

# COMUNE DI FIRENZE

**Intervento di manutenzione straordinaria per la riqualificazione strutturale  
di un edificio di 48 alloggi ERP in Via Accademia del Cimento 14/1-3**



## Finanziamenti:

Finanziamento di programma POR 2018 – Delibera G.R.T. n. 1528 del 09.12.2019 con €995.655,81 (€ 870.599,22 Legge n. 560/93 art. 1/14° comma + € 125.056,59 Legge R.T. n. 96/96 art. 23) + SUPERBONUS (Art. 119 del decreto-legge n. 34/2020 - decreto Rilancio)

**Operatore: CASA SPA**



**RESPONSABILE DEL PROCEDIMENTO:**  
**Arch. Marco Barone**

**PROGETTO STRUTTURALE**  
**Progettista**  
Ing. Angela Bevilacqua  
**Collaboratore alla Progettazione**  
Ing. Carolina Becucci

TAV. N°	TAVOLE DI PROGETTO STRUTTURALE:	SCALA:
DF-ST  00.8	TABULATI DI CALCOLO POST BLOCCO 2	-
		DATA:  Giugno 2022
FI36-DF-ST-00.8-01		

ADDETTO ALLA VERIFICA

Ing. Leonardo Boschi

geom. Alessio Romagnoli



# Sommario

Introduzione.....	7
Sistemi di riferimento .....	7
Rotazioni e momenti .....	7
Normativa di riferimento .....	7
Unità di misura .....	8
Geometria.....	8
Elenco vincoli nodi .....	8
Elenco sezioni aste .....	8
Elenco vincoli aste .....	9
Elenco tipi elementi bidimensionali .....	9
Elenco tipi solai .....	10
Elenco solai .....	10
Elenco tipi tamponature .....	12
Carichi.....	12
Condizioni di carico elementari .....	12
Elenco carichi asteCondizione di carico n. 1: Permanenti strutturali Elenco peso proprio aste .....	13
Condizione di carico n. 1: Permanenti strutturali Carichi distribuiti .....	13
Condizione di carico n. 2: Permanenti non strutturali Carichi distribuiti .....	31
Condizione di carico n. 3: Variabili Civile Abitazione Carichi distribuiti .....	53
Condizione di carico n. 4: Variabili neve Carichi distribuiti .....	66
Condizione di carico n. 5: Scale perm non strutturale Carichi distribuiti .....	67
Condizione di carico n. 6: scale variabile Carichi distribuiti .....	68
Elenco carichi elementi bidimensionaliElenco peso proprio elementi bidimensionali .....	68
Condizione di carico n. 2: Permanenti non strutturali Carichi uniformi .....	68
Condizione di carico n. 3: Variabili Civile Abitazione Carichi uniformi .....	69
Condizione di carico n. 5: Scale perm non strutturale Carichi uniformi .....	69
Condizione di carico n. 6: scale variabile Carichi uniformi .....	69
Risultati del calcolo.....	70
Parametri di calcolo .....	70
Reazioni vincolari .....	71
Verifiche e armature travi.....	75
Travata n. 10024 .....	75
Travata n. 10035 .....	76
Travata n. 11021 .....	76
Travata n. 11022 .....	77
Travata n. 11023 .....	77
Travata n. 11024 .....	78
Travata n. 11027 .....	78
Travata n. 11028 .....	79
Travata n. 11029 .....	79
Travata n. 11032 .....	79
Travata n. 11033 .....	80
Travata n. 11035 .....	80
Travata n. 11036 .....	81
Travata n. 11040 .....	81
Travata n. 11041 .....	81
Travata n. 11042 .....	82
Travata n. 11070 .....	82
Travata n. 11084 .....	83
Travata n. 11088 .....	83
Travata n. 11130 .....	84
Travata n. 11131 .....	84
Travata n. 11173 .....	85
Travata n. 11174 .....	85
Travata n. 11216 .....	86
Travata n. 11217 .....	86
Travata n. 11259 .....	87
Travata n. 11302 .....	88
Travata n. 11345 .....	88
Travata n. 12024 .....	89
Travata n. 12035 .....	89
Travata n. 13021 .....	90
Travata n. 13022 .....	90
Travata n. 13023 .....	90
Travata n. 13024 .....	91
Travata n. 13027 .....	91
Travata n. 13028 .....	92
Travata n. 13029 .....	92
Travata n. 13032 .....	93
Travata n. 13033 .....	93
Travata n. 13035 .....	93
Travata n. 13036 .....	94
Travata n. 13040 .....	94
Travata n. 13041 .....	95
Travata n. 13042 .....	95
Travata n. 13070 .....	96
Travata n. 13084 .....	96
Travata n. 13088 .....	96
Travata n. 13130 .....	97
Travata n. 13131 .....	98
Travata n. 13173 .....	98
Travata n. 13174 .....	99
Travata n. 13216 .....	99



## Relazione di calcolo

Travata n. 13217 .....	100
Travata n. 13259 .....	100
Travata n. 13302 .....	101
Travata n. 13345 .....	101
Travata n. 14024 .....	102
Travata n. 14035 .....	102
Travata n. 15021 .....	103
Travata n. 15022 .....	103
Travata n. 15023 .....	104
Travata n. 15024 .....	104
Travata n. 15027 .....	104
Travata n. 15028 .....	105
Travata n. 15029 .....	105
Travata n. 15032 .....	106
Travata n. 15033 .....	106
Travata n. 15035 .....	107
Travata n. 15036 .....	107
Travata n. 15040 .....	107
Travata n. 15041 .....	108
Travata n. 15042 .....	108
Travata n. 15070 .....	109
Travata n. 15084 .....	109
Travata n. 15088 .....	110
Travata n. 15130 .....	110
Travata n. 15131 .....	111
Travata n. 15173 .....	111
Travata n. 15174 .....	112
Travata n. 15216 .....	112
Travata n. 15217 .....	113
Travata n. 15259 .....	113
Travata n. 15302 .....	114
Travata n. 15345 .....	114
Travata n. 16024 .....	115
Travata n. 16035 .....	115
Travata n. 17021 .....	116
Travata n. 17022 .....	116
Travata n. 17023 .....	117
Travata n. 17024 .....	117
Travata n. 17027 .....	118
Travata n. 17028 .....	118
Travata n. 17029 .....	118
Travata n. 17032 .....	119
Travata n. 17033 .....	119
Travata n. 17035 .....	120
Travata n. 17036 .....	120
Travata n. 17040 .....	121
Travata n. 17041 .....	121
Travata n. 17042 .....	121
Travata n. 17070 .....	122
Travata n. 17084 .....	122
Travata n. 17088 .....	123
Travata n. 17130 .....	123
Travata n. 17131 .....	124
Travata n. 17173 .....	124
Travata n. 17174 .....	125
Travata n. 17216 .....	125
Travata n. 17217 .....	126
Travata n. 17259 .....	127
Travata n. 17302 .....	127
Travata n. 17345 .....	128
Travata n. 18024 .....	128
Travata n. 18035 .....	129
Travata n. 18052 .....	129
Travata n. 19021 .....	129
Travata n. 19022 .....	130
Travata n. 19023 .....	130
Travata n. 19024 .....	131
Travata n. 19027 .....	131
Travata n. 19028 .....	132
Travata n. 19029 .....	132
Travata n. 19032 .....	132
Travata n. 19033 .....	133
Travata n. 19035 .....	133
Travata n. 19036 .....	134
Travata n. 19040 .....	134
Travata n. 19041 .....	135
Travata n. 19042 .....	135
Travata n. 19070 .....	135
Travata n. 19084 .....	136
Travata n. 19088 .....	136
Travata n. 19130 .....	137
Travata n. 19131 .....	137
Travata n. 19173 .....	138



## Relazione di calcolo

Travata n. 19174 .....	139
Travata n. 19216 .....	139
Travata n. 19217 .....	140
Travata n. 19259 .....	140
Travata n. 19302 .....	141
Travata n. 19345 .....	141
Travate n. 3020 5020 7020 9020 11020 13020 15020 17020 19020 .....	142
Travata n. 3021 .....	143
Travata n. 3022 .....	143
Travata n. 3023 .....	144
Travata n. 3024 .....	144
Travata n. 3027 .....	145
Travata n. 3028 .....	145
Travata n. 3029 .....	145
Travate n. 3030 5030 7030 9030 11030 13030 15030 17030 19030 .....	146
Travata n. 3032 .....	147
Travata n. 3033 .....	147
Travata n. 3035 .....	148
Travata n. 3036 .....	148
Travata n. 3040 .....	149
Travata n. 3041 .....	149
Travata n. 3042 .....	150
Travate n. 3043 5043 7043 9043 11043 13043 15043 17043 19043 .....	150
Travata n. 3088 .....	151
Travata n. 3130 .....	152
Travata n. 3131 .....	152
Travata n. 3173 .....	153
Travata n. 3174 .....	153
Travata n. 3216 .....	154
Travata n. 3217 .....	155
Travata n. 3259 .....	155
Travata n. 3302 .....	156
Travata n. 3345 .....	156
Travata n. 4024 .....	157
Travata n. 4035 .....	157
Travata n. 5021 .....	158
Travata n. 5022 .....	158
Travata n. 5023 .....	159
Travata n. 5024 .....	159
Travata n. 5027 .....	159
Travata n. 5028 .....	160
Travata n. 5029 .....	160
Travata n. 5032 .....	161
Travata n. 5033 .....	161
Travata n. 5035 .....	162
Travata n. 5036 .....	162
Travata n. 5040 .....	162
Travata n. 5041 .....	163
Travata n. 5042 .....	163
Travata n. 5070 .....	164
Travata n. 5084 .....	164
Travata n. 5088 .....	165
Travata n. 5130 .....	165
Travata n. 5131 .....	166
Travata n. 5173 .....	166
Travata n. 5174 .....	167
Travata n. 5216 .....	167
Travata n. 5217 .....	168
Travata n. 5259 .....	168
Travata n. 5302 .....	169
Travata n. 5345 .....	170
Travata n. 6024 .....	170
Travata n. 6035 .....	171
Travata n. 7021 .....	171
Travata n. 7022 .....	171
Travata n. 7023 .....	172
Travata n. 7024 .....	172
Travata n. 7027 .....	173
Travata n. 7028 .....	173
Travata n. 7029 .....	174
Travata n. 7032 .....	174
Travata n. 7033 .....	174
Travata n. 7035 .....	175
Travata n. 7036 .....	175
Travata n. 7040 .....	176
Travata n. 7041 .....	176
Travata n. 7042 .....	177
Travata n. 7070 .....	177
Travata n. 7084 .....	177
Travata n. 7088 .....	178
Travata n. 7130 .....	178
Travata n. 7131 .....	179
Travata n. 7173 .....	180



## Relazione di calcolo

Travata n. 7174 .....	180
Travata n. 7216 .....	181
Travata n. 7217 .....	181
Travata n. 7259 .....	182
Travata n. 7302 .....	182
Travata n. 7345 .....	183
Travata n. 8024 .....	183
Travata n. 8035 .....	184
Travata n. 9021 .....	184
Travata n. 9022 .....	185
Travata n. 9023 .....	185
Travata n. 9024 .....	186
Travata n. 9027 .....	186
Travata n. 9028 .....	186
Travata n. 9029 .....	187
Travata n. 9032 .....	187
Travata n. 9033 .....	188
Travata n. 9035 .....	188
Travata n. 9036 .....	189
Travata n. 9040 .....	189
Travata n. 9041 .....	189
Travata n. 9042 .....	190
Travata n. 9070 .....	190
Travata n. 9084 .....	191
Travata n. 9088 .....	191
Travata n. 9130 .....	192
Travata n. 9131 .....	192
Travata n. 9173 .....	193
Travata n. 9174 .....	193
Travata n. 9216 .....	194
Travata n. 9217 .....	194
Travata n. 9259 .....	195
Travata n. 9302 .....	196
Travata n. 9345 .....	196
Travata n. 2024 .....	197
Travata n. 2035 .....	197
Travate n. 23103 23203 23303 23403 23503 23603 23703 23803 23903 .....	198
Travate n. 23104 23204 23304 23404 23504 23604 23704 23804 23904 .....	198
Travate n. 23105 23205 23305 23405 23505 23605 23705 23805 23905 .....	199
Travate n. 23106 23206 23306 23406 23506 23606 23706 23806 23906 .....	199
Travate n. 30009 50009 70009 90009 110009 130009 170009 190009 .....	200
Travate n. 30011 50011 70011 90011 110011 130011 170011 190011 .....	200
Travata n. 3003 .....	200
Travata n. 3009 .....	203
Travata n. 3070 .....	206
Travata n. 3084 .....	207
Travate n. 5003 7003 9003 11003 13003 15003 17003 19003 .....	207
Travate n. 5009 7009 9009 11009 13009 15009 17009 19009 .....	211
Verifiche e armature pilastri .....	214
Pilastrata n. 7 .....	215
Pilastrata n. 8 .....	217
Pilastrata n. 9 .....	219
Pilastrata n. 10 .....	220
Pilastrata n. 11 .....	222
Pilastrata n. 12 .....	224
Pilastrata n. 13 .....	226
Pilastrata n. 14 .....	227
Pilastrata n. 15 .....	229
Pilastrata n. 16 .....	231
Pilastrata n. 17 .....	233
Pilastrata n. 18 .....	234
Pilastrata n. 19 .....	236
Pilastrata n. 20 .....	238
Pilastrata n. 25 .....	239
Pilastrata n. 26 .....	241
Pilastrata n. 27 .....	243
Pilastrata n. 28 .....	244
Pilastrata n. 29 .....	246
Pilastrata n. 30 .....	248
Pilastrata n. 31 .....	249
Pilastrata n. 32 .....	251
Pilastrata n. 33 .....	253
Pilastrata n. 34 .....	255
Pilastrata n. 41 .....	256
Pilastrata n. 42 .....	258
Pilastrata n. 43 .....	260
Pilastrata n. 44 .....	261
Pilastrata n. 45 .....	264
Pilastrata n. 46 .....	266
Pilastrata n. 47 .....	268
Pilastrata n. 48 .....	270
Pilastrata n. 49 .....	271
Pilastrata n. 50 .....	273



## Relazione di calcolo

Pilastrata n. 51 .....	274
Pilastrata n. 52 .....	277
Pilastrata n. 53 .....	280
Pilastrata n. 54 .....	281
Verifiche e armature nuclei .....	283
Numero del nucleo n. 306 .....	283
Numero del nucleo n. 307 .....	284
Numero del nucleo n. 309 .....	285
Numero del nucleo n. 311 .....	285
Numero del nucleo n. 312 .....	285
Numero del nucleo n. 313 .....	286
Numero del nucleo n. 314 .....	287
Numero del nucleo n. 316 .....	287
Numero del nucleo n. 318 .....	288
Numero del nucleo n. 319 .....	288
Numero del nucleo n. 321 .....	288
Numero del nucleo n. 322 .....	289
Numero del nucleo n. 323 .....	290
Numero del nucleo n. 396 .....	290
Numero del nucleo n. 397 .....	290
Numero del nucleo n. 399 .....	291
Numero del nucleo n. 401 .....	291
Numero del nucleo n. 402 .....	292
Numero del nucleo n. 403 .....	292
Numero del nucleo n. 404 .....	293
Numero del nucleo n. 406 .....	293
Numero del nucleo n. 407 .....	294
Numero del nucleo n. 408 .....	294
Numero del nucleo n. 488 .....	295
Numero del nucleo n. 496 .....	295
Numero del nucleo n. 498 .....	295
Numero del nucleo n. 499 .....	296
Numero del nucleo n. 500 .....	296
Numero del nucleo n. 501 .....	297
Numero del nucleo n. 504 .....	297
Numero del nucleo n. 505 .....	298
Numero del nucleo n. 588 .....	298
Numero del nucleo n. 596 .....	298
Numero del nucleo n. 598 .....	299
Numero del nucleo n. 599 .....	299
Numero del nucleo n. 600 .....	300
Numero del nucleo n. 601 .....	300
Numero del nucleo n. 604 .....	301
Numero del nucleo n. 605 .....	301
Numero del nucleo n. 688 .....	301
Numero del nucleo n. 696 .....	302
Numero del nucleo n. 698 .....	302
Numero del nucleo n. 699 .....	303
Numero del nucleo n. 700 .....	303
Numero del nucleo n. 701 .....	304
Numero del nucleo n. 704 .....	304
Numero del nucleo n. 705 .....	305
Numero del nucleo n. 788 .....	305
Numero del nucleo n. 796 .....	305
Numero del nucleo n. 798 .....	306
Numero del nucleo n. 799 .....	306
Numero del nucleo n. 800 .....	307
Numero del nucleo n. 801 .....	307
Numero del nucleo n. 804 .....	308
Numero del nucleo n. 805 .....	308
Numero del nucleo n. 888 .....	308
Numero del nucleo n. 896 .....	309
Numero del nucleo n. 898 .....	309
Numero del nucleo n. 899 .....	310
Numero del nucleo n. 900 .....	310
Numero del nucleo n. 901 .....	311
Numero del nucleo n. 904 .....	311
Numero del nucleo n. 905 .....	312
Numero del nucleo n. 988 .....	312
Numero del nucleo n. 996 .....	312
Numero del nucleo n. 998 .....	313
Numero del nucleo n. 999 .....	313
Numero del nucleo n. 1000 .....	314
Numero del nucleo n. 1001 .....	314
Numero del nucleo n. 1004 .....	315
Numero del nucleo n. 1005 .....	315
Numero del nucleo n. 1088 .....	316
Numero del nucleo n. 1096 .....	316
Numero del nucleo n. 1098 .....	316
Numero del nucleo n. 1099 .....	317
Numero del nucleo n. 1100 .....	317
Numero del nucleo n. 1101 .....	318
Numero del nucleo n. 1104 .....	318



## Relazione di calcolo

Numero del nucleo n. 1105 .....	319
Numero del nucleo n. 1188 .....	319
Numero del nucleo n. 1196 .....	320
Numero del nucleo n. 1198 .....	320
Numero del nucleo n. 1199 .....	320
Numero del nucleo n. 1200 .....	321
Numero del nucleo n. 1201 .....	321
Numero del nucleo n. 1204 .....	322
Numero del nucleo n. 1205 .....	322
Numero del nucleo n. 1288 .....	323
Numero del nucleo n. 1296 .....	323
Numero del nucleo n. 1298 .....	323
Numero del nucleo n. 1299 .....	324
Numero del nucleo n. 1300 .....	324
Numero del nucleo n. 1301 .....	325
Numero del nucleo n. 1304 .....	325
Numero del nucleo n. 1305 .....	326
Numero del nucleo n. 1388 .....	326
Numero del nucleo n. 1396 .....	327
Numero del nucleo n. 1398 .....	327
Numero del nucleo n. 1399 .....	327
Numero del nucleo n. 1400 .....	328
Numero del nucleo n. 1401 .....	328
Numero del nucleo n. 1404 .....	329
Numero del nucleo n. 1405 .....	329
Numero del nucleo n. 1488 .....	330
Numero del nucleo n. 1496 .....	330
Numero del nucleo n. 1498 .....	331
Numero del nucleo n. 1499 .....	331
Numero del nucleo n. 1500 .....	331
Numero del nucleo n. 1501 .....	332
Numero del nucleo n. 1504 .....	332
Numero del nucleo n. 1505 .....	333
Numero del nucleo n. 1588 .....	333
Numero del nucleo n. 1596 .....	334
Numero del nucleo n. 1598 .....	334
Numero del nucleo n. 1599 .....	335
Numero del nucleo n. 1600 .....	335
Numero del nucleo n. 1601 .....	335
Numero del nucleo n. 1688 .....	336
Numero del nucleo n. 1696 .....	336
Numero del nucleo n. 1698 .....	337
Numero del nucleo n. 1699 .....	337
Numero del nucleo n. 1700 .....	338
Numero del nucleo n. 1701 .....	338
Numero del nucleo n. 1705 .....	339
Numero del nucleo n. 1788 .....	339
Numero del nucleo n. 1796 .....	339
Numero del nucleo n. 1798 .....	340
Numero del nucleo n. 1799 .....	340
Numero del nucleo n. 1800 .....	341
Numero del nucleo n. 1801 .....	341
Numero del nucleo n. 1888 .....	342
Numero del nucleo n. 1896 .....	342
Numero del nucleo n. 1898 .....	342
Numero del nucleo n. 1899 .....	343
Numero del nucleo n. 1900 .....	343
Numero del nucleo n. 1901 .....	344
Numero del nucleo n. 1988 .....	344
Numero del nucleo n. 1996 .....	345
Numero del nucleo n. 1998 .....	345
Numero del nucleo n. 1999 .....	346
Numero del nucleo n. 2000 .....	346
Numero del nucleo n. 2001 .....	347
Verifiche e armature solette/platee .....	347
Armatura platea a quota -3.60 .....	348
Verifiche aste in acciaio .....	348
Sintesi .....	397



## Introduzione

### Sistemi di riferimento

Le coordinate, i carichi concentrati, i cedimenti, le reazioni vincolari e gli spostamenti dei NODI sono riferiti ad una terna destra cartesiana globale con l'asse Z verticale rivolto verso l'alto. I carichi in coordinate locali e le sollecitazioni delle ASTE sono riferite ad una terna destra cartesiana locale così definita:

- origine nel nodo iniziale dell'asta;
- asse X coincidente con l'asse dell'asta e con verso dal nodo iniziale al nodo finale;
- immaginando la trave a sezione rettangolare l'asse Y è parallelo alla base e l'asse Z è parallelo all'altezza. La rotazione dell'asta comporta quindi una rotazione di tutta la terna locale.

Si può immaginare la terna locale di un'asta comunque disposta nello spazio come derivante da quella globale dopo una serie di trasformazioni:

- una rotazione intorno all'asse Z che porti l'asse X a coincidere con la proiezione dell'asse dell'asta sul piano orizzontale;
- una traslazione lungo il nuovo asse X così definito in modo da portare l'origine a coincidere con la proiezione del nodo iniziale dell'asta sul piano orizzontale;
- una traslazione lungo l'asse Z che porti l'origine a coincidere con il nodo iniziale dell'asta;
- una rotazione intorno all'asse Y così definito che porti l'asse X a coincidere con l'asse dell'asta;
- una rotazione intorno all'asse X così definito pari alla rotazione dell'asta.

In pratica le travi prive di rotazione avranno sempre l'asse Z rivolto verso l'alto e l'asse Y nel piano del solaio, mentre i pilastri privi di rotazione avranno l'asse Y parallelo all'asse Y globale e l'asse Z parallelo ma controverso all'asse X globale. Da notare quindi che per i pilastri la "base" è il lato parallelo a Y.

Le sollecitazioni ed i carichi in coordinate locali negli ELEMENTI BIDIMENSIONALI e nei MURI sono riferiti ad una terna destra cartesiana locale così definita:

- origine nel primo nodo dell'elemento;
- asse X coincidente con la congiungente il primo ed il secondo nodo dell'elemento;
- asse Y definito come prodotto vettoriale fra il versore dell'asse X e il versore della congiungente il primo e il quarto nodo. Asse Z a formare con gli altri due una terna destrorsa.

Praticamente un elemento verticale con l'asse X locale coincidente con l'asse X globale ha anche gli altri assi locali coincidenti con quelli globali.

### Rotazioni e momenti

Seguendo il principio adottato per tutti i carichi che sono positivi se CONTROVERSI agli assi, anche i momenti concentrati e le rotazioni impresse in coordinate globali risultano positivi se CONTROVERSI al segno positivo delle rotazioni. Il segno positivo dei momenti e delle rotazioni è quello orario per l'osservatore posto nell'origine: X ruota su Y, Y ruota su Z, Z ruota su X. In pratica è sufficiente adottare la regola della mano destra: col pollice rivolto nella direzione dell'asse, la rotazione che porta a chiudere il palmo della mano corrisponde al segno positivo.

### Normativa di riferimento

La normativa di riferimento è la seguente:

- Legge n. 64 del 2/2/1974 - Provvedimenti per le costruzioni con particolari prescrizioni per le zone sismiche.
- D.M. del 24/1/1986 - Norme tecniche relative alle costruzioni sismiche.
- Legge n. 1086 del 5/11/1971 - Norme per la disciplina delle opere di conglomerato cementizio armato, normale e precompresso ed a struttura metallica.
- D.M. del 14/2/1992 - Norme tecniche per l'esecuzione delle opere in c.a. normale e precompresso e per le strutture metalliche.
- D.M. del 9/1/1996 - Norme tecniche per l'esecuzione delle opere in c.a. normale e precompresso e per le strutture metalliche.
- D.M. del 16/1/1996 - Norme tecniche per le costruzioni in zone sismiche.
- Circolare n. 21745 del 30/7/1981 - Legge n. 219 del 14/5/1981 - Art. 10 - Istruzioni relative al rafforzamento degli edifici in muratura danneggiati dal sisma.
- Regione Autonoma Friuli Venezia Giulia - Legge Regionale n. 30 del 20/6/1977 - Documentazione tecnica per la progettazione e direzione delle opere di riparazione degli edifici - Documento Tecnico n. 2 - Raccomandazioni per la riparazione strutturale degli edifici in muratura.
- D.M. del 20/11/1987 - Norme Tecniche per la progettazione, esecuzione e collaudo degli edifici in muratura e per il loro consolidamento.
- Norme Tecniche C.N.R. n. 10011-85 del 18/4/1985 - Costruzioni di acciaio - Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione.
- Norme Tecniche C.N.R. n. 10025-84 del 14/12/1984 - Istruzioni per il progetto, l'esecuzione ed il controllo delle strutture prefabbricate in conglomerato cementizio e per le strutture costruite con sistemi industrializzati di acciaio - Istruzioni per il calcolo, l'esecuzione, il collaudo e la manutenzione.



Relazione di calcolo

- Circolare n. 65 del 10/4/1997 - Istruzioni per l'applicazione delle "Norme tecniche per le costruzioni in zone sismiche" di cui al D.M. del 16/1/1996.
- Eurocodice 5 - Progettazione delle strutture di legno.
- DIN 1052 - Metodi di verifica per il legno.
- D.M. del 17/1/2018 - Norme tecniche per le costruzioni.
- Circolare n. 7 del 21/1/2019 - Istruzioni per l'applicazione dell'«Aggiornamento delle "Norme tecniche per le costruzioni"» di cui al decreto ministeriale 17 gennaio 2018.
- Documento Tecnico CNR-DT 200 R1/2012 - Istruzioni per la Progettazione, l'Esecuzione ed il Controllo di Interventi di Consolidamento Statico mediante l'utilizzo di Compositi Fibrorinforzati.
- Eurocodice 3 - Progettazione delle strutture in acciaio.

Unità di misura

Le unità di misura adottate sono le seguenti:

- lunghezze : m
- forze : daN
- masse : kg
- temperature : gradi centigradi
- angoli : gradi sessadecimali o radiant

Geometria

Elenco vincoli nodi

Simbologia

Comm. = Commento  
Kt = Coeff. di sottofondo su suolo elastico alla Winkler  
Ly = Lunghezza (dir. Y locale)  
Lz = Larghezza (dir. Z locale)  
RL = Rotazione libera  
Rx = Rotazione intorno all'asse X (L=libera, B=bloccata, E=elastica)  
Ry = Rotazione intorno all'asse Y (L=libera, B=bloccata, E=elastica)  
Rz = Rotazione intorno all'asse Z (L=libera, B=bloccata, E=elastica)  
Sx = Spostamento in dir. X (L=libero, B=bloccato, E=elastico)  
Sy = Spostamento in dir. Y (L=libero, B=bloccato, E=elastico)  
Sz = Spostamento in dir. Z (L=libero, B=bloccato, E=elastico)  
Vn = Numero del vincolo nodo

Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly	Lz	Kt
									<m>	<m>	<daN/cmc>
1	Libero	L	L	L	L	L	L				
3	El. sew 110001	B	B	L	L	L	B				

Vn	Comm.	Sx	Sy	Sz	Rx	Ry	Rz	RL	Ly	Lz	Kt
									<m>	<m>	<daN/cmc>
2	Incastro	B	B	B	B	B	B				

Elenco sezioni aste

Simbologia

B = Base  
C = Numero del criterio di progetto  
Comm. = Commento  
Crit. C.F. = Criterio di progetto collegamento finale  
Crit. C.I. = Criterio di progetto collegamento iniziale  
D = Distanza  
H = Altezza  
Ma = Numero del materiale  
Mem. = Membratura  
T = Trave  
P = Pilastro  
Sez. = Numero della sezione  
Tipo = Tipologia  
2I = Doppia I  
L = Sezione a L  
Ldx = L destra  
R = Rettangolare  
Rc = Rettangolare cava  
T = Sezione a T  
Ver. = Verifica prevista  
C = Cemento armato  
A = Acciaio  
a = Spessore anima  
b = Base inferiore  
h = Altezza parte inf.  
r = Raggio raccordo anima-ala  
rl = Raggio in testa ala  
s = Spessore ala



Relazione di calcolo

Sez.	Comm.	Tipo	Mem.	Ver.	B <cm>	b <cm>	H <cm>	h <cm>	s <cm>	a <cm>	r <cm>	r1 <cm>	D <cm>	Ma	C	Crit. C.I.	Crit. C.F.
1	Pil 40x50	R	P	C	40.00		50.00							1	1		
2	Pil 40x68	R	P	C	40.00		68.00							1	1		
7	Pil 30x35	R	P	C	30.00		35.00							1	1		
9	Pil 25x35	R	P	C	25.00		35.00							1	1		
10	Pil 40x35	R	P	C	40.00		35.00							1	1		
16	Tr 16x66	R	T	C	16.00		65.00							1	3		
18	Tr 18x24	R	T	C	18.00		24.00							1	3		
19	cord 20x18	R	T	C	20.00		18.00							1	3		
21	Pil 30x68	R	P	C	30.00		68.00							1	1		
22	Pil 25x68	R	P	C	25.00		68.00							1	1		
23	Pil 30x50	R	P	C	30.00		50.00							1	1		
26	Tr 30x24	R	T	C	30.00		24.00							1	1		
30	Tr 30x50	R	T	C	30.00		50.00							1	1		
31	Tr 50x24	R	T	C	50.00		24.00							1	1		
32	Tr 14x65	R	T	C	14.00		65.00							1	3		
38	TrvF T1	T	T	C	50.00	95.00	60.00	40.00						1	1		
39	TrvF T1*	T	T	C	50.00	105.00	60.00	40.00						1	1		
40	TrvF T56789	T	T	C	50.00	180.00	60.00	40.00						1	1		
41	TrvF T9*7*	T	T	C	50.00	180.00	60.00	40.00						1	1		
42	TrvF T233*	T	T	C	68.00	210.00	60.00	40.00						1	1		
43	TrvF A-b	T	T	C	40.00	70.00	60.00	40.00						1	1		
44	Trv 60x35 T10	R	T	C	68.00		35.00							1	1		
45	Trv 20x20 T12	R	T	C	20.00		20.00							1	1		
46	Trv 30x40 CP	R	T	C	30.00		40.00							1	2		
47	Trv 30x55 CPR	R	T	C	30.00		55.00							1	2		
48	TrvF muretti	T	T	C	20.00	40.00	60.00	30.00						1	1		
54	NTr. 46x24	R	T	C	46.00		24.00							1	4		
55	NTr. 2xIPE200	2I	T	A	10.00		20.00		0.85	0.56	1.20	0.00	40.00	2	1	1	1
56	NTr. L30x50 DX	Ldx	T	C	100.00	30.00	24.00	26.00						1	1		
57	NTr. L30x50 SX	L	T	C	130.00	30.00	24.00	26.00						1	1		
58	NTr. L 30x50 LATERALE	Ldx	T	C	60.00	30.00	24.00	26.00						1	1		
59	Pil 25x50	R	P	C	25.00		50.00							1	1		
60	Pil 25x68	R	P	C	25.00		68.00							1	1		

Elenco vincoli aste

Simbologia

Comm. = Commento  
Kt =Coeff. di sottofondo su suolo elastico alla Winkler  
Mxf =Momento intorno all'asse X locale nodo finale (0=sbloccato, 1=bloccato)  
Mxi =Momento intorno all'asse X locale nodo iniziale (0=sbloccato, 1=bloccato)  
Myf =Momento intorno all'asse Y locale nodo finale (0=sbloccato, 1=bloccato)  
Myi =Momento intorno all'asse Y locale nodo iniziale (0=sbloccato, 1=bloccato)  
Mzf =Momento intorno all'asse Z locale nodo finale (0=sbloccato, 1=bloccato)  
Mzi =Momento intorno all'asse Z locale nodo iniziale (0=sbloccato, 1=bloccato)  
Nf =Sforzo normale nodo finale (0=sbloccato, 1=bloccato)  
Ni =Sforzo normale nodo iniziale (0=sbloccato, 1=bloccato)  
Tipo =Tipologia  
SVI = Definizione di vincolamenti interni  
ELA = Vincolo su suolo elastico alla Winkler  
BIE-RTC = Biella resistente a trazione e a compressione  
BIE-RC = Biella resistente solo a compressione  
BIE-RT = Biella resistente solo a trazione  
Tyf =Taglio in dir. Y locale nodo finale (0=sbloccato, 1=bloccato)  
Tyi =Taglio in dir. Y locale nodo iniziale (0=sbloccato, 1=bloccato)  
Tzf =Taglio in dir. Z locale nodo finale (0=sbloccato, 1=bloccato)  
Tzi =Taglio in dir. Z locale nodo iniziale (0=sbloccato, 1=bloccato)  
Va =Numero del vincolo asta

Va	Comm.	Tipo	Ni	Tyi	Tzi	Mxi	Myi	Mzi	Nf	Tyf	Tzf	Mxf	Myf	Mzf	Kt <daN/cmc>
1	Inc+Inc	SVI	1	1	1	1	1	1	1	1	1	1	1	1	
2	Inc+Cer	SVI	1	1	1	1	1	1	1	1	1	0	0	0	
3	Cer+Inc	SVI	1	1	1	0	0	0	1	1	1	1	1	1	
4	Cer+Cer	SVI	1	1	1	0	0	0	1	1	1	1	0	0	
30	Su suolo elasstico	ELA													0.10

Elenco tipi elementi bidimensionali

Simbologia

Ang. att. =Angolo di attrito  
Ang. dil. =Angolo di dilatanza  
Coes. =Coesione  
Comm. =Commento  
Crit. =Numero del criterio di progetto  
DP =Drucker-Prager  
Kt =Coeff. di sottofondo su suolo elastico alla Winkler  
Mat. =Numero del materiale  
Spess. =Spessore  
Tb =Numero del tipo muro/elemento bidimensionale  
Tipo =Tipologia  
F = Membranale e Flessionale  
M = Membranale  
W-RC = Winkler resistente solo a compressione



Relazione di calcolo

W-RTC = Winkler resistente a trazione e a compressione

Uso =Utilizzo

S = Soletta/Platea

N = Nucleo

Tb	Comm.	Tipo	Uso	Spess. <cm>	Kt <daN/cmc>	DP	Ang. att. <grad>	Coes. <daN/mq>	Ang. dil. <grad>	Crit.	Mat.
1	Nuclei ascensore	F	N	14.00		N	0.00	0.00	0.00	1	
2	Balconi	F	S	20.00		N	0.00	0.00	0.00	1	
4	Fond Ascensore	W-RTC	S	70.00	0.31	N	0.00	0.00	0.00	1	
5	Parete scantinato	F	N	40.00		N	0.00	0.00	0.00	1	
6	Parete scantinato s 50	F	N	50.00		N	0.00	0.00	0.00	1	
9	Setti vano Scala sp.20	F	N	20.00		N	0.00	0.00	0.00	1	

Elenco tipi solai

Simbologia

Comm. =Commento

Lfl =Larghezza fascia laterale

QA =Primo carico accidentale

QA2 =Secondo carico accidentale

QA3 =Terzo carico accidentale

Qpn =Carico permanente non strutturale

Qps =Carico permanente strutturale

Rc =Ripartizione carichi

UN = Unidirezionale

Rip. int. =Ripartizione su aste interne

Rip. ter. =Ripartizione su aste terminali

Ts =Numero del tipo solaio

s =Coeff. di riduzione

Ts	Comm.	Rc	Qps <daN/mq>	Qpn <daN/mq>	QA <daN/mq>	QA2 <daN/mq>	QA3 <daN/mq>	Rip. ter.	Rip. int.	Lfl <m>	s
1	Solaio di piano sp.24	UN	230.00	190.00	200.00	0.00	0.00	50.00	50.00	0.00	0.50
2	Solaio copertura	UN	230.00	400.00	200.00	80.00	0.00	50.00	50.00	0.00	1.00
3	Solaio SP	UN	200.00	200.00	200.00	0.00	0.00	50.00	50.00	0.00	1.00
4	Solaio s100	UN	500.00	200.00	200.00	0.00	0.00	50.00	50.00	0.00	1.00

Elenco solai

Simbologia

Nodi =Nodi del solaio

Ord. =Orditura

Sol. =Numero del solaio

Ts =Numero del tipo solaio

Sol.	Ts	Ord. <grad>	Nodi
100	3	90.00	-49 -50 168 167 -7137 -7084 -7136 166 165 164 163
101	3	90.00	160 131 132 161 -34 -35 -36 -37 -38 -39 -40 -41 162 -50 -49
102	3	90.00	-11 -12 161 132 131 160
103	3	90.00	-3 -4 -12 -11
104	3	90.00	154 155 156 -1 -4 -3
105	3	0.00	-1 157 159 -14 -21 -28 -35 -34 161 -12 -4
106	3	0.00	157 -2 158 -9 -18 -25 -32 -39 -38 -37 -36 -35 -28 -21 -14 159
302	1	90.00	329 330 331 332 393 -939 401 351 350 349 348 347
303	1	90.00	392 328 329 347 346 345 400 -938
304	1	90.00	307 308 -829 -830 -831 -832 -833 -834 -835 -836 309 -837 -838 -839 -840 -841 -842 -843 310 -844 -845 -846 -847 -848 -849 -850 311 -851 -852 -853 -854 -855 -856 -857 312 -858 -859 -860 -861 -862 -863 -864 -865 313 329 328 392 391 -923 -917 -910 -909 -908 -916 -922 390 389 327 326 325
305	1	90.00	341 325 326 327 389 -934 399 344 343 342
306	1	90.00	396 333 334 354 353 352 402 -943
307	1	90.00	313 314 315 -866 -867 -868 -869 -870 -871 -872 -873 316 -874 -875 -876 -877 -878 -879 -880 -881 317 -882 -883 -884 -885 -886 -887 -888 318 -889 -890 -891 -892 -893 -894 -895 -896 319 -897 -898 -899 -900 -901 -902 -903 -904 320 334 333 396 395 -925 -919 -913 -912 -911 -918 -924 394 393 332 331 330 329
502	1	90.00	592 528 529 547 546 545 600 -1712
503	1	90.00	529 530 531 532 593 -1713 601 551 550 549 548 547
504	1	90.00	507 508 -1603 -1604 -1605 -1606 -1607 -1608 -1609 -1610 509 -1611 -1612 -1613 -1614 -1615 -1616 -1617 510 -1618 -1619 -1620 -1621 -1622 -1623 -1624 511 -1625 -1626 -1627 -1628 -1629 -1630 -1631 512 -1632 -1633 -1634 -1635 -1636 -1637 -1638 -1639 513 529 528 592 591 -1697 -1691 -1684 -1683 -1682 -1690 -1696 590 589 527 526 525
505	1	90.00	525 526 527 589 -1708 599 544 543 542 541
506	1	90.00	596 533 534 554 553 552 602 -1717
507	1	90.00	513 514 515 -1640 -1641 -1642 -1643 -1644 -1645 -1646 -1647 516 -1648 -1649 -1650 -1651 -1652 -1653 -1654 -1655 517 -1656 -1657 -1658 -1659 -1660 -1661 -1662 518 -1663 -1664 -1665 -1666 -1667 -1668 -1669 -1670 519 -1671 -1672 -1673 -1674 -1675 -1676 -1677 -1678 520 534 533 596 595 -1699 -1693 -1687 -1686 -1685 -1692 -1698 594 593 532 531 530 529
702	1	90.00	707 708 -2368 -2369 -2370 -2371 -2372 -2373 -2374 -2375 709 -2376 -2377 -2378 -2379 -2380 -2381 -2382 710 -2383 -2384 -2385 -2386 -2387 -2388 -2389 711 -2390 -2391 -2392 -2393 -2394 -2395 -2396 712 -2397 -2398 -2399 -2400 -2401 -2402 -2403 -2404 713 729 728 792 791 -2462 -2456 -2449 -2448 -2447 -2455 -2461 790 789 727 726 725
703	1	90.00	792 728 729 747 746 745 800 -2477



# Relazione di calcolo

704	1	90.00	725 726 727 789 -2473 799 744 743 742 741
705	1	90.00	796 733 734 754 753 752 802 -2482
706	1	90.00	713 714 715 -2405 -2406 -2407 -2408 -2409 -2410 -2411 -2412 716 -2413 -2414 -2415 -2416 -2417 -2418 -2419 -2420 717 -2421 -2422 -2423 -2424 -2425 -2426 -2427 718 -2428 -2429 -2430 -2431 -2432 -2433 -2434 -2435 719 -2436 -2437 -2438 -2439 -2440 -2441 -2442 -2443 720 734 733 796 795 -2464 -2458 -2452 -2451 -2450 -2457 -2463 794 793 732 731 730 729
707	1	90.00	729 730 731 732 793 -2478 801 751 750 749 748 747
902	1	90.00	992 928 929 947 946 945 1000 -3242
903	1	90.00	929 930 931 932 993 -3243 1001 951 950 949 948 947
904	1	90.00	907 908 -3133 -3134 -3135 -3136 -3137 -3138 -3139 -3140 909 -3141 -3142 -3143 -3144 -3145 -3146 -3147 910 -3148 -3149 -3150 -3151 -3152 -3153 -3154 911 -3155 -3156 -3157 -3158 -3159 -3160 -3161 912 -3162 -3163 -3164 -3165 -3166 -3167 -3168 -3169 913 929 928 992 991 -3227 -3221 -3214 -3213 -3212 -3220 -3226 990 989 927 926 925
905	1	90.00	925 926 927 989 -3238 999 944 943 942 941
906	1	90.00	996 933 934 954 953 952 1002 -3247
907	1	90.00	913 914 915 -3170 -3171 -3172 -3173 -3174 -3175 -3176 -3177 916 -3178 -3179 -3180 -3181 -3182 -3183 -3184 -3185 917 -3186 -3187 -3188 -3189 -3190 -3191 -3192 918 -3193 -3194 -3195 -3196 -3197 -3198 -3199 -3200 919 -3201 -3202 -3203 -3204 -3205 -3206 -3207 -3208 920 934 933 996 995 -3229 -3223 -3217 -3216 -3215 -3222 -3228 994 993 932 931 930 929
1103	1	90.00	1192 1128 1129 1147 1146 1145 1200 -4007
1104	1	90.00	1129 1130 1131 1132 1193 -4008 1201 1151 1150 1149 1148 1147
1105	1	90.00	1107 1108 -3898 -3899 -3900 -3901 -3902 -3903 -3904 -3905 1109 -3906 -3907 -3908 -3909 -3910 -3911 -3912 1110 -3913 -3914 -3915 -3916 -3917 -3918 -3919 1111 -3920 -3921 -3922 -3923 -3924 -3925 -3926 1112 -3927 -3928 -3929 -3930 -3931 -3932 -3933 -3934 1113 1129 1128 1192 1191 -3992 -3986 -3979 -3978 -3977 -3985 -3991 1190 1189 1127 1126 1125
1106	1	90.00	1125 1126 1127 1189 -4003 1199 1144 1143 1142 1141
1107	1	90.00	1196 1133 1134 1154 1153 1152 1202 -4012
1108	1	90.00	1113 1114 1115 -3935 -3936 -3937 -3938 -3939 -3940 -3941 -3942 1116 -3943 -3944 -3945 -3946 -3947 -3948 -3949 -3950 1117 -3951 -3952 -3953 -3954 -3955 -3956 -3957 1118 -3958 -3959 -3960 -3961 -3962 -3963 -3964 -3965 1119 -3966 -3967 -3968 -3969 -3970 -3971 -3972 -3973 1120 1134 1133 1196 1195 -3994 -3988 -3982 -3981 -3980 -3987 -3993 1194 1193 1132 1131 1130 1129
1303	1	90.00	1392 1328 1329 1347 1346 1345 1400 -4772
1304	1	90.00	1329 1330 1331 1332 1393 -4773 1401 1351 1350 1349 1348 1347
1305	1	90.00	1307 1308 -4663 -4664 -4665 -4666 -4667 -4668 -4669 -4670 1309 -4671 -4672 -4673 -4674 -4675 -4676 -4677 1310 -4678 -4679 -4680 -4681 -4682 -4683 -4684 1311 -4685 -4686 -4687 -4688 -4689 -4690 -4691 1312 -4692 -4693 -4694 -4695 -4696 -4697 -4698 -4699 1313 1329 1328 1392 1391 -4757 -4751 -4744 -4743 -4742 -4750 -4756 1390 1389 1327 1326 1325
1306	1	90.00	1325 1326 1327 1389 -4768 1399 1344 1343 1342 1341
1307	1	90.00	1396 1333 1334 1354 1353 1352 1402 -4777
1308	1	90.00	1313 1314 1315 -4700 -4701 -4702 -4703 -4704 -4705 -4706 -4707 1316 -4708 -4709 -4710 -4711 -4712 -4713 -4714 -4715 1317 -4716 -4717 -4718 -4719 -4720 -4721 -4722 1318 -4723 -4724 -4725 -4726 -4727 -4728 -4729 -4730 1319 -4731 -4732 -4733 -4734 -4735 -4736 -4737 -4738 1320 1334 1333 1396 1395 -4759 -4753 -4747 -4746 -4745 -4752 -4758 1394 1393 1332 1331 1330 1329
1503	1	90.00	1592 1528 1529 1547 1546 1545 1600 -5538
1504	1	90.00	1529 1530 1531 1532 1593 -5539 1601 1551 1550 1549 1548 1547
1505	1	90.00	1507 1508 -5428 -5429 -5430 -5431 -5432 -5433 -5434 -5435 1509 -5436 -5437 -5438 -5439 -5440 -5441 -5442 1510 -5443 -5444 -5445 -5446 -5447 -5448 -5449 1511 -5450 -5451 -5452 -5453 -5454 -5455 -5456 1512 -5457 -5458 -5459 -5460 -5461 -5462 -5463 -5464 1513 1529 1528 1592 1591 -5522 -5516 -5509 -5508 -5507 -5515 -5521 1590 1589 1527 1526 1525
1506	1	90.00	1525 1526 1527 1589 -5534 1599 1544 1543 1542 1541
1507	1	90.00	1596 1533 1534 1554 1553 1552 1602 -5543
1508	1	90.00	1513 1514 1515 -5465 -5466 -5467 -5468 -5469 -5470 -5471 -5472 1516 -5473 -5474 -5475 -5476 -5477 -5478 -5479 -5480 1517 -5481 -5482 -5483 -5484 -5485 -5486 -5487 1518 -5488 -5489 -5490 -5491 -5492 -5493 -5494 -5495 1519 -5496 -5497 -5498 -5499 -5500 -5501 -5502 -5503 1520 1534 1533 1596 1595 -5524 -5518 -5512 -5511 -5510 -5517 -5523 1594 1593 1532 1531 1530 1529
1703	1	90.00	1792 1728 1729 1747 1746 1745 1800 -6303
1704	1	90.00	1729 1730 1731 1732 1793 -6304 1801 1751 1750 1749 1748 1747
1705	1	90.00	1707 1708 -6194 -6195 -6196 -6197 -6198 -6199 -6200 -6201 1709 -6202 -6203 -6204 -6205 -6206 -6207 -6208 1710 -6209 -6210 -6211 -6212 -6213 -6214 -6215 1711 -6216 -6217 -6218 -6219 -6220 -6221 -6222 1712 -6223 -6224 -6225 -6226 -6227 -6228 -6229 -6230 1713 1729 1728 1792 1791 -6288 -6282 -6275 -6274 -6273 -6281 -6287 1790 1789 1727 1726 1725
1706	1	90.00	1725 1726 1727 1789 -6299 1799 1744 1743 1742 1741
1707	1	90.00	1796 1733 1734 1754 1753 1752 1802 -6308
1708	1	90.00	1713 1714 1715 -6231 -6232 -6233 -6234 -6235 -6236 -6237 -6238 1716 -6239 -6240 -6241 -6242 -6243 -6244 -6245 -6246 1717 -6247 -6248 -6249 -6250 -6251 -6252 -6253 1718 -6254 -6255 -6256 -6257 -6258 -6259 -6260 -6261 1719 -6262 -6263 -6264 -6265 -6266 -6267 -6268 -6269 1720 1734 1733 1796 1795 -6290 -6284 -6278 -6277 -6276 -6283 -6289 1794 1793 1732 1731 1730 1729
1903	2	90.00	1992 1928 1929 1947 1946 1945 2000 -7068
1904	2	90.00	1913 1914 1915 -6996 -6997 -6998 -6999 -7000 -7001 -7002 -7003 1916 -7004 -7005 -7006 -7007 -7008 -7009 -7010 -7011 1917 -7012 -7013 -7014 -7015 -7016 -7017 -7018 1918 -7019 -7020 -7021 -7022 -7023 -7024 -7025 -7026 1919 -7027 -7028 -7029 -7030 -7031 -7032 -7033 -7034 1920 1934 1933 1996 1995 -7055 -7049 -7043 -7042 -7041 -7048 -7054 1994 1993 1932 1931 1930 1929
1905	2	90.00	1907 1908 -6959 -6960 -6961 -6962 -6963 -6964 -6965 -6966 1909 -6967 -6968 -6969 -6970 -6971 -6972 -6973 1910 -6974 -6975 -6976 -6977 -6978 -6979 -6980 1911 -6981 -6982 -6983 -6984 -6985 -6986 -6987 1912 -6988 -6989 -6990 -6991 -6992 -6993 -6994 -6995 1913 1929 1928 1992 1991 -7053 -7047 -7040 -7039 -7038 -7046 -7052 1990 1989 1927 1926 1925
1906	2	90.00	1925 1926 1927 1989 -7064 1999 1944 1943 1942 1941
1907	2	90.00	1996 1933 1934 1954 1953 1952 2002 -7073
1908	2	90.00	1929 1930 1931 1932 1993 -7069 2001 1951 1950 1949 1948 1947
2202	3	0.00	13 -81 114 -84 -96 130 29
2203	3	0.00	29 130 -184 148 -186 47
2204	3	0.00	12 13 29 28



## Relazione di calcolo

2205	3	0.00	28 29 47 46
2206	3	0.00	8 9 27 26
2207	3	0.00	26 27 43 42
2208	3	0.00	25 26 42 41
2209	3	0.00	7 8 26 25
2220	3	0.00	9 10 59 -105 -123 -140 -157 -156 64 27
2221	3	0.00	27 64 -156 -157 -178 44 43
2222	3	0.00	-157 -158 -159 -160 -161 -182 45 -7191 -7138 -7201 44 -178
2223	3	0.00	10 11 60 -109 -127 -144 -161 -160 -159 -158 -157 -140 -123 -105 59
2224	3	0.00	11 12 28 65 -162 -161 -144 -127 -109 60
2225	3	0.00	-161 -162 65 28 46 45 -182
2226	3	0.00	133 34 54 153 -185
2227	3	0.00	118 19 133 -169 -168 -167 -148 -131 -114 -95
2228	3	0.00	19 20 34 133
2229	4	0.00	-113 -114 -131 -148 -167 -166 -165 -147 -130
2230	4	90.00	130 169 170 -163 -164 -165 -166 -167 -168 -169 133 -185 153 152 -7119 -7083 -7129 151 150 149 148 -184
2231	4	90.00	114 115 116 -82 117 -83 118 -95 -114 -131 -148 -167 -166 -165 -164 -163 170 169 130 -96 -84

## Elenco tipi tamponature

### Simbologia

Comm. = Commento

Crit. = Criterio di progetto

P = Puntoni equivalenti

S = Genera i puntoni equivalenti

N = Non genera i puntoni equivalenti

Qpn = Carico permanente non strutturale

Rcg = Ripartizione carichi gravitazionali

AP = Sull'asta di piede

AL = Sulle aste laterali

APT = Sulle aste di piede e di testa

Rcv = Ripartizione carichi vento

AP = Sull'asta di piede

AL = Sulle aste laterali

Tipo = Tipologia

C = Area di carico

V = Area di carico e verifica

Tt = Numero del tipo tamponatura

Tt	Comm.	Qpn <daN/mq>	Rcg	Rcv	P	Tipo	Crit.
1	Tamponamento esterno cassetta	300.00	AP	AL	NV		1
2	Tamponatura Balconi	170.00	AP	AL	NV		1

## Carichi

### Elenco tipi CCE

### Simbologia

$\gamma_{max}$  = Coeff.  $\gamma_{max}$

$\gamma_{min.}$  = Coeff.  $\gamma_{min.}$

$\Psi_0$  = Coeff.  $\Psi_0$

$\Psi_{0,s}$  = Coeff.  $\Psi_0$  sismico (D.M. 96)

$\Psi_1$  = Coeff.  $\Psi_1$

$\Psi_2$  = Coeff.  $\Psi_2$

Comm. = Commento

Durata = Durata del carico

P = Permanente

L = Lunga

M = Media

Tipo = Tipologia

G = Permanente

Qv = Variabile vento

Q = Variabile

Tipo CCE = Tipo condizione di carico elementare

Tipo CCE	Comm.	Tipo	Durata	$\gamma_{min.}$	$\gamma_{max}$	$\Psi_0$	$\Psi_1$	$\Psi_2$	$\Psi_{0,s}$
20	D.M. 18 Permanenti strutturali	G	P	1.00	1.30				
21	D.M. 18 Permanenti non strutturali	G	L	0.80	1.50				
22	D.M. 18 Variabili Categoria A - Ambienti ad uso residenziale	Q	M	0.00	1.50	0.70	0.50	0.30	0.00
31	D.M. 18 Variabili Neve (a quota <= 1000 m s.l.m.)	Q	M	0.00	1.50	0.50	0.20	0.00	0.00

## Condizioni di carico elementari

### Simbologia

CCE = Numero della condizione di carico elementare

Comm. = Commento

Dir. = Direzione del vento

Jpx = Moltiplicatore del momento d'inerzia intorno all'asse X



Relazione di calcolo

Jpy =Moltiplicatore del momento d'inerzia intorno all'asse Y  
Jpz =Moltiplicatore del momento d'inerzia intorno all'asse Z  
Mx =Moltiplicatore della massa in dir. X  
My =Moltiplicatore della massa in dir. Y  
Mz =Moltiplicatore della massa in dir. Z  
Sic. =Contributo alla sicurezza  
S = a sfavore  
Tipo =Tipologia di pressione vento  
M = Massimizzata  
E = Esterna  
I = Interna  
Tipo CCE =Tipo di CCE per calcolo agli stati limite  
Var. =Tipo di variabilità  
B = di base  
s =Coeff. di riduzione (T.A. o S.L. D.M. 96)

CCE	Comm.	Tipo CCE	Sic.	Var.	s	Dir. <grad>	Tipo	Mx	My	Mz	Jpx	Jpy	Jpz
1	Permanenti strutturali	20	S	--	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
2	Permanenti non strutturali	21	S	--	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
3	Variabili Civile Abitazione	22	S	B	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
4	Variabili neve	31	S	B	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
5	Scale perm non strutturale	21	S	--	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
6	scale variabile	22	S	B	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00

Elenco carichi asteCondizione di carico n. 1: Permanenti strutturali  
Elenco peso proprio aste

**Simbologia**  
A =Area  
Comm. = Commento  
Mat. =Materiale  
P =Peso specifico  
PL =Peso specifico a metro lineare  
Sez. =Numero della sezione

Sez.	Comm.	A <cmq>	Mat.	P <daN/mc>	PL <daN/m>
1	Pil 40x50	2000.000000	Calcestruzzo	2500.00	500.00
2	Pil 40x68	2720.000000	Calcestruzzo	2500.00	680.00
7	Pil 30x35	1050.000000	Calcestruzzo	2500.00	262.50
9	Pil 25x35	875.000000	Calcestruzzo	2500.00	218.75
10	Pil 40x35	1400.000000	Calcestruzzo	2500.00	350.00
16	Tr 16x66	1040.000000	Calcestruzzo	2500.00	260.00
18	Tr 18x24	432.000000	Calcestruzzo	2500.00	108.00
19	cord 20x18	360.000000	Calcestruzzo	2500.00	90.00
21	Pil 30x68	2040.000000	Calcestruzzo	2500.00	510.00
22	Pil 25x68	1700.000000	Calcestruzzo	2500.00	425.00
23	Pil 30x50	1500.000000	Calcestruzzo	2500.00	375.00
26	Tr 30x24	720.000000	Calcestruzzo	2500.00	180.00
30	Tr 30x50	1500.000000	Calcestruzzo	2500.00	375.00
31	Tr 50x24	1200.000000	Calcestruzzo	2500.00	300.00
32	Tr 14x65	910.000000	Calcestruzzo	2500.00	227.50
38	TrvF T1	6800.000000	Calcestruzzo	2500.00	1700.00
39	TrvF T1*	7200.000000	Calcestruzzo	2500.00	1800.00
40	TrvF T56789	10200.000000	Calcestruzzo	2500.00	2550.00
41	TrvF T9*7*	10200.000000	Calcestruzzo	2500.00	2550.00
42	TrvF T233*	12480.000000	Calcestruzzo	2500.00	3120.00
43	TrvF A-b	5200.000000	Calcestruzzo	2500.00	1300.00
44	Trv 60x35 T10	2380.000000	Calcestruzzo	2500.00	595.00
45	Trv 20x20 T12	400.000000	Calcestruzzo	2500.00	100.00
46	Trv 30x40 CP	1200.000000	Calcestruzzo	2500.00	300.00
47	Trv 30x55 CPR	1650.000000	Calcestruzzo	2500.00	412.50
48	TrvF muretti	2400.000000	Calcestruzzo	2500.00	600.00
54	NTr. 46x24	1104.000000	Calcestruzzo	2500.00	276.00
55	NTr. 2xIPE200	56.969800	Acciaio	7850.00	44.72
56	NTr. L30x50 DX	3180.000000	Calcestruzzo	2500.00	795.00
57	NTr. L30x50 SX	3900.000000	Calcestruzzo	2500.00	975.00
58	NTr. L 30x50 LATERALE	2220.000000	Calcestruzzo	2500.00	555.00
59	Pil 25x50	1250.000000	Calcestruzzo	2500.00	312.50
60	Pil 25x68	1700.000000	Calcestruzzo	2500.00	425.00

Condizione di carico n. 1: Permanenti strutturali  
Carichi distribuiti

**Simbologia**  
Asta =Numero dell'asta  
DC =Direzione del carico  
XG,YG,ZG = secondo gli assi globali  
XL,YL,ZL = secondo gli assi locali  
E =Elemento provenienza del carico



Relazione di calcolo

S = Solaio  
T = Tamponatura  
N1 =Nodo iniziale  
N2 =Nodo finale  
NE =Numero elemento di provenienza del carico  
Qf =Carico finale  
Qi =Carico iniziale  
T =Tipo di carico  
QA = Primo carico accidentale  
QA2 = Secondo carico accidentale  
QA3 = Terzo carico accidentale  
QPS = Carico permanente strutturale  
QPN = Carico permanente non strutturale  
VE = Vento  
M = Manuale  
Xf =Distanza finale  
Xi =Distanza iniziale

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
0	-908	-909	S	304	QPS	ZG	0.00	433.55	0.79	433.55
0	-1682	-1683	S	504	QPS	ZG	0.00	433.55	0.79	433.55
0	-2447	-2448	S	702	QPS	ZG	0.00	433.55	0.79	433.55
0	114	-84	S	2202	QPS	ZG	0.00	325.00	1.85	325.00
0	-96	130	S	2202	QPS	ZG	0.00	325.00	1.85	325.00
0	-3212	-3213	S	904	QPS	ZG	0.00	433.55	0.79	433.55
0	114	115	S	2231	QPS	ZG	0.00	1387.50	3.25	1387.50
0	148	149	S	2230	QPS	ZG	0.00	1292.50	3.25	1292.50
0	-3978	-3979	S	1105	QPS	ZG	0.00	433.55	0.79	433.55
0	149	150	S	2230	QPS	ZG	0.00	1292.50	3.25	1292.50
0	116	-82	S	2231	QPS	ZG	0.00	1387.50	1.70	1387.50
0	-82	117	S	2231	QPS	ZG	0.00	1387.50	1.55	1387.50
0	-5508	-5509	S	1505	QPS	ZG	0.00	433.55	0.79	433.55
0	-163	-164	S	2230	QPS	ZG	0.00	1292.50	0.79	1292.50
0	-83	118	S	2231	QPS	ZG	0.00	1387.50	1.46	1387.50
0	-130	-113	S	2229	QPS	ZG	0.00	167.50	0.59	167.50
0	-165	-147	S	2229	QPS	ZG	0.00	167.50	0.59	167.50
0	-164	-165	S	2230	QPS	ZG	0.00	1292.50	0.79	1292.50
0	-131	-114	S	2227	QPS	ZG	0.00	323.00	0.59	323.00
0	-148	-131	S	2227	QPS	ZG	0.00	323.00	0.59	323.00
0	-167	-148	S	2227	QPS	ZG	0.00	323.00	0.59	323.00
0	150	151	S	2230	QPS	ZG	0.00	1292.50	3.25	1292.50
0	-6273	-6274	S	1705	QPS	ZG	0.00	433.55	0.79	433.55
0	-169	-168	S	2230	QPS	ZG	0.00	1292.50	0.81	1292.50
0	-6274	-6275	S	1705	QPS	ZG	0.00	433.55	0.79	433.55
0	133	-169	S	2230	QPS	ZG	0.00	1292.50	1.88	1292.50
0	-7119	152	S	2230	QPS	ZG	0.00	1292.50	0.72	1292.50
0	-185	133	S	2226	QPS	ZG	0.00	323.00	2.58	323.00
0	-7038	-7039	S	1905	QPS	ZG	0.00	433.55	0.79	433.55
0	-7039	-7040	S	1905	QPS	ZG	0.00	433.55	0.79	433.55
0	-1686	-1687	S	507	QPS	ZG	0.00	433.55	0.79	433.55
0	-2451	-2452	S	706	QPS	ZG	0.00	433.55	0.79	433.55
0	-3216	-3217	S	907	QPS	ZG	0.00	433.55	0.79	433.55
0	-3981	-3982	S	1108	QPS	ZG	0.00	433.55	0.79	433.55
0	-4746	-4747	S	1308	QPS	ZG	0.00	433.55	0.79	433.55
0	-5511	-5512	S	1508	QPS	ZG	0.00	433.55	0.79	433.55
0	-6277	-6278	S	1708	QPS	ZG	0.00	433.55	0.79	433.55
0	-7042	-7043	S	1904	QPS	ZG	0.00	433.55	0.79	433.55
1003	155	156	S	104	QPS	ZG	0.00	185.00	3.25	185.00
1004	-3	-4	S	103	QPS	ZG	0.00	185.00	8.20	185.00
1005	-11	-12	S	102	QPS	ZG	0.00	185.00	8.20	185.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
0	-909	-910	S	304	QPS	ZG	0.00	433.55	0.79	433.55
0	-1683	-1684	S	504	QPS	ZG	0.00	433.55	0.79	433.55
0	-2448	-2449	S	702	QPS	ZG	0.00	433.55	0.79	433.55
0	-84	-96	S	2202	QPS	ZG	0.00	325.00	1.85	325.00
0	130	-184	S	2203	QPS	ZG	0.00	325.00	2.58	325.00
0	-3213	-3214	S	904	QPS	ZG	0.00	433.55	0.79	433.55
0	-184	148	S	2203	QPS	ZG	0.00	325.00	2.58	325.00
0	-3977	-3978	S	1105	QPS	ZG	0.00	433.55	0.79	433.55
0	115	116	S	2231	QPS	ZG	0.00	1387.50	3.25	1387.50
0	-4742	-4743	S	1305	QPS	ZG	0.00	433.55	0.79	433.55
0	-4743	-4744	S	1305	QPS	ZG	0.00	433.55	0.79	433.55
0	-5507	-5508	S	1505	QPS	ZG	0.00	433.55	0.79	433.55
0	117	-83	S	2231	QPS	ZG	0.00	1387.50	1.44	1387.50
0	-163	-164	S	2231	QPS	ZG	0.00	1387.50	0.79	1387.50
0	-114	-95	S	2227	QPS	ZG	0.00	323.00	1.11	323.00
0	-147	-130	S	2229	QPS	ZG	0.00	167.50	0.59	167.50
0	-95	118	S	2227	QPS	ZG	0.00	323.00	2.66	323.00
0	-164	-165	S	2231	QPS	ZG	0.00	1387.50	0.79	1387.50
0	-131	-114	S	2229	QPS	ZG	0.00	167.50	0.59	167.50
0	-148	-131	S	2229	QPS	ZG	0.00	167.50	0.59	167.50
0	-167	-148	S	2229	QPS	ZG	0.00	167.50	0.59	167.50
0	151	-7129	S	2230	QPS	ZG	0.00	1292.50	0.72	1292.50
0	-168	-167	S	2230	QPS	ZG	0.00	1292.50	0.54	1292.50
0	-7129	-7083	S	2230	QPS	ZG	0.00	1292.50	0.72	1292.50
0	-911	-912	S	307	QPS	ZG	0.00	433.55	0.79	433.55
0	-912	-913	S	307	QPS	ZG	0.00	433.55	0.79	433.55
0	-7083	-7119	S	2230	QPS	ZG	0.00	1292.50	0.72	1292.50
0	152	153	S	2230	QPS	ZG	0.00	1292.50	3.23	1292.50
0	153	-185	S	2226	QPS	ZG	0.00	323.00	2.58	323.00
0	-1685	-1686	S	507	QPS	ZG	0.00	433.55	0.79	433.55
0	-2450	-2451	S	706	QPS	ZG	0.00	433.55	0.79	433.55
0	-3215	-3216	S	907	QPS	ZG	0.00	433.55	0.79	433.55
0	-3980	-3981	S	1108	QPS	ZG	0.00	433.55	0.79	433.55
0	-4745	-4746	S	1308	QPS	ZG	0.00	433.55	0.79	433.55
0	-5510	-5511	S	1508	QPS	ZG	0.00	433.55	0.79	433.55
0	-6276	-6277	S	1708	QPS	ZG	0.00	433.55	0.79	433.55
0	-7041	-7042	S	1904	QPS	ZG	0.00	433.55	0.79	433.55
1003	154	155	S	104	QPS	ZG	0.00	185.00	3.25	185.00
1003	156	-1	S	104	QPS	ZG	0.00	185.00	1.70	185.00
1004	-3	-4	S	104	QPS	ZG	0.00	185.00	8.20	185.00
1005	-11	-12	S	103	QPS	ZG	0.00	185.00	8.20	185.00



