10.77	Si
SLV 13	ini.	639.19	-2771	-0.000275	0.0002807	0.0035	1		3664.83	3664.83		5.73	Si
SLV 13	fin.	-585.64	1157	-0.0002494	0.0002807	0.0035	1		3671.29	3671.29		6.27	Si
SLV 6	ini.	-49.04	-221	-0.0000195	0.0002807	0.0035	1		3671.29	3671.29		74.86	Si
SLV 6	fin.	321.74	-1161	-0.0001322	0.0002807	0.0035	1		3664.83	3664.83		11.39	Si
SLV 15	ini.	801.76	-3412	-0.0003548	0.0002807	0.0035	1		3664.83	3664.83		4.57	Si
SLV 15	fin.	-815.36	1746	-0.000361	0.0002807	0.0035	1		3671.29	3671.29		4.5	Si
SLV 11	ini.	768.21	-3361	-0.0003379	0.0002807	0.0035	1		3664.83	3664.83		4.77	Si
SLV 11	fin.	-796.83	1705	-0.0003516	0.0002807	0.0035	1		3671.29	3671.29		4.61	Si
SLV 7	ini.	575.09	-2669	-0.000245	0.0002807	0.0035	1		3664.83	3664.83		6.37	Si
SLV 7	fin.	-548.95	1074	-0.0002325	0.0002807	0.0035	1		3671.29	3671.29		6.69	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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 10	ini.	144.08	-2505	1	0	652	7930	6738	2550	8582		3.43	Si
SLV 10	fin.	73.86	738	1	0	652	7930	6738	2550	8582		11.63	Si
SLV 16	ini.	723.71	-4307	1	0	652	7930	6738	2550	8582		1.99	Si
SLV 16	fin.	-715.69	-3560	1	0	652	7930	6738	2550	8582		2.41	Si
SLV 8	ini.	492.89	-2214	1	0	652	7930	6738	2550	8582		3.88	Si
SLV 8	fin.	-443.99	-2261	1	0	652	7930	6738	2550	8582		3.79	Si
SLV 11	ini.	768.21	-3816	1	0	652	7930	6738	2550	8582		2.25	Si
SLV 11	fin.	-796.83	-4032	1	0	652	7930	6738	2550	8582		2.13	Si
SLV 13	ini.	639.19	-4555	1	0	652	7930	6738	2550	8582		1.88	Si
SLV 13	fin.	-585.64	-2735	1	0	652	7930	6738	2550	8582		3.14	Si
SLV 9	ini.	226.28	-3018	1	0	652	7930	6738	2550	8582		2.84	Si
SLV 9	fin.	-31.1	253	1	0	652	7930	6738	2550	8582		33.96	Si
SLV 12	ini.	686	-3303	1	0	652	7930	6738	2550	8582		2.6	Si
SLV 12	fin.	-691.86	-3547	1	0	652	7930	6738	2550	8582		2.42	Si
SLV 7	ini.	575.09	-2727	1	0	652	7930	6738	2550	8582		3.15	Si
SLV 7	fin.	-548.95	-2746	1	0	652	7930	6738	2550	8582		3.12	Si
SLV 14	ini.	561.13	-4067	1	0	652	7930	6738	2550	8582		2.11	Si
SLV 14	fin.	-485.97	-2274	1	0	652	7930	6738	2550	8582		3.77	Si
SLV 15	ini.	801.76	-4794	1	0	652	7930	6738	2550	8582		1.79	Si
SLV 15	fin.	-815.36	-4020	1	0	652	7930	6738	2550	8582		2.13	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.503	SLV 15	Si
V_SLV	1.79	SLV 15	Si
PF_SLU	5.861	SLU 82	Si
V_SLU	1.589	SLU 82	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
-30.572	-17.999	4.59	5.62	1.03	-29.572	-17.999	4.59	5.62	1.03	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 solo su un lato_Corti

f _b	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRMC

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

									elim,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	α _t	α	elim,conv	ε _{f,d}	γ _{f,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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 75	ini.	346.42	758	-0.0001366	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.11	Si
SLU 75	fin.	-734.96	-2047	-0.000314	0.0001872	0.0035	1.03		3855.92	3855.92	No	5.25	Si
SLU 78	ini.	346.42	758	-0.0001366	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.11	Si
SLU 78	fin.	-734.96	-2047	-0.000314	0.0001872	0.0035	1.03		3855.92	3855.92	No	5.25	Si
SLU 81	ini.	342.82	624	-0.000135	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.23	Si
SLU 81	fin.	-760.13	-2175	-0.0003266	0.0001872	0.0035	1.03		3855.92	3855.92	No	5.07	Si
SLU 83	ini.	342.82	624	-0.000135	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.23	Si



Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 83	fin.	-760.13	-2175	-0.0003266	0.0001872	0.0035	1.03		3855.92	3855.92	No	5.07	Si
SLU 82	ini.	367.72	729	-0.0001455	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.47	Si
SLU 82	fin.	-793.51	-2245	-0.0003435	0.0001872	0.0035	1.03		3855.92	3855.92	No	4.86	Si
SLU 76	ini.	363.02	828	-0.0001435	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.6	Si
SLU 76	fin.	-757.22	-2094	-0.0003251	0.0001872	0.0035	1.03		3855.92	3855.92	No	5.09	Si
SLU 73	ini.	363.02	828	-0.0001435	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.6	Si
SLU 73	fin.	-757.22	-2094	-0.0003251	0.0001872	0.0035	1.03		3855.92	3855.92	No	5.09	Si
SLU 84	ini.	367.72	729	-0.0001455	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.47	Si
SLU 84	fin.	-793.51	-2245	-0.0003435	0.0001872	0.0035	1.03		3855.92	3855.92	No	4.86	Si
SLU 80	ini.	346.42	758	-0.0001366	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.11	Si
SLU 80	fin.	-734.96	-2047	-0.000314	0.0001872	0.0035	1.03		3855.92	3855.92	No	5.25	Si
SLU 63	ini.	338.07	741	-0.0001331	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.39	Si
SLU 63	fin.	-717.47	-1999	-0.0003053	0.0001872	0.0035	1.03		3855.92	3855.92	No	5.37	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 82	ini.	367.72	-437	1.03	0	448	7930	4626	2627	7253	No	16.61	Si
SLU 82	fin.	-793.51	-4264	1.03	0	448	7930	4626	2627	7253	No	1.7	Si
SLU 73	ini.	363.02	-673	1.03	0	448	7930	4626	2627	7253	No	10.78	Si
SLU 73	fin.	-757.22	-3990	1.03	0	448	7930	4626	2627	7253	No	1.82	Si
SLU 81	ini.	342.82	-289	1.03	0	448	7930	4626	2627	7253	No	25.11	Si
SLU 81	fin.	-760.13	-4116	1.03	0	448	7930	4626	2627	7253	No	1.76	Si
SLU 83	ini.	342.82	-289	1.03	0	448	7930	4626	2627	7253	No	25.11	Si
SLU 83	fin.	-760.13	-4116	1.03	0	448	7930	4626	2627	7253	No	1.76	Si
SLU 80	ini.	346.42	-574	1.03	0	448	7930	4626	2627	7253	No	12.64	Si
SLU 80	fin.	-734.96	-3891	1.03	0	448	7930	4626	2627	7253	No	1.86	Si
SLU 40	ini.	319.66	-200	1.03	0	448	7930	4626	2627	7253	No	36.2	Si
SLU 40	fin.	-700.74	-3831	1.03	0	448	7930	4626	2627	7253	No	1.89	Si
SLU 84	ini.	367.72	-437	1.03	0	448	7930	4626	2627	7253	No	16.61	Si
SLU 84	fin.	-793.51	-4264	1.03	0	448	7930	4626	2627	7253	No	1.7	Si
SLU 75	ini.	346.42	-574	1.03	0	448	7930	4626	2627	7253	No	12.64	Si
SLU 75	fin.	-734.96	-3891	1.03	0	448	7930	4626	2627	7253	No	1.86	Si
SLU 78	ini.	346.42	-574	1.03	0	448	7930	4626	2627	7253	No	12.64	Si
SLU 78	fin.	-734.96	-3891	1.03	0	448	7930	4626	2627	7253	No	1.86	Si
SLU 76	ini.	363.02	-673	1.03	0	448	7930	4626	2627	7253	No	10.78	Si
SLU 76	fin.	-757.22	-3990	1.03	0	448	7930	4626	2627	7253	No	1.82	Si

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 13	ini.	491.16	1498	-0.0001942	0.0002807	0.0035	1.03		3887.91	3887.91		7.92	Si
SLV 13	fin.	-820.5	-1991	-0.0003403	0.0002807	0.0035	1.03		3894.56	3894.56		4.75	Si
SLV 14	ini.	408.01	1182	-0.0001596	0.0002807	0.0035	1.03		3887.91	3887.91		9.53	Si
SLV 14	fin.	-700.48	-1744	-0.000285	0.0002807	0.0035	1.03		3894.56	3894.56		5.56	Si
SLV 3	ini.	25.52	-103	-0.000095	0.0002807	0.0035	1.03		3887.91	3887.91		152.37	Si
SLV 3	fin.	-213.35	-745	-0.0000813	0.0002807	0.0035	1.03		3894.56	3894.56		18.25	Si
SLV 7	ini.	393.07	1300	-0.0001534	0.0002807	0.0035	1.03		3887.91	3887.91		9.89	Si
SLV 7	fin.	-726.69	-1796	-0.0002969	0.0002807	0.0035	1.03		3894.56	3894.56		5.36	Si
SLV 15	ini.	624.58	2048	-0.0002516	0.0002807	0.0035	1.03		3887.91	3887.91		6.22	Si
SLV 15	fin.	-1016.75	-2392	-0.0004362	0.0002807	0.0035	1.03		3894.56	3894.56		3.83	Si
SLV 9	ini.	128.03	111	-0.0000484	0.0002807	0.0035	1.03		3887.91	3887.91		30.37	Si
SLV 9	fin.	-313.54	-953	-0.000121	0.0002807	0.0035	1.03		3894.56	3894.56		12.42	Si
SLV 11	ini.	572.79	1945	-0.000229	0.0002807	0.0035	1.03		3887.91	3887.91		6.79	Si
SLV 11	fin.	-967.71	-2290	-0.0004117	0.0002807	0.0035	1.03		3894.56	3894.56		4.02	Si
SLV 8	ini.	305.5	968	-0.0001179	0.0002807	0.0035	1.03		3887.91	3887.91		12.73	Si
SLV 8	fin.	-600.29	-1535	-0.0002406	0.0002807	0.0035	1.03		3894.56	3894.56		6.49	Si
SLV 12	ini.	485.22	1613	-0.0001917	0.0002807	0.0035	1.03		3887.91	3887.91		8.01	Si
SLV 12	fin.	-841.31	-2029	-0.0003502	0.0002807	0.0035	1.03		3894.56	3894.56		4.63	Si
SLV 16	ini.	541.44	1732	-0.0002155	0.0002807	0.0035	1.03		3887.91	3887.91		7.18	Si
SLV 16	fin.	-896.73	-2144	-0.0003768	0.0002807	0.0035	1.03		3894.56	3894.56		4.34	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.	305.5	-1132	1.03	0	672	7930	6940	2627	8601		7.6	Si
SLV 8	fin.	-600.29	-3075	1.03	0	672	7930	6940	2627	8601		2.8	Si
SLV 11	ini.	572.79	-2604	1.03	0	672	7930	6940	2627	8601		3.3	Si
SLV 11	fin.	-967.71	-4543	1.03	0	672	7930	6940	2627	8601		1.89	Si
SLV 16	ini.	541.44	-2259	1.03	0	672	7930	6940	2627	8601		3.81	Si
SLV 16	fin.	-896.73	-4128	1.03	0	672	7930	6940	2627	8601		2.08	Si
SLV 12	ini.	485.22	-2084	1.03	0	672	7930	6940	2627	8601		4.13	Si
SLV 12	fin.	-841.31	-4024	1.03	0	672	7930	6940	2627	8601		2.14	Si
SLV 13	ini.	491.16	-1938	1.03	0	672	7930	6940	2627	8601		4.44	Si
SLV 13	fin.	-820.5	-3750	1.03	0	672	7930	6940	2627	8601		2.29	Si
SLV 7	ini.	393.07	-1651	1.03	0	672	7930	6940	2627	8601		5.21	Si
SLV 7	fin.	-726.69	-3594	1.03	0	672	7930	6940	2627	8601		2.39	Si
SLV 15	ini.	624.58	-2752	1.03	0	672	7930	6940	2627	8601		3.13	Si
SLV 15	fin.	-1016.75	-4621	1.03	0	672	7930	6940	2627	8601		1.86	Si
SLV 2	ini.	-191.06	1730	1.03	0	672	7930	6940	2627	8601		4.97	Si
SLV 2	fin.	102.92	-93	1.03	0	672	7930	6940	2627	8601		92.38	Si
SLV 9	ini.	128.03	110	1.03	0	672	7930	6940	2627	8601		78.23	Si
SLV 9	fin.	-313.54	-1639	1.03	0	672	7930	6940	2627	8601		5.25	Si
SLV 14	ini.	408.01	-1445	1.03	0	672	7930	6940	2627	8601		5.95	Si
SLV 14	fin.	-700.48	-3257	1.03	0	672	7930	6940	2627	8601		2.64	Si



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.83	SLV 15	Si
V_SLV	1.861	SLV 15	Si
PF_SLU	4.859	SLU 82	Si
V_SLU	1.701	SLU 82	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
-26.842	-17.999	1.69	2.69	1	-25.842	-17.999	1.69	2.69	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 solo su un lato_Corti

fb	fhk	fvk0	fhmmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	e,fd	yF,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 FRM in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 75	ini.	-913.88	173	-0.000435	0.0001872	0.0035	1		3649.64	3649.64	No	3.99	Si
SLU 75	fin.	1202.05	-2484	-0.0006086	0.0001872	0.0035	1		3643.26	3643.26	No	3.03	Si
SLU 83	ini.	-867	40	-0.0004085	0.0001872	0.0035	1		3649.64	3649.64	No	4.21	Si
SLU 83	fin.	1191.76	-2584	-0.0006022	0.0001872	0.0035	1		3643.26	3643.26	No	3.06	Si
SLU 82	ini.	-938.93	111	-0.0004494	0.0001872	0.0035	1		3649.64	3649.64	No	3.89	Si
SLU 82	fin.	1258.45	-2654	-0.0006443	0.0001872	0.0035	1		3643.26	3643.26	No	2.9	Si
SLU 81	ini.	-867	40	-0.0004085	0.0001872	0.0035	1		3649.64	3649.64	No	4.21	Si
SLU 81	fin.	1191.76	-2584	-0.0006022	0.0001872	0.0035	1		3643.26	3643.26	No	3.06	Si
SLU 76	ini.	-961.83	221	-0.0004626	0.0001872	0.0035	1		3649.64	3649.64	No	3.79	Si
SLU 76	fin.	1246.51	-2532	-0.0006367	0.0001872	0.0035	1		3643.26	3643.26	No	2.92	Si
SLU 78	ini.	-913.88	173	-0.000435	0.0001872	0.0035	1		3649.64	3649.64	No	3.99	Si
SLU 78	fin.	1202.05	-2484	-0.0006086	0.0001872	0.0035	1		3643.26	3643.26	No	3.03	Si
SLU 63	ini.	-889.79	173	-0.0004213	0.0001872	0.0035	1		3649.64	3649.64	No	4.1	Si
SLU 63	fin.	1173.84	-2419	-0.0005911	0.0001872	0.0035	1		3643.26	3643.26	No	3.1	Si
SLU 80	ini.	-913.88	173	-0.000435	0.0001872	0.0035	1		3649.64	3649.64	No	3.99	Si
SLU 80	fin.	1202.05	-2484	-0.0006086	0.0001872	0.0035	1		3643.26	3643.26	No	3.03	Si
SLU 73	ini.	-961.83	221	-0.0004626	0.0001872	0.0035	1		3649.64	3649.64	No	3.79	Si
SLU 73	fin.	1246.51	-2532	-0.0006367	0.0001872	0.0035	1		3643.26	3643.26	No	2.92	Si
SLU 84	ini.	-938.93	111	-0.0004494	0.0001872	0.0035	1		3649.64	3649.64	No	3.89	Si
SLU 84	fin.	1258.45	-2654	-0.0006443	0.0001872	0.0035	1		3643.26	3643.26	No	2.9	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 73	ini.	-961.83	4055	1	0	435	7930	4492	2550	7042	No	1.74	Si
SLU 73	fin.	1246.51	3073	1	0	435	7930	4492	2550	7042	No	2.29	Si
SLU 55	ini.	-912.69	3822	1	0	435	7930	4492	2550	7042	No	1.84	Si
SLU 55	fin.	1161.9	2878	1	0	435	7930	4492	2550	7042	No	2.45	Si
SLU 82	ini.	-938.93	3975	1	0	435	7930	4492	2550	7042	No	1.77	Si
SLU 82	fin.	1258.45	3127	1	0	435	7930	4492	2550	7042	No	2.25	Si
SLU 78	ini.	-913.88	3848	1	0	435	7930	4492	2550	7042	No	1.83	Si
SLU 78	fin.	1202.05	2990	1	0	435	7930	4492	2550	7042	No	2.35	Si
SLU 84	ini.	-938.93	3975	1	0	435	7930	4492	2550	7042	No	1.77	Si
SLU 84	fin.	1258.45	3127	1	0	435	7930	4492	2550	7042	No	2.25	Si
SLU 80	ini.	-913.88	3848	1	0	435	7930	4492	2550	7042	No	1.83	Si
SLU 80	fin.	1202.05	2990	1	0	435	7930	4492	2550	7042	No	2.35	Si
SLU 76	ini.	-961.83	4055	1	0	435	7930	4492	2550	7042	No	1.74	Si
SLU 76	fin.	1246.51	3073	1	0	435	7930	4492	2550	7042	No	2.29	Si
SLU 52	ini.	-912.69	3822	1	0	435	7930	4492	2550	7042	No	1.84	Si
SLU 52	fin.	1161.9	2878	1	0	435	7930	4492	2550	7042	No	2.45	Si
SLU 68	ini.	-903.38	3758	1	0	435	7930	4492	2550	7042	No	1.87	Si
SLU 68	fin.	1114.91	2755	1	0	435	7930	4492	2550	7042	No	2.56	Si
SLU 75	ini.	-913.88	3848	1	0	435	7930	4492	2550	7042	No	1.83	Si
SLU 75	fin.	1202.05	2990	1	0	435	7930	4492	2550	7042	No	2.35	Si



Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 4	ini.	-1506.84	1328	-0.0007569	0.0002807	0.0035	1		3671.29	3671.29		2.44	Si
SLV 4	fin.	1727.43	-2644	-0.0009044	0.0002807	0.0035	1		3664.83	3664.83		2.12	Si
SLV 3	ini.	-1364.23	1135	-0.000668	0.0002807	0.0035	1		3671.29	3671.29		2.69	Si
SLV 3	fin.	1572.79	-2474	-0.0008011	0.0002807	0.0035	1		3664.83	3664.83		2.33	Si
SLV 16	ini.	-214.59	-408	-0.0000868	0.0002807	0.0035	1		3671.29	3671.29		17.11	Si
SLV 16	fin.	361.37	-1192	-0.0001493	0.0002807	0.0035	1		3664.83	3664.83		10.14	Si
SLV 7	ini.	-1330.05	990	-0.0006473	0.0002807	0.0035	1		3671.29	3671.29		2.76	Si
SLV 7	fin.	1501.14	-2474	-0.0007549	0.0002807	0.0035	1		3664.83	3664.83		2.44	Si
SLV 11	ini.	-942.38	469	-0.0004271	0.0002807	0.0035	1		3671.29	3671.29		3.9	Si
SLV 11	fin.	1091.33	-2038	-0.0005094	0.0002807	0.0035	1		3664.83	3664.83		3.36	Si
SLV 12	ini.	-1092.56	672	-0.0005091	0.0002807	0.0035	1		3671.29	3671.29		3.36	Si
SLV 12	fin.	1254.19	-2217	-0.0006032	0.0002807	0.0035	1		3664.83	3664.83		2.92	Si
SLV 1	ini.	-1002.61	734	-0.0004595	0.0002807	0.0035	1		3671.29	3671.29		3.66	Si
SLV 1	fin.	1220.87	-2034	-0.0005836	0.0002807	0.0035	1		3664.83	3664.83		3	Si
SLV 8	ini.	-1480.23	1193	-0.00074	0.0002807	0.0035	1		3671.29	3671.29		2.48	Si
SLV 8	fin.	1664	-2653	-0.0008614	0.0002807	0.0035	1		3664.83	3664.83		2.2	Si
SLV 2	ini.	-1145.21	927	-0.0005388	0.0002807	0.0035	1		3671.29	3671.29		3.21	Si
SLV 2	fin.	1375.5	-2204	-0.0006763	0.0002807	0.0035	1		3664.83	3664.83		2.66	Si
SLV 6	ini.	-274.83	-143	-0.000112	0.0002807	0.0035	1		3671.29	3671.29		13.36	Si
SLV 6	fin.	490.91	-1188	-0.0002065	0.0002807	0.0035	1		3664.83	3664.83		7.47	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC 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 5	ini.	-124.64	747	1	0	652	7930	6738	2550	8582		11.48	Si
SLV 5	fin.	328.05	2353	1	0	652	7930	6738	2550	8582		3.65	Si
SLV 3	ini.	-1364.23	5066	1	0	652	7930	6738	2550	8582		1.69	Si
SLV 3	fin.	1572.79	3845	1	0	652	7930	6738	2550	8582		2.23	Si
SLV 11	ini.	-942.38	3810	1	0	652	7930	6738	2550	8582		2.25	Si
SLV 11	fin.	1091.33	1164	1	0	652	7930	6738	2550	8582		7.37	Si
SLV 4	ini.	-1506.84	5535	1	0	652	7930	6738	2550	8582		1.55	Si
SLV 4	fin.	1727.43	4317	1	0	652	7930	6738	2550	8582		1.99	Si
SLV 1	ini.	-1002.61	3765	1	0	652	7930	6738	2550	8582		2.28	Si
SLV 1	fin.	1220.87	3830	1	0	652	7930	6738	2550	8582		2.24	Si
SLV 2	ini.	-1145.21	4234	1	0	652	7930	6738	2550	8582		2.03	Si
SLV 2	fin.	1375.5	4302	1	0	652	7930	6738	2550	8582		1.99	Si
SLV 8	ini.	-1480.23	5579	1	0	652	7930	6738	2550	8582		1.54	Si
SLV 8	fin.	1664	2901	1	0	652	7930	6738	2550	8582		2.96	Si
SLV 12	ini.	-1092.56	4304	1	0	652	7930	6738	2550	8582		1.99	Si
SLV 12	fin.	1254.19	1662	1	0	652	7930	6738	2550	8582		5.16	Si
SLV 6	ini.	-274.83	1241	1	0	652	7930	6738	2550	8582		6.92	Si
SLV 6	fin.	490.91	2851	1	0	652	7930	6738	2550	8582		3.01	Si
SLV 7	ini.	-1330.05	5085	1	0	652	7930	6738	2550	8582		1.69	Si
SLV 7	fin.	1501.14	2404	1	0	652	7930	6738	2550	8582		3.57	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.122	SLV 4	Si
V_SLV	1.538	SLV 8	Si
PF_SLU	2.895	SLU 82	Si
V_SLU	1.736	SLU 73	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
-26.842	-17.999	4.59	5.62	1.03	-25.842	-17.999	4.59	5.62	1.03	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 solo su un lato_Corti