Relazione di calcolo

1007	160	131	S	101	QPS	ZG	0.00	258.50	3.25	258.50	1007	160	131	S	102	QPS	ZG	0.00	185.00	3.25	185.00
1007	131	132	S	101	QPS	ZG	0.00	258.50	3.25	258.50	1007	131	132	S	102	QPS	ZG	0.00	185.00	3.25	185.00
1007	132	161	S	101	QPS	ZG	0.00	258.50	1.70	258.50	1007	132	161	S	102	QPS	ZG	0.00	185.00	1.70	185.00
1007	161	-34	S	101	QPS	ZG	0.00	258.50	0.99	258.50	1007	-34	-35	S	101	QPS	ZG	0.00	258.50	0.56	258.50
1007	-35	-36	S	101	QPS	ZG	0.00	258.50	0.65	258.50	1007	-36	-37	S	101	QPS	ZG	0.00	258.50	0.79	258.50
1007	-37	-38	S	101	QPS	ZG	0.00	258.50	0.79	258.50	1007	-38	-39	S	101	QPS	ZG	0.00	258.50	0.67	258.50
1007	-39	-40	S	101	QPS	ZG	0.00	258.50	0.54	258.50	1007	-40	-41	S	101	QPS	ZG	0.00	258.50	0.81	258.50
1007	-41	162	S	101	QPS	ZG	0.00	258.50	1.88	258.50	1008	-49	-50	S	100	QPS	ZG	0.00	258.50	15.88	258.50
1008	-49	-50	S	101	QPS	ZG	0.00	258.50	15.88	258.50	1009	163	164	S	100	QPS	ZG	0.00	258.50	3.25	258.50
1009	164	165	S	100	QPS	ZG	0.00	258.50	3.25	258.50	1009	165	166	S	100	QPS	ZG	0.00	258.50	3.25	258.50
1009	166	-7136	S	100	QPS	ZG	0.00	258.50	0.72	258.50	1009	-7136	-7084	S	100	QPS	ZG	0.00	258.50	0.72	258.50
1009	-7084	-7137	S	100	QPS	ZG	0.00	258.50	0.72	258.50	1009	-7137	167	S	100	QPS	ZG	0.00	258.50	0.72	258.50
1009	167	168	S	100	QPS	ZG	0.00	258.50	3.23	258.50	1034	-1	-4	S	105	QPS	ZG	0.00	155.00	1.85	155.00
1034	-4	-12	S	105	QPS	ZG	0.00	155.00	1.85	155.00	1034	-12	161	S	105	QPS	ZG	0.00	155.00	1.85	155.00
1035	157	159	S	105	QPS	ZG	0.00	155.00	2.66	155.00	1035	157	159	S	106	QPS	ZG	0.00	290.00	2.66	290.00
1035	159	-14	S	105	QPS	ZG	0.00	155.00	1.11	155.00	1035	159	-14	S	106	QPS	ZG	0.00	290.00	1.11	290.00
1035	-14	-21	S	105	QPS	ZG	0.00	155.00	0.59	155.00	1035	-14	-21	S	106	QPS	ZG	0.00	290.00	0.59	290.00
1035	-21	-28	S	105	QPS	ZG	0.00	155.00	0.59	155.00	1035	-21	-28	S	106	QPS	ZG	0.00	290.00	0.59	290.00
1035	-28	-35	S	105	QPS	ZG	0.00	155.00	0.59	155.00	1035	-28	-35	S	106	QPS	ZG	0.00	290.00	0.59	290.00
1041	158	-9	S	106	QPS	ZG	0.00	290.00	2.66	290.00	1041	-9	-18	S	106	QPS	ZG	0.00	290.00	1.11	290.00
1041	-18	-25	S	106	QPS	ZG	0.00	290.00	0.59	290.00	1041	-25	-32	S	106	QPS	ZG	0.00	290.00	0.59	290.00
1041	-32	-39	S	106	QPS	ZG	0.00	290.00	0.59	290.00	3003	307	308	S	304	QPS	ZG	0.00	638.25	3.25	638.25
3003	308	-829	S	304	QPS	ZG	0.00	638.25	0.36	638.25	3003	-829	-830	S	304	QPS	ZG	0.00	638.25	0.36	638.25
3003	-830	-831	S	304	QPS	ZG	0.00	638.25	0.36	638.25	3003	-831	-832	S	304	QPS	ZG	0.00	638.25	0.36	638.25
3003	-832	-833	S	304	QPS	ZG	0.00	638.25	0.36	638.25	3003	-833	-834	S	304	QPS	ZG	0.00	638.25	0.36	638.25
3003	-834	-835	S	304	QPS	ZG	0.00	638.25	0.36	638.25	3003	-835	-836	S	304	QPS	ZG	0.00	638.25	0.36	638.25
3003	-836	309	S	304	QPS	ZG	0.00	638.25	0.36	638.25	3003	309	-837	S	304	QPS	ZG	0.00	638.25	0.40	638.25
3003	-837	-838	S	304	QPS	ZG	0.00	638.25	0.40	638.25	3003	-838	-839	S	304	QPS	ZG	0.00	638.25	0.40	638.25
3003	-839	-840	S	304	QPS	ZG	0.00	638.25	0.40	638.25	3003	-840	-841	S	304	QPS	ZG	0.00	638.25	0.40	638.25
3003	-841	-842	S	304	QPS	ZG	0.00	638.25	0.40	638.25	3003	-842	-843	S	304	QPS	ZG	0.00	638.25	0.40	638.25
3003	-843	310	S	304	QPS	ZG	0.00	638.25	0.40	638.25	3003	310	-844	S	304	QPS	ZG	0.00	638.25	0.38	638.25
3003	-844	-845	S	304	QPS	ZG	0.00	638.25	0.33	638.25	3003	-844	-845	S	304	QPS	ZG	0.33	433.55	0.38	433.55
3003	-845	-846	S	304	QPS	ZG	0.00	433.55	0.38	433.55	3003	-846	-847	S	304	QPS	ZG	0.00	433.55	0.38	433.55
3003	-847	-848	S	304	QPS	ZG	0.00	433.55	0.38	433.55	3003	-848	-849	S	304	QPS	ZG	0.00	433.55	0.38	433.55
3003	-849	-850	S	304	QPS	ZG	0.00	433.55	0.03	433.55	3003	-849	-850	S	304	QPS	ZG	0.03	638.25	0.38	638.25
3003	-850	311	S	304	QPS	ZG	0.00	638.25	0.38	638.25	3003	311	-851	S	304	QPS	ZG	0.00	638.25	0.40	638.25
3003	-851	-852	S	304	QPS	ZG	0.00	638.25	0.40	638.25	3003	-852	-853	S	304	QPS	ZG	0.00	638.25	0.40	638.25
3003	-853	-854	S	304	QPS	ZG	0.00	638.25	0.40	638.25	3003	-854	-855	S	304	QPS	ZG	0.00	638.25	0.40	638.25
3003	-855	-856	S	304	QPS	ZG	0.00	638.25	0.40	638.25	3003	-856	-857	S	304	QPS	ZG	0.00	638.25	0.40	638.25
3003	-857	312	S	304	QPS	ZG	0.00	638.25	0.40	638.25	3003	312	-858	S	304	QPS	ZG	0.00	638.25	0.36	638.25
3003	-858	-859	S	304	QPS	ZG	0.00	638.25	0.36	638.25	3003	-859	-860	S	304	QPS	ZG	0.00	638.25	0.36	638.25
3003	-860	-861	S	304	QPS	ZG	0.00	638.25	0.36	638.25	3003	-861	-862	S	304	QPS	ZG	0.00	638.25	0.36	638.25
3003	-862	-863	S	304	QPS	ZG	0.00	638.25	0.36	638.25	3003	-863	-864	S	304	QPS	ZG	0.00	638.25	0.36	638.25
3003	-864	-865	S	304	QPS	ZG	0.00	638.25	0.36	638.25	3003	-865	313	S	304	QPS	ZG	0.00	638.25	0.36	638.25
3003	313	314	S	307	QPS	ZG	0.00	638.25	3.25	638.25	3003	314	315	S	307	QPS	ZG	0.00	638.25	3.25	638.25
3003	315	-866	S	307	QPS	ZG	0.00	638.25	0.36	638.25	3003	-866	-867	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-867	-868	S	307	QPS	ZG	0.00	638.25	0.36	638.25	3003	-868	-869	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-869	-870	S	307	QPS	ZG	0.00	638.25	0.36	638.25	3003	-870	-871	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-871	-872	S	307	QPS	ZG	0.00	638.25	0.36	638.25	3003	-872	-873	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-873	316	S	307	QPS	ZG	0.00	638.25	0.36	638.25	3003	316	-874	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-874	-875	S	307	QPS	ZG	0.00	638.25	0.36	638.25	3003	-875	-876	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-876	-877	S	307	QPS	ZG	0.00	638.25	0.36	638.25	3003	-877	-878	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-878	-879	S	307	QPS	ZG	0.00	638.25	0.36	638.25	3003	-879	-880	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-880	-881	S	307	QPS	ZG	0.00	638.25	0.36	638.25	3003	-881	317	S	307	QPS	ZG	0.00	638.25	0.36	638.25



Relazione di calcolo

3003	317	-882	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-882	-883	S	307	QPS	ZG	0.29	433.55	0.36	433.55
3003	-884	-885	S	307	QPS	ZG	0.00	433.55	0.36	433.55
3003	-886	-887	S	307	QPS	ZG	0.00	433.55	0.36	433.55
3003	-887	-888	S	307	QPS	ZG	0.06	638.25	0.36	638.25
3003	318	-889	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-890	-891	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-892	-893	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-894	-895	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-896	319	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-897	-898	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-899	-900	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-901	-902	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-903	-904	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3009	341	342	S	305	QPS	ZG	0.00	594.55	3.25	594.55
3009	343	344	S	305	QPS	ZG	0.00	594.55	3.20	594.55
3009	346	347	S	303	QPS	ZG	0.00	594.55	3.25	594.55
3009	348	349	S	302	QPS	ZG	0.00	594.55	3.25	594.55
3009	350	351	S	302	QPS	ZG	0.00	594.55	3.25	594.55
3009	353	354	S	306	QPS	ZG	0.00	594.55	3.23	594.55
3130	361	-316	-	--	M	ZG	0.00	40.00	0.36	40.00
3130	-317	-318	-	--	M	ZG	0.00	40.00	0.36	40.00
3130	-319	-320	-	--	M	ZG	0.00	40.00	0.36	40.00
3130	-321	-322	-	--	M	ZG	0.00	40.00	0.36	40.00
3130	-323	362	-	--	M	ZG	0.00	40.00	0.36	40.00
3173	-324	-325	-	--	M	ZG	0.00	1500.00	0.38	1500.00
3173	-326	-327	-	--	M	ZG	0.00	1500.00	0.38	1500.00
3173	-328	-329	-	--	M	ZG	0.00	1500.00	0.38	1500.00
3173	-330	364	-	--	M	ZG	0.00	1500.00	0.38	1500.00
3216	-331	-332	-	--	M	ZG	0.00	40.00	0.36	40.00
3216	-333	-334	-	--	M	ZG	0.00	40.00	0.36	40.00
3216	-335	-336	-	--	M	ZG	0.00	40.00	0.36	40.00
3216	-337	-338	-	--	M	ZG	0.00	40.00	0.36	40.00
3259	367	-339	-	--	M	ZG	0.00	40.00	0.36	40.00
3259	-340	-341	-	--	M	ZG	0.00	40.00	0.36	40.00
3259	-342	-343	-	--	M	ZG	0.00	40.00	0.36	40.00
3259	-344	-345	-	--	M	ZG	0.00	40.00	0.36	40.00
3259	-346	368	-	--	M	ZG	0.00	40.00	0.36	40.00
3302	-347	-348	-	--	M	ZG	0.00	1500.00	0.36	1500.00
3302	-349	-350	-	--	M	ZG	0.00	1500.00	0.36	1500.00
3302	-351	-352	-	--	M	ZG	0.00	1500.00	0.36	1500.00
3302	-353	370	-	--	M	ZG	0.00	1500.00	0.36	1500.00
5003	508	-1603	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1604	-1605	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1606	-1607	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1608	-1609	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1610	509	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1611	-1612	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1613	-1614	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1615	-1616	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1617	510	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1618	-1619	S	504	QPS	ZG	0.00	638.25	0.33	638.25
5003	-1619	-1620	S	504	QPS	ZG	0.00	433.55	0.38	433.55
5003	-1621	-1622	S	504	QPS	ZG	0.00	433.55	0.38	433.55
3003	-882	-883	S	307	QPS	ZG	0.00	638.25	0.29	638.25
3003	-883	-884	S	307	QPS	ZG	0.00	433.55	0.36	433.55
3003	-885	-886	S	307	QPS	ZG	0.00	433.55	0.36	433.55
3003	-887	-888	S	307	QPS	ZG	0.00	433.55	0.06	433.55
3003	-888	318	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-889	-890	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-891	-892	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-893	-894	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-895	-896	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	319	-897	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-898	-899	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-900	-901	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-902	-903	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3003	-904	320	S	307	QPS	ZG	0.00	638.25	0.36	638.25
3009	342	343	S	305	QPS	ZG	0.00	594.55	3.25	594.55
3009	345	346	S	303	QPS	ZG	0.00	594.55	3.18	594.55
3009	347	348	S	302	QPS	ZG	0.00	594.55	3.25	594.55
3009	349	350	S	302	QPS	ZG	0.00	594.55	3.25	594.55
3009	352	353	S	306	QPS	ZG	0.00	594.55	3.23	594.55
3033	368	-445	-	--	M	ZG	0.00	40.00	0.40	40.00
3130	-316	-317	-	--	M	ZG	0.00	40.00	0.36	40.00
3130	-318	-319	-	--	M	ZG	0.00	40.00	0.36	40.00
3130	-320	-321	-	--	M	ZG	0.00	40.00	0.36	40.00
3130	-322	-323	-	--	M	ZG	0.00	40.00	0.36	40.00
3173	363	-324	-	--	M	ZG	0.00	1500.00	0.38	1500.00
3173	-325	-326	-	--	M	ZG	0.00	1500.00	0.38	1500.00
3173	-327	-328	-	--	M	ZG	0.00	1500.00	0.38	1500.00
3173	-329	-330	-	--	M	ZG	0.00	1500.00	0.38	1500.00
3216	365	-331	-	--	M	ZG	0.00	40.00	0.36	40.00
3216	-332	-333	-	--	M	ZG	0.00	40.00	0.36	40.00
3216	-334	-335	-	--	M	ZG	0.00	40.00	0.36	40.00
3216	-336	-337	-	--	M	ZG	0.00	40.00	0.36	40.00
3216	-338	366	-	--	M	ZG	0.00	40.00	0.36	40.00
3259	-339	-340	-	--	M	ZG	0.00	40.00	0.36	40.00
3259	-341	-342	-	--	M	ZG	0.00	40.00	0.36	40.00
3259	-343	-344	-	--	M	ZG	0.00	40.00	0.36	40.00
3259	-345	-346	-	--	M	ZG	0.00	40.00	0.36	40.00
3302	369	-347	-	--	M	ZG	0.00	1500.00	0.36	1500.00
3302	-348	-349	-	--	M	ZG	0.00	1500.00	0.36	1500.00
3302	-350	-351	-	--	M	ZG	0.00	1500.00	0.36	1500.00
3302	-352	-353	-	--	M	ZG	0.00	1500.00	0.36	1500.00
5003	507	508	S	504	QPS	ZG	0.00	638.25	3.25	638.25
5003	-1603	-1604	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1605	-1606	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1607	-1608	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1609	-1610	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	509	-1611	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1612	-1613	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1614	-1615	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1616	-1617	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	510	-1618	S	504	QPS	ZG	0.00	638.25	0.38	638.25
5003	-1618	-1619	S	504	QPS	ZG	0.33	433.55	0.38	433.55
5003	-1620	-1621	S	504	QPS	ZG	0.00	433.55	0.38	433.55
5003	-1622	-1623	S	504	QPS	ZG	0.00	433.55	0.38	433.55



Relazione di calcolo

5003	-1623	-1624	S	504	QPS	ZG	0.00	433.55	0.03	433.55
5003	-1624	511	S	504	QPS	ZG	0.00	638.25	0.38	638.25
5003	-1625	-1626	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1627	-1628	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1629	-1630	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1631	512	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1632	-1633	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1634	-1635	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1636	-1637	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1638	-1639	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	513	514	S	507	QPS	ZG	0.00	638.25	3.25	638.25
5003	515	-1640	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1641	-1642	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1643	-1644	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1645	-1646	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1647	516	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1648	-1649	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1650	-1651	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1652	-1653	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1654	-1655	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	517	-1656	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1656	-1657	S	507	QPS	ZG	0.29	433.55	0.36	433.55
5003	-1658	-1659	S	507	QPS	ZG	0.00	433.55	0.36	433.55
5003	-1660	-1661	S	507	QPS	ZG	0.00	433.55	0.36	433.55
5003	-1661	-1662	S	507	QPS	ZG	0.06	638.25	0.36	638.25
5003	518	-1663	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1664	-1665	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1666	-1667	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1668	-1669	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1670	519	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1671	-1672	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1673	-1674	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1675	-1676	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1677	-1678	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5009	541	542	S	505	QPS	ZG	0.00	594.55	3.25	594.55
5009	543	544	S	505	QPS	ZG	0.00	594.55	3.20	594.55
5009	546	547	S	502	QPS	ZG	0.00	594.55	3.25	594.55
5009	548	549	S	503	QPS	ZG	0.00	594.55	3.25	594.55
5009	550	551	S	503	QPS	ZG	0.00	594.55	3.25	594.55
5009	553	554	S	506	QPS	ZG	0.00	594.55	3.23	594.55
5130	-1090	-1091	--	M	ZG	0.00	40.00	0.36	40.00	
5130	-1092	-1093	--	M	ZG	0.00	40.00	0.36	40.00	
5130	-1094	-1095	--	M	ZG	0.00	40.00	0.36	40.00	
5130	-1096	-1097	--	M	ZG	0.00	40.00	0.36	40.00	
5173	563	-1098	--	M	ZG	0.00	1500.00	0.38	1500.00	
5173	-1099	-1100	--	M	ZG	0.00	1500.00	0.38	1500.00	
5173	-1101	-1102	--	M	ZG	0.00	1500.00	0.38	1500.00	
5173	-1103	-1104	--	M	ZG	0.00	1500.00	0.38	1500.00	
5216	565	-1105	--	M	ZG	0.00	40.00	0.36	40.00	
5216	-1106	-1107	--	M	ZG	0.00	40.00	0.36	40.00	
5216	-1108	-1109	--	M	ZG	0.00	40.00	0.36	40.00	
5216	-1110	-1111	--	M	ZG	0.00	40.00	0.36	40.00	
5216	-1112	566	--	M	ZG	0.00	40.00	0.36	40.00	
5259	-1113	-1114	--	M	ZG	0.00	40.00	0.36	40.00	
5003	-1623	-1624	S	504	QPS	ZG	0.03	638.25	0.38	638.25
5003	511	-1625	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1626	-1627	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1628	-1629	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	-1630	-1631	S	504	QPS	ZG	0.00	638.25	0.40	638.25
5003	512	-1632	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1633	-1634	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1635	-1636	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1637	-1638	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1639	513	S	504	QPS	ZG	0.00	638.25	0.36	638.25
5003	514	515	S	507	QPS	ZG	0.00	638.25	3.25	638.25
5003	-1640	-1641	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1642	-1643	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1644	-1645	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1646	-1647	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	516	-1648	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1649	-1650	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1651	-1652	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1653	-1654	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1655	517	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1656	-1657	S	507	QPS	ZG	0.00	638.25	0.29	638.25
5003	-1657	-1658	S	507	QPS	ZG	0.00	433.55	0.36	433.55
5003	-1659	-1660	S	507	QPS	ZG	0.00	433.55	0.36	433.55
5003	-1661	-1662	S	507	QPS	ZG	0.00	433.55	0.06	433.55
5003	-1662	518	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1663	-1664	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1665	-1666	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1667	-1668	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1669	-1670	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	519	-1671	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1672	-1673	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1674	-1675	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1676	-1677	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5003	-1678	520	S	507	QPS	ZG	0.00	638.25	0.36	638.25
5009	542	543	S	505	QPS	ZG	0.00	594.55	3.25	594.55
5009	545	546	S	502	QPS	ZG	0.00	594.55	3.18	594.55
5009	547	548	S	503	QPS	ZG	0.00	594.55	3.25	594.55
5009	549	550	S	503	QPS	ZG	0.00	594.55	3.25	594.55
5009	552	553	S	506	QPS	ZG	0.00	594.55	3.23	594.55
5130	561	-1090	--	M	ZG	0.00	40.00	0.36	40.00	
5130	-1091	-1092	--	M	ZG	0.00	40.00	0.36	40.00	
5130	-1093	-1094	--	M	ZG	0.00	40.00	0.36	40.00	
5130	-1095	-1096	--	M	ZG	0.00	40.00	0.36	40.00	
5130	-1097	562	--	M	ZG	0.00	40.00	0.36	40.00	
5173	-1098	-1099	--	M	ZG	0.00	1500.00	0.38	1500.00	
5173	-1100	-1101	--	M	ZG	0.00	1500.00	0.38	1500.00	
5173	-1102	-1103	--	M	ZG	0.00	1500.00	0.38	1500.00	
5173	-1104	564	--	M	ZG	0.00	1500.00	0.38	1500.00	
5216	-1105	-1106	--	M	ZG	0.00	40.00	0.36	40.00	
5216	-1107	-1108	--	M	ZG	0.00	40.00	0.36	40.00	
5216	-1109	-1110	--	M	ZG	0.00	40.00	0.36	40.00	
5216	-1111	-1112	--	M	ZG	0.00	40.00	0.36	40.00	
5259	567	-1113	--	M	ZG	0.00	40.00	0.36	40.00	
5259	-1114	-1115	--	M	ZG	0.00	40.00	0.36	40.00	



Relazione di calcolo

5259	-1115	-1116	--	M	ZG	0.00	40.00	0.36	40.00	5259	-1116	-1117	--	M	ZG	0.00	40.00	0.36	40.00		
5259	-1117	-1118	--	M	ZG	0.00	40.00	0.36	40.00	5259	-1118	-1119	--	M	ZG	0.00	40.00	0.36	40.00		
5259	-1119	-1120	--	M	ZG	0.00	40.00	0.36	40.00	5259	-1120	568	--	M	ZG	0.00	40.00	0.36	40.00		
5302	569	-1121	--	M	ZG	0.00	1500.00	0.36	1500.00	5302	-1121	-1122	--	M	ZG	0.00	1500.00	0.36	1500.00		
5302	-1122	-1123	--	M	ZG	0.00	1500.00	0.36	1500.00	5302	-1123	-1124	--	M	ZG	0.00	1500.00	0.36	1500.00		
5302	-1124	-1125	--	M	ZG	0.00	1500.00	0.36	1500.00	5302	-1125	-1126	--	M	ZG	0.00	1500.00	0.36	1500.00		
5302	-1126	-1127	--	M	ZG	0.00	1500.00	0.36	1500.00	5302	-1127	570	--	M	ZG	0.00	1500.00	0.36	1500.00		
5345	571	-1128	--	M	ZG	0.00	40.00	0.36	40.00	5345	-1128	-1129	--	M	ZG	0.00	40.00	0.36	40.00		
5345	-1129	-1130	--	M	ZG	0.00	40.00	0.36	40.00	5345	-1130	-1131	--	M	ZG	0.00	40.00	0.36	40.00		
5345	-1131	-1132	--	M	ZG	0.00	40.00	0.36	40.00	5345	-1132	-1133	--	M	ZG	0.00	40.00	0.36	40.00		
5345	-1133	-1134	--	M	ZG	0.00	40.00	0.36	40.00	5345	-1134	-1135	--	M	ZG	0.00	40.00	0.36	40.00		
5345	-1135	572	--	M	ZG	0.00	40.00	0.36	40.00	7003	707	708	S	702	QPS	ZG	0.00	638.25	3.25	638.25	
7003	708	-2368	S	702	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2368	-2369	S	702	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2369	-2370	S	702	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2370	-2371	S	702	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2371	-2372	S	702	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2372	-2373	S	702	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2373	-2374	S	702	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2374	-2375	S	702	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2375	709	S	702	QPS	ZG	0.00	638.25	0.36	638.25	7003	709	-2376	S	702	QPS	ZG	0.00	638.25	0.40	638.25
7003	-2376	-2377	S	702	QPS	ZG	0.00	638.25	0.40	638.25	7003	-2377	-2378	S	702	QPS	ZG	0.00	638.25	0.40	638.25
7003	-2378	-2379	S	702	QPS	ZG	0.00	638.25	0.40	638.25	7003	-2379	-2380	S	702	QPS	ZG	0.00	638.25	0.40	638.25
7003	-2380	-2381	S	702	QPS	ZG	0.00	638.25	0.40	638.25	7003	-2381	-2382	S	702	QPS	ZG	0.00	638.25	0.40	638.25
7003	-2382	710	S	702	QPS	ZG	0.00	638.25	0.40	638.25	7003	710	-2383	S	702	QPS	ZG	0.00	638.25	0.38	638.25
7003	-2383	-2384	S	702	QPS	ZG	0.00	638.25	0.33	638.25	7003	-2383	-2384	S	702	QPS	ZG	0.33	433.55	0.38	433.55
7003	-2384	-2385	S	702	QPS	ZG	0.00	433.55	0.38	433.55	7003	-2385	-2386	S	702	QPS	ZG	0.00	433.55	0.38	433.55
7003	-2386	-2387	S	702	QPS	ZG	0.00	433.55	0.38	433.55	7003	-2387	-2388	S	702	QPS	ZG	0.00	433.55	0.38	433.55
7003	-2388	-2389	S	702	QPS	ZG	0.00	433.55	0.03	433.55	7003	-2388	-2389	S	702	QPS	ZG	0.03	638.25	0.38	638.25
7003	-2389	711	S	702	QPS	ZG	0.00	638.25	0.38	638.25	7003	711	-2390	S	702	QPS	ZG	0.00	638.25	0.40	638.25
7003	-2390	-2391	S	702	QPS	ZG	0.00	638.25	0.40	638.25	7003	-2391	-2392	S	702	QPS	ZG	0.00	638.25	0.40	638.25
7003	-2392	-2393	S	702	QPS	ZG	0.00	638.25	0.40	638.25	7003	-2393	-2394	S	702	QPS	ZG	0.00	638.25	0.40	638.25
7003	-2394	-2395	S	702	QPS	ZG	0.00	638.25	0.40	638.25	7003	-2395	-2396	S	702	QPS	ZG	0.00	638.25	0.40	638.25
7003	-2396	712	S	702	QPS	ZG	0.00	638.25	0.40	638.25	7003	712	-2397	S	702	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2397	-2398	S	702	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2398	-2399	S	702	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2399	-2400	S	702	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2400	-2401	S	702	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2401	-2402	S	702	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2402	-2403	S	702	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2403	-2404	S	702	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2404	713	S	702	QPS	ZG	0.00	638.25	0.36	638.25
7003	713	714	S	706	QPS	ZG	0.00	638.25	3.25	638.25	7003	714	715	S	706	QPS	ZG	0.00	638.25	3.25	638.25
7003	715	-2405	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2405	-2406	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2406	-2407	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2407	-2408	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2408	-2409	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2409	-2410	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2410	-2411	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2411	-2412	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2412	716	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	716	-2413	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2413	-2414	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2414	-2415	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2415	-2416	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2416	-2417	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2417	-2418	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2418	-2419	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2419	-2420	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2420	717	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	717	-2421	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2421	-2422	S	706	QPS	ZG	0.00	638.25	0.29	638.25
7003	-2421	-2422	S	706	QPS	ZG	0.29	433.55	0.36	433.55	7003	-2422	-2423	S	706	QPS	ZG	0.00	433.55	0.36	433.55
7003	-2423	-2424	S	706	QPS	ZG	0.00	433.55	0.36	433.55	7003	-2424	-2425	S	706	QPS	ZG	0.00	433.55	0.36	433.55
7003	-2425	-2426	S	706	QPS	ZG	0.00	433.55	0.36	433.55	7003	-2426	-2427	S	706	QPS	ZG	0.00	433.55	0.06	433.55
7003	-2426	-2427	S	706	QPS	ZG	0.06	638.25	0.36	638.25	7003	-2427	718	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	718	-2428	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2428	-2429	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2429	-2430	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2430	-2431	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2431	-2432	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2432	-2433	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2433	-2434	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	-2434	-2435	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2435	719	S	706	QPS	ZG	0.00	638.25	0.36	638.25	7003	719	-2436	S	706	QPS	ZG	0.00	638.25	0.36	638.25



Relazione di calcolo

7003	-2436	-2437	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2438	-2439	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2440	-2441	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2442	-2443	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7009	741	742	S	704	QPS	ZG	0.00	594.55	3.25	594.55
7009	743	744	S	704	QPS	ZG	0.00	594.55	3.20	594.55
7009	746	747	S	703	QPS	ZG	0.00	594.55	3.25	594.55
7009	748	749	S	707	QPS	ZG	0.00	594.55	3.25	594.55
7009	750	751	S	707	QPS	ZG	0.00	594.55	3.25	594.55
7009	753	754	S	705	QPS	ZG	0.00	594.55	3.23	594.55
7130	-1855	-1856	-	--	M	ZG	0.00	40.00	0.36	40.00
7130	-1857	-1858	-	--	M	ZG	0.00	40.00	0.36	40.00
7130	-1859	-1860	-	--	M	ZG	0.00	40.00	0.36	40.00
7130	-1861	-1862	-	--	M	ZG	0.00	40.00	0.36	40.00
7173	763	-1863	-	--	M	ZG	0.00	1500.00	0.38	1500.00
7173	-1864	-1865	-	--	M	ZG	0.00	1500.00	0.38	1500.00
7173	-1866	-1867	-	--	M	ZG	0.00	1500.00	0.38	1500.00
7173	-1868	-1869	-	--	M	ZG	0.00	1500.00	0.38	1500.00
7216	765	-1870	-	--	M	ZG	0.00	40.00	0.36	40.00
7216	-1871	-1872	-	--	M	ZG	0.00	40.00	0.36	40.00
7216	-1873	-1874	-	--	M	ZG	0.00	40.00	0.36	40.00
7216	-1875	-1876	-	--	M	ZG	0.00	40.00	0.36	40.00
7216	-1877	766	-	--	M	ZG	0.00	40.00	0.36	40.00
7259	-1878	-1879	-	--	M	ZG	0.00	40.00	0.36	40.00
7259	-1880	-1881	-	--	M	ZG	0.00	40.00	0.36	40.00
7259	-1882	-1883	-	--	M	ZG	0.00	40.00	0.36	40.00
7259	-1884	-1885	-	--	M	ZG	0.00	40.00	0.36	40.00
7302	769	-1886	-	--	M	ZG	0.00	1500.00	0.36	1500.00
7302	-1887	-1888	-	--	M	ZG	0.00	1500.00	0.36	1500.00
7302	-1889	-1890	-	--	M	ZG	0.00	1500.00	0.36	1500.00
7302	-1891	-1892	-	--	M	ZG	0.00	1500.00	0.36	1500.00
7345	771	-1893	-	--	M	ZG	0.00	40.00	0.36	40.00
7345	-1894	-1895	-	--	M	ZG	0.00	40.00	0.36	40.00
7345	-1896	-1897	-	--	M	ZG	0.00	40.00	0.36	40.00
7345	-1898	-1899	-	--	M	ZG	0.00	40.00	0.36	40.00
7345	-1900	772	-	--	M	ZG	0.00	40.00	0.36	40.00
9003	908	-3133	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3134	-3135	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3136	-3137	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3138	-3139	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3140	909	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3141	-3142	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3143	-3144	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3145	-3146	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3147	910	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3148	-3149	S	904	QPS	ZG	0.00	638.25	0.33	638.25
9003	-3149	-3150	S	904	QPS	ZG	0.00	433.55	0.38	433.55
9003	-3151	-3152	S	904	QPS	ZG	0.00	433.55	0.38	433.55
9003	-3153	-3154	S	904	QPS	ZG	0.00	433.55	0.03	433.55
9003	-3154	911	S	904	QPS	ZG	0.00	638.25	0.38	638.25
9003	-3155	-3156	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3157	-3158	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3159	-3160	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3161	912	S	904	QPS	ZG	0.00	638.25	0.40	638.25
7003	-2437	-2438	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2439	-2440	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2441	-2442	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7003	-2443	720	S	706	QPS	ZG	0.00	638.25	0.36	638.25
7009	742	743	S	704	QPS	ZG	0.00	594.55	3.25	594.55
7009	745	746	S	703	QPS	ZG	0.00	594.55	3.18	594.55
7009	747	748	S	707	QPS	ZG	0.00	594.55	3.25	594.55
7009	749	750	S	707	QPS	ZG	0.00	594.55	3.25	594.55
7009	752	753	S	705	QPS	ZG	0.00	594.55	3.23	594.55
7130	761	-1855	-	--	M	ZG	0.00	40.00	0.36	40.00
7130	-1856	-1857	-	--	M	ZG	0.00	40.00	0.36	40.00
7130	-1858	-1859	-	--	M	ZG	0.00	40.00	0.36	40.00
7130	-1860	-1861	-	--	M	ZG	0.00	40.00	0.36	40.00
7130	-1862	762	-	--	M	ZG	0.00	40.00	0.36	40.00
7173	-1863	-1864	-	--	M	ZG	0.00	1500.00	0.38	1500.00
7173	-1865	-1866	-	--	M	ZG	0.00	1500.00	0.38	1500.00
7173	-1867	-1868	-	--	M	ZG	0.00	1500.00	0.38	1500.00
7173	-1869	764	-	--	M	ZG	0.00	1500.00	0.38	1500.00
7216	-1870	-1871	-	--	M	ZG	0.00	40.00	0.36	40.00
7216	-1872	-1873	-	--	M	ZG	0.00	40.00	0.36	40.00
7216	-1874	-1875	-	--	M	ZG	0.00	40.00	0.36	40.00
7216	-1876	-1877	-	--	M	ZG	0.00	40.00	0.36	40.00
7259	767	-1878	-	--	M	ZG	0.00	40.00	0.36	40.00
7259	-1879	-1880	-	--	M	ZG	0.00	40.00	0.36	40.00
7259	-1881	-1882	-	--	M	ZG	0.00	40.00	0.36	40.00
7259	-1883	-1884	-	--	M	ZG	0.00	40.00	0.36	40.00
7259	-1885	768	-	--	M	ZG	0.00	40.00	0.36	40.00
7302	-1886	-1887	-	--	M	ZG	0.00	1500.00	0.36	1500.00
7302	-1888	-1889	-	--	M	ZG	0.00	1500.00	0.36	1500.00
7302	-1890	-1891	-	--	M	ZG	0.00	1500.00	0.36	1500.00
7302	-1892	770	-	--	M	ZG	0.00	1500.00	0.36	1500.00
7345	-1893	-1894	-	--	M	ZG	0.00	40.00	0.36	40.00
7345	-1895	-1896	-	--	M	ZG	0.00	40.00	0.36	40.00
7345	-1897	-1898	-	--	M	ZG	0.00	40.00	0.36	40.00
7345	-1899	-1900	-	--	M	ZG	0.00	40.00	0.36	40.00
9003	907	908	S	904	QPS	ZG	0.00	638.25	3.25	638.25
9003	-3133	-3134	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3135	-3136	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3137	-3138	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3139	-3140	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	909	-3141	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3142	-3143	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3144	-3145	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3146	-3147	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	910	-3148	S	904	QPS	ZG	0.00	638.25	0.38	638.25
9003	-3148	-3149	S	904	QPS	ZG	0.33	433.55	0.38	433.55
9003	-3150	-3151	S	904	QPS	ZG	0.00	433.55	0.38	433.55
9003	-3152	-3153	S	904	QPS	ZG	0.00	433.55	0.38	433.55
9003	-3153	-3154	S	904	QPS	ZG	0.03	638.25	0.38	638.25
9003	911	-3155	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3156	-3157	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3158	-3159	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	-3160	-3161	S	904	QPS	ZG	0.00	638.25	0.40	638.25
9003	912	-3162	S	904	QPS	ZG	0.00	638.25	0.36	638.25



Relazione di calcolo

9003	-3162	-3163	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3164	-3165	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3166	-3167	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3168	-3169	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	913	914	S	907	QPS	ZG	0.00	638.25	3.25	638.25
9003	915	-3170	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3171	-3172	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3173	-3174	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3175	-3176	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3177	916	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3178	-3179	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3180	-3181	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3182	-3183	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3184	-3185	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	917	-3186	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3186	-3187	S	907	QPS	ZG	0.29	433.55	0.36	433.55
9003	-3188	-3189	S	907	QPS	ZG	0.00	433.55	0.36	433.55
9003	-3190	-3191	S	907	QPS	ZG	0.00	433.55	0.36	433.55
9003	-3191	-3192	S	907	QPS	ZG	0.06	638.25	0.36	638.25
9003	918	-3193	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3194	-3195	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3196	-3197	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3198	-3199	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3200	919	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3201	-3202	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3203	-3204	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3205	-3206	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3207	-3208	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9009	941	942	S	905	QPS	ZG	0.00	594.55	3.25	594.55
9009	943	944	S	905	QPS	ZG	0.00	594.55	3.20	594.55
9009	946	947	S	902	QPS	ZG	0.00	594.55	3.25	594.55
9009	948	949	S	903	QPS	ZG	0.00	594.55	3.25	594.55
9009	950	951	S	903	QPS	ZG	0.00	594.55	3.25	594.55
9009	953	954	S	906	QPS	ZG	0.00	594.55	3.23	594.55
9130	-2620	-2621	--	M	ZG	0.00	40.00	0.36	40.00	
9130	-2622	-2623	--	M	ZG	0.00	40.00	0.36	40.00	
9130	-2624	-2625	--	M	ZG	0.00	40.00	0.36	40.00	
9130	-2626	-2627	--	M	ZG	0.00	40.00	0.36	40.00	
9173	963	-2628	--	M	ZG	0.00	1500.00	0.38	1500.00	
9173	-2629	-2630	--	M	ZG	0.00	1500.00	0.38	1500.00	
9173	-2631	-2632	--	M	ZG	0.00	1500.00	0.38	1500.00	
9173	-2633	-2634	--	M	ZG	0.00	1500.00	0.38	1500.00	
9216	965	-2635	--	M	ZG	0.00	40.00	0.36	40.00	
9216	-2636	-2637	--	M	ZG	0.00	40.00	0.36	40.00	
9216	-2638	-2639	--	M	ZG	0.00	40.00	0.36	40.00	
9216	-2640	-2641	--	M	ZG	0.00	40.00	0.36	40.00	
9216	-2642	966	--	M	ZG	0.00	40.00	0.36	40.00	
9259	-2643	-2644	--	M	ZG	0.00	40.00	0.36	40.00	
9259	-2645	-2646	--	M	ZG	0.00	40.00	0.36	40.00	
9259	-2647	-2648	--	M	ZG	0.00	40.00	0.36	40.00	
9259	-2649	-2650	--	M	ZG	0.00	40.00	0.36	40.00	
9302	969	-2651	--	M	ZG	0.00	1500.00	0.36	1500.00	
9302	-2652	-2653	--	M	ZG	0.00	1500.00	0.36	1500.00	
9302	-2654	-2655	--	M	ZG	0.00	1500.00	0.36	1500.00	
9003	-3163	-3164	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3165	-3166	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3167	-3168	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3169	913	S	904	QPS	ZG	0.00	638.25	0.36	638.25
9003	914	915	S	907	QPS	ZG	0.00	638.25	3.25	638.25
9003	-3170	-3171	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3172	-3173	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3174	-3175	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3176	-3177	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	916	-3178	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3179	-3180	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3181	-3182	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3183	-3184	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3185	917	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3186	-3187	S	907	QPS	ZG	0.00	638.25	0.29	638.25
9003	-3187	-3188	S	907	QPS	ZG	0.00	433.55	0.36	433.55
9003	-3189	-3190	S	907	QPS	ZG	0.00	433.55	0.36	433.55
9003	-3191	-3192	S	907	QPS	ZG	0.00	433.55	0.06	433.55
9003	-3192	918	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3193	-3194	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3195	-3196	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3197	-3198	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3199	-3200	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	919	-3201	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3202	-3203	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3204	-3205	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3206	-3207	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9003	-3208	920	S	907	QPS	ZG	0.00	638.25	0.36	638.25
9009	942	943	S	905	QPS	ZG	0.00	594.55	3.25	594.55
9009	945	946	S	902	QPS	ZG	0.00	594.55	3.18	594.55
9009	947	948	S	903	QPS	ZG	0.00	594.55	3.25	594.55
9009	949	950	S	903	QPS	ZG	0.00	594.55	3.25	594.55
9009	952	953	S	906	QPS	ZG	0.00	594.55	3.23	594.55
9130	961	-2620	--	M	ZG	0.00	40.00	0.36	40.00	
9130	-2621	-2622	--	M	ZG	0.00	40.00	0.36	40.00	
9130	-2623	-2624	--	M	ZG	0.00	40.00	0.36	40.00	
9130	-2625	-2626	--	M	ZG	0.00	40.00	0.36	40.00	
9130	-2627	962	--	M	ZG	0.00	40.00	0.36	40.00	
9173	-2628	-2629	--	M	ZG	0.00	1500.00	0.38	1500.00	
9173	-2630	-2631	--	M	ZG	0.00	1500.00	0.38	1500.00	
9173	-2632	-2633	--	M	ZG	0.00	1500.00	0.38	1500.00	
9173	-2634	964	--	M	ZG	0.00	1500.00	0.38	1500.00	
9216	-2635	-2636	--	M	ZG	0.00	40.00	0.36	40.00	
9216	-2637	-2638	--	M	ZG	0.00	40.00	0.36	40.00	
9216	-2639	-2640	--	M	ZG	0.00	40.00	0.36	40.00	
9216	-2641	-2642	--	M	ZG	0.00	40.00	0.36	40.00	
9259	967	-2643	--	M	ZG	0.00	40.00	0.36	40.00	
9259	-2644	-2645	--	M	ZG	0.00	40.00	0.36	40.00	
9259	-2646	-2647	--	M	ZG	0.00	40.00	0.36	40.00	
9259	-2648	-2649	--	M	ZG	0.00	40.00	0.36	40.00	
9259	-2650	968	--	M	ZG	0.00	40.00	0.36	40.00	
9302	-2651	-2652	--	M	ZG	0.00	1500.00	0.36	1500.00	
9302	-2653	-2654	--	M	ZG	0.00	1500.00	0.36	1500.00	
9302	-2655	-2656	--	M	ZG	0.00	1500.00	0.36	1500.00	



Relazione di calcolo

9302	-2656	-2657	---	M	ZG	0.00	1500.00	0.36	1500.00	9302	-2657	970	---	M	ZG	0.00	1500.00	0.36	1500.00		
9345	971	-2658	---	M	ZG	0.00	40.00	0.36	40.00	9345	-2658	-2659	---	M	ZG	0.00	40.00	0.36	40.00		
9345	-2659	-2660	---	M	ZG	0.00	40.00	0.36	40.00	9345	-2660	-2661	---	M	ZG	0.00	40.00	0.36	40.00		
9345	-2661	-2662	---	M	ZG	0.00	40.00	0.36	40.00	9345	-2662	-2663	---	M	ZG	0.00	40.00	0.36	40.00		
9345	-2663	-2664	---	M	ZG	0.00	40.00	0.36	40.00	9345	-2664	-2665	---	M	ZG	0.00	40.00	0.36	40.00		
9345	-2665	972	---	M	ZG	0.00	40.00	0.36	40.00	11003	1107	1108	S	1105	QPS	ZG	0.00	638.25	3.25	638.25	
11003	1108	-3898	S	1105	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3898	-3899	S	1105	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3899	-3900	S	1105	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3900	-3901	S	1105	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3901	-3902	S	1105	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3902	-3903	S	1105	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3903	-3904	S	1105	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3904	-3905	S	1105	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3905	1109	S	1105	QPS	ZG	0.00	638.25	0.36	638.25	11003	1109	-3906	S	1105	QPS	ZG	0.00	638.25	0.40	638.25
11003	-3906	-3907	S	1105	QPS	ZG	0.00	638.25	0.40	638.25	11003	-3907	-3908	S	1105	QPS	ZG	0.00	638.25	0.40	638.25
11003	-3908	-3909	S	1105	QPS	ZG	0.00	638.25	0.40	638.25	11003	-3909	-3910	S	1105	QPS	ZG	0.00	638.25	0.40	638.25
11003	-3910	-3911	S	1105	QPS	ZG	0.00	638.25	0.40	638.25	11003	-3911	-3912	S	1105	QPS	ZG	0.00	638.25	0.40	638.25
11003	-3912	1110	S	1105	QPS	ZG	0.00	638.25	0.40	638.25	11003	1110	-3913	S	1105	QPS	ZG	0.00	638.25	0.38	638.25
11003	-3913	-3914	S	1105	QPS	ZG	0.00	638.25	0.33	638.25	11003	-3913	-3914	S	1105	QPS	ZG	0.33	433.55	0.38	433.55
11003	-3914	-3915	S	1105	QPS	ZG	0.00	433.55	0.38	433.55	11003	-3915	-3916	S	1105	QPS	ZG	0.00	433.55	0.38	433.55
11003	-3916	-3917	S	1105	QPS	ZG	0.00	433.55	0.38	433.55	11003	-3917	-3918	S	1105	QPS	ZG	0.00	433.55	0.38	433.55
11003	-3918	-3919	S	1105	QPS	ZG	0.00	433.55	0.03	433.55	11003	-3918	-3919	S	1105	QPS	ZG	0.03	638.25	0.38	638.25
11003	-3919	1111	S	1105	QPS	ZG	0.00	638.25	0.38	638.25	11003	1111	-3920	S	1105	QPS	ZG	0.00	638.25	0.40	638.25
11003	-3920	-3921	S	1105	QPS	ZG	0.00	638.25	0.40	638.25	11003	-3921	-3922	S	1105	QPS	ZG	0.00	638.25	0.40	638.25
11003	-3922	-3923	S	1105	QPS	ZG	0.00	638.25	0.40	638.25	11003	-3923	-3924	S	1105	QPS	ZG	0.00	638.25	0.40	638.25
11003	-3924	-3925	S	1105	QPS	ZG	0.00	638.25	0.40	638.25	11003	-3925	-3926	S	1105	QPS	ZG	0.00	638.25	0.40	638.25
11003	-3926	1112	S	1105	QPS	ZG	0.00	638.25	0.40	638.25	11003	1112	-3927	S	1105	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3927	-3928	S	1105	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3928	-3929	S	1105	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3929	-3930	S	1105	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3930	-3931	S	1105	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3931	-3932	S	1105	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3932	-3933	S	1105	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3933	-3934	S	1105	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3934	1113	S	1105	QPS	ZG	0.00	638.25	0.36	638.25
11003	1113	1114	S	1108	QPS	ZG	0.00	638.25	3.25	638.25	11003	1114	1115	S	1108	QPS	ZG	0.00	638.25	3.25	638.25
11003	1115	-3935	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3935	-3936	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3936	-3937	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3937	-3938	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3938	-3939	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3939	-3940	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3940	-3941	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3941	-3942	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3942	1116	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	1116	-3943	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3943	-3944	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3944	-3945	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3945	-3946	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3946	-3947	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3947	-3948	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3948	-3949	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3949	-3950	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3950	1117	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	1117	-3951	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3951	-3952	S	1108	QPS	ZG	0.00	638.25	0.29	638.25
11003	-3951	-3952	S	1108	QPS	ZG	0.29	433.55	0.36	433.55	11003	-3952	-3953	S	1108	QPS	ZG	0.00	433.55	0.36	433.55
11003	-3953	-3954	S	1108	QPS	ZG	0.00	433.55	0.36	433.55	11003	-3954	-3955	S	1108	QPS	ZG	0.00	433.55	0.36	433.55
11003	-3955	-3956	S	1108	QPS	ZG	0.00	433.55	0.36	433.55	11003	-3956	-3957	S	1108	QPS	ZG	0.00	433.55	0.06	433.55
11003	-3956	-3957	S	1108	QPS	ZG	0.06	638.25	0.36	638.25	11003	-3957	1118	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	1118	-3958	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3958	-3959	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3959	-3960	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3960	-3961	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3961	-3962	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3962	-3963	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3963	-3964	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3964	-3965	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3965	1119	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	1119	-3966	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3966	-3967	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3967	-3968	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3968	-3969	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3969	-3970	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3970	-3971	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3971	-3972	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11003	-3972	-3973	S	1108	QPS	ZG	0.00	638.25	0.36	638.25	11003	-3973	1120	S	1108	QPS	ZG	0.00	638.25	0.36	638.25
11007	1132	1193	S	1104	QPS	ZG	0.00	594.55	3.25	594.55	11007	1132	1193	S	1108	QPS	ZG	0.00	638.25	3.25	638.25
11009	1141	1142	S	1106	QPS	ZG	0.00	594.55	3.25	594.55	11009	1142	1143	S	1106	QPS	ZG	0.00	594.55	3.25	594.55



# Relazione di calcolo

11009	1143	1144	S	1106	QPS	ZG	0.00	594.55	3.20	594.55
11009	1146	1147	S	1103	QPS	ZG	0.00	594.55	3.25	594.55
11009	1148	1149	S	1104	QPS	ZG	0.00	594.55	3.25	594.55
11009	1150	1151	S	1104	QPS	ZG	0.00	594.55	3.25	594.55
11009	1153	1154	S	1107	QPS	ZG	0.00	594.55	3.23	594.55
11130	-3385	-3386	-	--	M	ZG	0.00	40.00	0.36	40.00
11130	-3387	-3388	-	--	M	ZG	0.00	40.00	0.36	40.00
11130	-3389	-3390	-	--	M	ZG	0.00	40.00	0.36	40.00
11130	-3391	-3392	-	--	M	ZG	0.00	40.00	0.36	40.00
11173	1163	-3393	-	--	M	ZG	0.00	1500.00	0.38	1500.00
11173	-3394	-3395	-	--	M	ZG	0.00	1500.00	0.38	1500.00
11173	-3396	-3397	-	--	M	ZG	0.00	1500.00	0.38	1500.00
11173	-3398	-3399	-	--	M	ZG	0.00	1500.00	0.38	1500.00
11216	1165	-3400	-	--	M	ZG	0.00	40.00	0.36	40.00
11216	-3401	-3402	-	--	M	ZG	0.00	40.00	0.36	40.00
11216	-3403	-3404	-	--	M	ZG	0.00	40.00	0.36	40.00
11216	-3405	-3406	-	--	M	ZG	0.00	40.00	0.36	40.00
11216	-3407	1166	-	--	M	ZG	0.00	40.00	0.36	40.00
11259	-3408	-3409	-	--	M	ZG	0.00	40.00	0.36	40.00
11259	-3410	-3411	-	--	M	ZG	0.00	40.00	0.36	40.00
11259	-3412	-3413	-	--	M	ZG	0.00	40.00	0.36	40.00
11259	-3414	-3415	-	--	M	ZG	0.00	40.00	0.36	40.00
11302	1169	-3416	-	--	M	ZG	0.00	1500.00	0.36	1500.00
11302	-3417	-3418	-	--	M	ZG	0.00	1500.00	0.36	1500.00
11302	-3419	-3420	-	--	M	ZG	0.00	1500.00	0.36	1500.00
11302	-3421	-3422	-	--	M	ZG	0.00	1500.00	0.36	1500.00
11345	1171	-3423	-	--	M	ZG	0.00	40.00	0.36	40.00
11345	-3424	-3425	-	--	M	ZG	0.00	40.00	0.36	40.00
11345	-3426	-3427	-	--	M	ZG	0.00	40.00	0.36	40.00
11345	-3428	-3429	-	--	M	ZG	0.00	40.00	0.36	40.00
11345	-3430	1172	-	--	M	ZG	0.00	40.00	0.36	40.00
13003	1308	-4663	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4664	-4665	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4666	-4667	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4668	-4669	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4670	1309	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4671	-4672	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4673	-4674	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4675	-4676	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4677	1310	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4678	-4679	S	1305	QPS	ZG	0.00	638.25	0.33	638.25
13003	-4679	-4680	S	1305	QPS	ZG	0.00	433.55	0.38	433.55
13003	-4681	-4682	S	1305	QPS	ZG	0.00	433.55	0.38	433.55
13003	-4683	-4684	S	1305	QPS	ZG	0.00	433.55	0.03	433.55
13003	-4684	1311	S	1305	QPS	ZG	0.00	638.25	0.38	638.25
13003	-4685	-4686	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4687	-4688	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4689	-4690	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4691	1312	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4692	-4693	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4694	-4695	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4696	-4697	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4698	-4699	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	1313	1314	S	1308	QPS	ZG	0.00	638.25	3.25	638.25

11009	1145	1146	S	1103	QPS	ZG	0.00	594.55	3.18	594.55
11009	1147	1148	S	1104	QPS	ZG	0.00	594.55	3.25	594.55
11009	1149	1150	S	1104	QPS	ZG	0.00	594.55	3.25	594.55
11009	1152	1153	S	1107	QPS	ZG	0.00	594.55	3.23	594.55
11130	1161	-3385	-	--	M	ZG	0.00	40.00	0.36	40.00
11130	-3386	-3387	-	--	M	ZG	0.00	40.00	0.36	40.00
11130	-3388	-3389	-	--	M	ZG	0.00	40.00	0.36	40.00
11130	-3390	-3391	-	--	M	ZG	0.00	40.00	0.36	40.00
11130	-3392	1162	-	--	M	ZG	0.00	40.00	0.36	40.00
11173	-3393	-3394	-	--	M	ZG	0.00	1500.00	0.38	1500.00
11173	-3395	-3396	-	--	M	ZG	0.00	1500.00	0.38	1500.00
11173	-3397	-3398	-	--	M	ZG	0.00	1500.00	0.38	1500.00
11173	-3399	1164	-	--	M	ZG	0.00	1500.00	0.38	1500.00
11216	-3400	-3401	-	--	M	ZG	0.00	40.00	0.36	40.00
11216	-3402	-3403	-	--	M	ZG	0.00	40.00	0.36	40.00
11216	-3404	-3405	-	--	M	ZG	0.00	40.00	0.36	40.00
11216	-3406	-3407	-	--	M	ZG	0.00	40.00	0.36	40.00
11259	1167	-3408	-	--	M	ZG	0.00	40.00	0.36	40.00
11259	-3409	-3410	-	--	M	ZG	0.00	40.00	0.36	40.00
11259	-3411	-3412	-	--	M	ZG	0.00	40.00	0.36	40.00
11259	-3413	-3414	-	--	M	ZG	0.00	40.00	0.36	40.00
11259	-3415	1168	-	--	M	ZG	0.00	40.00	0.36	40.00
11302	-3416	-3417	-	--	M	ZG	0.00	1500.00	0.36	1500.00
11302	-3418	-3419	-	--	M	ZG	0.00	1500.00	0.36	1500.00
11302	-3420	-3421	-	--	M	ZG	0.00	1500.00	0.36	1500.00
11302	-3422	1170	-	--	M	ZG	0.00	1500.00	0.36	1500.00
11345	-3423	-3424	-	--	M	ZG	0.00	40.00	0.36	40.00
11345	-3425	-3426	-	--	M	ZG	0.00	40.00	0.36	40.00
11345	-3427	-3428	-	--	M	ZG	0.00	40.00	0.36	40.00
11345	-3429	-3430	-	--	M	ZG	0.00	40.00	0.36	40.00
13003	1307	1308	S	1305	QPS	ZG	0.00	638.25	3.25	638.25
13003	-4663	-4664	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4665	-4666	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4667	-4668	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4669	-4670	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	1309	-4671	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4672	-4673	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4674	-4675	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4676	-4677	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	1310	-4678	S	1305	QPS	ZG	0.00	638.25	0.38	638.25
13003	-4678	-4679	S	1305	QPS	ZG	0.33	433.55	0.38	433.55
13003	-4680	-4681	S	1305	QPS	ZG	0.00	433.55	0.38	433.55
13003	-4682	-4683	S	1305	QPS	ZG	0.00	433.55	0.38	433.55
13003	-4683	-4684	S	1305	QPS	ZG	0.03	638.25	0.38	638.25
13003	1311	-4685	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4686	-4687	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4688	-4689	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	-4690	-4691	S	1305	QPS	ZG	0.00	638.25	0.40	638.25
13003	1312	-4692	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4693	-4694	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4695	-4696	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4697	-4698	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4699	1313	S	1305	QPS	ZG	0.00	638.25	0.36	638.25
13003	1314	1315	S	1308	QPS	ZG	0.00	638.25	3.25	638.25



Relazione di calcolo

13003	1315	-4700	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4701	-4702	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4703	-4704	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4705	-4706	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4707	1316	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4708	-4709	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4710	-4711	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4712	-4713	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4714	-4715	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	1317	-4716	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4716	-4717	S	1308	QPS	ZG	0.29	433.55	0.36	433.55
13003	-4718	-4719	S	1308	QPS	ZG	0.00	433.55	0.36	433.55
13003	-4720	-4721	S	1308	QPS	ZG	0.00	433.55	0.36	433.55
13003	-4721	-4722	S	1308	QPS	ZG	0.06	638.25	0.36	638.25
13003	1318	-4723	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4724	-4725	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4726	-4727	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4728	-4729	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4730	1319	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4731	-4732	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4733	-4734	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4735	-4736	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4737	-4738	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13009	1341	1342	S	1306	QPS	ZG	0.00	594.55	3.25	594.55
13009	1343	1344	S	1306	QPS	ZG	0.00	594.55	3.20	594.55
13009	1346	1347	S	1303	QPS	ZG	0.00	594.55	3.25	594.55
13009	1348	1349	S	1304	QPS	ZG	0.00	594.55	3.25	594.55
13009	1350	1351	S	1304	QPS	ZG	0.00	594.55	3.25	594.55
13009	1353	1354	S	1307	QPS	ZG	0.00	594.55	3.23	594.55
13130	-4150	-4151	--	M	ZG	0.00	40.00	0.36	40.00	
13130	-4152	-4153	--	M	ZG	0.00	40.00	0.36	40.00	
13130	-4154	-4155	--	M	ZG	0.00	40.00	0.36	40.00	
13130	-4156	-4157	--	M	ZG	0.00	40.00	0.36	40.00	
13173	1363	-4158	--	M	ZG	0.00	1500.00	0.38	1500.00	
13173	-4159	-4160	--	M	ZG	0.00	1500.00	0.38	1500.00	
13173	-4161	-4162	--	M	ZG	0.00	1500.00	0.38	1500.00	
13173	-4163	-4164	--	M	ZG	0.00	1500.00	0.38	1500.00	
13216	1365	-4165	--	M	ZG	0.00	40.00	0.36	40.00	
13216	-4166	-4167	--	M	ZG	0.00	40.00	0.36	40.00	
13216	-4168	-4169	--	M	ZG	0.00	40.00	0.36	40.00	
13216	-4170	-4171	--	M	ZG	0.00	40.00	0.36	40.00	
13216	-4172	1366	--	M	ZG	0.00	40.00	0.36	40.00	
13259	-4173	-4174	--	M	ZG	0.00	40.00	0.36	40.00	
13259	-4175	-4176	--	M	ZG	0.00	40.00	0.36	40.00	
13259	-4177	-4178	--	M	ZG	0.00	40.00	0.36	40.00	
13259	-4179	-4180	--	M	ZG	0.00	40.00	0.36	40.00	
13302	1369	-4181	--	M	ZG	0.00	1500.00	0.36	1500.00	
13302	-4182	-4183	--	M	ZG	0.00	1500.00	0.36	1500.00	
13302	-4184	-4185	--	M	ZG	0.00	1500.00	0.36	1500.00	
13302	-4186	-4187	--	M	ZG	0.00	1500.00	0.36	1500.00	
13345	1371	-4188	--	M	ZG	0.00	40.00	0.36	40.00	
13345	-4189	-4190	--	M	ZG	0.00	40.00	0.36	40.00	
13345	-4191	-4192	--	M	ZG	0.00	40.00	0.36	40.00	
13345	-4193	-4194	--	M	ZG	0.00	40.00	0.36	40.00	
13003	-4700	-4701	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4702	-4703	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4704	-4705	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4706	-4707	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	1316	-4708	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4709	-4710	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4711	-4712	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4713	-4714	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4715	1317	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4716	-4717	S	1308	QPS	ZG	0.00	638.25	0.29	638.25
13003	-4717	-4718	S	1308	QPS	ZG	0.00	433.55	0.36	433.55
13003	-4719	-4720	S	1308	QPS	ZG	0.00	433.55	0.36	433.55
13003	-4721	-4722	S	1308	QPS	ZG	0.00	433.55	0.06	433.55
13003	-4722	1318	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4723	-4724	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4725	-4726	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4727	-4728	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4729	-4730	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	1319	-4731	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4732	-4733	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4734	-4735	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4736	-4737	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13003	-4738	1320	S	1308	QPS	ZG	0.00	638.25	0.36	638.25
13009	1342	1343	S	1306	QPS	ZG	0.00	594.55	3.25	594.55
13009	1345	1346	S	1303	QPS	ZG	0.00	594.55	3.18	594.55
13009	1347	1348	S	1304	QPS	ZG	0.00	594.55	3.25	594.55
13009	1349	1350	S	1304	QPS	ZG	0.00	594.55	3.25	594.55
13009	1352	1353	S	1307	QPS	ZG	0.00	594.55	3.23	594.55
13130	1361	-4150	--	M	ZG	0.00	40.00	0.36	40.00	
13130	-4151	-4152	--	M	ZG	0.00	40.00	0.36	40.00	
13130	-4153	-4154	--	M	ZG	0.00	40.00	0.36	40.00	
13130	-4155	-4156	--	M	ZG	0.00	40.00	0.36	40.00	
13130	-4157	1362	--	M	ZG	0.00	40.00	0.36	40.00	
13173	-4158	-4159	--	M	ZG	0.00	1500.00	0.38	1500.00	
13173	-4160	-4161	--	M	ZG	0.00	1500.00	0.38	1500.00	
13173	-4162	-4163	--	M	ZG	0.00	1500.00	0.38	1500.00	
13173	-4164	1364	--	M	ZG	0.00	1500.00	0.38	1500.00	
13216	-4165	-4166	--	M	ZG	0.00	40.00	0.36	40.00	
13216	-4167	-4168	--	M	ZG	0.00	40.00	0.36	40.00	
13216	-4169	-4170	--	M	ZG	0.00	40.00	0.36	40.00	
13216	-4171	-4172	--	M	ZG	0.00	40.00	0.36	40.00	
13259	1367	-4173	--	M	ZG	0.00	40.00	0.36	40.00	
13259	-4174	-4175	--	M	ZG	0.00	40.00	0.36	40.00	
13259	-4176	-4177	--	M	ZG	0.00	40.00	0.36	40.00	
13259	-4178	-4179	--	M	ZG	0.00	40.00	0.36	40.00	
13259	-4180	1368	--	M	ZG	0.00	40.00	0.36	40.00	
13302	-4181	-4182	--	M	ZG	0.00	1500.00	0.36	1500.00	
13302	-4183	-4184	--	M	ZG	0.00	1500.00	0.36	1500.00	
13302	-4185	-4186	--	M	ZG	0.00	1500.00	0.36	1500.00	
13302	-4187	1370	--	M	ZG	0.00	1500.00	0.36	1500.00	
13345	-4188	-4189	--	M	ZG	0.00	40.00	0.36	40.00	
13345	-4190	-4191	--	M	ZG	0.00	40.00	0.36	40.00	
13345	-4192	-4193	--	M	ZG	0.00	40.00	0.36	40.00	
13345	-4194	-4195	--	M	ZG	0.00	40.00	0.36	40.00	



Relazione di calcolo

13345	-4195	1372	--	M	ZG	0.00	40.00	0.36	40.00	
15003	1508	-5428	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5429	-5430	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5431	-5432	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5433	-5434	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5435	1509	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5436	-5437	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5438	-5439	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5440	-5441	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5442	1510	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5443	-5444	S	1505	QPS	ZG	0.00	638.25	0.33	638.25
15003	-5444	-5445	S	1505	QPS	ZG	0.00	433.55	0.38	433.55
15003	-5446	-5447	S	1505	QPS	ZG	0.00	433.55	0.38	433.55
15003	-5448	-5449	S	1505	QPS	ZG	0.00	433.55	0.03	433.55
15003	-5449	1511	S	1505	QPS	ZG	0.00	638.25	0.38	638.25
15003	-5450	-5451	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5452	-5453	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5454	-5455	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5456	1512	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5457	-5458	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5459	-5460	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5461	-5462	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5463	-5464	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	1513	1514	S	1508	QPS	ZG	0.00	638.25	3.25	638.25
15003	1515	-5465	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5466	-5467	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5468	-5469	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5470	-5471	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5472	1516	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5473	-5474	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5475	-5476	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5477	-5478	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5479	-5480	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	1517	-5481	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5481	-5482	S	1508	QPS	ZG	0.29	433.55	0.36	433.55
15003	-5483	-5484	S	1508	QPS	ZG	0.00	433.55	0.36	433.55
15003	-5485	-5486	S	1508	QPS	ZG	0.00	433.55	0.36	433.55
15003	-5486	-5487	S	1508	QPS	ZG	0.06	638.25	0.36	638.25
15003	1518	-5488	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5489	-5490	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5491	-5492	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5493	-5494	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5495	1519	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5496	-5497	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5498	-5499	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5500	-5501	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5502	-5503	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15009	1541	1542	S	1506	QPS	ZG	0.00	594.55	3.25	594.55
15009	1543	1544	S	1506	QPS	ZG	0.00	594.55	3.20	594.55
15009	1546	1547	S	1503	QPS	ZG	0.00	594.55	3.25	594.55
15009	1548	1549	S	1504	QPS	ZG	0.00	594.55	3.25	594.55
15009	1550	1551	S	1504	QPS	ZG	0.00	594.55	3.25	594.55
15009	1553	1554	S	1507	QPS	ZG	0.00	594.55	3.23	594.55
15130	-4915	-4916	---	M	ZG	0.00	40.00	0.36	40.00	
15003	1507	1508	S	1505	QPS	ZG	0.00	638.25	3.25	638.25
15003	-5428	-5429	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5430	-5431	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5432	-5433	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5434	-5435	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	1509	-5436	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5437	-5438	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5439	-5440	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5441	-5442	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	1510	-5443	S	1505	QPS	ZG	0.00	638.25	0.38	638.25
15003	-5443	-5444	S	1505	QPS	ZG	0.33	433.55	0.38	433.55
15003	-5445	-5446	S	1505	QPS	ZG	0.00	433.55	0.38	433.55
15003	-5447	-5448	S	1505	QPS	ZG	0.00	433.55	0.38	433.55
15003	-5448	-5449	S	1505	QPS	ZG	0.03	638.25	0.38	638.25
15003	1511	-5450	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5451	-5452	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5453	-5454	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	-5455	-5456	S	1505	QPS	ZG	0.00	638.25	0.40	638.25
15003	1512	-5457	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5458	-5459	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5460	-5461	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5462	-5463	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5464	1513	S	1505	QPS	ZG	0.00	638.25	0.36	638.25
15003	1514	1515	S	1508	QPS	ZG	0.00	638.25	3.25	638.25
15003	-5465	-5466	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5467	-5468	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5469	-5470	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5471	-5472	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	1516	-5473	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5474	-5475	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5476	-5477	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5478	-5479	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5480	1517	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5481	-5482	S	1508	QPS	ZG	0.00	638.25	0.29	638.25
15003	-5482	-5483	S	1508	QPS	ZG	0.00	433.55	0.36	433.55
15003	-5484	-5485	S	1508	QPS	ZG	0.00	433.55	0.36	433.55
15003	-5486	-5487	S	1508	QPS	ZG	0.00	433.55	0.06	433.55
15003	-5487	1518	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5488	-5489	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5490	-5491	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5492	-5493	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5494	-5495	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	1519	-5496	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5497	-5498	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5499	-5500	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5501	-5502	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15003	-5503	1520	S	1508	QPS	ZG	0.00	638.25	0.36	638.25
15009	1542	1543	S	1506	QPS	ZG	0.00	594.55	3.25	594.55
15009	1545	1546	S	1503	QPS	ZG	0.00	594.55	3.18	594.55
15009	1547	1548	S	1504	QPS	ZG	0.00	594.55	3.25	594.55
15009	1549	1550	S	1504	QPS	ZG	0.00	594.55	3.25	594.55
15009	1552	1553	S	1507	QPS	ZG	0.00	594.55	3.23	594.55
15130	1561	-4915	--	M	ZG	0.00	40.00	0.36	40.00	
15130	-4916	-4917	--	M	ZG	0.00	40.00	0.36	40.00	



Relazione di calcolo

15130	-4917	-4918	---	M	ZG	0.00	40.00	0.36	40.00	15130	-4918	-4919	---	M	ZG	0.00	40.00	0.36	40.00		
15130	-4919	-4920	---	M	ZG	0.00	40.00	0.36	40.00	15130	-4920	-4921	---	M	ZG	0.00	40.00	0.36	40.00		
15130	-4921	-4922	---	M	ZG	0.00	40.00	0.36	40.00	15130	-4922	1562	---	M	ZG	0.00	40.00	0.36	40.00		
15173	1563	-4923	---	M	ZG	0.00	1500.00	0.38	1500.00	15173	-4923	-4924	---	M	ZG	0.00	1500.00	0.38	1500.00		
15173	-4924	-4925	---	M	ZG	0.00	1500.00	0.38	1500.00	15173	-4925	-4926	---	M	ZG	0.00	1500.00	0.38	1500.00		
15173	-4926	-4927	---	M	ZG	0.00	1500.00	0.38	1500.00	15173	-4927	-4928	---	M	ZG	0.00	1500.00	0.38	1500.00		
15173	-4928	-4929	---	M	ZG	0.00	1500.00	0.38	1500.00	15173	-4929	1564	---	M	ZG	0.00	1500.00	0.38	1500.00		
15216	1565	-4930	---	M	ZG	0.00	40.00	0.36	40.00	15216	-4930	-4931	---	M	ZG	0.00	40.00	0.36	40.00		
15216	-4931	-4932	---	M	ZG	0.00	40.00	0.36	40.00	15216	-4932	-4933	---	M	ZG	0.00	40.00	0.36	40.00		
15216	-4933	-4934	---	M	ZG	0.00	40.00	0.36	40.00	15216	-4934	-4935	---	M	ZG	0.00	40.00	0.36	40.00		
15216	-4935	-4936	---	M	ZG	0.00	40.00	0.36	40.00	15216	-4936	-4937	---	M	ZG	0.00	40.00	0.36	40.00		
15216	-4937	1566	---	M	ZG	0.00	40.00	0.36	40.00	15259	1567	-4938	---	M	ZG	0.00	40.00	0.36	40.00		
15259	-4938	-4939	---	M	ZG	0.00	40.00	0.36	40.00	15259	-4939	-4940	---	M	ZG	0.00	40.00	0.36	40.00		
15259	-4940	-4941	---	M	ZG	0.00	40.00	0.36	40.00	15259	-4941	-4942	---	M	ZG	0.00	40.00	0.36	40.00		
15259	-4942	-4943	---	M	ZG	0.00	40.00	0.36	40.00	15259	-4943	-4944	---	M	ZG	0.00	40.00	0.36	40.00		
15259	-4944	-4945	---	M	ZG	0.00	40.00	0.36	40.00	15259	-4945	1568	---	M	ZG	0.00	40.00	0.36	40.00		
15302	1569	-4946	---	M	ZG	0.00	1500.00	0.36	1500.00	15302	-4946	-4947	---	M	ZG	0.00	1500.00	0.36	1500.00		
15302	-4947	-4948	---	M	ZG	0.00	1500.00	0.36	1500.00	15302	-4948	-4949	---	M	ZG	0.00	1500.00	0.36	1500.00		
15302	-4949	-4950	---	M	ZG	0.00	1500.00	0.36	1500.00	15302	-4950	-4951	---	M	ZG	0.00	1500.00	0.36	1500.00		
15302	-4951	-4952	---	M	ZG	0.00	1500.00	0.36	1500.00	15302	-4952	1570	---	M	ZG	0.00	1500.00	0.36	1500.00		
15345	1571	-4953	---	M	ZG	0.00	40.00	0.36	40.00	15345	-4953	-4954	---	M	ZG	0.00	40.00	0.36	40.00		
15345	-4954	-4955	---	M	ZG	0.00	40.00	0.36	40.00	15345	-4955	-4956	---	M	ZG	0.00	40.00	0.36	40.00		
15345	-4956	-4957	---	M	ZG	0.00	40.00	0.36	40.00	15345	-4957	-4958	---	M	ZG	0.00	40.00	0.36	40.00		
15345	-4958	-4959	---	M	ZG	0.00	40.00	0.36	40.00	15345	-4959	-4960	---	M	ZG	0.00	40.00	0.36	40.00		
15345	-4960	1572	---	M	ZG	0.00	40.00	0.36	40.00	17003	1707	1708	S	1705	QPS	ZG	0.00	638.25	3.25	638.25	
17003	1708	-6194	S	1705	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6194	-6195	S	1705	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6195	-6196	S	1705	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6196	-6197	S	1705	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6197	-6198	S	1705	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6198	-6199	S	1705	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6199	-6200	S	1705	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6200	-6201	S	1705	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6201	1709	S	1705	QPS	ZG	0.00	638.25	0.36	638.25	17003	1709	-6202	S	1705	QPS	ZG	0.00	638.25	0.40	638.25
17003	-6202	-6203	S	1705	QPS	ZG	0.00	638.25	0.40	638.25	17003	-6203	-6204	S	1705	QPS	ZG	0.00	638.25	0.40	638.25
17003	-6204	-6205	S	1705	QPS	ZG	0.00	638.25	0.40	638.25	17003	-6205	-6206	S	1705	QPS	ZG	0.00	638.25	0.40	638.25
17003	-6206	-6207	S	1705	QPS	ZG	0.00	638.25	0.40	638.25	17003	-6207	-6208	S	1705	QPS	ZG	0.00	638.25	0.40	638.25
17003	-6208	1710	S	1705	QPS	ZG	0.00	638.25	0.40	638.25	17003	1710	-6209	S	1705	QPS	ZG	0.00	638.25	0.38	638.25
17003	-6209	-6210	S	1705	QPS	ZG	0.00	638.25	0.33	638.25	17003	-6209	-6210	S	1705	QPS	ZG	0.33	433.55	0.38	433.55
17003	-6210	-6211	S	1705	QPS	ZG	0.00	433.55	0.38	433.55	17003	-6211	-6212	S	1705	QPS	ZG	0.00	433.55	0.38	433.55
17003	-6212	-6213	S	1705	QPS	ZG	0.00	433.55	0.38	433.55	17003	-6213	-6214	S	1705	QPS	ZG	0.00	433.55	0.38	433.55
17003	-6214	-6215	S	1705	QPS	ZG	0.00	433.55	0.03	433.55	17003	-6214	-6215	S	1705	QPS	ZG	0.03	638.25	0.38	638.25
17003	-6215	1711	S	1705	QPS	ZG	0.00	638.25	0.38	638.25	17003	1711	-6216	S	1705	QPS	ZG	0.00	638.25	0.40	638.25
17003	-6216	-6217	S	1705	QPS	ZG	0.00	638.25	0.40	638.25	17003	-6217	-6218	S	1705	QPS	ZG	0.00	638.25	0.40	638.25
17003	-6218	-6219	S	1705	QPS	ZG	0.00	638.25	0.40	638.25	17003	-6219	-6220	S	1705	QPS	ZG	0.00	638.25	0.40	638.25
17003	-6220	-6221	S	1705	QPS	ZG	0.00	638.25	0.40	638.25	17003	-6221	-6222	S	1705	QPS	ZG	0.00	638.25	0.40	638.25
17003	-6222	1712	S	1705	QPS	ZG	0.00	638.25	0.40	638.25	17003	1712	-6223	S	1705	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6223	-6224	S	1705	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6224	-6225	S	1705	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6225	-6226	S	1705	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6226	-6227	S	1705	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6227	-6228	S	1705	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6228	-6229	S	1705	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6229	-6230	S	1705	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6230	1713	S	1705	QPS	ZG	0.00	638.25	0.36	638.25
17003	1713	1714	S	1708	QPS	ZG	0.00	638.25	3.25	638.25	17003	1714	1715	S	1708	QPS	ZG	0.00	638.25	3.25	638.25
17003	1715	-6231	S	1708	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6231	-6232	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6232	-6233	S	1708	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6233	-6234	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6234	-6235	S	1708	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6235	-6236	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6236	-6237	S	1708	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6237	-6238	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6238	1716	S	1708	QPS	ZG	0.00	638.25	0.36	638.25	17003	1716	-6239	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6239	-6240	S	1708	QPS	ZG	0.00	638.25	0.36	638.25	17003	-6240	-6241	S	1708	QPS	ZG	0.00	638.25	0.36	638.25