fb	fmk	fvk0	fmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCC

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

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	at	α	elim,conv	e,fd	yF,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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 84	ini.	-994.94	-2540	-0.0004494	0.0001872	0.0035	1.03		3855.92	3855.92	No	3.88	Si
SLU 84	fin.	863.97	375	-0.0003804	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.46	Si
SLU 78	ini.	-941.51	-2360	-0.0004206	0.0001872	0.0035	1.03		3855.92	3855.92	No	4.1	Si
SLU 78	fin.	844.41	434	-0.0003703	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.56	Si
SLU 75	ini.	-941.51	-2360	-0.0004206	0.0001872	0.0035	1.03		3855.92	3855.92	No	4.1	Si
SLU 75	fin.	844.41	434	-0.0003703	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.56	Si
SLU 82	ini.	-994.94	-2540	-0.0004494	0.0001872	0.0035	1.03		3855.92	3855.92	No	3.88	Si
SLU 82	fin.	863.97	375	-0.0003804	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.46	Si
SLU 76	ini.	-970.91	-2418	-0.0004364	0.0001872	0.0035	1.03		3855.92	3855.92	No	3.97	Si
SLU 76	fin.	883.63	479	-0.0003907	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.36	Si
SLU 73	ini.	-970.91	-2418	-0.0004364	0.0001872	0.0035	1.03		3855.92	3855.92	No	3.97	Si
SLU 73	fin.	883.63	479	-0.0003907	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.36	Si
SLU 63	ini.	-919.41	-2304	-0.0004089	0.0001872	0.0035	1.03		3855.92	3855.92	No	4.19	Si
SLU 63	fin.	824.96	424	-0.0003602	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.67	Si
SLU 83	ini.	-950.85	-2452	-0.0004256	0.0001872	0.0035	1.03		3855.92	3855.92	No	4.06	Si
SLU 83	fin.	805.14	306	-0.00035	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.78	Si
SLU 80	ini.	-941.51	-2360	-0.0004206	0.0001872	0.0035	1.03		3855.92	3855.92	No	4.1	Si
SLU 80	fin.	844.41	434	-0.0003703	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.56	Si
SLU 81	ini.	-950.85	-2452	-0.0004256	0.0001872	0.0035	1.03		3855.92	3855.92	No	4.06	Si
SLU 81	fin.	805.14	306	-0.00035	0.0001872	0.0035	1.03		3849.31	3849.31	No	4.78	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 75	ini.	-941.51	4648	1.03	0	448	7930	4626	2627	7253	No	1.56	Si
SLU 75	fin.	844.41	2097	1.03	0	448	7930	4626	2627	7253	No	3.46	Si
SLU 78	ini.	-941.51	4648	1.03	0	448	7930	4626	2627	7253	No	1.56	Si
SLU 78	fin.	844.41	2097	1.03	0	448	7930	4626	2627	7253	No	3.46	Si
SLU 84	ini.	-994.94	4983	1.03	0	448	7930	4626	2627	7253	No	1.46	Si
SLU 84	fin.	863.97	2088	1.03	0	448	7930	4626	2627	7253	No	3.47	Si
SLU 83	ini.	-950.85	4799	1.03	0	448	7930	4626	2627	7253	No	1.51	Si
SLU 83	fin.	805.14	1904	1.03	0	448	7930	4626	2627	7253	No	3.81	Si
SLU 76	ini.	-970.91	4770	1.03	0	448	7930	4626	2627	7253	No	1.52	Si
SLU 76	fin.	883.63	2219	1.03	0	448	7930	4626	2627	7253	No	3.27	Si
SLU 73	ini.	-970.91	4770	1.03	0	448	7930	4626	2627	7253	No	1.52	Si
SLU 73	fin.	883.63	2219	1.03	0	448	7930	4626	2627	7253	No	3.27	Si
SLU 82	ini.	-994.94	4983	1.03	0	448	7930	4626	2627	7253	No	1.46	Si
SLU 82	fin.	863.97	2088	1.03	0	448	7930	4626	2627	7253	No	3.47	Si
SLU 80	ini.	-941.51	4648	1.03	0	448	7930	4626	2627	7253	No	1.56	Si
SLU 80	fin.	844.41	2097	1.03	0	448	7930	4626	2627	7253	No	3.46	Si
SLU 81	ini.	-950.85	4799	1.03	0	448	7930	4626	2627	7253	No	1.51	Si
SLU 81	fin.	805.14	1904	1.03	0	448	7930	4626	2627	7253	No	3.81	Si
SLU 63	ini.	-919.41	4538	1.03	0	448	7930	4626	2627	7253	No	1.6	Si
SLU 63	fin.	824.96	2049	1.03	0	448	7930	4626	2627	7253	No	3.54	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 7	ini.	-1052.75	-2341	-0.0004545	0.0002807	0.0035	1.03		3894.56	3894.56		3.7	Si
SLV 7	fin.	1144.81	1025	-0.0005033	0.0002807	0.0035	1.03		3887.91	3887.91		3.4	Si
SLV 2	ini.	-1024.46	-2298	-0.0004401	0.0002807	0.0035	1.03		3894.56	3894.56		3.8	Si
SLV 2	fin.	1088.8	928	-0.000474	0.0002807	0.0035	1.03		3887.91	3887.91		3.57	Si
SLV 16	ini.	-327.49	-927	-0.0001266	0.0002807	0.0035	1.03		3894.56	3894.56		11.89	Si
SLV 16	fin.	217.86	-44	-0.0000832	0.0002807	0.0035	1.03		3887.91	3887.91		17.85	Si
SLV 6	ini.	-449.38	-1181	-0.0001764	0.0002807	0.0035	1.03		3894.56	3894.56		8.67	Si
SLV 6	fin.	350.35	82	-0.000136	0.0002807	0.0035	1.03		3887.91	3887.91		11.1	Si
SLV 3	ini.	-1119.91	-2481	-0.0004893	0.0002807	0.0035	1.03		3894.56	3894.56		3.48	Si
SLV 3	fin.	1218.11	1095	-0.0005424	0.0002807	0.0035	1.03		3887.91	3887.91		3.19	Si
SLV 12	ini.	-909.22	-2056	-0.0003829	0.0002807	0.0035	1.03		3894.56	3894.56		4.28	Si
SLV 12	fin.	964.79	811	-0.000411	0.0002807	0.0035	1.03		3887.91	3887.91		4.03	Si
SLV 8	ini.	-1184.46	-2595	-0.0005233	0.0002807	0.0035	1.03		3894.56	3894.56		3.29	Si
SLV 8	fin.	1312.68	1204	-0.0005941	0.0002807	0.0035	1.03		3887.91	3887.91		2.96	Si
SLV 4	ini.	-1244.98	-2722	-0.0005559	0.0002807	0.0035	1.03		3894.56	3894.56		3.13	Si
SLV 4	fin.	1377.5	1264	-0.0006305	0.0002807	0.0035	1.03		3887.91	3887.91		2.82	Si
SLV 1	ini.	-899.39	-2057	-0.0003781	0.0002807	0.0035	1.03		3894.56	3894.56		4.33	Si
SLV 1	fin.	929.41	759	-0.0003935	0.0002807	0.0035	1.03		3887.91	3887.91		4.18	Si
SLV 11	ini.	-777.5	-1802	-0.0003202	0.0002807	0.0035	1.03		3894.56	3894.56		5.01	Si
SLV 11	fin.	796.92	633	-0.0003299	0.0002807	0.0035	1.03		3887.91	3887.91		4.88	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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.	-777.5	3752	1.03	0	672	7930	6940	2627	8601		2.29	Si
SLV 11	fin.	796.92	2177	1.03	0	672	7930	6940	2627	8601		3.95	Si
SLV 3	ini.	-1119.91	4932	1.03	0	672	7930	6940	2627	8601		1.74	Si
SLV 3	fin.	1218.11	3426	1.03	0	672	7930	6940	2627	8601		2.51	Si
SLV 4	ini.	-1244.98	5428	1.03	0	672	7930	6940	2627	8601		1.58	Si
SLV 4	fin.	1377.5	3921	1.03	0	672	7930	6940	2627	8601		2.19	Si
SLV 8	ini.	-1184.46	5322	1.03	0	672	7930	6940	2627	8601		1.62	Si
SLV 8	fin.	1312.68	3751	1.03	0	672	7930	6940	2627	8601		2.29	Si
SLV 16	ini.	-327.49	1933	1.03	0	672	7930	6940	2627	8601		4.45	Si
SLV 16	fin.	217.86	416	1.03	0	672	7930	6940	2627	8601		20.66	Si



Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 12	ini.	-909.22	4274	1.03	0	672	7930	6940	2627	8601		2.01	Si
SLV 12	fin.	964.79	2700	1.03	0	672	7930	6940	2627	8601		3.19	Si
SLV 7	ini.	-1052.75	4800	1.03	0	672	7930	6940	2627	8601		1.79	Si
SLV 7	fin.	1144.81	3229	1.03	0	672	7930	6940	2627	8601		2.66	Si
SLV 2	ini.	-1024.46	4481	1.03	0	672	7930	6940	2627	8601		1.92	Si
SLV 2	fin.	1088.8	3027	1.03	0	672	7930	6940	2627	8601		2.84	Si
SLV 6	ini.	-449.38	2167	1.03	0	672	7930	6940	2627	8601		3.97	Si
SLV 6	fin.	350.35	770	1.03	0	672	7930	6940	2627	8601		11.16	Si
SLV 1	ini.	-899.39	3985	1.03	0	672	7930	6940	2627	8601		2.16	Si
SLV 1	fin.	929.41	2531	1.03	0	672	7930	6940	2627	8601		3.4	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.822	SLV 4	Si
V_SLV	1.585	SLV 4	Si
PF_SLU	3.876	SLU 82	Si
V_SLU	1.456	SLU 82	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
-23.182	-17.999	1.69	2.69	1	-22.182	-17.999	1.69	2.69	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 solo su un lato_Corti

fb_	fthk	fvk0	fthmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,conv	e,fd	yF,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 FRM in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 76	ini.	678.22	-2252	-0.0003065	0.0001872	0.0035	1		3643.26	3643.26	No	5.37	Si
SLU 76	fin.	-240.98	175	-0.0000989	0.0001872	0.0035	1		3649.64	3649.64	No	15.14	Si
SLU 31	ini.	646.87	-2088	-0.0002902	0.0001872	0.0035	1		3643.26	3643.26	No	5.63	Si
SLU 31	fin.	-258.92	286	-0.0001066	0.0001872	0.0035	1		3649.64	3649.64	No	14.1	Si
SLU 82	ini.	721.65	-2381	-0.0003295	0.0001872	0.0035	1		3643.26	3643.26	No	5.05	Si
SLU 82	fin.	-281.7	279	-0.0001165	0.0001872	0.0035	1		3649.64	3649.64	No	12.96	Si
SLU 40	ini.	690.3	-2217	-0.0003129	0.0001872	0.0035	1		3643.26	3643.26	No	5.28	Si
SLU 40	fin.	-299.63	390	-0.0001243	0.0001872	0.0035	1		3649.64	3649.64	No	12.18	Si
SLU 34	ini.	646.87	-2088	-0.0002902	0.0001872	0.0035	1		3643.26	3643.26	No	5.63	Si
SLU 34	fin.	-258.92	286	-0.0001066	0.0001872	0.0035	1		3649.64	3649.64	No	14.1	Si
SLU 83	ini.	657.88	-2210	-0.0002959	0.0001872	0.0035	1		3643.26	3643.26	No	5.54	Si
SLU 83	fin.	-257.64	246	-0.000106	0.0001872	0.0035	1		3649.64	3649.64	No	14.17	Si
SLU 81	ini.	657.88	-2210	-0.0002959	0.0001872	0.0035	1		3643.26	3643.26	No	5.54	Si
SLU 81	fin.	-257.64	246	-0.000106	0.0001872	0.0035	1		3649.64	3649.64	No	14.17	Si
SLU 73	ini.	678.22	-2252	-0.0003065	0.0001872	0.0035	1		3643.26	3643.26	No	5.37	Si
SLU 73	fin.	-240.98	175	-0.0000989	0.0001872	0.0035	1		3649.64	3649.64	No	15.14	Si
SLU 84	ini.	721.65	-2381	-0.0003295	0.0001872	0.0035	1		3643.26	3643.26	No	5.05	Si
SLU 84	fin.	-281.7	279	-0.0001165	0.0001872	0.0035	1		3649.64	3649.64	No	12.96	Si
SLU 42	ini.	690.3	-2217	-0.0003129	0.0001872	0.0035	1		3643.26	3643.26	No	5.28	Si
SLU 42	fin.	-299.63	390	-0.0001243	0.0001872	0.0035	1		3649.64	3649.64	No	12.18	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 31	ini.	646.87	-1713	1	0	435	7930	4492	2550	7042	No	4.11	Si
SLU 31	fin.	-258.92	-2293	1	0	435	7930	4492	2550	7042	No	3.07	Si
SLU 40	ini.	690.3	-2003	1	0	435	7930	4492	2550	7042	No	3.52	Si
SLU 40	fin.	-299.63	-2349	1	0	435	7930	4492	2550	7042	No	3	Si
SLU 73	ini.	678.22	-1721	1	0	435	7930	4492	2550	7042	No	4.09	Si
SLU 73	fin.	-240.98	-2344	1	0	435	7930	4492	2550	7042	No	3	Si
SLU 84	ini.	721.65	-2012	1	0	435	7930	4492	2550	7042	No	3.5	Si
SLU 84	fin.	-281.7	-2400	1	0	435	7930	4492	2550	7042	No	2.93	Si
SLU 42	ini.	690.3	-2003	1	0	435	7930	4492	2550	7042	No	3.52	Si



Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 42	fin.	-299.63	-2349	1	0	435	7930	4492	2550	7042	No	3	Si
SLU 76	ini.	678.22	-1721	1	0	435	7930	4492	2550	7042	No	4.09	Si
SLU 76	fin.	-240.98	-2344	1	0	435	7930	4492	2550	7042	No	3	Si
SLU 34	ini.	646.87	-1713	1	0	435	7930	4492	2550	7042	No	4.11	Si
SLU 34	fin.	-258.92	-2293	1	0	435	7930	4492	2550	7042	No	3.07	Si
SLU 82	ini.	721.65	-2012	1	0	435	7930	4492	2550	7042	No	3.5	Si
SLU 82	fin.	-281.7	-2400	1	0	435	7930	4492	2550	7042	No	2.93	Si
SLU 75	ini.	635.7	-1681	1	0	435	7930	4492	2550	7042	No	4.19	Si
SLU 75	fin.	-224.94	-2106	1	0	435	7930	4492	2550	7042	No	3.34	Si
SLU 80	ini.	635.7	-1681	1	0	435	7930	4492	2550	7042	No	4.19	Si
SLU 80	fin.	-224.94	-2106	1	0	435	7930	4492	2550	7042	No	3.34	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 14	ini.	530.22	-1655	-0.0002243	0.0002807	0.0035	1		3664.83	3664.83		6.91	Si
SLV 14	fin.	-309.53	557	-0.0001268	0.0002807	0.0035	1		3671.29	3671.29		11.86	Si
SLV 6	ini.	-408.14	462	-0.0001694	0.0002807	0.0035	1		3671.29	3671.29		9	Si
SLV 6	fin.	370.87	-1072	-0.0001534	0.0002807	0.0035	1		3664.83	3664.83		9.88	Si
SLV 12	ini.	909.27	-2470	-0.0004103	0.0002807	0.0035	1		3664.83	3664.83		4.03	Si
SLV 12	fin.	-412.91	645	-0.0001715	0.0002807	0.0035	1		3671.29	3671.29		8.89	Si
SLV 13	ini.	659.84	-1966	-0.0002849	0.0002807	0.0035	1		3664.83	3664.83		5.55	Si
SLV 13	fin.	-413	808	-0.0001715	0.0002807	0.0035	1		3671.29	3671.29		8.89	Si
SLV 15	ini.	976.82	-2667	-0.0004464	0.0002807	0.0035	1		3664.83	3664.83		3.75	Si
SLV 15	fin.	-581.53	1155	-0.0002475	0.0002807	0.0035	1		3671.29	3671.29		6.31	Si
SLV 2	ini.	-339.18	332	-0.0001394	0.0002807	0.0035	1		3671.29	3671.29		10.82	Si
SLV 2	fin.	430.51	-1317	-0.0001795	0.0002807	0.0035	1		3664.83	3664.83		8.51	Si
SLV 8	ini.	648.45	-1874	-0.0002795	0.0002807	0.0035	1		3664.83	3664.83		5.65	Si
SLV 8	fin.	-190.9	83	-0.000077	0.0002807	0.0035	1		3671.29	3671.29		19.23	Si
SLV 7	ini.	784.96	-2201	-0.0003463	0.0002807	0.0035	1		3664.83	3664.83		4.67	Si
SLV 7	fin.	-299.87	348	-0.0001226	0.0002807	0.0035	1		3671.29	3671.29		12.24	Si
SLV 16	ini.	847.2	-2356	-0.000378	0.0002807	0.0035	1		3664.83	3664.83		4.33	Si
SLV 16	fin.	-478.06	904	-0.0002003	0.0002807	0.0035	1		3671.29	3671.29		7.68	Si
SLV 11	ini.	1045.78	-2797	-0.000484	0.0002807	0.0035	1		3664.83	3664.83		3.5	Si
SLV 11	fin.	-521.88	910	-0.0002201	0.0002807	0.0035	1		3671.29	3671.29		7.03	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC 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.	648.45	-1223	1	0	652	7930	6738	2550	8582		7.02	Si
SLV 8	fin.	-190.9	-2633	1	0	652	7930	6738	2550	8582		3.26	Si
SLV 14	ini.	530.22	-2020	1	0	652	7930	6738	2550	8582		4.25	Si
SLV 14	fin.	-309.53	-1655	1	0	652	7930	6738	2550	8582		5.19	Si
SLV 12	ini.	909.27	-2341	1	0	652	7930	6738	2550	8582		3.67	Si
SLV 12	fin.	-412.91	-3659	1	0	652	7930	6738	2550	8582		2.35	Si
SLV 5	ini.	-271.63	760	1	0	652	7930	6738	2550	8582		11.29	Si
SLV 5	fin.	261.9	1805	1	0	652	7930	6738	2550	8582		4.75	Si
SLV 13	ini.	659.84	-2530	1	0	652	7930	6738	2550	8582		3.39	Si
SLV 13	fin.	-413	-2135	1	0	652	7930	6738	2550	8582		4.02	Si
SLV 11	ini.	1045.78	-2877	1	0	652	7930	6738	2550	8582		2.98	Si
SLV 11	fin.	-521.88	-4164	1	0	652	7930	6738	2550	8582		2.06	Si
SLV 15	ini.	976.82	-3286	1	0	652	7930	6738	2550	8582		2.61	Si
SLV 15	fin.	-581.53	-3618	1	0	652	7930	6738	2550	8582		2.37	Si
SLV 7	ini.	784.96	-1760	1	0	652	7930	6738	2550	8582		4.88	Si
SLV 7	fin.	-299.87	-3138	1	0	652	7930	6738	2550	8582		2.73	Si
SLV 16	ini.	847.2	-2776	1	0	652	7930	6738	2550	8582		3.09	Si
SLV 16	fin.	-478.06	-3138	1	0	652	7930	6738	2550	8582		2.73	Si
SLV 6	ini.	-408.14	1297	1	0	652	7930	6738	2550	8582		6.62	Si
SLV 6	fin.	370.87	2311	1	0	652	7930	6738	2550	8582		3.71	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.504	SLV 11	Si
V_SLV	2.061	SLV 11	Si
PF_SLU	5.049	SLU 82	Si
V_SLU	2.934	SLU 82	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
-23.182	-17.999	4.59	5.62	1.03	-22.182	-17.999	4.59	5.62	1.03	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 solo su un lato_Corti

fb_	fhk	fvk0	fvmedio	t0	fv0	μ	φ	fvk_lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCC

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



Rinforzo a matrice inorganica

									elim,conv / ϵ_c CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	ϵ_s ,fd	γ_f ,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 FRCC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 34	ini.	376.73	774	-0.0001493	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.22	Si
SLU 34	fin.	-292.28	-1100	-0.0001139	0.0001872	0.0035	1.03		3855.92	3855.92	No	13.19	Si
SLU 84	ini.	408.02	813	-0.0001627	0.0001872	0.0035	1.03		3849.31	3849.31	No	9.43	Si
SLU 84	fin.	-299.74	-1169	-0.000117	0.0001872	0.0035	1.03		3855.92	3855.92	No	12.86	Si
SLU 82	ini.	408.02	813	-0.0001627	0.0001872	0.0035	1.03		3849.31	3849.31	No	9.43	Si
SLU 82	fin.	-299.74	-1169	-0.000117	0.0001872	0.0035	1.03		3855.92	3855.92	No	12.86	Si
SLU 40	ini.	410.64	823	-0.0001638	0.0001872	0.0035	1.03		3849.31	3849.31	No	9.37	Si
SLU 40	fin.	-295.75	-1143	-0.0001153	0.0001872	0.0035	1.03		3855.92	3855.92	No	13.04	Si
SLU 42	ini.	410.64	823	-0.0001638	0.0001872	0.0035	1.03		3849.31	3849.31	No	9.37	Si
SLU 42	fin.	-295.75	-1143	-0.0001153	0.0001872	0.0035	1.03		3855.92	3855.92	No	13.04	Si
SLU 39	ini.	367.49	712	-0.0001454	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.47	Si
SLU 39	fin.	-245.27	-987	-0.0000948	0.0001872	0.0035	1.03		3855.92	3855.92	No	15.72	Si
SLU 31	ini.	376.73	774	-0.0001493	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.22	Si
SLU 31	fin.	-292.28	-1100	-0.0001139	0.0001872	0.0035	1.03		3855.92	3855.92	No	13.19	Si
SLU 73	ini.	374.11	764	-0.0001482	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.29	Si
SLU 73	fin.	-296.27	-1126	-0.0001156	0.0001872	0.0035	1.03		3855.92	3855.92	No	13.01	Si
SLU 76	ini.	374.11	764	-0.0001482	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.29	Si
SLU 76	fin.	-296.27	-1126	-0.0001156	0.0001872	0.0035	1.03		3855.92	3855.92	No	13.01	Si
SLU 41	ini.	367.49	712	-0.0001454	0.0001872	0.0035	1.03		3849.31	3849.31	No	10.47	Si
SLU 41	fin.	-245.27	-987	-0.0000948	0.0001872	0.0035	1.03		3855.92	3855.92	No	15.72	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 40	ini.	410.64	-4	1.03	0	448	7930	4626	2627	7253	No	1876.35	Si
SLU 40	fin.	-295.75	-3682	1.03	0	448	7930	4626	2627	7253	No	1.97	Si
SLU 82	ini.	408.02	81	1.03	0	448	7930	4626	2627	7253	No	89.13	Si
SLU 82	fin.	-299.74	-3796	1.03	0	448	7930	4626	2627	7253	No	1.91	Si
SLU 73	ini.	374.11	-73	1.03	0	448	7930	4626	2627	7253	No	98.85	Si
SLU 73	fin.	-296.27	-3435	1.03	0	448	7930	4626	2627	7253	No	2.11	Si
SLU 84	ini.	408.02	81	1.03	0	448	7930	4626	2627	7253	No	89.13	Si
SLU 84	fin.	-299.74	-3796	1.03	0	448	7930	4626	2627	7253	No	1.91	Si
SLU 76	ini.	374.11	-73	1.03	0	448	7930	4626	2627	7253	No	98.85	Si
SLU 76	fin.	-296.27	-3435	1.03	0	448	7930	4626	2627	7253	No	2.11	Si
SLU 39	ini.	367.49	227	1.03	0	448	7930	4626	2627	7253	No	31.94	Si
SLU 39	fin.	-245.27	-3451	1.03	0	448	7930	4626	2627	7253	No	2.1	Si
SLU 42	ini.	410.64	-4	1.03	0	448	7930	4626	2627	7253	No	1876.35	Si
SLU 42	fin.	-295.75	-3682	1.03	0	448	7930	4626	2627	7253	No	1.97	Si
SLU 81	ini.	364.87	312	1.03	0	448	7930	4626	2627	7253	No	23.22	Si
SLU 81	fin.	-249.25	-3565	1.03	0	448	7930	4626	2627	7253	No	2.03	Si
SLU 41	ini.	367.49	227	1.03	0	448	7930	4626	2627	7253	No	31.94	Si
SLU 41	fin.	-245.27	-3451	1.03	0	448	7930	4626	2627	7253	No	2.1	Si
SLU 83	ini.	364.87	312	1.03	0	448	7930	4626	2627	7253	No	23.22	Si
SLU 83	fin.	-249.25	-3565	1.03	0	448	7930	4626	2627	7253	No	2.03	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 15	ini.	656.89	1638	-0.0002659	0.0002807	0.0035	1.03		3887.91	3887.91		5.92	Si
SLV 15	fin.	-505.62	-1451	-0.0002	0.0002807	0.0035	1.03		3894.56	3894.56		7.7	Si
SLV 2	ini.	-367.73	-1092	-0.0001428	0.0002807	0.0035	1.03		3894.56	3894.56		10.59	Si
SLV 2	fin.	285.24	535	-0.0001099	0.0002807	0.0035	1.03		3887.91	3887.91		13.63	Si
SLV 13	ini.	447.22	1076	-0.0001758	0.0002807	0.0035	1.03		3887.91	3887.91		8.69	Si
SLV 13	fin.	-307.84	-871	-0.0001187	0.0002807	0.0035	1.03		3894.56	3894.56		12.65	Si
SLV 16	ini.	535.94	1315	-0.0002132	0.0002807	0.0035	1.03		3887.91	3887.91		7.25	Si
SLV 16	fin.	-411.44	-1191	-0.0001607	0.0002807	0.0035	1.03		3894.56	3894.56		9.47	Si
SLV 11	ini.	661.83	1657	-0.0002681	0.0002807	0.0035	1.03		3887.91	3887.91		5.87	Si
SLV 11	fin.	-564.25	-1732	-0.000225	0.0002807	0.0035	1.03		3894.56	3894.56		6.9	Si
SLV 6	ini.	-372.67	-1111	-0.0001448	0.0002807	0.0035	1.03		3894.56	3894.56		10.45	Si
SLV 6	fin.	343.86	817	-0.0001334	0.0002807	0.0035	1.03		3887.91	3887.91		11.31	Si
SLV 12	ini.	534.44	1317	-0.0002126	0.0002807	0.0035	1.03		3887.91	3887.91		7.27	Si
SLV 12	fin.	-465.06	-1459	-0.0001829	0.0002807	0.0035	1.03		3894.56	3894.56		8.37	Si
SLV 8	ini.	326.24	764	-0.0001263	0.0002807	0.0035	1.03		3887.91	3887.91		11.92	Si
SLV 8	fin.	-315.39	-1115	-0.0001217	0.0002807	0.0035	1.03		3894.56	3894.56		12.35	Si
SLV 7	ini.	453.63	1104	-0.0001784	0.0002807	0.0035	1.03		3887.91	3887.91		8.57	Si
SLV 7	fin.	-414.58	-1388	-0.000162	0.0002807	0.0035	1.03		3894.56	3894.56		9.39	Si
SLV 14	ini.	326.27	753	-0.0001263	0.0002807	0.0035	1.03		3887.91	3887.91		11.92	Si
SLV 14	fin.	-213.66	-612	-0.0000815	0.0002807	0.0035	1.03		3894.56	3894.56		18.23	Si



Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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.	453.63	-1298	1.03	0	672	7930	6940	2627	8601		6.62	Si
SLV 7	fin.	-414.58	-3167	1.03	0	672	7930	6940	2627	8601		2.72	Si
SLV 16	ini.	535.94	-1264	1.03	0	672	7930	6940	2627	8601		6.81	Si
SLV 16	fin.	-411.44	-3135	1.03	0	672	7930	6940	2627	8601		2.74	Si
SLV 8	ini.	326.24	-756	1.03	0	672	7930	6940	2627	8601		11.38	Si
SLV 8	fin.	-315.39	-2625	1.03	0	672	7930	6940	2627	8601		3.28	Si
SLV 13	ini.	447.22	-787	1.03	0	672	7930	6940	2627	8601		10.93	Si
SLV 13	fin.	-307.84	-2659	1.03	0	672	7930	6940	2627	8601		3.24	Si
SLV 12	ini.	534.44	-1518	1.03	0	672	7930	6940	2627	8601		5.67	Si
SLV 12	fin.	-465.06	-3387	1.03	0	672	7930	6940	2627	8601		2.54	Si
SLV 15	ini.	656.89	-1779	1.03	0	672	7930	6940	2627	8601		4.84	Si
SLV 15	fin.	-505.62	-3650	1.03	0	672	7930	6940	2627	8601		2.36	Si
SLV 2	ini.	-367.73	2268	1.03	0	672	7930	6940	2627	8601		3.79	Si
SLV 2	fin.	285.24	398	1.03	0	672	7930	6940	2627	8601		21.59	Si
SLV 11	ini.	661.83	-2061	1.03	0	672	7930	6940	2627	8601		4.17	Si
SLV 11	fin.	-564.25	-3930	1.03	0	672	7930	6940	2627	8601		2.19	Si
SLV 6	ini.	-372.67	2550	1.03	0	672	7930	6940	2627	8601		3.37	Si
SLV 6	fin.	343.86	678	1.03	0	672	7930	6940	2627	8601		12.68	Si
SLV 14	ini.	326.27	-272	1.03	0	672	7930	6940	2627	8601		31.66	Si
SLV 14	fin.	-213.66	-2144	1.03	0	672	7930	6940	2627	8601		4.01	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	5.875	SLV 11	Si
V_SLV	2.189	SLV 11	Si
PF_SLU	9.374	SLU 40	Si
V_SLU	1.911	SLU 82	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
-34.307	-9.039	4.69	5.62	0.93	-32.907	-9.039	4.69	5.62	0.93	1.4	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 solo su un lato_Corti

fb	f _{nk}	f _{vk0}	f _{medio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRMC

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α _t	α	elim,conv	ε _{f,d}	γ _{f,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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _{m_}	ε _{mu}	df	M _{0d}	M _{1d}	M _{Rd}	incremento > 50%	c.s.	Verifica
SLU 81	ini.	-27.49	277	-0.0000126	0.0001872	0.0035	0.93		3158.65	3158.65	No	114.92	Si
SLU 81	fin.	48.1	-137	-0.0000222	0.0001872	0.0035	0.93		3152.75	3152.75	No	65.55	Si
SLU 35	ini.	-26.55	214	-0.0000122	0.0001872	0.0035	0.93		3158.65	3158.65	No	118.97	Si
SLU 35	fin.	43.99	-98	-0.0000203	0.0001872	0.0035	0.93		3152.75	3152.75	No	71.66	Si
SLU 39	ini.	-35.69	232	-0.0000164	0.0001872	0.0035	0.93		3158.65	3158.65	No	88.5	Si
SLU 39	fin.	60.59	-98	-0.000028	0.0001872	0.0035	0.93		3152.75	3152.75	No	52.03	Si
SLU 37	ini.	-26.55	214	-0.0000122	0.0001872	0.0035	0.93		3158.65	3158.65	No	118.97	Si
SLU 37	fin.	43.99	-98	-0.0000203	0.0001872	0.0035	0.93		3152.75	3152.75	No	71.66	Si
SLU 82	ini.	-24.5	285	-0.0000112	0.0001872	0.0035	0.93		3158.65	3158.65	No	128.95	Si
SLU 82	fin.	45.18	-149	-0.0000208	0.0001872	0.0035	0.93		3152.75	3152.75	No	69.79	Si
SLU 42	ini.	-32.7	240	-0.000015	0.0001872	0.0035	0.93		3158.65	3158.65	No	96.59	Si
SLU 42	fin.	57.67	-109	-0.0000266	0.0001872	0.0035	0.93		3152.75	3152.75	No	54.67	Si
SLU 83	ini.	-27.49	277	-0.0000126	0.0001872	0.0035	0.93		3158.65	3158.65	No	114.92	Si
SLU 83	fin.	48.1	-137	-0.0000222	0.0001872	0.0035	0.93		3152.75	3152.75	No	65.55	Si
SLU 40	ini.	-32.7	240	-0.000015	0.0001872	0.0035	0.93		3158.65	3158.65	No	96.59	Si
SLU 40	fin.	57.67	-109	-0.0000266	0.0001872	0.0035	0.93		3152.75	3152.75	No	54.67	Si
SLU 41	ini.	-35.69	232	-0.0000164	0.0001872	0.0035	0.93		3158.65	3158.65	No	88.5	Si
SLU 41	fin.	60.59	-98	-0.000028	0.0001872	0.0035	0.93		3152.75	3152.75	No	52.03	Si
SLU 84	ini.	-24.5	285	-0.0000112	0.0001872	0.0035	0.93		3158.65	3158.65	No	128.95	Si
SLU 84	fin.	45.18	-149	-0.0000208	0.0001872	0.0035	0.93		3152.75	3152.75	No	69.79	Si



Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 83	ini.	-27.49	2272	0.93	0	270	7375	4177	2372	6549	No	2.88	Si
SLU 83	fin.	48.1	-2814	0.93	0	270	7375	4177	2372	6549	No	2.33	Si
SLU 39	ini.	-35.69	2191	0.93	0	270	7375	4177	2372	6549	No	2.99	Si
SLU 39	fin.	60.59	-2634	0.93	0	270	7375	4177	2372	6549	No	2.49	Si
SLU 42	ini.	-32.7	2180	0.93	0	270	7375	4177	2372	6549	No	3	Si
SLU 42	fin.	57.67	-2645	0.93	0	270	7375	4177	2372	6549	No	2.48	Si
SLU 41	ini.	-35.69	2191	0.93	0	270	7375	4177	2372	6549	No	2.99	Si
SLU 41	fin.	60.59	-2634	0.93	0	270	7375	4177	2372	6549	No	2.49	Si
SLU 40	ini.	-32.7	2180	0.93	0	270	7375	4177	2372	6549	No	3	Si
SLU 40	fin.	57.67	-2645	0.93	0	270	7375	4177	2372	6549	No	2.48	Si
SLU 82	ini.	-24.5	2261	0.93	0	270	7375	4177	2372	6549	No	2.9	Si
SLU 82	fin.	45.18	-2825	0.93	0	270	7375	4177	2372	6549	No	2.32	Si
SLU 81	ini.	-27.49	2272	0.93	0	270	7375	4177	2372	6549	No	2.88	Si
SLU 81	fin.	48.1	-2814	0.93	0	270	7375	4177	2372	6549	No	2.33	Si
SLU 76	ini.	-13.36	1930	0.93	0	270	7375	4177	2372	6549	No	3.39	Si
SLU 76	fin.	26.63	-2479	0.93	0	270	7375	4177	2372	6549	No	2.64	Si
SLU 84	ini.	-24.5	2261	0.93	0	270	7375	4177	2372	6549	No	2.9	Si
SLU 84	fin.	45.18	-2825	0.93	0	270	7375	4177	2372	6549	No	2.32	Si
SLU 73	ini.	-13.36	1930	0.93	0	270	7375	4177	2372	6549	No	3.39	Si
SLU 73	fin.	26.63	-2479	0.93	0	270	7375	4177	2372	6549	No	2.64	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 15	ini.	247.99	720	-0.0001173	0.0002807	0.0035	0.93		3164.34	3164.34		12.76	Si
SLV 15	fin.	-410.73	-1561	-0.000199	0.0002807	0.0035	0.93		3170.33	3170.33		7.72	Si
SLV 12	ini.	374.87	1142	-0.0001809	0.0002807	0.0035	0.93		3164.34	3164.34		8.44	Si
SLV 12	fin.	-472.04	-1856	-0.0002311	0.0002807	0.0035	0.93		3170.33	3170.33		6.72	Si
SLV 1	ini.	-361.13	-646	-0.0001735	0.0002807	0.0035	0.93		3170.33	3170.33		8.78	Si
SLV 1	fin.	553.43	1839	-0.0002755	0.0002807	0.0035	0.93		3164.34	3164.34		5.72	Si
SLV 6	ini.	-257.59	-497	-0.0001218	0.0002807	0.0035	0.93		3170.33	3170.33		12.31	Si
SLV 6	fin.	324.6	1111	-0.0001554	0.0002807	0.0035	0.93		3164.34	3164.34		9.75	Si
SLV 16	ini.	360.21	998	-0.0001734	0.0002807	0.0035	0.93		3164.34	3164.34		8.78	Si
SLV 16	fin.	-552.04	-2059	-0.0002742	0.0002807	0.0035	0.93		3170.33	3170.33		5.74	Si
SLV 3	ini.	-212.87	-241	-0.0001	0.0002807	0.0035	0.93		3170.33	3170.33		14.89	Si
SLV 3	fin.	386.16	1197	-0.0001867	0.0002807	0.0035	0.93		3164.34	3164.34		8.19	Si
SLV 2	ini.	-248.91	-368	-0.0001176	0.0002807	0.0035	0.93		3170.33	3170.33		12.74	Si
SLV 2	fin.	412.12	1341	-0.0002001	0.0002807	0.0035	0.93		3164.34	3164.34		7.68	Si
SLV 14	ini.	211.95	593	-0.0000997	0.0002807	0.0035	0.93		3164.34	3164.34		14.93	Si
SLV 14	fin.	-384.77	-1418	-0.0001856	0.0002807	0.0035	0.93		3170.33	3170.33		8.24	Si
SLV 11	ini.	256.68	849	-0.0001216	0.0002807	0.0035	0.93		3164.34	3164.34		12.33	Si
SLV 11	fin.	-323.21	-1331	-0.0001544	0.0002807	0.0035	0.93		3170.33	3170.33		9.81	Si
SLV 5	ini.	-375.78	-790	-0.000181	0.0002807	0.0035	0.93		3170.33	3170.33		8.44	Si
SLV 5	fin.	473.43	1635	-0.0002323	0.0002807	0.0035	0.93		3164.34	3164.34		6.68	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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 5	ini.	-375.78	2507	0.93	0	404	7375	6266	2372	7779		3.1	Si
SLV 5	fin.	473.43	65	0.93	0	404	7375	6266	2372	7779		118.83	Si
SLV 2	ini.	-248.91	2043	0.93	0	404	7375	6266	2372	7779		3.81	Si
SLV 2	fin.	412.12	-382	0.93	0	404	7375	6266	2372	7779		20.37	Si
SLV 6	ini.	-257.59	2045	0.93	0	404	7375	6266	2372	7779		3.8	Si
SLV 6	fin.	324.6	-397	0.93	0	404	7375	6266	2372	7779		19.6	Si
SLV 14	ini.	211.95	182	0.93	0	404	7375	6266	2372	7779		42.79	Si
SLV 14	fin.	-384.77	-2299	0.93	0	404	7375	6266	2372	7779		3.38	Si
SLV 8	ini.	236.61	145	0.93	0	404	7375	6266	2372	7779		53.8	Si
SLV 8	fin.	-232.97	-2304	0.93	0	404	7375	6266	2372	7779		3.38	Si
SLV 15	ini.	247.99	51	0.93	0	404	7375	6266	2372	7779		153.35	Si
SLV 15	fin.	-410.73	-2432	0.93	0	404	7375	6266	2372	7779		3.2	Si
SLV 11	ini.	256.68	49	0.93	0	404	7375	6266	2372	7779		159.91	Si
SLV 11	fin.	-323.21	-2417	0.93	0	404	7375	6266	2372	7779		3.22	Si
SLV 1	ini.	-361.13	2482	0.93	0	404	7375	6266	2372	7779		3.13	Si
SLV 1	fin.	553.43	57	0.93	0	404	7375	6266	2372	7779		136.16	Si
SLV 12	ini.	374.87	-414	0.93	0	404	7375	6266	2372	7779		18.8	Si
SLV 12	fin.	-472.04	-2879	0.93	0	404	7375	6266	2372	7779		2.7	Si
SLV 16	ini.	360.21	-388	0.93	0	404	7375	6266	2372	7779		20.03	Si
SLV 16	fin.	-552.04	-2871	0.93	0	404	7375	6266	2372	7779		2.71	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	5.718	SLV 1	Si
V_SLV	2.702	SLV 12	Si
PF_SLU	52.033	SLU 39	Si
V_SLU	2.318	SLU 82	Si