Relazione di calcolo

17003	-6241	-6242	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6243	-6244	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6245	-6246	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	1717	-6247	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6247	-6248	S	1708	QPS	ZG	0.29	433.55	0.36	433.55
17003	-6249	-6250	S	1708	QPS	ZG	0.00	433.55	0.36	433.55
17003	-6251	-6252	S	1708	QPS	ZG	0.00	433.55	0.36	433.55
17003	-6252	-6253	S	1708	QPS	ZG	0.06	638.25	0.36	638.25
17003	1718	-6254	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6255	-6256	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6257	-6258	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6259	-6260	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6261	1719	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6262	-6263	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6264	-6265	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6266	-6267	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6268	-6269	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17007	1791	1792	S	1705	QPS	ZG	0.00	638.25	0.72	638.25
17009	1742	1743	S	1706	QPS	ZG	0.00	594.55	3.25	594.55
17009	1745	1746	S	1703	QPS	ZG	0.00	594.55	3.18	594.55
17009	1747	1748	S	1704	QPS	ZG	0.00	594.55	3.25	594.55
17009	1749	1750	S	1704	QPS	ZG	0.00	594.55	3.25	594.55
17009	1752	1753	S	1707	QPS	ZG	0.00	594.55	3.23	594.55
17130	1761	-5681	-	--	M	ZG	0.00	40.00	0.36	40.00
17130	-5682	-5683	-	--	M	ZG	0.00	40.00	0.36	40.00
17130	-5684	-5685	-	--	M	ZG	0.00	40.00	0.36	40.00
17130	-5686	-5687	-	--	M	ZG	0.00	40.00	0.36	40.00
17130	-5688	1762	-	--	M	ZG	0.00	40.00	0.36	40.00
17173	-5689	-5690	-	--	M	ZG	0.00	1500.00	0.38	1500.00
17173	-5691	-5692	-	--	M	ZG	0.00	1500.00	0.38	1500.00
17173	-5693	-5694	-	--	M	ZG	0.00	1500.00	0.38	1500.00
17173	-5695	1764	-	--	M	ZG	0.00	1500.00	0.38	1500.00
17216	-5696	-5697	-	--	M	ZG	0.00	40.00	0.36	40.00
17216	-5698	-5699	-	--	M	ZG	0.00	40.00	0.36	40.00
17216	-5700	-5701	-	--	M	ZG	0.00	40.00	0.36	40.00
17216	-5702	-5703	-	--	M	ZG	0.00	40.00	0.36	40.00
17259	1767	-5704	-	--	M	ZG	0.00	40.00	0.36	40.00
17259	-5705	-5706	-	--	M	ZG	0.00	40.00	0.36	40.00
17259	-5707	-5708	-	--	M	ZG	0.00	40.00	0.36	40.00
17259	-5709	-5710	-	--	M	ZG	0.00	40.00	0.36	40.00
17259	-5711	1768	-	--	M	ZG	0.00	40.00	0.36	40.00
17302	-5712	-5713	-	--	M	ZG	0.00	1500.00	0.36	1500.00
17302	-5714	-5715	-	--	M	ZG	0.00	1500.00	0.36	1500.00
17302	-5716	-5717	-	--	M	ZG	0.00	1500.00	0.36	1500.00
17302	-5718	1770	-	--	M	ZG	0.00	1500.00	0.36	1500.00
17345	-5719	-5720	-	--	M	ZG	0.00	40.00	0.36	40.00
17345	-5721	-5722	-	--	M	ZG	0.00	40.00	0.36	40.00
17345	-5723	-5724	-	--	M	ZG	0.00	40.00	0.36	40.00
17345	-5725	-5726	-	--	M	ZG	0.00	40.00	0.36	40.00
19003	1907	1908	S	1905	QPS	ZG	0.00	638.25	3.25	638.25
19003	-6959	-6960	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6961	-6962	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6963	-6964	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6965	-6966	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6242	-6243	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6244	-6245	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6246	1717	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6247	-6248	S	1708	QPS	ZG	0.00	638.25	0.29	638.25
17003	-6248	-6249	S	1708	QPS	ZG	0.00	433.55	0.36	433.55
17003	-6250	-6251	S	1708	QPS	ZG	0.00	433.55	0.36	433.55
17003	-6252	-6253	S	1708	QPS	ZG	0.00	433.55	0.06	433.55
17003	-6253	1718	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6254	-6255	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6256	-6257	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6258	-6259	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6260	-6261	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	1719	-6262	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6263	-6264	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6265	-6266	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6267	-6268	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17003	-6269	1720	S	1708	QPS	ZG	0.00	638.25	0.36	638.25
17009	1741	1742	S	1706	QPS	ZG	0.00	594.55	3.25	594.55
17009	1743	1744	S	1706	QPS	ZG	0.00	594.55	3.20	594.55
17009	1746	1747	S	1703	QPS	ZG	0.00	594.55	3.25	594.55
17009	1748	1749	S	1704	QPS	ZG	0.00	594.55	3.25	594.55
17009	1750	1751	S	1704	QPS	ZG	0.00	594.55	3.25	594.55
17009	1753	1754	S	1707	QPS	ZG	0.00	594.55	3.23	594.55
17130	-5681	-5682	-	--	M	ZG	0.00	40.00	0.36	40.00
17130	-5683	-5684	-	--	M	ZG	0.00	40.00	0.36	40.00
17130	-5685	-5686	-	--	M	ZG	0.00	40.00	0.36	40.00
17130	-5687	-5688	-	--	M	ZG	0.00	40.00	0.36	40.00
17173	1763	-5689	-	--	M	ZG	0.00	1500.00	0.38	1500.00
17173	-5690	-5691	-	--	M	ZG	0.00	1500.00	0.38	1500.00
17173	-5692	-5693	-	--	M	ZG	0.00	1500.00	0.38	1500.00
17173	-5694	-5695	-	--	M	ZG	0.00	1500.00	0.38	1500.00
17216	1765	-5696	-	--	M	ZG	0.00	40.00	0.36	40.00
17216	-5697	-5698	-	--	M	ZG	0.00	40.00	0.36	40.00
17216	-5699	-5700	-	--	M	ZG	0.00	40.00	0.36	40.00
17216	-5701	-5702	-	--	M	ZG	0.00	40.00	0.36	40.00
17216	-5703	1766	-	--	M	ZG	0.00	40.00	0.36	40.00
17259	-5704	-5705	-	--	M	ZG	0.00	40.00	0.36	40.00
17259	-5706	-5707	-	--	M	ZG	0.00	40.00	0.36	40.00
17259	-5708	-5709	-	--	M	ZG	0.00	40.00	0.36	40.00
17259	-5710	-5711	-	--	M	ZG	0.00	40.00	0.36	40.00
17302	1769	-5712	-	--	M	ZG	0.00	1500.00	0.36	1500.00
17302	-5713	-5714	-	--	M	ZG	0.00	1500.00	0.36	1500.00
17302	-5715	-5716	-	--	M	ZG	0.00	1500.00	0.36	1500.00
17302	-5717	-5718	-	--	M	ZG	0.00	1500.00	0.36	1500.00
17345	1771	-5719	-	--	M	ZG	0.00	40.00	0.36	40.00
17345	-5720	-5721	-	--	M	ZG	0.00	40.00	0.36	40.00
17345	-5722	-5723	-	--	M	ZG	0.00	40.00	0.36	40.00
17345	-5724	-5725	-	--	M	ZG	0.00	40.00	0.36	40.00
17345	-5726	1772	-	--	M	ZG	0.00	40.00	0.36	40.00
19003	1908	-6959	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6960	-6961	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6962	-6963	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6964	-6965	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6966	1909	S	1905	QPS	ZG	0.00	638.25	0.36	638.25



Relazione di calcolo

19003	1909	-6967	S	1905	QPS	ZG	0.00	638.25	0.40	638.25	19003	-6967	-6968	S	1905	QPS	ZG	0.00	638.25	0.40	638.25
19003	-6968	-6969	S	1905	QPS	ZG	0.00	638.25	0.40	638.25	19003	-6969	-6970	S	1905	QPS	ZG	0.00	638.25	0.40	638.25
19003	-6970	-6971	S	1905	QPS	ZG	0.00	638.25	0.40	638.25	19003	-6971	-6972	S	1905	QPS	ZG	0.00	638.25	0.40	638.25
19003	-6972	-6973	S	1905	QPS	ZG	0.00	638.25	0.40	638.25	19003	-6973	1910	S	1905	QPS	ZG	0.00	638.25	0.40	638.25
19003	1910	-6974	S	1905	QPS	ZG	0.00	638.25	0.38	638.25	19003	-6974	-6975	S	1905	QPS	ZG	0.00	638.25	0.33	638.25
19003	-6974	-6975	S	1905	QPS	ZG	0.33	433.55	0.38	433.55	19003	-6975	-6976	S	1905	QPS	ZG	0.00	433.55	0.38	433.55
19003	-6976	-6977	S	1905	QPS	ZG	0.00	433.55	0.38	433.55	19003	-6977	-6978	S	1905	QPS	ZG	0.00	433.55	0.38	433.55
19003	-6978	-6979	S	1905	QPS	ZG	0.00	433.55	0.38	433.55	19003	-6979	-6980	S	1905	QPS	ZG	0.00	433.55	0.03	433.55
19003	-6979	-6980	S	1905	QPS	ZG	0.03	638.25	0.38	638.25	19003	-6980	1911	S	1905	QPS	ZG	0.00	638.25	0.38	638.25
19003	1911	-6981	S	1905	QPS	ZG	0.00	638.25	0.40	638.25	19003	-6981	-6982	S	1905	QPS	ZG	0.00	638.25	0.40	638.25
19003	-6982	-6983	S	1905	QPS	ZG	0.00	638.25	0.40	638.25	19003	-6983	-6984	S	1905	QPS	ZG	0.00	638.25	0.40	638.25
19003	-6984	-6985	S	1905	QPS	ZG	0.00	638.25	0.40	638.25	19003	-6985	-6986	S	1905	QPS	ZG	0.00	638.25	0.40	638.25
19003	-6986	-6987	S	1905	QPS	ZG	0.00	638.25	0.40	638.25	19003	-6987	1912	S	1905	QPS	ZG	0.00	638.25	0.40	638.25
19003	1912	-6988	S	1905	QPS	ZG	0.00	638.25	0.36	638.25	19003	-6988	-6989	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6989	-6990	S	1905	QPS	ZG	0.00	638.25	0.36	638.25	19003	-6990	-6991	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6991	-6992	S	1905	QPS	ZG	0.00	638.25	0.36	638.25	19003	-6992	-6993	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6993	-6994	S	1905	QPS	ZG	0.00	638.25	0.36	638.25	19003	-6994	-6995	S	1905	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6995	1913	S	1905	QPS	ZG	0.00	638.25	0.36	638.25	19003	1913	1914	S	1904	QPS	ZG	0.00	638.25	3.25	638.25
19003	1914	1915	S	1904	QPS	ZG	0.00	638.25	3.25	638.25	19003	1915	-6996	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6996	-6997	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-6997	-6998	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-6998	-6999	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-6999	-7000	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7000	-7001	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7001	-7002	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7002	-7003	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7003	1916	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	1916	-7004	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7004	-7005	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7005	-7006	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7006	-7007	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7007	-7008	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7008	-7009	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7009	-7010	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7010	-7011	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7011	1917	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	1917	-7012	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7012	-7013	S	1904	QPS	ZG	0.00	638.25	0.29	638.25	19003	-7012	-7013	S	1904	QPS	ZG	0.29	433.55	0.36	433.55
19003	-7013	-7014	S	1904	QPS	ZG	0.00	433.55	0.36	433.55	19003	-7014	-7015	S	1904	QPS	ZG	0.00	433.55	0.36	433.55
19003	-7015	-7016	S	1904	QPS	ZG	0.00	433.55	0.36	433.55	19003	-7016	-7017	S	1904	QPS	ZG	0.00	433.55	0.36	433.55
19003	-7017	-7018	S	1904	QPS	ZG	0.00	433.55	0.06	433.55	19003	-7017	-7018	S	1904	QPS	ZG	0.06	638.25	0.36	638.25
19003	-7018	1918	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	1918	-7019	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7019	-7020	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7020	-7021	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7021	-7022	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7022	-7023	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7023	-7024	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7024	-7025	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7025	-7026	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7026	1919	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	1919	-7027	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7027	-7028	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7028	-7029	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7029	-7030	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7030	-7031	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7031	-7032	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7032	-7033	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19003	-7033	-7034	S	1904	QPS	ZG	0.00	638.25	0.36	638.25
19003	-7034	1920	S	1904	QPS	ZG	0.00	638.25	0.36	638.25	19009	1941	1942	S	1906	QPS	ZG	0.00	594.55	3.25	594.55
19009	1942	1943	S	1906	QPS	ZG	0.00	594.55	3.25	594.55	19009	1943	1944	S	1906	QPS	ZG	0.00	594.55	3.20	594.55
19009	1945	1946	S	1903	QPS	ZG	0.00	594.55	3.18	594.55	19009	1946	1947	S	1903	QPS	ZG	0.00	594.55	3.25	594.55
19009	1947	1948	S	1908	QPS	ZG	0.00	594.55	3.25	594.55	19009	1948	1949	S	1908	QPS	ZG	0.00	594.55	3.25	594.55
19009	1949	1950	S	1908	QPS	ZG	0.00	594.55	3.25	594.55	19009	1950	1951	S	1908	QPS	ZG	0.00	594.55	3.25	594.55
19009	1952	1953	S	1907	QPS	ZG	0.00	594.55	3.23	594.55	19009	1953	1954	S	1907	QPS	ZG	0.00	594.55	3.23	594.55
19130	1961	-6446	--	M	ZG	0.00	40.00	0.36	40.00	19130	-6446	-6447	--	M	ZG	0.00	40.00	0.36	40.00		
19130	-6447	-6448	--	M	ZG	0.00	40.00	0.36	40.00	19130	-6448	-6449	--	M	ZG	0.00	40.00	0.36	40.00		
19130	-6449	-6450	--	M	ZG	0.00	40.00	0.36	40.00	19130	-6450	-6451	--	M	ZG	0.00	40.00	0.36	40.00		
19130	-6451	-6452	--	M	ZG	0.00	40.00	0.36	40.00	19130	-6452	-6453	--	M	ZG	0.00	40.00	0.36	40.00		
19130	-6453	1962	--	M	ZG	0.00	40.00	0.36	40.00	19173	1963	-6454	--	M	ZG	0.00	40.00	0.38	40.00		
19173	-6454	-6455	--	M	ZG	0.00	40.00	0.38	40.00	19173	-6455	-6456	--	M	ZG	0.00	40.00	0.38	40.00		
19173	-6456	-6457	--	M	ZG	0.00	40.00	0.38	40.00	19173	-6457	-6458	--	M	ZG	0.00	40.00	0.38	40.00		



Relazione di calcolo

19173	-6458	-6459	--	M	ZG	0.00	40.00	0.38	40.00	19173	-6459	-6460	--	M	ZG	0.00	40.00	0.38	40.00
19173	-6460	1964	--	M	ZG	0.00	40.00	0.38	40.00	19216	1965	-6461	--	M	ZG	0.00	40.00	0.36	40.00
19216	-6461	-6462	--	M	ZG	0.00	40.00	0.36	40.00	19216	-6462	-6463	--	M	ZG	0.00	40.00	0.36	40.00
19216	-6463	-6464	--	M	ZG	0.00	40.00	0.36	40.00	19216	-6464	-6465	--	M	ZG	0.00	40.00	0.36	40.00
19216	-6465	-6466	--	M	ZG	0.00	40.00	0.36	40.00	19216	-6466	-6467	--	M	ZG	0.00	40.00	0.36	40.00
19216	-6467	-6468	--	M	ZG	0.00	40.00	0.36	40.00	19216	-6468	1966	--	M	ZG	0.00	40.00	0.36	40.00
19259	1967	-6469	--	M	ZG	0.00	40.00	0.36	40.00	19259	-6469	-6470	--	M	ZG	0.00	40.00	0.36	40.00
19259	-6470	-6471	--	M	ZG	0.00	40.00	0.36	40.00	19259	-6471	-6472	--	M	ZG	0.00	40.00	0.36	40.00
19259	-6472	-6473	--	M	ZG	0.00	40.00	0.36	40.00	19259	-6473	-6474	--	M	ZG	0.00	40.00	0.36	40.00
19259	-6474	-6475	--	M	ZG	0.00	40.00	0.36	40.00	19259	-6475	-6476	--	M	ZG	0.00	40.00	0.36	40.00
19259	-6476	1968	--	M	ZG	0.00	40.00	0.36	40.00	19302	1969	-6477	--	M	ZG	0.00	40.00	0.36	40.00
19302	-6477	-6478	--	M	ZG	0.00	40.00	0.36	40.00	19302	-6478	-6479	--	M	ZG	0.00	40.00	0.36	40.00
19302	-6479	-6480	--	M	ZG	0.00	40.00	0.36	40.00	19302	-6480	-6481	--	M	ZG	0.00	40.00	0.36	40.00
19302	-6481	-6482	--	M	ZG	0.00	40.00	0.36	40.00	19302	-6482	-6483	--	M	ZG	0.00	40.00	0.36	40.00
19302	-6483	1970	--	M	ZG	0.00	40.00	0.36	40.00	19345	1971	-6484	--	M	ZG	0.00	40.00	0.36	40.00
19345	-6484	-6485	--	M	ZG	0.00	40.00	0.36	40.00	19345	-6485	-6486	--	M	ZG	0.00	40.00	0.36	40.00
19345	-6486	-6487	--	M	ZG	0.00	40.00	0.36	40.00	19345	-6487	-6488	--	M	ZG	0.00	40.00	0.36	40.00
19345	-6488	-6489	--	M	ZG	0.00	40.00	0.36	40.00	19345	-6489	-6490	--	M	ZG	0.00	40.00	0.36	40.00
19345	-6490	-6491	--	M	ZG	0.00	40.00	0.36	40.00	19345	-6491	1972	--	M	ZG	0.00	40.00	0.36	40.00
22020	7	25S	2209	QPS	ZG	0.00	325.00	5.55	325.00	22020	25	41S	2208	QPS	ZG	0.00	325.00	5.17	325.00
22021	8	26S	2206	QPS	ZG	0.00	325.00	5.55	325.00	22021	8	26S	2209	QPS	ZG	0.00	325.00	5.55	325.00
22021	26	42S	2207	QPS	ZG	0.00	325.00	5.17	325.00	22021	26	42S	2208	QPS	ZG	0.00	325.00	5.17	325.00
22022	9	27S	2206	QPS	ZG	0.00	325.00	5.55	325.00	22022	9	27S	2220	QPS	ZG	0.00	320.00	5.55	320.00
22022	27	43S	2207	QPS	ZG	0.00	325.00	5.17	325.00	22022	27	43S	2221	QPS	ZG	0.00	320.00	5.17	320.00
22024	10	59S	2220	QPS	ZG	0.00	320.00	2.66	320.00	22024	10	59S	2223	QPS	ZG	0.00	300.00	2.66	300.00
22024	59	-105S	2220	QPS	ZG	0.00	320.00	1.11	320.00	22024	59	-105S	2223	QPS	ZG	0.00	300.00	1.11	300.00
22024	-105	-123S	2220	QPS	ZG	0.00	320.00	0.59	320.00	22024	-105	-123S	2223	QPS	ZG	0.00	300.00	0.59	300.00
22024	-123	-140S	2220	QPS	ZG	0.00	320.00	0.59	320.00	22024	-123	-140S	2223	QPS	ZG	0.00	300.00	0.59	300.00
22024	-140	-157S	2220	QPS	ZG	0.00	320.00	0.59	320.00	22024	-140	-157S	2223	QPS	ZG	0.00	300.00	0.59	300.00
22024	-157	-178S	2221	QPS	ZG	0.00	320.00	1.11	320.00	22024	-157	-178S	2222	QPS	ZG	0.00	300.00	1.11	300.00
22024	-178	44S	2221	QPS	ZG	0.00	320.00	4.06	320.00	22024	-178	44S	2222	QPS	ZG	0.00	300.00	4.06	300.00
22027	11	60S	2223	QPS	ZG	0.00	300.00	2.66	300.00	22027	11	60S	2224	QPS	ZG	0.00	318.00	2.66	318.00
22027	60	-109S	2223	QPS	ZG	0.00	300.00	1.11	300.00	22027	60	-109S	2224	QPS	ZG	0.00	318.00	1.11	318.00
22027	-109	-127S	2223	QPS	ZG	0.00	300.00	0.59	300.00	22027	-109	-127S	2224	QPS	ZG	0.00	318.00	0.59	318.00
22027	-127	-144S	2223	QPS	ZG	0.00	300.00	0.59	300.00	22027	-127	-144S	2224	QPS	ZG	0.00	318.00	0.59	318.00
22027	-144	-161S	2223	QPS	ZG	0.00	300.00	0.59	300.00	22027	-144	-161S	2224	QPS	ZG	0.00	318.00	0.59	318.00
22027	-161	-182S	2222	QPS	ZG	0.00	300.00	1.11	300.00	22027	-161	-182S	2225	QPS	ZG	0.00	318.00	1.11	318.00
22027	-182	45S	2222	QPS	ZG	0.00	300.00	4.06	300.00	22027	-182	45S	2225	QPS	ZG	0.00	318.00	4.06	318.00
22029	12	28S	2204	QPS	ZG	0.00	325.00	5.55	325.00	22029	12	28S	2224	QPS	ZG	0.00	318.00	5.55	318.00
22029	28	46S	2205	QPS	ZG	0.00	325.00	5.17	325.00	22029	28	46S	2225	QPS	ZG	0.00	318.00	5.17	318.00
22030	13	29S	2202	QPS	ZG	0.00	325.00	5.55	325.00	22030	13	29S	2204	QPS	ZG	0.00	325.00	5.55	325.00
22030	29	47S	2203	QPS	ZG	0.00	325.00	5.17	325.00	22030	29	47S	2205	QPS	ZG	0.00	325.00	5.17	325.00
22042	19	133S	2227	QPS	ZG	0.00	323.00	5.55	323.00	22042	19	133S	2228	QPS	ZG	0.00	323.00	5.55	323.00
22043	20	34S	2228	QPS	ZG	0.00	323.00	5.55	323.00	22043	34	54S	2226	QPS	ZG	0.00	323.00	5.17	323.00
22136	130	169S	2230	QPS	ZG	0.00	1292.50	3.25	1292.50	22136	130	169S	2231	QPS	ZG	0.00	1387.50	3.25	1387.50
22136	169	170S	2230	QPS	ZG	0.00	1292.50	3.25	1292.50	22136	169	170S	2231	QPS	ZG	0.00	1387.50	3.25	1387.50
22136	170	-163S	2230	QPS	ZG	0.00	1292.50	3.90	1292.50	22136	170	-163S	2231	QPS	ZG	0.00	1387.50	3.90	1387.50
22179	-165	-166S	2230	QPS	ZG	0.00	1292.50	0.34	1292.50	22179	-165	-166S	2231	QPS	ZG	0.00	1387.50	0.34	1387.50
22179	-166	-167S	2230	QPS	ZG	0.00	1292.50	0.34	1292.50	22179	-166	-167S	2231	QPS	ZG	0.00	1387.50	0.34	1387.50
30008	325	326S	304	QPS	ZG	0.00	638.25	3.25	638.25	30008	325	326S	305	QPS	ZG	0.00	594.55	3.25	594.55
30008	326	327S	304	QPS	ZG	0.00	638.25	3.25	638.25	30008	326	327S	305	QPS	ZG	0.00	594.55	3.25	594.55
30008	327	389S	304	QPS	ZG	0.00	638.25	3.20	638.25	30008	327	389S	305	QPS	ZG	0.00	594.55	3.20	594.55
30008	389	390S	304	QPS	ZG	0.00	638.25	0.70	638.25	30010	391	392S	304	QPS	ZG	0.00	638.25	0.72	638.25
30010	392	328S	303	QPS	ZG	0.00	594.55	3.18	594.55	30010	392	328S	304	QPS	ZG	0.00	638.25	3.18	638.25



Relazione di calcolo

30010	328	329	S	303	QPS	ZG	0.00	594.55	3.25	594.55
30010	329	330	S	302	QPS	ZG	0.00	594.55	3.25	594.55
30010	330	331	S	302	QPS	ZG	0.00	594.55	3.25	594.55
30010	331	332	S	302	QPS	ZG	0.00	594.55	3.25	594.55
30010	332	393	S	302	QPS	ZG	0.00	594.55	3.25	594.55
30010	393	394	S	307	QPS	ZG	0.00	638.25	0.65	638.25
30012	396	333	S	306	QPS	ZG	0.00	594.55	3.23	594.55
30012	333	334	S	306	QPS	ZG	0.00	594.55	3.23	594.55
50008	525	526	S	504	QPS	ZG	0.00	638.25	3.25	638.25
50008	526	527	S	504	QPS	ZG	0.00	638.25	3.25	638.25
50008	527	589	S	504	QPS	ZG	0.00	638.25	3.20	638.25
50008	589	590	S	504	QPS	ZG	0.00	638.25	0.70	638.25
50010	592	528	S	502	QPS	ZG	0.00	594.55	3.18	594.55
50010	528	529	S	502	QPS	ZG	0.00	594.55	3.25	594.55
50010	529	530	S	503	QPS	ZG	0.00	594.55	3.25	594.55
50010	530	531	S	503	QPS	ZG	0.00	594.55	3.25	594.55
50010	531	532	S	503	QPS	ZG	0.00	594.55	3.25	594.55
50010	532	593	S	503	QPS	ZG	0.00	594.55	3.25	594.55
50010	593	594	S	507	QPS	ZG	0.00	638.25	0.65	638.25
50012	596	533	S	506	QPS	ZG	0.00	594.55	3.23	594.55
50012	533	534	S	506	QPS	ZG	0.00	594.55	3.23	594.55
70008	725	726	S	702	QPS	ZG	0.00	638.25	3.25	638.25
70008	726	727	S	702	QPS	ZG	0.00	638.25	3.25	638.25
70008	727	789	S	702	QPS	ZG	0.00	638.25	3.20	638.25
70008	789	790	S	702	QPS	ZG	0.00	638.25	0.70	638.25
70010	792	728	S	702	QPS	ZG	0.00	638.25	3.18	638.25
70010	728	729	S	702	QPS	ZG	0.00	638.25	3.25	638.25
70010	729	730	S	706	QPS	ZG	0.00	638.25	3.25	638.25
70010	730	731	S	706	QPS	ZG	0.00	638.25	3.25	638.25
70010	731	732	S	706	QPS	ZG	0.00	638.25	3.25	638.25
70010	732	793	S	706	QPS	ZG	0.00	638.25	3.25	638.25
70010	793	794	S	706	QPS	ZG	0.00	638.25	0.65	638.25
70012	796	733	S	705	QPS	ZG	0.00	594.55	3.23	594.55
70012	733	734	S	705	QPS	ZG	0.00	594.55	3.23	594.55
90008	925	926	S	904	QPS	ZG	0.00	638.25	3.25	638.25
90008	926	927	S	904	QPS	ZG	0.00	638.25	3.25	638.25
90008	927	989	S	904	QPS	ZG	0.00	638.25	3.20	638.25
90008	989	990	S	904	QPS	ZG	0.00	638.25	0.70	638.25
90010	992	928	S	902	QPS	ZG	0.00	594.55	3.18	594.55
90010	928	929	S	902	QPS	ZG	0.00	594.55	3.25	594.55
90010	929	930	S	903	QPS	ZG	0.00	594.55	3.25	594.55
90010	930	931	S	903	QPS	ZG	0.00	594.55	3.25	594.55
90010	931	932	S	903	QPS	ZG	0.00	594.55	3.25	594.55
90010	932	993	S	903	QPS	ZG	0.00	594.55	3.25	594.55
90010	993	994	S	907	QPS	ZG	0.00	638.25	0.65	638.25
90012	996	933	S	906	QPS	ZG	0.00	594.55	3.23	594.55
90012	933	934	S	906	QPS	ZG	0.00	594.55	3.23	594.55
110008	1125	1126	S	1105	QPS	ZG	0.00	638.25	3.25	638.25
110008	1126	1127	S	1105	QPS	ZG	0.00	638.25	3.25	638.25
110008	1127	1189	S	1105	QPS	ZG	0.00	638.25	3.20	638.25
110008	1189	1190	S	1105	QPS	ZG	0.00	638.25	0.70	638.25
110010	1192	1128	S	1103	QPS	ZG	0.00	594.55	3.18	594.55
110010	1128	1129	S	1103	QPS	ZG	0.00	594.55	3.25	594.55
110010	1129	1130	S	1104	QPS	ZG	0.00	594.55	3.25	594.55
30010	328	329	S	304	QPS	ZG	0.00	638.25	3.25	638.25
30010	329	330	S	307	QPS	ZG	0.00	638.25	3.25	638.25
30010	330	331	S	307	QPS	ZG	0.00	638.25	3.25	638.25
30010	331	332	S	307	QPS	ZG	0.00	638.25	3.25	638.25
30010	332	393	S	307	QPS	ZG	0.00	638.25	3.25	638.25
30012	395	396	S	307	QPS	ZG	0.00	638.25	0.67	638.25
30012	396	333	S	307	QPS	ZG	0.00	638.25	3.23	638.25
30012	333	334	S	307	QPS	ZG	0.00	638.25	3.23	638.25
50008	525	526	S	505	QPS	ZG	0.00	594.55	3.25	594.55
50008	526	527	S	505	QPS	ZG	0.00	594.55	3.25	594.55
50008	527	589	S	505	QPS	ZG	0.00	594.55	3.20	594.55
50010	591	592	S	504	QPS	ZG	0.00	638.25	0.72	638.25
50010	592	528	S	504	QPS	ZG	0.00	638.25	3.18	638.25
50010	528	529	S	504	QPS	ZG	0.00	638.25	3.25	638.25
50010	529	530	S	507	QPS	ZG	0.00	638.25	3.25	638.25
50010	530	531	S	507	QPS	ZG	0.00	638.25	3.25	638.25
50010	531	532	S	507	QPS	ZG	0.00	638.25	3.25	638.25
50010	532	593	S	507	QPS	ZG	0.00	638.25	3.25	638.25
50012	595	596	S	507	QPS	ZG	0.00	638.25	0.67	638.25
50012	596	533	S	507	QPS	ZG	0.00	638.25	3.23	638.25
50012	533	534	S	507	QPS	ZG	0.00	638.25	3.23	638.25
70008	725	726	S	704	QPS	ZG	0.00	594.55	3.25	594.55
70008	726	727	S	704	QPS	ZG	0.00	594.55	3.25	594.55
70008	727	789	S	704	QPS	ZG	0.00	594.55	3.20	594.55
70010	791	792	S	702	QPS	ZG	0.00	638.25	0.72	638.25
70010	792	728	S	703	QPS	ZG	0.00	594.55	3.18	594.55
70010	728	729	S	703	QPS	ZG	0.00	594.55	3.25	594.55
70010	729	730	S	707	QPS	ZG	0.00	594.55	3.25	594.55
70010	730	731	S	707	QPS	ZG	0.00	594.55	3.25	594.55
70010	731	732	S	707	QPS	ZG	0.00	594.55	3.25	594.55
70010	732	793	S	707	QPS	ZG	0.00	594.55	3.25	594.55
70012	795	796	S	706	QPS	ZG	0.00	638.25	0.67	638.25
70012	796	733	S	706	QPS	ZG	0.00	638.25	3.23	638.25
70012	733	734	S	706	QPS	ZG	0.00	638.25	3.23	638.25
90008	925	926	S	905	QPS	ZG	0.00	594.55	3.25	594.55
90008	926	927	S	905	QPS	ZG	0.00	594.55	3.25	594.55
90008	927	989	S	905	QPS	ZG	0.00	594.55	3.20	594.55
90010	991	992	S	904	QPS	ZG	0.00	638.25	0.72	638.25
90010	992	928	S	904	QPS	ZG	0.00	638.25	3.18	638.25
90010	928	929	S	904	QPS	ZG	0.00	638.25	3.25	638.25
90010	929	930	S	907	QPS	ZG	0.00	638.25	3.25	638.25
90010	930	931	S	907	QPS	ZG	0.00	638.25	3.25	638.25
90010	931	932	S	907	QPS	ZG	0.00	638.25	3.25	638.25
90010	932	993	S	907	QPS	ZG	0.00	638.25	3.25	638.25
90012	995	996	S	907	QPS	ZG	0.00	638.25	0.67	638.25
90012	996	933	S	907	QPS	ZG	0.00	638.25	3.23	638.25
90012	933	934	S	907	QPS	ZG	0.00	638.25	3.23	638.25
110008	1125	1126	S	1106	QPS	ZG	0.00	594.55	3.25	594.55
110008	1126	1127	S	1106	QPS	ZG	0.00	594.55	3.25	594.55
110008	1127	1189	S	1106	QPS	ZG	0.00	594.55	3.20	594.55
110010	1191	1192	S	1105	QPS	ZG	0.00	638.25	0.72	638.25
110010	1192	1128	S	1105	QPS	ZG	0.00	638.25	3.18	638.25
110010	1128	1129	S	1105	QPS	ZG	0.00	638.25	3.25	638.25
110010	1129	1130	S	1108	QPS	ZG	0.00	638.25	3.25	638.25



## Relazione di calcolo

110010	1130	1131	S1104	QPS	ZG	0.00	594.55	3.25	594.55
110010	1131	1132	S1104	QPS	ZG	0.00	594.55	3.25	594.55
110010	1193	1194	S1108	QPS	ZG	0.00	638.25	0.65	638.25
110012	1196	1133	S1107	QPS	ZG	0.00	594.55	3.23	594.55
110012	1133	1134	S1107	QPS	ZG	0.00	594.55	3.23	594.55
130008	1325	1326	S1305	QPS	ZG	0.00	638.25	3.25	638.25
130008	1326	1327	S1305	QPS	ZG	0.00	638.25	3.25	638.25
130008	1327	1389	S1305	QPS	ZG	0.00	638.25	3.20	638.25
130008	1389	1390	S1305	QPS	ZG	0.00	638.25	0.70	638.25
130010	1392	1328	S1303	QPS	ZG	0.00	594.55	3.18	594.55
130010	1328	1329	S1303	QPS	ZG	0.00	594.55	3.25	594.55
130010	1329	1330	S1304	QPS	ZG	0.00	594.55	3.25	594.55
130010	1330	1331	S1304	QPS	ZG	0.00	594.55	3.25	594.55
130010	1331	1332	S1304	QPS	ZG	0.00	594.55	3.25	594.55
130010	1332	1393	S1304	QPS	ZG	0.00	594.55	3.25	594.55
130010	1393	1394	S1308	QPS	ZG	0.00	638.25	0.65	638.25
130012	1396	1333	S1307	QPS	ZG	0.00	594.55	3.23	594.55
130012	1333	1334	S1307	QPS	ZG	0.00	594.55	3.23	594.55
150008	1525	1526	S1505	QPS	ZG	0.00	638.25	3.25	638.25
150008	1526	1527	S1505	QPS	ZG	0.00	638.25	3.25	638.25
150008	1527	1589	S1505	QPS	ZG	0.00	638.25	3.20	638.25
150008	1589	1590	S1505	QPS	ZG	0.00	638.25	0.70	638.25
150010	1592	1528	S1503	QPS	ZG	0.00	594.55	3.18	594.55
150010	1528	1529	S1503	QPS	ZG	0.00	594.55	3.25	594.55
150010	1529	1530	S1504	QPS	ZG	0.00	594.55	3.25	594.55
150010	1530	1531	S1504	QPS	ZG	0.00	594.55	3.25	594.55
150010	1531	1532	S1504	QPS	ZG	0.00	594.55	3.25	594.55
150010	1532	1593	S1504	QPS	ZG	0.00	594.55	3.25	594.55
150010	1593	1594	S1508	QPS	ZG	0.00	638.25	0.65	638.25
150012	1596	1533	S1507	QPS	ZG	0.00	594.55	3.23	594.55
150012	1533	1534	S1507	QPS	ZG	0.00	594.55	3.23	594.55
170008	1725	1726	S1705	QPS	ZG	0.00	638.25	3.25	638.25
170008	1726	1727	S1705	QPS	ZG	0.00	638.25	3.25	638.25
170008	1727	1789	S1705	QPS	ZG	0.00	638.25	3.20	638.25
170008	1789	1790	S1705	QPS	ZG	0.00	638.25	0.70	638.25
170010	1792	1728	S1705	QPS	ZG	0.00	638.25	3.18	638.25
170010	1728	1729	S1705	QPS	ZG	0.00	638.25	3.25	638.25
170010	1729	1730	S1708	QPS	ZG	0.00	638.25	3.25	638.25
170010	1730	1731	S1708	QPS	ZG	0.00	638.25	3.25	638.25
170010	1731	1732	S1708	QPS	ZG	0.00	638.25	3.25	638.25
170010	1732	1793	S1708	QPS	ZG	0.00	638.25	3.25	638.25
170012	1795	1796	S1708	QPS	ZG	0.00	638.25	0.67	638.25
170012	1796	1733	S1708	QPS	ZG	0.00	638.25	3.23	638.25
170012	1733	1734	S1708	QPS	ZG	0.00	638.25	3.23	638.25
190008	1925	1926	S1906	QPS	ZG	0.00	594.55	3.25	594.55
190008	1926	1927	S1906	QPS	ZG	0.00	594.55	3.25	594.55
190008	1927	1989	S1906	QPS	ZG	0.00	594.55	3.20	594.55
190010	1991	1992	S1905	QPS	ZG	0.00	638.25	0.72	638.25
190010	1992	1928	S1905	QPS	ZG	0.00	638.25	3.18	638.25
190010	1928	1929	S1905	QPS	ZG	0.00	638.25	3.25	638.25
190010	1929	1930	S1908	QPS	ZG	0.00	594.55	3.25	594.55
190010	1930	1931	S1908	QPS	ZG	0.00	594.55	3.25	594.55
190010	1931	1932	S1908	QPS	ZG	0.00	594.55	3.25	594.55
190010	1932	1993	S1908	QPS	ZG	0.00	594.55	3.25	594.55

110010	1130	1131	S	1108	QPS	ZG	0.00	638.25	3.25	638.25
110010	1131	1132	S	1108	QPS	ZG	0.00	638.25	3.25	638.25
110012	1195	1196	S	1108	QPS	ZG	0.00	638.25	0.67	638.25
110012	1196	1133	S	1108	QPS	ZG	0.00	638.25	3.23	638.25
110012	1133	1134	S	1108	QPS	ZG	0.00	638.25	3.23	638.25
130008	1325	1326	S	1306	QPS	ZG	0.00	594.55	3.25	594.55
130008	1326	1327	S	1306	QPS	ZG	0.00	594.55	3.25	594.55
130008	1327	1389	S	1306	QPS	ZG	0.00	594.55	3.20	594.55
130010	1391	1392	S	1305	QPS	ZG	0.00	638.25	0.72	638.25
130010	1392	1328	S	1305	QPS	ZG	0.00	638.25	3.18	638.25
130010	1328	1329	S	1305	QPS	ZG	0.00	638.25	3.25	638.25
130010	1329	1330	S	1308	QPS	ZG	0.00	638.25	3.25	638.25
130010	1330	1331	S	1308	QPS	ZG	0.00	638.25	3.25	638.25
130010	1331	1332	S	1308	QPS	ZG	0.00	638.25	3.25	638.25
130010	1332	1393	S	1308	QPS	ZG	0.00	638.25	3.25	638.25
130012	1395	1396	S	1308	QPS	ZG	0.00	638.25	0.67	638.25
130012	1396	1333	S	1308	QPS	ZG	0.00	638.25	3.23	638.25
130012	1333	1334	S	1308	QPS	ZG	0.00	638.25	3.23	638.25
150008	1525	1526	S	1506	QPS	ZG	0.00	594.55	3.25	594.55
150008	1526	1527	S	1506	QPS	ZG	0.00	594.55	3.25	594.55
150008	1527	1589	S	1506	QPS	ZG	0.00	594.55	3.20	594.55
150010	1591	1592	S	1505	QPS	ZG	0.00	638.25	0.72	638.25
150010	1592	1528	S	1505	QPS	ZG	0.00	638.25	3.18	638.25
150010	1528	1529	S	1505	QPS	ZG	0.00	638.25	3.25	638.25
150010	1529	1530	S	1508	QPS	ZG	0.00	638.25	3.25	638.25
150010	1530	1531	S	1508	QPS	ZG	0.00	638.25	3.25	638.25
150010	1531	1532	S	1508	QPS	ZG	0.00	638.25	3.25	638.25
150010	1532	1593	S	1508	QPS	ZG	0.00	638.25	3.25	638.25
150012	1595	1596	S	1508	QPS	ZG	0.00	638.25	0.67	638.25
150012	1596	1533	S	1508	QPS	ZG	0.00	638.25	3.23	638.25
150012	1533	1534	S	1508	QPS	ZG	0.00	638.25	3.23	638.25
170008	1725	1726	S	1706	QPS	ZG	0.00	594.55	3.25	594.55
170008	1726	1727	S	1706	QPS	ZG	0.00	594.55	3.25	594.55
170008	1727	1789	S	1706	QPS	ZG	0.00	594.55	3.20	594.55
170010	1792	1728	S	1703	QPS	ZG	0.00	594.55	3.18	594.55
170010	1728	1729	S	1703	QPS	ZG	0.00	594.55	3.25	594.55
170010	1729	1730	S	1704	QPS	ZG	0.00	594.55	3.25	594.55
170010	1730	1731	S	1704	QPS	ZG	0.00	594.55	3.25	594.55
170010	1731	1732	S	1704	QPS	ZG	0.00	594.55	3.25	594.55
170010	1732	1793	S	1704	QPS	ZG	0.00	594.55	3.25	594.55
170010	1793	1794	S	1708	QPS	ZG	0.00	638.25	0.65	638.2



Relazione di calcolo

190012	1995	1996	S	1904	QPS	ZG	0.00	638.25	0.67	638.25
190012	1996	1933	S	1907	QPS	ZG	0.00	594.55	3.23	594.55
190012	1933	1934	S	1907	QPS	ZG	0.00	594.55	3.23	594.55

190012	1996	1933	S	1904	QPS	ZG	0.00	638.25	3.23	638.25
190012	1933	1934	S	1904	QPS	ZG	0.00	638.25	3.23	638.25

Condizione di carico n. 2: Permanenti non strutturali  
Carichi distribuiti

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
0	-908	-909	S	304	QPN	ZG	0.00	358.15	0.79	358.15
0	-909	-910	S	304	QPN	ZG	0.00	358.15	0.79	358.15
0	-917	-923	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1682	-1683	S	504	QPN	ZG	0.00	358.15	0.79	358.15
0	-1696	590	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1691	-1697	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-2447	-2448	S	702	QPN	ZG	0.00	358.15	0.79	358.15
0	-2448	-2449	S	702	QPN	ZG	0.00	358.15	0.79	358.15
0	-2456	-2462	-	--	M	ZG	0.00	600.00	0.59	600.00
0	444	-1035	T	229	QPN	ZG	0.00	450.00	1.50	450.00
0	114	-84	S	2202	QPN	ZG	0.00	325.00	1.85	325.00
0	-96	130	S	2202	QPN	ZG	0.00	325.00	1.85	325.00
0	-3212	-3213	S	904	QPN	ZG	0.00	358.15	0.79	358.15
0	-3213	-3214	S	904	QPN	ZG	0.00	358.15	0.79	358.15
0	-1800	645	T	429	QPN	ZG	0.00	450.00	1.50	450.00
0	-184	148	S	2203	QPN	ZG	0.00	325.00	2.58	325.00
0	-3221	-3227	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3227	991	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3985	-3991	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3991	1190	-	--	M	ZG	0.00	600.00	0.59	600.00
0	149	150	S	2230	QPN	ZG	0.00	517.00	3.25	517.00
0	-3992	1191	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-2565	845	T	629	QPN	ZG	0.00	450.00	1.50	450.00
0	-4750	-4756	-	--	M	ZG	0.00	600.00	0.59	600.00
0	116	-82	S	2231	QPN	ZG	0.00	555.00	1.70	555.00
0	-4751	-4757	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3330	1045	T	829	QPN	ZG	0.00	450.00	1.50	450.00
0	1044	-3330	T	829	QPN	ZG	0.00	450.00	1.50	450.00
0	-5515	-5521	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-5508	-5509	S	1505	QPN	ZG	0.00	358.15	0.79	358.15
0	117	-83	S	2231	QPN	ZG	0.00	555.00	1.44	555.00
0	-163	-164	S	2230	QPN	ZG	0.00	517.00	0.79	517.00
0	-5522	1591	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-83	118	S	2231	QPN	ZG	0.00	555.00	1.46	555.00
0	-130	-113	S	2229	QA	ZG	0.00	67.00	0.59	67.00
0	-165	-147	S	2229	QA	ZG	0.00	67.00	0.59	67.00
0	-6287	1790	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-4860	1445	T	1229	QPN	ZG	0.00	450.00	1.50	450.00
0	-164	-165	S	2230	QPN	ZG	0.00	517.00	0.79	517.00
0	-131	-114	S	2227	QPN	ZG	0.00	323.00	0.59	323.00
0	-148	-131	S	2227	QPN	ZG	0.00	323.00	0.59	323.00
0	-167	-148	S	2227	QPN	ZG	0.00	323.00	0.59	323.00
0	150	151	S	2230	QPN	ZG	0.00	517.00	3.25	517.00
0	-6273	-6274	S	1705	QPN	ZG	0.00	358.15	0.79	358.15
0	-168	-167	S	2230	QPN	ZG	0.00	517.00	0.54	517.00
0	-7129	-7083	S	2230	QPN	ZG	0.00	517.00	0.72	517.00
0	1644	-5626	T	1429	QPN	ZG	0.00	450.00	1.50	450.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
0	-916	-922	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-922	390	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-923	391	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1690	-1696	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1683	-1684	S	504	QPN	ZG	0.00	358.15	0.79	358.15
0	-1697	591	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-2455	-2461	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-2461	790	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-2462	791	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1035	445	T	229	QPN	ZG	0.00	450.00	1.50	450.00
0	-84	-96	S	2202	QPN	ZG	0.00	325.00	1.85	325.00
0	130	-184	S	2203	QPN	ZG	0.00	325.00	2.58	325.00
0	-3226	990	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3220	-3226	-	--	M	ZG	0.00	600.00	0.59	600.00
0	114	115	S	2231	QPN	ZG	0.00	555.00	3.25	555.00
0	148	149	S	2230	QPN	ZG	0.00	517.00	3.25	517.00
0	644	-1800	T	429	QPN	ZG	0.00	450.00	1.50	450.00
0	-3977	-3978	S	1105	QPN	ZG	0.00	358.15	0.79	358.15
0	-3978	-3979	S	1105	QPN	ZG	0.00	358.15	0.79	358.15
0	115	116	S	2231	QPN	ZG	0.00	555.00	3.25	555.00
0	-3986	-3992	-	--	M	ZG	0.00	600.00	0.59	600.00
0	844	-2565	T	629	QPN	ZG	0.00	450.00	1.50	450.00
0	-4742	-4743	S	1305	QPN	ZG	0.00	358.15	0.79	358.15
0	-4756	1390	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-4743	-4744	S	1305	QPN	ZG	0.00	358.15	0.79	358.15
0	-4757	1391	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-82	117	S	2231	QPN	ZG	0.00	555.00	1.55	555.00
0	-5507	-5508	S	1505	QPN	ZG	0.00	358.15	0.79	358.15
0	-5521	1590	-	--	M	ZG	0.00	600.00	0.59	600.00
0	1244	-4095	T	1029	QPN	ZG	0.00	450.00	1.50	450.00
0	-5516	-5522	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-163	-164	S	2231	QPN	ZG	0.00	555.00	0.79	555.00
0	-4095	1245	T	1029	QPN	ZG	0.00	450.00	1.50	450.00
0	-114	-95	S	2227	QPN	ZG	0.00	323.00	1.11	323.00
0	-147	-130	S	2229	QA	ZG	0.00	67.00	0.59	67.00
0	-6281	-6287	-	--	M	ZG	0.00	600.00	0.59	600.00
0	1444	-4860	T	1229	QPN	ZG	0.00	450.00	1.50	450.00
0	-95	118	S	2227	QPN	ZG	0.00	323.00	2.66	323.00
0	-164	-165	S	2231	QPN	ZG	0.00	555.00	0.79	555.00
0	-131	-114	S	2229	QA	ZG	0.00	67.00	0.59	67.00
0	-148	-131	S	2229	QA	ZG	0.00	67.00	0.59	67.00
0	-167	-148	S	2229	QA	ZG	0.00	67.00	0.59	67.00
0	151	-7129	S	2230	QPN	ZG	0.00	517.00	0.72	517.00
0	-5626	1645	T	1429	QPN	ZG	0.00	450.00	1.50	450.00
0	-169	-168	S	2230	QPN	ZG	0.00	517.00	0.81	517.00
0	-6274	-6275	S	1705	QPN	ZG	0.00	358.15	0.79	358.15
0	1844	-6391	T	1629	QPN	ZG	0.00	450.00	1.50	450.00



Relazione di calcolo

0	-911	-912	S	307	QPN	ZG	0.00	358.15	0.79	358.15
0	133	-169	S	2230	QPN	ZG	0.00	517.00	1.88	517.00
0	-924	394	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-6288	1791	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-7052	1990	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-6282	-6288	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-185	133	S	2226	QPN	ZG	0.00	323.00	2.58	323.00
0	451	-1036	T	236	QPN	ZG	0.00	450.00	1.45	450.00
0	-7046	-7052	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-7039	-7040	S	1905	QPN	ZG	0.00	754.00	0.79	754.00
0	-7047	-7053	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1685	-1686	S	507	QPN	ZG	0.00	358.15	0.79	358.15
0	-1698	594	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1699	595	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-2457	-2463	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-2463	794	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-2464	795	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3215	-3216	S	907	QPN	ZG	0.00	358.15	0.79	358.15
0	-3216	-3217	S	907	QPN	ZG	0.00	358.15	0.79	358.15
0	-3223	-3229	-	--	M	ZG	0.00	600.00	0.59	600.00
0	651	-1801	T	436	QPN	ZG	0.00	450.00	1.45	450.00
0	-3980	-3981	S	1108	QPN	ZG	0.00	358.15	0.79	358.15
0	-3981	-3982	S	1108	QPN	ZG	0.00	358.15	0.79	358.15
0	-3988	-3994	-	--	M	ZG	0.00	600.00	0.59	600.00
0	851	-2566	T	636	QPN	ZG	0.00	450.00	1.45	450.00
0	-2566	852	T	636	QPN	ZG	0.00	450.00	1.45	450.00
0	-4746	-4747	S	1308	QPN	ZG	0.00	358.15	0.79	358.15
0	-4753	-4759	-	--	M	ZG	0.00	600.00	0.59	600.00
0	1051	-3331	T	836	QPN	ZG	0.00	450.00	1.45	450.00
0	-5510	-5511	S	1508	QPN	ZG	0.00	358.15	0.79	358.15
0	-5511	-5512	S	1508	QPN	ZG	0.00	358.15	0.79	358.15
0	-5518	-5524	-	--	M	ZG	0.00	600.00	0.59	600.00
0	1251	-4096	T	1036	QPN	ZG	0.00	450.00	1.45	450.00
0	-6276	-6277	S	1708	QPN	ZG	0.00	358.15	0.79	358.15
0	-6283	-6289	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-6284	-6290	-	--	M	ZG	0.00	600.00	0.59	600.00
0	1451	-4861	T	1236	QPN	ZG	0.00	450.00	1.45	450.00
0	-7041	-7042	S	1904	QPN	ZG	0.00	754.00	0.79	754.00
0	-7042	-7043	S	1904	QPN	ZG	0.00	754.00	0.79	754.00
0	-7049	-7055	-	--	M	ZG	0.00	600.00	0.59	600.00
0	1651	-5627	T	1436	QPN	ZG	0.00	450.00	1.45	450.00
0	1851	-6392	T	1636	QPN	ZG	0.00	450.00	1.45	450.00
1003	154	155	S	104	QPN	ZG	0.00	185.00	3.25	185.00
1003	156	-1	S	104	QPN	ZG	0.00	185.00	1.70	185.00
1004	-3	-4	S	104	QPN	ZG	0.00	185.00	8.20	185.00
1005	-11	-12	S	103	QPN	ZG	0.00	185.00	8.20	185.00
1007	160	131	S	102	QPN	ZG	0.00	185.00	3.25	185.00
1007	131	132	S	102	QPN	ZG	0.00	185.00	3.25	185.00
1007	132	161	S	102	QPN	ZG	0.00	185.00	1.70	185.00
1007	-34	-35	S	101	QPN	ZG	0.00	258.50	0.56	258.50
1007	-36	-37	S	101	QPN	ZG	0.00	258.50	0.79	258.50
1007	-38	-39	S	101	QPN	ZG	0.00	258.50	0.67	258.50
1007	-40	-41	S	101	QPN	ZG	0.00	258.50	0.81	258.50
1008	-49	-50	S	100	QPN	ZG	0.00	258.50	15.88	258.50

0	-918	-924	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-912	-913	S	307	QPN	ZG	0.00	358.15	0.79	358.15
0	-7119	152	S	2230	QPN	ZG	0.00	517.00	0.72	517.00
0	-919	-925	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-7083	-7119	S	2230	QPN	ZG	0.00	517.00	0.72	517.00
0	-925	395	-	--	M	ZG	0.00	600.00	0.59	600.00
0	152	153	S	2230	QPN	ZG	0.00	517.00	3.23	517.00
0	-7038	-7039	S	1905	QPN	ZG	0.00	754.00	0.79	754.00
0	153	-185	S	2226	QPN	ZG	0.00	323.00	2.58	323.00
0	-1692	-1698	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-7053	1991	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1686	-1687	S	507	QPN	ZG	0.00	358.15	0.79	358.15
0	-1693	-1699	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-2450	-2451	S	706	QPN	ZG	0.00	358.15	0.79	358.15
0	-2451	-2452	S	706	QPN	ZG	0.00	358.15	0.79	358.15
0	-2458	-2464	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1036	452	T	236	QPN	ZG	0.00	450.00	1.45	450.00
0	-3222	-3228	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3228	994	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3229	995	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-1801	652	T	436	QPN	ZG	0.00	450.00	1.45	450.00
0	-3987	-3993	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3993	1194	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3994	1195	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-4752	-4758	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-4745	-4746	S	1308	QPN	ZG	0.00	358.15	0.79	358.15
0	-4758	1394	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-4759	1395	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-3331	1052	T	836	QPN	ZG	0.00	450.00	1.45	450.00
0	-5517	-5523	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-5523	1594	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-5524	1595	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-4096	1252	T	1036	QPN	ZG	0.00	450.00	1.45	450.00
0	-6277	-6278	S	1708	QPN	ZG	0.00	358.15	0.79	358.15
0	-6289	1794	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-6290	1795	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-4861	1452	T	1236	QPN	ZG	0.00	450.00	1.45	450.00
0	-7048	-7054	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-7054	1994	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-7055	1995	-	--	M	ZG	0.00	600.00	0.59	600.00
0	-5627	1652	T	1436	QPN	ZG	0.00	450.00	1.45	450.00
0	-6392	1852	T	1636	QPN	ZG	0.00	450.00	1.45	450.00
1003	155	156	S	104	QPN	ZG	0.00	185.00	3.25	185.00
1004	-3	-4	S	103	QPN	ZG	0.00	185.00	8.20	185.00
1005	-11	-12	S	102	QPN	ZG	0.00	185.00	8.20	185.00
1007	160	131	S	101	QPN	ZG	0.00	258.50	3.25	258.50
1007	131	132	S	101	QPN	ZG	0.00	258.50	3.25	258.50
1007	132	161	S	101	QPN	ZG	0.00	258.50	1.70	258.50
1007	161	-34	S	101	QPN	ZG	0.00	258.50	0.99	258.50
1007	-35	-36	S	101	QPN	ZG	0.00	258.50	0.65	258.50
1007	-37	-38	S	101	QPN	ZG	0.00	258.50	0.79	258.50
1007	-39	-40	S	101	QPN	ZG	0.00	258.50	0.54	258.50
1007	-41	162	S	101	QPN	ZG	0.00	258.50	1.88	258.50
1008	-49	-50	S	101	QPN	ZG	0.00	258.50	15.88	258.50



Relazione di calcolo

1009	163	164	S	100	QPN	ZG	0.00	258.50	3.25	258.50
1009	165	166	S	100	QPN	ZG	0.00	258.50	3.25	258.50
1009	-7136	-7084	S	100	QPN	ZG	0.00	258.50	0.72	258.50
1009	-7137	167	S	100	QPN	ZG	0.00	258.50	0.72	258.50
1034	-1	-4	S	105	QPN	ZG	0.00	155.00	1.85	155.00
1034	-12	161	S	105	QPN	ZG	0.00	155.00	1.85	155.00
1035	157	159	S	106	QPN	ZG	0.00	290.00	2.66	290.00
1035	159	-14	S	106	QPN	ZG	0.00	290.00	1.11	290.00
1035	-14	-21	S	106	QPN	ZG	0.00	290.00	0.59	290.00
1035	-21	-28	S	106	QPN	ZG	0.00	290.00	0.59	290.00
1035	-28	-35	S	106	QPN	ZG	0.00	290.00	0.59	290.00
1041	-9	-18	S	106	QPN	ZG	0.00	290.00	1.11	290.00
1041	-25	-32	S	106	QPN	ZG	0.00	290.00	0.59	290.00
3003	307	308	S	304	QPN	ZG	0.00	527.25	3.25	527.25
3003	308	-829	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-829	-830	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-830	-831	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-831	-832	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-832	-833	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-833	-834	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-834	-835	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-835	-836	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-836	309	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	309	-837	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-837	-838	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-838	-839	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-839	-840	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-840	-841	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-841	-842	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-842	-843	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-843	310	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	310	-844	S	304	QPN	ZG	0.00	527.25	0.38	527.25
3003	-844	-845	S	304	QPN	ZG	0.00	527.25	0.33	527.25
3003	-844	-845	S	304	QPN	ZG	0.33	358.15	0.38	358.15
3003	-845	-846	T	110	QPN	ZG	0.00	900.00	0.38	900.00
3003	-846	-847	T	110	QPN	ZG	0.00	900.00	0.38	900.00
3003	-847	-848	T	110	QPN	ZG	0.00	900.00	0.38	900.00
3003	-848	-849	T	110	QPN	ZG	0.00	900.00	0.38	900.00
3003	-849	-850	T	110	QPN	ZG	0.00	900.00	0.38	900.00
3003	-850	311	S	304	QPN	ZG	0.00	527.25	0.38	527.25
3003	311	-851	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-851	-852	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-852	-853	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-853	-854	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-854	-855	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-855	-856	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-856	-857	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	-857	312	S	304	QPN	ZG	0.00	527.25	0.40	527.25
3003	312	-858	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-858	-859	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-859	-860	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-860	-861	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-861	-862	S	304	QPN	ZG	0.00	527.25	0.36	527.25
3003	-862	-863	S	304	QPN	ZG	0.00	527.25	0.36	527.25
1009	164	165	S	100	QPN	ZG	0.00	258.50	3.25	258.50
1009	166	-7136	S	100	QPN	ZG	0.00	258.50	0.72	258.50
1009	-7084	-7137	S	100	QPN	ZG	0.00	258.50	0.72	258.50
1009	167	168	S	100	QPN	ZG	0.00	258.50	3.23	258.50
1034	-4	-12	S	105	QPN	ZG	0.00	155.00	1.85	155.00
1035	157	159	S	105	QPN	ZG	0.00	155.00	2.66	155.00
1035	159	-14	S	105	QPN	ZG	0.00	155.00	1.11	155.00
1035	-14	-21	S	105	QPN	ZG	0.00	155.00	0.59	155.00
1035	-21	-28	S	105	QPN	ZG	0.00	155.00	0.59	155.00
1035	-28	-35	S	105	QPN	ZG	0.00	155.00	0.59	155.00
1041	158	-9	S	106	QPN	ZG	0.00	290.00	2.66	290.00
1041	-18	-25	S	106	QPN	ZG	0.00	290.00	0.59	290.00
1041	-32	-39	S	106	QPN	ZG	0.00	290.00	0.59	290.00
3003	307	308	T	107	QPN	ZG	0.00	900.00	3.25	900.00
3003	308	-829	T	108	QPN	ZG	0.00	900.00	0.36	900.00
3003	-829	-830	T	108	QPN	ZG	0.00	900.00	0.36	900.00
3003	-830	-831	T	108	QPN	ZG	0.00	900.00	0.36	900.00
3003	-831	-832	T	108	QPN	ZG	0.00	900.00	0.36	900.00
3003	-832	-833	T	108	QPN	ZG	0.00	900.00	0.36	900.00
3003	-833	-834	T	108	QPN	ZG	0.00	900.00	0.36	900.00
3003	-834	-835	T	108	QPN	ZG	0.00	900.00	0.36	900.00
3003	-835	-836	T	108	QPN	ZG	0.00	900.00	0.36	900.00
3003	-836	309	T	108	QPN	ZG	0.00	900.00	0.36	900.00
3003	309	-837	T	109	QPN	ZG	0.00	900.00	0.40	900.00
3003	-837	-838	T	109	QPN	ZG	0.00	900.00	0.40	900.00
3003	-838	-839	T	109	QPN	ZG	0.00	900.00	0.40	900.00
3003	-839	-840	T	109	QPN	ZG	0.00	900.00	0.40	900.00
3003	-840	-841	T	109	QPN	ZG	0.00	900.00	0.40	900.00
3003	-841	-842	T	109	QPN	ZG	0.00	900.00	0.40	900.00
3003	-842	-843	T	109	QPN	ZG	0.00	900.00	0.40	900.00
3003	-843	310	T	109	QPN	ZG	0.00	900.00	0.40	900.00
3003	310	-844	T	110	QPN	ZG	0.00	900.00	0.38	900.00
3003	-844	-845	T	110	QPN	ZG	0.00	900.00	0.38	900.00
3003	-845	-846	S	304	QPN	ZG	0.00	358.15	0.38	358.15
3003	-846	-847	S	304	QPN	ZG	0.00	358.15	0.38	358.15
3003	-847	-848	S	304	QPN	ZG	0.00	358.15	0.38	358.15
3003	-848	-849	S	304	QPN	ZG	0.00	358.15	0.38	358.15
3003	-849	-850	S	304	QPN	ZG	0.00	358.15	0.03	358.15
3003	-849	-850	S	304	QPN	ZG	0.03	527.25	0.38	527.25
3003	-850	311	T	110	QPN	ZG	0.00	900.00	0.38	900.00
3003	311	-851	T	111	QPN	ZG	0.00	900.00	0.40	900.00
3003	-851	-852	T	111	QPN	ZG	0.00	900.00	0.40	900.00
3003	-852	-853	T	111	QPN	ZG	0.00	900.00	0.40	900.00
3003	-853	-854	T	111	QPN	ZG	0.00	900.00	0.40	900.00
3003	-854	-855	T	111	QPN	ZG	0.00	900.00	0.40	900.00
3003	-855	-856	T	111	QPN	ZG	0.00	900.00	0.40	900.00
3003	-856	-857	T	111	QPN	ZG	0.00	900.00	0.40	900.00
3003	-857	312	T	111	QPN	ZG	0.00	900.00	0.40	900.00
3003	312	-858	T	112	QPN	ZG	0.00	900.00	0.36	900.00
3003	-858	-859	T	112	QPN	ZG	0.00	900.00	0.36	900.00
3003	-859	-860	T	112	QPN	ZG	0.00	900.00	0.36	900.00
3003	-860	-861	T	112	QPN	ZG	0.00	900.00	0.36	900.00
3003	-861	-862	T	112	QPN	ZG	0.00	900.00	0.36	900.00
3003	-862	-863	T	112	QPN	ZG	0.00	900.00	0.36	900.00



## Relazione di calcolo

3003	-863	-864	S	304	QPN	ZG	0.00	527.25	0.36	527.25	3003	-863	-864	T	112	QPN	ZG	0.00	900.00	0.36	900.00
3003	-864	-865	S	304	QPN	ZG	0.00	527.25	0.36	527.25	3003	-864	-865	T	112	QPN	ZG	0.00	900.00	0.36	900.00
3003	-865	313	S	304	QPN	ZG	0.00	527.25	0.36	527.25	3003	-865	313	T	112	QPN	ZG	0.00	900.00	0.36	900.00
3003	313	314	S	307	QPN	ZG	0.00	527.25	3.25	527.25	3003	313	314	T	113	QPN	ZG	0.00	900.00	3.25	900.00
3003	314	315	S	307	QPN	ZG	0.00	527.25	3.25	527.25	3003	314	315	T	114	QPN	ZG	0.00	900.00	3.25	900.00
3003	315	-866	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	315	-866	T	115	QPN	ZG	0.00	900.00	0.36	900.00
3003	-866	-867	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-866	-867	T	115	QPN	ZG	0.00	900.00	0.36	900.00
3003	-867	-868	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-867	-868	T	115	QPN	ZG	0.00	900.00	0.36	900.00
3003	-868	-869	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-868	-869	T	115	QPN	ZG	0.00	900.00	0.36	900.00
3003	-869	-870	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-869	-870	T	115	QPN	ZG	0.00	900.00	0.36	900.00
3003	-870	-871	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-870	-871	T	115	QPN	ZG	0.00	900.00	0.36	900.00
3003	-871	-872	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-871	-872	T	115	QPN	ZG	0.00	900.00	0.36	900.00
3003	-872	-873	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-872	-873	T	115	QPN	ZG	0.00	900.00	0.36	900.00
3003	-873	316	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-873	316	T	115	QPN	ZG	0.00	900.00	0.36	900.00
3003	316	-874	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	316	-874	T	116	QPN	ZG	0.00	900.00	0.36	900.00
3003	-874	-875	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-874	-875	T	116	QPN	ZG	0.00	900.00	0.36	900.00
3003	-875	-876	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-875	-876	T	116	QPN	ZG	0.00	900.00	0.36	900.00
3003	-876	-877	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-876	-877	T	116	QPN	ZG	0.00	900.00	0.36	900.00
3003	-877	-878	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-877	-878	T	116	QPN	ZG	0.00	900.00	0.36	900.00
3003	-878	-879	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-878	-879	T	116	QPN	ZG	0.00	900.00	0.36	900.00
3003	-879	-880	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-879	-880	T	116	QPN	ZG	0.00	900.00	0.36	900.00
3003	-880	-881	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-880	-881	T	116	QPN	ZG	0.00	900.00	0.36	900.00
3003	-881	317	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-881	317	T	116	QPN	ZG	0.00	900.00	0.36	900.00
3003	317	-882	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	317	-882	T	117	QPN	ZG	0.00	900.00	0.36	900.00
3003	-882	-883	S	307	QPN	ZG	0.00	527.25	0.29	527.25	3003	-882	-883	T	117	QPN	ZG	0.00	900.00	0.36	900.00
3003	-882	-883	S	307	QPN	ZG	0.29	358.15	0.36	358.15	3003	-883	-884	S	307	QPN	ZG	0.00	358.15	0.36	358.15
3003	-883	-884	T	117	QPN	ZG	0.00	900.00	0.36	900.00	3003	-884	-885	S	307	QPN	ZG	0.00	358.15	0.36	358.15
3003	-884	-885	T	117	QPN	ZG	0.00	900.00	0.36	900.00	3003	-885	-886	S	307	QPN	ZG	0.00	358.15	0.36	358.15
3003	-885	-886	T	117	QPN	ZG	0.00	900.00	0.36	900.00	3003	-886	-887	S	307	QPN	ZG	0.00	358.15	0.36	358.15
3003	-886	-887	T	117	QPN	ZG	0.00	900.00	0.36	900.00	3003	-887	-888	S	307	QPN	ZG	0.00	358.15	0.06	358.15
3003	-887	-888	T	117	QPN	ZG	0.00	900.00	0.36	900.00	3003	-887	-888	S	307	QPN	ZG	0.06	527.25	0.36	527.25
3003	-888	318	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-888	318	T	117	QPN	ZG	0.00	900.00	0.36	900.00
3003	318	-889	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	318	-889	T	118	QPN	ZG	0.00	900.00	0.36	900.00
3003	-889	-890	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-889	-890	T	118	QPN	ZG	0.00	900.00	0.36	900.00
3003	-890	-891	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-890	-891	T	118	QPN	ZG	0.00	900.00	0.36	900.00
3003	-891	-892	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-891	-892	T	118	QPN	ZG	0.00	900.00	0.36	900.00
3003	-892	-893	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-892	-893	T	118	QPN	ZG	0.00	900.00	0.36	900.00
3003	-893	-894	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-893	-894	T	118	QPN	ZG	0.00	900.00	0.36	900.00
3003	-894	-895	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-894	-895	T	118	QPN	ZG	0.00	900.00	0.36	900.00
3003	-895	-896	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-895	-896	T	118	QPN	ZG	0.00	900.00	0.36	900.00
3003	-896	319	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-896	319	T	118	QPN	ZG	0.00	900.00	0.36	900.00
3003	319	-897	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	319	-897	T	119	QPN	ZG	0.00	900.00	0.36	900.00
3003	-897	-898	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-897	-898	T	119	QPN	ZG	0.00	900.00	0.36	900.00
3003	-898	-899	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-898	-899	T	119	QPN	ZG	0.00	900.00	0.36	900.00
3003	-899	-900	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-899	-900	T	119	QPN	ZG	0.00	900.00	0.36	900.00
3003	-900	-901	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-900	-901	T	119	QPN	ZG	0.00	900.00	0.36	900.00
3003	-901	-902	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-901	-902	T	119	QPN	ZG	0.00	900.00	0.36	900.00
3003	-902	-903	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-902	-903	T	119	QPN	ZG	0.00	900.00	0.36	900.00
3003	-903	-904	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-903	-904	T	119	QPN	ZG	0.00	900.00	0.36	900.00
3003	-904	320	S	307	QPN	ZG	0.00	527.25	0.36	527.25	3003	-904	320	T	119	QPN	ZG	0.00	900.00	0.36	900.00
3009	341	342	S	305	QPN	ZG	0.00	491.15	3.25	491.15	3009	341	342	T	126	QPN	ZG	0.00	900.00	3.25	900.00
3009	342	343	S	305	QPN	ZG	0.00	491.15	3.25	491.15	3009	342	343	T	127	QPN	ZG	0.00	900.00	3.25	900.00
3009	343	344	S	305	QPN	ZG	0.00	491.15	3.20	491.15	3009	343	344	T	128	QPN	ZG	0.00	900.00	3.20	900.00
3009	345	346	S	303	QPN	ZG	0.00	491.15	3.18	491.15	3009	345	346	T	130	QPN	ZG	0.00	900.00	3.18	900.00



Relazione di calcolo

3009	346	347	S	303	QPN	ZG	0.00	491.15	3.25	491.15
3009	347	348	S	302	QPN	ZG	0.00	491.15	3.25	491.15
3009	348	349	S	302	QPN	ZG	0.00	491.15	3.25	491.15
3009	349	350	S	302	QPN	ZG	0.00	491.15	3.25	491.15
3009	350	351	S	302	QPN	ZG	0.00	491.15	3.25	491.15
3009	352	353	S	306	QPN	ZG	0.00	491.15	3.23	491.15
3009	353	354	S	306	QPN	ZG	0.00	491.15	3.23	491.15
3024	389	-934	-	--	M	ZG	0.00	600.00	0.75	600.00
3035	393	-939	-	--	M	ZG	0.00	600.00	0.75	600.00
3043	334	320	T	147	QPN	ZG	0.00	900.00	5.55	900.00
5003	507	508	S	504	QPN	ZG	0.00	527.25	3.25	527.25
5003	508	-1603	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1603	-1604	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1604	-1605	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1605	-1606	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1606	-1607	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1607	-1608	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1608	-1609	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1609	-1610	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1610	509	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	509	-1611	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1611	-1612	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1612	-1613	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1613	-1614	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1614	-1615	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1615	-1616	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1616	-1617	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1617	510	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	510	-1618	S	504	QPN	ZG	0.00	527.25	0.38	527.25
5003	-1618	-1619	S	504	QPN	ZG	0.00	527.25	0.33	527.25
5003	-1618	-1619	S	504	QPN	ZG	0.33	358.15	0.38	358.15
5003	-1619	-1620	T	210	QPN	ZG	0.00	900.00	0.38	900.00
5003	-1620	-1621	T	210	QPN	ZG	0.00	900.00	0.38	900.00
5003	-1621	-1622	T	210	QPN	ZG	0.00	900.00	0.38	900.00
5003	-1622	-1623	T	210	QPN	ZG	0.00	900.00	0.38	900.00
5003	-1623	-1624	T	210	QPN	ZG	0.00	900.00	0.38	900.00
5003	-1624	511	S	504	QPN	ZG	0.00	527.25	0.38	527.25
5003	511	-1625	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1625	-1626	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1626	-1627	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1627	-1628	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1628	-1629	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1629	-1630	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1630	-1631	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	-1631	512	S	504	QPN	ZG	0.00	527.25	0.40	527.25
5003	512	-1632	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1632	-1633	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1633	-1634	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1634	-1635	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1635	-1636	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1636	-1637	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1637	-1638	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1638	-1639	S	504	QPN	ZG	0.00	527.25	0.36	527.25
5003	-1639	513	S	504	QPN	ZG	0.00	527.25	0.36	527.25
3009	346	347	T	131	QPN	ZG	0.00	900.00	3.25	900.00
3009	347	348	T	132	QPN	ZG	0.00	900.00	3.25	900.00
3009	348	349	T	133	QPN	ZG	0.00	900.00	3.25	900.00
3009	349	350	T	134	QPN	ZG	0.00	900.00	3.25	900.00
3009	350	351	T	135	QPN	ZG	0.00	900.00	3.25	900.00
3009	352	353	T	137	QPN	ZG	0.00	900.00	3.23	900.00
3009	353	354	T	138	QPN	ZG	0.00	900.00	3.23	900.00
3027	392	-938	-	--	M	ZG	0.00	600.00	0.75	600.00
3041	396	-943	-	--	M	ZG	0.00	600.00	0.75	600.00
3043	354	334	T	148	QPN	ZG	0.00	900.00	5.17	900.00
5003	507	508	T	207	QPN	ZG	0.00	900.00	3.25	900.00
5003	508	-1603	T	208	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1603	-1604	T	208	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1604	-1605	T	208	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1605	-1606	T	208	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1606	-1607	T	208	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1607	-1608	T	208	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1608	-1609	T	208	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1609	-1610	T	208	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1610	509	T	208	QPN	ZG	0.00	900.00	0.36	900.00
5003	509	-1611	T	209	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1611	-1612	T	209	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1612	-1613	T	209	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1613	-1614	T	209	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1614	-1615	T	209	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1615	-1616	T	209	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1616	-1617	T	209	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1617	510	T	209	QPN	ZG	0.00	900.00	0.40	900.00
5003	510	-1618	T	210	QPN	ZG	0.00	900.00	0.38	900.00
5003	-1618	-1619	T	210	QPN	ZG	0.00	900.00	0.38	900.00
5003	-1619	-1620	S	504	QPN	ZG	0.00	358.15	0.38	358.15
5003	-1620	-1621	S	504	QPN	ZG	0.00	358.15	0.38	358.15
5003	-1621	-1622	S	504	QPN	ZG	0.00	358.15	0.38	358.15
5003	-1622	-1623	S	504	QPN	ZG	0.00	358.15	0.38	358.15
5003	-1623	-1624	S	504	QPN	ZG	0.00	358.15	0.03	358.15
5003	-1623	-1624	S	504	QPN	ZG	0.03	527.25	0.38	527.25
5003	-1624	511	T	210	QPN	ZG	0.00	900.00	0.38	900.00
5003	511	-1625	T	211	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1625	-1626	T	211	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1626	-1627	T	211	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1627	-1628	T	211	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1628	-1629	T	211	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1629	-1630	T	211	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1630	-1631	T	211	QPN	ZG	0.00	900.00	0.40	900.00
5003	-1631	512	T	211	QPN	ZG	0.00	900.00	0.40	900.00
5003	512	-1632	T	212	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1632	-1633	T	212	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1633	-1634	T	212	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1634	-1635	T	212	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1635	-1636	T	212	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1636	-1637	T	212	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1637	-1638	T	212	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1638	-1639	T	212	QPN	ZG	0.00	900.00	0.36	900.00
5003	-1639	513	T	212	QPN	ZG	0.00	900.00	0.36	900.00







Relazione di calcolo

5009	548	549	T	233	QPN	ZG	0.00	900.00	3.25	900.00	5009	549	550	S	503	QPN	ZG	0.00	491.15	3.25	491.15
5009	549	550	T	234	QPN	ZG	0.00	900.00	3.25	900.00	5009	550	551	S	503	QPN	ZG	0.00	491.15	3.25	491.15
5009	550	551	T	235	QPN	ZG	0.00	900.00	3.25	900.00	5009	551	552	T	336	QPN	ZG	0.00	450.00	2.90	450.00
5009	552	553	S	506	QPN	ZG	0.00	491.15	3.23	491.15	5009	552	553	T	237	QPN	ZG	0.00	900.00	3.23	900.00
5009	553	554	S	506	QPN	ZG	0.00	491.15	3.23	491.15	5009	553	554	T	238	QPN	ZG	0.00	900.00	3.23	900.00
5024	589	-1708	-	--	M	ZG	0.00	600.00	0.75	600.00	5027	592	-1712	-	--	M	ZG	0.00	600.00	0.75	600.00
5035	593	-1713	-	--	M	ZG	0.00	600.00	0.75	600.00	5041	596	-1717	-	--	M	ZG	0.00	600.00	0.75	600.00
5043	534	520	T	247	QPN	ZG	0.00	900.00	5.55	900.00	5043	554	534	T	248	QPN	ZG	0.00	900.00	5.17	900.00
7003	707	708	S	702	QPN	ZG	0.00	527.25	3.25	527.25	7003	707	708	T	307	QPN	ZG	0.00	900.00	3.25	900.00
7003	708	-2368	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	708	-2368	T	308	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2368	-2369	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2368	-2369	T	308	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2369	-2370	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2369	-2370	T	308	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2370	-2371	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2370	-2371	T	308	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2371	-2372	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2371	-2372	T	308	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2372	-2373	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2372	-2373	T	308	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2373	-2374	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2373	-2374	T	308	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2374	-2375	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2374	-2375	T	308	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2375	709	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2375	709	T	308	QPN	ZG	0.00	900.00	0.36	900.00
7003	709	-2376	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	709	-2376	T	309	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2376	-2377	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2376	-2377	T	309	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2377	-2378	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2377	-2378	T	309	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2378	-2379	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2378	-2379	T	309	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2379	-2380	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2379	-2380	T	309	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2380	-2381	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2380	-2381	T	309	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2381	-2382	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2381	-2382	T	309	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2382	710	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2382	710	T	309	QPN	ZG	0.00	900.00	0.40	900.00
7003	710	-2383	S	702	QPN	ZG	0.00	527.25	0.38	527.25	7003	710	-2383	T	310	QPN	ZG	0.00	900.00	0.38	900.00
7003	-2383	-2384	S	702	QPN	ZG	0.00	527.25	0.33	527.25	7003	-2383	-2384	T	310	QPN	ZG	0.00	900.00	0.38	900.00
7003	-2383	-2384	S	702	QPN	ZG	0.33	358.15	0.38	358.15	7003	-2384	-2385	S	702	QPN	ZG	0.00	358.15	0.38	358.15
7003	-2384	-2385	T	310	QPN	ZG	0.00	900.00	0.38	900.00	7003	-2385	-2386	S	702	QPN	ZG	0.00	358.15	0.38	358.15
7003	-2385	-2386	T	310	QPN	ZG	0.00	900.00	0.38	900.00	7003	-2386	-2387	S	702	QPN	ZG	0.00	358.15	0.38	358.15
7003	-2386	-2387	T	310	QPN	ZG	0.00	900.00	0.38	900.00	7003	-2387	-2388	S	702	QPN	ZG	0.00	358.15	0.38	358.15
7003	-2387	-2388	T	310	QPN	ZG	0.00	900.00	0.38	900.00	7003	-2388	-2389	S	702	QPN	ZG	0.00	358.15	0.03	358.15
7003	-2388	-2389	T	310	QPN	ZG	0.00	900.00	0.38	900.00	7003	-2388	-2389	S	702	QPN	ZG	0.03	527.25	0.38	527.25
7003	-2389	711	S	702	QPN	ZG	0.00	527.25	0.38	527.25	7003	-2389	711	T	310	QPN	ZG	0.00	900.00	0.38	900.00
7003	711	-2390	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	711	-2390	T	311	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2390	-2391	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2390	-2391	T	311	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2391	-2392	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2391	-2392	T	311	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2392	-2393	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2392	-2393	T	311	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2393	-2394	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2393	-2394	T	311	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2394	-2395	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2394	-2395	T	311	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2395	-2396	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2395	-2396	T	311	QPN	ZG	0.00	900.00	0.40	900.00
7003	-2396	712	S	702	QPN	ZG	0.00	527.25	0.40	527.25	7003	-2396	712	T	311	QPN	ZG	0.00	900.00	0.40	900.00
7003	712	-2397	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	712	-2397	T	312	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2397	-2398	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2397	-2398	T	312	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2398	-2399	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2398	-2399	T	312	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2399	-2400	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2399	-2400	T	312	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2400	-2401	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2400	-2401	T	312	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2401	-2402	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2401	-2402	T	312	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2402	-2403	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2402	-2403	T	312	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2403	-2404	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2403	-2404	T	312	QPN	ZG	0.00	900.00	0.36	900.00
7003	-2404	713	S	702	QPN	ZG	0.00	527.25	0.36	527.25	7003	-2404	713	T	312	QPN	ZG	0.00	900.00	0.36	900.00
7003	713	714	S	706	QPN	ZG	0.00	527.25	3.25	527.25	7003	713	714	T	313	QPN	ZG	0.00	900.00	3.25	900.00
7003	714	715	S	706	QPN	ZG	0.00	527.25	3.25	527.25	7003	714	715	T	314	QPN	ZG	0.00	900.00	3.25	900.00







Relazione di calcolo

7009	750	751	T	335	QPN	ZG	0.00	900.00	3.25	900.00
7009	752	753	S	705	QPN	ZG	0.00	491.15	3.23	491.15
7009	753	754	S	705	QPN	ZG	0.00	491.15	3.23	491.15
7024	789	-2473	-	--	M	ZG	0.00	600.00	0.75	600.00
7035	793	-2478	-	--	M	ZG	0.00	600.00	0.75	600.00
7043	734	720	T	347	QPN	ZG	0.00	900.00	5.55	900.00
9003	907	908	S	904	QPN	ZG	0.00	527.25	3.25	527.25
9003	908	-3133	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3133	-3134	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3134	-3135	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3135	-3136	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3136	-3137	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3137	-3138	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3138	-3139	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3139	-3140	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3140	909	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	909	-3141	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3141	-3142	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3142	-3143	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3143	-3144	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3144	-3145	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3145	-3146	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3146	-3147	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3147	910	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	910	-3148	S	904	QPN	ZG	0.00	527.25	0.38	527.25
9003	-3148	-3149	S	904	QPN	ZG	0.00	527.25	0.33	527.25
9003	-3148	-3149	S	904	QPN	ZG	0.33	358.15	0.38	358.15
9003	-3149	-3150	T	410	QPN	ZG	0.00	900.00	0.38	900.00
9003	-3150	-3151	T	410	QPN	ZG	0.00	900.00	0.38	900.00
9003	-3151	-3152	T	410	QPN	ZG	0.00	900.00	0.38	900.00
9003	-3152	-3153	T	410	QPN	ZG	0.00	900.00	0.38	900.00
9003	-3153	-3154	T	410	QPN	ZG	0.00	900.00	0.38	900.00
9003	-3154	911	S	904	QPN	ZG	0.00	527.25	0.38	527.25
9003	911	-3155	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3155	-3156	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3156	-3157	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3157	-3158	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3158	-3159	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3159	-3160	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3160	-3161	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	-3161	912	S	904	QPN	ZG	0.00	527.25	0.40	527.25
9003	912	-3162	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3162	-3163	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3163	-3164	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3164	-3165	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3165	-3166	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3166	-3167	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3167	-3168	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3168	-3169	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3169	913	S	904	QPN	ZG	0.00	527.25	0.36	527.25
9003	913	914	S	907	QPN	ZG	0.00	527.25	3.25	527.25
9003	914	915	S	907	QPN	ZG	0.00	527.25	3.25	527.25
9003	915	-3170	S	907	QPN	ZG	0.00	527.25	0.36	527.25
9003	-3170	-3171	S	907	QPN	ZG	0.00	527.25	0.36	527.25
7009	751	752	T	536	QPN	ZG	0.00	450.00	2.90	450.00
7009	752	753	T	337	QPN	ZG	0.00	900.00	3.23	900.00
7009	753	754	T	338	QPN	ZG	0.00	900.00	3.23	900.00
7027	792	-2477	-	--	M	ZG	0.00	600.00	0.75	600.00
7041	796	-2482	-	--	M	ZG	0.00	600.00	0.75	600.00
7043	754	734	T	348	QPN	ZG	0.00	900.00	5.17	900.00
9003	907	908	T	407	QPN	ZG	0.00	900.00	3.25	900.00
9003	908	-3133	T	408	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3133	-3134	T	408	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3134	-3135	T	408	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3135	-3136	T	408	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3136	-3137	T	408	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3137	-3138	T	408	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3138	-3139	T	408	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3139	-3140	T	408	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3140	909	T	408	QPN	ZG	0.00	900.00	0.36	900.00
9003	909	-3141	T	409	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3141	-3142	T	409	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3142	-3143	T	409	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3143	-3144	T	409	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3144	-3145	T	409	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3145	-3146	T	409	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3146	-3147	T	409	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3147	910	T	409	QPN	ZG	0.00	900.00	0.40	900.00
9003	910	-3148	T	410	QPN	ZG	0.00	900.00	0.38	900.00
9003	-3148	-3149	T	410	QPN	ZG	0.00	900.00	0.38	900.00
9003	-3149	-3150	S	904	QPN	ZG	0.00	358.15	0.38	358.15
9003	-3150	-3151	S	904	QPN	ZG	0.00	358.15	0.38	358.15
9003	-3151	-3152	S	904	QPN	ZG	0.00	358.15	0.38	358.15
9003	-3152	-3153	S	904	QPN	ZG	0.00	358.15	0.38	358.15
9003	-3153	-3154	S	904	QPN	ZG	0.00	358.15	0.03	358.15
9003	-3153	-3154	S	904	QPN	ZG	0.03	527.25	0.38	527.25
9003	-3154	911	T	410	QPN	ZG	0.00	900.00	0.38	900.00
9003	911	-3155	T	411	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3155	-3156	T	411	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3156	-3157	T	411	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3157	-3158	T	411	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3158	-3159	T	411	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3159	-3160	T	411	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3160	-3161	T	411	QPN	ZG	0.00	900.00	0.40	900.00
9003	-3161	912	T	411	QPN	ZG	0.00	900.00	0.40	900.00
9003	912	-3162	T	412	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3162	-3163	T	412	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3163	-3164	T	412	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3164	-3165	T	412	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3165	-3166	T	412	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3166	-3167	T	412	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3167	-3168	T	412	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3168	-3169	T	412	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3169	913	T	412	QPN	ZG	0.00	900.00	0.36	900.00
9003	913	914	T	413	QPN	ZG	0.00	900.00	3.25	900.00
9003	914	915	T	414	QPN	ZG	0.00	900.00	3.25	900.00
9003	915	-3170	T	415	QPN	ZG	0.00	900.00	0.36	900.00
9003	-3170	-3171	T	415	QPN	ZG	0.00	900.00	0.36	900.00







Relazione di calcolo

9009	953	954	S	906	QPN	ZG	0.00	491.15	3.23	491.15
9024	989	-3238	-	--	M	ZG	0.00	600.00	0.75	600.00
9035	993	-3243	-	--	M	ZG	0.00	600.00	0.75	600.00
9043	934	920	T	447	QPN	ZG	0.00	900.00	5.55	900.00
11003	1107	1108	S	1105	QPN	ZG	0.00	527.25	3.25	527.25
11003	1108	-3898	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3898	-3899	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3899	-3900	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3900	-3901	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3901	-3902	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3902	-3903	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3903	-3904	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3904	-3905	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3905	1109	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	1109	-3906	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3906	-3907	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3907	-3908	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3908	-3909	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3909	-3910	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3910	-3911	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3911	-3912	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3912	1110	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	1110	-3913	S	1105	QPN	ZG	0.00	527.25	0.38	527.25
11003	-3913	-3914	S	1105	QPN	ZG	0.00	527.25	0.33	527.25
11003	-3913	-3914	S	1105	QPN	ZG	0.33	358.15	0.38	358.15
11003	-3914	-3915	T	510	QPN	ZG	0.00	900.00	0.38	900.00
11003	-3915	-3916	T	510	QPN	ZG	0.00	900.00	0.38	900.00
11003	-3916	-3917	T	510	QPN	ZG	0.00	900.00	0.38	900.00
11003	-3917	-3918	T	510	QPN	ZG	0.00	900.00	0.38	900.00
11003	-3918	-3919	T	510	QPN	ZG	0.00	900.00	0.38	900.00
11003	-3919	1111	S	1105	QPN	ZG	0.00	527.25	0.38	527.25
11003	1111	-3920	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3920	-3921	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3921	-3922	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3922	-3923	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3923	-3924	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3924	-3925	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3925	-3926	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	-3926	1112	S	1105	QPN	ZG	0.00	527.25	0.40	527.25
11003	1112	-3927	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3927	-3928	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3928	-3929	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3929	-3930	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3930	-3931	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3931	-3932	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3932	-3933	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3933	-3934	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3934	1113	S	1105	QPN	ZG	0.00	527.25	0.36	527.25
11003	1113	1114	S	1108	QPN	ZG	0.00	527.25	3.25	527.25
11003	1114	1115	S	1108	QPN	ZG	0.00	527.25	3.25	527.25
11003	1115	-3935	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3935	-3936	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3936	-3937	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3937	-3938	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
9009	953	954	T	438	QPN	ZG	0.00	900.00	3.23	900.00
9027	992	-3242	-	--	M	ZG	0.00	600.00	0.75	600.00
9041	996	-3247	-	--	M	ZG	0.00	600.00	0.75	600.00
9043	954	934	T	448	QPN	ZG	0.00	900.00	5.17	900.00
11003	1107	1108	T	507	QPN	ZG	0.00	900.00	3.25	900.00
11003	1108	-3898	T	508	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3898	-3899	T	508	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3899	-3900	T	508	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3900	-3901	T	508	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3901	-3902	T	508	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3902	-3903	T	508	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3903	-3904	T	508	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3904	-3905	T	508	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3905	1109	T	508	QPN	ZG	0.00	900.00	0.36	900.00
11003	1109	-3906	T	509	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3906	-3907	T	509	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3907	-3908	T	509	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3908	-3909	T	509	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3909	-3910	T	509	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3910	-3911	T	509	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3911	-3912	T	509	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3912	1110	T	509	QPN	ZG	0.00	900.00	0.40	900.00
11003	1110	-3913	T	510	QPN	ZG	0.00	900.00	0.38	900.00
11003	-3913	-3914	T	510	QPN	ZG	0.00	900.00	0.38	900.00
11003	-3914	-3915	S	1105	QPN	ZG	0.00	358.15	0.38	358.15
11003	-3915	-3916	S	1105	QPN	ZG	0.00	358.15	0.38	358.15
11003	-3916	-3917	S	1105	QPN	ZG	0.00	358.15	0.38	358.15
11003	-3917	-3918	S	1105	QPN	ZG	0.00	358.15	0.38	358.15
11003	-3918	-3919	S	1105	QPN	ZG	0.00	358.15	0.03	358.15
11003	-3918	-3919	S	1105	QPN	ZG	0.03	527.25	0.38	527.25
11003	-3919	1111	T	510	QPN	ZG	0.00	900.00	0.38	900.00
11003	1111	-3920	T	511	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3920	-3921	T	511	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3921	-3922	T	511	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3922	-3923	T	511	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3923	-3924	T	511	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3924	-3925	T	511	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3925	-3926	T	511	QPN	ZG	0.00	900.00	0.40	900.00
11003	-3926	1112	T	511	QPN	ZG	0.00	900.00	0.40	900.00
11003	1112	-3927	T	512	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3927	-3928	T	512	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3928	-3929	T	512	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3929	-3930	T	512	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3930	-3931	T	512	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3931	-3932	T	512	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3932	-3933	T	512	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3933	-3934	T	512	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3934	1113	T	512	QPN	ZG	0.00	900.00	0.36	900.00
11003	1113	1114	T	513	QPN	ZG	0.00	900.00	3.25	900.00
11003	1114	1115	T	514	QPN	ZG	0.00	900.00	3.25	900.00
11003	1115	-3935	T	515	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3935	-3936	T	515	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3936	-3937	T	515	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3937	-3938	T	515	QPN	ZG	0.00	900.00	0.36	900.00



Relazione di calcolo

11003	-3938	-3939	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3939	-3940	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3940	-3941	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3941	-3942	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3942	1116	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	1116	-3943	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3943	-3944	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3944	-3945	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3945	-3946	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3946	-3947	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3947	-3948	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3948	-3949	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3949	-3950	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3950	1117	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	1117	-3951	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3951	-3952	S	1108	QPN	ZG	0.00	527.25	0.29	527.25
11003	-3951	-3952	S	1108	QPN	ZG	0.29	358.15	0.36	358.15
11003	-3952	-3953	T	517	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3953	-3954	T	517	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3954	-3955	T	517	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3955	-3956	T	517	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3956	-3957	T	517	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3957	1118	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	1118	-3958	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3958	-3959	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3959	-3960	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3960	-3961	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3961	-3962	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3962	-3963	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3963	-3964	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3964	-3965	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3965	1119	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	1119	-3966	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3966	-3967	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3967	-3968	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3968	-3969	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3969	-3970	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3970	-3971	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3971	-3972	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3972	-3973	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11003	-3973	1120	S	1108	QPN	ZG	0.00	527.25	0.36	527.25
11007	1132	1193	--	M	ZG	0.00	600.00	3.25	600.00	
11007	1132	1193	S	1108	QPN	ZG	0.00	527.25	3.25	527.25
11009	1141	1142	T	526	QPN	ZG	0.00	900.00	3.25	900.00
11009	1142	1143	T	527	QPN	ZG	0.00	900.00	3.25	900.00
11009	1143	1144	T	528	QPN	ZG	0.00	900.00	3.20	900.00
11009	1145	1146	S	1103	QPN	ZG	0.00	491.15	3.18	491.15
11009	1146	1147	S	1103	QPN	ZG	0.00	491.15	3.25	491.15
11009	1147	1148	S	1104	QPN	ZG	0.00	491.15	3.25	491.15
11009	1148	1149	S	1104	QPN	ZG	0.00	491.15	3.25	491.15
11009	1149	1150	S	1104	QPN	ZG	0.00	491.15	3.25	491.15
11009	1150	1151	S	1104	QPN	ZG	0.00	491.15	3.25	491.15
11009	1151	1152	T	936	QPN	ZG	0.00	450.00	2.90	450.00
11009	1152	1153	T	537	QPN	ZG	0.00	900.00	3.23	900.00
11003	-3938	-3939	T	515	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3939	-3940	T	515	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3940	-3941	T	515	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3941	-3942	T	515	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3942	1116	T	515	QPN	ZG	0.00	900.00	0.36	900.00
11003	1116	-3943	T	516	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3943	-3944	T	516	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3944	-3945	T	516	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3945	-3946	T	516	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3946	-3947	T	516	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3947	-3948	T	516	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3948	-3949	T	516	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3949	-3950	T	516	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3950	1117	T	516	QPN	ZG	0.00	900.00	0.36	900.00
11003	1117	-3951	T	517	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3951	-3952	T	517	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3952	-3953	S	1108	QPN	ZG	0.00	358.15	0.36	358.15
11003	-3953	-3954	S	1108	QPN	ZG	0.00	358.15	0.36	358.15
11003	-3954	-3955	S	1108	QPN	ZG	0.00	358.15	0.36	358.15
11003	-3955	-3956	S	1108	QPN	ZG	0.00	358.15	0.36	358.15
11003	-3956	-3957	S	1108	QPN	ZG	0.00	358.15	0.06	358.15
11003	-3956	-3957	S	1108	QPN	ZG	0.06	527.25	0.36	527.25
11003	-3957	1118	T	517	QPN	ZG	0.00	900.00	0.36	900.00
11003	1118	-3958	T	518	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3958	-3959	T	518	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3959	-3960	T	518	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3960	-3961	T	518	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3961	-3962	T	518	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3962	-3963	T	518	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3963	-3964	T	518	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3964	-3965	T	518	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3965	1119	T	518	QPN	ZG	0.00	900.00	0.36	900.00
11003	1119	-3966	T	519	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3966	-3967	T	519	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3967	-3968	T	519	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3968	-3969	T	519	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3969	-3970	T	519	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3970	-3971	T	519	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3971	-3972	T	519	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3972	-3973	T	519	QPN	ZG	0.00	900.00	0.36	900.00
11003	-3973	1120	T	519	QPN	ZG	0.00	900.00	0.36	900.00
11007	1132	1193	S	1104	QPN	ZG	0.00	491.15	3.25	491.15
11009	1141	1142	S	1106	QPN	ZG	0.00	491.15	3.25	491.15
11009	1142	1143	S	1106	QPN	ZG	0.00	491.15	3.25	491.15
11009	1143	1144	S	1106	QPN	ZG	0.00	491.15	3.20	491.15
11009	1144	1145	T	929	QPN	ZG	0.00	450.00	3.00	450.00
11009	1145	1146	T	530	QPN	ZG	0.00	900.00	3.18	900.00
11009	1146	1147	T	531	QPN	ZG	0.00	900.00	3.25	900.00
11009	1147	1148	T	532	QPN	ZG	0.00	900.00	3.25	900.00
11009	1148	1149	T	533	QPN	ZG	0.00	900.00	3.25	900.00
11009	1149	1150	T	534	QPN	ZG	0.00	900.00	3.25	900.00
11009	1150	1151	T	535	QPN	ZG	0.00	900.00	3.25	900.00
11009	1152	1153	S	1107	QPN	ZG	0.00	491.15	3.23	491.15
11009	1153	1154	S	1107	QPN	ZG	0.00	491.15	3.23	491.15



## Relazione di calcolo

11009	1153	1154	T	538	QPN	ZG	0.00	900.00	3.23	900.00	11024	1189	-4003	-	--	M	ZG	0.00	600.00	0.75	600.00
11027	1192	-4007	-	--	M	ZG	0.00	600.00	0.75	600.00	11035	1193	-4008	-	--	M	ZG	0.00	600.00	0.75	600.00
11041	1196	-4012	-	--	M	ZG	0.00	600.00	0.75	600.00	11043	1134	1120	T	547	QPN	ZG	0.00	900.00	5.55	900.00
11043	1154	1134	T	548	QPN	ZG	0.00	900.00	5.17	900.00	13003	1307	1308	S	1305	QPN	ZG	0.00	527.25	3.25	527.25
13003	1307	1308	T	607	QPN	ZG	0.00	900.00	3.25	900.00	13003	1308	-4663	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	1308	-4663	T	608	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4663	-4664	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4663	-4664	T	608	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4664	-4665	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4664	-4665	T	608	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4665	-4666	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4665	-4666	T	608	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4666	-4667	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4666	-4667	T	608	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4667	-4668	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4667	-4668	T	608	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4668	-4669	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4668	-4669	T	608	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4669	-4670	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4669	-4670	T	608	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4670	1309	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4670	1309	T	608	QPN	ZG	0.00	900.00	0.36	900.00	13003	1309	-4671	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	1309	-4671	T	609	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4671	-4672	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4671	-4672	T	609	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4672	-4673	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4672	-4673	T	609	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4673	-4674	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4673	-4674	T	609	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4674	-4675	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4674	-4675	T	609	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4675	-4676	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4675	-4676	T	609	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4676	-4677	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4676	-4677	T	609	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4677	1310	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4677	1310	T	609	QPN	ZG	0.00	900.00	0.40	900.00	13003	1310	-4678	S	1305	QPN	ZG	0.00	527.25	0.38	527.25
13003	1310	-4678	T	610	QPN	ZG	0.00	900.00	0.38	900.00	13003	-4678	-4679	S	1305	QPN	ZG	0.00	527.25	0.33	527.25
13003	-4678	-4679	T	610	QPN	ZG	0.00	900.00	0.38	900.00	13003	-4678	-4679	S	1305	QPN	ZG	0.33	358.15	0.38	358.15
13003	-4679	-4680	S	1305	QPN	ZG	0.00	358.15	0.38	358.15	13003	-4679	-4680	T	610	QPN	ZG	0.00	900.00	0.38	900.00
13003	-4680	-4681	S	1305	QPN	ZG	0.00	358.15	0.38	358.15	13003	-4680	-4681	T	610	QPN	ZG	0.00	900.00	0.38	900.00
13003	-4681	-4682	S	1305	QPN	ZG	0.00	358.15	0.38	358.15	13003	-4681	-4682	T	610	QPN	ZG	0.00	900.00	0.38	900.00
13003	-4682	-4683	S	1305	QPN	ZG	0.00	358.15	0.38	358.15	13003	-4682	-4683	T	610	QPN	ZG	0.00	900.00	0.38	900.00
13003	-4683	-4684	S	1305	QPN	ZG	0.00	358.15	0.03	358.15	13003	-4683	-4684	T	610	QPN	ZG	0.00	900.00	0.38	900.00
13003	-4683	-4684	S	1305	QPN	ZG	0.03	527.25	0.38	527.25	13003	-4684	1311	S	1305	QPN	ZG	0.00	527.25	0.38	527.25
13003	-4684	1311	T	610	QPN	ZG	0.00	900.00	0.38	900.00	13003	1311	-4685	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	1311	-4685	T	611	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4685	-4686	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4685	-4686	T	611	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4686	-4687	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4686	-4687	T	611	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4687	-4688	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4687	-4688	T	611	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4688	-4689	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4688	-4689	T	611	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4689	-4690	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4689	-4690	T	611	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4690	-4691	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4690	-4691	T	611	QPN	ZG	0.00	900.00	0.40	900.00	13003	-4691	1312	S	1305	QPN	ZG	0.00	527.25	0.40	527.25
13003	-4691	1312	T	611	QPN	ZG	0.00	900.00	0.40	900.00	13003	1312	-4692	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	1312	-4692	T	612	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4692	-4693	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4692	-4693	T	612	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4693	-4694	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4693	-4694	T	612	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4694	-4695	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4694	-4695	T	612	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4695	-4696	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4695	-4696	T	612	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4696	-4697	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4696	-4697	T	612	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4697	-4698	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4697	-4698	T	612	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4698	-4699	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4698	-4699	T	612	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4699	1313	S	1305	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4699	1313	T	612	QPN	ZG	0.00	900.00	0.36	900.00	13003	1313	1314	S	1308	QPN	ZG	0.00	527.25	3.25	527.25
13003	1313	1314	T	613	QPN	ZG	0.00	900.00	3.25	900.00	13003	1314	1315	S	1308	QPN	ZG	0.00	527.25	3.25	527.25
13003	1314	1315	T	614	QPN	ZG	0.00	900.00	3.25	900.00	13003	1315	-4700	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	1315	-4700	T	615	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4700	-4701	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4700	-4701	T	615	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4701	-4702	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4701	-4702	T	615	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4702	-4703	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4702	-4703	T	615	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4703	-4704	S	1308	QPN	ZG	0.00	527.25	0.36	527.25



## Relazione di calcolo

13003	-4703	-4704	T	615	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4704	-4705	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4704	-4705	T	615	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4705	-4706	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4705	-4706	T	615	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4706	-4707	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4706	-4707	T	615	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4707	1316	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4707	1316	T	615	QPN	ZG	0.00	900.00	0.36	900.00	13003	1316	-4708	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	1316	-4708	T	616	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4708	-4709	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4708	-4709	T	616	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4709	-4710	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4709	-4710	T	616	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4710	-4711	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4710	-4711	T	616	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4711	-4712	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4711	-4712	T	616	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4712	-4713	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4712	-4713	T	616	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4713	-4714	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4713	-4714	T	616	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4714	-4715	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4714	-4715	T	616	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4715	1317	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4715	1317	T	616	QPN	ZG	0.00	900.00	0.36	900.00	13003	1317	-4716	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	1317	-4716	T	617	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4716	-4717	S	1308	QPN	ZG	0.00	527.25	0.29	527.25
13003	-4716	-4717	T	617	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4716	-4717	S	1308	QPN	ZG	0.29	358.15	0.36	358.15
13003	-4717	-4718	S	1308	QPN	ZG	0.00	358.15	0.36	358.15	13003	-4717	-4718	T	617	QPN	ZG	0.00	900.00	0.36	900.00
13003	-4718	-4719	S	1308	QPN	ZG	0.00	358.15	0.36	358.15	13003	-4718	-4719	T	617	QPN	ZG	0.00	900.00	0.36	900.00
13003	-4719	-4720	S	1308	QPN	ZG	0.00	358.15	0.36	358.15	13003	-4719	-4720	T	617	QPN	ZG	0.00	900.00	0.36	900.00
13003	-4720	-4721	S	1308	QPN	ZG	0.00	358.15	0.36	358.15	13003	-4720	-4721	T	617	QPN	ZG	0.00	900.00	0.36	900.00
13003	-4721	-4722	S	1308	QPN	ZG	0.00	358.15	0.06	358.15	13003	-4721	-4722	T	617	QPN	ZG	0.00	900.00	0.36	900.00
13003	-4721	-4722	S	1308	QPN	ZG	0.06	527.25	0.36	527.25	13003	-4722	1318	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4722	1318	T	617	QPN	ZG	0.00	900.00	0.36	900.00	13003	1318	-4723	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	1318	-4723	T	618	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4723	-4724	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4723	-4724	T	618	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4724	-4725	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4724	-4725	T	618	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4725	-4726	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4725	-4726	T	618	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4726	-4727	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4726	-4727	T	618	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4727	-4728	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4727	-4728	T	618	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4728	-4729	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4728	-4729	T	618	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4729	-4730	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4729	-4730	T	618	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4730	1319	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4730	1319	T	618	QPN	ZG	0.00	900.00	0.36	900.00	13003	1319	-4731	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	1319	-4731	T	619	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4731	-4732	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4731	-4732	T	619	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4732	-4733	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4732	-4733	T	619	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4733	-4734	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4733	-4734	T	619	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4734	-4735	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4734	-4735	T	619	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4735	-4736	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4735	-4736	T	619	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4736	-4737	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4736	-4737	T	619	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4737	-4738	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4737	-4738	T	619	QPN	ZG	0.00	900.00	0.36	900.00	13003	-4738	1320	S	1308	QPN	ZG	0.00	527.25	0.36	527.25
13003	-4738	1320	T	619	QPN	ZG	0.00	900.00	0.36	900.00	13009	1341	1342	S	1306	QPN	ZG	0.00	491.15	3.25	491.15
13009	1341	1342	T	626	QPN	ZG	0.00	900.00	3.25	900.00	13009	1342	1343	S	1306	QPN	ZG	0.00	491.15	3.25	491.15
13009	1342	1343	T	627	QPN	ZG	0.00	900.00	3.25	900.00	13009	1343	1344	S	1306	QPN	ZG	0.00	491.15	3.20	491.15
13009	1343	1344	T	628	QPN	ZG	0.00	900.00	3.20	900.00	13009	1344	1345	T	1129	QPN	ZG	0.00	450.00	3.00	450.00
13009	1345	1346	S	1303	QPN	ZG	0.00	491.15	3.18	491.15	13009	1345	1346	T	630	QPN	ZG	0.00	900.00	3.18	900.00
13009	1346	1347	S	1303	QPN	ZG	0.00	491.15	3.25	491.15	13009	1346	1347	T	631	QPN	ZG	0.00	900.00	3.25	900.00
13009	1347	1348	S	1304	QPN	ZG	0.00	491.15	3.25	491.15	13009	1347	1348	T	632	QPN	ZG	0.00	900.00	3.25	900.00
13009	1348	1349	S	1304	QPN	ZG	0.00	491.15	3.25	491.15	13009	1348	1349	T	633	QPN	ZG	0.00	900.00	3.25	900.00
13009	1349	1350	S	1304	QPN	ZG	0.00	491.15	3.25	491.15	13009	1349	1350	T	634	QPN	ZG	0.00	900.00	3.25	900.00
13009	1350	1351	S	1304	QPN	ZG	0.00	491.15	3.25	491.15	13009	1350	1351	T	635	QPN	ZG	0.00	900.00	3.25	900.00
13009	1351	1352	T	1136	QPN	ZG	0.00	450.00	2.90	450.00	13009	1352	1353	S	1307	QPN	ZG	0.00	491.15	3.23	491.15
13009	1352	1353	T	637	QPN	ZG	0.00	900.00	3.23	900.00	13009	1353	1354	S	1307	QPN	ZG	0.00	491.15	3.23	491.15
13009	1353	1354	T	638	QPN	ZG	0.00	900.00	3.23	900.00	13024	1389	-4768	--	M	ZG	0.00	600.00	0.75	600.00	
13027	1392	-4772	--	M	ZG	0.00	600.00	0.75	600.00	13035	1393	-4773	--	M	ZG	0.00	600.00	0.75	600.00		



## Relazione di calcolo

13041	1396	-4777	-	--	M	ZG	0.00	600.00	0.75	600.00	13043	1334	1320	T	647	QPN	ZG	0.00	900.00	5.55	900.00
13043	1354	1334	T	648	QPN	ZG	0.00	900.00	5.17	900.00	15003	1507	1508	S	1505	QPN	ZG	0.00	527.25	3.25	527.25
15003	1507	1508	T	707	QPN	ZG	0.00	900.00	3.25	900.00	15003	1508	-5428	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	1508	-5428	T	708	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5428	-5429	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5428	-5429	T	708	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5429	-5430	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5429	-5430	T	708	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5430	-5431	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5430	-5431	T	708	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5431	-5432	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5431	-5432	T	708	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5432	-5433	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5432	-5433	T	708	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5433	-5434	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5433	-5434	T	708	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5434	-5435	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5434	-5435	T	708	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5435	1509	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5435	1509	T	708	QPN	ZG	0.00	900.00	0.36	900.00	15003	1509	-5436	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	1509	-5436	T	709	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5436	-5437	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5436	-5437	T	709	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5437	-5438	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5437	-5438	T	709	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5438	-5439	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5438	-5439	T	709	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5439	-5440	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5439	-5440	T	709	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5440	-5441	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5440	-5441	T	709	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5441	-5442	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5441	-5442	T	709	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5442	1510	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5442	1510	T	709	QPN	ZG	0.00	900.00	0.40	900.00	15003	1510	-5443	S	1505	QPN	ZG	0.00	527.25	0.38	527.25
15003	1510	-5443	T	710	QPN	ZG	0.00	900.00	0.38	900.00	15003	-5443	-5444	S	1505	QPN	ZG	0.00	527.25	0.33	527.25
15003	-5443	-5444	T	710	QPN	ZG	0.00	900.00	0.38	900.00	15003	-5443	-5444	S	1505	QPN	ZG	0.33	358.15	0.38	358.15
15003	-5444	-5445	S	1505	QPN	ZG	0.00	358.15	0.38	358.15	15003	-5444	-5445	T	710	QPN	ZG	0.00	900.00	0.38	900.00
15003	-5445	-5446	S	1505	QPN	ZG	0.00	358.15	0.38	358.15	15003	-5445	-5446	T	710	QPN	ZG	0.00	900.00	0.38	900.00
15003	-5446	-5447	S	1505	QPN	ZG	0.00	358.15	0.38	358.15	15003	-5446	-5447	T	710	QPN	ZG	0.00	900.00	0.38	900.00
15003	-5447	-5448	S	1505	QPN	ZG	0.00	358.15	0.38	358.15	15003	-5447	-5448	T	710	QPN	ZG	0.00	900.00	0.38	900.00
15003	-5448	-5449	S	1505	QPN	ZG	0.00	358.15	0.03	358.15	15003	-5448	-5449	T	710	QPN	ZG	0.00	900.00	0.38	900.00
15003	-5448	-5449	S	1505	QPN	ZG	0.03	527.25	0.38	527.25	15003	-5449	1511	S	1505	QPN	ZG	0.00	527.25	0.38	527.25
15003	-5449	1511	T	710	QPN	ZG	0.00	900.00	0.38	900.00	15003	1511	-5450	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	1511	-5450	T	711	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5450	-5451	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5450	-5451	T	711	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5451	-5452	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5451	-5452	T	711	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5452	-5453	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5452	-5453	T	711	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5453	-5454	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5453	-5454	T	711	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5454	-5455	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5454	-5455	T	711	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5455	-5456	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5455	-5456	T	711	QPN	ZG	0.00	900.00	0.40	900.00	15003	-5456	1512	S	1505	QPN	ZG	0.00	527.25	0.40	527.25
15003	-5456	1512	T	711	QPN	ZG	0.00	900.00	0.40	900.00	15003	1512	-5457	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	1512	-5457	T	712	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5457	-5458	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5457	-5458	T	712	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5458	-5459	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5458	-5459	T	712	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5459	-5460	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5459	-5460	T	712	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5460	-5461	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5460	-5461	T	712	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5461	-5462	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5461	-5462	T	712	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5462	-5463	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5462	-5463	T	712	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5463	-5464	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5463	-5464	T	712	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5464	1513	S	1505	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5464	1513	T	712	QPN	ZG	0.00	900.00	0.36	900.00	15003	1513	1514	S	1508	QPN	ZG	0.00	527.25	3.25	527.25
15003	1513	1514	T	713	QPN	ZG	0.00	900.00	3.25	900.00	15003	1514	1515	S	1508	QPN	ZG	0.00	527.25	3.25	527.25
15003	1514	1515	T	714	QPN	ZG	0.00	900.00	3.25	900.00	15003	1515	-5465	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	1515	-5465	T	715	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5465	-5466	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5465	-5466	T	715	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5466	-5467	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5466	-5467	T	715	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5467	-5468	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5467	-5468	T	715	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5468	-5469	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5468	-5469	T	715	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5469	-5470	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5469	-5470	T	715	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5470	-5471	S	1508	QPN	ZG	0.00	527.25	0.36	527.25



## Relazione di calcolo

15003	-5470	-5471	T	715	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5471	-5472	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5471	-5472	T	715	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5472	1516	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5472	1516	T	715	QPN	ZG	0.00	900.00	0.36	900.00	15003	1516	-5473	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	1516	-5473	T	716	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5473	-5474	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5473	-5474	T	716	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5474	-5475	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5474	-5475	T	716	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5475	-5476	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5475	-5476	T	716	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5476	-5477	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5476	-5477	T	716	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5477	-5478	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5477	-5478	T	716	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5478	-5479	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5478	-5479	T	716	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5479	-5480	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5479	-5480	T	716	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5480	1517	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5480	1517	T	716	QPN	ZG	0.00	900.00	0.36	900.00	15003	1517	-5481	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	1517	-5481	T	717	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5481	-5482	S	1508	QPN	ZG	0.00	527.25	0.29	527.25
15003	-5481	-5482	T	717	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5481	-5482	S	1508	QPN	ZG	0.29	358.15	0.36	358.15
15003	-5482	-5483	S	1508	QPN	ZG	0.00	358.15	0.36	358.15	15003	-5482	-5483	T	717	QPN	ZG	0.00	900.00	0.36	900.00
15003	-5483	-5484	S	1508	QPN	ZG	0.00	358.15	0.36	358.15	15003	-5483	-5484	T	717	QPN	ZG	0.00	900.00	0.36	900.00
15003	-5484	-5485	S	1508	QPN	ZG	0.00	358.15	0.36	358.15	15003	-5484	-5485	T	717	QPN	ZG	0.00	900.00	0.36	900.00
15003	-5485	-5486	S	1508	QPN	ZG	0.00	358.15	0.36	358.15	15003	-5485	-5486	T	717	QPN	ZG	0.00	900.00	0.36	900.00
15003	-5486	-5487	S	1508	QPN	ZG	0.00	358.15	0.06	358.15	15003	-5486	-5487	T	717	QPN	ZG	0.00	900.00	0.36	900.00
15003	-5486	-5487	S	1508	QPN	ZG	0.06	527.25	0.36	527.25	15003	-5487	1518	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5487	1518	T	717	QPN	ZG	0.00	900.00	0.36	900.00	15003	1518	-5488	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	1518	-5488	T	718	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5488	-5489	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5488	-5489	T	718	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5489	-5490	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5489	-5490	T	718	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5490	-5491	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5490	-5491	T	718	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5491	-5492	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5491	-5492	T	718	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5492	-5493	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5492	-5493	T	718	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5493	-5494	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5493	-5494	T	718	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5494	-5495	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5494	-5495	T	718	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5495	1519	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5495	1519	T	718	QPN	ZG	0.00	900.00	0.36	900.00	15003	1519	-5496	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	1519	-5496	T	719	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5496	-5497	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5496	-5497	T	719	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5497	-5498	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5497	-5498	T	719	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5498	-5499	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5498	-5499	T	719	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5499	-5500	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5499	-5500	T	719	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5500	-5501	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5500	-5501	T	719	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5501	-5502	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5501	-5502	T	719	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5502	-5503	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5502	-5503	T	719	QPN	ZG	0.00	900.00	0.36	900.00	15003	-5503	1520	S	1508	QPN	ZG	0.00	527.25	0.36	527.25
15003	-5503	1520	T	719	QPN	ZG	0.00	900.00	0.36	900.00	15009	1541	1542	S	1506	QPN	ZG	0.00	491.15	3.25	491.15
15009	1541	1542	T	726	QPN	ZG	0.00	900.00	3.25	900.00	15009	1542	1543	S	1506	QPN	ZG	0.00	491.15	3.25	491.15
15009	1542	1543	T	727	QPN	ZG	0.00	900.00	3.25	900.00	15009	1543	1544	S	1506	QPN	ZG	0.00	491.15	3.20	491.15
15009	1543	1544	T	728	QPN	ZG	0.00	900.00	3.20	900.00	15009	1544	1545	T	1329	QPN	ZG	0.00	450.00	3.00	450.00
15009	1545	1546	S	1503	QPN	ZG	0.00	491.15	3.18	491.15	15009	1545	1546	T	730	QPN	ZG	0.00	900.00	3.18	900.00
15009	1546	1547	S	1503	QPN	ZG	0.00	491.15	3.25	491.15	15009	1546	1547	T	731	QPN	ZG	0.00	900.00	3.25	900.00
15009	1547	1548	S	1504	QPN	ZG	0.00	491.15	3.25	491.15	15009	1547	1548	T	732	QPN	ZG	0.00	900.00	3.25	900.00
15009	1548	1549	S	1504	QPN	ZG	0.00	491.15	3.25	491.15	15009	1548	1549	T	733	QPN	ZG	0.00	900.00	3.25	900.00
15009	1549	1550	S	1504	QPN	ZG	0.00	491.15	3.25	491.15	15009	1549	1550	T	734	QPN	ZG	0.00	900.00	3.25	900.00
15009	1550	1551	S	1504	QPN	ZG	0.00	491.15	3.25	491.15	15009	1550	1551	T	735	QPN	ZG	0.00	900.00	3.25	900.00
15009	1551	1552	T	1336	QPN	ZG	0.00	450.00	2.90	450.00	15009	1552	1553	S	1507	QPN	ZG	0.00	491.15	3.23	491.15
15009	1552	1553	T	737	QPN	ZG	0.00	900.00	3.23	900.00	15009	1553	1554	S	1507	QPN	ZG	0.00	491.15	3.23	491.15
15009	1553	1554	T	738	QPN	ZG	0.00	900.00	3.23	900.00	15024	1589	-5534	-	--	M	ZG	0.00	600.00	0.75	600.00
15027	1592	-5538	-	--	M	ZG	0.00	600.00	0.75	600.00	15035	1593	-5539	-	--	M	ZG	0.00	600.00	0.75	600.00
15041	1596	-5543	-	--	M	ZG	0.00	600.00	0.75	600.00	15043	1534	1520	T	747	QPN	ZG	0.00	900.00	5.55	900.00
15043	1554	1534	T	748	QPN	ZG	0.00	900.00	5.17	900.00	17003	1707	1708	S	1705	QPN	ZG	0.00	527.25	3.25	527.25



## Relazione di calcolo

17003	1707	1708	T	807	QPN	ZG	0.00	900.00	3.25	900.00	17003	1708	-6194	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	1708	-6194	T	808	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6194	-6195	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6194	-6195	T	808	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6195	-6196	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6195	-6196	T	808	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6196	-6197	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6196	-6197	T	808	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6197	-6198	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6197	-6198	T	808	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6198	-6199	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6198	-6199	T	808	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6199	-6200	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6199	-6200	T	808	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6200	-6201	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6200	-6201	T	808	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6201	1709	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6201	1709	T	808	QPN	ZG	0.00	900.00	0.36	900.00	17003	1709	-6202	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	1709	-6202	T	809	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6202	-6203	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6202	-6203	T	809	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6203	-6204	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6203	-6204	T	809	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6204	-6205	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6204	-6205	T	809	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6205	-6206	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6205	-6206	T	809	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6206	-6207	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6206	-6207	T	809	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6207	-6208	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6207	-6208	T	809	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6208	1710	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6208	1710	T	809	QPN	ZG	0.00	900.00	0.40	900.00	17003	1710	-6209	S	1705	QPN	ZG	0.00	527.25	0.38	527.25
17003	1710	-6209	T	810	QPN	ZG	0.00	900.00	0.38	900.00	17003	-6209	-6210	S	1705	QPN	ZG	0.00	527.25	0.33	527.25
17003	-6209	-6210	T	810	QPN	ZG	0.00	900.00	0.38	900.00	17003	-6209	-6210	S	1705	QPN	ZG	0.33	358.15	0.38	358.15
17003	-6210	-6211	S	1705	QPN	ZG	0.00	358.15	0.38	358.15	17003	-6210	-6211	T	810	QPN	ZG	0.00	900.00	0.38	900.00
17003	-6211	-6212	S	1705	QPN	ZG	0.00	358.15	0.38	358.15	17003	-6211	-6212	T	810	QPN	ZG	0.00	900.00	0.38	900.00
17003	-6212	-6213	S	1705	QPN	ZG	0.00	358.15	0.38	358.15	17003	-6212	-6213	T	810	QPN	ZG	0.00	900.00	0.38	900.00
17003	-6213	-6214	S	1705	QPN	ZG	0.00	358.15	0.38	358.15	17003	-6213	-6214	T	810	QPN	ZG	0.00	900.00	0.38	900.00
17003	-6214	-6215	S	1705	QPN	ZG	0.00	358.15	0.03	358.15	17003	-6214	-6215	T	810	QPN	ZG	0.00	900.00	0.38	900.00
17003	-6214	-6215	S	1705	QPN	ZG	0.03	527.25	0.38	527.25	17003	-6215	1711	S	1705	QPN	ZG	0.00	527.25	0.38	527.25
17003	-6215	1711	T	810	QPN	ZG	0.00	900.00	0.38	900.00	17003	1711	-6216	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	1711	-6216	T	811	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6216	-6217	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6216	-6217	T	811	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6217	-6218	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6217	-6218	T	811	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6218	-6219	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6218	-6219	T	811	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6219	-6220	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6219	-6220	T	811	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6220	-6221	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6220	-6221	T	811	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6221	-6222	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6221	-6222	T	811	QPN	ZG	0.00	900.00	0.40	900.00	17003	-6222	1712	S	1705	QPN	ZG	0.00	527.25	0.40	527.25
17003	-6222	1712	T	811	QPN	ZG	0.00	900.00	0.40	900.00	17003	1712	-6223	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	1712	-6223	T	812	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6223	-6224	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6223	-6224	T	812	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6224	-6225	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6224	-6225	T	812	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6225	-6226	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6225	-6226	T	812	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6226	-6227	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6226	-6227	T	812	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6227	-6228	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6227	-6228	T	812	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6228	-6229	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6228	-6229	T	812	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6229	-6230	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6229	-6230	T	812	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6230	1713	S	1705	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6230	1713	T	812	QPN	ZG	0.00	900.00	0.36	900.00	17003	1713	1714	S	1708	QPN	ZG	0.00	527.25	3.25	527.25
17003	1713	1714	T	813	QPN	ZG	0.00	900.00	3.25	900.00	17003	1714	1715	S	1708	QPN	ZG	0.00	527.25	3.25	527.25
17003	1714	1715	T	814	QPN	ZG	0.00	900.00	3.25	900.00	17003	1715	-6231	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	1715	-6231	T	815	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6231	-6232	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6231	-6232	T	815	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6232	-6233	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6232	-6233	T	815	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6233	-6234	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6233	-6234	T	815	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6234	-6235	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6234	-6235	T	815	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6235	-6236	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6235	-6236	T	815	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6236	-6237	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6236	-6237	T	815	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6237	-6238	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6237	-6238	T	815	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6238	1716	S	1708	QPN	ZG	0.00	527.25	0.36	527.25



Relazione di calcolo

17003	-6238	1716	T	815	QPN	ZG	0.00	900.00	0.36	900.00	17003	1716	-6239	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	1716	-6239	T	816	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6239	-6240	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6239	-6240	T	816	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6240	-6241	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6240	-6241	T	816	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6241	-6242	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6241	-6242	T	816	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6242	-6243	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6242	-6243	T	816	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6243	-6244	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6243	-6244	T	816	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6244	-6245	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6244	-6245	T	816	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6245	-6246	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6245	-6246	T	816	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6246	1717	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6246	1717	T	816	QPN	ZG	0.00	900.00	0.36	900.00	17003	1717	-6247	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	1717	-6247	T	817	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6247	-6248	S	1708	QPN	ZG	0.00	527.25	0.29	527.25
17003	-6247	-6248	T	817	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6247	-6248	S	1708	QPN	ZG	0.29	358.15	0.36	358.15
17003	-6248	-6249	S	1708	QPN	ZG	0.00	358.15	0.36	358.15	17003	-6248	-6249	T	817	QPN	ZG	0.00	900.00	0.36	900.00
17003	-6249	-6250	S	1708	QPN	ZG	0.00	358.15	0.36	358.15	17003	-6249	-6250	T	817	QPN	ZG	0.00	900.00	0.36	900.00
17003	-6250	-6251	S	1708	QPN	ZG	0.00	358.15	0.36	358.15	17003	-6250	-6251	T	817	QPN	ZG	0.00	900.00	0.36	900.00
17003	-6251	-6252	S	1708	QPN	ZG	0.00	358.15	0.36	358.15	17003	-6251	-6252	T	817	QPN	ZG	0.00	900.00	0.36	900.00
17003	-6252	-6253	S	1708	QPN	ZG	0.00	358.15	0.06	358.15	17003	-6252	-6253	T	817	QPN	ZG	0.00	900.00	0.36	900.00
17003	-6252	-6253	S	1708	QPN	ZG	0.06	527.25	0.36	527.25	17003	-6253	1718	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6253	1718	T	817	QPN	ZG	0.00	900.00	0.36	900.00	17003	1718	-6254	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	1718	-6254	T	818	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6254	-6255	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6254	-6255	T	818	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6255	-6256	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6255	-6256	T	818	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6256	-6257	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6256	-6257	T	818	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6257	-6258	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6257	-6258	T	818	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6258	-6259	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6258	-6259	T	818	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6259	-6260	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6259	-6260	T	818	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6260	-6261	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6260	-6261	T	818	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6261	1719	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6261	1719	T	818	QPN	ZG	0.00	900.00	0.36	900.00	17003	1719	-6262	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	1719	-6262	T	819	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6262	-6263	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6262	-6263	T	819	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6263	-6264	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6263	-6264	T	819	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6264	-6265	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6264	-6265	T	819	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6265	-6266	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6265	-6266	T	819	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6266	-6267	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6266	-6267	T	819	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6267	-6268	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6267	-6268	T	819	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6268	-6269	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6268	-6269	T	819	QPN	ZG	0.00	900.00	0.36	900.00	17003	-6269	1720	S	1708	QPN	ZG	0.00	527.25	0.36	527.25
17003	-6269	1720	T	819	QPN	ZG	0.00	900.00	0.36	900.00	17007	1791	1792	-	--	M	ZG	0.00	600.00	0.72	600.00
17007	1791	1792	S	1705	QPN	ZG	0.00	527.25	0.72	527.25	17009	1741	1742	S	1706	QPN	ZG	0.00	491.15	3.25	491.15
17009	1741	1742	T	826	QPN	ZG	0.00	900.00	3.25	900.00	17009	1742	1743	S	1706	QPN	ZG	0.00	491.15	3.25	491.15
17009	1742	1743	T	827	QPN	ZG	0.00	900.00	3.25	900.00	17009	1743	1744	S	1706	QPN	ZG	0.00	491.15	3.20	491.15
17009	1743	1744	T	828	QPN	ZG	0.00	900.00	3.20	900.00	17009	1744	1745	T	1529	QPN	ZG	0.00	450.00	3.00	450.00
17009	1745	1746	S	1703	QPN	ZG	0.00	491.15	3.18	491.15	17009	1745	1746	T	830	QPN	ZG	0.00	900.00	3.18	900.00
17009	1746	1747	S	1703	QPN	ZG	0.00	491.15	3.25	491.15	17009	1746	1747	T	831	QPN	ZG	0.00	900.00	3.25	900.00
17009	1747	1748	S	1704	QPN	ZG	0.00	491.15	3.25	491.15	17009	1747	1748	T	832	QPN	ZG	0.00	900.00	3.25	900.00
17009	1748	1749	S	1704	QPN	ZG	0.00	491.15	3.25	491.15	17009	1748	1749	T	833	QPN	ZG	0.00	900.00	3.25	900.00
17009	1749	1750	S	1704	QPN	ZG	0.00	491.15	3.25	491.15	17009	1749	1750	T	834	QPN	ZG	0.00	900.00	3.25	900.00
17009	1750	1751	S	1704	QPN	ZG	0.00	491.15	3.25	491.15	17009	1750	1751	T	835	QPN	ZG	0.00	900.00	3.25	900.00
17009	1751	1752	T	1536	QPN	ZG	0.00	450.00	2.90	450.00	17009	1752	1753	S	1707	QPN	ZG	0.00	491.15	3.23	491.15
17009	1752	1753	T	837	QPN	ZG	0.00	900.00	3.23	900.00	17009	1753	1754	S	1707	QPN	ZG	0.00	491.15	3.23	491.15
17009	1753	1754	T	838	QPN	ZG	0.00	900.00	3.23	900.00	17024	1789	-6299	-	--	M	ZG	0.00	600.00	0.75	600.00
17027	1792	-6303	-	--	M	ZG	0.00	600.00	0.75	600.00	17035	1793	-6304	-	--	M	ZG	0.00	600.00	0.75	600.00
17041	1796	-6308	-	--	M	ZG	0.00	600.00	0.75	600.00	17043	1734	1720	T	847	QPN	ZG	0.00	900.00	5.55	900.00
17043	1754	1734	T	848	QPN	ZG	0.00	900.00	5.17	900.00	18052	-6391	1845	T	1629	QPN	ZG	0.00	450.00	1.50	450.00
19003	1907	1908	S	1905	QPN	ZG	0.00	1110.00	3.25	1110.00	19003	1908	-6959	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00



Relazione di calcolo

19003	-6959	-6960	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6961	-6962	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6963	-6964	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6965	-6966	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	1909	-6967	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6968	-6969	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6970	-6971	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6972	-6973	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	1910	-6974	S	1905	QPN	ZG	0.00	1110.00	0.38	1110.00
19003	-6974	-6975	S	1905	QPN	ZG	0.33	754.00	0.38	754.00
19003	-6976	-6977	S	1905	QPN	ZG	0.00	754.00	0.38	754.00
19003	-6978	-6979	S	1905	QPN	ZG	0.00	754.00	0.38	754.00
19003	-6979	-6980	S	1905	QPN	ZG	0.03	1110.00	0.38	1110.00
19003	1911	-6981	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6982	-6983	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6984	-6985	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6986	-6987	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	1912	-6988	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6989	-6990	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6991	-6992	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6993	-6994	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6995	1913	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	1914	1915	S	1904	QPN	ZG	0.00	1110.00	3.25	1110.00
19003	-6996	-6997	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6998	-6999	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7000	-7001	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7002	-7003	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	1916	-7004	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7005	-7006	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7007	-7008	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7009	-7010	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7011	1917	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7012	-7013	S	1904	QPN	ZG	0.00	1110.00	0.29	1110.00
19003	-7013	-7014	S	1904	QPN	ZG	0.00	754.00	0.36	754.00
19003	-7015	-7016	S	1904	QPN	ZG	0.00	754.00	0.36	754.00
19003	-7017	-7018	S	1904	QPN	ZG	0.00	754.00	0.06	754.00
19003	-7018	1918	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7019	-7020	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7021	-7022	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7023	-7024	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7025	-7026	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	1919	-7027	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7028	-7029	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7030	-7031	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7032	-7033	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7034	1920	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19009	1942	1943	S	1906	QPN	ZG	0.00	1034.00	3.25	1034.00
19009	1945	1946	S	1903	QPN	ZG	0.00	1034.00	3.18	1034.00
19009	1947	1948	S	1908	QPN	ZG	0.00	1034.00	3.25	1034.00
19009	1949	1950	S	1908	QPN	ZG	0.00	1034.00	3.25	1034.00
19009	1952	1953	S	1907	QPN	ZG	0.00	1034.00	3.23	1034.00
19024	1989	-7064	--	M	ZG	0.00	600.00	0.75	600.00	
19035	1993	-7069	--	M	ZG	0.00	600.00	0.75	600.00	
22020	7	25	S	2209	QPN	ZG	0.00	325.00	5.55	325.00
19003	-6960	-6961	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6962	-6963	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6964	-6965	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6966	1909	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6967	-6968	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6969	-6970	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6971	-6972	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6973	1910	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6974	-6975	S	1905	QPN	ZG	0.00	1110.00	0.33	1110.00
19003	-6975	-6976	S	1905	QPN	ZG	0.00	754.00	0.38	754.00
19003	-6977	-6978	S	1905	QPN	ZG	0.00	754.00	0.38	754.00
19003	-6979	-6980	S	1905	QPN	ZG	0.00	754.00	0.03	754.00
19003	-6980	1911	S	1905	QPN	ZG	0.00	1110.00	0.38	1110.00
19003	-6981	-6982	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6983	-6984	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6985	-6986	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6987	1912	S	1905	QPN	ZG	0.00	1110.00	0.40	1110.00
19003	-6988	-6989	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6990	-6991	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6992	-6993	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6994	-6995	S	1905	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	1913	1914	S	1904	QPN	ZG	0.00	1110.00	3.25	1110.00
19003	1915	-6996	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6997	-6998	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-6999	-7000	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7001	-7002	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7003	1916	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7004	-7005	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7006	-7007	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7008	-7009	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7010	-7011	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	1917	-7012	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7012	-7013	S	1904	QPN	ZG	0.29	754.00	0.36	754.00
19003	-7014	-7015	S	1904	QPN	ZG	0.00	754.00	0.36	754.00
19003	-7016	-7017	S	1904	QPN	ZG	0.00	754.00	0.36	754.00
19003	-7017	-7018	S	1904	QPN	ZG	0.06	1110.00	0.36	1110.00
19003	1918	-7019	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7020	-7021	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7022	-7023	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7024	-7025	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7026	1919	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7027	-7028	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7029	-7030	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7031	-7032	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19003	-7033	-7034	S	1904	QPN	ZG	0.00	1110.00	0.36	1110.00
19009	1941	1942	S	1906	QPN	ZG	0.00	1034.00	3.25	1034.00
19009	1943	1944	S	1906	QPN	ZG	0.00	1034.00	3.20	1034.00
19009	1946	1947	S	1903	QPN	ZG	0.00	1034.00	3.25	1034.00
19009	1948	1949	S	1908	QPN	ZG	0.00	1034.00	3.25	1034.00
19009	1950	1951	S	1908	QPN	ZG	0.00	1034.00	3.25	1034.00
19009	1953	1954	S	1907	QPN	ZG	0.00	1034.00	3.23	1034.00
19027	1992	-7068	--	M	ZG	0.00	600.00	0.75	600.00	
19041	1996	-7073	--	M	ZG	0.00	600.00	0.75	600.00	
22020	25	41	S	2208	QPN	ZG	0.00	325.00	5.17	325.00