Trave di accoppiamento 22

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
-31.937	-9.039	1.69	3.69	2	-31.437	-9.039	1.69	3.69	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 solo su un lato_Corti

f _b	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	e _u	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,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	α _t	α	elim,conv	ε _{f,d}	γ _{f,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 FRM in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _{m_}	ε _{mu}	df	M _{0d}	M _{1d}	M _{Rd}	incremento > 50%	c.s.	Verifica
SLU 73	ini.	182.16	-1915	-0.0000181	0.0001872	0.0035	2		14206.68	14206.68	No	77.99	Si
SLU 73	fin.	-575.85	-1922	-0.0000582	0.0001872	0.0035	2		14219.44	14219.44	No	24.69	Si
SLU 82	ini.	184.37	-2106	-0.0000184	0.0001872	0.0035	2		14206.68	14206.68	No	77.06	Si
SLU 82	fin.	-616.97	-2120	-0.0000625	0.0001872	0.0035	2		14219.44	14219.44	No	23.05	Si
SLU 75	ini.	180.31	-1914	-0.000018	0.0001872	0.0035	2		14206.68	14206.68	No	78.79	Si
SLU 75	fin.	-575.54	-1922	-0.0000582	0.0001872	0.0035	2		14219.44	14219.44	No	24.71	Si
SLU 80	ini.	180.31	-1914	-0.000018	0.0001872	0.0035	2		14206.68	14206.68	No	78.79	Si
SLU 80	fin.	-575.54	-1922	-0.0000582	0.0001872	0.0035	2		14219.44	14219.44	No	24.71	Si
SLU 83	ini.	181.59	-2105	-0.0000181	0.0001872	0.0035	2		14206.68	14206.68	No	78.23	Si
SLU 83	fin.	-616.5	-2120	-0.0000624	0.0001872	0.0035	2		14219.44	14219.44	No	23.06	Si
SLU 76	ini.	182.16	-1915	-0.0000181	0.0001872	0.0035	2		14206.68	14206.68	No	77.99	Si
SLU 76	fin.	-575.85	-1922	-0.0000582	0.0001872	0.0035	2		14219.44	14219.44	No	24.69	Si
SLU 84	ini.	184.37	-2106	-0.0000184	0.0001872	0.0035	2		14206.68	14206.68	No	77.06	Si
SLU 84	fin.	-616.97	-2120	-0.0000625	0.0001872	0.0035	2		14219.44	14219.44	No	23.05	Si
SLU 79	ini.	177.54	-1913	-0.0000177	0.0001872	0.0035	2		14206.68	14206.68	No	80.02	Si
SLU 79	fin.	-575.08	-1922	-0.0000581	0.0001872	0.0035	2		14219.44	14219.44	No	24.73	Si
SLU 81	ini.	181.59	-2105	-0.0000181	0.0001872	0.0035	2		14206.68	14206.68	No	78.23	Si
SLU 81	fin.	-616.5	-2120	-0.0000624	0.0001872	0.0035	2		14219.44	14219.44	No	23.06	Si
SLU 78	ini.	180.31	-1914	-0.000018	0.0001872	0.0035	2		14206.68	14206.68	No	78.79	Si
SLU 78	fin.	-575.54	-1922	-0.0000582	0.0001872	0.0035	2		14219.44	14219.44	No	24.71	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	f _{vd}	V _t	V _{t,f}	V _{t,c}	V _{t,c int.}	V _{t,R}	incremento > 50%	c.s.	Verifica
SLU 76	ini.	182.16	-1924	2	0	870	3965	8983	5100	4834	No	2.51	Si
SLU 76	fin.	-575.85	-1320	2	0	870	3965	8983	5100	4834	No	3.66	Si
SLU 81	ini.	181.59	-2079	2	0	870	3965	8983	5100	4834	No	2.33	Si
SLU 81	fin.	-616.5	-1318	2	0	870	3965	8983	5100	4834	No	3.67	Si
SLU 78	ini.	180.31	-1916	2	0	870	3965	8983	5100	4834	No	2.52	Si
SLU 78	fin.	-575.54	-1316	2	0	870	3965	8983	5100	4834	No	3.67	Si
SLU 82	ini.	184.37	-2090	2	0	870	3965	8983	5100	4834	No	2.31	Si
SLU 82	fin.	-616.97	-1325	2	0	870	3965	8983	5100	4834	No	3.65	Si
SLU 79	ini.	177.54	-1906	2	0	870	3965	8983	5100	4834	No	2.54	Si
SLU 79	fin.	-575.08	-1308	2	0	870	3965	8983	5100	4834	No	3.7	Si
SLU 73	ini.	182.16	-1924	2	0	870	3965	8983	5100	4834	No	2.51	Si
SLU 73	fin.	-575.85	-1320	2	0	870	3965	8983	5100	4834	No	3.66	Si
SLU 84	ini.	184.37	-2090	2	0	870	3965	8983	5100	4834	No	2.31	Si
SLU 84	fin.	-616.97	-1325	2	0	870	3965	8983	5100	4834	No	3.65	Si
SLU 83	ini.	181.59	-2079	2	0	870	3965	8983	5100	4834	No	2.33	Si
SLU 83	fin.	-616.5	-1318	2	0	870	3965	8983	5100	4834	No	3.67	Si
SLU 75	ini.	180.31	-1916	2	0	870	3965	8983	5100	4834	No	2.52	Si
SLU 75	fin.	-575.54	-1316	2	0	870	3965	8983	5100	4834	No	3.67	Si
SLU 80	ini.	180.31	-1916	2	0	870	3965	8983	5100	4834	No	2.52	Si
SLU 80	fin.	-575.54	-1316	2	0	870	3965	8983	5100	4834	No	3.67	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _{m_}	ε _{mu}	df	M _{0d}	M _{1d}	M _{Rd}	incremento > 50%	c.s.	Verifica
SLV 3	ini.	-611.09	-713	-0.0000615	0.0002807	0.0035	2		13933.43	13933.43		22.8	Si
SLV 3	fin.	160.84	-946	-0.000016	0.0002807	0.0035	2		13920.08	13920.08		86.55	Si
SLV 14	ini.	871.29	-1693	-0.0000884	0.0002807	0.0035	2		13920.08	13920.08		15.98	Si
SLV 14	fin.	-925.76	-1459	-0.000094	0.0002807	0.0035	2		13933.43	13933.43		15.05	Si
SLV 11	ini.	502.67	-1510	-0.0000505	0.0002807	0.0035	2		13920.08	13920.08		27.69	Si
SLV 11	fin.	-535.59	-1374	-0.0000538	0.0002807	0.0035	2		13933.43	13933.43		26.02	Si
SLV 12	ini.	733.34	-1664	-0.0000741	0.0002807	0.0035	2		13920.08	13920.08		18.98	Si
SLV 12	fin.	-680.23	-1450	-0.0000686	0.0002807	0.0035	2		13933.43	13933.43		20.48	Si



Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 2	ini.	-556.32	-716	-0.0000559	0.0002807	0.0035	2		13933.43	13933.43		25.05	Si
SLV 2	fin.	69.22	-940	-0.0000069	0.0002807	0.0035	2		13920.08	13920.08		201.09	Si
SLV 16	ini.	1035.55	-1835	-0.0001056	0.0002807	0.0035	2		13920.08	13920.08		13.44	Si
SLV 16	fin.	-971.48	-1538	-0.0000988	0.0002807	0.0035	2		13933.43	13933.43		14.34	Si
SLV 1	ini.	-775.34	-571	-0.0000784	0.0002807	0.0035	2		13933.43	13933.43		17.97	Si
SLV 1	fin.	206.56	-867	-0.0000206	0.0002807	0.0035	2		13920.08	13920.08		67.39	Si
SLV 13	ini.	652.27	-1547	-0.0000658	0.0002807	0.0035	2		13920.08	13920.08		21.34	Si
SLV 13	fin.	-788.43	-1387	-0.0000797	0.0002807	0.0035	2		13933.43	13933.43		17.67	Si
SLV 10	ini.	185.82	-1189	-0.0000185	0.0002807	0.0035	2		13920.08	13920.08		74.91	Si
SLV 10	fin.	-527.83	-1187	-0.000053	0.0002807	0.0035	2		13933.43	13933.43		26.4	Si
SLV 15	ini.	816.53	-1689	-0.0000827	0.0002807	0.0035	2		13920.08	13920.08		17.05	Si
SLV 15	fin.	-834.15	-1466	-0.0000845	0.0002807	0.0035	2		13933.43	13933.43		16.7	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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.	-775.34	2347	2	0	1304	3965	13475	5100	5269		2.24	Si
SLV 1	fin.	206.56	2850	2	0	1304	3965	13475	5100	5269		1.85	Si
SLV 3	ini.	-611.09	1796	2	0	1304	3965	13475	5100	5269		2.93	Si
SLV 3	fin.	160.84	2376	2	0	1304	3965	13475	5100	5269		2.22	Si
SLV 15	ini.	816.53	-3951	2	0	1304	3965	13475	5100	5269		1.33	Si
SLV 15	fin.	-834.15	-3947	2	0	1304	3965	13475	5100	5269		1.33	Si
SLV 13	ini.	652.27	-3401	2	0	1304	3965	13475	5100	5269		1.55	Si
SLV 13	fin.	-788.43	-3473	2	0	1304	3965	13475	5100	5269		1.52	Si
SLV 2	ini.	-556.32	1510	2	0	1304	3965	13475	5100	5269		3.49	Si
SLV 2	fin.	69.22	1977	2	0	1304	3965	13475	5100	5269		2.66	Si
SLV 11	ini.	502.67	-2560	2	0	1304	3965	13475	5100	5269		2.06	Si
SLV 11	fin.	-535.59	-2264	2	0	1304	3965	13475	5100	5269		2.33	Si
SLV 14	ini.	871.29	-4238	2	0	1304	3965	13475	5100	5269		1.24	Si
SLV 14	fin.	-925.76	-4346	2	0	1304	3965	13475	5100	5269		1.21	Si
SLV 12	ini.	733.34	-3442	2	0	1304	3965	13475	5100	5269		1.53	Si
SLV 12	fin.	-680.23	-3183	2	0	1304	3965	13475	5100	5269		1.66	Si
SLV 16	ini.	1035.55	-4789	2	0	1304	3965	13475	5100	5269		1.1	Si
SLV 16	fin.	-971.48	-4820	2	0	1304	3965	13475	5100	5269		1.09	Si
SLV 8	ini.	305.05	-1718	2	0	1304	3965	13475	5100	5269		3.07	Si
SLV 8	fin.	-381.73	-1286	2	0	1304	3965	13475	5100	5269		4.1	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV		13.442	SLV 16
V_SLV		1.093	SLV 16
PF_SLU		23.047	SLU 82
V_SLU		2.313	SLU 82

Trave di accoppiamento 23

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
-31.937	-9.039	4.49	5.62	1.13	-31.437	-9.039	4.49	5.62	1.13	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 solo su un lato_Corti

fb	fhk	fvk0	fmed	t0	f0	μ	φ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRMC

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

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 83	ini.	241.45	-1	-0.0000772	0.0001872	0.0035	1.13		4619.86	4619.86	No	19.13	Si
SLU 83	fin.	-173.95	-300	-0.000055	0.0001872	0.0035	1.13		4627.19	4627.19	No	26.6	Si
SLU 74	ini.	225.96	35	-0.0000721	0.0001872	0.0035	1.13		4619.86	4619.86	No	20.45	Si
SLU 74	fin.	-161.11	-233	-0.0000509	0.0001872	0.0035	1.13		4627.19	4627.19	No	28.72	Si
SLU 78	ini.	225.08	28	-0.0000718	0.0001872	0.0035	1.13		4619.86	4619.86	No	20.53	Si
SLU 78	fin.	-162.79	-240	-0.0000514	0.0001872	0.0035	1.13		4627.19	4627.19	No	28.42	Si
SLU 82	ini.	240.57	-8	-0.0000769	0.0001872	0.0035	1.13		4619.86	4619.86	No	19.2	Si



Comb.	Sez.	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 82	fin.	-175.64	-307	-0.0000556	0.0001872	0.0035	1.13		4627.19	4627.19	No	26.35	Si
SLU 75	ini.	225.08	28	-0.0000718	0.0001872	0.0035	1.13		4619.86	4619.86	No	20.53	Si
SLU 75	fin.	-162.79	-240	-0.0000514	0.0001872	0.0035	1.13		4627.19	4627.19	No	28.42	Si
SLU 81	ini.	241.45	-1	-0.0000772	0.0001872	0.0035	1.13		4619.86	4619.86	No	19.13	Si
SLU 81	fin.	-173.95	-300	-0.000055	0.0001872	0.0035	1.13		4627.19	4627.19	No	26.6	Si
SLU 77	ini.	225.96	35	-0.0000721	0.0001872	0.0035	1.13		4619.86	4619.86	No	20.45	Si
SLU 77	fin.	-161.11	-233	-0.0000509	0.0001872	0.0035	1.13		4627.19	4627.19	No	28.72	Si
SLU 84	ini.	240.57	-8	-0.0000769	0.0001872	0.0035	1.13		4619.86	4619.86	No	19.2	Si
SLU 84	fin.	-175.64	-307	-0.0000556	0.0001872	0.0035	1.13		4627.19	4627.19	No	26.35	Si
SLU 80	ini.	225.08	28	-0.0000718	0.0001872	0.0035	1.13		4619.86	4619.86	No	20.53	Si
SLU 80	fin.	-162.79	-240	-0.0000514	0.0001872	0.0035	1.13		4627.19	4627.19	No	28.42	Si
SLU 79	ini.	225.96	35	-0.0000721	0.0001872	0.0035	1.13		4619.86	4619.86	No	20.45	Si
SLU 79	fin.	-161.11	-233	-0.0000509	0.0001872	0.0035	1.13		4627.19	4627.19	No	28.72	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 78	ini.	225.08	-358	1.13	0	491	3965	5076	2882	4456	No	12.44	Si
SLU 78	fin.	-162.79	-1600	1.13	0	491	3965	5076	2882	4456	No	2.79	Si
SLU 80	ini.	225.08	-358	1.13	0	491	3965	5076	2882	4456	No	12.44	Si
SLU 80	fin.	-162.79	-1600	1.13	0	491	3965	5076	2882	4456	No	2.79	Si
SLU 79	ini.	225.96	-357	1.13	0	491	3965	5076	2882	4456	No	12.48	Si
SLU 79	fin.	-161.11	-1599	1.13	0	491	3965	5076	2882	4456	No	2.79	Si
SLU 83	ini.	241.45	-337	1.13	0	491	3965	5076	2882	4456	No	13.22	Si
SLU 83	fin.	-173.95	-1748	1.13	0	491	3965	5076	2882	4456	No	2.55	Si
SLU 73	ini.	224.49	-359	1.13	0	491	3965	5076	2882	4456	No	12.41	Si
SLU 73	fin.	-163.92	-1601	1.13	0	491	3965	5076	2882	4456	No	2.78	Si
SLU 75	ini.	225.08	-358	1.13	0	491	3965	5076	2882	4456	No	12.44	Si
SLU 75	fin.	-162.79	-1600	1.13	0	491	3965	5076	2882	4456	No	2.79	Si
SLU 76	ini.	224.49	-359	1.13	0	491	3965	5076	2882	4456	No	12.41	Si
SLU 76	fin.	-163.92	-1601	1.13	0	491	3965	5076	2882	4456	No	2.78	Si
SLU 84	ini.	240.57	-338	1.13	0	491	3965	5076	2882	4456	No	13.18	Si
SLU 84	fin.	-175.64	-1749	1.13	0	491	3965	5076	2882	4456	No	2.55	Si
SLU 81	ini.	241.45	-337	1.13	0	491	3965	5076	2882	4456	No	13.22	Si
SLU 81	fin.	-173.95	-1748	1.13	0	491	3965	5076	2882	4456	No	2.55	Si
SLU 82	ini.	240.57	-338	1.13	0	491	3965	5076	2882	4456	No	13.18	Si
SLU 82	fin.	-175.64	-1749	1.13	0	491	3965	5076	2882	4456	No	2.55	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 16	ini.	279.9	-474	-0.0000891	0.0002807	0.0035	1.13		4690.84	4690.84		16.76	Si
SLV 16	fin.	-384.27	-554	-0.0001234	0.0002807	0.0035	1.13		4698.01	4698.01		12.23	Si
SLV 12	ini.	131.29	-757	-0.0000412	0.0002807	0.0035	1.13		4690.84	4690.84		35.73	Si
SLV 12	fin.	-365.99	-866	-0.0001173	0.0002807	0.0035	1.13		4698.01	4698.01		12.84	Si
SLV 9	ini.	252.02	733	-0.00008	0.0002807	0.0035	1.13		4690.84	4690.84		18.61	Si
SLV 9	fin.	40.22	562	-0.0000125	0.0002807	0.0035	1.13		4690.84	4690.84		116.64	Si
SLV 11	ini.	97.47	-612	-0.0000305	0.0002807	0.0035	1.13		4690.84	4690.84		48.13	Si
SLV 11	fin.	-280.21	-724	-0.000089	0.0002807	0.0035	1.13		4698.01	4698.01		16.77	Si
SLV 10	ini.	285.83	589	-0.000091	0.0002807	0.0035	1.13		4690.84	4690.84		16.41	Si
SLV 10	fin.	-45.56	421	-0.0000142	0.0002807	0.0035	1.13		4698.01	4698.01		103.11	Si
SLV 14	ini.	326.27	-71	-0.0001043	0.0002807	0.0035	1.13		4690.84	4690.84		14.38	Si
SLV 14	fin.	-288.14	-168	-0.0000916	0.0002807	0.0035	1.13		4698.01	4698.01		16.3	Si
SLV 15	ini.	247.79	-337	-0.0000786	0.0002807	0.0035	1.13		4690.84	4690.84		18.93	Si
SLV 15	fin.	-302.83	-420	-0.0000964	0.0002807	0.0035	1.13		4698.01	4698.01		15.51	Si
SLV 13	ini.	294.16	66	-0.0000937	0.0002807	0.0035	1.13		4690.84	4690.84		15.95	Si
SLV 13	fin.	-206.7	-34	-0.0000652	0.0002807	0.0035	1.13		4698.01	4698.01		22.73	Si
SLV 8	ini.	49.54	-592	-0.0000154	0.0002807	0.0035	1.13		4690.84	4690.84		94.69	Si
SLV 8	fin.	-252.33	-744	-0.00008	0.0002807	0.0035	1.13		4698.01	4698.01		18.62	Si
SLV 6	ini.	204.08	753	-0.0000645	0.0002807	0.0035	1.13		4690.84	4690.84		22.99	Si
SLV 6	fin.	68.1	542	-0.0000212	0.0002807	0.0035	1.13		4690.84	4690.84		68.89	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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.	97.47	-499	1.13	0	737	3965	7613	2882	4702		9.42	Si
SLV 11	fin.	-280.21	-1204	1.13	0	737	3965	7613	2882	4702		3.9	Si
SLV 12	ini.	131.29	-735	1.13	0	737	3965	7613	2882	4702		6.4	Si
SLV 12	fin.	-365.99	-1440	1.13	0	737	3965	7613	2882	4702		3.27	Si
SLV 9	ini.	252.02	-177	1.13	0	737	3965	7613	2882	4702		26.61	Si
SLV 9	fin.	40.22	-913	1.13	0	737	3965	7613	2882	4702		5.15	Si
SLV 7	ini.	15.72	-184	1.13	0	737	3965	7613	2882	4702		25.51	Si
SLV 7	fin.	-166.55	-889	1.13	0	737	3965	7613	2882	4702		5.29	Si
SLV 8	ini.	49.54	-420	1.13	0	737	3965	7613	2882	4702		11.19	Si
SLV 8	fin.	-252.33	-1125	1.13	0	737	3965	7613	2882	4702		4.18	Si
SLV 15	ini.	247.79	-759	1.13	0	737	3965	7613	2882	4702		6.19	Si
SLV 15	fin.	-302.83	-1476	1.13	0	737	3965	7613	2882	4702		3.19	Si
SLV 14	ini.	326.27	-886	1.13	0	737	3965	7613	2882	4702		5.3	Si
SLV 14	fin.	-288.14	-1612	1.13	0	737	3965	7613	2882	4702		2.92	Si
SLV 16	ini.	279.9	-983	1.13	0	737	3965	7613	2882	4702		4.78	Si
SLV 16	fin.	-384.27	-1700	1.13	0	737	3965	7613	2882	4702		2.77	Si
SLV 13	ini.	294.16	-663	1.13	0	737	3965	7613	2882	4702		7.1	Si
SLV 13	fin.	-206.7	-1388	1.13	0	737	3965	7613	2882	4702		3.39	Si
SLV 10	ini.	285.83	-412	1.13	0	737	3965	7613	2882	4702		11.4	Si
SLV 10	fin.	-45.56	-1149	1.13	0	737	3965	7613	2882	4702		4.09	Si



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	12.226	SLV 16	Si
V_SLV	2.766	SLV 16	Si
PF_SLU	19.134	SLU 81	Si
V_SLU	2.548	SLU 82	Si

Trave di accoppiamento 24

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
-30.367	-9.039	1.69	2.69	1	-29.367	-9.039	1.69	2.69	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 solo su un lato_Corti

fb	fhk	fvk0	fhmmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	ϵ_{fd}	$\gamma_{F,d}$	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 FRM in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 82	ini.	676.19	-1934	-0.0003054	0.0001872	0.0035	1		3643.26	3643.26	No	5.39	Si
SLU 82	fin.	-500.07	-159	-0.0002163	0.0001872	0.0035	1		3649.64	3649.64	No	7.3	Si
SLU 79	ini.	625.38	-1776	-0.0002791	0.0001872	0.0035	1		3643.26	3643.26	No	5.83	Si
SLU 79	fin.	-478.72	-115	-0.000206	0.0001872	0.0035	1		3649.64	3649.64	No	7.62	Si
SLU 81	ini.	676.85	-1935	-0.0003058	0.0001872	0.0035	1		3643.26	3643.26	No	5.38	Si
SLU 81	fin.	-501.41	-158	-0.0002169	0.0001872	0.0035	1		3649.64	3649.64	No	7.28	Si
SLU 74	ini.	625.38	-1776	-0.0002791	0.0001872	0.0035	1		3643.26	3643.26	No	5.83	Si
SLU 74	fin.	-478.72	-115	-0.000206	0.0001872	0.0035	1		3649.64	3649.64	No	7.62	Si
SLU 84	ini.	676.19	-1934	-0.0003054	0.0001872	0.0035	1		3643.26	3643.26	No	5.39	Si
SLU 84	fin.	-500.07	-159	-0.0002163	0.0001872	0.0035	1		3649.64	3649.64	No	7.3	Si
SLU 78	ini.	624.72	-1775	-0.0002787	0.0001872	0.0035	1		3643.26	3643.26	No	5.83	Si
SLU 78	fin.	-477.37	-117	-0.0002054	0.0001872	0.0035	1		3649.64	3649.64	No	7.65	Si
SLU 80	ini.	624.72	-1775	-0.0002787	0.0001872	0.0035	1		3643.26	3643.26	No	5.83	Si
SLU 80	fin.	-477.37	-117	-0.0002054	0.0001872	0.0035	1		3649.64	3649.64	No	7.65	Si
SLU 83	ini.	676.85	-1935	-0.0003058	0.0001872	0.0035	1		3643.26	3643.26	No	5.38	Si
SLU 83	fin.	-501.41	-158	-0.0002169	0.0001872	0.0035	1		3649.64	3649.64	No	7.28	Si
SLU 75	ini.	624.72	-1775	-0.0002787	0.0001872	0.0035	1		3643.26	3643.26	No	5.83	Si
SLU 75	fin.	-477.37	-117	-0.0002054	0.0001872	0.0035	1		3649.64	3649.64	No	7.65	Si
SLU 77	ini.	625.38	-1776	-0.0002791	0.0001872	0.0035	1		3643.26	3643.26	No	5.83	Si
SLU 77	fin.	-478.72	-115	-0.000206	0.0001872	0.0035	1		3649.64	3649.64	No	7.62	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 84	ini.	676.19	-3278	1	0	435	7930	4492	2550	7042	No	2.15	Si
SLU 84	fin.	-500.07	-1277	1	0	435	7930	4492	2550	7042	No	5.52	Si
SLU 80	ini.	624.72	-3013	1	0	435	7930	4492	2550	7042	No	2.34	Si
SLU 80	fin.	-477.37	-1238	1	0	435	7930	4492	2550	7042	No	5.69	Si
SLU 75	ini.	624.72	-3013	1	0	435	7930	4492	2550	7042	No	2.34	Si
SLU 75	fin.	-477.37	-1238	1	0	435	7930	4492	2550	7042	No	5.69	Si
SLU 73	ini.	624.29	-3013	1	0	435	7930	4492	2550	7042	No	2.34	Si
SLU 73	fin.	-476.48	-1234	1	0	435	7930	4492	2550	7042	No	5.7	Si
SLU 83	ini.	676.85	-3278	1	0	435	7930	4492	2550	7042	No	2.15	Si
SLU 83	fin.	-501.41	-1282	1	0	435	7930	4492	2550	7042	No	5.49	Si
SLU 76	ini.	624.29	-3013	1	0	435	7930	4492	2550	7042	No	2.34	Si
SLU 76	fin.	-476.48	-1234	1	0	435	7930	4492	2550	7042	No	5.7	Si
SLU 81	ini.	676.85	-3278	1	0	435	7930	4492	2550	7042	No	2.15	Si
SLU 81	fin.	-501.41	-1282	1	0	435	7930	4492	2550	7042	No	5.49	Si
SLU 82	ini.	676.19	-3278	1	0	435	7930	4492	2550	7042	No	2.15	Si
SLU 82	fin.	-500.07	-1277	1	0	435	7930	4492	2550	7042	No	5.52	Si
SLU 79	ini.	625.38	-3012	1	0	435	7930	4492	2550	7042	No	2.34	Si
SLU 79	fin.	-478.72	-1244	1	0	435	7930	4492	2550	7042	No	5.66	Si
SLU 78	ini.	624.72	-3013	1	0	435	7930	4492	2550	7042	No	2.34	Si
SLU 78	fin.	-477.37	-1238	1	0	435	7930	4492	2550	7042	No	5.69	Si