Relazione di calcolo

22021	8	26	S	2206	QPN	ZG	0.00	325.00	5.55	325.00
22021	26	42	S	2207	QPN	ZG	0.00	325.00	5.17	325.00
22022	9	27	S	2206	QPN	ZG	0.00	325.00	5.55	325.00
22022	27	43	S	2207	QPN	ZG	0.00	325.00	5.17	325.00
22024	10	59	S	2220	QPN	ZG	0.00	320.00	2.66	320.00
22024	59	-105	S	2220	QPN	ZG	0.00	320.00	1.11	320.00
22024	-105	-123	S	2220	QPN	ZG	0.00	320.00	0.59	320.00
22024	-123	-140	S	2220	QPN	ZG	0.00	320.00	0.59	320.00
22024	-140	-157	S	2220	QPN	ZG	0.00	320.00	0.59	320.00
22024	-157	-178	S	2221	QPN	ZG	0.00	320.00	1.11	320.00
22024	-178	44	S	2221	QPN	ZG	0.00	320.00	4.06	320.00
22027	11	60	S	2223	QPN	ZG	0.00	300.00	2.66	300.00
22027	60	-109	S	2223	QPN	ZG	0.00	300.00	1.11	300.00
22027	-109	-127	S	2223	QPN	ZG	0.00	300.00	0.59	300.00
22027	-127	-144	S	2223	QPN	ZG	0.00	300.00	0.59	300.00
22027	-144	-161	S	2223	QPN	ZG	0.00	300.00	0.59	300.00
22027	-161	-182	S	2222	QPN	ZG	0.00	300.00	1.11	300.00
22027	-182	45	S	2222	QPN	ZG	0.00	300.00	4.06	300.00
22029	12	28	S	2204	QPN	ZG	0.00	325.00	5.55	325.00
22029	28	46	S	2205	QPN	ZG	0.00	325.00	5.17	325.00
22030	13	29	S	2202	QPN	ZG	0.00	325.00	5.55	325.00
22030	29	47	S	2203	QPN	ZG	0.00	325.00	5.17	325.00
22042	19	133	S	2227	QPN	ZG	0.00	323.00	5.55	323.00
22043	20	34	S	2228	QPN	ZG	0.00	323.00	5.55	323.00
22136	130	169	S	2230	QPN	ZG	0.00	517.00	3.25	517.00
22136	169	170	S	2230	QPN	ZG	0.00	517.00	3.25	517.00
22136	170	-163	S	2230	QPN	ZG	0.00	517.00	3.90	517.00
22179	-165	-166	S	2230	QPN	ZG	0.00	517.00	0.34	517.00
22179	-166	-167	S	2230	QPN	ZG	0.00	517.00	0.34	517.00
30008	325	326	--	M	ZG	0.00	600.00	3.25	600.00	
30008	325	326	S	305	QPN	ZG	0.00	491.15	3.25	491.15
30008	326	327	S	304	QPN	ZG	0.00	527.25	3.25	527.25
30008	327	389	--	M	ZG	0.00	600.00	3.20	600.00	
30008	327	389	S	305	QPN	ZG	0.00	491.15	3.20	491.15
30008	389	390	S	304	QPN	ZG	0.00	527.25	0.70	527.25
30010	391	392	S	304	QPN	ZG	0.00	527.25	0.72	527.25
30010	392	328	S	303	QPN	ZG	0.00	491.15	3.18	491.15
30010	328	329	--	M	ZG	0.00	600.00	3.25	600.00	
30010	328	329	S	304	QPN	ZG	0.00	527.25	3.25	527.25
30010	329	330	S	302	QPN	ZG	0.00	491.15	3.25	491.15
30010	330	331	--	M	ZG	0.00	600.00	3.25	600.00	
30010	330	331	S	307	QPN	ZG	0.00	527.25	3.25	527.25
30010	331	332	S	302	QPN	ZG	0.00	491.15	3.25	491.15
30010	332	393	--	M	ZG	0.00	600.00	3.25	600.00	
30010	332	393	S	307	QPN	ZG	0.00	527.25	3.25	527.25
30010	393	394	S	307	QPN	ZG	0.00	527.25	0.65	527.25
30012	395	396	S	307	QPN	ZG	0.00	527.25	0.67	527.25
30012	396	333	S	306	QPN	ZG	0.00	491.15	3.23	491.15
30012	333	334	--	M	ZG	0.00	600.00	3.23	600.00	
30012	333	334	S	307	QPN	ZG	0.00	527.25	3.23	527.25
50008	525	526	S	504	QPN	ZG	0.00	527.25	3.25	527.25
50008	526	527	--	M	ZG	0.00	600.00	3.25	600.00	
50008	526	527	S	505	QPN	ZG	0.00	491.15	3.25	491.15
50008	527	589	S	504	QPN	ZG	0.00	527.25	3.20	527.25
22021	8	26	S	2209	QPN	ZG	0.00	325.00	5.55	325.00
22021	26	42	S	2208	QPN	ZG	0.00	325.00	5.17	325.00
22022	9	27	S	2220	QPN	ZG	0.00	320.00	5.55	320.00
22022	27	43	S	2221	QPN	ZG	0.00	320.00	5.17	320.00
22024	10	59	S	2223	QPN	ZG	0.00	300.00	2.66	300.00
22024	59	-105	S	2223	QPN	ZG	0.00	300.00	1.11	300.00
22024	-105	-123	S	2223	QPN	ZG	0.00	300.00	0.59	300.00
22024	-123	-140	S	2223	QPN	ZG	0.00	300.00	0.59	300.00
22024	-140	-157	S	2223	QPN	ZG	0.00	300.00	0.59	300.00
22024	-157	-178	S	2222	QPN	ZG	0.00	300.00	1.11	300.00
22024	-178	44	S	2222	QPN	ZG	0.00	300.00	4.06	300.00
22027	11	60	S	2224	QPN	ZG	0.00	318.00	2.66	318.00
22027	60	-109	S	2224	QPN	ZG	0.00	318.00	1.11	318.00
22027	-109	-127	S	2224	QPN	ZG	0.00	318.00	0.59	318.00
22027	-127	-144	S	2224	QPN	ZG	0.00	318.00	0.59	318.00
22027	-144	-161	S	2224	QPN	ZG	0.00	318.00	0.59	318.00
22027	-161	-182	S	2225	QPN	ZG	0.00	318.00	1.11	318.00
22027	-182	45	S	2225	QPN	ZG	0.00	318.00	4.06	318.00
22029	12	28	S	2224	QPN	ZG	0.00	318.00	5.55	318.00
22029	28	46	S	2225	QPN	ZG	0.00	318.00	5.17	318.00
22030	13	29	S	2204	QPN	ZG	0.00	325.00	5.55	325.00
22030	29	47	S	2205	QPN	ZG	0.00	325.00	5.17	325.00
22042	19	133	S	2228	QPN	ZG	0.00	323.00	5.55	323.00
22043	34	54	S	2226	QPN	ZG	0.00	323.00	5.17	323.00
22136	130	169	S	2231	QPN	ZG	0.00	555.00	3.25	555.00
22136	169	170	S	2231	QPN	ZG	0.00	555.00	3.25	555.00
22136	170	-163	S	2231	QPN	ZG	0.00	555.00	3.90	555.00
22179	-165	-166	S	2231	QPN	ZG	0.00	555.00	0.34	555.00
22179	-166	-167	S	2231	QPN	ZG	0.00	555.00	0.34	555.00
30008	325	326	S	304	QPN	ZG	0.00	527.25	3.25	527.25
30008	326	327	--	M	ZG	0.00	600.00	3.25	600.00	
30008	326	327	S	305	QPN	ZG	0.00	491.15	3.25	491.15
30008	327	389	S	304	QPN	ZG	0.00	527.25	3.20	527.25
30008	389	390	--	M	ZG	0.00	600.00	0.70	600.00	
30010	391	392	--	M	ZG	0.00	600.00	0.72	600.00	
30010	392	328	--	M	ZG	0.00	600.00	3.18	600.00	
30010	392	328	S	304	QPN	ZG	0.00	527.25	3.18	527.25
30010	328	329	S	303	QPN	ZG	0.00	491.15	3.25	491.15
30010	329	330	--	M	ZG	0.00	600.00	3.25	600.00	
30010	329	330	S	307	QPN	ZG	0.00	527.25	3.25	527.25
30010	330	331	S	302	QPN	ZG	0.00	491.15	3.25	491.15
30010	331	332	--	M	ZG	0.00	600.00	3.25	600.00	
30010	331	332	S	307	QPN	ZG	0.00	527.25	3.25	527.25
30010	332	393	S	302	QPN	ZG	0.00	491.15	3.25	491.15
30010	393	394	--	M	ZG	0.00	600.00	0.65	600.00	
30012	395	396	--	M	ZG	0.00	600.00	0.67	600.00	
30012	396	333	--	M	ZG	0.00	600.00	3.23	600.00	
30012	396	333	S	307	QPN	ZG	0.00	527.25	3.23	527.25
30012	333	334	S	306	QPN	ZG	0.00	491.15	3.23	491.15
50008	525	526	--	M	ZG	0.00	600.00	3.25	600.00	
50008	525	526	S	505	QPN	ZG	0.00	491.15	3.25	491.15
50008	526	527	S	504	QPN	ZG	0.00	527.25	3.25	527.25
50008	527	589	--	M	ZG	0.00	600.00	3.20	600.00	
50008	527	589	S	505	QPN	ZG	0.00	491.15	3.20	491.15



Relazione di calcolo

50008	589	590	--	M	ZG	0.00	600.00	0.70	600.00	50008	589	590	S504	QPN	ZG	0.00	527.25	0.70	527.25
50010	591	592	--	M	ZG	0.00	600.00	0.72	600.00	50010	591	592	S504	QPN	ZG	0.00	527.25	0.72	527.25
50010	592	528	--	M	ZG	0.00	600.00	3.18	600.00	50010	592	528	S502	QPN	ZG	0.00	491.15	3.18	491.15
50010	592	528	S504	QPN	ZG	0.00	527.25	3.18	527.25	50010	528	529	--	M	ZG	0.00	600.00	3.25	600.00
50010	528	529	S502	QPN	ZG	0.00	491.15	3.25	491.15	50010	528	529	S504	QPN	ZG	0.00	527.25	3.25	527.25
50010	529	530	--	M	ZG	0.00	600.00	3.25	600.00	50010	529	530	S503	QPN	ZG	0.00	491.15	3.25	491.15
50010	529	530	S507	QPN	ZG	0.00	527.25	3.25	527.25	50010	530	531	--	M	ZG	0.00	600.00	3.25	600.00
50010	530	531	S503	QPN	ZG	0.00	491.15	3.25	491.15	50010	530	531	S507	QPN	ZG	0.00	527.25	3.25	527.25
50010	531	532	--	M	ZG	0.00	600.00	3.25	600.00	50010	531	532	S503	QPN	ZG	0.00	491.15	3.25	491.15
50010	531	532	S507	QPN	ZG	0.00	527.25	3.25	527.25	50010	532	593	--	M	ZG	0.00	600.00	3.25	600.00
50010	532	593	S503	QPN	ZG	0.00	491.15	3.25	491.15	50010	532	593	S507	QPN	ZG	0.00	527.25	3.25	527.25
50010	593	594	--	M	ZG	0.00	600.00	0.65	600.00	50010	593	594	S507	QPN	ZG	0.00	527.25	0.65	527.25
50012	595	596	--	M	ZG	0.00	600.00	0.67	600.00	50012	595	596	S507	QPN	ZG	0.00	527.25	0.67	527.25
50012	596	533	--	M	ZG	0.00	600.00	3.23	600.00	50012	596	533	S506	QPN	ZG	0.00	491.15	3.23	491.15
50012	596	533	S507	QPN	ZG	0.00	527.25	3.23	527.25	50012	533	534	--	M	ZG	0.00	600.00	3.23	600.00
50012	533	534	S506	QPN	ZG	0.00	491.15	3.23	491.15	50012	533	534	S507	QPN	ZG	0.00	527.25	3.23	527.25
70008	725	726	--	M	ZG	0.00	600.00	3.25	600.00	70008	725	726	S702	QPN	ZG	0.00	527.25	3.25	527.25
70008	725	726	S704	QPN	ZG	0.00	491.15	3.25	491.15	70008	726	727	--	M	ZG	0.00	600.00	3.25	600.00
70008	726	727	S702	QPN	ZG	0.00	527.25	3.25	527.25	70008	726	727	S704	QPN	ZG	0.00	491.15	3.25	491.15
70008	727	789	--	M	ZG	0.00	600.00	3.20	600.00	70008	727	789	S702	QPN	ZG	0.00	527.25	3.20	527.25
70008	727	789	S704	QPN	ZG	0.00	491.15	3.20	491.15	70008	789	790	--	M	ZG	0.00	600.00	0.70	600.00
70008	789	790	S702	QPN	ZG	0.00	527.25	0.70	527.25	70010	791	792	--	M	ZG	0.00	600.00	0.72	600.00
70010	791	792	S702	QPN	ZG	0.00	527.25	0.72	527.25	70010	792	728	--	M	ZG	0.00	600.00	3.18	600.00
70010	792	728	S702	QPN	ZG	0.00	527.25	3.18	527.25	70010	792	728	S703	QPN	ZG	0.00	491.15	3.18	491.15
70010	728	729	--	M	ZG	0.00	600.00	3.25	600.00	70010	728	729	S702	QPN	ZG	0.00	527.25	3.25	527.25
70010	728	729	S703	QPN	ZG	0.00	491.15	3.25	491.15	70010	729	730	--	M	ZG	0.00	600.00	3.25	600.00
70010	729	730	S706	QPN	ZG	0.00	527.25	3.25	527.25	70010	729	730	S707	QPN	ZG	0.00	491.15	3.25	491.15
70010	730	731	--	M	ZG	0.00	600.00	3.25	600.00	70010	730	731	S706	QPN	ZG	0.00	527.25	3.25	527.25
70010	730	731	S707	QPN	ZG	0.00	491.15	3.25	491.15	70010	731	732	--	M	ZG	0.00	600.00	3.25	600.00
70010	731	732	S706	QPN	ZG	0.00	527.25	3.25	527.25	70010	731	732	S707	QPN	ZG	0.00	491.15	3.25	491.15
70010	732	793	--	M	ZG	0.00	600.00	3.25	600.00	70010	732	793	S706	QPN	ZG	0.00	527.25	3.25	527.25
70010	732	793	S707	QPN	ZG	0.00	491.15	3.25	491.15	70010	793	794	--	M	ZG	0.00	600.00	0.65	600.00
70010	793	794	S706	QPN	ZG	0.00	527.25	0.65	527.25	70012	795	796	--	M	ZG	0.00	600.00	0.67	600.00
70012	795	796	S706	QPN	ZG	0.00	527.25	0.67	527.25	70012	796	733	--	M	ZG	0.00	600.00	3.23	600.00
70012	796	733	S705	QPN	ZG	0.00	491.15	3.23	491.15	70012	796	733	S706	QPN	ZG	0.00	527.25	3.23	527.25
70012	733	734	--	M	ZG	0.00	600.00	3.23	600.00	70012	733	734	S705	QPN	ZG	0.00	491.15	3.23	491.15
70012	733	734	S706	QPN	ZG	0.00	527.25	3.23	527.25	90008	925	926	--	M	ZG	0.00	600.00	3.25	600.00
90008	925	926	S904	QPN	ZG	0.00	527.25	3.25	527.25	90008	925	926	S905	QPN	ZG	0.00	491.15	3.25	491.15
90008	926	927	--	M	ZG	0.00	600.00	3.25	600.00	90008	926	927	S904	QPN	ZG	0.00	527.25	3.25	527.25
90008	926	927	S905	QPN	ZG	0.00	491.15	3.25	491.15	90008	927	989	--	M	ZG	0.00	600.00	3.20	600.00
90008	927	989	S904	QPN	ZG	0.00	527.25	3.20	527.25	90008	927	989	S905	QPN	ZG	0.00	491.15	3.20	491.15
90008	989	990	--	M	ZG	0.00	600.00	0.70	600.00	90008	989	990	S904	QPN	ZG	0.00	527.25	0.70	527.25
90010	991	992	--	M	ZG	0.00	600.00	0.72	600.00	90010	991	992	S904	QPN	ZG	0.00	527.25	0.72	527.25
90010	992	928	--	M	ZG	0.00	600.00	3.18	600.00	90010	992	928	S902	QPN	ZG	0.00	491.15	3.18	491.15
90010	992	928	S904	QPN	ZG	0.00	527.25	3.18	527.25	90010	928	929	--	M	ZG	0.00	600.00	3.25	600.00
90010	928	929	S902	QPN	ZG	0.00	491.15	3.25	491.15	90010	928	929	S904	QPN	ZG	0.00	527.25	3.25	527.25
90010	929	930	--	M	ZG	0.00	600.00	3.25	600.00	90010	929	930	S903	QPN	ZG	0.00	491.15	3.25	491.15
90010	929	930	S907	QPN	ZG	0.00	527.25	3.25	527.25	90010	930	931	--	M	ZG	0.00	600.00	3.25	600.00
90010	930	931	S903	QPN	ZG	0.00	491.15	3.25	491.15	90010	930	931	S907	QPN	ZG	0.00	527.25	3.25	527.25
90010	931	932	--	M	ZG	0.00	600.00	3.25	600.00	90010	931	932	S903	QPN	ZG	0.00	491.15	3.25	491.15
90010	931	932	S907	QPN	ZG	0.00	527.25	3.25	527.25	90010	932	993	--	M	ZG	0.00	600.00	3.25	600.00
90010	932	993	S903	QPN	ZG	0.00	491.15	3.25	491.15	90010	932	993	S907	QPN	ZG	0.00	527.25	3.25	527.25
90010	993	994	--	M	ZG	0.00	600.00	0.65	600.00	90010	993	994	S907	QPN	ZG	0.00	527.25	0.65	527.25
90012	995	996	--	M	ZG	0.00	600.00	0.67	600.00	90012	995	996	S907	QPN	ZG	0.00	527.25	0.67	527.25



Relazione di calcolo

90012	996	933	--	M	ZG	0.00	600.00	3.23	600.00
90012	996	933	S907	QPN	ZG	0.00	527.25	3.23	527.25
90012	933	934	S906	QPN	ZG	0.00	491.15	3.23	491.15
110008	1125	1126	--	M	ZG	0.00	600.00	3.25	600.00
110008	1125	1126	S1106	QPN	ZG	0.00	491.15	3.25	491.15
110008	1126	1127	S1105	QPN	ZG	0.00	527.25	3.25	527.25
110008	1127	1189	--	M	ZG	0.00	600.00	3.20	600.00
110008	1127	1189	S1106	QPN	ZG	0.00	491.15	3.20	491.15
110008	1189	1190	S1105	QPN	ZG	0.00	527.25	0.70	527.25
110010	1191	1192	S1105	QPN	ZG	0.00	527.25	0.72	527.25
110010	1192	1128	S1103	QPN	ZG	0.00	491.15	3.18	491.15
110010	1128	1129	--	M	ZG	0.00	600.00	3.25	600.00
110010	1128	1129	S1105	QPN	ZG	0.00	527.25	3.25	527.25
110010	1129	1130	S1104	QPN	ZG	0.00	491.15	3.25	491.15
110010	1130	1131	--	M	ZG	0.00	600.00	3.25	600.00
110010	1130	1131	S1108	QPN	ZG	0.00	527.25	3.25	527.25
110010	1131	1132	S1104	QPN	ZG	0.00	491.15	3.25	491.15
110010	1193	1194	--	M	ZG	0.00	600.00	0.65	600.00
110012	1195	1196	--	M	ZG	0.00	600.00	0.67	600.00
110012	1196	1133	--	M	ZG	0.00	600.00	3.23	600.00
110012	1196	1133	S1108	QPN	ZG	0.00	527.25	3.23	527.25
110012	1133	1134	S1107	QPN	ZG	0.00	491.15	3.23	491.15
130008	1325	1326	--	M	ZG	0.00	600.00	3.25	600.00
130008	1325	1326	S1306	QPN	ZG	0.00	491.15	3.25	491.15
130008	1326	1327	S1305	QPN	ZG	0.00	527.25	3.25	527.25
130008	1327	1389	--	M	ZG	0.00	600.00	3.20	600.00
130008	1327	1389	S1306	QPN	ZG	0.00	491.15	3.20	491.15
130008	1389	1390	S1305	QPN	ZG	0.00	527.25	0.70	527.25
130010	1391	1392	S1305	QPN	ZG	0.00	527.25	0.72	527.25
130010	1392	1328	S1303	QPN	ZG	0.00	491.15	3.18	491.15
130010	1328	1329	--	M	ZG	0.00	600.00	3.25	600.00
130010	1328	1329	S1305	QPN	ZG	0.00	527.25	3.25	527.25
130010	1329	1330	S1304	QPN	ZG	0.00	491.15	3.25	491.15
130010	1330	1331	--	M	ZG	0.00	600.00	3.25	600.00
130010	1330	1331	S1308	QPN	ZG	0.00	527.25	3.25	527.25
130010	1331	1332	S1304	QPN	ZG	0.00	491.15	3.25	491.15
130010	1332	1393	--	M	ZG	0.00	600.00	3.25	600.00
130010	1332	1393	S1308	QPN	ZG	0.00	527.25	3.25	527.25
130010	1393	1394	S1308	QPN	ZG	0.00	527.25	0.65	527.25
130012	1395	1396	S1308	QPN	ZG	0.00	527.25	0.67	527.25
130012	1396	1333	S1307	QPN	ZG	0.00	491.15	3.23	491.15
130012	1333	1334	--	M	ZG	0.00	600.00	3.23	600.00
130012	1333	1334	S1308	QPN	ZG	0.00	527.25	3.23	527.25
150008	1525	1526	S1505	QPN	ZG	0.00	527.25	3.25	527.25
150008	1526	1527	--	M	ZG	0.00	600.00	3.25	600.00
150008	1526	1527	S1506	QPN	ZG	0.00	491.15	3.25	491.15
150008	1527	1589	S1505	QPN	ZG	0.00	527.25	3.20	527.25
150008	1589	1590	--	M	ZG	0.00	600.00	0.70	600.00
150010	1591	1592	--	M	ZG	0.00	600.00	0.72	600.00
150010	1592	1528	--	M	ZG	0.00	600.00	3.18	600.00
150010	1592	1528	S1505	QPN	ZG	0.00	527.25	3.18	527.25
150010	1528	1529	S1503	QPN	ZG	0.00	491.15	3.25	491.15
150010	1529	1530	--	M	ZG	0.00	600.00	3.25	600.00
150010	1529	1530	S1508	QPN	ZG	0.00	527.25	3.25	527.25
90012	996	933	S906	QPN	ZG	0.00	491.15	3.23	491.15
90012	933	934	--	M	ZG	0.00	600.00	3.23	600.00
90012	933	934	S907	QPN	ZG	0.00	527.25	3.23	527.25
110008	1125	1126	S1105	QPN	ZG	0.00	527.25	3.25	527.25
110008	1126	1127	--	M	ZG	0.00	600.00	3.25	600.00
110008	1126	1127	S1106	QPN	ZG	0.00	491.15	3.25	491.15
110008	1127	1189	S1105	QPN	ZG	0.00	527.25	3.20	527.25
110008	1189	1190	--	M	ZG	0.00	600.00	0.70	600.00
110010	1191	1192	--	M	ZG	0.00	600.00	0.72	600.00
110010	1192	1128	--	M	ZG	0.00	600.00	3.18	600.00
110010	1192	1128	S1105	QPN	ZG	0.00	527.25	3.18	527.25
110010	1128	1129	S1103	QPN	ZG	0.00	491.15	3.25	491.15
110010	1129	1130	--	M	ZG	0.00	600.00	3.25	600.00
110010	1129	1130	S1108	QPN	ZG	0.00	527.25	3.25	527.25
110010	1130	1131	S1104	QPN	ZG	0.00	491.15	3.25	491.15
110010	1131	1132	--	M	ZG	0.00	600.00	3.25	600.00
110010	1131	1132	S1108	QPN	ZG	0.00	527.25	3.25	527.25
110010	1193	1194	S1108	QPN	ZG	0.00	527.25	0.65	527.25
110012	1195	1196	S1108	QPN	ZG	0.00	527.25	0.67	527.25
110012	1196	1133	S1107	QPN	ZG	0.00	491.15	3.23	491.15
110012	1133	1134	--	M	ZG	0.00	600.00	3.23	600.00
110012	1133	1134	S1108	QPN	ZG	0.00	527.25	3.23	527.25
130008	1325	1326	S1305	QPN	ZG	0.00	527.25	3.25	527.25
130008	1326	1327	--	M	ZG	0.00	600.00	3.25	600.00
130008	1326	1327	S1306	QPN	ZG	0.00	491.15	3.25	491.15
130008	1327	1389	S1305	QPN	ZG	0.00	527.25	3.20	527.25
130008	1389	1390	--	M	ZG	0.00	600.00	0.70	600.00
130010	1391	1392	--	M	ZG	0.00	600.00	0.72	600.00
130010	1392	1328	--	M	ZG	0.00	600.00	3.18	600.00
130010	1392	1328	S1305	QPN	ZG	0.00	527.25	3.18	527.25
130010	1328	1329	S1303	QPN	ZG	0.00	491.15	3.25	491.15
130010	1329	1330	--	M	ZG	0.00	600.00	3.25	600.00
130010	1329	1330	S1308	QPN	ZG	0.00	527.25	3.25	527.25
130010	1330	1331	S1304	QPN	ZG	0.00	491.15	3.25	491.15
130010	1331	1332	--	M	ZG	0.00	600.00	3.25	600.00
130010	1331	1332	S1308	QPN	ZG	0.00	527.25	3.25	527.25
130010	1332	1393	S1304	QPN	ZG	0.00	491.15	3.25	491.15
130010	1393	1394	--	M	ZG	0.00	600.00	0.65	600.00
130012	1395	1396	--	M	ZG	0.00	600.00	0.67	600.00
130012	1396	1333	--	M	ZG	0.00	600.00	3.23	600.00
130012	1396	1333	S1308	QPN	ZG	0.00	527.25	3.23	527.25
130012	1333	1334	S1307	QPN	ZG	0.00	491.15	3.23	491.15
150008	1525	1526	--	M	ZG	0.00	600.00	3.25	600.00
150008	1525	1526	S1506	QPN	ZG	0.00	491.15	3.25	491.15
150008	1526	1527	S1505	QPN	ZG	0.00	527.25	3.25	527.25
150008	1527	1589	--	M	ZG	0.00	600.00	3.20	600.00
150008	1527	1589	S1506	QPN	ZG	0.00	491.15	3.20	491.15
150008	1589	1590	S1505	QPN	ZG	0.00	527.25	0.70	527.25
150010	1591	1592	S1505	QPN	ZG	0.00	527.25	0.72	527.25
150010	1592	1528	S1503	QPN	ZG	0.00	491.15	3.18	491.15
150010	1528	1529	--	M	ZG	0.00	600.00	3.25	600.00
150010	1528	1529	S1505	QPN	ZG	0.00	527.25	3.25	527.25
150010	1529	1530	S1504	QPN	ZG	0.00	491.15	3.25	491.15
150010	1530	1531	--	M	ZG	0.00	600.00	3.25	600.00



Relazione di calcolo

150010	1530	1531	S	1504	QPN	ZG	0.00	491.15	3.25	491.15
150010	1531	1532	--	M	ZG	0.00	600.00	3.25	600.00	
150010	1531	1532	S	1508	QPN	ZG	0.00	527.25	3.25	527.25
150010	1532	1593	S	1504	QPN	ZG	0.00	491.15	3.25	491.15
150010	1593	1594	--	M	ZG	0.00	600.00	0.65	600.00	
150012	1595	1596	--	M	ZG	0.00	600.00	0.67	600.00	
150012	1596	1533	--	M	ZG	0.00	600.00	3.23	600.00	
150012	1596	1533	S	1508	QPN	ZG	0.00	527.25	3.23	527.25
150012	1533	1534	S	1507	QPN	ZG	0.00	491.15	3.23	491.15
170008	1725	1726	--	M	ZG	0.00	600.00	3.25	600.00	
170008	1725	1726	S	1706	QPN	ZG	0.00	491.15	3.25	491.15
170008	1726	1727	S	1705	QPN	ZG	0.00	527.25	3.25	527.25
170008	1727	1789	--	M	ZG	0.00	600.00	3.20	600.00	
170008	1727	1789	S	1706	QPN	ZG	0.00	491.15	3.20	491.15
170008	1789	1790	S	1705	QPN	ZG	0.00	527.25	0.70	527.25
170010	1792	1728	S	1703	QPN	ZG	0.00	491.15	3.18	491.15
170010	1728	1729	--	M	ZG	0.00	600.00	3.25	600.00	
170010	1728	1729	S	1705	QPN	ZG	0.00	527.25	3.25	527.25
170010	1729	1730	S	1704	QPN	ZG	0.00	491.15	3.25	491.15
170010	1730	1731	--	M	ZG	0.00	600.00	3.25	600.00	
170010	1730	1731	S	1708	QPN	ZG	0.00	527.25	3.25	527.25
170010	1731	1732	S	1704	QPN	ZG	0.00	491.15	3.25	491.15
170010	1732	1793	--	M	ZG	0.00	600.00	3.25	600.00	
170010	1732	1793	S	1708	QPN	ZG	0.00	527.25	3.25	527.25
170010	1793	1794	S	1708	QPN	ZG	0.00	527.25	0.65	527.25
170012	1795	1796	S	1708	QPN	ZG	0.00	527.25	0.67	527.25
170012	1795	1796	S	1708	QPN	ZG	0.00	527.25	0.67	527.25
170012	1796	1733	S	1707	QPN	ZG	0.00	491.15	3.23	491.15
170012	1733	1734	--	M	ZG	0.00	600.00	3.23	600.00	
170012	1733	1734	S	1708	QPN	ZG	0.00	527.25	3.23	527.25
190008	1925	1926	S	1905	QPN	ZG	0.00	1110.00	3.25	1110.00
190008	1926	1927	--	M	ZG	0.00	600.00	3.25	600.00	
190008	1926	1927	S	1906	QPN	ZG	0.00	1034.00	3.25	1034.00
190008	1927	1989	S	1905	QPN	ZG	0.00	1110.00	3.20	1110.00
190008	1927	1989	S	1905	QPN	ZG	0.00	1110.00	3.20	1110.00
190008	1989	1990	--	M	ZG	0.00	600.00	0.70	600.00	
190010	1991	1992	--	M	ZG	0.00	600.00	0.72	600.00	
190010	1992	1928	--	M	ZG	0.00	600.00	3.18	600.00	
190010	1992	1928	S	1905	QPN	ZG	0.00	1110.00	3.18	1110.00
190010	1928	1929	S	1903	QPN	ZG	0.00	1034.00	3.25	1034.00
190010	1929	1930	--	M	ZG	0.00	600.00	3.25	600.00	
190010	1929	1930	S	1908	QPN	ZG	0.00	1034.00	3.25	1034.00
190010	1930	1931	S	1904	QPN	ZG	0.00	1110.00	3.25	1110.00
190010	1931	1932	--	M	ZG	0.00	600.00	3.25	600.00	
190010	1931	1932	S	1908	QPN	ZG	0.00	1034.00	3.25	1034.00
190010	1932	1993	S	1904	QPN	ZG	0.00	1110.00	3.25	1110.00
190010	1993	1994	--	M	ZG	0.00	600.00	0.65	600.00	
190012	1995	1996	--	M	ZG	0.00	600.00	0.67	600.00	
190012	1996	1933	--	M	ZG	0.00	600.00	3.23	600.00	
190012	1996	1933	S	1907	QPN	ZG	0.00	1034.00	3.23	1034.00
190012	1933	1934	S	1904	QPN	ZG	0.00	1110.00	3.23	1110.00

150010	1530	1531	S	1508	QPN	ZG	0.00	527.25	3.25	527.25
150010	1531	1532	S	1504	QPN	ZG	0.00	491.15	3.25	491.15
150010	1532	1593	--	M	ZG	0.00	600.00	3.25	600.00	
150010	1532	1593	S	1508	QPN	ZG	0.00	527.25	3.25	527.25
150010	1593	1594	S	1508	QPN	ZG	0.00	527.25	0.65	527.25
150012	1595	1596	S	1508	QPN	ZG	0.00	527.25	0.67	527.25
150012	1596	1533	S	1507	QPN	ZG	0.00	491.15	3.23	491.15
150012	1533	1534	--	M	ZG	0.00	600.00	3.23	600.00	
150012	1533	1534	S	1508	QPN	ZG	0.00	527.25	3.23	527.25
170008	1725	1726	S	1705	QPN	ZG	0.00	527.25	3.25	527.25
170008	1726	1727	--	M	ZG	0.00	600.00	3.25	600.00	
170008	1726	1727	S	1706	QPN	ZG	0.00	491.15	3.25	491.15
170008	1727	1789	S	1705	QPN	ZG	0.00	527.25	3.20	527.25
170008	1789	1790	--	M	ZG	0.00	600.00	0.70	600.00	
170010	1792	1728	--	M	ZG	0.00	600.00	3.18	600.00	
170010	1792	1728	S	1705	QPN	ZG	0.00	527.25	3.18	527.25
170010	1728	1729	S	1703	QPN	ZG	0.00	491.15	3.25	491.15
170010	1729	1730	--	M	ZG	0.00	600.00	3.25	600.00	
170010	1729	1730	S	1708	QPN	ZG	0.00	527.25	3.25	527.25
170010	1730	1731	S	1704	QPN	ZG	0.00	491.15	3.25	491.15
170010	1731	1732	--	M	ZG	0.00	600.00	3.25	600.00	
170010	1731	1732	S	1708	QPN	ZG	0.00	527.25	3.25	527.25
170010	1732	1793	S	1704	QPN	ZG	0.00	491.15	3.25	491.15
170010	1793	1794	--	M	ZG	0.00	600.00	0.65	600.00	
170012	1795	1796	--	M	ZG	0.00	600.00	0.67	600.00	
170012	1796	1733	--	M	ZG	0.00	600.00	3.23	600.00	
170012	1796	1733	S	1708	QPN	ZG	0.00	527.25	3.23	527.25
170012	1733	1734	S	1707	QPN	ZG	0.00	491.15	3.23	491.15
190008	1925	1926	--	M	ZG	0.00	600.00	3.25	600.00	
190008	1925	1926	S	1906	QPN	ZG	0.00	1034.00	3.25	1034.00
190008	1926	1927	S	1905	QPN	ZG	0.00	1110.00	3.25	1110.00
190008	1927	1989	--	M	ZG	0.00	600.00	3.20	600.00	
190008	1927	1989	S	1906	QPN	ZG	0.00	1034.00	3.20	1034.00
190008	1989	1990	S	1905	QPN	ZG	0.00	1110.00	0.70	1110.00
190010	1991	1992	S	1905	QPN	ZG	0.00	1110.00	0.72	1110.00
190010	1992	1928	S	1903	QPN	ZG	0.00	1034.00	3.18	1034.00
190010	1928	1929	--	M	ZG	0.00	600.00	3.25	600.00	
190010	1928	1929	S	1905	QPN	ZG	0.00	1110.00	3.25	1110.00
190010	1929	1930	S	1904	QPN	ZG	0.00	1110.00	3.25	1110.00
190010	1930	1931	--	M	ZG	0.00	600.00	3.25	600.00	
190010	1930	1931	S	1908	QPN	ZG	0.00	1034.00	3.25	1034.00
190010	1931	1932	S	1904	QPN	ZG	0.00	1110.00	3.25	1110.00
190010	1932	1993	--	M	ZG	0.00	600.00	3.25	600.00	
190010	1932	1993	S	1908	QPN	ZG	0.00	1034.00	3.25	1034.00
190010	1993	1994	S	1904	QPN	ZG	0.00	1110.00	0.65	1110.00
190012	1995	1996	S	1904	QPN	ZG	0.00	1110.00	0.67	1110.00
190012	1996	1933	S	1904	QPN	ZG	0.00	1110.00	3.23	1110.00
190012	1933	1934	--	M	ZG	0.00	600.00	3.23	600.00	
190012	1933	1934	S	1907	QPN	ZG	0.00	1034.00	3.23	1034.00

Condizione di carico n. 3: Variabili Civile Abitazione  
Carichi distribuiti

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
0	-908	-909	S	304	QA	ZG	0.00	377.00	0.79	377.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
0	-909	-910	S	304	QA	ZG	0.00	377.00	0.79	377.00



Relazione di calcolo

0	-1682	-1683	S504	QA	ZG	0.00	377.00	0.79	377.00
0	-2447	-2448	S702	QA	ZG	0.00	377.00	0.79	377.00
0	114	-84	S2202	QA	ZG	0.00	325.00	1.85	325.00
0	-96	130	S2202	QA	ZG	0.00	325.00	1.85	325.00
0	-3212	-3213	S904	QA	ZG	0.00	377.00	0.79	377.00
0	114	115	S2231	QA	ZG	0.00	555.00	3.25	555.00
0	148	149	S2230	QA	ZG	0.00	517.00	3.25	517.00
0	-3978	-3979	S1105	QA	ZG	0.00	377.00	0.79	377.00
0	149	150	S2230	QA	ZG	0.00	517.00	3.25	517.00
0	116	-82	S2231	QA	ZG	0.00	555.00	1.70	555.00
0	-82	117	S2231	QA	ZG	0.00	555.00	1.55	555.00
0	-5508	-5509	S1505	QA	ZG	0.00	377.00	0.79	377.00
0	-163	-164	S2230	QA	ZG	0.00	517.00	0.79	517.00
0	-83	118	S2231	QA	ZG	0.00	555.00	1.46	555.00
0	-95	118	S2227	QA	ZG	0.00	323.00	2.66	323.00
0	-164	-165	S2231	QA	ZG	0.00	555.00	0.79	555.00
0	-148	-131	S2227	QA	ZG	0.00	323.00	0.59	323.00
0	150	151	S2230	QA	ZG	0.00	517.00	3.25	517.00
0	-6273	-6274	S1705	QA	ZG	0.00	377.00	0.79	377.00
0	-169	-168	S2230	QA	ZG	0.00	517.00	0.81	517.00
0	-6274	-6275	S1705	QA	ZG	0.00	377.00	0.79	377.00
0	133	-169	S2230	QA	ZG	0.00	517.00	1.88	517.00
0	-7119	152	S2230	QA	ZG	0.00	517.00	0.72	517.00
0	-185	133	S2226	QA	ZG	0.00	323.00	2.58	323.00
0	-7038	-7039	S1905	QA	ZG	0.00	377.00	0.79	377.00
0	-7039	-7040	S1905	QA	ZG	0.00	377.00	0.79	377.00
0	-1686	-1687	S507	QA	ZG	0.00	377.00	0.79	377.00
0	-2451	-2452	S706	QA	ZG	0.00	377.00	0.79	377.00
0	-3216	-3217	S907	QA	ZG	0.00	377.00	0.79	377.00
0	-3981	-3982	S1108	QA	ZG	0.00	377.00	0.79	377.00
0	-4746	-4747	S1308	QA	ZG	0.00	377.00	0.79	377.00
0	-5511	-5512	S1508	QA	ZG	0.00	377.00	0.79	377.00
0	-6277	-6278	S1708	QA	ZG	0.00	377.00	0.79	377.00
0	-7042	-7043	S1904	QA	ZG	0.00	377.00	0.79	377.00
1003	155	156	S104	QA	ZG	0.00	185.00	3.25	185.00
1004	-3	-4	S103	QA	ZG	0.00	185.00	8.20	185.00
1005	-11	-12	S102	QA	ZG	0.00	185.00	8.20	185.00
1007	160	131	S101	QA	ZG	0.00	258.50	3.25	258.50
1007	131	132	S101	QA	ZG	0.00	258.50	3.25	258.50
1007	132	161	S101	QA	ZG	0.00	258.50	1.70	258.50
1007	161	-34	S101	QA	ZG	0.00	258.50	0.99	258.50
1007	-35	-36	S101	QA	ZG	0.00	258.50	0.65	258.50
1007	-37	-38	S101	QA	ZG	0.00	258.50	0.79	258.50
1007	-39	-40	S101	QA	ZG	0.00	258.50	0.54	258.50
1007	-41	162	S101	QA	ZG	0.00	258.50	1.88	258.50
1008	-49	-50	S101	QA	ZG	0.00	258.50	15.88	258.50
1009	164	165	S100	QA	ZG	0.00	258.50	3.25	258.50
1009	166	-7136	S100	QA	ZG	0.00	258.50	0.72	258.50
1009	-7084	-7137	S100	QA	ZG	0.00	258.50	0.72	258.50
1009	167	168	S100	QA	ZG	0.00	258.50	3.23	258.50
1034	-4	-12	S105	QA	ZG	0.00	155.00	1.85	155.00
1035	157	159	S105	QA	ZG	0.00	155.00	2.66	155.00
1035	159	-14	S105	QA	ZG	0.00	155.00	1.11	155.00
1035	-14	-21	S105	QA	ZG	0.00	155.00	0.59	155.00
0	-1683	-1684	S504	QA	ZG	0.00	377.00	0.79	377.00
0	-2448	-2449	S702	QA	ZG	0.00	377.00	0.79	377.00
0	-84	-96	S2202	QA	ZG	0.00	325.00	1.85	325.00
0	130	-184	S2203	QA	ZG	0.00	325.00	2.58	325.00
0	-3213	-3214	S904	QA	ZG	0.00	377.00	0.79	377.00
0	-184	148	S2203	QA	ZG	0.00	325.00	2.58	325.00
0	-3977	-3978	S1105	QA	ZG	0.00	377.00	0.79	377.00
0	115	116	S2231	QA	ZG	0.00	555.00	3.25	555.00
0	-4742	-4743	S1305	QA	ZG	0.00	377.00	0.79	377.00
0	-4743	-4744	S1305	QA	ZG	0.00	377.00	0.79	377.00
0	-5507	-5508	S1505	QA	ZG	0.00	377.00	0.79	377.00
0	117	-83	S2231	QA	ZG	0.00	555.00	1.44	555.00
0	-163	-164	S2231	QA	ZG	0.00	555.00	0.79	555.00
0	-114	-95	S2227	QA	ZG	0.00	323.00	1.11	323.00
0	-164	-165	S2230	QA	ZG	0.00	517.00	0.79	517.00
0	-131	-114	S2227	QA	ZG	0.00	323.00	0.59	323.00
0	-167	-148	S2227	QA	ZG	0.00	323.00	0.59	323.00
0	151	-7129	S2230	QA	ZG	0.00	517.00	0.72	517.00
0	-168	-167	S2230	QA	ZG	0.00	517.00	0.54	517.00
0	-7129	-7083	S2230	QA	ZG	0.00	517.00	0.72	517.00
0	-911	-912	S307	QA	ZG	0.00	377.00	0.79	377.00
0	-912	-913	S307	QA	ZG	0.00	377.00	0.79	377.00
0	-7083	-7119	S2230	QA	ZG	0.00	517.00	0.72	517.00
0	152	153	S2230	QA	ZG	0.00	517.00	3.23	517.00
0	153	-185	S2226	QA	ZG	0.00	323.00	2.58	323.00
0	-1685	-1686	S507	QA	ZG	0.00	377.00	0.79	377.00
0	-2450	-2451	S706	QA	ZG	0.00	377.00	0.79	377.00
0	-3215	-3216	S907	QA	ZG	0.00	377.00	0.79	377.00
0	-3980	-3981	S1108	QA	ZG	0.00	377.00	0.79	377.00
0	-4745	-4746	S1308	QA	ZG	0.00	377.00	0.79	377.00
0	-5510	-5511	S1508	QA	ZG	0.00	377.00	0.79	377.00
0	-6276	-6277	S1708	QA	ZG	0.00	377.00	0.79	377.00
0	-7041	-7042	S1904	QA	ZG	0.00	377.00	0.79	377.00
1003	154	155	S104	QA	ZG	0.00	185.00	3.25	185.00
1003	156	-1	S104	QA	ZG	0.00	185.00	1.70	185.00
1004	-3	-4	S104	QA	ZG	0.00	185.00	8.20	185.00
1005	-11	-12	S103	QA	ZG	0.00	185.00	8.20	185.00
1007	160	131	S102	QA	ZG	0.00	185.00	3.25	185.00
1007	131	132	S102	QA	ZG	0.00	185.00	3.25	185.00
1007	132	161	S102	QA	ZG	0.00	185.00	1.70	185.00
1007	-34	-35	S101	QA	ZG	0.00	258.50	0.56	258.50
1007	-36	-37	S101	QA	ZG	0.00	258.50	0.79	258.50
1007	-38	-39	S101	QA	ZG	0.00	258.50	0.67	258.50
1007	-40	-41	S101	QA	ZG	0.00	258.50	0.81	258.50
1008	-49	-50	S100	QA	ZG	0.00	258.50	15.88	258.50
1009	163	164	S100	QA	ZG	0.00	258.50	3.25	258.50
1009	165	166	S100	QA	ZG	0.00	258.50	3.25	258.50
1009	-7136	-7084	S100	QA	ZG	0.00	258.50	0.72	258.50
1009	-7137	167	S100	QA	ZG	0.00	258.50	0.72	258.50
1034	-1	-4	S105	QA	ZG	0.00	155.00	1.85	155.00
1034	-12	161	S105	QA	ZG	0.00	155.00	1.85	155.00
1035	157	159	S106	QA	ZG	0.00	290.00	2.66	290.00
1035	159	-14	S106	QA	ZG	0.00	290.00	1.11	290.00
1035	-14	-21	S106	QA	ZG	0.00	290.00	0.59	290.00



Relazione di calcolo

1035	-21	-28	S	105	QA	ZG	0.00	155.00	0.59	155.00	1035	-21	-28	S	106	QA	ZG	0.00	290.00	0.59	290.00
1035	-28	-35	S	105	QA	ZG	0.00	155.00	0.59	155.00	1035	-28	-35	S	106	QA	ZG	0.00	290.00	0.59	290.00
1041	158	-9	S	106	QA	ZG	0.00	290.00	2.66	290.00	1041	-9	-18	S	106	QA	ZG	0.00	290.00	1.11	290.00
1041	-18	-25	S	106	QA	ZG	0.00	290.00	0.59	290.00	1041	-25	-32	S	106	QA	ZG	0.00	290.00	0.59	290.00
1041	-32	-39	S	106	QA	ZG	0.00	290.00	0.59	290.00	3003	307	308	S	304	QA	ZG	0.00	555.00	3.25	555.00
3003	308	-829	S	304	QA	ZG	0.00	555.00	0.36	555.00	3003	-829	-830	S	304	QA	ZG	0.00	555.00	0.36	555.00
3003	-830	-831	S	304	QA	ZG	0.00	555.00	0.36	555.00	3003	-831	-832	S	304	QA	ZG	0.00	555.00	0.36	555.00
3003	-832	-833	S	304	QA	ZG	0.00	555.00	0.36	555.00	3003	-833	-834	S	304	QA	ZG	0.00	555.00	0.36	555.00
3003	-834	-835	S	304	QA	ZG	0.00	555.00	0.36	555.00	3003	-835	-836	S	304	QA	ZG	0.00	555.00	0.36	555.00
3003	-836	309	S	304	QA	ZG	0.00	555.00	0.36	555.00	3003	309	-837	S	304	QA	ZG	0.00	555.00	0.40	555.00
3003	-837	-838	S	304	QA	ZG	0.00	555.00	0.40	555.00	3003	-838	-839	S	304	QA	ZG	0.00	555.00	0.40	555.00
3003	-839	-840	S	304	QA	ZG	0.00	555.00	0.40	555.00	3003	-840	-841	S	304	QA	ZG	0.00	555.00	0.40	555.00
3003	-841	-842	S	304	QA	ZG	0.00	555.00	0.40	555.00	3003	-842	-843	S	304	QA	ZG	0.00	555.00	0.40	555.00
3003	-843	310	S	304	QA	ZG	0.00	555.00	0.40	555.00	3003	310	-844	S	304	QA	ZG	0.00	555.00	0.38	555.00
3003	-844	-845	S	304	QA	ZG	0.00	555.00	0.33	555.00	3003	-844	-845	S	304	QA	ZG	0.33	377.00	0.38	377.00
3003	-845	-846	S	304	QA	ZG	0.00	377.00	0.38	377.00	3003	-846	-847	S	304	QA	ZG	0.00	377.00	0.38	377.00
3003	-847	-848	S	304	QA	ZG	0.00	377.00	0.38	377.00	3003	-848	-849	S	304	QA	ZG	0.00	377.00	0.38	377.00
3003	-849	-850	S	304	QA	ZG	0.00	377.00	0.03	377.00	3003	-849	-850	S	304	QA	ZG	0.03	555.00	0.38	555.00
3003	-850	311	S	304	QA	ZG	0.00	555.00	0.38	555.00	3003	311	-851	S	304	QA	ZG	0.00	555.00	0.40	555.00
3003	-851	-852	S	304	QA	ZG	0.00	555.00	0.40	555.00	3003	-852	-853	S	304	QA	ZG	0.00	555.00	0.40	555.00
3003	-853	-854	S	304	QA	ZG	0.00	555.00	0.40	555.00	3003	-854	-855	S	304	QA	ZG	0.00	555.00	0.40	555.00
3003	-855	-856	S	304	QA	ZG	0.00	555.00	0.40	555.00	3003	-856	-857	S	304	QA	ZG	0.00	555.00	0.40	555.00
3003	-857	312	S	304	QA	ZG	0.00	555.00	0.40	555.00	3003	312	-858	S	304	QA	ZG	0.00	555.00	0.36	555.00
3003	-858	-859	S	304	QA	ZG	0.00	555.00	0.36	555.00	3003	-859	-860	S	304	QA	ZG	0.00	555.00	0.36	555.00
3003	-860	-861	S	304	QA	ZG	0.00	555.00	0.36	555.00	3003	-861	-862	S	304	QA	ZG	0.00	555.00	0.36	555.00
3003	-862	-863	S	304	QA	ZG	0.00	555.00	0.36	555.00	3003	-863	-864	S	304	QA	ZG	0.00	555.00	0.36	555.00
3003	-864	-865	S	304	QA	ZG	0.00	555.00	0.36	555.00	3003	-865	313	S	304	QA	ZG	0.00	555.00	0.36	555.00
3003	313	314	S	307	QA	ZG	0.00	555.00	3.25	555.00	3003	314	315	S	307	QA	ZG	0.00	555.00	3.25	555.00
3003	315	-866	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-866	-867	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-867	-868	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-868	-869	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-869	-870	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-870	-871	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-871	-872	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-872	-873	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-873	316	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	316	-874	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-874	-875	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-875	-876	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-876	-877	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-877	-878	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-878	-879	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-879	-880	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-880	-881	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-881	317	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	317	-882	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-882	-883	S	307	QA	ZG	0.00	555.00	0.29	555.00
3003	-882	-883	S	307	QA	ZG	0.29	377.00	0.36	377.00	3003	-883	-884	S	307	QA	ZG	0.00	377.00	0.36	377.00
3003	-884	-885	S	307	QA	ZG	0.00	377.00	0.36	377.00	3003	-885	-886	S	307	QA	ZG	0.00	377.00	0.36	377.00
3003	-886	-887	S	307	QA	ZG	0.00	377.00	0.36	377.00	3003	-887	-888	S	307	QA	ZG	0.00	377.00	0.06	377.00
3003	-887	-888	S	307	QA	ZG	0.06	555.00	0.36	555.00	3003	-888	318	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	318	-889	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-889	-890	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-890	-891	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-891	-892	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-892	-893	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-893	-894	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-894	-895	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-895	-896	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-896	319	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	319	-897	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-897	-898	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-898	-899	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-899	-900	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-900	-901	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-901	-902	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-902	-903	S	307	QA	ZG	0.00	555.00	0.36	555.00
3003	-903	-904	S	307	QA	ZG	0.00	555.00	0.36	555.00	3003	-904	320	S	307	QA	ZG	0.00	555.00	0.36	555.00
3009	341	342	S	305	QA	ZG	0.00	517.00	3.25	517.00	3009	342	343	S	305	QA	ZG	0.00	517.00	3.25	517.00
3009	343	344	S	305	QA	ZG	0.00	517.00	3.20	517.00	3009	345	346	S	303	QA	ZG	0.00	517.00	3.18	517.00
3009	346	347	S	303	QA	ZG	0.00	517.00	3.25	517.00	3009	347	348	S	302	QA	ZG	0.00	517.00	3.25	517.00



Relazione di calcolo

3009	348	349	S	302	QA	ZG	0.00	517.00	3.25	517.00
3009	350	351	S	302	QA	ZG	0.00	517.00	3.25	517.00
3009	353	354	S	306	QA	ZG	0.00	517.00	3.23	517.00
5003	508	-1603	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1604	-1605	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1606	-1607	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1608	-1609	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1610	509	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1611	-1612	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1613	-1614	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1615	-1616	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1617	510	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1618	-1619	S	504	QA	ZG	0.00	555.00	0.33	555.00
5003	-1619	-1620	S	504	QA	ZG	0.00	377.00	0.38	377.00
5003	-1621	-1622	S	504	QA	ZG	0.00	377.00	0.38	377.00
5003	-1623	-1624	S	504	QA	ZG	0.00	377.00	0.03	377.00
5003	-1624	511	S	504	QA	ZG	0.00	555.00	0.38	555.00
5003	-1625	-1626	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1627	-1628	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1629	-1630	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1631	512	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1632	-1633	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1634	-1635	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1636	-1637	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1638	-1639	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	513	514	S	507	QA	ZG	0.00	555.00	3.25	555.00
5003	515	-1640	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1641	-1642	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1643	-1644	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1645	-1646	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1647	516	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1648	-1649	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1650	-1651	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1652	-1653	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1654	-1655	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	517	-1656	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1656	-1657	S	507	QA	ZG	0.29	377.00	0.36	377.00
5003	-1658	-1659	S	507	QA	ZG	0.00	377.00	0.36	377.00
5003	-1660	-1661	S	507	QA	ZG	0.00	377.00	0.36	377.00
5003	-1661	-1662	S	507	QA	ZG	0.06	555.00	0.36	555.00
5003	518	-1663	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1664	-1665	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1666	-1667	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1668	-1669	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1670	519	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1671	-1672	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1673	-1674	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1675	-1676	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1677	-1678	S	507	QA	ZG	0.00	555.00	0.36	555.00
5009	541	542	S	505	QA	ZG	0.00	517.00	3.25	517.00
5009	543	544	S	505	QA	ZG	0.00	517.00	3.20	517.00
5009	546	547	S	502	QA	ZG	0.00	517.00	3.25	517.00
5009	548	549	S	503	QA	ZG	0.00	517.00	3.25	517.00
5009	550	551	S	503	QA	ZG	0.00	517.00	3.25	517.00
3009	349	350	S	302	QA	ZG	0.00	517.00	3.25	517.00
3009	352	353	S	306	QA	ZG	0.00	517.00	3.23	517.00
5003	507	508	S	504	QA	ZG	0.00	555.00	3.25	555.00
5003	-1603	-1604	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1605	-1606	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1607	-1608	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1609	-1610	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	509	-1611	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1612	-1613	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1614	-1615	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1616	-1617	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	510	-1618	S	504	QA	ZG	0.00	555.00	0.38	555.00
5003	-1618	-1619	S	504	QA	ZG	0.33	377.00	0.38	377.00
5003	-1620	-1621	S	504	QA	ZG	0.00	377.00	0.38	377.00
5003	-1622	-1623	S	504	QA	ZG	0.00	377.00	0.38	377.00
5003	-1623	-1624	S	504	QA	ZG	0.03	555.00	0.38	555.00
5003	511	-1625	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1626	-1627	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1628	-1629	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	-1630	-1631	S	504	QA	ZG	0.00	555.00	0.40	555.00
5003	512	-1632	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1633	-1634	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1635	-1636	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1637	-1638	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	-1639	513	S	504	QA	ZG	0.00	555.00	0.36	555.00
5003	514	515	S	507	QA	ZG	0.00	555.00	3.25	555.00
5003	-1640	-1641	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1642	-1643	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1644	-1645	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1646	-1647	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	516	-1648	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1649	-1650	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1651	-1652	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1653	-1654	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1655	517	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1656	-1657	S	507	QA	ZG	0.00	555.00	0.29	555.00
5003	-1657	-1658	S	507	QA	ZG	0.00	377.00	0.36	377.00
5003	-1659	-1660	S	507	QA	ZG	0.00	377.00	0.36	377.00
5003	-1661	-1662	S	507	QA	ZG	0.00	377.00	0.06	377.00
5003	-1662	518	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1663	-1664	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1665	-1666	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1667	-1668	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1669	-1670	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	519	-1671	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1672	-1673	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1674	-1675	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1676	-1677	S	507	QA	ZG	0.00	555.00	0.36	555.00
5003	-1678	520	S	507	QA	ZG	0.00	555.00	0.36	555.00
5009	542	543	S	505	QA	ZG	0.00	517.00	3.25	517.00
5009	545	546	S	502	QA	ZG	0.00	517.00	3.18	517.00
5009	547	548	S	503	QA	ZG	0.00	517.00	3.25	517.00
5009	549	550	S	503	QA	ZG	0.00	517.00	3.25	517.00
5009	552	553	S	506	QA	ZG	0.00	517.00	3.23	517.00



Relazione di calcolo

5009	553	554	S	506	QA	ZG	0.00	517.00	3.23	517.00
7003	708	-2368	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2369	-2370	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2371	-2372	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2373	-2374	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2375	709	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2376	-2377	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2378	-2379	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2380	-2381	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2382	710	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2383	-2384	S	702	QA	ZG	0.00	555.00	0.33	555.00
7003	-2384	-2385	S	702	QA	ZG	0.00	377.00	0.38	377.00
7003	-2386	-2387	S	702	QA	ZG	0.00	377.00	0.38	377.00
7003	-2388	-2389	S	702	QA	ZG	0.00	377.00	0.03	377.00
7003	-2389	711	S	702	QA	ZG	0.00	555.00	0.38	555.00
7003	-2390	-2391	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2392	-2393	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2394	-2395	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2396	712	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2397	-2398	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2399	-2400	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2401	-2402	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2403	-2404	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	713	714	S	706	QA	ZG	0.00	555.00	3.25	555.00
7003	715	-2405	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2406	-2407	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2408	-2409	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2410	-2411	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2412	716	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2413	-2414	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2415	-2416	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2417	-2418	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2419	-2420	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	717	-2421	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2421	-2422	S	706	QA	ZG	0.29	377.00	0.36	377.00
7003	-2423	-2424	S	706	QA	ZG	0.00	377.00	0.36	377.00
7003	-2425	-2426	S	706	QA	ZG	0.00	377.00	0.36	377.00
7003	-2426	-2427	S	706	QA	ZG	0.06	555.00	0.36	555.00
7003	718	-2428	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2429	-2430	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2431	-2432	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2433	-2434	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2435	719	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2436	-2437	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2438	-2439	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2440	-2441	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2442	-2443	S	706	QA	ZG	0.00	555.00	0.36	555.00
7009	741	742	S	704	QA	ZG	0.00	517.00	3.25	517.00
7009	743	744	S	704	QA	ZG	0.00	517.00	3.20	517.00
7009	746	747	S	703	QA	ZG	0.00	517.00	3.25	517.00
7009	748	749	S	707	QA	ZG	0.00	517.00	3.25	517.00
7009	750	751	S	707	QA	ZG	0.00	517.00	3.25	517.00
7009	753	754	S	705	QA	ZG	0.00	517.00	3.23	517.00
9003	908	-3133	S	904	QA	ZG	0.00	555.00	0.36	555.00
7003	707	708	S	702	QA	ZG	0.00	555.00	3.25	555.00
7003	-2368	-2369	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2370	-2371	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2372	-2373	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2374	-2375	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	709	-2376	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2377	-2378	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2379	-2380	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2381	-2382	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	710	-2383	S	702	QA	ZG	0.00	555.00	0.38	555.00
7003	-2383	-2384	S	702	QA	ZG	0.33	377.00	0.38	377.00
7003	-2385	-2386	S	702	QA	ZG	0.00	377.00	0.38	377.00
7003	-2387	-2388	S	702	QA	ZG	0.00	377.00	0.38	377.00
7003	-2388	-2389	S	702	QA	ZG	0.03	555.00	0.38	555.00
7003	711	-2390	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2391	-2392	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2393	-2394	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	-2395	-2396	S	702	QA	ZG	0.00	555.00	0.40	555.00
7003	712	-2397	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2398	-2399	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2400	-2401	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2402	-2403	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	-2404	713	S	702	QA	ZG	0.00	555.00	0.36	555.00
7003	714	715	S	706	QA	ZG	0.00	555.00	3.25	555.00
7003	-2405	-2406	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2407	-2408	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2409	-2410	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2411	-2412	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	716	-2413	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2414	-2415	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2416	-2417	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2418	-2419	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2420	717	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2421	-2422	S	706	QA	ZG	0.00	555.00	0.29	555.00
7003	-2422	-2423	S	706	QA	ZG	0.00	377.00	0.36	377.00
7003	-2424	-2425	S	706	QA	ZG	0.00	377.00	0.36	377.00
7003	-2426	-2427	S	706	QA	ZG	0.00	377.00	0.06	377.00
7003	-2427	718	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2428	-2429	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2430	-2431	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2432	-2433	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2434	-2435	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	719	-2436	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2437	-2438	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2439	-2440	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2441	-2442	S	706	QA	ZG	0.00	555.00	0.36	555.00
7003	-2443	720	S	706	QA	ZG	0.00	555.00	0.36	555.00
7009	742	743	S	704	QA	ZG	0.00	517.00	3.25	517.00
7009	745	746	S	703	QA	ZG	0.00	517.00	3.18	517.00
7009	747	748	S	707	QA	ZG	0.00	517.00	3.25	517.00
7009	749	750	S	707	QA	ZG	0.00	517.00	3.25	517.00
7009	752	753	S	705	QA	ZG	0.00	517.00	3.23	517.00
9003	907	908	S	904	QA	ZG	0.00	555.00	3.25	555.00
9003	-3133	-3134	S	904	QA	ZG	0.00	555.00	0.36	555.00



Relazione di calcolo

9003	-3134	-3135	S	904	QA	ZG	0.00	555.00	0.36	555.00	9003	-3135	-3136	S	904	QA	ZG	0.00	555.00	0.36	555.00
9003	-3136	-3137	S	904	QA	ZG	0.00	555.00	0.36	555.00	9003	-3137	-3138	S	904	QA	ZG	0.00	555.00	0.36	555.00
9003	-3138	-3139	S	904	QA	ZG	0.00	555.00	0.36	555.00	9003	-3139	-3140	S	904	QA	ZG	0.00	555.00	0.36	555.00
9003	-3140	909	S	904	QA	ZG	0.00	555.00	0.36	555.00	9003	909	-3141	S	904	QA	ZG	0.00	555.00	0.40	555.00
9003	-3141	-3142	S	904	QA	ZG	0.00	555.00	0.40	555.00	9003	-3142	-3143	S	904	QA	ZG	0.00	555.00	0.40	555.00
9003	-3143	-3144	S	904	QA	ZG	0.00	555.00	0.40	555.00	9003	-3144	-3145	S	904	QA	ZG	0.00	555.00	0.40	555.00
9003	-3145	-3146	S	904	QA	ZG	0.00	555.00	0.40	555.00	9003	-3146	-3147	S	904	QA	ZG	0.00	555.00	0.40	555.00
9003	-3147	910	S	904	QA	ZG	0.00	555.00	0.40	555.00	9003	910	-3148	S	904	QA	ZG	0.00	555.00	0.38	555.00
9003	-3148	-3149	S	904	QA	ZG	0.00	555.00	0.33	555.00	9003	-3148	-3149	S	904	QA	ZG	0.33	377.00	0.38	377.00
9003	-3149	-3150	S	904	QA	ZG	0.00	377.00	0.38	377.00	9003	-3150	-3151	S	904	QA	ZG	0.00	377.00	0.38	377.00
9003	-3151	-3152	S	904	QA	ZG	0.00	377.00	0.38	377.00	9003	-3152	-3153	S	904	QA	ZG	0.00	377.00	0.38	377.00
9003	-3153	-3154	S	904	QA	ZG	0.00	377.00	0.03	377.00	9003	-3153	-3154	S	904	QA	ZG	0.03	555.00	0.38	555.00
9003	-3154	911	S	904	QA	ZG	0.00	555.00	0.38	555.00	9003	911	-3155	S	904	QA	ZG	0.00	555.00	0.40	555.00
9003	-3155	-3156	S	904	QA	ZG	0.00	555.00	0.40	555.00	9003	-3156	-3157	S	904	QA	ZG	0.00	555.00	0.40	555.00
9003	-3157	-3158	S	904	QA	ZG	0.00	555.00	0.40	555.00	9003	-3158	-3159	S	904	QA	ZG	0.00	555.00	0.40	555.00
9003	-3159	-3160	S	904	QA	ZG	0.00	555.00	0.40	555.00	9003	-3160	-3161	S	904	QA	ZG	0.00	555.00	0.40	555.00
9003	-3161	912	S	904	QA	ZG	0.00	555.00	0.40	555.00	9003	912	-3162	S	904	QA	ZG	0.00	555.00	0.36	555.00
9003	-3162	-3163	S	904	QA	ZG	0.00	555.00	0.36	555.00	9003	-3163	-3164	S	904	QA	ZG	0.00	555.00	0.36	555.00
9003	-3164	-3165	S	904	QA	ZG	0.00	555.00	0.36	555.00	9003	-3165	-3166	S	904	QA	ZG	0.00	555.00	0.36	555.00
9003	-3166	-3167	S	904	QA	ZG	0.00	555.00	0.36	555.00	9003	-3167	-3168	S	904	QA	ZG	0.00	555.00	0.36	555.00
9003	-3168	-3169	S	904	QA	ZG	0.00	555.00	0.36	555.00	9003	-3169	913	S	904	QA	ZG	0.00	555.00	0.36	555.00
9003	913	914	S	907	QA	ZG	0.00	555.00	3.25	555.00	9003	914	915	S	907	QA	ZG	0.00	555.00	3.25	555.00
9003	915	-3170	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3170	-3171	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3171	-3172	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3172	-3173	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3173	-3174	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3174	-3175	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3175	-3176	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3176	-3177	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3177	916	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	916	-3178	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3178	-3179	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3179	-3180	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3180	-3181	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3181	-3182	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3182	-3183	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3183	-3184	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3184	-3185	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3185	917	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	917	-3186	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3186	-3187	S	907	QA	ZG	0.00	555.00	0.29	555.00
9003	-3186	-3187	S	907	QA	ZG	0.29	377.00	0.36	377.00	9003	-3187	-3188	S	907	QA	ZG	0.00	377.00	0.36	377.00
9003	-3188	-3189	S	907	QA	ZG	0.00	377.00	0.36	377.00	9003	-3189	-3190	S	907	QA	ZG	0.00	377.00	0.36	377.00
9003	-3190	-3191	S	907	QA	ZG	0.00	377.00	0.36	377.00	9003	-3191	-3192	S	907	QA	ZG	0.00	377.00	0.06	377.00
9003	-3191	-3192	S	907	QA	ZG	0.06	555.00	0.36	555.00	9003	-3192	918	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	918	-3193	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3193	-3194	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3194	-3195	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3195	-3196	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3196	-3197	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3197	-3198	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3198	-3199	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3199	-3200	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3200	919	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	919	-3201	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3201	-3202	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3202	-3203	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3203	-3204	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3204	-3205	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3205	-3206	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3206	-3207	S	907	QA	ZG	0.00	555.00	0.36	555.00
9003	-3207	-3208	S	907	QA	ZG	0.00	555.00	0.36	555.00	9003	-3208	920	S	907	QA	ZG	0.00	555.00	0.36	555.00
9009	941	942	S	905	QA	ZG	0.00	517.00	3.25	517.00	9009	942	943	S	905	QA	ZG	0.00	517.00	3.25	517.00
9009	943	944	S	905	QA	ZG	0.00	517.00	3.20	517.00	9009	945	946	S	902	QA	ZG	0.00	517.00	3.18	517.00
9009	946	947	S	902	QA	ZG	0.00	517.00	3.25	517.00	9009	947	948	S	903	QA	ZG	0.00	517.00	3.25	517.00
9009	948	949	S	903	QA	ZG	0.00	517.00	3.25	517.00	9009	949	950	S	903	QA	ZG	0.00	517.00	3.25	517.00
9009	950	951	S	903	QA	ZG	0.00	517.00	3.25	517.00	9009	952	953	S	906	QA	ZG	0.00	517.00	3.23	517.00
9009	953	954	S	906	QA	ZG	0.00	517.00	3.23	517.00	11003	1107	1108	S	1105	QA	ZG	0.00	555.00	3.25	555.00
11003	1108	-3898	S	1105	QA	ZG	0.00	555.00	0.36	555.00	11003	-3898	-3899	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3899	-3900	S	1105	QA	ZG	0.00	555.00	0.36	555.00	11003	-3900	-3901	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3901	-3902	S	1105	QA	ZG	0.00	555.00	0.36	555.00	11003	-3902	-3903	S	1105	QA	ZG	0.00	555.00	0.36	555.00



Relazione di calcolo

11003	-3903	-3904	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3905	1109	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3906	-3907	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3908	-3909	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3910	-3911	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3912	1110	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3913	-3914	S	1105	QA	ZG	0.00	555.00	0.33	555.00
11003	-3914	-3915	S	1105	QA	ZG	0.00	377.00	0.38	377.00
11003	-3916	-3917	S	1105	QA	ZG	0.00	377.00	0.38	377.00
11003	-3918	-3919	S	1105	QA	ZG	0.00	377.00	0.03	377.00
11003	-3919	1111	S	1105	QA	ZG	0.00	555.00	0.38	555.00
11003	-3920	-3921	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3922	-3923	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3924	-3925	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3926	1112	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3927	-3928	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3929	-3930	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3931	-3932	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3933	-3934	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	1113	1114	S	1108	QA	ZG	0.00	555.00	3.25	555.00
11003	1115	-3935	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3936	-3937	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3938	-3939	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3940	-3941	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3942	1116	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3943	-3944	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3945	-3946	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3947	-3948	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3949	-3950	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	1117	-3951	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3951	-3952	S	1108	QA	ZG	0.29	377.00	0.36	377.00
11003	-3953	-3954	S	1108	QA	ZG	0.00	377.00	0.36	377.00
11003	-3955	-3956	S	1108	QA	ZG	0.00	377.00	0.36	377.00
11003	-3956	-3957	S	1108	QA	ZG	0.06	555.00	0.36	555.00
11003	1118	-3958	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3959	-3960	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3961	-3962	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3963	-3964	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3965	1119	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3966	-3967	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3968	-3969	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3970	-3971	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3972	-3973	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11007	1132	1193	S	1104	QA	ZG	0.00	517.00	3.25	517.00
11009	1141	1142	S	1106	QA	ZG	0.00	517.00	3.25	517.00
11009	1143	1144	S	1106	QA	ZG	0.00	517.00	3.20	517.00
11009	1146	1147	S	1103	QA	ZG	0.00	517.00	3.25	517.00
11009	1148	1149	S	1104	QA	ZG	0.00	517.00	3.25	517.00
11009	1150	1151	S	1104	QA	ZG	0.00	517.00	3.25	517.00
11009	1153	1154	S	1107	QA	ZG	0.00	517.00	3.23	517.00
13003	1308	-4663	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4664	-4665	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4666	-4667	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4668	-4669	S	1305	QA	ZG	0.00	555.00	0.36	555.00
11003	-3904	-3905	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	1109	-3906	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3907	-3908	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3909	-3910	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3911	-3912	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	1110	-3913	S	1105	QA	ZG	0.00	555.00	0.38	555.00
11003	-3913	-3914	S	1105	QA	ZG	0.33	377.00	0.38	377.00
11003	-3915	-3916	S	1105	QA	ZG	0.00	377.00	0.38	377.00
11003	-3917	-3918	S	1105	QA	ZG	0.00	377.00	0.38	377.00
11003	-3918	-3919	S	1105	QA	ZG	0.03	555.00	0.38	555.00
11003	1111	-3920	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3921	-3922	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3923	-3924	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	-3925	-3926	S	1105	QA	ZG	0.00	555.00	0.40	555.00
11003	1112	-3927	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3928	-3929	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3930	-3931	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3932	-3933	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	-3934	1113	S	1105	QA	ZG	0.00	555.00	0.36	555.00
11003	1114	1115	S	1108	QA	ZG	0.00	555.00	3.25	555.00
11003	-3935	-3936	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3937	-3938	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3939	-3940	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3941	-3942	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	1116	-3943	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3944	-3945	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3946	-3947	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3948	-3949	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3950	1117	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3951	-3952	S	1108	QA	ZG	0.00	555.00	0.29	555.00
11003	-3952	-3953	S	1108	QA	ZG	0.00	377.00	0.36	377.00
11003	-3954	-3955	S	1108	QA	ZG	0.00	377.00	0.36	377.00
11003	-3956	-3957	S	1108	QA	ZG	0.00	377.00	0.06	377.00
11003	-3957	1118	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3958	-3959	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3960	-3961	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3962	-3963	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3964	-3965	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	1119	-3966	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3967	-3968	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3969	-3970	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3971	-3972	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11003	-3973	1120	S	1108	QA	ZG	0.00	555.00	0.36	555.00
11007	1132	1193	S	1108	QA	ZG	0.00	555.00	3.25	555.00
11009	1142	1143	S	1106	QA	ZG	0.00	517.00	3.25	517.00
11009	1145	1146	S	1103	QA	ZG	0.00	517.00	3.18	517.00
11009	1147	1148	S	1104	QA	ZG	0.00	517.00	3.25	517.00
11009	1149	1150	S	1104	QA	ZG	0.00	517.00	3.25	517.00
11009	1152	1153	S	1107	QA	ZG	0.00	517.00	3.23	517.00
13003	1307	1308	S	1305	QA	ZG	0.00	555.00	3.25	555.00
13003	-4663	-4664	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4665	-4666	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4667	-4668	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4669	-4670	S	1305	QA	ZG	0.00	555.00	0.36	555.00