Verifica a pressoflessione nel piano delle sezioni rinforzate con FRM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 3	ini.	-87.84	-207	-0.000035	0.0002807	0.0035	1		3671.29	3671.29		41.79	Si
SLV 3	fin.	356.22	-842	-0.000147	0.0002807	0.0035	1		3664.83	3664.83		10.29	Si
SLV 12	ini.	640.32	-1735	-0.0002756	0.0002807	0.0035	1		3664.83	3664.83		5.72	Si
SLV 12	fin.	-462.08	6	-0.0001932	0.0002807	0.0035	1		3671.29	3671.29		7.95	Si
SLV 11	ini.	520.92	-1497	-0.0002201	0.0002807	0.0035	1		3664.83	3664.83		7.04	Si
SLV 11	fin.	-315.61	-153	-0.0001293	0.0002807	0.0035	1		3671.29	3671.29		11.63	Si
SLV 10	ini.	562.8	-1312	-0.0002393	0.0002807	0.0035	1		3664.83	3664.83		6.51	Si
SLV 10	fin.	-700.05	482	-0.0003037	0.0002807	0.0035	1		3671.29	3671.29		5.24	Si
SLV 14	ini.	901.72	-2072	-0.0004064	0.0002807	0.0035	1		3664.83	3664.83		4.06	Si
SLV 14	fin.	-1021.65	774	-0.0004698	0.0002807	0.0035	1		3671.29	3671.29		3.59	Si
SLV 9	ini.	443.39	-1075	-0.0001852	0.0002807	0.0035	1		3664.83	3664.83		8.27	Si
SLV 9	fin.	-553.57	323	-0.0002346	0.0002807	0.0035	1		3671.29	3671.29		6.63	Si
SLV 16	ini.	924.98	-2199	-0.0004186	0.0002807	0.0035	1		3664.83	3664.83		3.96	Si
SLV 16	fin.	-950.26	631	-0.0004313	0.0002807	0.0035	1		3671.29	3671.29		3.86	Si
SLV 15	ini.	811.6	-1974	-0.0003598	0.0002807	0.0035	1		3664.83	3664.83		4.52	Si
SLV 15	fin.	-811.18	480	-0.0003589	0.0002807	0.0035	1		3671.29	3671.29		4.53	Si
SLV 13	ini.	788.35	-1847	-0.000348	0.0002807	0.0035	1		3664.83	3664.83		4.65	Si
SLV 13	fin.	-882.57	623	-0.0003956	0.0002807	0.0035	1		3671.29	3671.29		4.16	Si
SLV 8	ini.	370.49	-1204	-0.0001532	0.0002807	0.0035	1		3664.83	3664.83		9.89	Si
SLV 8	fin.	-111.86	-390	-0.0000447	0.0002807	0.0035	1		3671.29	3671.29		32.82	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM 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.	924.98	-4026	1	0	652	7930	6738	2550	8582		2.13	Si
SLV 16	fin.	-950.26	-2906	1	0	652	7930	6738	2550	8582		2.95	Si
SLV 8	ini.	370.49	-1859	1	0	652	7930	6738	2550	8582		4.62	Si
SLV 8	fin.	-111.86	-101	1	0	652	7930	6738	2550	8582		85.32	Si
SLV 10	ini.	562.8	-2498	1	0	652	7930	6738	2550	8582		3.44	Si
SLV 10	fin.	-700.05	-2144	1	0	652	7930	6738	2550	8582		4	Si
SLV 11	ini.	520.92	-2455	1	0	652	7930	6738	2550	8582		3.5	Si
SLV 11	fin.	-315.61	-796	1	0	652	7930	6738	2550	8582		10.78	Si
SLV 14	ini.	901.72	-3895	1	0	652	7930	6738	2550	8582		2.2	Si
SLV 14	fin.	-1021.65	-3172	1	0	652	7930	6738	2550	8582		2.71	Si
SLV 9	ini.	443.39	-2018	1	0	652	7930	6738	2550	8582		4.25	Si
SLV 9	fin.	-553.57	-1683	1	0	652	7930	6738	2550	8582		5.1	Si
SLV 6	ini.	292.96	-1422	1	0	652	7930	6738	2550	8582		6.04	Si
SLV 6	fin.	-349.82	-987	1	0	652	7930	6738	2550	8582		8.69	Si
SLV 15	ini.	811.6	-3570	1	0	652	7930	6738	2550	8582		2.4	Si
SLV 15	fin.	-811.18	-2468	1	0	652	7930	6738	2550	8582		3.48	Si
SLV 12	ini.	640.32	-2935	1	0	652	7930	6738	2550	8582		2.92	Si
SLV 12	fin.	-462.08	-1258	1	0	652	7930	6738	2550	8582		6.82	Si
SLV 13	ini.	788.35	-3439	1	0	652	7930	6738	2550	8582		2.5	Si
SLV 13	fin.	-882.57	-2734	1	0	652	7930	6738	2550	8582		3.14	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	3.593	SLV 14	Si
V_SLV	2.132	SLV 16	Si
PF_SLU	5.383	SLU 81	Si
V_SLU	2.148	SLU 82	Si

Trave di accoppiamento 25

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
-30.367	-9.039	4.59	5.62	1.03	-29.367	-9.039	4.59	5.62	1.03	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 solo su un lato_Corti

fb	fmk	fvk0	fmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

									elim,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	elim,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 FRCC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 84	ini.	311.67	94	-0.0001221	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.35	Si
SLU 84	fin.	-452.67	-2737	-0.0001818	0.0001872	0.0035	1.03		3855.92	3855.92	No	8.52	Si
SLU 78	ini.	299.3	143	-0.000117	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.86	Si
SLU 78	fin.	-417.93	-2480	-0.0001667	0.0001872	0.0035	1.03		3855.92	3855.92	No	9.23	Si
SLU 74	ini.	300.18	146	-0.0001174	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.82	Si
SLU 74	fin.	-418.16	-2482	-0.0001668	0.0001872	0.0035	1.03		3855.92	3855.92	No	9.22	Si
SLU 80	ini.	299.3	143	-0.000117	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.86	Si
SLU 80	fin.	-417.93	-2480	-0.0001667	0.0001872	0.0035	1.03		3855.92	3855.92	No	9.23	Si
SLU 77	ini.	300.18	146	-0.0001174	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.82	Si
SLU 77	fin.	-418.16	-2482	-0.0001668	0.0001872	0.0035	1.03		3855.92	3855.92	No	9.22	Si
SLU 82	ini.	311.67	94	-0.0001221	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.35	Si
SLU 82	fin.	-452.67	-2737	-0.0001818	0.0001872	0.0035	1.03		3855.92	3855.92	No	8.52	Si
SLU 81	ini.	312.56	98	-0.0001225	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.32	Si
SLU 81	fin.	-452.9	-2739	-0.0001819	0.0001872	0.0035	1.03		3855.92	3855.92	No	8.51	Si
SLU 83	ini.	312.56	98	-0.0001225	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.32	Si
SLU 83	fin.	-452.9	-2739	-0.0001819	0.0001872	0.0035	1.03		3855.92	3855.92	No	8.51	Si
SLU 75	ini.	299.3	143	-0.000117	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.86	Si
SLU 75	fin.	-417.93	-2480	-0.0001667	0.0001872	0.0035	1.03		3855.92	3855.92	No	9.23	Si
SLU 79	ini.	300.18	146	-0.0001174	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.82	Si
SLU 79	fin.	-418.16	-2482	-0.0001668	0.0001872	0.0035	1.03		3855.92	3855.92	No	9.22	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 40	ini.	262.11	-250	1.03	0	448	7930	4626	2627	7253	No	28.99	Si
SLU 40	fin.	-399.02	-4019	1.03	0	448	7930	4626	2627	7253	No	1.8	Si
SLU 81	ini.	312.56	-403	1.03	0	448	7930	4626	2627	7253	No	18.01	Si
SLU 81	fin.	-452.9	-4414	1.03	0	448	7930	4626	2627	7253	No	1.64	Si
SLU 42	ini.	262.11	-250	1.03	0	448	7930	4626	2627	7253	No	28.99	Si
SLU 42	fin.	-399.02	-4019	1.03	0	448	7930	4626	2627	7253	No	1.8	Si
SLU 83	ini.	312.56	-403	1.03	0	448	7930	4626	2627	7253	No	18.01	Si
SLU 83	fin.	-452.9	-4414	1.03	0	448	7930	4626	2627	7253	No	1.64	Si
SLU 84	ini.	311.67	-399	1.03	0	448	7930	4626	2627	7253	No	18.17	Si
SLU 84	fin.	-452.67	-4411	1.03	0	448	7930	4626	2627	7253	No	1.64	Si
SLU 39	ini.	262.99	-254	1.03	0	448	7930	4626	2627	7253	No	28.6	Si
SLU 39	fin.	-399.25	-4023	1.03	0	448	7930	4626	2627	7253	No	1.8	Si
SLU 41	ini.	262.99	-254	1.03	0	448	7930	4626	2627	7253	No	28.6	Si
SLU 41	fin.	-399.25	-4023	1.03	0	448	7930	4626	2627	7253	No	1.8	Si
SLU 74	ini.	300.18	-463	1.03	0	448	7930	4626	2627	7253	No	15.66	Si
SLU 74	fin.	-418.16	-3967	1.03	0	448	7930	4626	2627	7253	No	1.83	Si
SLU 82	ini.	311.67	-399	1.03	0	448	7930	4626	2627	7253	No	18.17	Si
SLU 82	fin.	-452.67	-4411	1.03	0	448	7930	4626	2627	7253	No	1.64	Si
SLU 77	ini.	300.18	-463	1.03	0	448	7930	4626	2627	7253	No	15.66	Si
SLU 77	fin.	-418.16	-3967	1.03	0	448	7930	4626	2627	7253	No	1.83	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 10	ini.	487.78	886	-0.0001928	0.0002807	0.0035	1.03		3887.91	3887.91		7.97	Si
SLV 10	fin.	-456.99	-2255	-0.0001795	0.0002807	0.0035	1.03		3894.56	3894.56		8.52	Si
SLV 13	ini.	609.36	971	-0.0002449	0.0002807	0.0035	1.03		3887.91	3887.91		6.38	Si
SLV 13	fin.	-578.77	-2535	-0.0002312	0.0002807	0.0035	1.03		3894.56	3894.56		6.73	Si
SLV 15	ini.	556.22	743	-0.0002219	0.0002807	0.0035	1.03		3887.91	3887.91		6.99	Si
SLV 15	fin.	-560.9	-2415	-0.0002235	0.0002807	0.0035	1.03		3894.56	3894.56		6.94	Si
SLV 14	ini.	722.54	1159	-0.0002955	0.0002807	0.0035	1.03		3887.91	3887.91		5.38	Si
SLV 14	fin.	-676.36	-2874	-0.0002741	0.0002807	0.0035	1.03		3894.56	3894.56		5.76	Si
SLV 12	ini.	310.66	124	-0.00012	0.0002807	0.0035	1.03		3887.91	3887.91		12.52	Si
SLV 12	fin.	-397.4	-1854	-0.0001549	0.0002807	0.0035	1.03		3894.56	3894.56		9.8	Si
SLV 16	ini.	669.4	930	-0.0002715	0.0002807	0.0035	1.03		3887.91	3887.91		5.81	Si
SLV 16	fin.	-658.48	-2754	-0.0002662	0.0002807	0.0035	1.03		3894.56	3894.56		5.91	Si
SLV 3	ini.	-300.24	-813	-0.0001156	0.0002807	0.0035	1.03		3894.56	3894.56		12.97	Si
SLV 3	fin.	132.88	-219	-0.0000503	0.0002807	0.0035	1.03		3887.91	3887.91		29.26	Si
SLV 11	ini.	191.46	-73	-0.0000729	0.0002807	0.0035	1.03		3887.91	3887.91		20.31	Si
SLV 11	fin.	-294.62	-1497	-0.0001134	0.0002807	0.0035	1.03		3894.56	3894.56		13.22	Si
SLV 6	ini.	230.84	419	-0.0000883	0.0002807	0.0035	1.03		3887.91	3887.91		16.84	Si
SLV 6	fin.	-248.86	-1596	-0.0000953	0.0002807	0.0035	1.03		3894.56	3894.56		15.65	Si
SLV 9	ini.	368.58	688	-0.0001434	0.0002807	0.0035	1.03		3887.91	3887.91		10.55	Si
SLV 9	fin.	-354.22	-1898	-0.0001373	0.0002807	0.0035	1.03		3894.56	3894.56		10.99	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC 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.	609.36	-1979	1.03	0	672	7930	6940	2627	8601		4.35	Si
SLV 13	fin.	-578.77	-3911	1.03	0	672	7930	6940	2627	8601		2.2	Si
SLV 14	ini.	722.54	-2461	1.03	0	672	7930	6940	2627	8601		3.49	Si
SLV 14	fin.	-676.36	-4393	1.03	0	672	7930	6940	2627	8601		1.96	Si
SLV 10	ini.	487.78	-1605	1.03	0	672	7930	6940	2627	8601		5.36	Si
SLV 10	fin.	-456.99	-3382	1.03	0	672	7930	6940	2627	8601		2.54	Si
SLV 12	ini.	310.66	-759	1.03	0	672	7930	6940	2627	8601		11.33	Si
SLV 12	fin.	-397.4	-2970	1.03	0	672	7930	6940	2627	8601		2.9	Si
SLV 9	ini.	368.58	-1097	1.03	0	672	7930	6940	2627	8601		7.84	Si
SLV 9	fin.	-354.22	-2875	1.03	0	672	7930	6940	2627	8601		2.99	Si



Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 6	ini.	230.84	-606	1.03	0	672	7930	6940	2627	8601		14.2	Si
SLV 6	fin.	-248.86	-2381	1.03	0	672	7930	6940	2627	8601		3.61	Si
SLV 11	ini.	191.46	-252	1.03	0	672	7930	6940	2627	8601		34.17	Si
SLV 11	fin.	-294.62	-2462	1.03	0	672	7930	6940	2627	8601		3.49	Si
SLV 15	ini.	556.22	-1726	1.03	0	672	7930	6940	2627	8601		4.98	Si
SLV 15	fin.	-560.9	-3788	1.03	0	672	7930	6940	2627	8601		2.27	Si
SLV 8	ini.	53.72	239	1.03	0	672	7930	6940	2627	8601		35.92	Si
SLV 8	fin.	-189.26	-1968	1.03	0	672	7930	6940	2627	8601		4.37	Si
SLV 16	ini.	669.4	-2207	1.03	0	672	7930	6940	2627	8601		3.9	Si
SLV 16	fin.	-658.48	-4270	1.03	0	672	7930	6940	2627	8601		2.01	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	5.381	SLV 14	Si
V_SLV	1.958	SLV 14	Si
PF_SLU	8.514	SLU 81	Si
V_SLU	1.643	SLU 81	Si

Trave di accoppiamento 26

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
-27.097	-9.039	1.69	2.69	1	-26.097	-9.039	1.69	2.69	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 solo su un lato_Corti

fb	fthk	fvk0	fthmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRMC

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

Rinforzo a matrice inorganica

									elim,conv / e,CNR DT-200						CRM / Fibrenet?				
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	e,fd	$y_{F,d}$	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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 81	ini.	-379.41	904	-0.0001599	0.0001872	0.0035	1		3649.64	3649.64	No	9.62	Si
SLU 81	fin.	930.72	-2244	-0.0004456	0.0001872	0.0035	1		3643.26	3643.26	No	3.91	Si
SLU 82	ini.	-378.65	900	-0.0001595	0.0001872	0.0035	1		3649.64	3649.64	No	9.64	Si
SLU 82	fin.	929.79	-2245	-0.000445	0.0001872	0.0035	1		3643.26	3643.26	No	3.92	Si
SLU 74	ini.	-375.65	935	-0.0001581	0.0001872	0.0035	1		3649.64	3649.64	No	9.72	Si
SLU 74	fin.	893.16	-2090	-0.0004241	0.0001872	0.0035	1		3643.26	3643.26	No	4.08	Si
SLU 79	ini.	-375.65	935	-0.0001581	0.0001872	0.0035	1		3649.64	3649.64	No	9.72	Si
SLU 79	fin.	893.16	-2090	-0.0004241	0.0001872	0.0035	1		3643.26	3643.26	No	4.08	Si
SLU 80	ini.	-374.88	931	-0.0001578	0.0001872	0.0035	1		3649.64	3649.64	No	9.74	Si
SLU 80	fin.	892.23	-2091	-0.0004235	0.0001872	0.0035	1		3643.26	3643.26	No	4.08	Si
SLU 75	ini.	-374.88	931	-0.0001578	0.0001872	0.0035	1		3649.64	3649.64	No	9.74	Si
SLU 75	fin.	892.23	-2091	-0.0004235	0.0001872	0.0035	1		3643.26	3643.26	No	4.08	Si
SLU 77	ini.	-375.65	935	-0.0001581	0.0001872	0.0035	1		3649.64	3649.64	No	9.72	Si
SLU 77	fin.	893.16	-2090	-0.0004241	0.0001872	0.0035	1		3643.26	3643.26	No	4.08	Si
SLU 83	ini.	-379.41	904	-0.0001599	0.0001872	0.0035	1		3649.64	3649.64	No	9.62	Si
SLU 83	fin.	930.72	-2244	-0.0004456	0.0001872	0.0035	1		3643.26	3643.26	No	3.91	Si
SLU 78	ini.	-374.88	931	-0.0001578	0.0001872	0.0035	1		3649.64	3649.64	No	9.74	Si
SLU 78	fin.	892.23	-2091	-0.0004235	0.0001872	0.0035	1		3643.26	3643.26	No	4.08	Si
SLU 84	ini.	-378.65	900	-0.0001595	0.0001872	0.0035	1		3649.64	3649.64	No	9.64	Si
SLU 84	fin.	929.79	-2245	-0.000445	0.0001872	0.0035	1		3643.26	3643.26	No	3.92	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 80	ini.	-374.88	853	1	0	435	7930	4492	2550	7042	No	8.26	Si
SLU 80	fin.	892.23	2444	1	0	435	7930	4492	2550	7042	No	2.88	Si
SLU 79	ini.	-375.65	857	1	0	435	7930	4492	2550	7042	No	8.22	Si
SLU 79	fin.	893.16	2447	1	0	435	7930	4492	2550	7042	No	2.88	Si
SLU 74	ini.	-375.65	857	1	0	435	7930	4492	2550	7042	No	8.22	Si
SLU 74	fin.	893.16	2447	1	0	435	7930	4492	2550	7042	No	2.88	Si
SLU 77	ini.	-375.65	857	1	0	435	7930	4492	2550	7042	No	8.22	Si
SLU 77	fin.	893.16	2447	1	0	435	7930	4492	2550	7042	No	2.88	Si
SLU 81	ini.	-379.41	800	1	0	435	7930	4492	2550	7042	No	8.8	Si



Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 81	fin.	930.72	2552	1	0	435	7930	4492	2550	7042	No	2.76	Si
SLU 83	ini.	-379.41	800	1	0	435	7930	4492	2550	7042	No	8.8	Si
SLU 83	fin.	930.72	2552	1	0	435	7930	4492	2550	7042	No	2.76	Si
SLU 82	ini.	-378.65	796	1	0	435	7930	4492	2550	7042	No	8.84	Si
SLU 82	fin.	929.79	2549	1	0	435	7930	4492	2550	7042	No	2.76	Si
SLU 78	ini.	-374.88	853	1	0	435	7930	4492	2550	7042	No	8.26	Si
SLU 78	fin.	892.23	2444	1	0	435	7930	4492	2550	7042	No	2.88	Si
SLU 75	ini.	-374.88	853	1	0	435	7930	4492	2550	7042	No	8.26	Si
SLU 75	fin.	892.23	2444	1	0	435	7930	4492	2550	7042	No	2.88	Si
SLU 84	ini.	-378.65	796	1	0	435	7930	4492	2550	7042	No	8.84	Si
SLU 84	fin.	929.79	2549	1	0	435	7930	4492	2550	7042	No	2.76	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRCC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 8	ini.	-254.45	449	-0.0001035	0.0002807	0.0035	1		3671.29	3671.29		14.43	Si
SLV 8	fin.	600.55	-1488	-0.0002568	0.0002807	0.0035	1		3664.83	3664.83		6.1	Si
SLV 10	ini.	-216.99	724	-0.0000878	0.0002807	0.0035	1		3671.29	3671.29		16.92	Si
SLV 10	fin.	483.68	-1085	-0.0002032	0.0002807	0.0035	1		3664.83	3664.83		7.58	Si
SLV 1	ini.	-742.48	2492	-0.0003245	0.0002807	0.0035	1		3671.29	3671.29		4.94	Si
SLV 1	fin.	1523.91	-2290	-0.0007694	0.0002807	0.0035	1		3664.83	3664.83		2.4	Si
SLV 3	ini.	-683.95	2155	-0.0002959	0.0002807	0.0035	1		3671.29	3671.29		5.37	Si
SLV 3	fin.	1422.93	-2267	-0.0007056	0.0002807	0.0035	1		3664.83	3664.83		2.58	Si
SLV 6	ini.	-449.56	1572	-0.0001876	0.0002807	0.0035	1		3671.29	3671.29		8.17	Si
SLV 6	fin.	937.14	-1562	-0.0004251	0.0002807	0.0035	1		3664.83	3664.83		3.91	Si
SLV 9	ini.	-309.2	1055	-0.0001266	0.0002807	0.0035	1		3671.29	3671.29		11.87	Si
SLV 9	fin.	663.75	-1287	-0.0002868	0.0002807	0.0035	1		3664.83	3664.83		5.52	Si
SLV 2	ini.	-654.93	2177	-0.000282	0.0002807	0.0035	1		3671.29	3671.29		5.61	Si
SLV 2	fin.	1352.92	-2098	-0.0006625	0.0002807	0.0035	1		3664.83	3664.83		2.71	Si
SLV 5	ini.	-541.77	1904	-0.0002292	0.0002807	0.0035	1		3671.29	3671.29		6.78	Si
SLV 5	fin.	1117.22	-1764	-0.000524	0.0002807	0.0035	1		3664.83	3664.83		3.28	Si
SLV 4	ini.	-596.4	1840	-0.0002544	0.0002807	0.0035	1		3671.29	3671.29		6.16	Si
SLV 4	fin.	1251.95	-2075	-0.0006019	0.0002807	0.0035	1		3664.83	3664.83		2.93	Si
SLV 7	ini.	-346.66	781	-0.0001427	0.0002807	0.0035	1		3671.29	3671.29		10.59	Si
SLV 7	fin.	780.63	-1690	-0.0003441	0.0002807	0.0035	1		3664.83	3664.83		4.69	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC 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 5	ini.	-541.77	2440	1	0	652	7930	6738	2550	8582		3.52	Si
SLV 5	fin.	1117.22	3244	1	0	652	7930	6738	2550	8582		2.65	Si
SLV 2	ini.	-654.93	2897	1	0	652	7930	6738	2550	8582		2.96	Si
SLV 2	fin.	1352.92	3930	1	0	652	7930	6738	2550	8582		2.18	Si
SLV 4	ini.	-596.4	2419	1	0	652	7930	6738	2550	8582		3.55	Si
SLV 4	fin.	1251.95	3597	1	0	652	7930	6738	2550	8582		2.39	Si
SLV 6	ini.	-449.56	1913	1	0	652	7930	6738	2550	8582		4.49	Si
SLV 6	fin.	937.14	2705	1	0	652	7930	6738	2550	8582		3.17	Si
SLV 8	ini.	-254.45	318	1	0	652	7930	6738	2550	8582		27	Si
SLV 8	fin.	600.55	1592	1	0	652	7930	6738	2550	8582		5.39	Si
SLV 16	ini.	178.83	-1951	1	0	652	7930	6738	2550	8582		4.4	Si
SLV 16	fin.	-259.61	-979	1	0	652	7930	6738	2550	8582		8.77	Si
SLV 3	ini.	-683.95	2919	1	0	652	7930	6738	2550	8582		2.94	Si
SLV 3	fin.	1422.93	4108	1	0	652	7930	6738	2550	8582		2.09	Si
SLV 1	ini.	-742.48	3398	1	0	652	7930	6738	2550	8582		2.53	Si
SLV 1	fin.	1523.91	4442	1	0	652	7930	6738	2550	8582		1.93	Si
SLV 7	ini.	-346.66	845	1	0	652	7930	6738	2550	8582		10.16	Si
SLV 7	fin.	780.63	2131	1	0	652	7930	6738	2550	8582		4.03	Si
SLV 9	ini.	-309.2	1129	1	0	652	7930	6738	2550	8582		7.6	Si
SLV 9	fin.	663.75	1871	1	0	652	7930	6738	2550	8582		4.59	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	2.405	SLV 1	Si
V_SLV	1.932	SLV 1	Si
PF_SLU	3.914	SLU 81	Si
V_SLU	2.759	SLU 81	Si

Trave di accoppiamento 27

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
-27.097	-9.039	4.59	5.62	1.03	-26.097	-9.039	4.59	5.62	1.03	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 solo su un lato_Corti

fb_	fhk	fvk0	fmedio	t0	fv0	μ	φ	fvk_lim	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCC

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



Rinforzo a matrice inorganica

									elim,conv / $\epsilon_{\text{CNR DT-200}}$							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α_t	α	elim,conv	ϵ_{fd}	$\gamma_{\text{F,d}}$	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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 79	ini.	-552.12	-2497	-0.0002264	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.98	Si
SLU 79	fin.	321.28	342	-0.0001261	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.98	Si
SLU 78	ini.	-552.22	-2497	-0.0002265	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.98	Si
SLU 78	fin.	320.6	338	-0.0001258	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.01	Si
SLU 76	ini.	-552.28	-2497	-0.0002265	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.98	Si
SLU 76	fin.	320.14	336	-0.0001256	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.02	Si
SLU 82	ini.	-584.51	-2703	-0.0002414	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.6	Si
SLU 82	fin.	320.41	272	-0.0001257	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.01	Si
SLU 80	ini.	-552.22	-2497	-0.0002265	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.98	Si
SLU 80	fin.	320.6	338	-0.0001258	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.01	Si
SLU 84	ini.	-584.51	-2703	-0.0002414	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.6	Si
SLU 84	fin.	320.41	272	-0.0001257	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.01	Si
SLU 83	ini.	-584.41	-2703	-0.0002414	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.6	Si
SLU 83	fin.	321.1	275	-0.000126	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.99	Si
SLU 73	ini.	-552.28	-2497	-0.0002265	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.98	Si
SLU 73	fin.	320.14	336	-0.0001256	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.02	Si
SLU 75	ini.	-552.22	-2497	-0.0002265	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.98	Si
SLU 75	fin.	320.6	338	-0.0001258	0.0001872	0.0035	1.03		3849.31	3849.31	No	12.01	Si
SLU 81	ini.	-584.41	-2703	-0.0002414	0.0001872	0.0035	1.03		3855.92	3855.92	No	6.6	Si
SLU 81	fin.	321.1	275	-0.000126	0.0001872	0.0035	1.03		3849.31	3849.31	No	11.99	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 84	ini.	-584.51	4439	1.03	0	448	7930	4626	2627	7253	No	1.63	Si
SLU 84	fin.	320.41	507	1.03	0	448	7930	4626	2627	7253	No	14.31	Si
SLU 82	ini.	-584.51	4439	1.03	0	448	7930	4626	2627	7253	No	1.63	Si
SLU 82	fin.	320.41	507	1.03	0	448	7930	4626	2627	7253	No	14.31	Si
SLU 80	ini.	-552.22	4070	1.03	0	448	7930	4626	2627	7253	No	1.78	Si
SLU 80	fin.	320.6	647	1.03	0	448	7930	4626	2627	7253	No	11.22	Si
SLU 77	ini.	-552.12	4072	1.03	0	448	7930	4626	2627	7253	No	1.78	Si
SLU 77	fin.	321.28	649	1.03	0	448	7930	4626	2627	7253	No	11.18	Si
SLU 78	ini.	-552.22	4070	1.03	0	448	7930	4626	2627	7253	No	1.78	Si
SLU 78	fin.	320.6	647	1.03	0	448	7930	4626	2627	7253	No	11.22	Si
SLU 75	ini.	-552.22	4070	1.03	0	448	7930	4626	2627	7253	No	1.78	Si
SLU 75	fin.	320.6	647	1.03	0	448	7930	4626	2627	7253	No	11.22	Si
SLU 74	ini.	-552.12	4072	1.03	0	448	7930	4626	2627	7253	No	1.78	Si
SLU 74	fin.	321.28	649	1.03	0	448	7930	4626	2627	7253	No	11.18	Si
SLU 79	ini.	-552.12	4072	1.03	0	448	7930	4626	2627	7253	No	1.78	Si
SLU 79	fin.	321.28	649	1.03	0	448	7930	4626	2627	7253	No	11.18	Si
SLU 83	ini.	-584.41	4441	1.03	0	448	7930	4626	2627	7253	No	1.63	Si
SLU 83	fin.	321.1	509	1.03	0	448	7930	4626	2627	7253	No	14.25	Si
SLU 81	ini.	-584.41	4441	1.03	0	448	7930	4626	2627	7253	No	1.63	Si
SLU 81	fin.	321.1	509	1.03	0	448	7930	4626	2627	7253	No	14.25	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ϵ_m	$\epsilon_{m_}$	ϵ_{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 6	ini.	-540.97	-2167	-0.000215	0.0002807	0.0035	1.03		3894.56	3894.56		7.2	Si
SLV 6	fin.	461.88	947	-0.0001819	0.0002807	0.0035	1.03		3887.91	3887.91		8.42	Si
SLV 4	ini.	-706.51	-2610	-0.0002877	0.0002807	0.0035	1.03		3894.56	3894.56		5.51	Si
SLV 4	fin.	566.99	963	-0.0002265	0.0002807	0.0035	1.03		3887.91	3887.91		6.86	Si
SLV 10	ini.	-293.78	-1415	-0.0001131	0.0002807	0.0035	1.03		3894.56	3894.56		13.26	Si
SLV 10	fin.	210.96	435	-0.0000805	0.0002807	0.0035	1.03		3887.91	3887.91		18.43	Si
SLV 1	ini.	-874.5	-3156	-0.0003661	0.0002807	0.0035	1.03		3894.56	3894.56		4.45	Si
SLV 1	fin.	761.27	1443	-0.0003133	0.0002807	0.0035	1.03		3887.91	3887.91		5.11	Si
SLV 5	ini.	-656.76	-2527	-0.0002654	0.0002807	0.0035	1.03		3894.56	3894.56		5.93	Si
SLV 5	fin.	573.91	1168	-0.0002295	0.0002807	0.0035	1.03		3887.91	3887.91		6.77	Si
SLV 2	ini.	-764.56	-2815	-0.0003142	0.0002807	0.0035	1.03		3894.56	3894.56		5.09	Si
SLV 2	fin.	654.89	1234	-0.000265	0.0002807	0.0035	1.03		3887.91	3887.91		5.94	Si
SLV 3	ini.	-816.46	-2952	-0.0003384	0.0002807	0.0035	1.03		3894.56	3894.56		4.77	Si
SLV 3	fin.	673.36	1173	-0.0002733	0.0002807	0.0035	1.03		3887.91	3887.91		5.77	Si
SLV 9	ini.	-409.57	-1774	-0.0001599	0.0002807	0.0035	1.03		3894.56	3894.56		9.51	Si
SLV 9	fin.	322.99	656	-0.000125	0.0002807	0.0035	1.03		3887.91	3887.91		12.04	Si
SLV 8	ini.	-347.48	-1485	-0.0001346	0.0002807	0.0035	1.03		3894.56	3894.56		11.21	Si
SLV 8	fin.	168.86	45	-0.0000642	0.0002807	0.0035	1.03		3887.91	3887.91		23.02	Si
SLV 7	ini.	-463.28	-1845	-0.0001822	0.0002807	0.0035	1.03		3894.56	3894.56		8.41	Si
SLV 7	fin.	280.89	266	-0.0001081	0.0002807	0.0035	1.03		3887.91	3887.91		13.84	Si



Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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 10	ini.	-293.78	2482	1.03	0	672	7930	6940	2627	8601		3.46	Si
SLV 10	fin.	210.96	521	1.03	0	672	7930	6940	2627	8601		16.5	Si
SLV 9	ini.	-409.57	3009	1.03	0	672	7930	6940	2627	8601		2.86	Si
SLV 9	fin.	322.99	1048	1.03	0	672	7930	6940	2627	8601		8.21	Si
SLV 1	ini.	-874.5	4875	1.03	0	672	7930	6940	2627	8601		1.76	Si
SLV 1	fin.	761.27	2940	1.03	0	672	7930	6940	2627	8601		2.93	Si
SLV 4	ini.	-706.51	3969	1.03	0	672	7930	6940	2627	8601		2.17	Si
SLV 4	fin.	566.99	2054	1.03	0	672	7930	6940	2627	8601		4.19	Si
SLV 7	ini.	-463.28	2742	1.03	0	672	7930	6940	2627	8601		3.14	Si
SLV 7	fin.	280.89	849	1.03	0	672	7930	6940	2627	8601		10.13	Si
SLV 6	ini.	-540.97	3568	1.03	0	672	7930	6940	2627	8601		2.41	Si
SLV 6	fin.	461.88	1608	1.03	0	672	7930	6940	2627	8601		5.35	Si
SLV 3	ini.	-816.46	4469	1.03	0	672	7930	6940	2627	8601		1.92	Si
SLV 3	fin.	673.36	2554	1.03	0	672	7930	6940	2627	8601		3.37	Si
SLV 8	ini.	-347.48	2215	1.03	0	672	7930	6940	2627	8601		3.88	Si
SLV 8	fin.	168.86	322	1.03	0	672	7930	6940	2627	8601		26.71	Si
SLV 5	ini.	-656.76	4095	1.03	0	672	7930	6940	2627	8601		2.1	Si
SLV 5	fin.	573.91	2135	1.03	0	672	7930	6940	2627	8601		4.03	Si
SLV 2	ini.	-764.56	4374	1.03	0	672	7930	6940	2627	8601		1.97	Si
SLV 2	fin.	654.89	2439	1.03	0	672	7930	6940	2627	8601		3.53	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF SLV	4.453	SLV 1	Si
V SLV	1.764	SLV 1	Si
PF SLU	6.597	SLU 82	Si
V SLU	1.633	SLU 81	Si

Trave di accoppiamento 28

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
-24.997	-9.039	1.69	3.69	2	-24.497	-9.039	1.69	3.69	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 solo su un lato_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRMC

Materiale	Fu Verticale	Fu Orizzontale	t _{fv}	t _{fo}	E	eu	Tipo fibra
GeoSteel G1200	47200	47200	0.01656	0.01656	19000000000	0.015	Acciaio

Rinforzo a matrice inorganica

									elim,conv / ε _c CNR DT-200							CRM / Fibrenet?			
materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	α _t	α	elim,conv	ε _{f,d}	γ _{F,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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _m _	ε _{mu}	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 75	ini.	-675.49	-1738	-0.0000686	0.0001872	0.0035	2		14219.44	14219.44	No	21.05	Si
SLU 75	fin.	25.94	-1648	-0.0000026	0.0001872	0.0035	2		14206.68	14206.68	No	547.63	Si
SLU 78	ini.	-675.49	-1738	-0.0000686	0.0001872	0.0035	2		14219.44	14219.44	No	21.05	Si
SLU 78	fin.	25.94	-1648	-0.0000026	0.0001872	0.0035	2		14206.68	14206.68	No	547.63	Si
SLU 79	ini.	-675.56	-1738	-0.0000686	0.0001872	0.0035	2		14219.44	14219.44	No	21.05	Si
SLU 79	fin.	23.15	-1645	-0.0000023	0.0001872	0.0035	2		14206.68	14206.68	No	613.63	Si
SLU 83	ini.	-716.15	-1901	-0.0000728	0.0001872	0.0035	2		14219.44	14219.44	No	19.86	Si
SLU 83	fin.	-16.38	-1771	-0.0000016	0.0001872	0.0035	2		14219.44	14219.44	No	868.36	Si
SLU 77	ini.	-675.56	-1738	-0.0000686	0.0001872	0.0035	2		14219.44	14219.44	No	21.05	Si
SLU 77	fin.	23.15	-1645	-0.0000023	0.0001872	0.0035	2		14206.68	14206.68	No	613.63	Si
SLU 80	ini.	-675.49	-1738	-0.0000686	0.0001872	0.0035	2		14219.44	14219.44	No	21.05	Si
SLU 80	fin.	25.94	-1648	-0.0000026	0.0001872	0.0035	2		14206.68	14206.68	No	547.63	Si
SLU 74	ini.	-675.56	-1738	-0.0000686	0.0001872	0.0035	2		14219.44	14219.44	No	21.05	Si
SLU 74	fin.	23.15	-1645	-0.0000023	0.0001872	0.0035	2		14206.68	14206.68	No	613.63	Si
SLU 81	ini.	-716.15	-1901	-0.0000728	0.0001872	0.0035	2		14219.44	14219.44	No	19.86	Si
SLU 81	fin.	-16.38	-1771	-0.0000016	0.0001872	0.0035	2		14219.44	14219.44	No	868.36	Si
SLU 84	ini.	-716.08	-1901	-0.0000728	0.0001872	0.0035	2		14219.44	14219.44	No	19.86	Si
SLU 84	fin.	-13.58	-1774	-0.0000013	0.0001872	0.0035	2		14219.44	14219.44	No	1046.73	Si
SLU 82	ini.	-716.08	-1901	-0.0000728	0.0001872	0.0035	2		14219.44	14219.44	No	19.86	Si
SLU 82	fin.	-13.58	-1774	-0.0000013	0.0001872	0.0035	2		14219.44	14219.44	No	1046.73	Si



Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 84	ini.	-716.08	-414	2	0	870	3965	8983	5100	4834	No	11.68	Si
SLU 84	fin.	-13.58	2466	2	0	870	3965	8983	5100	4834	No	1.96	Si
SLU 83	ini.	-716.15	-421	2	0	870	3965	8983	5100	4834	No	11.48	Si
SLU 83	fin.	-16.38	2452	2	0	870	3965	8983	5100	4834	No	1.97	Si
SLU 73	ini.	-675.44	-152	2	0	870	3965	8983	5100	4834	No	31.75	Si
SLU 73	fin.	27.8	2402	2	0	870	3965	8983	5100	4834	No	2.01	Si
SLU 76	ini.	-675.44	-152	2	0	870	3965	8983	5100	4834	No	31.75	Si
SLU 76	fin.	27.8	2402	2	0	870	3965	8983	5100	4834	No	2.01	Si
SLU 61	ini.	-657.57	-113	2	0	870	3965	8983	5100	4834	No	42.64	Si
SLU 61	fin.	37.33	2380	2	0	870	3965	8983	5100	4834	No	2.03	Si
SLU 82	ini.	-716.08	-414	2	0	870	3965	8983	5100	4834	No	11.68	Si
SLU 82	fin.	-13.58	2466	2	0	870	3965	8983	5100	4834	No	1.96	Si
SLU 75	ini.	-675.49	-157	2	0	870	3965	8983	5100	4834	No	30.74	Si
SLU 75	fin.	25.94	2393	2	0	870	3965	8983	5100	4834	No	2.02	Si
SLU 80	ini.	-675.49	-157	2	0	870	3965	8983	5100	4834	No	30.74	Si
SLU 80	fin.	25.94	2393	2	0	870	3965	8983	5100	4834	No	2.02	Si
SLU 78	ini.	-675.49	-157	2	0	870	3965	8983	5100	4834	No	30.74	Si
SLU 78	fin.	25.94	2393	2	0	870	3965	8983	5100	4834	No	2.02	Si
SLU 81	ini.	-716.15	-421	2	0	870	3965	8983	5100	4834	No	11.48	Si
SLU 81	fin.	-16.38	2452	2	0	870	3965	8983	5100	4834	No	1.97	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 6	ini.	-684.34	-1012	-0.000069	0.0002807	0.0035	2		13933.43	13933.43		20.36	Si
SLV 6	fin.	-58.1	-638	-0.000058	0.0002807	0.0035	2		13933.43	13933.43		239.8	Si
SLV 13	ini.	-250.29	-850	-0.0000249	0.0002807	0.0035	2		13933.43	13933.43		55.67	Si
SLV 13	fin.	-596.99	-256	-0.00006	0.0002807	0.0035	2		13933.43	13933.43		23.34	Si
SLV 14	ini.	-162.88	-786	-0.0000162	0.0002807	0.0035	2		13933.43	13933.43		85.55	Si
SLV 14	fin.	-801.21	-50	-0.0000811	0.0002807	0.0035	2		13933.43	13933.43		17.39	Si
SLV 16	ini.	-56.62	-870	-0.0000566	0.0002807	0.0035	2		13933.43	13933.43		246.1	Si
SLV 16	fin.	-660.31	-394	-0.0000665	0.0002807	0.0035	2		13933.43	13933.43		21.1	Si
SLV 7	ini.	-422.2	-1359	-0.0000422	0.0002807	0.0035	2		13933.43	13933.43		33	Si
SLV 7	fin.	626.64	-2005	-0.0000631	0.0002807	0.0035	2		13920.08	13920.08		22.21	Si
SLV 4	ini.	-671.72	-1371	-0.0000677	0.0002807	0.0035	2		13933.43	13933.43		20.74	Si
SLV 4	fin.	744.18	-1926	-0.0000752	0.0002807	0.0035	2		13920.08	13920.08		18.71	Si
SLV 3	ini.	-759.13	-1435	-0.0000767	0.0002807	0.0035	2		13933.43	13933.43		18.35	Si
SLV 3	fin.	948.4	-2133	-0.0000965	0.0002807	0.0035	2		13920.08	13920.08		14.68	Si
SLV 2	ini.	-777.98	-1287	-0.0000787	0.0002807	0.0035	2		13933.43	13933.43		17.91	Si
SLV 2	fin.	603.28	-1582	-0.0000607	0.0002807	0.0035	2		13920.08	13920.08		23.07	Si
SLV 1	ini.	-865.39	-1351	-0.0000877	0.0002807	0.0035	2		13933.43	13933.43		16.1	Si
SLV 1	fin.	807.5	-1788	-0.0000818	0.0002807	0.0035	2		13920.08	13920.08		17.24	Si
SLV 5	ini.	-776.4	-1079	-0.0000785	0.0002807	0.0035	2		13933.43	13933.43		17.95	Si
SLV 5	fin.	156.97	-855	-0.0000156	0.0002807	0.0035	2		13920.08	13920.08		88.68	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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 2	ini.	-777.98	3200	2	0	1304	3965	13475	5100	5269		1.65	Si
SLV 2	fin.	603.28	4074	2	0	1304	3965	13475	5100	5269		1.29	Si
SLV 1	ini.	-865.39	4078	2	0	1304	3965	13475	5100	5269		1.29	Si
SLV 1	fin.	807.5	4901	2	0	1304	3965	13475	5100	5269		1.08	Si
SLV 3	ini.	-759.13	4056	2	0	1304	3965	13475	5100	5269		1.3	Si
SLV 3	fin.	948.4	5289	2	0	1304	3965	13475	5100	5269		1	No
SLV 13	ini.	-250.29	-2721	2	0	1304	3965	13475	5100	5269		1.94	Si
SLV 13	fin.	-596.99	-1005	2	0	1304	3965	13475	5100	5269		5.24	Si
SLV 14	ini.	-162.88	-3599	2	0	1304	3965	13475	5100	5269		1.46	Si
SLV 14	fin.	-801.21	-1832	2	0	1304	3965	13475	5100	5269		2.88	Si
SLV 15	ini.	-144.03	-2742	2	0	1304	3965	13475	5100	5269		1.92	Si
SLV 15	fin.	-456.09	-617	2	0	1304	3965	13475	5100	5269		8.54	Si
SLV 4	ini.	-671.72	3178	2	0	1304	3965	13475	5100	5269		1.66	Si
SLV 4	fin.	744.18	4462	2	0	1304	3965	13475	5100	5269		1.18	Si
SLV 16	ini.	-56.62	-3621	2	0	1304	3965	13475	5100	5269		1.46	Si
SLV 16	fin.	-660.31	-1444	2	0	1304	3965	13475	5100	5269		3.65	Si
SLV 7	ini.	-422.2	1675	2	0	1304	3965	13475	5100	5269		3.15	Si
SLV 7	fin.	626.64	3697	2	0	1304	3965	13475	5100	5269		1.43	Si
SLV 8	ini.	-330.14	750	2	0	1304	3965	13475	5100	5269		7.02	Si
SLV 8	fin.	411.56	2826	2	0	1304	3965	13475	5100	5269		1.86	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	14.677	SLV 3	Si
V_SLV	0.996	SLV 3	No
PF_SLU	19.855	SLU 81	Si
V_SLU	1.961	SLU 82	Si