## Relazione di calcolo

13003	-4670	1309	S	1305	QA	ZG	0.00	555.00	0.36	555.00	13003	1309	-4671	S	1305	QA	ZG	0.00	555.00	0.40	555.00
13003	-4671	-4672	S	1305	QA	ZG	0.00	555.00	0.40	555.00	13003	-4672	-4673	S	1305	QA	ZG	0.00	555.00	0.40	555.00
13003	-4673	-4674	S	1305	QA	ZG	0.00	555.00	0.40	555.00	13003	-4674	-4675	S	1305	QA	ZG	0.00	555.00	0.40	555.00
13003	-4675	-4676	S	1305	QA	ZG	0.00	555.00	0.40	555.00	13003	-4676	-4677	S	1305	QA	ZG	0.00	555.00	0.40	555.00
13003	-4677	1310	S	1305	QA	ZG	0.00	555.00	0.40	555.00	13003	1310	-4678	S	1305	QA	ZG	0.00	555.00	0.38	555.00
13003	-4678	-4679	S	1305	QA	ZG	0.00	555.00	0.33	555.00	13003	-4678	-4679	S	1305	QA	ZG	0.33	377.00	0.38	377.00
13003	-4679	-4680	S	1305	QA	ZG	0.00	377.00	0.38	377.00	13003	-4680	-4681	S	1305	QA	ZG	0.00	377.00	0.38	377.00
13003	-4681	-4682	S	1305	QA	ZG	0.00	377.00	0.38	377.00	13003	-4682	-4683	S	1305	QA	ZG	0.00	377.00	0.38	377.00
13003	-4683	-4684	S	1305	QA	ZG	0.00	377.00	0.03	377.00	13003	-4683	-4684	S	1305	QA	ZG	0.03	555.00	0.38	555.00
13003	-4684	1311	S	1305	QA	ZG	0.00	555.00	0.38	555.00	13003	1311	-4685	S	1305	QA	ZG	0.00	555.00	0.40	555.00
13003	-4685	-4686	S	1305	QA	ZG	0.00	555.00	0.40	555.00	13003	-4686	-4687	S	1305	QA	ZG	0.00	555.00	0.40	555.00
13003	-4687	-4688	S	1305	QA	ZG	0.00	555.00	0.40	555.00	13003	-4688	-4689	S	1305	QA	ZG	0.00	555.00	0.40	555.00
13003	-4689	-4690	S	1305	QA	ZG	0.00	555.00	0.40	555.00	13003	-4690	-4691	S	1305	QA	ZG	0.00	555.00	0.40	555.00
13003	-4691	1312	S	1305	QA	ZG	0.00	555.00	0.40	555.00	13003	1312	-4692	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4692	-4693	S	1305	QA	ZG	0.00	555.00	0.36	555.00	13003	-4693	-4694	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4694	-4695	S	1305	QA	ZG	0.00	555.00	0.36	555.00	13003	-4695	-4696	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4696	-4697	S	1305	QA	ZG	0.00	555.00	0.36	555.00	13003	-4697	-4698	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	-4698	-4699	S	1305	QA	ZG	0.00	555.00	0.36	555.00	13003	-4699	1313	S	1305	QA	ZG	0.00	555.00	0.36	555.00
13003	1313	1314	S	1308	QA	ZG	0.00	555.00	3.25	555.00	13003	1314	1315	S	1308	QA	ZG	0.00	555.00	3.25	555.00
13003	1315	-4700	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4700	-4701	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4701	-4702	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4702	-4703	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4703	-4704	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4704	-4705	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4705	-4706	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4706	-4707	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4707	1316	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	1316	-4708	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4708	-4709	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4709	-4710	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4710	-4711	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4711	-4712	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4712	-4713	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4713	-4714	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4714	-4715	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4715	1317	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	1317	-4716	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4716	-4717	S	1308	QA	ZG	0.00	555.00	0.29	555.00
13003	-4716	-4717	S	1308	QA	ZG	0.29	377.00	0.36	377.00	13003	-4717	-4718	S	1308	QA	ZG	0.00	377.00	0.36	377.00
13003	-4718	-4719	S	1308	QA	ZG	0.00	377.00	0.36	377.00	13003	-4719	-4720	S	1308	QA	ZG	0.00	377.00	0.36	377.00
13003	-4720	-4721	S	1308	QA	ZG	0.00	377.00	0.36	377.00	13003	-4721	-4722	S	1308	QA	ZG	0.00	377.00	0.06	377.00
13003	-4721	-4722	S	1308	QA	ZG	0.06	555.00	0.36	555.00	13003	-4722	1318	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	1318	-4723	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4723	-4724	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4724	-4725	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4725	-4726	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4726	-4727	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4727	-4728	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4728	-4729	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4729	-4730	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4730	1319	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	1319	-4731	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4731	-4732	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4732	-4733	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4733	-4734	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4734	-4735	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4735	-4736	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4736	-4737	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13003	-4737	-4738	S	1308	QA	ZG	0.00	555.00	0.36	555.00	13003	-4738	1320	S	1308	QA	ZG	0.00	555.00	0.36	555.00
13009	1341	1342	S	1306	QA	ZG	0.00	517.00	3.25	517.00	13009	1342	1343	S	1306	QA	ZG	0.00	517.00	3.25	517.00
13009	1343	1344	S	1306	QA	ZG	0.00	517.00	3.20	517.00	13009	1345	1346	S	1303	QA	ZG	0.00	517.00	3.18	517.00
13009	1346	1347	S	1303	QA	ZG	0.00	517.00	3.25	517.00	13009	1347	1348	S	1304	QA	ZG	0.00	517.00	3.25	517.00
13009	1348	1349	S	1304	QA	ZG	0.00	517.00	3.25	517.00	13009	1349	1350	S	1304	QA	ZG	0.00	517.00	3.25	517.00
13009	1350	1351	S	1304	QA	ZG	0.00	517.00	3.25	517.00	13009	1352	1353	S	1307	QA	ZG	0.00	517.00	3.23	517.00
13009	1353	1354	S	1307	QA	ZG	0.00	517.00	3.23	517.00	15003	1507	1508	S	1505	QA	ZG	0.00	555.00	3.25	555.00
15003	1508	-5428	S	1505	QA	ZG	0.00	555.00	0.36	555.00	15003	-5428	-5429	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5429	-5430	S	1505	QA	ZG	0.00	555.00	0.36	555.00	15003	-5430	-5431	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5431	-5432	S	1505	QA	ZG	0.00	555.00	0.36	555.00	15003	-5432	-5433	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5433	-5434	S	1505	QA	ZG	0.00	555.00	0.36	555.00	15003	-5434	-5435	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5435	1509	S	1505	QA	ZG	0.00	555.00	0.36	555.00	15003	1509	-5436	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5436	-5437	S	1505	QA	ZG	0.00	555.00	0.40	555.00	15003	-5437	-5438	S	1505	QA	ZG	0.00	555.00	0.40	555.00



Relazione di calcolo

15003	-5438	-5439	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5440	-5441	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5442	1510	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5443	-5444	S	1505	QA	ZG	0.00	555.00	0.33	555.00
15003	-5444	-5445	S	1505	QA	ZG	0.00	377.00	0.38	377.00
15003	-5446	-5447	S	1505	QA	ZG	0.00	377.00	0.38	377.00
15003	-5448	-5449	S	1505	QA	ZG	0.00	377.00	0.03	377.00
15003	-5449	1511	S	1505	QA	ZG	0.00	555.00	0.38	555.00
15003	-5450	-5451	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5452	-5453	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5454	-5455	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5456	1512	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5457	-5458	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5459	-5460	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5461	-5462	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5463	-5464	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	1513	1514	S	1508	QA	ZG	0.00	555.00	3.25	555.00
15003	1515	-5465	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5466	-5467	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5468	-5469	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5470	-5471	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5472	1516	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5473	-5474	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5475	-5476	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5477	-5478	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5479	-5480	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	1517	-5481	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5481	-5482	S	1508	QA	ZG	0.29	377.00	0.36	377.00
15003	-5483	-5484	S	1508	QA	ZG	0.00	377.00	0.36	377.00
15003	-5485	-5486	S	1508	QA	ZG	0.00	377.00	0.36	377.00
15003	-5486	-5487	S	1508	QA	ZG	0.06	555.00	0.36	555.00
15003	1518	-5488	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5489	-5490	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5491	-5492	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5493	-5494	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5495	1519	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5496	-5497	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5498	-5499	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5500	-5501	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5502	-5503	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15009	1541	1542	S	1506	QA	ZG	0.00	517.00	3.25	517.00
15009	1543	1544	S	1506	QA	ZG	0.00	517.00	3.20	517.00
15009	1546	1547	S	1503	QA	ZG	0.00	517.00	3.25	517.00
15009	1548	1549	S	1504	QA	ZG	0.00	517.00	3.25	517.00
15009	1550	1551	S	1504	QA	ZG	0.00	517.00	3.25	517.00
15009	1553	1554	S	1507	QA	ZG	0.00	517.00	3.23	517.00
17003	1708	-6194	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6195	-6196	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6197	-6198	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6199	-6200	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6201	1709	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6202	-6203	S	1705	QA	ZG	0.00	555.00	0.40	555.00
17003	-6204	-6205	S	1705	QA	ZG	0.00	555.00	0.40	555.00
17003	-6206	-6207	S	1705	QA	ZG	0.00	555.00	0.40	555.00
15003	-5439	-5440	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5441	-5442	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	1510	-5443	S	1505	QA	ZG	0.00	555.00	0.38	555.00
15003	-5443	-5444	S	1505	QA	ZG	0.33	377.00	0.38	377.00
15003	-5445	-5446	S	1505	QA	ZG	0.00	377.00	0.38	377.00
15003	-5447	-5448	S	1505	QA	ZG	0.00	377.00	0.38	377.00
15003	-5448	-5449	S	1505	QA	ZG	0.03	555.00	0.38	555.00
15003	1511	-5450	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5451	-5452	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5453	-5454	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	-5455	-5456	S	1505	QA	ZG	0.00	555.00	0.40	555.00
15003	1512	-5457	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5458	-5459	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5460	-5461	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5462	-5463	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	-5464	1513	S	1505	QA	ZG	0.00	555.00	0.36	555.00
15003	1514	1515	S	1508	QA	ZG	0.00	555.00	3.25	555.00
15003	-5465	-5466	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5467	-5468	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5469	-5470	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5471	-5472	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	1516	-5473	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5474	-5475	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5476	-5477	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5478	-5479	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5480	1517	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5481	-5482	S	1508	QA	ZG	0.00	555.00	0.29	555.00
15003	-5482	-5483	S	1508	QA	ZG	0.00	377.00	0.36	377.00
15003	-5484	-5485	S	1508	QA	ZG	0.00	377.00	0.36	377.00
15003	-5486	-5487	S	1508	QA	ZG	0.00	377.00	0.06	377.00
15003	-5487	1518	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5488	-5489	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5490	-5491	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5492	-5493	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5494	-5495	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	1519	-5496	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5497	-5498	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5499	-5500	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5501	-5502	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15003	-5503	1520	S	1508	QA	ZG	0.00	555.00	0.36	555.00
15009	1542	1543	S	1506	QA	ZG	0.00	517.00	3.25	517.00
15009	1545	1546	S	1503	QA	ZG	0.00	517.00	3.18	517.00
15009	1547	1548	S	1504	QA	ZG	0.00	517.00	3.25	517.00
15009	1549	1550	S	1504	QA	ZG	0.00	517.00	3.25	517.00
15009	1552	1553	S	1507	QA	ZG	0.00	517.00	3.23	517.00
17003	1707	1708	S	1705	QA	ZG	0.00	555.00	3.25	555.00
17003	-6194	-6195	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6196	-6197	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6198	-6199	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6200	-6201	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	1709	-6202	S	1705	QA	ZG	0.00	555.00	0.40	555.00
17003	-6203	-6204	S	1705	QA	ZG	0.00	555.00	0.40	555.00
17003	-6205	-6206	S	1705	QA	ZG	0.00	555.00	0.40	555.00
17003	-6207	-6208	S	1705	QA	ZG	0.00	555.00	0.40	555.00



Relazione di calcolo

17003	-6208	1710	S	1705	QA	ZG	0.00	555.00	0.40	555.00	17003	1710	-6209	S	1705	QA	ZG	0.00	555.00	0.38	555.00
17003	-6209	-6210	S	1705	QA	ZG	0.00	555.00	0.33	555.00	17003	-6209	-6210	S	1705	QA	ZG	0.33	377.00	0.38	377.00
17003	-6210	-6211	S	1705	QA	ZG	0.00	377.00	0.38	377.00	17003	-6211	-6212	S	1705	QA	ZG	0.00	377.00	0.38	377.00
17003	-6212	-6213	S	1705	QA	ZG	0.00	377.00	0.38	377.00	17003	-6213	-6214	S	1705	QA	ZG	0.00	377.00	0.38	377.00
17003	-6214	-6215	S	1705	QA	ZG	0.00	377.00	0.03	377.00	17003	-6214	-6215	S	1705	QA	ZG	0.03	555.00	0.38	555.00
17003	-6215	1711	S	1705	QA	ZG	0.00	555.00	0.38	555.00	17003	1711	-6216	S	1705	QA	ZG	0.00	555.00	0.40	555.00
17003	-6216	-6217	S	1705	QA	ZG	0.00	555.00	0.40	555.00	17003	-6217	-6218	S	1705	QA	ZG	0.00	555.00	0.40	555.00
17003	-6218	-6219	S	1705	QA	ZG	0.00	555.00	0.40	555.00	17003	-6219	-6220	S	1705	QA	ZG	0.00	555.00	0.40	555.00
17003	-6220	-6221	S	1705	QA	ZG	0.00	555.00	0.40	555.00	17003	-6221	-6222	S	1705	QA	ZG	0.00	555.00	0.40	555.00
17003	-6222	1712	S	1705	QA	ZG	0.00	555.00	0.40	555.00	17003	1712	-6223	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6223	-6224	S	1705	QA	ZG	0.00	555.00	0.36	555.00	17003	-6224	-6225	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6225	-6226	S	1705	QA	ZG	0.00	555.00	0.36	555.00	17003	-6226	-6227	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6227	-6228	S	1705	QA	ZG	0.00	555.00	0.36	555.00	17003	-6228	-6229	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	-6229	-6230	S	1705	QA	ZG	0.00	555.00	0.36	555.00	17003	-6230	1713	S	1705	QA	ZG	0.00	555.00	0.36	555.00
17003	1713	1714	S	1708	QA	ZG	0.00	555.00	3.25	555.00	17003	1714	1715	S	1708	QA	ZG	0.00	555.00	3.25	555.00
17003	1715	-6231	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6231	-6232	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6232	-6233	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6233	-6234	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6234	-6235	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6235	-6236	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6236	-6237	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6237	-6238	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6238	1716	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6238	-6239	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6239	-6240	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	1716	-6239	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6241	-6242	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6240	-6241	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6243	-6244	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6242	-6243	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6245	-6246	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6244	-6245	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	1717	-6247	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6246	1717	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6247	-6248	S	1708	QA	ZG	0.29	377.00	0.36	377.00	17003	-6247	-6248	S	1708	QA	ZG	0.00	555.00	0.29	555.00
17003	-6249	-6250	S	1708	QA	ZG	0.00	377.00	0.36	377.00	17003	-6248	-6249	S	1708	QA	ZG	0.00	377.00	0.36	377.00
17003	-6251	-6252	S	1708	QA	ZG	0.00	377.00	0.36	377.00	17003	-6249	-6250	S	1708	QA	ZG	0.00	377.00	0.36	377.00
17003	-6252	-6253	S	1708	QA	ZG	0.06	555.00	0.36	555.00	17003	-6251	-6252	S	1708	QA	ZG	0.00	377.00	0.06	377.00
17003	1718	-6254	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6252	-6253	S	1708	QA	ZG	0.00	377.00	0.06	377.00
17003	-6255	-6256	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6253	1718	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6257	-6258	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6254	-6255	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6259	-6260	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6256	-6257	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6261	1719	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6258	-6259	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6262	-6263	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6260	-6261	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6264	-6265	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	1719	-6262	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6266	-6267	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6263	-6264	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17003	-6268	-6269	S	1708	QA	ZG	0.00	555.00	0.36	555.00	17003	-6265	-6266	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17007	1791	1792	S	1705	QA	ZG	0.00	555.00	0.72	555.00	17003	-6267	-6268	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17009	1742	1743	S	1706	QA	ZG	0.00	517.00	3.25	517.00	17003	-6269	1720	S	1708	QA	ZG	0.00	555.00	0.36	555.00
17009	1745	1746	S	1703	QA	ZG	0.00	517.00	3.18	517.00	17009	1741	1742	S	1706	QA	ZG	0.00	517.00	3.25	517.00
17009	1747	1748	S	1704	QA	ZG	0.00	517.00	3.25	517.00	17009	1743	1744	S	1706	QA	ZG	0.00	517.00	3.20	517.00
17009	1749	1750	S	1704	QA	ZG	0.00	517.00	3.25	517.00	17009	1746	1747	S	1703	QA	ZG	0.00	517.00	3.25	517.00
17009	1752	1753	S	1707	QA	ZG	0.00	517.00	3.23	517.00	17009	1748	1749	S	1704	QA	ZG	0.00	517.00	3.25	517.00
19003	1907	1908	S	1905	QA	ZG	0.00	555.00	3.25	555.00	17009	1750	1751	S	1704	QA	ZG	0.00	517.00	3.25	517.00
19003	-6959	-6960	S	1905	QA	ZG	0.00	555.00	0.36	555.00	17009	1753	1754	S	1707	QA	ZG	0.00	517.00	3.23	517.00
19003	-6961	-6962	S	1905	QA	ZG	0.00	555.00	0.36	555.00	19003	1908	-6959	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6963	-6964	S	1905	QA	ZG	0.00	555.00	0.36	555.00	19003	-6960	-6961	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6965	-6966	S	1905	QA	ZG	0.00	555.00	0.36	555.00	19003	-6962	-6963	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	1909	-6967	S	1905	QA	ZG	0.00	555.00	0.40	555.00	19003	-6964	-6965	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6968	-6969	S	1905	QA	ZG	0.00	555.00	0.40	555.00	19003	-6966	1909	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6970	-6971	S	1905	QA	ZG	0.00	555.00	0.40	555.00	19003	-6967	-6968	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	-6972	-6973	S	1905	QA	ZG	0.00	555.00	0.40	555.00	19003	-6969	-6970	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	1910	-6974	S	1905	QA	ZG	0.00	555.00	0.38	555.00	19003	-6971	-6972	S	1905	QA	ZG	0.00	555.00	0.40	555.00
											19003	-6973	1910	S	1905	QA	ZG	0.00	555.00	0.40	555.00
											19003	-6974	-6975	S	1905	QA	ZG	0.00	555.00	0.33	555.00



Relazione di calcolo

19003	-6974	-6975	S	1905	QA	ZG	0.33	377.00	0.38	377.00
19003	-6976	-6977	S	1905	QA	ZG	0.00	377.00	0.38	377.00
19003	-6978	-6979	S	1905	QA	ZG	0.00	377.00	0.38	377.00
19003	-6979	-6980	S	1905	QA	ZG	0.03	555.00	0.38	555.00
19003	1911	-6981	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	-6982	-6983	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	-6984	-6985	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	-6986	-6987	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	1912	-6988	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6989	-6990	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6991	-6992	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6993	-6994	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6995	1913	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	1914	1915	S	1904	QA	ZG	0.00	555.00	3.25	555.00
19003	-6996	-6997	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-6998	-6999	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7000	-7001	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7002	-7003	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	1916	-7004	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7005	-7006	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7007	-7008	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7009	-7010	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7011	1917	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7012	-7013	S	1904	QA	ZG	0.00	555.00	0.29	555.00
19003	-7013	-7014	S	1904	QA	ZG	0.00	377.00	0.36	377.00
19003	-7015	-7016	S	1904	QA	ZG	0.00	377.00	0.36	377.00
19003	-7017	-7018	S	1904	QA	ZG	0.00	377.00	0.06	377.00
19003	-7018	1918	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7019	-7020	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7021	-7022	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7023	-7024	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7025	-7026	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	1919	-7027	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7028	-7029	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7030	-7031	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7032	-7033	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7034	1920	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19009	1942	1943	S	1906	QA	ZG	0.00	517.00	3.25	517.00
19009	1945	1946	S	1903	QA	ZG	0.00	517.00	3.18	517.00
19009	1947	1948	S	1908	QA	ZG	0.00	517.00	3.25	517.00
19009	1949	1950	S	1908	QA	ZG	0.00	517.00	3.25	517.00
19009	1952	1953	S	1907	QA	ZG	0.00	517.00	3.23	517.00
22020	7	25	S	2209	QA	ZG	0.00	325.00	5.55	325.00
22021	8	26	S	2206	QA	ZG	0.00	325.00	5.55	325.00
22021	26	42	S	2207	QA	ZG	0.00	325.00	5.17	325.00
22022	9	27	S	2206	QA	ZG	0.00	325.00	5.55	325.00
22022	27	43	S	2207	QA	ZG	0.00	325.00	5.17	325.00
22024	10	59	S	2220	QA	ZG	0.00	320.00	2.66	320.00
22024	59	-105	S	2220	QA	ZG	0.00	320.00	1.11	320.00
22024	-105	-123	S	2220	QA	ZG	0.00	320.00	0.59	320.00
22024	-123	-140	S	2220	QA	ZG	0.00	320.00	0.59	320.00
22024	-140	-157	S	2220	QA	ZG	0.00	320.00	0.59	320.00
22024	-157	-178	S	2221	QA	ZG	0.00	320.00	1.11	320.00
22024	-178	44	S	2221	QA	ZG	0.00	320.00	4.06	320.00
19003	-6975	-6976	S	1905	QA	ZG	0.00	377.00	0.38	377.00
19003	-6977	-6978	S	1905	QA	ZG	0.00	377.00	0.38	377.00
19003	-6979	-6980	S	1905	QA	ZG	0.00	377.00	0.03	377.00
19003	-6980	1911	S	1905	QA	ZG	0.00	555.00	0.38	555.00
19003	-6981	-6982	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	-6983	-6984	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	-6985	-6986	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	-6987	1912	S	1905	QA	ZG	0.00	555.00	0.40	555.00
19003	-6988	-6989	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6990	-6991	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6992	-6993	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	-6994	-6995	S	1905	QA	ZG	0.00	555.00	0.36	555.00
19003	1913	1914	S	1904	QA	ZG	0.00	555.00	3.25	555.00
19003	1915	-6996	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-6997	-6998	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-6999	-7000	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7001	-7002	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7003	1916	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7004	-7005	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7006	-7007	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7008	-7009	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7010	-7011	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	1917	-7012	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7012	-7013	S	1904	QA	ZG	0.29	377.00	0.36	377.00
19003	-7014	-7015	S	1904	QA	ZG	0.00	377.00	0.36	377.00
19003	-7016	-7017	S	1904	QA	ZG	0.00	377.00	0.36	377.00
19003	-7017	-7018	S	1904	QA	ZG	0.06	555.00	0.36	555.00
19003	1918	-7019	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7020	-7021	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7022	-7023	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7024	-7025	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7026	1919	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7027	-7028	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7029	-7030	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7031	-7032	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19003	-7033	-7034	S	1904	QA	ZG	0.00	555.00	0.36	555.00
19009	1941	1942	S	1906	QA	ZG	0.00	517.00	3.25	517.00
19009	1943	1944	S	1906	QA	ZG	0.00	517.00	3.20	517.00
19009	1946	1947	S	1903	QA	ZG	0.00	517.00	3.25	517.00
19009	1948	1949	S	1908	QA	ZG	0.00	517.00	3.25	517.00
19009	1950	1951	S	1908	QA	ZG	0.00	517.00	3.25	517.00
19009	1953	1954	S	1907	QA	ZG	0.00	517.00	3.23	517.00
22020	25	41	S	2208	QA	ZG	0.00	325.00	5.17	325.00
22021	8	26	S	2209	QA	ZG	0.00	325.00	5.55	325.00
22021	26	42	S	2208	QA	ZG	0.00	325.00	5.17	325.00
22022	9	27	S	2220	QA	ZG	0.00	320.00	5.55	320.00
22022	27	43	S	2221	QA	ZG	0.00	320.00	5.17	320.00
22024	10	59	S	2223	QA	ZG	0.00	300.00	2.66	300.00
22024	59	-105	S	2223	QA	ZG	0.00	300.00	1.11	300.00
22024	-105	-123	S	2223	QA	ZG	0.00	300.00	0.59	300.00
22024	-123	-140	S	2223	QA	ZG	0.00	300.00	0.59	300.00
22024	-140	-157	S	2223	QA	ZG	0.00	300.00	0.59	300.00
22024	-157	-178	S	2222	QA	ZG	0.00	300.00	1.11	300.00
22024	-178	44	S	2222	QA	ZG	0.00	300.00	4.06	300.00



Relazione di calcolo

22027	11	60	S	2223	QA	ZG	0.00	300.00	2.66	300.00
22027	60	-109	S	2223	QA	ZG	0.00	300.00	1.11	300.00
22027	-109	-127	S	2223	QA	ZG	0.00	300.00	0.59	300.00
22027	-127	-144	S	2223	QA	ZG	0.00	300.00	0.59	300.00
22027	-144	-161	S	2223	QA	ZG	0.00	300.00	0.59	300.00
22027	-161	-182	S	2222	QA	ZG	0.00	300.00	1.11	300.00
22027	-182	45	S	2222	QA	ZG	0.00	300.00	4.06	300.00
22029	12	28	S	2204	QA	ZG	0.00	325.00	5.55	325.00
22029	28	46	S	2205	QA	ZG	0.00	325.00	5.17	325.00
22030	13	29	S	2202	QA	ZG	0.00	325.00	5.55	325.00
22030	29	47	S	2203	QA	ZG	0.00	325.00	5.17	325.00
22042	19	133	S	2227	QA	ZG	0.00	323.00	5.55	323.00
22043	20	34	S	2228	QA	ZG	0.00	323.00	5.55	323.00
22136	130	169	S	2230	QA	ZG	0.00	517.00	3.25	517.00
22136	169	170	S	2230	QA	ZG	0.00	517.00	3.25	517.00
22136	170	-163	S	2230	QA	ZG	0.00	517.00	3.90	517.00
22179	-165	-166	S	2230	QA	ZG	0.00	517.00	0.34	517.00
22179	-166	-167	S	2230	QA	ZG	0.00	517.00	0.34	517.00
30008	325	326	S	304	QA	ZG	0.00	555.00	3.25	555.00
30008	326	327	S	304	QA	ZG	0.00	555.00	3.25	555.00
30008	327	389	S	304	QA	ZG	0.00	555.00	3.20	555.00
30008	389	390	S	304	QA	ZG	0.00	555.00	0.70	555.00
30010	392	328	S	303	QA	ZG	0.00	517.00	3.18	517.00
30010	328	329	S	303	QA	ZG	0.00	517.00	3.25	517.00
30010	329	330	S	302	QA	ZG	0.00	517.00	3.25	517.00
30010	330	331	S	302	QA	ZG	0.00	517.00	3.25	517.00
30010	331	332	S	302	QA	ZG	0.00	517.00	3.25	517.00
30010	332	393	S	302	QA	ZG	0.00	517.00	3.25	517.00
30010	393	394	S	307	QA	ZG	0.00	555.00	0.65	555.00
30012	396	333	S	306	QA	ZG	0.00	517.00	3.23	517.00
30012	333	334	S	306	QA	ZG	0.00	517.00	3.23	517.00
50008	525	526	S	504	QA	ZG	0.00	555.00	3.25	555.00
50008	526	527	S	504	QA	ZG	0.00	555.00	3.25	555.00
50008	527	589	S	504	QA	ZG	0.00	555.00	3.20	555.00
50008	589	590	S	504	QA	ZG	0.00	555.00	0.70	555.00
50010	592	528	S	502	QA	ZG	0.00	517.00	3.18	517.00
50010	528	529	S	502	QA	ZG	0.00	517.00	3.25	517.00
50010	529	530	S	503	QA	ZG	0.00	517.00	3.25	517.00
50010	530	531	S	503	QA	ZG	0.00	517.00	3.25	517.00
50010	531	532	S	503	QA	ZG	0.00	517.00	3.25	517.00
50010	532	593	S	503	QA	ZG	0.00	517.00	3.25	517.00
50010	593	594	S	507	QA	ZG	0.00	555.00	0.65	555.00
50012	596	533	S	506	QA	ZG	0.00	517.00	3.23	517.00
50012	533	534	S	506	QA	ZG	0.00	517.00	3.23	517.00
70008	725	726	S	702	QA	ZG	0.00	555.00	3.25	555.00
70008	726	727	S	702	QA	ZG	0.00	555.00	3.25	555.00
70008	727	789	S	702	QA	ZG	0.00	555.00	3.20	555.00
70008	789	790	S	702	QA	ZG	0.00	555.00	0.70	555.00
70010	792	728	S	702	QA	ZG	0.00	555.00	3.18	555.00
70010	728	729	S	702	QA	ZG	0.00	555.00	3.25	555.00
70010	729	730	S	706	QA	ZG	0.00	555.00	3.25	555.00
70010	730	731	S	706	QA	ZG	0.00	555.00	3.25	555.00
70010	731	732	S	706	QA	ZG	0.00	555.00	3.25	555.00
70010	732	793	S	706	QA	ZG	0.00	555.00	3.25	555.00

22027	11	60	S	2224	QA	ZG	0.00	318.00	2.66	318.00
22027	60	-109	S	2224	QA	ZG	0.00	318.00	1.11	318.00
22027	-109	-127	S	2224	QA	ZG	0.00	318.00	0.59	318.00
22027	-127	-144	S	2224	QA	ZG	0.00	318.00	0.59	318.00
22027	-144	-161	S	2224	QA	ZG	0.00	318.00	0.59	318.00
22027	-161	-182	S	2225	QA	ZG	0.00	318.00	1.11	318.00
22027	-182	45	S	2225	QA	ZG	0.00	318.00	4.06	318.00
22029	12	28	S	2224	QA	ZG	0.00	318.00	5.55	318.00
22029	28	46	S	2225	QA	ZG	0.00	318.00	5.17	318.00
22030	13	29	S	2204	QA	ZG	0.00	325.00	5.55	325.00
22030	29	47	S	2205	QA	ZG	0.00	325.00	5.17	325.00
22042	19	133	S	2228	QA	ZG	0.00	323.00	5.55	323.00
22043	34	54	S	2226	QA	ZG	0.00	323.00	5.17	323.00
22136	130	169	S	2231	QA	ZG	0.00	555.00	3.25	555.00
22136	169	170	S	2231	QA	ZG	0.00	555.00	3.25	555.00
22136	170	-163	S	2231	QA	ZG	0.00	555.00	3.90	555.00
22179	-165	-166	S	2231	QA	ZG	0.00	555.00	0.34	555.00
22179	-166	-167	S	2231	QA	ZG	0.00	555.00	0.34	555.00
30008	325	326	S	305	QA	ZG	0.00	517.00	3.25	517.00
30008	326	327	S	305	QA	ZG	0.00	517.00	3.25	517.00
30008	327	389	S	305	QA	ZG	0.00	517.00	3.20	517.00
30010	391	392	S	304	QA	ZG	0.00	555.00	0.72	555.00
30010	392	328	S	304	QA	ZG	0.00	555.00	3.18	555.00
30010	328	329	S	304	QA	ZG	0.00	555.00	3.25	555.00
30010	329	330	S	307	QA	ZG	0.00	555.00	3.25	555.00
30010	330	331	S	307	QA	ZG	0.00	555.00	3.25	555.00
30010	331	332	S	307	QA	ZG	0.00	555.00	3.25	555.00
30010	332	393	S	307	QA	ZG	0.00	555.00	3.25	555.00
30012	395	396	S	307	QA	ZG	0.00	555.00	0.67	555.00
30012	396	333	S	307	QA	ZG	0.00	555.00	3.23	555.00
30012	333	334	S	307	QA	ZG	0.00	555.00	3.23	555.00
50008	525	526	S	505	QA	ZG	0.00	517.00	3.25	517.00
50008	526	527	S	505	QA	ZG	0.00	517.00	3.25	517.00
50008	527	589	S	505	QA	ZG	0.00	517.00	3.20	517.00
50010	591	592	S	504	QA	ZG	0.00	555.00	0.72	555.00
50010	592	528	S	504	QA	ZG	0.00	555.00	3.18	555.00
50010	528	529	S	504	QA	ZG	0.00	555.00	3.25	555.00
50010	529	530	S	507	QA	ZG	0.00	555.00	3.25	555.00
50010	530	531	S	507	QA	ZG	0.00	555.00	3.25	555.00
50010	531	532	S	507	QA	ZG	0.00	555.00	3.25	555.00
50010	532	593	S	507	QA	ZG	0.00	555.00	3.25	555.00
50012	595	596	S	507	QA	ZG	0.00	555.00	0.67	555.00
50012	596	533	S	507	QA	ZG	0.00	555.00	3.23	555.00
50012	533	534	S	507	QA	ZG	0.00	555.00	3.23	555.00
70008	725	726	S	704	QA	ZG	0.00	517.00	3.25	517.00
70008	726	727	S	704	QA	ZG	0.00	517.00	3.25	517.00
70008	727	789	S	704	QA	ZG	0.00	517.00	3.20	517.00
70010	791	792	S	702	QA	ZG	0.00	555.00	0.72	555.00
70010	792	728	S	703	QA	ZG	0.00	517.00	3.18	517.00
70010	728	729	S	703	QA	ZG	0.00	517.00	3.25	517.00
70010	729	730	S	707	QA	ZG	0.00	517.00	3.25	517.00
70010	730	731	S	707	QA	ZG	0.00	517.00	3.25	517.00
70010	731	732	S	707	QA	ZG	0.00	517.00	3.25	517.00
70010	732	793	S	707	QA	ZG	0.00	517.00	3.25	517.00



Relazione di calcolo

70010	793	794	S	706	QA	ZG	0.00	555.00	0.65	555.00
70012	796	733	S	705	QA	ZG	0.00	517.00	3.23	517.00
70012	733	734	S	705	QA	ZG	0.00	517.00	3.23	517.00
90008	925	926	S	904	QA	ZG	0.00	555.00	3.25	555.00
90008	926	927	S	904	QA	ZG	0.00	555.00	3.25	555.00
90008	927	989	S	904	QA	ZG	0.00	555.00	3.20	555.00
90008	989	990	S	904	QA	ZG	0.00	555.00	0.70	555.00
90010	992	928	S	902	QA	ZG	0.00	517.00	3.18	517.00
90010	928	929	S	902	QA	ZG	0.00	517.00	3.25	517.00
90010	929	930	S	903	QA	ZG	0.00	517.00	3.25	517.00
90010	930	931	S	903	QA	ZG	0.00	517.00	3.25	517.00
90010	931	932	S	903	QA	ZG	0.00	517.00	3.25	517.00
90010	932	993	S	903	QA	ZG	0.00	517.00	3.25	517.00
90010	993	994	S	907	QA	ZG	0.00	555.00	0.65	555.00
90012	996	933	S	906	QA	ZG	0.00	517.00	3.23	517.00
90012	933	934	S	906	QA	ZG	0.00	517.00	3.23	517.00
110008	1125	1126	S	1105	QA	ZG	0.00	555.00	3.25	555.00
110008	1126	1127	S	1105	QA	ZG	0.00	555.00	3.25	555.00
110008	1127	1189	S	1105	QA	ZG	0.00	555.00	3.20	555.00
110008	1189	1190	S	1105	QA	ZG	0.00	555.00	0.70	555.00
110010	1192	1128	S	1103	QA	ZG	0.00	517.00	3.18	517.00
110010	1128	1129	S	1103	QA	ZG	0.00	517.00	3.25	517.00
110010	1129	1130	S	1104	QA	ZG	0.00	517.00	3.25	517.00
110010	1130	1131	S	1104	QA	ZG	0.00	517.00	3.25	517.00
110010	1131	1132	S	1104	QA	ZG	0.00	517.00	3.25	517.00
110010	1193	1194	S	1108	QA	ZG	0.00	555.00	0.65	555.00
110012	1196	1133	S	1107	QA	ZG	0.00	517.00	3.23	517.00
110012	1133	1134	S	1107	QA	ZG	0.00	517.00	3.23	517.00
130008	1325	1326	S	1305	QA	ZG	0.00	555.00	3.25	555.00
130008	1326	1327	S	1305	QA	ZG	0.00	555.00	3.25	555.00
130008	1327	1389	S	1305	QA	ZG	0.00	555.00	3.20	555.00
130008	1389	1390	S	1305	QA	ZG	0.00	555.00	0.70	555.00
130010	1392	1328	S	1303	QA	ZG	0.00	517.00	3.18	517.00
130010	1328	1329	S	1303	QA	ZG	0.00	517.00	3.25	517.00
130010	1329	1330	S	1304	QA	ZG	0.00	517.00	3.25	517.00
130010	1330	1331	S	1304	QA	ZG	0.00	517.00	3.25	517.00
130010	1331	1332	S	1304	QA	ZG	0.00	517.00	3.25	517.00
130010	1332	1393	S	1304	QA	ZG	0.00	517.00	3.25	517.00
130010	1393	1394	S	1308	QA	ZG	0.00	555.00	0.65	555.00
130012	1396	1333	S	1307	QA	ZG	0.00	517.00	3.23	517.00
130012	1333	1334	S	1307	QA	ZG	0.00	517.00	3.23	517.00
150008	1525	1526	S	1505	QA	ZG	0.00	555.00	3.25	555.00
150008	1526	1527	S	1505	QA	ZG	0.00	555.00	3.25	555.00
150008	1527	1589	S	1505	QA	ZG	0.00	555.00	3.20	555.00
150008	1589	1590	S	1505	QA	ZG	0.00	555.00	0.70	555.00
150010	1592	1528	S	1503	QA	ZG	0.00	517.00	3.18	517.00
150010	1528	1529	S	1503	QA	ZG	0.00	517.00	3.25	517.00
150010	1529	1530	S	1504	QA	ZG	0.00	517.00	3.25	517.00
150010	1530	1531	S	1504	QA	ZG	0.00	517.00	3.25	517.00
150010	1531	1532	S	1504	QA	ZG	0.00	517.00	3.25	517.00
150010	1532	1593	S	1504	QA	ZG	0.00	517.00	3.25	517.00
150010	1593	1594	S	1508	QA	ZG	0.00	555.00	0.65	555.00
150012	1596	1533	S	1507	QA	ZG	0.00	517.00	3.23	517.00
150012	1533	1534	S	1507	QA	ZG	0.00	517.00	3.23	517.00
70012	795	796	S	706	QA	ZG	0.00	555.00	0.67	555.00
70012	796	733	S	706	QA	ZG	0.00	555.00	3.23	555.00
70012	733	734	S	706	QA	ZG	0.00	555.00	3.23	555.00
90008	925	926	S	905	QA	ZG	0.00	517.00	3.25	517.00
90008	926	927	S	905	QA	ZG	0.00	517.00	3.25	517.00
90008	927	989	S	905	QA	ZG	0.00	517.00	3.20	517.00
90010	991	992	S	904	QA	ZG	0.00	555.00	0.72	555.00
90010	992	928	S	904	QA	ZG	0.00	555.00	3.18	555.00
90010	928	929	S	904	QA	ZG	0.00	555.00	3.25	555.00
90010	929	930	S	907	QA	ZG	0.00	555.00	3.25	555.00
90010	930	931	S	907	QA	ZG	0.00	555.00	3.25	555.00
90010	931	932	S	907	QA	ZG	0.00	555.00	3.25	555.00
90010	932	993	S	907	QA	ZG	0.00	555.00	3.25	555.00
90012	995	996	S	907	QA	ZG	0.00	555.00	0.67	555.00
90012	996	933	S	907	QA	ZG	0.00	555.00	3.23	555.00
90012	933	934	S	907	QA	ZG	0.00	555.00	3.23	555.00
110008	1125	1126	S	1106	QA	ZG	0.00	517.00	3.25	517.00
110008	1126	1127	S	1106	QA	ZG	0.00	517.00	3.25	517.00
110008	1127	1189	S	1106	QA	ZG	0.00	517.00	3.20	517.00
110010	1191	1192	S	1105	QA	ZG	0.00	555.00	0.72	555.00
110010	1192	1128	S	1105	QA	ZG	0.00	555.00	3.18	555.00
110010	1128	1129	S	1105	QA	ZG	0.00	555.00	3.25	555.00
110010	1129	1130	S	1108	QA	ZG	0.00	555.00	3.25	555.00
110010	1130	1131	S	1108	QA	ZG	0.00	555.00	3.25	555.00
110010	1131	1132	S	1108	QA	ZG	0.00	555.00	3.25	555.00
110012	1195	1196	S	1108	QA	ZG	0.00	555.00	0.67	555.00
110012	1196	1133	S	1108	QA	ZG	0.00	555.00	3.23	555.00
110012	1133	1134	S	1108	QA	ZG	0.00	555.00	3.23	555.00
130008	1325	1326	S	1306	QA	ZG	0.00	517.00	3.25	517.00
130008	1326	1327	S	1306	QA	ZG	0.00	517.00	3.25	517.00
130008	1327	1389	S	1306	QA	ZG	0.00	517.00	3.20	517.00
130010	1391	1392	S	1305	QA	ZG	0.00	555.00	0.72	555.00
130010	1392	1328	S	1305	QA	ZG	0.00	555.00	3.18	555.00
130010	1328	1329	S	1305	QA	ZG	0.00	555.00	3.25	555.00
130010	1329	1330	S	1308	QA	ZG	0.00	555.00	3.25	555.00
130010	1330	1331	S	1308	QA	ZG	0.00	555.00	3.25	555.00
130010	1331	1332	S	1308	QA	ZG	0.00	555.00	3.25	555.00
130010	1332	1393	S	1308	QA	ZG	0.00	555.00	3.25	555.00
130012	1395	1396	S	1308	QA	ZG	0.00	555.00	0.67	555.00
130012	1396	1333	S	1308	QA	ZG	0.00	555.00	3.23	555.00
130012	1333	1334	S	1308	QA	ZG	0.00	555.00	3.23	555.00
150008	1525	1526	S	1506	QA	ZG	0.00	517.00	3.25	517.00
150008	1526	1527	S	1506	QA	ZG	0.00	517.00	3.25	517.00
150008	1527	1589	S	1506	QA	ZG	0.00	517.00	3.20	517.00
150010	1591	1592	S	1505	QA	ZG	0.00	555.00	0.72	555.00
150010	1592	1528	S	1505	QA	ZG	0.00	555.00	3.18	555.00
150010	1528	1529	S	1505	QA	ZG	0.00	555.00	3.25	555.00
150010	1529	1530	S	1508	QA	ZG	0.00	555.00	3.25	555.00
150010	1530	1531	S	1508	QA	ZG	0.00	555.00	3.25	555.00
150010	1531	1532	S	1508	QA	ZG	0.00	555.00	3.25	555.00
150010	1532	1593	S	1508	QA	ZG	0.00	555.00	3.25	555.00
150012	1595	1596	S	1508	QA	ZG	0.00	555.00	0.67	555.00
150012	1596	1533	S	1508	QA	ZG	0.00	555.00	3.23	555.00
150012	1533	1534	S	1508	QA	ZG	0.00	555.00	3.23	555.00



Relazione di calcolo

170008	1725	1726	S	1705	QA	ZG	0.00	555.00	3.25	555.00
170008	1726	1727	S	1705	QA	ZG	0.00	555.00	3.25	555.00
170008	1727	1789	S	1705	QA	ZG	0.00	555.00	3.20	555.00
170008	1789	1790	S	1705	QA	ZG	0.00	555.00	0.70	555.00
170010	1792	1728	S	1705	QA	ZG	0.00	555.00	3.18	555.00
170010	1728	1729	S	1705	QA	ZG	0.00	555.00	3.25	555.00
170010	1729	1730	S	1708	QA	ZG	0.00	555.00	3.25	555.00
170010	1730	1731	S	1708	QA	ZG	0.00	555.00	3.25	555.00
170010	1731	1732	S	1708	QA	ZG	0.00	555.00	3.25	555.00
170010	1732	1793	S	1708	QA	ZG	0.00	555.00	3.25	555.00
170012	1795	1796	S	1708	QA	ZG	0.00	555.00	0.67	555.00
170012	1796	1733	S	1708	QA	ZG	0.00	555.00	3.23	555.00
170012	1733	1734	S	1708	QA	ZG	0.00	555.00	3.23	555.00
190008	1925	1926	S	1906	QA	ZG	0.00	517.00	3.25	517.00
190008	1926	1927	S	1906	QA	ZG	0.00	517.00	3.25	517.00
190008	1927	1989	S	1906	QA	ZG	0.00	517.00	3.20	517.00
190010	1991	1992	S	1905	QA	ZG	0.00	555.00	0.72	555.00
190010	1992	1928	S	1905	QA	ZG	0.00	555.00	3.18	555.00
190010	1928	1929	S	1905	QA	ZG	0.00	555.00	3.25	555.00
190010	1929	1930	S	1908	QA	ZG	0.00	517.00	3.25	517.00
190010	1930	1931	S	1908	QA	ZG	0.00	517.00	3.25	517.00
190010	1931	1932	S	1908	QA	ZG	0.00	517.00	3.25	517.00
190010	1932	1993	S	1908	QA	ZG	0.00	517.00	3.25	517.00
190012	1995	1996	S	1904	QA	ZG	0.00	555.00	0.67	555.00
190012	1996	1933	S	1907	QA	ZG	0.00	517.00	3.23	517.00
190012	1933	1934	S	1907	QA	ZG	0.00	517.00	3.23	517.00

170008	1725	1726	S	1706	QA	ZG	0.00	517.00	3.25	517.00
170008	1726	1727	S	1706	QA	ZG	0.00	517.00	3.25	517.00
170008	1727	1789	S	1706	QA	ZG	0.00	517.00	3.20	517.00
170010	1792	1728	S	1703	QA	ZG	0.00	517.00	3.18	517.00
170010	1728	1729	S	1703	QA	ZG	0.00	517.00	3.25	517.00
170010	1729	1730	S	1704	QA	ZG	0.00	517.00	3.25	517.00
170010	1730	1731	S	1704	QA	ZG	0.00	517.00	3.25	517.00
170010	1731	1732	S	1704	QA	ZG	0.00	517.00	3.25	517.00
170010	1732	1793	S	1704	QA	ZG	0.00	517.00	3.25	517.00
170010	1793	1794	S	1708	QA	ZG	0.00	555.00	0.65	555.00
170012	1796	1733	S	1707	QA	ZG	0.00	517.00	3.23	517.00
170012	1733	1734	S	1707	QA	ZG	0.00	517.00	3.23	517.00
190008	1925	1926	S	1905	QA	ZG	0.00	555.00	3.25	555.00
190008	1926	1927	S	1905	QA	ZG	0.00	555.00	3.25	555.00
190008	1927	1989	S	1905	QA	ZG	0.00	555.00	3.20	555.00
190008	1989	1990	S	1905	QA	ZG	0.00	555.00	0.70	555.00
190010	1992	1928	S	1903	QA	ZG	0.00	517.00	3.18	517.00
190010	1928	1929	S	1903	QA	ZG	0.00	517.00	3.25	517.00
190010	1929	1930	S	1904	QA	ZG	0.00	555.00	3.25	555.00
190010	1930	1931	S	1904	QA	ZG	0.00	555.00	3.25	555.00
190010	1931	1932	S	1904	QA	ZG	0.00	555.00	3.25	555.00
190010	1932	1993	S	1904	QA	ZG	0.00	555.00	3.25	555.00
190010	1993	1994	S	1904	QA	ZG	0.00	555.00	0.65	555.00
190012	1996	1933	S	1904	QA	ZG	0.00	555.00	3.23	555.00
190012	1933	1934	S	1904	QA	ZG	0.00	555.00	3.23	555.00

Condizione di carico n. 4: Variabili neve  
Carichi distribuiti

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
0	-7038	-7039	S	1905	QA2	ZG	0.00	150.80	0.79	150.80
0	-7041	-7042	S	1904	QA2	ZG	0.00	150.80	0.79	150.80
19003	1907	1908	S	1905	QA2	ZG	0.00	222.00	3.25	222.00
19003	-6959	-6960	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6961	-6962	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6963	-6964	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6965	-6966	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	1909	-6967	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6968	-6969	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6970	-6971	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6972	-6973	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	1910	-6974	S	1905	QA2	ZG	0.00	222.00	0.38	222.00
19003	-6974	-6975	S	1905	QA2	ZG	0.33	150.80	0.38	150.80
19003	-6976	-6977	S	1905	QA2	ZG	0.00	150.80	0.38	150.80
19003	-6978	-6979	S	1905	QA2	ZG	0.00	150.80	0.38	150.80
19003	-6979	-6980	S	1905	QA2	ZG	0.03	222.00	0.38	222.00
19003	1911	-6981	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6982	-6983	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6984	-6985	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6986	-6987	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	1912	-6988	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6989	-6990	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6991	-6992	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6993	-6994	S	1905	QA2	ZG	0.00	222.00	0.36	222.00

Asta	N1	N2	E	NE	T	DC	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
0	-7039	-7040	S	1905	QA2	ZG	0.00	150.80	0.79	150.80
0	-7042	-7043	S	1904	QA2	ZG	0.00	150.80	0.79	150.80
19003	1908	-6959	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6960	-6961	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6962	-6963	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6964	-6965	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6966	1909	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6967	-6968	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6969	-6970	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6971	-6972	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6973	1910	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6974	-6975	S	1905	QA2	ZG	0.00	222.00	0.33	222.00
19003	-6975	-6976	S	1905	QA2	ZG	0.00	150.80	0.38	150.80
19003	-6977	-6978	S	1905	QA2	ZG	0.00	150.80	0.38	150.80
19003	-6979	-6980	S	1905	QA2	ZG	0.00	150.80	0.03	150.80
19003	-6980	1911	S	1905	QA2	ZG	0.00	222.00	0.38	222.00
19003	-6981	-6982	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6983	-6984	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6985	-6986	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6987	1912	S	1905	QA2	ZG	0.00	222.00	0.40	222.00
19003	-6988	-6989	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6990	-6991	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6992	-6993	S	1905	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6994	-6995	S	1905	QA2	ZG	0.00	222.00	0.36	222.00



19003	-6995	1913	S	1905	QA2	ZG	0.00	222.00	0.36	222.00	19003	1913	1914	S	1904	QA2	ZG	0.00	222.00	3.25	222.00
19003	1914	1915	S	1904	QA2	ZG	0.00	222.00	3.25	222.00	19003	1915	-6996	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6996	-6997	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-6997	-6998	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-6998	-6999	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-6999	-7000	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7000	-7001	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7001	-7002	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7002	-7003	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7003	1916	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	1916	-7004	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7004	-7005	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7005	-7006	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7006	-7007	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7007	-7008	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7008	-7009	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7009	-7010	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7010	-7011	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7011	1917	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	1917	-7012	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7012	-7013	S	1904	QA2	ZG	0.00	222.00	0.29	222.00	19003	-7012	-7013	S	1904	QA2	ZG	0.29	150.80	0.36	150.80
19003	-7013	-7014	S	1904	QA2	ZG	0.00	150.80	0.36	150.80	19003	-7014	-7015	S	1904	QA2	ZG	0.00	150.80	0.36	150.80
19003	-7015	-7016	S	1904	QA2	ZG	0.00	150.80	0.36	150.80	19003	-7016	-7017	S	1904	QA2	ZG	0.00	150.80	0.36	150.80
19003	-7017	-7018	S	1904	QA2	ZG	0.00	150.80	0.06	150.80	19003	-7017	-7018	S	1904	QA2	ZG	0.06	222.00	0.36	222.00
19003	-7018	1918	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	1918	-7019	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7019	-7020	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7020	-7021	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7021	-7022	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7022	-7023	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7023	-7024	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7024	-7025	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7025	-7026	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7026	1919	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	1919	-7027	S	1904	QA2	ZG	0.00	222.00	0.36	222.00	19003	-7027	-7028	S	1904	QA2	ZG	0.00	222.00	0.36	222.00
19003	-7028																				

Asta	N1	N2	E	N	T	D	C	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
3070	400	256	--	--	M	Z	G	0.00	351.00	2.44	351.00
4024	399	455	--	--	M	Z	G	0.00	351.00	2.44	351.00
5070	600	456	--	--	M	Z	G	0.00	351.00	2.44	351.00
6024	599	655	--	--	M	Z	G	0.00	351.00	2.44	351.00
7070	800	656	--	--	M	Z	G	0.00	351.00	2.44	351.00
8024	799	855	--	--	M	Z	G	0.00	351.00	2.44	351.00
9070	1000	856	--	--	M	Z	G	0.00	351.00	2.44	351.00



Relazione di calcolo

10024	999	1055	---	M	Z	G	0.00	351.00	2.44	351.00	10035	1001	1057	---	M	Z	G	0.00	351.00	2.44	351.00
11070	1200	1056	---	M	Z	G	0.00	351.00	2.44	351.00	11084	1202	1058	---	M	Z	G	0.00	351.00	2.44	351.00
12024	1199	1255	---	M	Z	G	0.00	351.00	2.44	351.00	12035	1201	1257	---	M	Z	G	0.00	351.00	2.44	351.00
13070	1400	1256	---	M	Z	G	0.00	351.00	2.44	351.00	13084	1402	1258	---	M	Z	G	0.00	351.00	2.44	351.00
14024	1399	1455	---	M	Z	G	0.00	351.00	2.44	351.00	14035	1401	1457	---	M	Z	G	0.00	351.00	2.44	351.00
15070	1600	1456	---	M	Z	G	0.00	351.00	2.44	351.00	15084	1602	1458	---	M	Z	G	0.00	351.00	2.44	351.00
16024	1599	1655	---	M	Z	G	0.00	351.00	2.44	351.00	16035	1601	1657	---	M	Z	G	0.00	351.00	2.44	351.00
17070	1800	1656	---	M	Z	G	0.00	351.00	2.44	351.00	17084	1802	1658	---	M	Z	G	0.00	351.00	2.44	351.00
18024	1799	1855	---	M	Z	G	0.00	351.00	2.44	351.00	18035	1801	1857	---	M	Z	G	0.00	351.00	2.44	351.00
19070	2000	1856	---	M	Z	G	0.00	351.00	2.44	351.00	19084	2002	1858	---	M	Z	G	0.00	351.00	2.44	351.00

Condizione di carico n. 6: scale variabile

Carichi distribuiti

Asta	N1	N2	E	N	T	D	C	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>	Asta	N1	N2	E	N	T	D	C	Xi <m>	Qi <daN/m>	Xf <m>	Qf <daN/m>
3070	400	256	---	M	Z	G		0.00	468.00	2.44	468.00	3084	402	258	---	M	Z	G		0.00	468.00	2.44	468.00
4024	399	455	---	M	Z	G		0.00	468.00	2.44	468.00	4035	401	457	---	M	Z	G		0.00	468.00	2.44	468.00
5070	600	456	---	M	Z	G		0.00	468.00	2.44	468.00	5084	602	458	---	M	Z	G		0.00	468.00	2.44	468.00
6024	599	655	---	M	Z	G		0.00	468.00	2.44	468.00	6035	601	657	---	M	Z	G		0.00	468.00	2.44	468.00
7070	800	656	---	M	Z	G		0.00	468.00	2.44	468.00	7084	802	658	---	M	Z	G		0.00	468.00	2.44	468.00
8024	799	855	---	M	Z	G		0.00	468.00	2.44	468.00	8035	801	857	---	M	Z	G		0.00	468.00	2.44	468.00
9070	1000	856	---	M	Z	G		0.00	468.00	2.44	468.00	9084	1002	858	---	M	Z	G		0.00	468.00	2.44	468.00
10024	999	1055	---	M	Z	G		0.00	468.00	2.44	468.00	10035	1001	1057	---	M	Z	G		0.00	468.00	2.44	468.00
11070	1200	1056	---	M	Z	G		0.00	468.00	2.44	468.00	11084	1202	1058	---	M	Z	G		0.00	468.00	2.44	468.00
12024	1199	1255	---	M	Z	G		0.00	468.00	2.44	468.00	12035	1201	1257	---	M	Z	G		0.00	468.00	2.44	468.00
13070	1400	1256	---	M	Z	G		0.00	468.00	2.44	468.00	13084	1402	1258	---	M	Z	G		0.00	468.00	2.44	468.00
14024	1399	1455	---	M	Z	G		0.00	468.00	2.44	468.00	14035	1401	1457	---	M	Z	G		0.00	468.00	2.44	468.00
15070	1600	1456	---	M	Z	G		0.00	468.00	2.44	468.00	15084	1602	1458	---	M	Z	G		0.00	468.00	2.44	468.00
16024	1599	1655	---	M	Z	G		0.00	468.00	2.44	468.00	16035	1601	1657	---	M	Z	G		0.00	468.00	2.44	468.00
17070	1800	1656	---	M	Z	G		0.00	468.00	2.44	468.00	17084	1802	1658	---	M	Z	G		0.00	468.00	2.44	468.00
18024	1799	1855	---	M	Z	G		0.00	468.00	2.44	468.00	18035	1801	1857	---	M	Z	G		0.00	468.00	2.44	468.00
19070	2000	1856	---	M	Z	G		0.00	468.00	2.44	468.00	19084	2002	1858	---	M	Z	G		0.00	468.00	2.44	468.00

Elenco carichi elementi bidimensionaliElenco peso proprio elementi bidimensionali

Simbologia

Comm. = Commento  
Mat. =Materiale  
P =Peso specifico  
PQ =Peso specifico per unità di superficie  
Spess. =Spessore  
Tb =Numero del tipo muro/elemento bidimensionale

Tb	Comm.	Spess. <cm>	Mat.	P <daN/mc>	PQ <daN/mq>
1	Nuclei ascensore	14.00	Calcestruzzo	2500.00	350.00
2	Balconi	20.00	Calcestruzzo	2500.00	500.00
4	Fond Ascensore	70.00	Calcestruzzo	2500.00	1750.00
5	Parete scantinato	40.00	Calcestruzzo	2500.00	1000.00
6	Parete scantinato s 50	50.00	Calcestruzzo	2500.00	1250.00
9	Setti vano Scala sp.20	20.00	Calcestruzzo	2500.00	500.00

Condizione di carico n. 2: Permanenti non strutturali

Carichi uniformi

Simbologia

Bid. =Numero del muro/elemento bidimensionale  
DC =Direzione del carico  
G = secondo gli assi globali  
L = secondo gli assi locali  
N1 =Nodo1  
N2 =Nodo2  
N3 =Nodo3  
N4 =Nodo4  
Qx =Carico in dir. X  
Qy =Carico in dir. Y



Relazione di calcolo

Qz =Carico in dir. Z  
T =Tipo di carico  
PP = Peso proprio  
M = Manuale

Bid.	N1	N2	N3	N4	TDC	Qx <daN/mq>	Qy <daN/mq>	Qz <daN/mq>
2285	--	--	--	--	MG	0.00	0.00	90.00
2291	--	--	--	--	MG	0.00	0.00	90.00
2294	--	--	--	--	MG	0.00	0.00	90.00
2297	--	--	--	--	MG	0.00	0.00	90.00
2300	--	--	--	--	MG	0.00	0.00	90.00
2303	--	--	--	--	MG	0.00	0.00	90.00
2306	--	--	--	--	MG	0.00	0.00	90.00
2309	--	--	--	--	MG	0.00	0.00	90.00
2312	--	--	--	--	MG	0.00	0.00	90.00

Bid.	N1	N2	N3	N4	TDC	Qx <daN/mq>	Qy <daN/mq>	Qz <daN/mq>
2290	--	--	--	--	MG	0.00	0.00	90.00
2293	--	--	--	--	MG	0.00	0.00	90.00
2296	--	--	--	--	MG	0.00	0.00	90.00
2299	--	--	--	--	MG	0.00	0.00	90.00
2302	--	--	--	--	MG	0.00	0.00	90.00
2305	--	--	--	--	MG	0.00	0.00	90.00
2308	--	--	--	--	MG	0.00	0.00	90.00
2311	--	--	--	--	MG	0.00	0.00	90.00
2314	--	--	--	--	MG	0.00	0.00	90.00

Condizione di carico n. 3: Variabili Civile Abitazione

Carichi uniformi

Bid.	N1	N2	N3	N4	TDC	Qx <daN/mq>	Qy <daN/mq>	Qz <daN/mq>
2285	--	--	--	--	MG	0.00	0.00	400.00
2291	--	--	--	--	MG	0.00	0.00	400.00
2294	--	--	--	--	MG	0.00	0.00	400.00
2297	--	--	--	--	MG	0.00	0.00	400.00
2300	--	--	--	--	MG	0.00	0.00	400.00
2303	--	--	--	--	MG	0.00	0.00	400.00
2306	--	--	--	--	MG	0.00	0.00	400.00
2309	--	--	--	--	MG	0.00	0.00	400.00
2312	--	--	--	--	MG	0.00	0.00	400.00

Bid.	N1	N2	N3	N4	TDC	Qx <daN/mq>	Qy <daN/mq>	Qz <daN/mq>
2290	--	--	--	--	MG	0.00	0.00	400.00
2293	--	--	--	--	MG	0.00	0.00	400.00
2296	--	--	--	--	MG	0.00	0.00	400.00
2299	--	--	--	--	MG	0.00	0.00	400.00
2302	--	--	--	--	MG	0.00	0.00	400.00
2305	--	--	--	--	MG	0.00	0.00	400.00
2308	--	--	--	--	MG	0.00	0.00	400.00
2311	--	--	--	--	MG	0.00	0.00	400.00
2314	--	--	--	--	MG	0.00	0.00	400.00

Condizione di carico n. 5: Scale perm non strutturale

Carichi uniformi

Bid.	N1	N2	N3	N4	TDC	Qx <daN/mq>	Qy <daN/mq>	Qz <daN/mq>
2315	--	--	--	--	MG	0.00	0.00	125.00
2319	--	--	--	--	MG	0.00	0.00	125.00
2322	--	--	--	--	MG	0.00	0.00	125.00
2325	--	--	--	--	MG	0.00	0.00	125.00
2328	--	--	--	--	MG	0.00	0.00	125.00
2331	--	--	--	--	MG	0.00	0.00	125.00
2334	--	--	--	--	MG	0.00	0.00	125.00
2337	--	--	--	--	MG	0.00	0.00	125.00
2340	--	--	--	--	MG	0.00	0.00	125.00
2343	--	--	--	--	MG	0.00	0.00	125.00
2346	--	--	--	--	MG	0.00	0.00	125.00
2355	--	--	--	--	MG	0.00	0.00	125.00
2357	--	--	--	--	MG	0.00	0.00	125.00
2359	--	--	--	--	MG	0.00	0.00	125.00
2361	--	--	--	--	MG	0.00	0.00	125.00
2363	--	--	--	--	MG	0.00	0.00	125.00
2365	--	--	--	--	MG	0.00	0.00	125.00
2367	--	--	--	--	MG	0.00	0.00	125.00

Bid.	N1	N2	N3	N4	TDC	Qx <daN/mq>	Qy <daN/mq>	Qz <daN/mq>
2316	--	--	--	--	MG	0.00	0.00	125.00
2320	--	--	--	--	MG	0.00	0.00	125.00
2323	--	--	--	--	MG	0.00	0.00	125.00
2326	--	--	--	--	MG	0.00	0.00	125.00
2329	--	--	--	--	MG	0.00	0.00	125.00
2332	--	--	--	--	MG	0.00	0.00	125.00
2335	--	--	--	--	MG	0.00	0.00	125.00
2338	--	--	--	--	MG	0.00	0.00	125.00
2341	--	--	--	--	MG	0.00	0.00	125.00
2344	--	--	--	--	MG	0.00	0.00	125.00
2347	--	--	--	--	MG	0.00	0.00	125.00
2356	--	--	--	--	MG	0.00	0.00	125.00
2358	--	--	--	--	MG	0.00	0.00	125.00
2360	--	--	--	--	MG	0.00	0.00	125.00
2362	--	--	--	--	MG	0.00	0.00	125.00
2364	--	--	--	--	MG	0.00	0.00	125.00
2366	--	--	--	--	MG	0.00	0.00	125.00
2368	--	--	--	--	MG	0.00	0.00	125.00

Condizione di carico n. 6: scale variabile

Carichi uniformi

Bid.	N1	N2	N3	N4	TDC	Qx <daN/mq>	Qy <daN/mq>	Qz <daN/mq>
2315	--	--	--	--	MG	0.00	0.00	400.00
2319	--	--	--	--	MG	0.00	0.00	400.00

Bid.	N1	N2	N3	N4	TDC	Qx <daN/mq>	Qy <daN/mq>	Qz <daN/mq>
2316	--	--	--	--	MG	0.00	0.00	400.00
2320	--	--	--	--	MG	0.00	0.00	400.00



Relazione di calcolo

2322	--	--	--	--	MG	0.00	0.00	400.00	2323	--	--	--	--	MG	0.00	0.00	400.00
2325	--	--	--	--	MG	0.00	0.00	400.00	2326	--	--	--	--	MG	0.00	0.00	400.00
2328	--	--	--	--	MG	0.00	0.00	400.00	2329	--	--	--	--	MG	0.00	0.00	400.00
2331	--	--	--	--	MG	0.00	0.00	400.00	2332	--	--	--	--	MG	0.00	0.00	400.00
2334	--	--	--	--	MG	0.00	0.00	400.00	2335	--	--	--	--	MG	0.00	0.00	400.00
2337	--	--	--	--	MG	0.00	0.00	400.00	2338	--	--	--	--	MG	0.00	0.00	400.00
2340	--	--	--	--	MG	0.00	0.00	400.00	2341	--	--	--	--	MG	0.00	0.00	400.00
2343	--	--	--	--	MG	0.00	0.00	400.00	2344	--	--	--	--	MG	0.00	0.00	400.00
2346	--	--	--	--	MG	0.00	0.00	400.00	2347	--	--	--	--	MG	0.00	0.00	400.00
2355	--	--	--	--	MG	0.00	0.00	400.00	2356	--	--	--	--	MG	0.00	0.00	400.00
2357	--	--	--	--	MG	0.00	0.00	400.00	2358	--	--	--	--	MG	0.00	0.00	400.00
2359	--	--	--	--	MG	0.00	0.00	400.00	2360	--	--	--	--	MG	0.00	0.00	400.00
2361	--	--	--	--	MG	0.00	0.00	400.00	2362	--	--	--	--	MG	0.00	0.00	400.00
2363	--	--	--	--	MG	0.00	0.00	400.00	2364	--	--	--	--	MG	0.00	0.00	400.00
2365	--	--	--	--	MG	0.00	0.00	400.00	2366	--	--	--	--	MG	0.00	0.00	400.00
2367	--	--	--	--	MG	0.00	0.00	400.00	2368	--	--	--	--	MG	0.00	0.00	400.00

Risultati del calcolo

Parametri di calcolo

La modellazione della struttura e la rielaborazione dei risultati del calcolo sono stati effettuati con:  
ModeSt ver. 8.27, licenza n. 5958, prodotto da Tecnisoft s.a.s. - Prato  
La struttura è stata calcolata utilizzando come solutore agli elementi finiti:  
Xfinest ver. 9.4.1, licenza n. -725370720, prodotto da Ce.A.S. S.r.l. - Milano

Tipo di normativa: stati limite D.M. 18  
Tipo di calcolo: statico  
Vincoli esterni: Considera sempre vincoli assegnati in modellazione  
Schematizzazione piani rigidi: metodo Master-Slave solo per forze sismiche  
Modalità di recupero masse secondarie: trasferire le masse  
- All'impalcato più vicino in assoluto: No  
- Anche sui nodi degli impalcati non rigidi: No  
- Modificare coordinate baricentro impalcati rigidi: XY

Generazione combinazioni

- Lineari: Sì  
- Valuta spostamenti e non sollecitazioni: No  
- Buckling: No

Opzioni di calcolo

- Sono state considerate infinitamente rigide le zone di connessione fra travi, pilastri ed elementi bidimensionali con una riduzione del 20%  
- Calcolo con offset rigidi dai nodi: No  
- Uniformare i carichi variabili: No  
- Massimizzare i carichi variabili: No  
- Recupero carichi zone rigide: taglio e momento flettente

Opzioni del solutore

- Tipo di elemento bidimensionale: QF46  
- Calcolo sforzo nei nodi: No  
- Trascura deformabilità a taglio delle aste: No  
- Analisi dinamica con metodo di Lanczos: Sì  
- Check sequenza di Sturm: Sì  
- Analisi non lineare con Newton modificato: No  
- Usa formulazione secante per buckling: No  
- Trascura buckling torsionale: No

Dati struttura

- Edificio esistente: Sì  
- Tipo di opera: Opera ordinaria  
- Vita nominale V<sub>N</sub>: 50.00  
- Classe d'uso: Classe II  
- Forze orizzontali convenzionali per stati limite non sismici: No  
- Genera stati limite per verifiche di resistenza al fuoco: No

Ambienti di carico

Simbologia

N = Numero  
Comm. = Commento  
1=Permanenti strutturali



Relazione di calcolo

2=Permanenti non strutturali  
3=Variabili Civile Abitazione  
4=Variabili neve  
5=Scale perm non strutturale  
6=scale variabile  
F =azioni orizzontali convenzionali  
SLU =Stato limite ultimo  
SLR =Stato limite per combinazioni rare  
SLF =Stato limite per combinazioni frequenti  
SLQ/D=Stato limite per combinazioni quasi permanenti o di danno  
S = Si  
N = No

N	Comm.	1	2	3	4	5	6	SLU	SLR	SLF	SLQ
1	Calcolo statico	S	S	S	S	S	S	S	S	S	S

Elenco combinazioni di carico simboliche

Simbologia

CC =Numero della combinazione delle condizioni di carico elementari  
Comm.=Commento  
TCC =Tipo di combinazione di carico  
SLU = Stato limite ultimo  
SLE R = Stato limite d'esercizio, combinazione rara  
SLE F = Stato limite d'esercizio, combinazione frequente  
SLE Q = Stato limite d'esercizio, combinazione quasi permanente

CC	Comm.	TCC	1	2	3	4	5	6
1	Amb. 1 (SLU)	SLU	$\gamma_{max}$	$\gamma_{max}$	$\gamma_{max}$	$\gamma_{max}$	$\gamma_{max}$	$\gamma_{max}$
2	Amb. 1 (SLE R)	SLE R	1	1	1	1	1	1
3	Amb. 1 (SLE F)	SLE F	1	1	$\psi_1$	$\psi_1$	1	$\psi_1$
4	Amb. 1 (SLE Q)	SLE Q	1	1	$\psi_2$	$\psi_2$	1	$\psi_2$

Genera le combinazioni con un solo carico di tipo variabile come di base: No

Considera sollecitazioni dinamiche con segno dei modi principali: No

Combinazioni delle CCE

Simbologia

An. =Tipo di analisi  
L = Lineare  
NL = Non lineare  
Bk =Buckling  
S = Si  
N = No  
CC =Numero della combinazione delle condizioni di carico elementari  
Comm.=Commento  
TCC =Tipo di combinazione di carico  
SLU = Stato limite ultimo  
SLE R = Stato limite d'esercizio, combinazione rara  
SLE F = Stato limite d'esercizio, combinazione frequente  
SLE Q = Stato limite d'esercizio, combinazione quasi permanente

CC	Comm.	TCC	An.	Bk	1	2	3	4	5	6
1	Amb. 1 (SLU)	SLU	L	N	1.30	1.50	1.50	1.50	1.50	1.50
2	Amb. 1 (SLE R)	SLE R	L	N	1.00	1.00	1.00	1.00	1.00	1.00
3	Amb. 1 (SLE F)	SLE F	L	N	1.00	1.00	0.50	0.20	1.00	0.50
4	Amb. 1 (SLE Q)	SLE Q	L	N	1.00	1.00	0.30	0.00	1.00	0.30

Reazioni vincolari

Simbologia

CC =Numero della combinazione delle condizioni di carico elementari  
Fx =Reazione vincolare (forza) in dir. X  
Fy =Reazione vincolare (forza) in dir. Y  
Fz =Reazione vincolare (forza) in dir. Z  
Mx =Reazione vincolare (momento) intorno all'asse X  
My =Reazione vincolare (momento) intorno all'asse Y  
Mz =Reazione vincolare (momento) intorno all'asse Z  
Nodo=Numero del nodo  
TCC =Tipo di combinazione di carico  
SLU = Stato limite ultimo  
SLE R = Stato limite d'esercizio, combinazione rara  
SLE F = Stato limite d'esercizio, combinazione frequente  
SLE Q = Stato limite d'esercizio, combinazione quasi permanente