Trave di accoppiamento 29

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
-24.997	-9.039	4.49	5.62	1.13	-24.497	-9.039	4.49	5.62	1.13	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 solo su un lato_Corti

fb	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	elim,conv / e,CNR DT-200						CRM / Fibrenet?				
									α _t	α	elim,conv	e,f,d	y,f,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 FRM in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _{m_}	ε _{mu}	df	M _{0d}	M _{1d}	M _{Rd}	incremento > 50%	c.s.	Verifica
SLU 79	ini.	-82.32	46	-0.0000257	0.0001872	0.0035	1.13		4627.19	4627.19	No	56.21	Si
SLU 79	fin.	243.41	307	-0.0000778	0.0001872	0.0035	1.13		4619.86	4619.86	No	18.98	Si
SLU 80	ini.	-84.18	38	-0.0000263	0.0001872	0.0035	1.13		4627.19	4627.19	No	54.97	Si
SLU 80	fin.	242.47	299	-0.0000775	0.0001872	0.0035	1.13		4619.86	4619.86	No	19.05	Si
SLU 75	ini.	-84.18	38	-0.0000263	0.0001872	0.0035	1.13		4627.19	4627.19	No	54.97	Si
SLU 75	fin.	242.47	299	-0.0000775	0.0001872	0.0035	1.13		4619.86	4619.86	No	19.05	Si
SLU 78	ini.	-84.18	38	-0.0000263	0.0001872	0.0035	1.13		4627.19	4627.19	No	54.97	Si
SLU 78	fin.	242.47	299	-0.0000775	0.0001872	0.0035	1.13		4619.86	4619.86	No	19.05	Si
SLU 77	ini.	-82.32	46	-0.0000257	0.0001872	0.0035	1.13		4627.19	4627.19	No	56.21	Si
SLU 77	fin.	243.41	307	-0.0000778	0.0001872	0.0035	1.13		4619.86	4619.86	No	18.98	Si
SLU 81	ini.	-74.58	29	-0.0000233	0.0001872	0.0035	1.13		4627.19	4627.19	No	62.04	Si
SLU 81	fin.	256.64	324	-0.0000822	0.0001872	0.0035	1.13		4619.86	4619.86	No	18	Si
SLU 84	ini.	-76.44	21	-0.0000239	0.0001872	0.0035	1.13		4627.19	4627.19	No	60.53	Si
SLU 84	fin.	255.69	316	-0.0000819	0.0001872	0.0035	1.13		4619.86	4619.86	No	18.07	Si
SLU 82	ini.	-76.44	21	-0.0000239	0.0001872	0.0035	1.13		4627.19	4627.19	No	60.53	Si
SLU 82	fin.	255.69	316	-0.0000819	0.0001872	0.0035	1.13		4619.86	4619.86	No	18.07	Si
SLU 74	ini.	-82.32	46	-0.0000257	0.0001872	0.0035	1.13		4627.19	4627.19	No	56.21	Si
SLU 74	fin.	243.41	307	-0.0000778	0.0001872	0.0035	1.13		4619.86	4619.86	No	18.98	Si
SLU 83	ini.	-74.58	29	-0.0000233	0.0001872	0.0035	1.13		4627.19	4627.19	No	62.04	Si
SLU 83	fin.	256.64	324	-0.0000822	0.0001872	0.0035	1.13		4619.86	4619.86	No	18	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	f _{vd}	V _t	V _{t,f}	V _{t,c}	V _{t,c int.}	V _{t,R}	incremento > 50%	c.s.	Verifica
SLU 76	ini.	-85.42	1404	1.13	0	491	3965	5076	2881	4456	No	3.17	Si
SLU 76	fin.	241.84	157	1.13	0	491	3965	5076	2882	4456	No	28.33	Si
SLU 81	ini.	-74.58	1497	1.13	0	491	3965	5076	2881	4456	No	2.98	Si
SLU 81	fin.	256.64	81	1.13	0	491	3965	5076	2882	4456	No	55.15	Si
SLU 80	ini.	-84.18	1403	1.13	0	491	3965	5076	2881	4456	No	3.18	Si
SLU 80	fin.	242.47	157	1.13	0	491	3965	5076	2882	4456	No	28.46	Si
SLU 84	ini.	-76.44	1498	1.13	0	491	3965	5076	2881	4456	No	2.97	Si
SLU 84	fin.	255.69	82	1.13	0	491	3965	5076	2882	4456	No	54.38	Si
SLU 82	ini.	-76.44	1498	1.13	0	491	3965	5076	2881	4456	No	2.97	Si
SLU 82	fin.	255.69	82	1.13	0	491	3965	5076	2882	4456	No	54.38	Si
SLU 75	ini.	-84.18	1403	1.13	0	491	3965	5076	2881	4456	No	3.18	Si
SLU 75	fin.	242.47	157	1.13	0	491	3965	5076	2882	4456	No	28.46	Si
SLU 78	ini.	-84.18	1403	1.13	0	491	3965	5076	2881	4456	No	3.18	Si
SLU 78	fin.	242.47	157	1.13	0	491	3965	5076	2882	4456	No	28.46	Si
SLU 77	ini.	-82.32	1402	1.13	0	491	3965	5076	2881	4456	No	3.18	Si
SLU 77	fin.	243.41	155	1.13	0	491	3965	5076	2882	4456	No	28.67	Si
SLU 83	ini.	-74.58	1497	1.13	0	491	3965	5076	2881	4456	No	2.98	Si
SLU 83	fin.	256.64	81	1.13	0	491	3965	5076	2882	4456	No	55.15	Si
SLU 73	ini.	-85.42	1404	1.13	0	491	3965	5076	2881	4456	No	3.17	Si
SLU 73	fin.	241.84	157	1.13	0	491	3965	5076	2882	4456	No	28.33	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	ε _m	ε _{m_}	ε _{mu}	df	M _{0d}	M _{1d}	M _{Rd}	incremento > 50%	c.s.	Verifica
SLV 3	ini.	-376.44	-535	-0.0001208	0.0002807	0.0035	1.13		4698.01	4698.01		12.48	Si
SLV 3	fin.	277.35	-472	-0.0000882	0.0002807	0.0035	1.13		4690.84	4690.84		16.91	Si
SLV 8	ini.	-237.53	-640	-0.0000752	0.0002807	0.0035	1.13		4698.01	4698.01		19.78	Si
SLV 8	fin.	69.7	-550	-0.0000217	0.0002807	0.0035	1.13		4690.84	4690.84		67.3	Si
SLV 6	ini.	45.17	716	-0.0000141	0.0002807	0.0035	1.13		4690.84	4690.84		103.85	Si
SLV 6	fin.	313.83	897	-0.0001002	0.0002807	0.0035	1.13		4690.84	4690.84		14.95	Si
SLV 2	ini.	-208.43	19	-0.0000658	0.0002807	0.0035	1.13		4698.01	4698.01		22.54	Si
SLV 2	fin.	321.21	117	-0.0001026	0.0002807	0.0035	1.13		4690.84	4690.84		14.6	Si



Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 9	ini.	88.23	748	-0.0000276	0.0002807	0.0035	1.13		4690.84	4690.84		53.17	Si
SLV 9	fin.	265.89	965	-0.0000845	0.0002807	0.0035	1.13		4690.84	4690.84		17.64	Si
SLV 1	ini.	-291.63	-128	-0.0000928	0.0002807	0.0035	1.13		4698.01	4698.01		16.11	Si
SLV 1	fin.	350.59	-37	-0.0001123	0.0002807	0.0035	1.13		4690.84	4690.84		13.38	Si
SLV 7	ini.	-325.15	-795	-0.0001038	0.0002807	0.0035	1.13		4698.01	4698.01		14.45	Si
SLV 7	fin.	100.65	-713	-0.0000315	0.0002807	0.0035	1.13		4690.84	4690.84		46.61	Si
SLV 4	ini.	-293.25	-388	-0.0000933	0.0002807	0.0035	1.13		4698.01	4698.01		16.02	Si
SLV 4	fin.	247.97	-317	-0.0000787	0.0002807	0.0035	1.13		4690.84	4690.84		18.92	Si
SLV 10	ini.	175.84	903	-0.0000554	0.0002807	0.0035	1.13		4690.84	4690.84		26.68	Si
SLV 10	fin.	234.94	1128	-0.0000744	0.0002807	0.0035	1.13		4690.84	4690.84		19.97	Si
SLV 5	ini.	-42.44	561	-0.0000132	0.0002807	0.0035	1.13		4698.01	4698.01		110.69	Si
SLV 5	fin.	344.78	734	-0.0001104	0.0002807	0.0035	1.13		4690.84	4690.84		13.61	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRCC 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.	-194.48	869	1.13	0	737	3965	7613	2881	4702		5.41	Si
SLV 11	fin.	21.76	-47	1.13	0	737	3965	7613	2882	4702		99.16	Si
SLV 9	ini.	88.23	914	1.13	0	737	3965	7613	2881	4702		5.15	Si
SLV 9	fin.	265.89	383	1.13	0	737	3965	7613	2882	4702		12.27	Si
SLV 4	ini.	-293.25	1390	1.13	0	737	3965	7613	2881	4702		3.38	Si
SLV 4	fin.	247.97	607	1.13	0	737	3965	7613	2882	4702		7.75	Si
SLV 3	ini.	-376.44	1606	1.13	0	737	3965	7613	2881	4702		2.93	Si
SLV 3	fin.	277.35	823	1.13	0	737	3965	7613	2882	4702		5.71	Si
SLV 2	ini.	-208.43	1403	1.13	0	737	3965	7613	2881	4702		3.35	Si
SLV 2	fin.	321.21	736	1.13	0	737	3965	7613	2882	4702		6.39	Si
SLV 5	ini.	-42.44	1249	1.13	0	737	3965	7613	2881	4702		3.76	Si
SLV 5	fin.	344.78	718	1.13	0	737	3965	7613	2882	4702		6.55	Si
SLV 6	ini.	45.17	1021	1.13	0	737	3965	7613	2881	4702		4.6	Si
SLV 6	fin.	313.83	490	1.13	0	737	3965	7613	2882	4702		9.59	Si
SLV 7	ini.	-325.15	1204	1.13	0	737	3965	7613	2881	4702		3.9	Si
SLV 7	fin.	100.65	287	1.13	0	737	3965	7613	2882	4702		16.36	Si
SLV 8	ini.	-237.53	977	1.13	0	737	3965	7613	2881	4702		4.81	Si
SLV 8	fin.	69.7	60	1.13	0	737	3965	7613	2882	4702		78.65	Si
SLV 1	ini.	-291.63	1619	1.13	0	737	3965	7613	2881	4702		2.9	Si
SLV 1	fin.	350.59	952	1.13	0	737	3965	7613	2882	4702		4.94	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	12.48	SLV 3	Si
V_SLV	2.904	SLV 1	Si
PF_SLU	18.001	SLU 81	Si
V_SLU	2.974	SLU 82	Si

Trave di accoppiamento 30

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
-23.507	-9.039	4.69	5.62	0.93	-22.107	-9.039	4.69	5.62	0.93	1.4	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 solo su un lato_Corti

f _b	f _{hk}	f _{vk0}	f _{hmedio}	τ ₀	f _{v0}	μ	φ	f _{vk,lim}	E	G	FC
120000			215600	11200	25000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRCC

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

									elim,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	α _t	α	elim,conv	ε _{f,d}	γ _{f,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 FRCC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 42	ini.	185.28	459	-0.0000877	0.0001872	0.0035	0.93		3152.75	3152.75	No	17.02	Si
SLU 42	fin.	-125.78	-112	-0.0000587	0.0001872	0.0035	0.93		3158.65	3158.65	No	25.11	Si
SLU 83	ini.	158.89	380	-0.0000748	0.0001872	0.0035	0.93		3152.75	3152.75	No	19.84	Si
SLU 83	fin.	-107.54	-48	-0.00005	0.0001872	0.0035	0.93		3158.65	3158.65	No	29.37	Si
SLU 84	ini.	155.25	367	-0.000073	0.0001872	0.0035	0.93		3152.75	3152.75	No	20.31	Si
SLU 84	fin.	-104.21	-39	-0.0000485	0.0001872	0.0035	0.93		3158.65	3158.65	No	30.31	Si
SLU 37	ini.	141.47	348	-0.0000664	0.0001872	0.0035	0.93		3152.75	3152.75	No	22.29	Si



Comb.	Sez.	M	N	εm	εm_	εmu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 37	fin.	-97.28	-66	-0.0000452	0.0001872	0.0035	0.93		3158.65	3158.65	No	32.47	Si
SLU 39	ini.	188.91	472	-0.0000895	0.0001872	0.0035	0.93		3152.75	3152.75	No	16.69	Si
SLU 39	fin.	-129.11	-120	-0.0000603	0.0001872	0.0035	0.93		3158.65	3158.65	No	24.46	Si
SLU 35	ini.	141.47	348	-0.0000664	0.0001872	0.0035	0.93		3152.75	3152.75	No	22.29	Si
SLU 35	fin.	-97.28	-66	-0.0000452	0.0001872	0.0035	0.93		3158.65	3158.65	No	32.47	Si
SLU 82	ini.	155.25	367	-0.000073	0.0001872	0.0035	0.93		3152.75	3152.75	No	20.31	Si
SLU 82	fin.	-104.21	-39	-0.0000485	0.0001872	0.0035	0.93		3158.65	3158.65	No	30.31	Si
SLU 41	ini.	188.91	472	-0.0000895	0.0001872	0.0035	0.93		3152.75	3152.75	No	16.69	Si
SLU 41	fin.	-129.11	-120	-0.0000603	0.0001872	0.0035	0.93		3158.65	3158.65	No	24.46	Si
SLU 40	ini.	185.28	459	-0.0000877	0.0001872	0.0035	0.93		3152.75	3152.75	No	17.02	Si
SLU 40	fin.	-125.78	-112	-0.0000587	0.0001872	0.0035	0.93		3158.65	3158.65	No	25.11	Si
SLU 81	ini.	158.89	380	-0.0000748	0.0001872	0.0035	0.93		3152.75	3152.75	No	19.84	Si
SLU 81	fin.	-107.54	-48	-0.00005	0.0001872	0.0035	0.93		3158.65	3158.65	No	29.37	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 82	ini.	155.25	2358	0.93	0	270	7375	4177	2372	6549	No	2.78	Si
SLU 82	fin.	-104.21	-2747	0.93	0	270	7375	4177	2371	6549	No	2.38	Si
SLU 81	ini.	158.89	2345	0.93	0	270	7375	4177	2372	6549	No	2.79	Si
SLU 81	fin.	-107.54	-2759	0.93	0	270	7375	4177	2371	6549	No	2.37	Si
SLU 84	ini.	155.25	2358	0.93	0	270	7375	4177	2372	6549	No	2.78	Si
SLU 84	fin.	-104.21	-2747	0.93	0	270	7375	4177	2371	6549	No	2.38	Si
SLU 41	ini.	188.91	2118	0.93	0	270	7375	4177	2372	6549	No	3.09	Si
SLU 41	fin.	-129.11	-2724	0.93	0	270	7375	4177	2371	6549	No	2.4	Si
SLU 79	ini.	111.45	2103	0.93	0	270	7375	4177	2372	6549	No	3.11	Si
SLU 79	fin.	-75.72	-2322	0.93	0	270	7375	4177	2371	6549	No	2.82	Si
SLU 77	ini.	111.45	2103	0.93	0	270	7375	4177	2372	6549	No	3.11	Si
SLU 77	fin.	-75.72	-2322	0.93	0	270	7375	4177	2371	6549	No	2.82	Si
SLU 39	ini.	188.91	2118	0.93	0	270	7375	4177	2372	6549	No	3.09	Si
SLU 39	fin.	-129.11	-2724	0.93	0	270	7375	4177	2371	6549	No	2.4	Si
SLU 42	ini.	185.28	2130	0.93	0	270	7375	4177	2372	6549	No	3.07	Si
SLU 42	fin.	-125.78	-2712	0.93	0	270	7375	4177	2371	6549	No	2.41	Si
SLU 40	ini.	185.28	2130	0.93	0	270	7375	4177	2372	6549	No	3.07	Si
SLU 40	fin.	-125.78	-2712	0.93	0	270	7375	4177	2371	6549	No	2.41	Si
SLU 83	ini.	158.89	2345	0.93	0	270	7375	4177	2372	6549	No	2.79	Si
SLU 83	fin.	-107.54	-2759	0.93	0	270	7375	4177	2371	6549	No	2.37	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC 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 16	ini.	485.9	1551	-0.0002389	0.0002807	0.0035	0.93		3164.34	3164.34		6.51	Si
SLV 16	fin.	-279.3	-466	-0.0001325	0.0002807	0.0035	0.93		3170.33	3170.33		11.35	Si
SLV 10	ini.	524.94	1844	-0.0002599	0.0002807	0.0035	0.93		3164.34	3164.34		6.03	Si
SLV 10	fin.	-377.57	-855	-0.0001819	0.0002807	0.0035	0.93		3170.33	3170.33		8.4	Si
SLV 15	ini.	333.84	1020	-0.00016	0.0002807	0.0035	0.93		3164.34	3164.34		9.48	Si
SLV 15	fin.	-164.5	-169	-0.0000767	0.0002807	0.0035	0.93		3170.33	3170.33		19.27	Si
SLV 7	ini.	-487.38	-1805	-0.0002392	0.0002807	0.0035	0.93		3170.33	3170.33		6.5	Si
SLV 7	fin.	352.36	1026	-0.0001694	0.0002807	0.0035	0.93		3164.34	3164.34		8.98	Si
SLV 13	ini.	503.8	1661	-0.0002485	0.0002807	0.0035	0.93		3164.34	3164.34		6.28	Si
SLV 13	fin.	-297.56	-533	-0.0001416	0.0002807	0.0035	0.93		3170.33	3170.33		10.65	Si
SLV 4	ini.	-466.24	-1623	-0.000228	0.0002807	0.0035	0.93		3170.33	3170.33		6.8	Si
SLV 4	fin.	272.35	705	-0.0001293	0.0002807	0.0035	0.93		3164.34	3164.34		11.62	Si
SLV 1	ini.	-448.34	-1513	-0.0002186	0.0002807	0.0035	0.93		3170.33	3170.33		7.07	Si
SLV 1	fin.	254.09	638	-0.0001203	0.0002807	0.0035	0.93		3164.34	3164.34		12.45	Si
SLV 9	ini.	364.8	1284	-0.0001757	0.0002807	0.0035	0.93		3164.34	3164.34		8.67	Si
SLV 9	fin.	-256.67	-541	-0.0001214	0.0002807	0.0035	0.93		3170.33	3170.33		12.35	Si
SLV 3	ini.	-618.3	-2154	-0.000311	0.0002807	0.0035	0.93		3170.33	3170.33		5.13	Si
SLV 3	fin.	387.15	1003	-0.0001872	0.0002807	0.0035	0.93		3164.34	3164.34		8.17	Si
SLV 14	ini.	655.86	2193	-0.0003331	0.0002807	0.0035	0.93		3164.34	3164.34		4.82	Si
SLV 14	fin.	-412.36	-831	-0.0001998	0.0002807	0.0035	0.93		3170.33	3170.33		7.69	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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.	-618.3	2959	0.93	0	404	7375	6266	2372	7779		2.63	Si
SLV 3	fin.	387.15	490	0.93	0	404	7375	6266	2371	7779		15.86	Si
SLV 1	ini.	-448.34	2411	0.93	0	404	7375	6266	2372	7779		3.23	Si
SLV 1	fin.	254.09	-56	0.93	0	404	7375	6266	2371	7779		138.81	Si
SLV 7	ini.	-487.38	2795	0.93	0	404	7375	6266	2372	7779		2.78	Si
SLV 7	fin.	352.36	329	0.93	0	404	7375	6266	2371	7779		23.63	Si
SLV 4	ini.	-466.24	2493	0.93	0	404	7375	6266	2372	7779		3.12	Si
SLV 4	fin.	272.35	24	0.93	0	404	7375	6266	2371	7779		318.74	Si
SLV 9	ini.	364.8	272	0.93	0	404	7375	6266	2372	7779		28.59	Si
SLV 9	fin.	-256.67	-2187	0.93	0	404	7375	6266	2371	7779		3.56	Si
SLV 16	ini.	485.9	165	0.93	0	404	7375	6266	2372	7779		47.07	Si
SLV 16	fin.	-279.3	-2293	0.93	0	404	7375	6266	2371	7779		3.39	Si
SLV 14	ini.	655.86	-382	0.93	0	404	7375	6266	2372	7779		20.35	Si
SLV 14	fin.	-412.36	-2839	0.93	0	404	7375	6266	2371	7779		2.74	Si
SLV 13	ini.	503.8	84	0.93	0	404	7375	6266	2372	7779		92.91	Si
SLV 13	fin.	-297.56	-2373	0.93	0	404	7375	6266	2371	7779		3.28	Si
SLV 10	ini.	524.94	-219	0.93	0	404	7375	6266	2372	7779		35.58	Si
SLV 10	fin.	-377.57	-2678	0.93	0	404	7375	6266	2371	7779		2.9	Si
SLV 8	ini.	-327.24	2305	0.93	0	404	7375	6266	2372	7779		3.38	Si
SLV 8	fin.	231.45	-161	0.93	0	404	7375	6266	2371	7779		48.17	Si



Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.825	SLV 14	Si
V_SLV	2.629	SLV 3	Si
PF_SLU	16.689	SLU 39	Si
V_SLU	2.374	SLU 81	Si

Trave di accoppiamento 31

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
-25.157	-13.489	3.79	5.62	1.83	-24.357	-13.489	3.79	5.62	1.83	0.8	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	fhmmedio	t0	fv0	μ	φ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

									elim,conv / e,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	elim,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 FRM in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 41	ini.	-858.08	-3245	-0.000105	0.0002246	0.0035	1.83		12492.59	12492.59	No	14.56	Si
SLU 41	fin.	437.91	-1281	-0.0000527	0.0002246	0.0035	1.83		12481.35	12481.35	No	28.5	Si
SLU 74	ini.	-825.04	-2919	-0.0001008	0.0002246	0.0035	1.83		12492.59	12492.59	No	15.14	Si
SLU 74	fin.	422.46	-937	-0.0000508	0.0002246	0.0035	1.83		12481.35	12481.35	No	29.54	Si
SLU 77	ini.	-825.04	-2919	-0.0001008	0.0002246	0.0035	1.83		12492.59	12492.59	No	15.14	Si
SLU 77	fin.	422.46	-937	-0.0000508	0.0002246	0.0035	1.83		12481.35	12481.35	No	29.54	Si
SLU 83	ini.	-925.04	-3383	-0.0001135	0.0002246	0.0035	1.83		12492.59	12492.59	No	13.5	Si
SLU 83	fin.	476.11	-1200	-0.0000573	0.0002246	0.0035	1.83		12481.35	12481.35	No	26.22	Si
SLU 39	ini.	-858.08	-3245	-0.000105	0.0002246	0.0035	1.83		12492.59	12492.59	No	14.56	Si
SLU 39	fin.	437.91	-1281	-0.0000527	0.0002246	0.0035	1.83		12481.35	12481.35	No	28.5	Si
SLU 81	ini.	-925.04	-3383	-0.0001135	0.0002246	0.0035	1.83		12492.59	12492.59	No	13.5	Si
SLU 81	fin.	476.11	-1200	-0.0000573	0.0002246	0.0035	1.83		12481.35	12481.35	No	26.22	Si
SLU 82	ini.	-924.47	-3382	-0.0001135	0.0002246	0.0035	1.83		12492.59	12492.59	No	13.51	Si
SLU 82	fin.	476.12	-1199	-0.0000573	0.0002246	0.0035	1.83		12481.35	12481.35	No	26.21	Si
SLU 42	ini.	-857.51	-3244	-0.0001049	0.0002246	0.0035	1.83		12492.59	12492.59	No	14.57	Si
SLU 42	fin.	437.92	-1280	-0.0000527	0.0002246	0.0035	1.83		12481.35	12481.35	No	28.5	Si
SLU 84	ini.	-924.47	-3382	-0.0001135	0.0002246	0.0035	1.83		12492.59	12492.59	No	13.51	Si
SLU 84	fin.	476.12	-1199	-0.0000573	0.0002246	0.0035	1.83		12481.35	12481.35	No	26.21	Si
SLU 40	ini.	-857.51	-3244	-0.0001049	0.0002246	0.0035	1.83		12492.59	12492.59	No	14.57	Si
SLU 40	fin.	437.92	-1280	-0.0000527	0.0002246	0.0035	1.83		12481.35	12481.35	No	28.5	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 74	ini.	-825.04	6314	1.83	0	796	6344	9865	4667	7139	No	1.13	Si
SLU 74	fin.	422.46	1810	1.83	0	796	6344	9865	4667	7139	No	3.94	Si
SLU 42	ini.	-857.51	6586	1.83	0	796	6344	9865	4667	7139	No	1.08	Si
SLU 42	fin.	437.92	1758	1.83	0	796	6344	9865	4667	7139	No	4.06	Si
SLU 81	ini.	-925.04	7116	1.83	0	796	6344	9865	4667	7139	No	1	Si
SLU 81	fin.	476.11	1971	1.83	0	796	6344	9865	4667	7139	No	3.62	Si
SLU 41	ini.	-858.08	6587	1.83	0	796	6344	9865	4667	7139	No	1.08	Si
SLU 41	fin.	437.91	1759	1.83	0	796	6344	9865	4667	7139	No	4.06	Si
SLU 39	ini.	-858.08	6587	1.83	0	796	6344	9865	4667	7139	No	1.08	Si
SLU 39	fin.	437.91	1759	1.83	0	796	6344	9865	4667	7139	No	4.06	Si
SLU 77	ini.	-825.04	6314	1.83	0	796	6344	9865	4667	7139	No	1.13	Si
SLU 77	fin.	422.46	1810	1.83	0	796	6344	9865	4667	7139	No	3.94	Si
SLU 84	ini.	-924.47	7115	1.83	0	796	6344	9865	4667	7139	No	1	Si
SLU 84	fin.	476.12	1970	1.83	0	796	6344	9865	4667	7139	No	3.62	Si
SLU 82	ini.	-924.47	7115	1.83	0	796	6344	9865	4667	7139	No	1	Si
SLU 82	fin.	476.12	1970	1.83	0	796	6344	9865	4667	7139	No	3.62	Si
SLU 83	ini.	-925.04	7116	1.83	0	796	6344	9865	4667	7139	No	1	Si
SLU 83	fin.	476.11	1971	1.83	0	796	6344	9865	4667	7139	No	3.62	Si
SLU 40	ini.	-857.51	6586	1.83	0	796	6344	9865	4667	7139	No	1.08	Si
SLU 40	fin.	437.92	1758	1.83	0	796	6344	9865	4667	7139	No	4.06	Si



Verifica a pressoflessione nel piano delle sezioni rinforzate con FRM in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 12	ini.	-715.93	-528	-0.0000864	0.0003369	0.0035	1.83		11828.63	11828.63		16.52	Si
SLV 12	fin.	201.75	598	-0.000024	0.0003369	0.0035	1.83		11816.35	11816.35		58.57	Si
SLV 14	ini.	741.09	15	-0.0000896	0.0003369	0.0035	1.83		11816.35	11816.35		15.94	Si
SLV 14	fin.	204.99	-200	-0.0000244	0.0003369	0.0035	1.83		11816.35	11816.35		57.64	Si
SLV 11	ini.	-744.94	-577	-0.00009	0.0003369	0.0035	1.83		11828.63	11828.63		15.88	Si
SLV 11	fin.	204.57	587	-0.0000243	0.0003369	0.0035	1.83		11816.35	11816.35		57.76	Si
SLV 4	ini.	-1695.33	-3159	-0.0002116	0.0003369	0.0035	1.83		11828.63	11828.63		6.98	Si
SLV 4	fin.	294.2	-501	-0.0000351	0.0003369	0.0035	1.83		11816.35	11816.35		40.16	Si
SLV 7	ini.	-1375.96	-1623	-0.0001698	0.0003369	0.0035	1.83		11828.63	11828.63		8.6	Si
SLV 7	fin.	237.02	348	-0.0000282	0.0003369	0.0035	1.83		11816.35	11816.35		49.85	Si
SLV 1	ini.	-1389.85	-3518	-0.0001716	0.0003369	0.0035	1.83		11828.63	11828.63		8.51	Si
SLV 1	fin.	315.82	-1009	-0.0000377	0.0003369	0.0035	1.83		11816.35	11816.35		37.41	Si
SLV 8	ini.	-1346.95	-1574	-0.000166	0.0003369	0.0035	1.83		11828.63	11828.63		8.78	Si
SLV 8	fin.	234.19	359	-0.0000279	0.0003369	0.0035	1.83		11816.35	11816.35		50.46	Si
SLV 13	ini.	713.54	-31	-0.0000862	0.0003369	0.0035	1.83		11816.35	11816.35		16.56	Si
SLV 13	fin.	207.67	-211	-0.0000247	0.0003369	0.0035	1.83		11816.35	11816.35		56.9	Si
SLV 2	ini.	-1362.31	-3471	-0.000168	0.0003369	0.0035	1.83		11828.63	11828.63		8.68	Si
SLV 2	fin.	313.14	-998	-0.0000373	0.0003369	0.0035	1.83		11816.35	11816.35		37.74	Si
SLV 3	ini.	-1722.88	-3206	-0.0002153	0.0003369	0.0035	1.83		11828.63	11828.63		6.87	Si
SLV 3	fin.	296.89	-512	-0.0000354	0.0003369	0.0035	1.83		11816.35	11816.35		39.8	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRM 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 12	ini.	-715.93	4589	1.83	0	1193	6344	14797	4667	7537		1.64	Si
SLV 12	fin.	201.75	1572	1.83	0	1193	6344	14797	4667	7537		4.8	Si
SLV 8	ini.	-1346.95	6180	1.83	0	1193	6344	14797	4667	7537		1.22	Si
SLV 8	fin.	234.19	3157	1.83	0	1193	6344	14797	4667	7537		2.39	Si
SLV 4	ini.	-1695.33	6853	1.83	0	1193	6344	14797	4667	7537		1.1	Si
SLV 4	fin.	294.2	4135	1.83	0	1193	6344	14797	4667	7537		1.82	Si
SLV 3	ini.	-1722.88	6931	1.83	0	1193	6344	14797	4667	7537		1.09	Si
SLV 3	fin.	296.89	4214	1.83	0	1193	6344	14797	4667	7537		1.79	Si
SLV 11	ini.	-744.94	4672	1.83	0	1193	6344	14797	4667	7537		1.61	Si
SLV 11	fin.	204.57	1654	1.83	0	1193	6344	14797	4667	7537		4.56	Si
SLV 1	ini.	-1389.85	5915	1.83	0	1193	6344	14797	4667	7537		1.27	Si
SLV 1	fin.	315.82	3465	1.83	0	1193	6344	14797	4667	7537		2.18	Si
SLV 2	ini.	-1362.31	5837	1.83	0	1193	6344	14797	4667	7537		1.29	Si
SLV 2	fin.	313.14	3386	1.83	0	1193	6344	14797	4667	7537		2.23	Si
SLV 6	ini.	-236.85	2793	1.83	0	1193	6344	14797	4667	7537		2.7	Si
SLV 6	fin.	297.3	661	1.83	0	1193	6344	14797	4667	7537		11.4	Si
SLV 5	ini.	-265.86	2875	1.83	0	1193	6344	14797	4667	7537		2.62	Si
SLV 5	fin.	300.13	744	1.83	0	1193	6344	14797	4667	7537		10.14	Si
SLV 7	ini.	-1375.96	6263	1.83	0	1193	6344	14797	4667	7537		1.2	Si
SLV 7	fin.	237.02	3240	1.83	0	1193	6344	14797	4667	7537		2.33	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	6.866	SLV 3	Si
V_SLV	1.087	SLV 3	Si
PF_SLU	13.505	SLU 81	Si
V_SLU	1.003	SLU 81	Si

Trave di accoppiamento 32

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
-24.007	-13.489	3.79	5.62	1.83	-23.207	-13.489	3.79	5.62	1.83	0.8	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	fmk	fvk0	fmedio	τ0	fv0	μ	φ	fvk,lim	E	G	FC
120000			258750	13500	30000	0.577	0.767	6500	320000000	128000000	1.2

Materiale per FRM

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

Rinforzo a matrice inorganica

materiale	lato applicazione	esposizione	ancoraggio verticale iniziale	ancoraggio verticale finale	ancoraggio orizzontale iniziale	ancoraggio orizzontale finale	strati	verifica taglio	elim,conv / e_CNR DT-200						CRM / Fibrenet?				
									αt	α	elim,conv	e,f,d	yF,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 FRMC in combinazioni non sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLU 81	ini.	657.4	-263	-0.0000798	0.0002246	0.0035	1.83		12481.35	12481.35	No	18.99	Si
SLU 81	fin.	1549.03	1083	-0.0001963	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.06	Si
SLU 83	ini.	657.4	-263	-0.0000798	0.0002246	0.0035	1.83		12481.35	12481.35	No	18.99	Si
SLU 83	fin.	1549.03	1083	-0.0001963	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.06	Si
SLU 76	ini.	597.8	-65	-0.0000724	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.88	Si
SLU 76	fin.	1487.88	1228	-0.000188	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.39	Si
SLU 82	ini.	657.49	-262	-0.0000798	0.0002246	0.0035	1.83		12481.35	12481.35	No	18.98	Si
SLU 82	fin.	1549.66	1085	-0.0001964	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.05	Si
SLU 73	ini.	597.8	-65	-0.0000724	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.88	Si
SLU 73	fin.	1487.88	1228	-0.000188	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.39	Si
SLU 77	ini.	597.65	-67	-0.0000724	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.88	Si
SLU 77	fin.	1486.83	1226	-0.0001878	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.39	Si
SLU 78	ini.	597.74	-66	-0.0000724	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.88	Si
SLU 78	fin.	1487.46	1227	-0.0001879	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.39	Si
SLU 75	ini.	597.74	-66	-0.0000724	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.88	Si
SLU 75	fin.	1487.46	1227	-0.0001879	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.39	Si
SLU 84	ini.	657.49	-262	-0.0000798	0.0002246	0.0035	1.83		12481.35	12481.35	No	18.98	Si
SLU 84	fin.	1549.66	1085	-0.0001964	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.05	Si
SLU 80	ini.	597.74	-66	-0.0000724	0.0002246	0.0035	1.83		12481.35	12481.35	No	20.88	Si
SLU 80	fin.	1487.46	1227	-0.0001879	0.0002246	0.0035	1.83		12481.35	12481.35	No	8.39	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC in combinazioni non sismiche CNR DT215

Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLU 83	ini.	657.4	5228	1.83	0	796	6344	9865	4667	7139	No	1.37	Si
SLU 83	fin.	1549.03	146	1.83	0	796	6344	9865	4667	7139	No	48.98	Si
SLU 81	ini.	657.4	5228	1.83	0	796	6344	9865	4667	7139	No	1.37	Si
SLU 81	fin.	1549.03	146	1.83	0	796	6344	9865	4667	7139	No	48.98	Si
SLU 76	ini.	597.8	4818	1.83	0	796	6344	9865	4667	7139	No	1.48	Si
SLU 76	fin.	1487.88	377	1.83	0	796	6344	9865	4667	7139	No	18.94	Si
SLU 75	ini.	597.74	4817	1.83	0	796	6344	9865	4667	7139	No	1.48	Si
SLU 75	fin.	1487.46	376	1.83	0	796	6344	9865	4667	7139	No	18.98	Si
SLU 84	ini.	657.49	5229	1.83	0	796	6344	9865	4667	7139	No	1.37	Si
SLU 84	fin.	1549.66	147	1.83	0	796	6344	9865	4667	7139	No	48.57	Si
SLU 82	ini.	657.49	5229	1.83	0	796	6344	9865	4667	7139	No	1.37	Si
SLU 82	fin.	1549.66	147	1.83	0	796	6344	9865	4667	7139	No	48.57	Si
SLU 78	ini.	597.74	4817	1.83	0	796	6344	9865	4667	7139	No	1.48	Si
SLU 78	fin.	1487.46	376	1.83	0	796	6344	9865	4667	7139	No	18.98	Si
SLU 73	ini.	597.8	4818	1.83	0	796	6344	9865	4667	7139	No	1.48	Si
SLU 73	fin.	1487.88	377	1.83	0	796	6344	9865	4667	7139	No	18.94	Si
SLU 79	ini.	597.65	4816	1.83	0	796	6344	9865	4667	7139	No	1.48	Si
SLU 79	fin.	1486.83	375	1.83	0	796	6344	9865	4667	7139	No	19.04	Si
SLU 80	ini.	597.74	4817	1.83	0	796	6344	9865	4667	7139	No	1.48	Si
SLU 80	fin.	1487.46	376	1.83	0	796	6344	9865	4667	7139	No	18.98	Si

Verifica a pressoflessione nel piano delle sezioni rinforzate con FRMC in combinazioni sismiche

Verifica condotta secondo CNR-DT 215

Comb.	Sez.	M	N	em	em_	emu	df	M0d	M1d	MRd	incremento > 50%	c.s.	Verifica
SLV 11	ini.	348.38	756	-0.0000416	0.0003369	0.0035	1.83		11816.35	11816.35		33.92	Si
SLV 11	fin.	2018.05	2208	-0.0002553	0.0003369	0.0035	1.83		11816.35	11816.35		5.86	Si
SLV 2	ini.	629.8	367	-0.0000759	0.0003369	0.0035	1.83		11816.35	11816.35		18.76	Si
SLV 2	fin.	1824.31	2180	-0.000229	0.0003369	0.0035	1.83		11816.35	11816.35		6.48	Si
SLV 3	ini.	665.71	754	-0.0000803	0.0003369	0.0035	1.83		11816.35	11816.35		17.75	Si
SLV 3	fin.	2634.19	3122	-0.0003419	0.0003369	0.0035	1.83		11816.35	11816.35		4.49	Si
SLV 12	ini.	342.09	750	-0.0000408	0.0003369	0.0035	1.83		11816.35	11816.35		34.54	Si
SLV 12	fin.	1987.55	2169	-0.0002511	0.0003369	0.0035	1.83		11816.35	11816.35		5.95	Si
SLV 1	ini.	635.78	373	-0.0000766	0.0003369	0.0035	1.83		11816.35	11816.35		18.59	Si
SLV 1	fin.	1853.27	2216	-0.0002329	0.0003369	0.0035	1.83		11816.35	11816.35		6.38	Si
SLV 7	ini.	511.03	961	-0.0000613	0.0003369	0.0035	1.83		11816.35	11816.35		23.12	Si
SLV 7	fin.	2723.28	3118	-0.0003548	0.0003369	0.0035	1.83		11816.35	11816.35		4.34	Si
SLV 8	ini.	504.74	954	-0.0000606	0.0003369	0.0035	1.83		11816.35	11816.35		23.41	Si
SLV 8	fin.	2692.78	3080	-0.0003504	0.0003369	0.0035	1.83		11816.35	11816.35		4.39	Si
SLV 9	ini.	248.62	-513	-0.0000296	0.0003369	0.0035	1.83		11816.35	11816.35		47.53	Si
SLV 9	fin.	-585.04	-812	-0.0000703	0.0003369	0.0035	1.83		11828.63	11828.63		20.22	Si
SLV 4	ini.	659.73	748	-0.0000795	0.0003369	0.0035	1.83		11816.35	11816.35		17.91	Si
SLV 4	fin.	2605.23	3086	-0.0003377	0.0003369	0.0035	1.83		11816.35	11816.35		4.54	Si
SLV 10	ini.	242.33	-520	-0.0000288	0.0003369	0.0035	1.83		11816.35	11816.35		48.76	Si
SLV 10	fin.	-615.54	-851	-0.000074	0.0003369	0.0035	1.83		11828.63	11828.63		19.22	Si

Verifica a taglio nel piano delle sezioni rinforzate con FRMC 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.	348.38	5710	1.83	0	1193	6344	14797	4667	7537		1.32	Si
SLV 11	fin.	2018.05	3159	1.83	0	1193	6344	14797	4667	7537		2.39	Si
SLV 10	ini.	242.33	-826	1.83	0	1193	6344	14797	4667	7537		9.12	Si
SLV 10	fin.	-615.54	-3301	1.83	0	1193	6344	14797	4667	7537		2.28	Si
SLV 3	ini.	665.71	6397	1.83	0	1193	6344	14797	4667	7537		1.18	Si
SLV 3	fin.	2634.19	3815	1.83	0	1193	6344	14797	4667	7537		1.98	Si
SLV 12	ini.	342.09	5643	1.83	0	1193	6344	14797	4667	7537		1.34	Si
SLV 12	fin.	1987.55	3092	1.83	0	1193	6344	14797	4667	7537		2.44	Si
SLV 1	ini.	635.78	4456	1.83	0	1193	6344	14797	4667	7537		1.69	Si
SLV 1	fin.	1853.27	1897	1.83	0	1193	6344	14797	4667	7537		3.97	Si



Comb.	Sez.	M	V	df	fvd	Vt	Vt,f	Vt,c	Vt,c int.	Vt,R	incremento > 50%	c.s.	Verifica
SLV 7	ini.	511.03	7073	1.83	0	1193	6344	14797	4667	7537		1.07	Si
SLV 7	fin.	2723.28	4495	1.83	0	1193	6344	14797	4667	7537		1.68	Si
SLV 4	ini.	659.73	6333	1.83	0	1193	6344	14797	4667	7537		1.19	Si
SLV 4	fin.	2605.23	3751	1.83	0	1193	6344	14797	4667	7537		2.01	Si
SLV 2	ini.	629.8	4392	1.83	0	1193	6344	14797	4667	7537		1.72	Si
SLV 2	fin.	1824.31	1833	1.83	0	1193	6344	14797	4667	7537		4.11	Si
SLV 9	ini.	248.62	-760	1.83	0	1193	6344	14797	4667	7537		9.92	Si
SLV 9	fin.	-585.04	-3234	1.83	0	1193	6344	14797	4667	7537		2.33	Si
SLV 8	ini.	504.74	7006	1.83	0	1193	6344	14797	4667	7537		1.08	Si
SLV 8	fin.	2692.78	4428	1.83	0	1193	6344	14797	4667	7537		1.7	Si

Tabella dei coefficienti di sicurezza minimi

Stato limite	Coeff.s.	Comb.	Verifica
PF_SLV	4.339	SLV 7	Si
V_SLV	1.066	SLV 7	Si
PF_SLU	8.054	SLU 82	Si
V_SLU	1.365	SLU 82	Si