Nodo		CC	TCC	Fx <daN>	CC	TCC	Fy <daN>	CC	TCC	Fz <daN>	CC	TCC	Mx <daNm>	CC	TCC	My <daNm>	CC	TCC	Mz <daNm>
-7201	Max	1	SLU	703.55	4	SLE Q	-236.16	1	SLU	48777.70	1	SLU	248.77	4	SLE Q	-47.94	4	SLE Q	-9.57
-7201	Min	4	SLE Q	413.45	1	SLU	-431.63	4	SLE Q	30540.00	4	SLE Q	134.54	1	SLU	-65.29	1	SLU	-17.63
-7191	Max	1	SLU	832.68	4	SLE Q	-418.81	1	SLU	48804.60	1	SLU	455.47	1	SLU	92.03	4	SLE Q	-7.31
-7191	Min	4	SLE Q	488.87	1	SLU	-764.45	4	SLE Q	30499.00	4	SLE Q	249.05	4	SLE Q	63.78	1	SLU	-12.76



Relazione di calcolo

-7138	Max	1	SLU	843.32	4	SLE Q	-225.87	1	SLU	48003.60	1	SLU	329.15	1	SLU	10.87	4	SLE Q	-10.07
-7138	Min	4	SLE Q	494.71	1	SLU	-414.79	4	SLE Q	30067.10	4	SLE Q	178.52	4	SLE Q	6.44	1	SLU	-18.15
-7137	Max	4	SLE Q	-1935.04	4	SLE Q	-376.64	1	SLU	45509.10	1	SLU	1172.90	4	SLE Q	-163.48	1	SLU	71.46
-7137	Min	1	SLU	-2991.21	1	SLU	-667.81	4	SLE Q	29076.50	4	SLE Q	667.10	4	SLE Q	-241.59	1	SLU	27.69
-7136	Max	1	SLU	1849.34	4	SLE Q	-302.26	1	SLU	44865.20	1	SLU	1053.98	1	SLU	143.25	4	SLE Q	-172.06
-7136	Min	4	SLE Q	1121.97	1	SLU	-545.23	4	SLE Q	28639.30	4	SLE Q	586.49	4	SLE Q	91.02	1	SLU	-297.23
-7084	Max	4	SLE Q	-469.84	4	SLE Q	-352.62	1	SLU	43089.10	1	SLU	1187.39	1	SLU	29.44	4	SLE Q	-91.89
-7084	Min	1	SLU	-652.65	1	SLU	-637.32	4	SLE Q	27398.80	4	SLE Q	664.78	2	SLE R	21.35	1	SLU	-148.25
-187	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	1790.10	1	SLU	0.00	2	SLE R	-68.85	1	SLU	0.00
-187	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	1377.00	1	SLU	0.00	1	SLU	-89.50	1	SLU	0.00
-186	Max	4	SLE Q	-4598.18	4	SLE Q	-1385.32	1	SLU	56395.50	1	SLU	228.24	4	SLE Q	-26236.90	2	SLE R	-1075.95
-186	Min	1	SLU	-7186.85	1	SLU	-1996.32	4	SLE Q	37030.50	2	SLE R	162.58	1	SLU	-40460.10	1	SLU	-1490.43
-183	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	309.34	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-183	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	237.96	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-182	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	8763.98	1	SLU	3720.04	1	SLU	0.00	1	SLU	0.00
-182	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	5181.53	4	SLE Q	2136.17	1	SLU	0.00	1	SLU	0.00
-181	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	953.28	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-181	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	733.29	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-180	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	997.47	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-180	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	767.29	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-179	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	940.66	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-179	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	723.58	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-178	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	8785.52	1	SLU	3730.06	1	SLU	0.00	1	SLU	0.00
-178	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	5193.05	4	SLE Q	2141.53	1	SLU	0.00	1	SLU	0.00
-177	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	321.97	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-177	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	247.67	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-164	Max	4	SLE Q	-22.54	1	SLU	3647.91	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00	4	SLE Q	-377.01
-164	Min	1	SLU	-234.47	4	SLE Q	2098.71	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00	1	SLU	-639.16
-162	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	474.70	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-162	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	365.15	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-161	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	3892.13	1	SLU	234.22	1	SLU	0.00	1	SLU	0.00
-161	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	2463.57	4	SLE Q	134.50	1	SLU	0.00	1	SLU	0.00
-160	Max	4	SLE Q	-1641.08	4	SLE Q	-1202.24	1	SLU	41203.20	1	SLU	268.84	4	SLE Q	-89.62	1	SLU	6.92
-160	Min	1	SLU	-2690.92	1	SLU	-1986.24	4	SLE Q	25757.00	4	SLE Q	148.23	4	SLE Q	-148.45	1	SLU	3.87
-159	Max	4	SLE Q	-417.02	1	SLU	63.49	1	SLU	45526.10	4	SLE Q	-30.70	4	SLE Q	-26.71	1	SLU	1.63
-159	Min	1	SLU	-723.38	4	SLE Q	29.32	4	SLE Q	28417.30	1	SLU	-59.21	4	SLE Q	-46.08	1	SLU	0.83
-158	Max	1	SLU	1976.55	4	SLE Q	-1548.74	1	SLU	41308.50	1	SLU	346.12	1	SLU	101.61	4	SLE Q	-2.43
-158	Min	4	SLE Q	1231.76	1	SLU	-2588.26	4	SLE Q	25804.00	4	SLE Q	194.41	4	SLE Q	63.25	1	SLU	-4.27
-157	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	3899.45	1	SLU	234.85	1	SLU	0.00	1	SLU	0.00
-157	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	2467.49	4	SLE Q	134.83	1	SLU	0.00	1	SLU	0.00
-156	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	494.07	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-156	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	380.06	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-145	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	330.71	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-145	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	254.39	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-144	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2711.56	4	SLE Q	-0.00	1	SLU	0.00	1	SLU	0.00
-144	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	1716.31	1	SLU	-0.00	1	SLU	0.00	1	SLU	0.00
-143	Max	4	SLE Q	-22.17	1	SLU	2688.21	1	SLU	39404.10	4	SLE Q	-142.49	4	SLE Q	-16.95	4	SLE Q	-0.76
-143	Min	1	SLU	-35.59	4	SLE Q	1502.83	4	SLE Q	24338.90	1	SLU	-257.49	1	SLU	-27.36	1	SLU	-1.38
-142	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	1066.37	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-142	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	820.29	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-141	Max	4	SLE Q	2.54	1	SLU	1882.98	1	SLU	39532.90	4	SLE Q	-125.31	1	SLU	13.05	1	SLU	3.35
-141	Min	1	SLU	1.75	4	SLE Q	1060.34	4	SLE Q	24419.70	1	SLU	-224.89	4	SLE Q	8.66	1	SLU	1.93
-140	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2716.66	4	SLE Q	-0.00	1	SLU	0.00	1	SLU	0.00
-140	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	1719.04	1	SLU	-0.00	1	SLU	0.00	1	SLU	0.00
-139	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	344.21	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-139	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	264.78	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-128	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	330.71	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-128	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	254.39	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-127	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2711.56	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-127	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	1716.31	4	SLE Q	0.00	1	SLU	0.00	1	SLU	0.00
-126	Max	4	SLE Q	-93.17	1	SLU	2091.83	1	SLU	46276.10	1	SLU	6.77	4	SLE Q	-36.04	4	SLE Q	-2.12
-126	Min	1	SLU	-150.18	4	SLE Q	1248.38	4	SLE Q	28327.60	4	SLE Q	-2.64	1	SLU	-58.51	1	SLU	-3.63
-125	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	1066.37	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-125	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	820.29	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-124	Max	1	SLU	162.07	1	SLU	1266.57	1	SLU	45941.10	1	SLU	48.25	1	SLU	59.79	1	SLU	4.87
-124	Min	4	SLE Q	99.91	4	SLE Q	785.64	4	SLE Q	28156.40	4	SLE Q	21.39	4	SLE Q	36.78	1	SLU	2.85
-123	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2716.66	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-123	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	1719.04	4	SLE Q	0.00	1	SLU	0.00	1	SLU	0.00
-122	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	344.21	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-122	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	264.78	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-110	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	474.70	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-110	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	365.15	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-109	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	3892.13	4	SLE Q	-134.50	1	SLU	0.00	1	SLU	0.00
-109	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	2463.57	1	SLU	-234.22	1	SLU	0.00	1	SLU	0.00
-108	Max	4	SLE Q	-1673.50	1	SLU	4940.88	1	SLU	63253.20	4	SLE Q	-292.77	4	SLE Q	-56.25	4	SLE Q	-2.26
-108	Min	1	SLU	-2737.86	4	SLE Q	2921.77	4	SLE Q	38558.50	1	SLU	-514.87	1	SLU	-89.88	1	SLU	-4.19
-107	Max	1	SLU	258.72	1	SLU	346.03	1	SLU	68803.90	4	SLE Q	-99.81	1	SLU	13.46	1	SLU	2.69
-107	Min	4	SLE Q	144.54	4	SLE Q	210.76	4	SLE Q	41959.10	1	SLU	-165.52	4	SLE Q	7.57	1	SLU	1.53
-106	Max	1	SLU	2974.72	1	SLU	4553.78	1	SLU	62374.30	4	SLE Q	-283.33						



Relazione di calcolo

-90	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	247.67	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-81	Max	4	SLE Q	-7343.70	1	SLU	6739.64	1	SLU	75964.40	4	SLE Q	-479.47	4	SLE Q	-37003.10	1	SLU	8302.55
-81	Min	1	SLU	-11819.30	4	SLE Q	4441.53	4	SLE Q	94951.60	1	SLU	-742.06	4	SLE Q	-57657.30	1	SLU	5530.20
-50	Max	4	SLE Q	-79.69	4	SLE Q	-2480.35	1	SLU	138329.00	4	SLE Q	-2150.95	1	SLU	59746.40	1	SLU	34.94
-50	Min	1	SLU	-124.24	1	SLU	-5214.21	4	SLE Q	86402.20	1	SLU	-3483.69	4	SLE Q	35585.80	1	SLU	18.07
-49	Max	1	SLU	425.60	4	SLE Q	-16072.10	1	SLU	131906.00	1	SLU	4879.58	4	SLE Q	-35530.40	4	SLE Q	15.93
-49	Min	4	SLE Q	259.48	1	SLU	-28157.10	4	SLE Q	81714.50	4	SLE Q	2716.94	1	SLU	-59640.80	1	SLU	6.02
-48	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	340.91	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-48	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	262.24	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-47	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	763.89	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-47	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	587.61	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-46	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	921.72	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-46	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	709.01	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-45	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	997.47	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-45	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	767.29	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-44	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	909.09	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-44	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	699.30	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-43	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	763.89	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-43	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	587.61	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-42	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	353.54	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-42	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	271.95	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-41	Max	1	SLU	35988.80	1	SLU	62.28	1	SLU	63446.50	4	SLE Q	-212.30	1	SLU	8939.15	1	SLU	37.40
-41	Min	4	SLE Q	21125.80	4	SLE Q	34.76	4	SLE Q	38801.00	1	SLU	-354.66	4	SLE Q	5055.48	1	SLU	9.57
-40	Max	1	SLU	5039.18	1	SLU	459.20	1	SLU	26432.10	4	SLE Q	-200.10	4	SLE Q	-494.14	1	SLU	67.48
-40	Min	4	SLE Q	3046.65	4	SLE Q	280.68	4	SLE Q	16247.30	1	SLU	-329.12	4	SLE Q	-847.90	1	SLU	34.83
-39	Max	4	SLE Q	-897.77	1	SLU	2066.94	4	SLE Q	-2659.53	1	SLU	-5.44	2	SLE R	-84.52	1	SLU	385.50
-39	Min	1	SLU	-1616.49	4	SLE Q	1344.50	1	SLU	-5299.82	4	SLE Q	-13.70	4	SLE Q	-109.38	1	SLU	224.12
-38	Max	4	SLE Q	-1201.74	4	SLE Q	-1198.28	1	SLU	50006.70	1	SLU	105.41	1	SLU	649.95	1	SLU	19.56
-38	Min	1	SLU	-1942.72	1	SLU	-1996.43	4	SLE Q	31072.70	4	SLE Q	57.35	4	SLE Q	402.53	1	SLU	11.91
-37	Max	4	SLE Q	-3470.74	4	SLE Q	-68.15	1	SLU	54700.40	1	SLU	44.44	4	SLE Q	-422.00	1	SLU	5.96
-37	Min	1	SLU	-5629.02	1	SLU	-106.91	4	SLE Q	34011.10	4	SLE Q	27.85	4	SLE Q	-684.43	1	SLU	3.55
-36	Max	1	SLU	3209.87	4	SLE Q	-1940.21	1	SLU	50015.60	1	SLU	207.35	1	SLU	615.67	1	SLU	16.47
-36	Min	4	SLE Q	1983.30	1	SLU	-3195.69	4	SLE Q	31079.40	4	SLE Q	121.49	4	SLE Q	378.54	1	SLU	10.25
-35	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	3115.67	4	SLE Q	-47.63	4	SLE Q	-10.84	1	SLU	0.00
-35	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	2106.04	1	SLU	-79.02	1	SLU	-17.17	1	SLU	0.00
-34	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2008.46	1	SLU	0.00	1	SLU	105.06	1	SLU	0.00
-34	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	1343.09	1	SLU	0.00	4	SLE Q	66.35	1	SLU	0.00
-33	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	364.46	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-33	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	280.35	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-32	Max	4	SLE Q	-178.16	1	SLU	4462.83	1	SLU	13869.30	4	SLE Q	-323.99	4	SLE Q	-30.90	1	SLU	483.57
-32	Min	1	SLU	-282.23	4	SLE Q	2870.10	4	SLE Q	9044.17	1	SLU	-515.75	4	SLE Q	-51.33	1	SLU	290.93
-31	Max	4	SLE Q	-76.01	1	SLU	1154.17	1	SLU	39657.20	4	SLE Q	-56.27	4	SLE Q	-43.90	1	SLU	23.65
-31	Min	1	SLU	-118.11	4	SLE Q	721.07	4	SLE Q	24581.30	1	SLU	-95.46	4	SLE Q	-70.05	1	SLU	14.57
-30	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	1066.37	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-30	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	820.29	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-29	Max	4	SLE Q	-57.21	4	SLE Q	-570.02	1	SLU	42387.40	1	SLU	28.70	4	SLE Q	-17.39	1	SLU	22.80
-29	Min	1	SLU	-95.26	1	SLU	-951.80	4	SLE Q	26254.40	4	SLE Q	19.42	4	SLE Q	-28.71	1	SLU	14.02
-28	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2414.80	4	SLE Q	-0.00	1	SLU	0.00	1	SLU	0.00
-28	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	1591.47	1	SLU	-0.00	1	SLU	0.00	1	SLU	0.00
-27	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	377.95	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-27	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	290.73	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-26	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	364.46	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-26	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	280.35	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-25	Max	4	SLE Q	-640.24	1	SLU	4458.31	1	SLU	8983.53	1	SLU	628.75	4	SLE Q	-278.10	1	SLU	839.24
-25	Min	1	SLU	-1035.09	4	SLE Q	2938.08	4	SLE Q	5967.26	4	SLE Q	392.53	4	SLE Q	-454.16	1	SLU	512.36
-24	Max	4	SLE Q	-188.90	1	SLU	1451.85	1	SLU	40520.30	2	SLE R	-24.75	4	SLE Q	-64.91	4	SLE Q	-8.59
-24	Min	1	SLU	-310.73	4	SLE Q	936.64	4	SLE Q	25084.30	1	SLU	-34.74	1	SLU	-106.49	1	SLU	-14.03
-23	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	1066.37	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-23	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	820.29	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-22	Max	1	SLU	107.65	1	SLU	125.71	1	SLU	44347.60	2	SLE R	-10.29	1	SLU	36.47	4	SLE Q	-3.70
-22	Min	4	SLE Q	66.12	2	SLE R	89.41	4	SLE Q	27423.90	1	SLU	-13.64	4	SLE Q	22.38	1	SLU	-6.13
-21	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2414.80	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-21	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	1591.47	4	SLE Q	0.00	1	SLU	0.00	1	SLU	0.00
-20	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	377.95	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-20	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	290.73	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-19	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	523.13	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-19	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	402.41	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-18	Max	4	SLE Q	-6232.55	1	SLU	13214.20	1	SLU	4864.32	4	SLE Q	-1782.49	4	SLE Q	-9578.82	1	SLU	566.63
-18	Min	1	SLU	-10236.60	4	SLE Q	8442.34	2	SLE R	3878.93	1	SLU	-2784.21	4	SLE Q	-15706.60	1	SLU	306.33
-17	Max	4	SLE Q	-828.66	1	SLU	3351.06	1	SLU	51624.40	4	SLE Q	-141.47	1	SLU	353.20	4	SLE Q	-6.93
-17	Min	1	SLU	-1348.55	4	SLE Q	2055.34	4	SLE Q	31956.00	1	SLU	-238.67	4	SLE Q	215.70	1	SLU	-11.82
-16	Max	4	SLE Q	-1451.26	1	SLU	314.97	1	SLU	58764.10	4	SLE Q	-136.09	4	SLE Q	-219.78	1	SLU	3.16
-16	Min	1	SLU	-2380.49	4	SLE Q	196.33	4	SLE Q	36394.40	1	SLU	-199.64	4	SLE Q	-360.48	1	SLU	1.97
-15	Max	1	SLU	3941.10	1	SLU	2862.76	1	SLU	54919.50	4	SLE Q	-94.48	1	SLU	593.55	4	SLE Q	-4.23
-15	Min	4	SLE Q	2411.38	4	SLE Q	1757.32	4	SLE Q	33962.90	1	SLU	-160.20	4	SLE Q	361.96	1	SLU	-6.67
-14	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	3466.17	4	SLE Q	-119.06	1	SLU	0.00	1	SLU	0.00
-14	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	2284.38	1	SLU	-197.54	1	SLU	0.00	1	SLU	0.00
-13	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	542.51	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-13	Min	1	SLU	0.00	1	SLU	0.00	2	S										



Relazione di calcolo

-5	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	353.54	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-5	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	271.95	1	SLU	0.00	1	SLU	0.00	1	SLU	0.00
-4	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	11754.60	1	SLU	192.86	1	SLU	12570.30	1	SLU	0.00
-4	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	7307.60	4	SLE Q	127.53	4	SLE Q	7692.75	1	SLU	0.00
-3	Max	1	SLU	311.48	4	SLE Q	-7736.84	1	SLU	71234.10	1	SLU	7446.20	4	SLE Q	-8815.93	4	SLE Q	-142.84
-3	Min	4	SLE Q	203.23	1	SLU	-11904.30	4	SLE Q	45504.90	4	SLE Q	4562.66	1	SLU	-14416.20	1	SLU	-223.97
-2	Max	4	SLE Q	-4705.59	1	SLU	769.07	1	SLU	183244.00	4	SLE Q	-15.50	1	SLU	1555.51	1	SLU	527.57
-2	Min	1	SLU	-7368.70	4	SLE Q	492.77	4	SLE Q	119229.00	1	SLU	-203.93	4	SLE Q	1043.75	1	SLU	348.13
-1	Max	1	SLU	13977.50	4	SLE Q	-195.01	1	SLU	181869.00	1	SLU	1079.41	1	SLU	4287.31	1	SLU	258.39
-1	Min	4	SLE Q	9556.03	1	SLU	-299.98	4	SLE Q	117163.00	4	SLE Q	711.46	4	SLE Q	2873.52	1	SLU	142.13
7	Max	1	SLU	867.34	1	SLU	382.04	1	SLU	102019.00	1	SLU	3884.59	2	SLE R	-1718.83	4	SLE Q	-0.01
7	Min	4	SLE Q	540.10	4	SLE Q	263.04	4	SLE Q	66695.80	4	SLE Q	2238.57	1	SLU	-2158.24	1	SLU	-1.69
8	Max	1	SLU	620.54	4	SLE Q	-530.54	1	SLU	234827.00	1	SLU	9116.91	1	SLU	839.49	1	SLU	33.49
8	Min	4	SLE Q	339.84	1	SLU	-974.78	4	SLE Q	147950.00	4	SLE Q	5094.14	4	SLE Q	493.32	1	SLU	19.93
9	Max	4	SLE Q	-15.58	4	SLE Q	-730.29	1	SLU	244613.00	1	SLU	9231.63	4	SLE Q	41.30	1	SLU	87.02
9	Min	1	SLU	-82.49	1	SLU	-1306.36	4	SLE Q	153624.00	4	SLE Q	5172.43	4	SLE Q	-23.65	1	SLU	49.68
10	Max	1	SLU	131.50	4	SLE Q	-1298.26	1	SLU	269294.00	1	SLU	4045.82	1	SLU	472.45	1	SLU	117.69
10	Min	2	SLE R	114.70	1	SLU	-1953.52	4	SLE Q	173326.00	4	SLE Q	2508.24	4	SLE Q	382.11	1	SLU	66.41
11	Max	4	SLE Q	-166.43	4	SLE Q	-1123.73	1	SLU	275455.00	1	SLU	3371.90	4	SLE Q	-483.20	1	SLU	61.98
11	Min	1	SLU	-211.64	1	SLU	-1644.35	4	SLE Q	177423.00	4	SLE Q	2127.14	4	SLE Q	-636.22	1	SLU	36.15
12	Max	2	SLE R	-40.04	4	SLE Q	-635.27	1	SLU	243248.00	1	SLU	8438.72	2	SLE R	-199.02	4	SLE Q	-34.63
12	Min	4	SLE Q	-63.73	1	SLU	-1134.26	4	SLE Q	153274.00	4	SLE Q	4720.46	1	SLU	-258.50	1	SLU	-65.58
13	Max	4	SLE Q	-199.04	4	SLE Q	-102.09	1	SLU	230044.00	1	SLU	7813.94	1	SLU	1275.39	4	SLE Q	-29.32
13	Min	1	SLU	-388.73	1	SLU	-301.18	4	SLE Q	145296.00	4	SLE Q	4287.84	2	SLE R	1005.61	1	SLU	-57.40
19	Max	4	SLE Q	-11483.40	1	SLU	10021.50	1	SLU	270856.00	1	SLU	8370.29	1	SLU	40358.40	4	SLE Q	-12095.40
19	Min	1	SLU	-17516.00	4	SLE Q	6231.41	4	SLE Q	171422.00	4	SLE Q	4544.98	4	SLE Q	26163.40	1	SLU	-18848.10
20	Max	4	SLE Q	-850.50	1	SLU	1150.43	1	SLU	205173.00	1	SLU	1718.02	4	SLE Q	266.05	4	SLE Q	-53.09
20	Min	1	SLU	-1430.71	2	SLE R	808.76	4	SLE Q	131204.00	4	SLE Q	784.44	1	SLU	-42.74	1	SLU	-97.85
25	Max	1	SLU	460.26	1	SLU	14.92	1	SLU	144097.00	4	SLE Q	-2559.03	2	SLE R	-2582.02	4	SLE Q	-35.86
25	Min	4	SLE Q	261.35	4	SLE Q	-16.34	4	SLE Q	90805.80	1	SLU	-4439.97	1	SLU	-3307.94	1	SLU	-59.92
26	Max	1	SLU	302.67	1	SLU	0.00	1	SLU	226182.00	4	SLE Q	-2721.74	1	SLU	535.22	1	SLU	0.00
26	Min	4	SLE Q	172.12	1	SLU	0.00	4	SLE Q	134025.00	1	SLU	-4829.38	4	SLE Q	343.65	1	SLU	0.00
27	Max	1	SLU	223.03	1	SLU	225.19	1	SLU	212384.00	4	SLE Q	-3936.65	1	SLU	2743.86	1	SLU	45.04
27	Min	4	SLE Q	127.64	4	SLE Q	132.51	4	SLE Q	125849.00	1	SLU	-6908.35	4	SLE Q	2065.85	1	SLU	26.50
28	Max	4	SLE Q	-172.99	1	SLU	393.55	1	SLU	211601.00	4	SLE Q	-4331.79	4	SLE Q	-2200.14	4	SLE Q	-45.55
28	Min	1	SLU	-304.51	4	SLE Q	227.73	4	SLE Q	125400.00	1	SLU	-7604.71	1	SLU	-2977.42	1	SLU	-78.71
29	Max	4	SLE Q	-7487.59	1	SLU	93.95	1	SLU	268134.00	4	SLE Q	-5025.68	4	SLE Q	-23517.30	2	SLE R	-93.49
29	Min	1	SLU	-12851.20	4	SLE Q	21.82	4	SLE Q	163010.00	1	SLU	-8798.53	1	SLU	-39379.20	1	SLU	-143.84
34	Max	4	SLE Q	-15483.90	1	SLU	5863.45	1	SLU	243986.00	4	SLE Q	-5921.57	1	SLU	45959.60	4	SLE Q	-8973.98
34	Min	1	SLU	-26293.00	4	SLE Q	3222.73	4	SLE Q	158692.00	1	SLU	-10216.20	4	SLE Q	27807.40	1	SLU	-15903.40
41	Max	1	SLU	832.62	2	SLE R	-73.71	1	SLU	92347.30	4	SLE Q	-3749.05	2	SLE R	-864.85	1	SLU	43.41
41	Min	4	SLE Q	517.31	4	SLE Q	-102.54	4	SLE Q	60650.60	1	SLU	-6507.36	4	SLE Q	-1036.57	1	SLU	24.81
42	Max	1	SLU	406.99	1	SLU	259.24	1	SLU	172137.00	4	SLE Q	-6762.40	1	SLU	817.09	1	SLU	111.25
42	Min	4	SLE Q	243.43	4	SLE Q	146.45	4	SLE Q	110491.00	1	SLU	-11969.90	4	SLE Q	509.66	1	SLU	64.73
43	Max	1	SLU	776.57	1	SLU	240.33	1	SLU	174970.00	4	SLE Q	-6889.87	1	SLU	1052.98	1	SLU	64.89
43	Min	4	SLE Q	471.70	4	SLE Q	145.57	4	SLE Q	111340.00	1	SLU	-12157.30	4	SLE Q	630.76	1	SLU	41.31
44	Max	1	SLU	2617.61	4	SLE Q	-881.08	1	SLU	103721.00	4	SLE Q	-2456.13	1	SLU	2082.35	4	SLE Q	-55.58
44	Min	4	SLE Q	1611.10	1	SLU	-1596.00	4	SLE Q	64844.60	1	SLU	-4217.98	4	SLE Q	1551.86	1	SLU	-102.69
45	Max	4	SLE Q	-953.28	4	SLE Q	-2538.21	1	SLU	102881.00	4	SLE Q	-1095.58	4	SLE Q	-1400.75	4	SLE Q	-47.00
45	Min	1	SLU	-1506.19	1	SLU	-4601.30	4	SLE Q	64142.10	1	SLU	-1772.57	1	SLU	-1836.31	1	SLU	-79.53
46	Max	4	SLE Q	-315.04	2	SLE R	38.55	1	SLU	177574.00	4	SLE Q	-6688.23	4	SLE Q	-356.03	1	SLU	80.49
46	Min	1	SLU	-535.14	4	SLE Q	26.18	4	SLE Q	113129.00	1	SLU	-11774.00	4	SLE Q	-614.46	1	SLU	44.08
47	Max	1	SLU	58.35	1	SLU	83.05	1	SLU	170492.00	4	SLE Q	-6779.42	1	SLU	1236.41	1	SLU	24.41
47	Min	2	SLE R	44.02	4	SLE Q	1.32	4	SLE Q	109745.00	1	SLU	-12057.60	4	SLE Q	952.62	1	SLU	9.58
54	Max	4	SLE Q	-5751.14	1	SLU	301.46	1	SLU	144187.00	4	SLE Q	-3920.84	1	SLU	20819.50	4	SLE Q	288.27
54	Min	1	SLU	-8593.43	4	SLE Q	-112.76	4	SLE Q	96208.50	1	SLU	-6990.21	4	SLE Q	13952.10	1	SLU	67.88
56	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2685.13	1	SLU	0.00	1	SLU	724.98	1	SLU	0.00
56	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	2065.48	1	SLU	0.00	2	SLE R	557.68	1	SLU	0.00
59	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	5903.50	4	SLE Q	-486.88	1	SLU	0.00	1	SLU	0.00
59	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	3538.40	1	SLU	-848.04	1	SLU	0.00	1	SLU	0.00
60	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	5889.70	4	SLE Q	-485.66	1	SLU	0.00	1	SLU	0.00
60	Min	1	SLU	0.00	1	SLU	0.00	4	SLE Q	3531.02	1	SLU	-845.76	1	SLU	0.00	1	SLU	0.00
64	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2798.63	1	SLU	0.00	1	SLU	643.68	1	SLU	0.00
64	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	2152.79	1	SLU	0.00	2	SLE R	495.14	1	SLU	0.00
65	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	2758.07	1	SLU	0.00	2	SLE R	-480.89	1	SLU	0.00
65	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	2121.59	1	SLU	0.00	1	SLU	-625.16	1	SLU	0.00
66	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	3285.34	1	SLU	0.00	1	SLU	887.04	1	SLU	0.00
66	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	2527.18	1	SLU	0.00	2	SLE R	682.34	1	SLU	0.00
68	Max	1	SLU	0.00	1	SLU	0.00	1	SLU	1060.80	1	SLU	0.00	1	SLU	169.73	1	SLU	0.00
68	Min	1	SLU	0.00	1	SLU	0.00	2	SLE R	816.00	1	SLU	0.00	2	SLE R	130.56	1	SLU	0.00
131	Max	1	SLU	215.59	1	SLU	49.97	1	SLU	239262.00	4	SLE Q	-150.90	1	SLU	250.21	1	SLU	73.96
131	Min	4	SLE Q	126.49	4	SLE Q	29.00	4	SLE Q	143263.00	1	SLU	-258.48	4	SLE Q	147.05	1	SLU	43.33
132	Max	1	SLU	459.03	4	SLE Q	-13.95	1	SLU	233357.00	4	SLE Q	-282.00	1	SLU	4268.32	1	SLU	38.78
132	Min	4	SLE Q	295.43	1	SLU	-21.32	4	SLE Q	139927.00	1	SLU	-485.75	4	SLE Q	2935.72	1	SLU	22.36
154	Max	1	SLU	31637.00	4	SLE Q	-6121.72	1	SLU	130611.00	1	SLU	5414.98	1	SLU	15117.90	4	SLE Q	-443.53
154	Min	4	SLE Q	19944.60	1	SLU	-9951.34												



Relazione di calcolo

163	Min	4	SLE Q	17062.40	4	SLE Q	6543.50	4	SLE Q	80650.40	1	SLU	-10002.30	4	SLE Q	8862.51	1	SLU	635.14
164	Max	1	SLU	2723.49	4	SLE Q	-552.12	1	SLU	180739.00	1	SLU	749.17	4	SLE Q	-8050.30	1	SLU	417.91
164	Min	4	SLE Q	1650.76	1	SLU	-853.39	4	SLE Q	118105.00	4	SLE Q	503.26	4	SLE Q	-12456.90	1	SLU	265.29
165	Max	2	SLE R	-815.70	4	SLE Q	-694.94	1	SLU	200762.00	1	SLU	1848.87	4	SLE Q	-429.18	4	SLE Q	-602.96
165	Min	4	SLE Q	-1150.60	1	SLU	-1264.59	4	SLE Q	129881.00	4	SLE Q	1015.06	1	SLU	-623.99	1	SLU	-1090.64
166	Max	1	SLU	1269.33	4	SLE Q	-174.87	1	SLU	130162.00	1	SLU	1936.00	1	SLU	3565.70	4	SLE Q	-597.69
166	Min	4	SLE Q	421.51	1	SLU	-325.75	4	SLE Q	83499.50	4	SLE Q	1066.58	4	SLE Q	2382.43	1	SLU	-1059.00
167	Max	4	SLE Q	1730.59	1	SLU	1198.17	1	SLU	136419.00	1	SLU	1550.32	1	SLU	3600.53	1	SLU	971.53
167	Min	2	SLE R	1181.46	4	SLE Q	600.78	4	SLE Q	88066.70	4	SLE Q	946.00	4	SLE Q	2279.92	1	SLU	515.32
168	Max	4	SLE Q	-9054.81	1	SLU	23439.30	1	SLU	149329.00	4	SLE Q	-6815.49	4	SLE Q	-1096.41	1	SLU	2005.84
168	Min	1	SLU	-14806.20	4	SLE Q	14344.70	4	SLE Q	97751.70	1	SLU	-10700.70	4	SLE Q	-1980.03	1	SLU	1043.44

Verifiche e armature travi

Simbologia

$\Delta_{sm}$	=Distanza media tra le fessure
$\Delta\%$	=Incremento percentuale sicurezza
$\Phi_{eq}$	=Diametro equivalente delle barre
$\epsilon_{sm}$	=Deformazione unitaria media dell'armatura (*1000)
$\sigma_c$	=Tensione nel calcestruzzo
$\sigma_f$ inf	=Tensione nel ferro - inferiore
$\sigma_f$ sup	=Tensione nel ferro - superiore
$\sigma_s$	=Tensione nell'acciaio nella sezione fessurata
$A_{c\ eff}$	=Area di calcestruzzo efficace
$A_s$	=Area complessiva dei ferri nell'area di calcestruzzo efficace
AfE I	=Area di ferro effettiva totale presente nel punto di verifica, inferiore
AfE S	=Area di ferro effettiva totale presente nel punto di verifica, superiore
AfE St.	=Area di ferro effettiva della staffatura (d'anima per travi a T o L)
AfE St. ala	=Area di ferro effettiva della staffatura d'ala
AfEP I	=Area di ferro effettiva parziale presente nella CC considerata, per la sollecitazione indicata, inferiore
AfEP S	=Area di ferro effettiva parziale presente nella CC considerata, per la sollecitazione indicata, superiore
AfT St. ala	=Area di ferro teorica della staffatura d'ala
B	=Base
CC	=Combinazione delle condizioni di carico elementari
	c = momento fittizio in campata
	a = momento fittizio agli appoggi
	T = momento traslato per taglio
	e = eccentricità aggiuntiva in caso di compressione o pressoflessione
	TG = taglio da gerarchia delle resistenze
	TGND = taglio non dissipativo limitante la gerarchia
	TG (Li) = taglio da gerarchia delle resistenze, limite inferiore
	TG (Ls) = taglio da gerarchia delle resistenze, limite superiore
Caso	=Caso di verifica
Cf inf	=Copriferro inferiore
Cf sup	=Copriferro superiore
Cls	=Tipo di calcestruzzo
El	=Elemento (asta) in cui viene effettuato il progetto/verifica (progressivo sul numero di aste)
Fcd	=Resistenza di calcolo a compressione del calcestruzzo
Fcd (Tag)	=Resistenza di calcolo a compressione del calcestruzzo per verifica a taglio
Fck	=Resistenza caratteristica cilindrica a compressione del calcestruzzo
Fcm	=Resistenza media
Fctd	=Resistenza di calcolo a trazione del calcestruzzo
Fctk	=Resistenza caratteristica a trazione del calcestruzzo
Fctm	=Resistenza media a trazione
Fyd	=Resistenza di calcolo dell'acciaio
Fyd (Tag)	=Resistenza di calcolo dell'acciaio per verifica a taglio
Fyk	=Tensione caratteristica di snervamento dell'acciaio
Fym	=Tensione media di snervamento
H	=Altezza
In	=Codice identificativo della travata facente parte dell'involuppo
$K_2$	=Coefficiente per distribuzione deformazioni
Lung.	=Lunghezza del tratto di progettazione
MRdy	=Momento resistente allo stato limite ultimo intorno all'asse Y
My	=Momento flettente intorno all'asse Y
Sez.	=Numero della sezione
Sic.	=Sicurezza
Staff.	=Staffatura adottata
TCC	=Tipo di combinazione di carico
	SLU = Stato limite ultimo
	SLE R = Stato limite d'esercizio, combinazione rara
	SLE F = Stato limite d'esercizio, combinazione frequente
	SLE Q = Stato limite d'esercizio, combinazione quasi permanente
Tipo	=Tipologia
	2I = Doppia I
	L = Sezione a L
	Ldx = L destra
	R = Rettangolare
	Rc = Rettangolare cava
	T = Sezione a T
Tp	=Tipo di acciaio
VRcd	=Taglio ultimo lato calcestruzzo
VRsd	=Taglio ultimo lato armatura
Vrdu	=Taglio ultimo resistente
Vsdu	=Taglio agente nella direzione del momento ultimo
Wk	=Ampiezza caratteristica delle fessure
X	=Coordinata progressiva rispetto al nodo iniziale
X0	=Coordinata progressiva (dal nodo iniziale) dell'inizio del tratto
X1	=Coordinata progressiva (dal nodo iniziale) della fine del tratto
Xg	=Coordinata progressiva (dal primo nodo) in cui viene effettuato il progetto/verifica
b	=Base inferiore
bw	=Larghezza membratura resistente al taglio
c	=Ricoprimento dell'armatura
ctg $\theta$	=Cotangente dell'angolo di inclinazione dei puntoni di calcestruzzo
h	=Altezza parte inf.
s	=Distanza massima tra le barre

Travata n. 10024

Nodi: 999 1055 -3323 1044



Relazione di calcolo

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	6.16	3.08	6.16	3.08	-2433.43	-13043.50	5.360

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.32	2	SLE R	3	52.50	6.16	3.08	-1642.27	480.35	-186.44	15.11
3.32	4	SLE Q	3	52.50	6.16	3.08	-1143.55	334.48	-129.82	10.52

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-1143.55	28.00	31.33	0.50	14.00	87.83	6.16	140.00	334.48	0.10	0.01
4	3.32	3	SLE F	3	16	52.50	-1285.88	28.00	31.33	0.50	14.00	87.83	6.16	140.00	376.11	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.	
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>		
1	SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1469.74	2.50	7619.38	26714.30	7619.38	5.184
1	SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	965.48	2.50	7619.38	26714.30	7619.38	7.892
1	SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	3334.63	2.50	15238.80	26714.30	15238.80	4.570

Travata n. 10035

Nodi: 1001 1057 -3326 1051

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	6.16	3.08	6.16	3.08	-2720.02	-13043.50	4.795

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.32	2	SLE R	3	52.50	6.16	3.08	-1858.11	543.48	-210.95	17.10
3.32	4	SLE Q	3	52.50	6.16	3.08	-1319.86	386.05	-149.84	12.15

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-1319.86	28.00	31.33	0.50	14.00	87.83	6.16	140.00	386.05	0.11	0.02
4	3.32	3	SLE F	3	16	52.50	-1473.52	28.00	31.33	0.50	14.00	87.83	6.16	140.00	430.99	0.13	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.	
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>		
1	SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1688.92	2.50	7619.38	26714.30	7619.38	4.511
1	SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	1133.67	2.50	7619.38	26714.30	7619.38	6.721
1	SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	3623.53	2.50	15238.80	26714.30	15238.80	4.205

Travata n. 11021

Nodi: 1161 -3465 -3531 -3619 -3730 1108

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
----	----	-----	----	---	-------	-------	--------	--------	----	------	------



Relazione di calcolo

<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	-507.48	-1506.47	2.969

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>e</sub> sup <daN/cmq>	σ <sub>e</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R		5	0.00	3.08	3.08	-367.05	973.48	-229.99	40.86
1.904	SLE Q		5	0.00	3.08	3.08	-281.46	746.47	-176.35	31.33

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q		5	19	0.00	-281.46	28.00	134.00	0.50	14.00	93.58	3.08	82.65	746.47	0.22	0.03
4	1.903	SLE F		5	19	0.00	-305.91	28.00	134.00	0.50	14.00	93.58	3.08	82.65	811.32	0.24	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	332.03	2.50	7185.75	7873.13	7185.75	21.642
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	349.00	2.50	7185.75	7873.13	7185.75	20.590

Travata n. 11022

Nodi: 1162 -3510 -3597 1177 1109

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	SLU	4	70.00	3.08	3.08	3.08	3.08	3.08	-356.06	-1506.47	4.231

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>e</sub> sup <daN/cmq>	σ <sub>e</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R		4	70.00	3.08	3.08	-257.64	683.30	-161.43	28.68
1.904	SLE Q		4	70.00	3.08	3.08	-201.22	533.66	-126.08	22.40

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q		4	19	70.00	-201.22	28.00	134.00	0.50	14.00	93.58	3.08	82.65	533.66	0.16	0.02
4	1.903	SLE F		4	19	70.00	-217.34	28.00	134.00	0.50	14.00	93.58	3.08	82.65	576.41	0.17	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	349.12	2.50	7185.75	7873.13	7185.75	20.583
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	366.08	2.50	7185.75	7873.13	7185.75	19.629

Travata n. 11023

Nodi: 1163 -3511 -3598 1178 -3806 1110

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
30R		30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	SLU	5	35.06	6.03	4.02	6.03	4.02	4.02	-7206.13	-9551.64	1.325

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>e</sub> sup <daN/cmq>	σ <sub>e</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R		5	35.06	6.03	4.02	-5394.10	2111.12	-587.16	53.79
1.904	SLE Q		5	35.06	6.03	4.02	-4856.96	1900.89	-528.69	48.43

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
------	-----------	----	-----	----	------	-----------	--------------	-----------	-----------	----------------	-----------------	-------------------------	-------------------------	-----------------------------	-----------------------------	-----------------	------------



Relazione di calcolo

3	1.90	4	SLE Q	5	30	35.06	-4856.96	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1900.89	0.76	0.16
4	1.90	3	SLE F	5	30	35.06	-5010.42	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1960.95	0.71	0.15

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	3217.06	2.50	10241.80	20904.00	10241.80	3.184
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	4123.75	2.50	10241.80	20904.00	10241.80	2.484

Travata n. 11024

Nodi: 1189 -4003 1199 1144

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
16R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-475.32	-2142.71	4.508

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	My <daNm>	σ <sub>r</sub> sup <daN/cm>	σ <sub>r</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
4.822	SLE R	3	332.00	3.08	3.08	-333.38	607.30	-162.86	21.43	
4.824	SLE Q	3	332.00	3.08	3.08	-264.07	481.04	-129.00	16.97	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c off</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	4.824	SLE	Q	3	18	332.00	-264.07	28.00	114.00	0.50	14.00	102.12	3.08	101.43	481.04	0.14	0.02
4	4.823	SLE	F	3	18	332.00	-283.82	28.00	114.00	0.50	14.00	102.12	3.08	101.43	517.01	0.15	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2426.18	2.50	7619.38	26714.30	7619.38	3.140
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	451.83	2.50	5079.58	10017.90	5079.58	11.242
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	480.61	2.50	5079.58	10017.90	5079.58	10.569

Travata n. 11027

Nodi: 1192 -4007 1200 1145

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
16R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-368.92	-2142.71	5.808

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	My <daNm>	σ <sub>r</sub> sup <daN/cm>	σ <sub>r</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
4.822	SLE R	3	332.00	3.08	3.08	-260.19	473.96	-127.11	16.72	
4.824	SLE Q	3	332.00	3.08	3.08	-202.84	369.50	-99.09	13.04	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	4.824	SLE	Q	3	18	332.00	-202.84	28.00	114.00	0.50	14.00	102.12	3.08	101.43	369.50	0.11	0.02
4	4.823	SLE	F	3	18	332.00	-219.22	28.00	114.00	0.50	14.00	102.12	3.08	101.43	399.34	0.12	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1828.98	2.50	7619.38	26714.30	7619.38	4.166
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	371.90	2.50	5079.58	10017.90	5079.58	13.658
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	400.69	2.50	5079.58	10017.90	5079.58	12.677



Travata n. 11028

Nodi: 1164 -3512 -3599 1179 -3807 1111

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	35.09	6.03	4.02	6.03	4.02	-7095.05	-9551.64	1.346	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	5	35.09	6.03	4.02	-5312.26	2079.08	-578.25	52.97	
1.904	SLE Q	5	35.09	6.03	4.02	-4783.48	1872.13	-520.69	47.70	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cm>		<mm>
3	1.904	SLE Q	5	30	35.09	-4783.48	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1872.13	0.75	0.16	
4	1.903	SLE F	5	30	35.09	-4934.60	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1931.28	0.70	0.15	

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	3124.22	2.50	10241.80	20904.00	10241.80	3.278
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	4105.11	2.50	10241.80	20904.00	10241.80	2.495

Travata n. 11029

Nodi: 1165 -3513 -3600 1180 1112

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	4	70.00	3.08	3.08	3.08	3.08	-352.22	-1506.47	4.277	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cm>	<daN/cm>	<daN/cm>
1.902	SLE R	4	70.00	3.08	3.08	-254.77	675.69	-159.63	28.36	
1.904	SLE Q	4	70.00	3.08	3.08	-198.92	527.57	-124.64	22.14	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	4	19	70.00	-198.92	28.00	134.00	0.50	14.00	93.58	3.08	82.65	527.57	0.15	0.02	
4	1.903	SLE F	4	19	70.00	-214.88	28.00	134.00	0.50	14.00	93.58	3.08	82.65	569.89	0.17	0.03	

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	351.82	2.50	7185.75	7873.13	7185.75	20.424
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	368.79	2.50	7185.75	7873.13	7185.75	19.485

Travata n. 11032

Nodi: 1167 -3475 -3542 -3611 -3736 1115

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
----	----	-----	----	---	-------	-------	--------	--------	----	------	------



Relazione di calcolo

<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5		38.00	3.08	3.08	3.08	3.08	-515.21	-1506.47	2.924

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>e</sub> sup	σ <sub>e</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	38.00	3.08	3.08	-372.63	988.26	-233.48	41.48
1.904	SLE Q		5	38.00	3.08	3.08	-286.60	760.10	-179.57	31.90

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		5	19	38.00	-286.60	28.00	134.00	0.50	14.00	93.58	3.08	82.65	760.10	0.22	0.04
4	1.903	SLE F		5	19	38.00	-311.17	28.00	134.00	0.50	14.00	93.58	3.08	82.65	825.27	0.24	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	357.44	2.50	7185.75	7873.13	7185.75	20.103
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	374.41	2.50	7185.75	7873.13	7185.75	19.192

Travata n. 11033

Nodi: 1168 -3514 -3601 1181 -3809 1116

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5		35.44	3.08	3.08	3.08	3.08	-376.97	-1506.47	3.996

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>e</sub> sup	σ <sub>e</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	35.44	3.08	3.08	-272.51	722.75	-170.75	30.34
1.904	SLE Q		5	35.44	3.08	3.08	-212.72	564.16	-133.28	23.68

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		5	19	35.44	-212.72	28.00	134.00	0.50	14.00	93.58	3.08	82.65	564.16	0.16	0.03
4	1.903	SLE F		5	19	35.44	-229.80	28.00	134.00	0.50	14.00	93.58	3.08	82.65	609.47	0.18	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	414.15	2.50	7185.75	7873.13	7185.75	17.350
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	431.12	2.50	7185.75	7873.13	7185.75	16.668

Travata n. 11035

Nodi: 1193 -4008 1201 1151

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R		18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.821	SLU	3		332.00	3.08	3.08	3.08	3.08	-508.67	-2142.71	4.212

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>e</sub> sup	σ <sub>e</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	SLE R		3	332.00	3.08	3.08	-358.62	653.28	-175.19	23.05
4.824	SLE Q		3	332.00	3.08	3.08	-284.59	518.41	-139.03	18.29

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
------	----	----	-----	----	------	---	----	---	---	----------------	-----------------	-----------------	----------------	--------------------	----------------	-----------------	----------------



Relazione di calcolo

	<m>				<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>	
3	4.82	4	SLE Q	3	18	332.00	-284.59	28.00	114.00	0.50	14.00	102.12	3.08	101.43	518.41	0.15	0.03
4	4.82	3	SLE F	3	18	332.00	-305.69	28.00	114.00	0.50	14.00	102.12	3.08	101.43	556.85	0.16	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0<m>	X1<m>	Lung.<m>	Staff.	AfE St.<cmq/m>	bw<m>	Vsdu<daN>	ctgθ	VRsd<daN>	VRcd<daN>	Vrdu<daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2260.25	2.50	7619.38	26714.30	7619.38	3.371
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	463.98	2.50	5079.58	10017.90	5079.58	10.948
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	492.76	2.50	5079.58	10017.90	5079.58	10.308

Travata n. 11036

Nodi: 1169 -3515 -3602 1182 -3810 1117

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B<cm>	H<cm>	Cf sup<cm>	Cf inf<cm>	Fcm<daN/cmq>	Fctm<daN/cmq>	Fcd<daN/cmq>	Fcd (Tag)<daN/cmq>	Fctd<daN/cmq>	Fym<daN/cmq>	Fyd<daN/cmq>	Fyd (Tag)<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg<m>	CC	TCC	El	X<cm>	AfE S<cmq>	AfE I<cmq>	AfEP S<cmq>	AfEP I<cmq>	My<daNm>	MRdy<daNm>	Sic.
1.90	1	SLU	5	35.43	6.03	4.02	6.03	4.02	-6988.35	-9551.64	1.367

Stato limite d'esercizio - Verifiche tensionali

Xg<m>	CC	TCC	El	X<cm>	AfE S<cmq>	AfE I<cmq>	My<daNm>	σ <sub>f</sub> sup<daN/cmq>	σ <sub>f</sub> inf<daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	5	35.43	6.03	4.02	-5231.83	2047.60	-569.49	52.17
1.90	4	SLE Q	5	35.43	6.03	4.02	-4712.64	1844.41	-512.98	46.99

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg<m>	CC	TCC	El	Sez.	X<cm>	My<daNm>	c<mm>	s<mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk<mm>
3	1.90	4	SLE Q	5	30	35.43	-4712.64	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1844.41	0.74	0.15
4	1.90	3	SLE F	5	30	35.43	-4860.98	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1902.47	0.68	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0<m>	X1<m>	Lung.<m>	Staff.	AfE St.<cmq/m>	bw<cm>	Vsdu<daN>	ctgθ	VRsd<daN>	VRcd<daN>	Vrdu<daN>	Sic.
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	3137.67	2.50	10241.80	20904.00	10241.80	3.264
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	3954.77	2.50	10241.80	20904.00	10241.80	2.590

Travata n. 11040

Nodi: 1170 -3516 -3603 1183 -3811 1118

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B<cm>	H<cm>	Cf sup<cm>	Cf inf<cm>	Fcm<daN/cmq>	Fctm<daN/cmq>	Fcd<daN/cmq>	Fcd (Tag)<daN/cmq>	Fctd<daN/cmq>	Fym<daN/cmq>	Fyd<daN/cmq>	Fyd (Tag)<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg<m>	CC	TCC	El	X<cm>	AfE S<cmq>	AfE I<cmq>	AfEP S<cmq>	AfEP I<cmq>	My<daNm>	MRdy<daNm>	Sic.
1.90	1	SLU	5	35.41	6.03	4.02	6.03	4.02	-6973.13	-9551.64	1.370

Stato limite d'esercizio - Verifiche tensionali

Xg<m>	CC	TCC	El	X<cm>	AfE S<cmq>	AfE I<cmq>	My<daNm>	σ <sub>f</sub> sup<daN/cmq>	σ <sub>f</sub> inf<daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	5	35.41	6.03	4.02	-5222.10	2043.80	-568.43	52.07
1.90	4	SLE Q	5	35.41	6.03	4.02	-4701.47	1840.04	-511.76	46.88

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg<m>	CC	TCC	El	Sez.	X<cm>	My<daNm>	c<mm>	s<mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk<mm>
3	1.90	4	SLE Q	5	30	35.41	-4701.47	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1840.04	0.73	0.15
4	1.90	3	SLE F	5	30	35.41	-4850.23	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1898.26	0.68	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0<m>	X1<m>	Lung.<m>	Staff.	AfE St.<cmq/m>	bw<cm>	Vsdu<daN>	ctgθ	VRsd<daN>	VRcd<daN>	Vrdu<daN>	Sic.
1 SLU	0.00	1.38	1.38	ø6/18 2 br.	3.14	0.30	3090.89	2.50	10241.80	20904.00	10241.80	3.314
1 SLU	1.38	1.90	0.52	ø6/18 2 br.	3.14	0.30	3949.55	2.50	10241.80	20904.00	10241.80	2.593

Travata n. 11041



## Relazione di calcolo

Nodi: 1196 -4012 1202 1152

### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm²>	Afe I <cm²>	Afep S <cm²>	Afep I <cm²>	My <daNm>	MRdy <daNm>	Sic.
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-404.99	-2142.71	5.291

### Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm²>	Afe I <cm²>	My <daNm>	σ <sub>f</sub> sup <daN/cm²>	σ <sub>f</sub> inf <daN/cm²>	σ <sub>c</sub> <daN/cm²>
4.822	SLE R	3	332.00	3.08	3.08	-286.98	522.76	-140.19	18.45	
4.824	SLE Q	3	332.00	3.08	3.08	-225.11	410.07	-109.97	14.47	

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.824	SLE	Q	3	18	332.00	-225.11	28.00	114.00	0.50	14.00	102.12	3.08	101.43	410.07	0.12	0.02
4	4.823	SLE	F	3	18	332.00	-242.78	28.00	114.00	0.50	14.00	102.12	3.08	101.43	442.25	0.13	0.02

### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cm²/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1525.00	2.50	7619.38	26714.30	7619.38	4.996
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	385.22	2.50	5079.58	10017.90	5079.58	13.186
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	414.00	2.50	5079.58	10017.90	5079.58	12.270

## Travata n. 11042

Nodi: 1171 -3517 -3604 1184 -3812 1119

### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm²>	Afe I <cm²>	Afep S <cm²>	Afep I <cm²>	My <daNm>	MRdy <daNm>	Sic.
1.901	SLU	5	35.43	3.08	3.08	3.08	3.08	3.08	-341.42	-1506.47	4.412

### Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm²>	Afe I <cm²>	My <daNm>	σ <sub>f</sub> sup <daN/cm²>	σ <sub>f</sub> inf <daN/cm²>	σ <sub>c</sub> <daN/cm²>
1.902	SLE R	5	35.43	3.08	3.08	-247.21	655.63	-154.89	27.52	
1.904	SLE Q	5	35.43	3.08	3.08	-189.81	503.41	-118.93	21.13	

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5	19	35.43	-189.81	28.00	134.00	0.50	14.00	93.58	3.08	82.65	503.41	0.15	0.02	
4	1.903	SLE F	5	19	35.43	-206.21	28.00	134.00	0.50	14.00	93.58	3.08	82.65	546.90	0.16	0.03	

### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cm²/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	383.55	2.50	7185.75	7873.13	7185.75	18.735
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	400.51	2.50	7185.75	7873.13	7185.75	17.941

## Travata n. 11070

Nodi: 1200 1056 -3325 1045

### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm²>	Afe I <cm²>	Afep S <cm²>	Afep I <cm²>	My <daNm>	MRdy <daNm>	Sic.
-----------	----	-----	----	-----------	----------------	----------------	-----------------	-----------------	--------------	----------------	------



Relazione di calcolo

3.32	1	SLU	3	52.50	3.08	3.08	3.08	3.08	-2933.55	-6639.53	2.263
------	---	-----	---	-------	------	------	------	------	----------	----------	-------

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	$\sigma_f$ sup <daN/cmq>	$\sigma_f$ inf <daN/cmq>	$\sigma_c$ <daN/cmq>
3.32	2	SLE R	3	52.50	3.08	3.08	-1981.65	1129.37	-262.54	23.10
3.32	4	SLE Q	3	52.50	3.08	3.08	-1426.03	812.72	-188.93	16.62

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cmq>	$\epsilon_{sm}$	Wk <mm>
3	3.32	4	SLE Q	3	16	52.50	-1426.03	28.00	94.00	0.50	14.00	119.66	3.08	140.00	812.72	0.24	0.05
4	3.32	3	SLE F	3	16	52.50	-1584.37	28.00	94.00	0.50	14.00	119.66	3.08	140.00	902.96	0.26	0.05

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	1803.18	2.50	7619.38	26714.30	7619.38	4.226
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	1204.50	2.50	7619.38	26714.30	7619.38	6.326
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	3885.64	2.50	15238.80	26714.30	15238.80	3.922

Travata n. 11084

Nodi: 1202 1058 -3328 1052

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
3.32	1	SLU	3	52.50	3.08	3.08	3.08	3.08	-3467.01	-6639.53	1.915

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	$\sigma_f$ sup <daN/cmq>	$\sigma_f$ inf <daN/cmq>	$\sigma_c$ <daN/cmq>
3.32	2	SLE R	3	52.50	3.08	3.08	-2376.14	1354.20	-314.81	27.70
3.32	4	SLE Q	3	52.50	3.08	3.08	-1754.17	999.73	-232.40	20.45

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cmq>	$\epsilon_{sm}$	Wk <mm>
3	3.32	4	SLE Q	3	16	52.50	-1754.17	28.00	94.00	0.50	14.00	119.66	3.08	140.00	999.73	0.29	0.06
4	3.32	3	SLE F	3	16	52.50	-1931.40	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1100.73	0.32	0.07

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	2113.61	2.50	7619.38	26714.30	7619.38	3.605
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	894.07	2.50	7619.38	26714.30	7619.38	8.522
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	4446.80	2.50	15238.80	26714.30	15238.80	3.427

Travata n. 11088

Nodi: 1177 -3696 -3697 -3698 -3699 -3700 -3701 -3702 1178

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	42.54	1506.47	35.416
3.20	1	SLU	8	40.00	3.08	3.08	3.08	3.08	-112.16	-1506.47	13.432

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	$\sigma_f$ sup <daN/cmq>	$\sigma_f$ inf <daN/cmq>	$\sigma_c$ <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	30.12	-18.87	79.88	3.35
0.00	4	SLE Q	1	0.00	3.08	3.08	-18.30	48.52	-11.46	2.04
3.20	2	SLE R	8	40.00	3.08	3.08	-79.69	211.36	-49.93	8.87
3.20	4	SLE Q	8	40.00	3.08	3.08	-61.94	164.28	-38.81	6.90



Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
5	0.00	4	SLE Q	1	19	0.00	-18.30	28.00	134.00	0.50	14.00	93.58	3.08	82.65	48.52	0.01	0.00
8	0.00	3	SLE F	1	19	0.00	21.15	28.00	134.00	0.50	14.00	93.58	3.08	82.65	56.08	0.02	0.00
11	3.20	4	SLE Q	8	19	40.00	-61.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	164.28	0.05	0.01
12	3.20	3	SLE F	8	19	40.00	-66.99	28.00	134.00	0.50	14.00	93.58	3.08	82.65	177.68	0.05	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	399.40	2.50	7185.75	7873.13	7185.75	17.992
1 SLU	0.14	3.06	2.91	ø6/ 8 2 br.	7.07	0.20	399.40	2.50	7185.75	7873.13	7185.75	17.992
1 SLU	3.06	3.20	0.14	ø6/ 8 2 br.	7.07	0.20	137.40	2.50	7185.75	7873.13	7185.75	52.297

Travata n. 11130

Nodi: 1161 -3385 -3386 -3387 -3388 -3389 -3390 -3391 -3392 1162

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	14.45	1506.47	>100
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	67.84	1506.47	22.206
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	12.66	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	10.37	-6.50	27.50	1.15
0.00	4	SLE Q	1	0.00	3.08	3.08	7.98	-5.00	21.17	0.89
1.44	2	SLE R	5	0.00	3.08	3.08	48.25	-30.23	127.96	5.37
1.44	4	SLE Q	5	0.00	3.08	3.08	35.63	-22.32	94.49	3.97
3.25	2	SLE R	9	36.11	3.08	3.08	9.08	-5.69	24.08	1.01
3.25	4	SLE Q	9	36.11	3.08	3.08	6.92	-4.34	18.36	0.77

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	7.98	28.00	134.00	0.50	14.00	93.58	3.08	82.65	21.17	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	8.66	28.00	134.00	0.50	14.00	93.58	3.08	82.65	22.98	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	35.63	28.00	134.00	0.50	14.00	93.58	3.08	82.65	94.49	0.03	0.00
8	1.44	3	SLE F	5	19	0.00	39.22	28.00	134.00	0.50	14.00	93.58	3.08	82.65	104.01	0.03	0.00
11	3.25	4	SLE Q	9	19	36.11	6.92	28.00	134.00	0.50	14.00	93.58	3.08	82.65	18.36	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	7.54	28.00	134.00	0.50	14.00	93.58	3.08	82.65	19.99	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	44.19	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	33.29	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	57.79	2.50	7185.75	7873.13	7185.75	>100

Travata n. 11131

Nodi: 1179 -3703 -3704 -3705 -3706 -3707 -3708 -3709 1180

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-77.00	-1506.47	19.566
1.59	1	SLU	4	39.75	3.08	3.08	3.08	3.08	30.99	1506.47	48.606
3.18	1	SLU	8	39.75	3.08	3.08	3.08	3.08	-41.60	-1506.47	36.215

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
----	----	-----	----	---	-------	-------	----	--------------------	--------------------	----------------



Relazione di calcolo

<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE	R	1	0.00	3.08	3.08	-54.08	143.43	-33.89	6.02
0.004	SLE	Q	1	0.00	3.08	3.08	-39.61	105.05	-24.82	4.41
1.592	SLE	R	4	39.75	3.08	3.08	21.69	-13.59	57.54	2.41
1.594	SLE	Q	4	39.75	3.08	3.08	17.31	-10.84	45.90	1.93
3.182	SLE	R	8	39.75	3.08	3.08	-30.40	80.62	-19.05	3.38
3.184	SLE	Q	8	39.75	3.08	3.08	-28.32	75.11	-17.74	3.15

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.004	SLE	Q	1	19	0.00	-39.61	28.00	134.00	0.50	14.00	93.58	3.08	82.65	105.05	0.03	0.00
4	0.003	SLE	F	1	19	0.00	-43.75	28.00	134.00	0.50	14.00	93.58	3.08	82.65	116.03	0.03	0.01
7	1.594	SLE	Q	4	19	39.75	17.31	28.00	134.00	0.50	14.00	93.58	3.08	82.65	45.90	0.01	0.00
8	1.593	SLE	F	4	19	39.75	18.56	28.00	134.00	0.50	14.00	93.58	3.08	82.65	49.23	0.01	0.00
14	3.184	SLE	Q	8	19	39.75	-28.32	28.00	134.00	0.50	14.00	93.58	3.08	82.65	75.11	0.02	0.00
16	3.183	SLE	F	8	19	39.75	-28.91	28.00	134.00	0.50	14.00	93.58	3.08	82.65	76.67	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	159.53	2.50	7185.75	7873.13	7185.75	45.043
1 SLU	0.14	3.04	2.89	ø6/ 8 2 br.	7.07	0.20	380.51	2.50	7185.75	7873.13	7185.75	18.884
1 SLU	3.04	3.18	0.14	ø6/ 8 2 br.	7.07	0.20	380.51	2.50	7185.75	7873.13	7185.75	18.884

Travata n. 11173

Nodi: 1163 -3393 -3394 -3395 -3396 -3397 -3398 -3399 1164

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-214.69	-1506.47	7.017
1.501	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	207.10	1506.47	7.274
3.001	SLU	8	37.50	3.08	3.08	3.08	3.08	3.08	-200.42	-1506.47	7.516

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE	R	1	0.00	3.08	3.08	-162.28	430.40	-101.68	18.07
0.004	SLE	Q	1	0.00	3.08	3.08	-152.38	404.13	-95.47	16.96
1.502	SLE	R	5	0.00	3.08	3.08	155.85	-97.65	413.34	17.35
1.504	SLE	Q	5	0.00	3.08	3.08	142.83	-89.50	378.82	15.90
3.002	SLE	R	8	37.50	3.08	3.08	-151.85	402.72	-95.14	16.90
3.004	SLE	Q	8	37.50	3.08	3.08	-143.03	379.33	-89.62	15.92

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.004	SLE	Q	1	19	0.00	-152.38	28.00	134.00	0.50	14.00	93.58	3.08	82.65	404.13	0.12	0.02
4	0.003	SLE	F	1	19	0.00	-155.20	28.00	134.00	0.50	14.00	93.58	3.08	82.65	411.62	0.12	0.02
7	1.504	SLE	Q	5	19	0.00	142.83	28.00	134.00	0.50	14.00	93.58	3.08	82.65	378.82	0.11	0.02
8	1.503	SLE	F	5	19	0.00	146.55	28.00	134.00	0.50	14.00	93.58	3.08	82.65	388.68	0.11	0.02
11	3.004	SLE	Q	8	19	37.50	-143.03	28.00	134.00	0.50	14.00	93.58	3.08	82.65	379.33	0.11	0.02
12	3.003	SLE	F	8	19	37.50	-145.55	28.00	134.00	0.50	14.00	93.58	3.08	82.65	386.02	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	911.35	2.50	7185.75	7873.13	7185.75	7.885
1 SLU	0.14	2.85	2.71	ø6/ 8 2 br.	7.07	0.20	611.63	2.50	7185.75	7873.13	7185.75	11.749
1 SLU	2.85	3.00	0.14	ø6/ 8 2 br.	7.07	0.20	908.75	2.50	7185.75	7873.13	7185.75	7.907

Travata n. 11174

Nodi: 1181 -3710 -3711 -3712 -3713 -3714 -3715 -3716 -3717 1182

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione



Relazione di calcolo

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-43.71	-1506.47	34.463
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	36.54	1506.47	41.225
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	-86.57	-1506.47	17.402

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-31.85	84.48	-19.96	3.55
0.00	4	SLE Q	1	0.00	3.08	3.08	-29.25	77.58	-18.33	3.26
1.44	2	SLE R	5	0.00	3.08	3.08	25.70	-16.11	68.17	2.86
1.44	4	SLE Q	5	0.00	3.08	3.08	20.91	-13.10	55.47	2.33
3.25	2	SLE R	9	36.11	3.08	3.08	-61.13	162.12	-38.30	6.80
3.25	4	SLE Q	9	36.11	3.08	3.08	-45.84	121.56	-28.72	5.10

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
5	0.00	4	SLE Q	1	19	0.00	-29.25	28.00	134.00	0.50	14.00	93.58	3.08	82.65	77.58	0.02	0.00
7	0.00	3	SLE F	1	19	0.00	-29.99	28.00	134.00	0.50	14.00	93.58	3.08	82.65	79.55	0.02	0.00
11	1.44	4	SLE Q	5	19	0.00	20.91	28.00	134.00	0.50	14.00	93.58	3.08	82.65	55.47	0.02	0.00
12	1.44	3	SLE F	5	19	0.00	22.29	28.00	134.00	0.50	14.00	93.58	3.08	82.65	59.10	0.02	0.00
15	3.25	4	SLE Q	9	19	36.11	-45.84	28.00	134.00	0.50	14.00	93.58	3.08	82.65	121.56	0.04	0.01
16	3.25	3	SLE F	9	19	36.11	-50.20	28.00	134.00	0.50	14.00	93.58	3.08	82.65	133.15	0.04	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	448.78	2.50	7185.75	7873.13	7185.75	16.012
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	448.78	2.50	7185.75	7873.13	7185.75	16.012
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	156.87	2.50	7185.75	7873.13	7185.75	45.808

Travata n. 11216

Nodi: 1165 -3400 -3401 -3402 -3403 -3404 -3405 -3406 -3407 1166

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	12.26	1506.47	>100
1.62	1	SLU	5	18.06	3.08	3.08	3.08	3.08	67.40	1506.47	22.353
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	14.77	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	8.82	-5.53	23.39	0.98
0.00	4	SLE Q	1	0.00	3.08	3.08	6.74	-4.22	17.87	0.75
1.62	2	SLE R	5	18.06	3.08	3.08	48.04	-30.10	127.40	5.35
1.62	4	SLE Q	5	18.06	3.08	3.08	35.81	-22.44	94.97	3.99
3.25	2	SLE R	9	36.11	3.08	3.08	10.61	-6.65	28.15	1.18
3.25	4	SLE Q	9	36.11	3.08	3.08	8.28	-5.19	21.96	0.92

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	6.74	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.87	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	7.33	28.00	134.00	0.50	14.00	93.58	3.08	82.65	19.45	0.01	0.00
7	1.62	4	SLE Q	5	19	18.06	35.81	28.00	134.00	0.50	14.00	93.58	3.08	82.65	94.97	0.03	0.00
8	1.62	3	SLE F	5	19	18.06	39.30	28.00	134.00	0.50	14.00	93.58	3.08	82.65	104.22	0.03	0.00
11	3.25	4	SLE Q	9	19	36.11	8.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	21.96	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	8.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	23.73	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	55.65	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	31.14	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	45.60	2.50	7185.75	7873.13	7185.75	>100

Travata n. 11217



Relazione di calcolo

Nodi: 1183 -3718 -3719 -3720 -3721 -3722 -3723 -3724 -3725 1184

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cm²>	<cm²>	<cm²>	<cm²>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-75.81	-1506.47	19.871
1.75	1	SLU	5	31.17	3.08	3.08	3.08	3.08	35.04	1506.47	42.987
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	-37.36	-1506.47	40.322

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cm²>	<cm²>	<daNm>	<daN/cm²>	<daN/cm²>	<daN/cm²>
0.00	2	SLE R	1	0.00	3.08	3.08	-53.44	141.72	-33.48	5.95
0.00	4	SLE Q	1	0.00	3.08	3.08	-39.28	104.18	-24.61	4.37
1.75	2	SLE R	5	31.17	3.08	3.08	24.60	-15.42	65.25	2.74
1.75	4	SLE Q	5	31.17	3.08	3.08	19.64	-12.31	52.09	2.19
3.23	2	SLE R	9	35.89	3.08	3.08	-27.44	72.78	-17.19	3.05
3.23	4	SLE Q	9	35.89	3.08	3.08	-25.71	68.20	-16.11	2.86

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cm²>	<cm²>	<daN/cm²>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-39.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	104.18	0.03	0.00
4	0.00	3	SLE F	1	19	0.00	-43.33	28.00	134.00	0.50	14.00	93.58	3.08	82.65	114.92	0.03	0.01
7	1.75	4	SLE Q	5	19	31.17	19.64	28.00	134.00	0.50	14.00	93.58	3.08	82.65	52.09	0.02	0.00
8	1.75	3	SLE F	5	19	31.17	20.98	28.00	134.00	0.50	14.00	93.58	3.08	82.65	55.63	0.02	0.00
14	3.23	4	SLE Q	9	19	35.89	-25.71	28.00	134.00	0.50	14.00	93.58	3.08	82.65	68.20	0.02	0.00
16	3.23	3	SLE F	9	19	35.89	-26.22	28.00	134.00	0.50	14.00	93.58	3.08	82.65	69.53	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cm²/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	174.87	2.50	7185.75	7873.13	7185.75
1	SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	400.91	2.50	7185.75	7873.13	7185.75
1	SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	400.91	2.50	7185.75	7873.13	7185.75

Travata n. 11259

Nodi: 1167 -3408 -3409 -3410 -3411 -3412 -3413 -3414 -3415 1168

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cm²>	<cm²>	<cm²>	<cm²>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	15.09	1506.47	99.853
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	68.44	1506.47	22.011
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	12.16	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cm²>	<cm²>	<daNm>	<daN/cm²>	<daN/cm²>	<daN/cm²>
0.00	2	SLE R	1	0.00	3.08	3.08	10.85	-6.80	28.77	1.21
0.00	4	SLE Q	1	0.00	3.08	3.08	8.45	-5.29	22.40	0.94
1.44	2	SLE R	5	0.00	3.08	3.08	48.75	-30.55	129.31	5.43
1.44	4	SLE Q	5	0.00	3.08	3.08	36.27	-22.73	96.20	4.04
3.25	2	SLE R	9	36.11	3.08	3.08	8.73	-5.47	23.15	0.97
3.25	4	SLE Q	9	36.11	3.08	3.08	6.66	-4.18	17.67	0.74

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cm²>	<cm²>	<daN/cm²>		<mm>
3	0.00	4	SLE Q	1	19	0.00	8.45	28.00	134.00	0.50	14.00	93.58	3.08	82.65	22.40	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	9.13	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.22	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	36.27	28.00	134.00	0.50	14.00	93.58	3.08	82.65	96.20	0.03	0.00
8	1.44	3	SLE F	5	19	0.00	39.83	28.00	134.00	0.50	14.00	93.58	3.08	82.65	105.63	0.03	0.00
11	3.25	4	SLE Q	9	19	36.11	6.66	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.67	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	7.25	28.00	134.00	0.50	14.00	93.58	3.08	82.65	19.24	0.01	0.00



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

CC	X0<m>	X1<m>	Lung.<m>	Staff.	AfE St.<cmq/m>	bw<m>	Vsdu<daN>	ctgθ	VRsd<daN>	VRcd<daN>	Vrdu<daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	44.69	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	32.46	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	56.97	2.50	7185.75	7873.13	7185.75	>100

Travata n. 11302

Nodi: 1169 -3416 -3417 -3418 -3419 -3420 -3421 -3422 1170

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B<cm>	H<cm>	Cf sup<cm>	Cf inf<cm>	Fcm<daN/cmq>	Fctm<daN/cmq>	Fcd<daN/cmq>	Fcd (Tag)<daN/cmq>	Fctd<daN/cmq>	Fym<daN/cmq>	Fyd<daN/cmq>	Fyd (Tag)<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg<m>	CC	TCC	El	X<cm>	AfE S<cmq>	AfE I<cmq>	AfEP S<cmq>	AfEP I<cmq>	My<daNm>	MRdy<daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-197.62	-1506.47	7.623
1.271	SLU	4	18.13	3.08	3.08	3.08	3.08	3.08	200.21	1506.47	7.525
2.901	SLU	8	36.25	3.08	3.08	3.08	3.08	3.08	-198.63	-1506.47	7.584

Stato limite d'esercizio - Verifiche tensionali

Xg<m>	CC	TCC	El	X<cm>	AfE S<cmq>	AfE I<cmq>	My<daNm>	σ <sub>ε</sub> sup<daN/cmq>	σ <sub>ε</sub> inf<daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	3.08	-149.57	396.67	-93.71	16.65
0.004	SLE Q	1	0.00	3.08	3.08	3.08	-140.92	373.75	-88.30	15.69
1.272	SLE R	4	18.13	3.08	3.08	3.08	150.73	-94.44	399.76	16.78
1.274	SLE Q	4	18.13	3.08	3.08	3.08	138.24	-86.62	366.64	15.39
2.902	SLE R	8	36.25	3.08	3.08	3.08	-150.40	398.87	-94.23	16.74
2.904	SLE Q	8	36.25	3.08	3.08	3.08	-141.53	375.37	-88.68	15.76

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c off</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	-140.92	28.00	134.00	0.50	14.00	93.58	3.08	82.65	373.75	0.11	0.02
4	0.003	SLE	F	1	19	0.00	-143.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	380.30	0.11	0.02
7	1.274	SLE	Q	4	19	18.13	138.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	366.64	0.11	0.02
8	1.273	SLE	F	4	19	18.13	141.81	28.00	134.00	0.50	14.00	93.58	3.08	82.65	376.10	0.11	0.02
11	2.904	SLE	Q	8	19	36.25	-141.53	28.00	134.00	0.50	14.00	93.58	3.08	82.65	375.37	0.11	0.02
12	2.903	SLE	F	8	19	36.25	-144.07	28.00	134.00	0.50	14.00	93.58	3.08	82.65	382.09	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0<m>	X1<m>	Lung.<m>	Staff.	AfE St.<cmq/m>	bw<m>	Vsdu<daN>	ctgθ	VRsd<daN>	VRcd<daN>	Vrdu<daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	899.39	2.50	7185.75	7873.13	7185.75	7.990
1 SLU	0.14	2.75	2.61	ø6/ 8 2 br.	7.07	0.20	601.34	2.50	7185.75	7873.13	7185.75	11.950
1 SLU	2.75	2.90	0.14	ø6/ 8 2 br.	7.07	0.20	901.05	2.50	7185.75	7873.13	7185.75	7.975

Travata n. 11345

Nodi: 1171 -3423 -3424 -3425 -3426 -3427 -3428 -3429 -3430 1172

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B<cm>	H<cm>	Cf sup<cm>	Cf inf<cm>	Fcm<daN/cmq>	Fctm<daN/cmq>	Fcd<daN/cmq>	Fcd (Tag)<daN/cmq>	Fctd<daN/cmq>	Fym<daN/cmq>	Fyd<daN/cmq>	Fyd (Tag)<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg<m>	CC	TCC	El	X<cm>	AfE S<cmq>	AfE I<cmq>	AfEP S<cmq>	AfEP I<cmq>	My<daNm>	MRdy<daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	15.70	1506.47	95.969
1.601	SLU	5	16.27	3.08	3.08	3.08	3.08	3.08	72.10	1506.47	20.894
3.231	SLU	9	35.89	3.08	3.08	3.08	3.08	3.08	14.36	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg<m>	CC	TCC	El	X<cm>	AfE S<cmq>	AfE I<cmq>	My<daNm>	σ <sub>ε</sub> sup<daN/cmq>	σ <sub>ε</sub> inf<daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	3.08	11.24	-7.04	29.81	1.25
0.004	SLE Q	1	0.00	3.08	3.08	3.08	8.89	-5.57	23.58	0.99
1.602	SLE R	5	16.27	3.08	3.08	3.08	51.35	-32.17	136.18	5.72
1.604	SLE Q	5	16.27	3.08	3.08	3.08	39.01	-24.44	103.46	4.34
3.232	SLE R	9	35.89	3.08	3.08	3.08	10.31	-6.46	27.36	1.15
3.234	SLE Q	9	35.89	3.08	3.08	3.08	8.02	-5.02	21.26	0.89

Stato limite d'esercizio - Verifiche a fessurazione



Relazione di calcolo

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	8.89	28.00	134.00	0.50	14.00	93.58	3.08	82.65	23.58	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	9.56	28.00	134.00	0.50	14.00	93.58	3.08	82.65	25.36	0.01	0.00
7	1.60	4	SLE Q	5	19	16.27	39.01	28.00	134.00	0.50	14.00	93.58	3.08	82.65	103.46	0.03	0.00
8	1.60	3	SLE F	5	19	16.27	42.53	28.00	134.00	0.50	14.00	93.58	3.08	82.65	112.80	0.03	0.01
11	3.23	4	SLE Q	9	19	35.89	8.02	28.00	134.00	0.50	14.00	93.58	3.08	82.65	21.26	0.01	0.00
12	3.23	3	SLE F	9	19	35.89	8.67	28.00	134.00	0.50	14.00	93.58	3.08	82.65	23.00	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	53.48	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	28.98	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	48.86	2.50	7185.75	7873.13	7185.75	>100

Travata n. 12024

Nodi: 1199 1255 -4088 1244

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.321	SLU	3	52.50	6.16	3.08	6.16	3.08	3.08	-1967.52	-13043.50	6.629

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.322	SLE R	3	52.50	6.16	3.08	-1317.13		385.25	-149.53	12.12
3.324	SLE Q	3	52.50	6.16	3.08	-895.71		261.99	-101.69	8.24

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.324	SLE Q	3	16	52.50	-895.71	28.00	31.33	0.50	14.00	87.83	6.16	140.00		261.99	0.08	0.01
4	3.323	SLE F	3	16	52.50	-1015.92	28.00	31.33	0.50	14.00	87.83	6.16	140.00		297.15	0.09	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1402.96	2.50	7619.38	26714.30	7619.38	5.431
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	843.11	2.50	7619.38	26714.30	7619.38	9.037
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	2968.68	2.50	15238.80	26714.30	15238.80	5.133

Travata n. 12035

Nodi: 1201 1257 -4091 1251

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.321	SLU	3	52.50	6.16	3.08	6.16	3.08	3.08	-2253.78	-13043.50	5.787

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.322	SLE R	3	52.50	6.16	3.08	-1532.26		448.18	-173.95	14.10
3.324	SLE Q	3	52.50	6.16	3.08	-1072.70		313.76	-121.78	9.87

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.324	SLE Q	3	16	52.50	-1072.70	28.00	31.33	0.50	14.00	87.83	6.16	140.00		313.76	0.09	0.01
4	3.323	SLE F	3	16	52.50	-1203.85	28.00	31.33	0.50	14.00	87.83	6.16	140.00		352.12	0.10	0.02

Stato limite ultimo - Verifiche a taglio



Relazione di calcolo

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1629.67	2.50	7619.38	26714.30	7619.38	4.675
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	1009.81	2.50	7619.38	26714.30	7619.38	7.545
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	3255.89	2.50	15238.80	26714.30	15238.80	4.680

Travata n. 13021

Nodi: 1361 -4223 -4296 -4384 -4501 1308

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1 SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	-528.75	-1506.47	2.849

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R	5	0.00	3.08	3.08	-382.24	1013.76	-239.50	42.55	
1.904	SLE Q	5	0.00	3.08	3.08	-293.89	779.43	-184.14	32.72	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5	19	0.00	-293.89	28.00	134.00	0.50	14.00	93.58	3.08	82.65	779.43	0.23	0.04	
4	1.903	SLE F	5	19	0.00	-319.11	28.00	134.00	0.50	14.00	93.58	3.08	82.65	846.33	0.25	0.04	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	380.81	2.50	7185.75	7873.13	7185.75	18.870
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	397.77	2.50	7185.75	7873.13	7185.75	18.065

Travata n. 13022

Nodi: 1362 -4275 -4362 1377 1309

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1 SLU	4	70.00	3.08	3.08	3.08	3.08	3.08	-365.87	-1506.47	4.117

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R	4	70.00	3.08	3.08	-264.83	702.36	-165.93	29.48	
1.904	SLE Q	4	70.00	3.08	3.08	-207.41	550.08	-129.96	23.09	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	4	19	70.00	-207.41	28.00	134.00	0.50	14.00	93.58	3.08	82.65	550.08	0.16	0.03	
4	1.903	SLE F	4	19	70.00	-223.81	28.00	134.00	0.50	14.00	93.58	3.08	82.65	593.58	0.17	0.03	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	361.33	2.50	7185.75	7873.13	7185.75	19.887
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	378.30	2.50	7185.75	7873.13	7185.75	18.995

Travata n. 13023

Nodi: 1363 -4276 -4363 1378 -4571 1310

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
------	------	-----------	-----------	----------------	----------------	------------------	-------------------	------------------	------------------------	-------------------	------------------	------------------	------------------------



Relazione di calcolo

		<cm>	<cm>	<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cm>	<cm>	<cm>	<cm>	<daNm>	<daNm>	
1.90	1	SLU	5	35.06	6.03	4.02	6.03	4.02	-7144.44	-9551.64	1.337

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	$\sigma_f$ sup	$\sigma_f$ inf	$\sigma_c$
<m>				<cm>	<cm>	<cm>	<daNm>	<daN/cm>	<daN/cm>	<daN/cm>
1.90	2	SLE R	5	35.06	6.03	4.02	-5344.42	2091.67	-581.75	53.29
1.90	4	SLE Q	5	35.06	6.03	4.02	-4808.45	1881.90	-523.41	47.95

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$	A <sub>s</sub>	A <sub>c eff</sub>	$\sigma_s$	$\epsilon_{sm}$	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cm>	<cm>	<daN/cm>		<mm>
3	1.90	4	SLE Q	5	30	35.06	-4808.45	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1881.90	0.75	0.16
4	1.90	3	SLE F	5	30	35.06	-4961.57	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1941.83	0.70	0.15

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctg $\theta$	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cm>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	3167.75	2.50	10241.80	20904.00	3.233
1	SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	4429.93	2.50	10241.80	20904.00	2.312

Travata n. 13024

Nodi: 1389 -4768 1399 1344

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cm>	<cm>	<cm>	<cm>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-432.16	-2142.71	4.958

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	$\sigma_f$ sup	$\sigma_f$ inf	$\sigma_c$
<m>				<cm>	<cm>	<cm>	<daNm>	<daN/cm>	<daN/cm>	<daN/cm>
4.82	2	SLE R	3	332.00	3.08	3.08	-302.02	550.17	-147.54	19.41
4.82	4	SLE Q	3	332.00	3.08	3.08	-236.50	430.82	-115.54	15.20

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$	A <sub>s</sub>	A <sub>c eff</sub>	$\sigma_s$	$\epsilon_{sm}$	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cm>	<cm>	<daN/cm>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-236.50	28.00	114.00	0.50	14.00	102.12	3.08	101.43	430.82	0.13	0.02
4	4.82	3	SLE F	3	18	332.00	-255.16	28.00	114.00	0.50	14.00	102.12	3.08	101.43	464.81	0.14	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctg $\theta$	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cm>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2472.94	2.50	7619.38	26714.30	3.081
1	SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	428.41	2.50	5079.58	10017.90	11.857
1	SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	457.19	2.50	5079.58	10017.90	11.110

Travata n. 13027

Nodi: 1392 -4772 1400 1345

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cm>	<cm>	<cm>	<cm>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-371.15	-2142.71	5.773

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
4.82	2	SLE R	3	332.00	3.08	3.08	-260.40	474.35	-127.21	16.74
4.82	4	SLE Q	3	332.00	3.08	3.08	-200.80	365.77	-98.09	12.91

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
3	4.82	4	SLE Q	3	18	332.00	-200.80	28.00	114.00	0.50	14.00	102.12	3.08	101.43	365.77	0.11	0.02
4	4.82	3	SLE F	3	18	332.00	-217.81	28.00	114.00	0.50	14.00	102.12	3.08	101.43	396.77	0.12	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2041.89	2.50	7619.38	26714.30	7619.38	3.732
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	377.65	2.50	5079.58	10017.90	5079.58	13.451
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	406.43	2.50	5079.58	10017.90	5079.58	12.498

Travata n. 13028

Nodi: 1364 -4277 -4364 1379 -4572 1311

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
30R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	5	35.09	6.03	4.02	6.03	4.02	-7270.91	-9551.64	1.314

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	5	35.09	6.03	4.02	-5444.27	2130.75	-592.62	54.29
1.90	4	SLE Q	5	35.09	6.03	4.02	-4900.51	1917.93	-533.43	48.86

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
3	1.90	4	SLE Q	5	30	35.09	-4900.51	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1917.93	0.77	0.16
4	1.90	3	SLE F	5	30	35.09	-5055.92	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1978.76	0.72	0.15

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	3204.41	2.50	10241.80	20904.00	10241.80	3.196
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	4134.40	2.50	10241.80	20904.00	10241.80	2.477

Travata n. 13029

Nodi: 1365 -4278 -4365 1380 1312

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	4	70.00	3.08	3.08	3.08	3.08	-354.10	-1506.47	4.254

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	4	70.00	3.08	3.08	-256.13	679.30	-160.48	28.51
1.90	4	SLE Q	4	70.00	3.08	3.08	-200.09	530.68	-125.37	22.27

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
3	1.90	4	SLE Q	4	19	70.00	-200.09	28.00	134.00	0.50	14.00	93.58	3.08	82.65	530.68	0.15	0.02
4	1.90	3	SLE F	4	19	70.00	-216.10	28.00	134.00	0.50	14.00	93.58	3.08	82.65	573.14	0.17	0.03



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	350.38	2.50	7185.75	7873.13	7185.75	20.509
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	367.34	2.50	7185.75	7873.13	7185.75	19.561

Travata n. 13032

Nodi: 1367 -4236 -4308 -4375 -4493 1315

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
1.901	SLU	5		38.00	3.08	3.08	3.08	3.08	-527.07	-1506.47	2.858

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	My <daNm>	σ <sub>f</sub> sup <daN/cm>	σ <sub>f</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
1.902	SLE R	5		38.00	3.08	3.08	-381.04	1010.56	-238.75	42.42
1.904	SLE Q	5		38.00	3.08	3.08	-293.29	777.83	-183.76	32.65

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm>	A <sub>c eff</sub> <cm>	σ <sub>s</sub> <daN/cm>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5		19	38.00	-293.29	28.00	134.00	0.50	14.00	93.58	3.08	82.65	777.83	0.23	0.04
4	1.903	SLE F	5		19	38.00	-318.34	28.00	134.00	0.50	14.00	93.58	3.08	82.65	844.29	0.25	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	385.38	2.50	7185.75	7873.13	7185.75	18.646
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	402.35	2.50	7185.75	7873.13	7185.75	17.860

Travata n. 13033

Nodi: 1368 -4279 -4366 1381 -4574 1316

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
1.901	SLU	5		35.44	3.08	3.08	3.08	3.08	-378.55	-1506.47	3.980

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	My <daNm>	σ <sub>f</sub> sup <daN/cm>	σ <sub>f</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
1.902	SLE R	5		35.44	3.08	3.08	-273.66	725.77	-171.46	30.46
1.904	SLE Q	5		35.44	3.08	3.08	-213.67	566.69	-133.88	23.79

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm>	A <sub>c eff</sub> <cm>	σ <sub>s</sub> <daN/cm>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5		19	35.44	-213.67	28.00	134.00	0.50	14.00	93.58	3.08	82.65	566.69	0.17	0.03
4	1.903	SLE F	5		19	35.44	-230.81	28.00	134.00	0.50	14.00	93.58	3.08	82.65	612.14	0.18	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	420.23	2.50	7185.75	7873.13	7185.75	17.100
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	437.19	2.50	7185.75	7873.13	7185.75	16.436

Travata n. 13035

Nodi: 1393 -4773 1401 1351

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
------	------	-----------	-----------	----------------	----------------	-----------------	------------------	-----------------	-----------------------	------------------	-----------------	-----------------	-----------------------



Relazione di calcolo

		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-473.56	-2142.71	4.525

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.82	2	SLE R	3	332.00	3.08	3.08	-333.22	607.01	-162.79	21.42
4.82	4	SLE Q	3	332.00	3.08	3.08	-262.24	477.70	-128.11	16.86

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-262.24	28.00	114.00	0.50	14.00	102.12	3.08	101.43	477.70	0.14	0.02
4	4.82	3	SLE F	3	18	332.00	-282.47	28.00	114.00	0.50	14.00	102.12	3.08	101.43	514.55	0.15	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2366.12	2.50	7619.38	26714.30	7619.38	3.220
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	445.20	2.50	5079.58	10017.90	5079.58	11.409
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	473.99	2.50	5079.58	10017.90	5079.58	10.717

Travata n. 13036

Nodi: 1369 -4280 -4367 1382 -4575 1317

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	35.43	6.03	4.02	6.03	4.02	-6951.60	-9551.64	1.374

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	35.43	6.03	4.02	-5205.65	2037.36	-566.64	51.91
1.90	4	SLE Q	5	35.43	6.03	4.02	-4690.67	1835.81	-510.59	46.77

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	30	35.43	-4690.67	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1835.81	0.73	0.15
4	1.90	3	SLE F	5	30	35.43	-4837.84	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1893.41	0.68	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	3141.83	2.50	10241.80	20904.00	10241.80	3.260
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	3848.61	2.50	10241.80	20904.00	10241.80	2.661

Travata n. 13040

Nodi: 1370 -4281 -4368 1383 -4576 1318

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	35.41	6.03	4.02	6.03	4.02	-6941.76	-9551.64	1.376

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>			



Relazione di calcolo

								<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>
1.902	SLE R	5	35.41	6.03	4.02	-5199.78	2035.06	-566.01	51.85	
1.904	SLE Q	5	35.41	6.03	4.02	-4681.16	1832.09	-509.55	46.68	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	$\langle m \rangle$					$\langle cm \rangle$	$\langle daNm \rangle$	$\langle mm \rangle$	$\langle mm \rangle$			$\langle mm \rangle$	$\langle cmq \rangle$	$\langle cmq \rangle$	$\langle daN/cmq \rangle$		$\langle mm \rangle$
3	1.904	SLE	Q	5	30	35.41	-4681.16	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1832.09	0.73	0.15
4	1.903	SLE	F	5	30	35.41	-4829.37	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1890.09	0.68	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0<sup>m</sup></sup>	X1<sup>m</sup></sup>	Lung.<sup>m</sup></sup>	Staff.	AfE St.<sup>cm<sup>q</sup>/m</sup></sup>	bw<sup>cm</sup></sup>	Vsdu<sup>daN</sup></sup>	ctgθ	VRsd<sup>daN</sup></sup>	VRcd<sup>daN</sup></sup>	Vrdu<sup>daN</sup></sup>	Sic.
1 SLU	0.00	1.38	1.38	ø6/18 2 br.	3.14	0.30	3100.94	2.50	10241.80	20904.00	10241.80	3.303
1 SLU	1.38	1.90	0.52	ø6/18 2 br.	3.14	0.30	3847.49	2.50	10241.80	20904.00	10241.80	2.662

Travata n. 13041

Nodi: 1396 -4777 1402 1352

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B<sup>cm</sup></sup>	H<sup>cm</sup></sup>	Cf sup<sup>cm</sup></sup>	Cf inf<sup>cm</sup></sup>	Fcm<sup>daN/cm<sup>q</sup></sup>	Fctm<sup>daN/cm<sup>q</sup></sup>	Fcd<sup>daN/cm<sup>q</sup></sup>	Fcd (Tag)<sup>daN/cm<sup>q</sup></sup>	Fctd<sup>daN/cm<sup>q</sup></sup>	Fym<sup>daN/cm<sup>q</sup></sup>	Fyd<sup>daN/cm<sup>q</sup></sup>	Fyd (Tag)<sup>daN/cm<sup>q</sup></sup>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg<sup>m</sup></sup>	CC	TCC	El	X<sup>cm</sup></sup>	AfE S<sup>cm<sup>q</sup></sup>	AfE I<sup>cm<sup>q</sup></sup>	AfEP S<sup>cm<sup>q</sup></sup>	AfEP I<sup>cm<sup>q</sup></sup>	My<sup>daNm</sup></sup>	MRdy<sup>daNm</sup></sup>	Sic.
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-408.56	-2142.71	5.245

Stato limite d'esercizio - Verifiche tensionali

Xg<sup>m</sup></sup>	CC	TCC	El	X<sup>cm</sup></sup>	AfE S<sup>cm<sup>q</sup></sup>	AfE I<sup>cm<sup>q</sup></sup>	My<sup>daNm</sup></sup>	σ <sub>f</sub> sup<sup>daN/cm<sup>q</sup></sup>	σ <sub>f</sub> inf<sup>daN/cm<sup>q</sup></sup>	σ <sub>c</sub> <sup>daN/cm<sup>q</sup></sup>
4.822	SLE R	3	332.00	3.08	3.08	-288.33	525.23	-140.85	18.53	
4.824	SLE Q	3	332.00	3.08	3.08	-223.87	407.81	-109.37	14.39	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	4.824	SLE	Q	3	18	332.00	-223.87	28.00	114.00	0.50	14.00	102.12	3.08	101.43	407.81	0.12	0.02
4	4.823	SLE	F	3	18	332.00	-242.27	28.00	114.00	0.50	14.00	102.12	3.08	101.43	441.33	0.13	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0<sup>m</sup></sup>	X1<sup>m</sup></sup>	Lung.<sup>m</sup></sup>	Staff.	AfE St.<sup>cm<sup>q</sup>/m</sup></sup>	bw<sup>cm</sup></sup>	Vsdu<sup>daN</sup></sup>	ctgθ	VRsd<sup>daN</sup></sup>	VRcd<sup>daN</sup></sup>	Vrdu<sup>daN</sup></sup>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1798.93	2.50	7619.38	26714.30	7619.38	4.235
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	392.35	2.50	5079.58	10017.90	5079.58	12.947
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	421.13	2.50	5079.58	10017.90	5079.58	12.062

Travata n. 13042

Nodi: 1371 -4282 -4369 1384 -4577 1319

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B<sup>cm</sup></sup>	H<sup>cm</sup></sup>	Cf sup<sup>cm</sup></sup>	Cf inf<sup>cm</sup></sup>	Fcm<sup>daN/cm<sup>q</sup></sup>	Fctm<sup>daN/cm<sup>q</sup></sup>	Fcd<sup>daN/cm<sup>q</sup></sup>	Fcd (Tag)<sup>daN/cm<sup>q</sup></sup>	Fctd<sup>daN/cm<sup>q</sup></sup>	Fym<sup>daN/cm<sup>q</sup></sup>	Fyd<sup>daN/cm<sup>q</sup></sup>	Fyd (Tag)<sup>daN/cm<sup>q</sup></sup>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg<sup>m</sup></sup>	CC	TCC	El	X<sup>cm</sup></sup>	AfE S<sup>cm<sup>q</sup></sup>	AfE I<sup>cm<sup>q</sup></sup>	AfEP S<sup>cm<sup>q</sup></sup>	AfEP I<sup>cm<sup>q</sup></sup>	My<sup>daNm</sup></sup>	MRdy<sup>daNm</sup></sup>	Sic.
1.901	SLU	5	35.43	3.08	3.08	3.08	3.08	3.08	-346.23	-1506.47	4.351

Stato limite d'esercizio - Verifiche tensionali

Xg<sup>m</sup></sup>	CC	TCC	El	X<sup>cm</sup></sup>	AfE S<sup>cm<sup>q</sup></sup>	AfE I<sup>cm<sup>q</sup></sup>	My<sup>daNm</sup></sup>	σ <sub>f</sub> sup<sup>daN/cm<sup>q</sup></sup>	σ <sub>f</sub> inf<sup>daN/cm<sup>q</sup></sup>	σ <sub>c</sub> <sup>daN/cm<sup>q</sup></sup>
1.902	SLE R	5	35.43	3.08	3.08	-250.67	664.82	-157.06	27.90	
1.904	SLE Q	5	35.43	3.08	3.08	-192.70	511.06	-120.74	21.45	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	5	19	35.43	-192.70	28.00	134.00	0.50	14.00	93.58	3.08	82.65		511.06	0.15	0.02
4	1.903	SLE F	5	19	35.43	-209.26	28.00	134.00	0.50	14.00	93.58	3.08	82.65		554.99	0.16	0.03



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	394.08	2.50	7185.75	7873.13	7185.75	18.234
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	411.05	2.50	7185.75	7873.13	7185.75	17.482

Travata n. 13070

Nodi: 1400 1256 -4090 1245

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
3.321	SLU	3	52.50	3.08	3.08	3.08	3.08	-2366.23	-6639.53	2.806	

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
3.322	SLE R	3	52.50	3.08	3.08	-1584.82	903.21	-209.97	18.48	
3.324	SLE Q	3	52.50	3.08	3.08	-1117.81	637.06	-148.09	13.03	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	3.324	SLE Q	3	16	52.50	-1117.81	28.00	94.00	0.50	14.00	119.66	3.08	140.00		637.06	0.19	0.04
4	3.323	SLE F	3	16	52.50	-1250.78	28.00	94.00	0.50	14.00	119.66	3.08	140.00		712.84	0.21	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	1731.91	2.50	7619.38	26714.30	7619.38	4.399
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	1275.77	2.50	7619.38	26714.30	7619.38	5.972
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	3442.80	2.50	15238.80	26714.30	15238.80	4.426

Travata n. 13084

Nodi: 1402 1258 -4093 1252

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
3.321	SLU	3	52.50	3.08	3.08	3.08	3.08	-2811.27	-6639.53	2.362	

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
3.322	SLE R	3	52.50	3.08	3.08	-1915.63	1091.75	-253.79	22.33	
3.324	SLE Q	3	52.50	3.08	3.08	-1391.33	792.94	-184.33	16.22	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	3.324	SLE Q	3	16	52.50	-1391.33	28.00	94.00	0.50	14.00	119.66	3.08	140.00	792.94	0.23	0.05	
4	3.323	SLE F	3	16	52.50	-1540.64	28.00	94.00	0.50	14.00	119.66	3.08	140.00	878.03	0.26	0.05	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	1994.86	2.50	7619.38	26714.30	7619.38	3.820
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	1012.82	2.50	7619.38	26714.30	7619.38	7.523
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	3922.50	2.50	15238.80	26714.30	15238.80	3.885

Travata n. 13088

Nodi: 1377 -4461 -4462 -4463 -4464 -4465 -4466 -4467 1378



Relazione di calcolo

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	1	0.00	3.08	3.08	3.08	3.08	71.59	1506.47	21.044
3.201	SLU	8	8	40.00	3.08	3.08	3.08	3.08	-143.33	-1506.47	10.511

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R	1	1	0.00	3.08	3.08	50.80	-31.83	134.73	5.66
0.004	SLE Q	1	1	0.00	3.08	3.08	34.89	-21.86	92.53	3.88
3.202	SLE R	8	8	40.00	3.08	3.08	-101.67	269.65	-63.70	11.32
3.204	SLE Q	8	8	40.00	3.08	3.08	-80.22	212.75	-50.26	8.93

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmqs>		<mm>
6	0.004	SLE Q	1	19	0.00	34.89	28.00	134.00	0.50	14.00	93.58	3.08	82.65	92.53	0.03	0.00	
8	0.003	SLE F	1	19	0.00	39.40	28.00	134.00	0.50	14.00	93.58	3.08	82.65	104.48	0.03	0.00	
11	3.204	SLE Q	8	19	40.00	-80.22	28.00	134.00	0.50	14.00	93.58	3.08	82.65	212.75	0.06	0.01	
12	3.203	SLE F	8	19	40.00	-86.30	28.00	134.00	0.50	14.00	93.58	3.08	82.65	228.89	0.07	0.01	

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	408.46	2.50	7185.75	7873.13	7185.75	17.592
1 SLU	0.14	3.06	2.91	ø6/ 8 2 br.	7.07	0.20	408.46	2.50	7185.75	7873.13	7185.75	17.592
1 SLU	3.06	3.20	0.14	ø6/ 8 2 br.	7.07	0.20	138.96	2.50	7185.75	7873.13	7185.75	51.710

Travata n. 13130

Nodi: 1361 -4150 -4151 -4152 -4153 -4154 -4155 -4156 -4157 1362

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	1	0.00	3.08	3.08	3.08	3.08	16.89	1506.47	89.196
1.441	SLU	5	5	0.00	3.08	3.08	3.08	3.08	80.61	1506.47	18.688
3.251	SLU	9	9	36.11	3.08	3.08	3.08	3.08	16.45	1506.47	91.590

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R	1	1	0.00	3.08	3.08	12.10	-7.58	32.09	1.35
0.004	SLE Q	1	1	0.00	3.08	3.08	9.39	-5.88	24.91	1.05
1.442	SLE R	5	5	0.00	3.08	3.08	57.34	-35.93	152.07	6.38
1.444	SLE Q	5	5	0.00	3.08	3.08	43.12	-27.02	114.37	4.80
3.252	SLE R	9	9	36.11	3.08	3.08	11.79	-7.39	31.27	1.31
3.254	SLE Q	9	9	36.11	3.08	3.08	9.18	-5.75	24.34	1.02

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmqr>		<mm>
3	0.004	SLE	Q	1	19	0.00	9.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.91	0.01	0.00
4	0.003	SLE	F	1	19	0.00	10.16	28.00	134.00	0.50	14.00	93.58	3.08	82.65	26.95	0.01	0.00
7	1.444	SLE	Q	5	19	0.00	43.12	28.00	134.00	0.50	14.00	93.58	3.08	82.65	114.37	0.03	0.01
8	1.443	SLE	F	5	19	0.00	47.16	28.00	134.00	0.50	14.00	93.58	3.08	82.65	125.08	0.04	0.01
11	3.254	SLE	Q	9	19	36.11	9.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.34	0.01	0.00
12	3.253	SLE	F	9	19	36.11	9.92	28.00	134.00	0.50	14.00	93.58	3.08	82.65	26.31	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	45.79	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	36.06	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	60.56	2.50	7185.75	7873.13	7185.75	>100



Travata n. 13131

Nodi: 1379 -4468 -4469 -4470 -4471 -4472 -4473 -4474 1380

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-101.95	-1506.47	14.776
3.141	SLU	8	36.15	3.08	3.08	3.08	3.08	3.08	49.46	1506.47	30.459
3.181	SLU	8	39.75	3.08	3.08	3.08	3.08	3.08	49.46	1506.47	30.459

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE	R	1	0.00	3.08	3.08	-72.08	191.17	-45.16	8.02
0.004	SLE	Q	1	0.00	3.08	3.08	-54.93	145.67	-34.41	6.11
3.142	SLE	R	8	36.15	3.08	3.08	34.97	-21.91	92.76	3.89
3.144	SLE	Q	8	36.15	3.08	3.08	-22.50	59.67	-14.10	2.50
3.182	SLE	R	8	39.75	3.08	3.08	34.97	-21.91	92.76	3.89
3.184	SLE	Q	8	39.75	3.08	3.08	21.41	-13.41	56.78	2.38

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.004	SLE	Q	1	19	0.00	-54.93	28.00	134.00	0.50	14.00	93.58	3.08	82.65	145.67	0.04	0.01
4	0.003	SLE	F	1	19	0.00	-59.82	28.00	134.00	0.50	14.00	93.58	3.08	82.65	158.65	0.05	0.01
10	3.144	SLE	Q	8	19	36.15	-22.50	28.00	134.00	0.50	14.00	93.58	3.08	82.65	59.67	0.02	0.00
11	3.143	SLE	F	8	19	36.15	25.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	67.04	0.02	0.00
17	3.184	SLE	Q	8	19	39.75	21.41	28.00	134.00	0.50	14.00	93.58	3.08	82.65	56.78	0.02	0.00
19	3.183	SLE	F	8	19	39.75	25.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	67.04	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	156.29	2.50	7185.75	7873.13	7185.75
1	SLU	0.14	3.04	2.89	ø6/ 8 2 br.	7.07	0.20	399.19	2.50	7185.75	7873.13	7185.75
1	SLU	3.04	3.18	0.14	ø6/ 8 2 br.	7.07	0.20	399.19	2.50	7185.75	7873.13	7185.75

Travata n. 13173

Nodi: 1363 -4158 -4159 -4160 -4161 -4162 -4163 -4164 1364

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-207.85	-1506.47	7.248
1.501	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	199.29	1506.47	7.559
3.001	SLU	8	37.50	3.08	3.08	3.08	3.08	3.08	-217.57	-1506.47	6.924

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE	R	1	0.00	3.08	3.08	-156.88	416.07	-98.30	17.46
0.004	SLE	Q	1	0.00	3.08	3.08	-147.25	390.54	-92.26	16.39
1.502	SLE	R	5	0.00	3.08	3.08	150.47	-94.28	399.07	16.75
1.504	SLE	Q	5	0.00	3.08	3.08	138.62	-86.85	367.63	15.43
3.002	SLE	R	8	37.50	3.08	3.08	-164.37	435.94	-102.99	18.30
3.004	SLE	Q	8	37.50	3.08	3.08	-153.76	407.79	-96.34	17.12

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.004	SLE	Q	1	19	0.00	-147.25	28.00	134.00	0.50	14.00	93.58	3.08	82.65	390.54	0.11	0.02
4	0.003	SLE	F	1	19	0.00	-149.99	28.00	134.00	0.50	14.00	93.58	3.08	82.65	397.81	0.12	0.02
7	1.504	SLE	Q	5	19	0.00	138.62	28.00	134.00	0.50	14.00	93.58	3.08	82.65	367.63	0.11	0.02
8	1.503	SLE	F	5	19	0.00	142.01	28.00	134.00	0.50	14.00	93.58	3.08	82.65	376.62	0.11	0.02
11	3.004	SLE	Q	8	19	37.50	-153.76	28.00	134.00	0.50	14.00	93.58	3.08	82.65	407.79	0.12	0.02
12	3.003	SLE	F	8	19	37.50	-156.79	28.00	134.00	0.50	14.00	93.58	3.08	82.65	415.83	0.12	0.02



Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	888.50	2.50	7185.75	7873.13	7185.75	8.087
1 SLU	0.14	2.85	2.71	ø6/ 8 2 br.	7.07	0.20	627.11	2.50	7185.75	7873.13	7185.75	11.459
1 SLU	2.85	3.00	0.14	ø6/ 8 2 br.	7.07	0.20	926.83	2.50	7185.75	7873.13	7185.75	7.753

Travata n. 13174

Nodi: 1381 -4475 -4476 -4477 -4478 -4479 -4480 -4481 -4482 1382

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	64.31	1506.47	23.425
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	-111.18	-1506.47	13.549

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	45.88	-28.74	121.67	5.11
0.00	4	SLE Q	1	0.00	3.08	3.08	30.41	-19.05	80.64	3.38
3.25	2	SLE R	9	36.11	3.08	3.08	-78.73	208.80	-49.33	8.76
3.25	4	SLE Q	9	36.11	3.08	3.08	-60.64	160.83	-38.00	6.75

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
6	0.00	4	SLE Q	1	19	0.00	30.41	28.00	134.00	0.50	14.00	93.58	3.08	82.65	80.64	0.02	0.00
8	0.00	3	SLE F	1	19	0.00	34.81	28.00	134.00	0.50	14.00	93.58	3.08	82.65	92.33	0.03	0.00
11	3.25	4	SLE Q	9	19	36.11	-60.64	28.00	134.00	0.50	14.00	93.58	3.08	82.65	160.83	0.05	0.01
12	3.25	3	SLE F	9	19	36.11	-65.79	28.00	134.00	0.50	14.00	93.58	3.08	82.65	174.49	0.05	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	471.22	2.50	7185.75	7873.13	7185.75	15.249
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	471.22	2.50	7185.75	7873.13	7185.75	15.249
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	145.87	2.50	7185.75	7873.13	7185.75	49.261

Travata n. 13216

Nodi: 1365 -4165 -4166 -4167 -4168 -4169 -4170 -4171 -4172 1366

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	14.97	1506.47	>100
1.62	1	SLU	5	18.06	3.08	3.08	3.08	3.08	76.48	1506.47	19.698
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	16.45	1506.47	91.562

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	10.75	-6.74	28.52	1.20
0.00	4	SLE Q	1	0.00	3.08	3.08	8.32	-5.22	22.08	0.93
1.62	2	SLE R	5	18.06	3.08	3.08	54.52	-34.16	144.59	6.07
1.62	4	SLE Q	5	18.06	3.08	3.08	41.07	-25.73	108.92	4.57
3.25	2	SLE R	9	36.11	3.08	3.08	11.82	-7.41	31.35	1.32
3.25	4	SLE Q	9	36.11	3.08	3.08	9.25	-5.80	24.54	1.03

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	8.32	28.00	134.00	0.50	14.00	93.58	3.08	82.65	22.08	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	9.02	28.00	134.00	0.50	14.00	93.58	3.08	82.65	23.92	0.01	0.00



Relazione di calcolo

7	1.62	4	SLE Q	5	19	18.06	41.07	28.00	134.00	0.50	14.00	93.58	3.08	82.65	108.92	0.03	0.01
8	1.62	3	SLE F	5	19	18.06	44.90	28.00	134.00	0.50	14.00	93.58	3.08	82.65	119.08	0.03	0.01
11	3.25	4	SLE Q	9	19	36.11	9.25	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.54	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	9.98	28.00	134.00	0.50	14.00	93.58	3.08	82.65	26.48	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	58.16	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	33.66	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	46.46	2.50	7185.75	7873.13	7185.75	>100

Travata n. 13217

Nodi: 1383 -4483 -4484 -4485 -4486 -4487 -4488 -4489 -4490 1384

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-101.92	-1506.47	14.781
3.191	SLU	9	32.29	3.08	3.08	3.08	3.08	3.08	67.46	1506.47	22.331
3.231	SLU	9	35.89	3.08	3.08	3.08	3.08	3.08	67.46	1506.47	22.331

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm<sup>q>	σ <sub>f</sub> inf <daN/cm<sup>q>	σ <sub>c</sub> <daN/cm<sup>q>
0.002	SLE R	1	0.00	3.08	3.08	-72.13	191.29	-45.19		8.03
0.004	SLE Q	1	0.00	3.08	3.08	-55.10	146.14	-34.53		6.13
3.192	SLE R	9	32.29	3.08	3.08	47.96	-30.05	127.21		5.34
3.194	SLE Q	9	32.29	3.08	3.08	31.54	-19.76	83.64		3.51
3.232	SLE R	9	35.89	3.08	3.08	47.96	-30.05	127.21		5.34
3.234	SLE Q	9	35.89	3.08	3.08	31.54	-19.76	83.64		3.51

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	-55.10	28.00	134.00	0.50	14.00	93.58	3.08	82.65	146.14	0.04	0.01
4	0.003	SLE	F	1	19	0.00	-59.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	159.01	0.05	0.01
9	3.194	SLE	Q	9	19	32.29	31.54	28.00	134.00	0.50	14.00	93.58	3.08	82.65	83.64	0.02	0.00
11	3.193	SLE	F	9	19	32.29	36.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	95.99	0.03	0.00
17	3.234	SLE	Q	9	19	35.89	31.54	28.00	134.00	0.50	14.00	93.58	3.08	82.65	83.64	0.02	0.00
19	3.233	SLE	F	9	19	35.89	36.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	95.99	0.03	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	161.56	2.50	7185.75	7873.13	7185.75	44.479
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	429.56	2.50	7185.75	7873.13	7185.75	16.728
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	429.56	2.50	7185.75	7873.13	7185.75	16.728

Travata n. 13259

Nodi: 1367 -4173 -4174 -4175 -4176 -4177 -4178 -4179 -4180 1368

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	16.77	1506.47	89.838
1.441	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	77.93	1506.47	19.330
3.251	SLU	9	36.11	3.08	3.08	3.08	3.08	3.08	15.11	1506.47	99.722

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm<sup>q>	σ <sub>f</sub> inf <daN/cm<sup>q>	σ <sub>c</sub> <daN/cm<sup>q>
0.002	SLE R	1	0.00	3.08	3.08	12.04	-7.55	31.94		1.34
0.004	SLE Q	1	0.00	3.08	3.08	9.39	-5.88	24.91		1.05
1.442	SLE R	5	0.00	3.08	3.08	55.51	-34.78	147.23		6.18
1.444	SLE Q	5	0.00	3.08	3.08	41.73	-26.15	110.67		4.65



Relazione di calcolo

3.25	2	SLE R	9	36.11	3.08	3.08	10.84	-6.79	28.74	1.21
3.25	4	SLE Q	9	36.11	3.08	3.08	8.40	-5.26	22.27	0.93

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	9.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.91	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	10.15	28.00	134.00	0.50	14.00	93.58	3.08	82.65	26.91	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	41.73	28.00	134.00	0.50	14.00	93.58	3.08	82.65	110.67	0.03	0.01
8	1.44	3	SLE F	5	19	0.00	45.65	28.00	134.00	0.50	14.00	93.58	3.08	82.65	121.07	0.04	0.01
11	3.25	4	SLE Q	9	19	36.11	8.40	28.00	134.00	0.50	14.00	93.58	3.08	82.65	22.27	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	9.09	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.12	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	45.61	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	35.18	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	59.68	2.50	7185.75	7873.13	7185.75	>100

Travata n. 13302

Nodi: 1369 -4181 -4182 -4183 -4184 -4185 -4186 -4187 1370

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-201.22	-1506.47	7.487
1.27	1	SLU	4	18.13	3.08	3.08	3.08	3.08	193.56	1506.47	7.783
2.90	1	SLU	8	36.25	3.08	3.08	3.08	3.08	-202.95	-1506.47	7.423

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>r</sub> sup	σ <sub>r</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-152.09	403.36	-95.29	16.93
0.00	4	SLE Q	1	0.00	3.08	3.08	-143.03	379.33	-89.62	15.92
1.27	2	SLE R	4	18.13	3.08	3.08	146.07	-91.52	387.40	16.26
1.27	4	SLE Q	4	18.13	3.08	3.08	134.44	-84.24	356.56	14.97
2.90	2	SLE R	8	36.25	3.08	3.08	-153.42	406.90	-96.13	17.08
2.90	4	SLE Q	8	36.25	3.08	3.08	-143.95	381.79	-90.20	16.02

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-143.03	28.00	134.00	0.50	14.00	93.58	3.08	82.65	379.33	0.11	0.02
4	0.00	3	SLE F	1	19	0.00	-145.61	28.00	134.00	0.50	14.00	93.58	3.08	82.65	386.19	0.11	0.02
7	1.27	4	SLE Q	4	19	18.13	134.44	28.00	134.00	0.50	14.00	93.58	3.08	82.65	356.56	0.10	0.02
8	1.27	3	SLE F	4	19	18.13	137.77	28.00	134.00	0.50	14.00	93.58	3.08	82.65	365.38	0.11	0.02
11	2.90	4	SLE Q	8	19	36.25	-143.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	381.79	0.11	0.02
12	2.90	3	SLE F	8	19	36.25	-146.66	28.00	134.00	0.50	14.00	93.58	3.08	82.65	388.96	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	898.45	2.50	7185.75	7873.13	7185.75	7.998
1 SLU	0.14	2.75	2.61	ø6/ 8 2 br.	7.07	0.20	600.02	2.50	7185.75	7873.13	7185.75	11.976
1 SLU	2.75	2.90	0.14	ø6/ 8 2 br.	7.07	0.20	899.74	2.50	7185.75	7873.13	7185.75	7.986

Travata n. 13345

Nodi: 1371 -4188 -4189 -4190 -4191 -4192 -4193 -4194 -4195 1372

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	19.16	1506.47	78.638
1.61	1	SLU	5	16.99	3.08	3.08	3.08	3.08	83.99	1506.47	17.936
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	16.69	1506.47	90.255



Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	$\sigma_{\epsilon}$ sup <daN/cmq>	$\sigma_{\epsilon}$ inf <daN/cmq>	$\sigma_c$ <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	13.71	-8.59	36.36	1.53
0.00	4	SLE Q	1	0.00	3.08	3.08	10.95	-6.86	29.04	1.22
1.61	2	SLE R	5	16.99	3.08	3.08	59.83	-37.49	158.69	6.66
1.61	4	SLE Q	5	16.99	3.08	3.08	46.03	-28.84	122.09	5.12
3.23	2	SLE R	9	35.89	3.08	3.08	11.98	-7.51	31.77	1.33
3.23	4	SLE Q	9	35.89	3.08	3.08	9.39	-5.88	24.91	1.05

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cmq>	$\epsilon_{sm}$	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	10.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.04	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	11.73	28.00	134.00	0.50	14.00	93.58	3.08	82.65	31.12	0.01	0.00
7	1.61	4	SLE Q	5	19	16.99	46.03	28.00	134.00	0.50	14.00	93.58	3.08	82.65	122.09	0.04	0.01
8	1.61	3	SLE F	5	19	16.99	49.97	28.00	134.00	0.50	14.00	93.58	3.08	82.65	132.51	0.04	0.01
11	3.23	4	SLE Q	9	19	35.89	9.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.91	0.01	0.00
12	3.23	3	SLE F	9	19	35.89	10.13	28.00	134.00	0.50	14.00	93.58	3.08	82.65	26.87	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	56.95	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	32.44	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	49.93	2.50	7185.75	7873.13	7185.75	>100

Travata n. 14024

Nodi: 1399 1455 -4853 1444

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
3.32	1	SLU	3	52.50	6.16	3.08	6.16	3.08	-1923.55	-13043.50	6.781

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	$\sigma_{\epsilon}$ sup <daN/cmq>	$\sigma_{\epsilon}$ inf <daN/cmq>	$\sigma_c$ <daN/cmq>
3.32	2	SLE R	3	52.50	6.16	3.08	-1286.13	376.18	-146.01	11.83
3.32	4	SLE Q	3	52.50	6.16	3.08	-871.36	254.87	-98.92	8.02

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cmq>	$\epsilon_{sm}$	Wk <mm>
3	3.32	4	SLE Q	3	16	52.50	-871.36	28.00	31.33	0.50	14.00	87.83	6.16	140.00	254.87	0.07	0.01
4	3.32	3	SLE F	3	16	52.50	-989.59	28.00	31.33	0.50	14.00	87.83	6.16	140.00	289.45	0.08	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1376.05	2.50	7619.38	26714.30	7619.38	5.537
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	818.00	2.50	7619.38	26714.30	7619.38	9.315
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	2919.68	2.50	15238.80	26714.30	15238.80	5.219

Travata n. 14035

Nodi: 1401 1457 -4856 1451

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
3.32	1	SLU	3	52.50	6.16	3.08	6.16	3.08	-2124.67	-13043.50	6.139

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
3.32	2	SLE R	3	52.50	6.16	3.08	-1437.89	420.57	-163.24	13.23
3.32	4	SLE Q	3	52.50	6.16	3.08	-994.32	290.83	-112.88	9.15

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	3.32	4	SLE Q	3	16	52.50	-994.32	28.00	31.33	0.50	14.00	87.83	6.16	140.00	290.83	0.08	0.01
4	3.32	3	SLE F	3	16	52.50	-1120.82	28.00	31.33	0.50	14.00	87.83	6.16	140.00	327.83	0.10	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1554.43	2.50	7619.38	26714.30	7619.38	4.902
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	949.52	2.50	7619.38	26714.30	7619.38	8.024
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	3124.63	2.50	15238.80	26714.30	15238.80	4.877

Travata n. 15021

Nodi: 1561 -4983 -5061 -5149 -5263 1508

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	5	0.00	3.08	3.08	3.08	3.08	-542.99	-1506.47	2.774

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	5	0.00	3.08	3.08	-392.59	1041.20	-245.98	43.70
1.90	4	SLE Q	5	0.00	3.08	3.08	-302.61	802.55	-189.60	33.69

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	5	19	0.00	-302.61	28.00	134.00	0.50	14.00	93.58	3.08	82.65	802.55	0.23	0.04
4	1.90	3	SLE F	5	19	0.00	-328.29	28.00	134.00	0.50	14.00	93.58	3.08	82.65	870.66	0.25	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	405.45	2.50	7185.75	7873.13	7185.75	17.723
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	422.41	2.50	7185.75	7873.13	7185.75	17.011

Travata n. 15022

Nodi: 1562 -5040 -5127 1577 1509

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	4	70.00	3.08	3.08	3.08	3.08	-386.68	-1506.47	3.896

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	4	70.00	3.08	3.08	-280.16	743.03	-175.54	31.19
1.90	4	SLE Q	4	70.00	3.08	3.08	-220.63	585.14	-138.24	24.56

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	4	19	70.00	-220.63	28.00	134.00	0.50	14.00	93.58	3.08	82.65	585.14	0.17	0.03
4	1.90	3	SLE F	4	19	70.00	-237.63	28.00	134.00	0.50	14.00	93.58	3.08	82.65	630.24	0.18	0.03



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	403.74	2.50	7185.75	7873.13	7185.75	17.798
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	420.70	2.50	7185.75	7873.13	7185.75	17.080

Travata n. 15023

Nodi: 1563 -5041 -5128 1578 -5336 1510

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
30R		30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	SLU	5		35.06	6.03	4.02	6.03	4.02	-6289.50	-9551.64	1.519

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R	5		35.06	6.03	4.02	-4709.89	1843.33	-512.68	46.96
1.904	SLE Q	5		35.06	6.03	4.02	-4255.84	1665.63	-463.26	42.44

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
3	1.904	SLE Q	5		30	35.06	-4255.84	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1665.63	0.65	0.14
4	1.903	SLE F	5		30	35.06	-4385.62	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1716.42	0.59	0.12

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2724.47	2.50	10241.80	20904.00	10241.80	3.759
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3794.54	2.50	10241.80	20904.00	10241.80	2.699

Travata n. 15024

Nodi: 1589 -5534 1599 1544

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R		18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
4.821	SLU	3		332.00	3.08	3.08	3.08	3.08	-413.28	-2142.71	5.185

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
4.822	SLE R	3		332.00	3.08	3.08	-288.85	526.17	-141.11	18.57
4.824	SLE Q	3		332.00	3.08	3.08	-225.63	411.00	-110.22	14.50

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
3	4.824	SLE Q	3		18	332.00	-225.63	28.00	114.00	0.50	14.00	102.12	3.08	101.43	411.00	0.12	0.02
4	4.823	SLE F	3		18	332.00	-243.63	28.00	114.00	0.50	14.00	102.12	3.08	101.43	443.80	0.13	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2483.98	2.50	7619.38	26714.30	7619.38	3.067
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	416.67	2.50	5079.58	10017.90	5079.58	12.191
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	445.45	2.50	5079.58	10017.90	5079.58	11.403

Travata n. 15027

Nodi: 1592 -5538 1600 1545



Relazione di calcolo

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	AfeP S <cm>	AfeP I <cm>	My <daNm>	MRdy <daNm>	Sic.
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-378.80	-2142.71	5.657

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	My <daNm>	σ <sub>f</sub> sup <daN/cm>	σ <sub>f</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
4.82	2	SLE R	3	332.00	3.08	3.08	-265.49	483.63	-129.70	17.06
4.82	4	SLE Q	3	332.00	3.08	3.08	-205.18	373.75	-100.23	13.19

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm>	A <sub>c eff</sub> <cm>	σ <sub>s</sub> <daN/cm>	ε <sub>sm</sub>	Wk <mm>
3	4.82	4	SLE Q	3	18	332.00	-205.18	28.00	114.00	0.50	14.00	102.12	3.08	101.43	373.75	0.11	0.02
4	4.82	3	SLE F	3	18	332.00	-222.38	28.00	114.00	0.50	14.00	102.12	3.08	101.43	405.09	0.12	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2175.03	2.50	7619.38	26714.30	7619.38	3.503
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	384.86	2.50	5079.58	10017.90	5079.58	13.199
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	413.64	2.50	5079.58	10017.90	5079.58	12.280

Travata n. 15028

Nodi: 1564 -5042 -5129 1579 -5337 1511

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	AfeP S <cm>	AfeP I <cm>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	5	35.09	6.03	4.02	6.03	4.02	-7844.55	-9551.64	1.218

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	My <daNm>	σ <sub>f</sub> sup <daN/cm>	σ <sub>f</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
1.90	2	SLE R	5	35.09	6.03	4.02	-5871.65	2298.02	-639.14	58.55
1.90	4	SLE Q	5	35.09	6.03	4.02	-5274.48	2064.30	-574.14	52.59

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm>	A <sub>c eff</sub> <cm>	σ <sub>s</sub> <daN/cm>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	5	30	35.09	-5274.48	27.00	116.00	0.50	16.00	123.63	6.03	262.50	2064.30	0.84	0.18
4	1.90	3	SLE F	5	30	35.09	-5445.15	27.00	116.00	0.50	16.00	123.63	6.03	262.50	2131.09	0.79	0.17

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	3454.97	2.50	10241.80	20904.00	10241.80	2.964
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	4338.49	2.50	10241.80	20904.00	10241.80	2.361

Travata n. 15029

Nodi: 1565 -5043 -5130 1580 1512

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	AfeP S <cm>	AfeP I <cm>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	4	70.00	3.08	3.08	3.08	3.08	-354.48	-1506.47	4.250

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	4	70.00	3.08	3.08	-256.41	680.04	-160.66	28.54
1.90	4	SLE Q	4	70.00	3.08	3.08	-200.35	531.37	-125.53	22.30

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	4	19	70.00	-200.35	28.00	134.00	0.50	14.00	93.58	3.08	82.65	531.37	0.15	0.02
4	1.90	3	SLE F	4	19	70.00	-216.37	28.00	134.00	0.50	14.00	93.58	3.08	82.65	573.84	0.17	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	346.66	2.50	7185.75	7873.13	7185.75	20.729
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	363.62	2.50	7185.75	7873.13	7185.75	19.762

Travata n. 15032

Nodi: 1567 -5001 -5073 -5140 -5258 1515

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	5	38.00	3.08	3.08	3.08	3.08	-532.77	-1506.47	2.828

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	5	38.00	3.08	3.08	-385.00	1021.09	-241.23	42.86
1.90	4	SLE Q	5	38.00	3.08	3.08	-296.44	786.21	-185.74	33.00

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	5	19	38.00	-296.44	28.00	134.00	0.50	14.00	93.58	3.08	82.65	786.21	0.23	0.04
4	1.90	3	SLE F	5	19	38.00	-321.73	28.00	134.00	0.50	14.00	93.58	3.08	82.65	853.26	0.25	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	398.10	2.50	7185.75	7873.13	7185.75	18.050
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	415.06	2.50	7185.75	7873.13	7185.75	17.312

Travata n. 15033

Nodi: 1568 -5044 -5131 1581 -5339 1516

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	5	35.44	3.08	3.08	3.08	3.08	-379.72	-1506.47	3.967

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	5	35.44	3.08	3.08	-274.49	727.99	-171.99	30.56
1.90	4	SLE Q	5	35.44	3.08	3.08	-214.32	568.40	-134.28	23.86

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	5	19	35.44	-214.32	28.00	134.00	0.50	14.00	93.58	3.08	82.65	568.40	0.17	0.03
4	1.90	3	SLE F	5	19	35.44	-231.51	28.00	134.00	0.50	14.00	93.58	3.08	82.65	613.99	0.18	0.03

Stato limite ultimo - Verifiche a taglio



Relazione di calcolo

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	424.23	2.50	7185.75	7873.13	7185.75	16.939
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	441.19	2.50	7185.75	7873.13	7185.75	16.287

Travata n. 15035

Nodi: 1593 -5539 1601 1551

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
4.821	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-439.47	-2142.71	4.876

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
4.822	2	SLE R	3	332.00	3.08	3.08	-308.64	562.22	-150.78	19.84
4.824	4	SLE Q	3	332.00	3.08	3.08	-241.48	439.88	-117.97	15.52

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	4.824	4	SLE Q	3	18	332.00	-241.48	28.00	114.00	0.50	14.00	102.12	3.08	101.43	439.88	0.13	0.02
4	4.823	3	SLE F	3	18	332.00	-260.61	28.00	114.00	0.50	14.00	102.12	3.08	101.43	474.74	0.14	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2401.00	2.50	7619.38	26714.30	7619.38	3.173
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	426.05	2.50	5079.58	10017.90	5079.58	11.922
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	454.84	2.50	5079.58	10017.90	5079.58	11.168

Travata n. 15036

Nodi: 1569 -5045 -5132 1582 -5340 1517

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1	SLU	5	35.43	6.03	4.02	6.03	4.02	-6931.27	-9551.64	1.378

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	2	SLE R	5	35.43	6.03	4.02	-5191.36	2031.77	-565.09	51.76
1.904	4	SLE Q	5	35.43	6.03	4.02	-4679.36	1831.38	-509.36	46.66

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904	4	SLE Q	5	30	35.43	-4679.36	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1831.38	0.73	0.15
4	1.903	3	SLE F	5	30	35.43	-4825.70	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1888.66	0.68	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	3145.39	2.50	10241.80	20904.00	10241.80	3.256
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	3776.06	2.50	10241.80	20904.00	10241.80	2.712

Travata n. 15040

Nodi: 1570 -5046 -5133 1583 -5341 1518

Caratteristiche delle sezioni e dei materiali utilizzati



Relazione di calcolo

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	35.41	6.03	4.02	6.03	4.02	-6919.29	-9551.64	1.380

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	35.41	6.03	4.02	-5183.64	2028.75	-564.25	51.69
1.90	4	SLE Q	5	35.41	6.03	4.02	-4667.22	1826.63	-508.04	46.54

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	30	35.41	-4667.22	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1826.63	0.73	0.15
4	1.90	3	SLE F	5	30	35.41	-4814.81	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1884.40	0.68	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<cm>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	1.38	1.38	ø6/18 2 br.	3.14	0.30	3111.21	2.50	10241.80	20904.00	3.292
1	SLU	1.38	1.90	0.52	ø6/18 2 br.	3.14	0.30	3780.66	2.50	10241.80	20904.00	2.709

Travata n. 15041

Nodi: 1596 -5543 1602 1552

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-414.14	-2142.71	5.174

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.82	2	SLE R	3	332.00	3.08	3.08	-291.99	531.89	-142.64	18.77
4.82	4	SLE Q	3	332.00	3.08	3.08	-227.02	413.54	-110.90	14.59

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-227.02	28.00	114.00	0.50	14.00	102.12	3.08	101.43	413.54	0.12	0.02
4	4.82	3	SLE F	3	18	332.00	-245.55	28.00	114.00	0.50	14.00	102.12	3.08	101.43	447.30	0.13	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<cm>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1965.64	2.50	7619.38	26714.30	3.876
1	SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	398.77	2.50	5079.58	10017.90	12.738
1	SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	427.56	2.50	5079.58	10017.90	11.880

Travata n. 15042

Nodi: 1571 -5047 -5134 1584 -5342 1519

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	35.43	3.08	3.08	3.08	3.08	-348.75	-1506.47	4.320

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	5	35.43	3.08	3.08	-252.49	669.65	-158.21	28.11
1.90	4	SLE Q	5	35.43	3.08	3.08	-194.15	514.92	-121.65	21.61

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	5	19	35.43	-194.15	28.00	134.00	0.50	14.00	93.58	3.08	82.65	514.92	0.15	0.02
4	1.90	3	SLE F	5	19	35.43	-210.82	28.00	134.00	0.50	14.00	93.58	3.08	82.65	559.12	0.16	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	398.95	2.50	7185.75	7873.13	7185.75	18.012
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	415.91	2.50	7185.75	7873.13	7185.75	17.277

Travata n. 15070

Nodi: 1600 1456 -4855 1445

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
3.32	1	SLU	3	52.50	3.08	3.08	3.08	3.08	-2170.24	-6639.53	3.059

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
3.32	2	SLE R	3	52.50	3.08	3.08	-1443.03	822.40	-191.18	16.82
3.32	4	SLE Q	3	52.50	3.08	3.08	-998.28	568.94	-132.26	11.64

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	3.32	4	SLE Q	3	16	52.50	-998.28	28.00	94.00	0.50	14.00	119.66	3.08	140.00	568.94	0.17	0.03
4	3.32	3	SLE F	3	16	52.50	-1124.73	28.00	94.00	0.50	14.00	119.66	3.08	140.00	641.00	0.19	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	1622.07	2.50	7619.38	26714.30	7619.38	4.697
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	1385.62	2.50	7619.38	26714.30	7619.38	5.499
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	3237.70	2.50	15238.80	26714.30	15238.80	4.707

Travata n. 15084

Nodi: 1602 1458 -4858 1452

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
3.32	1	SLU	3	52.50	3.08	3.08	3.08	3.08	-2566.05	-6639.53	2.587

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
3.32	2	SLE R	3	52.50	3.08	3.08	-1738.27	990.67	-230.30	20.27
3.32	4	SLE Q	3	52.50	3.08	3.08	-1241.13	707.34	-164.43	14.47

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	3.32	4	SLE Q	3	16	52.50	-1241.13	28.00	94.00	0.50	14.00	119.66	3.08	140.00	707.34	0.21	0.04
4	3.32	3	SLE F	3	16	52.50	-1382.56	28.00	94.00	0.50	14.00	119.66	3.08	140.00	787.94	0.23	0.05



Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	1865.58	2.50	7619.38	26714.30	7619.38	4.084
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	1142.10	2.50	7619.38	26714.30	7619.38	6.671
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	3668.80	2.50	15238.80	26714.30	15238.80	4.154

Travata n. 15088

Nodi: 1577 -5226 -5227 -5228 -5229 -5230 -5231 -5232 1578

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmqr>	Fctm <daN/cmqr>	Fcd <daN/cmqr>	Fcd (Tag) <daN/cmqr>	Fctd <daN/cmqr>	Fym <daN/cmqr>	Fyd <daN/cmqr>	Fyd (Tag) <daN/cmqr>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmqr>	AfE I <cmqr>	AfEP S <cmqr>	AfEP I <cmqr>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	35.71	1506.47	42.183
3.201	SLU	8	40.00	3.08	3.08	3.08	3.08	3.08	-70.77	-1506.47	21.286

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmqr>	AfE I <cmqr>	My <daNm>	σ <sub>f</sub> sup <daN/cmqr>	σ <sub>f</sub> inf <daN/cmqr>	σ <sub>c</sub> <daN/cmqr>
0.002	SLE	R	1	0.00	3.08	3.08	24.43	-15.31	64.79	2.72
0.004	SLE	Q	1	0.00	3.08	3.08	-18.62	49.39	-11.67	2.07
3.202	SLE	R	8	40.00	3.08	3.08	-48.39	128.35	-30.32	5.39
3.204	SLE	Q	8	40.00	3.08	3.08	-33.92	89.96	-21.25	3.78

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmqr>	A <sub>c eff</sub> <cmqr>	σ <sub>s</sub> <daN/cmqr>	ε <sub>sm</sub>	Wk <mm>
5	0.004	SLE	Q	1	19	0.00	-18.62	28.00	134.00	0.50	14.00	93.58	3.08	82.65	49.39	0.01	0.00
7	0.003	SLE	F	1	19	0.00	-18.54	28.00	134.00	0.50	14.00	93.58	3.08	82.65	49.18	0.01	0.00
11	3.204	SLE	Q	8	19	40.00	-33.92	28.00	134.00	0.50	14.00	93.58	3.08	82.65	89.96	0.03	0.00
12	3.203	SLE	F	8	19	40.00	-38.03	28.00	134.00	0.50	14.00	93.58	3.08	82.65	100.85	0.03	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	354.02	2.50	7185.75	7873.13	7185.75	20.298
1 SLU	0.14	3.06	2.91	ø6/ 8 2 br.	7.07	0.20	354.02	2.50	7185.75	7873.13	7185.75	20.298
1 SLU	3.06	3.20	0.14	ø6/ 8 2 br.	7.07	0.20	196.35	2.50	7185.75	7873.13	7185.75	36.596

Travata n. 15130

Nodi: 1561 -4915 -4916 -4917 -4918 -4919 -4920 -4921 -4922 1562

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmqr>	Fctm <daN/cmqr>	Fcd <daN/cmqr>	Fcd (Tag) <daN/cmqr>	Fctd <daN/cmqr>	Fym <daN/cmqr>	Fyd <daN/cmqr>	Fyd (Tag) <daN/cmqr>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmqr>	AfE I <cmqr>	AfEP S <cmqr>	AfEP I <cmqr>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	16.79	1506.47	89.748
1.441	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	77.83	1506.47	19.357
3.251	SLU	9	36.11	3.08	3.08	3.08	3.08	3.08	15.35	1506.47	98.153

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmqr>	AfE I <cmqr>	My <daNm>	σ <sub>f</sub> sup <daN/cmqr>	σ <sub>f</sub> inf <daN/cmqr>	σ <sub>c</sub> <daN/cmqr>
0.002	SLE	R	1	0.00	3.08	3.08	12.00	-7.52	31.81	1.34
0.004	SLE	Q	1	0.00	3.08	3.08	9.28	-5.81	24.60	1.03
1.442	SLE	R	5	0.00	3.08	3.08	55.28	-34.64	146.61	6.15
1.444	SLE	Q	5	0.00	3.08	3.08	41.32	-25.89	109.58	4.60
3.252	SLE	R	9	36.11	3.08	3.08	10.99	-6.89	29.16	1.22
3.254	SLE	Q	9	36.11	3.08	3.08	8.46	-5.30	22.45	0.94

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmqr>	A <sub>c eff</sub> <cmqr>	σ <sub>s</sub> <daN/cmqr>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	9.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.60	0.01	0.00
4	0.003	SLE	F	1	19	0.00	10.05	28.00	134.00	0.50	14.00	93.58	3.08	82.65	26.65	0.01	0.00
7	1.444	SLE	Q	5	19	0.00	41.32	28.00	134.00	0.50	14.00	93.58	3.08	82.65	109.58	0.03	0.01



Relazione di calcolo

8	1.44	3	SLE F	5	19	0.00	45.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	120.10	0.03	0.01
11	3.25	4	SLE Q	9	19	36.11	8.46	28.00	134.00	0.50	14.00	93.58	3.08	82.65	22.45	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	9.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.36	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	46.68	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	33.08	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	57.59	2.50	7185.75	7873.13	7185.75	>100

Travata n. 15131

Nodi: 1579 -5233 -5234 -5235 -5236 -5237 -5238 -5239 1580

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-153.00	-1506.47	9.846
3.14	1	SLU	8	36.15	3.08	3.08	3.08	3.08	73.40	1506.47	20.524
3.18	1	SLU	8	39.75	3.08	3.08	3.08	3.08	73.40	1506.47	20.524

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>e</sub> sup <daN/cmq>	σ <sub>e</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-109.17	289.54	-68.40	12.15
0.00	4	SLE Q	1	0.00	3.08	3.08	-86.78	230.16	-54.37	9.66
3.14	2	SLE R	8	36.15	3.08	3.08	52.16	-32.68	138.33	5.81
3.14	4	SLE Q	8	36.15	3.08	3.08	35.78	-22.42	94.88	3.98
3.18	2	SLE R	8	39.75	3.08	3.08	52.16	-32.68	138.33	5.81
3.18	4	SLE Q	8	39.75	3.08	3.08	35.78	-22.42	94.88	3.98

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	-86.78	28.00	134.00	0.50	14.00	93.58	3.08	82.65	230.16	0.07	0.01
4	0.00	3	SLE F	1	19	0.00	-93.14	28.00	134.00	0.50	14.00	93.58	3.08	82.65	247.03	0.07	0.01
9	3.14	4	SLE Q	8	19	36.15	35.78	28.00	134.00	0.50	14.00	93.58	3.08	82.65	94.88	0.03	0.00
11	3.14	3	SLE F	8	19	36.15	40.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	107.22	0.03	0.00
17	3.18	4	SLE Q	8	19	39.75	35.78	28.00	134.00	0.50	14.00	93.58	3.08	82.65	94.88	0.03	0.00
19	3.18	3	SLE F	8	19	39.75	40.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	107.22	0.03	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	152.18	2.50	7185.75	7873.13	7185.75	47.220
1 SLU	0.14	3.04	2.89	ø6/ 8 2 br.	7.07	0.20	416.71	2.50	7185.75	7873.13	7185.75	17.244
1 SLU	3.04	3.18	0.14	ø6/ 8 2 br.	7.07	0.20	416.71	2.50	7185.75	7873.13	7185.75	17.244

Travata n. 15173

Nodi: 1563 -4923 -4924 -4925 -4926 -4927 -4928 -4929 1564

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-164.23	-1506.47	9.173
1.31	1	SLU	4	18.38	3.08	3.08	3.08	3.08	194.76	1506.47	7.735
3.00	1	SLU	8	37.50	3.08	3.08	3.08	3.08	-268.61	-1506.47	5.608

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>e</sub> sup <daN/cmq>	σ <sub>e</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-124.33	329.75	-77.90	13.84
0.00	4	SLE Q	1	0.00	3.08	3.08	-118.50	314.29	-74.25	13.19
1.31	2	SLE R	4	18.38	3.08	3.08	147.60	-92.48	391.44	16.43
1.31	4	SLE Q	4	18.38	3.08	3.08	136.73	-85.67	362.62	15.22
3.00	2	SLE R	8	37.50	3.08	3.08	-201.95	535.60	-126.53	22.48



Relazione di calcolo

3.00	4	SLE Q	8	37.50	3.08	3.08	-186.27	494.01	-116.71	20.74
------	---	-------	---	-------	------	------	---------	--------	---------	-------

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-118.50	28.00	134.00	0.50	14.00	93.58	3.08	82.65	314.29	0.09	0.01
4	0.00	3	SLE F	1	19	0.00	-120.16	28.00	134.00	0.50	14.00	93.58	3.08	82.65	318.68	0.09	0.01
7	1.31	4	SLE Q	4	19	18.38	136.73	28.00	134.00	0.50	14.00	93.58	3.08	82.65	362.62	0.11	0.02
8	1.31	3	SLE F	4	19	18.38	139.85	28.00	134.00	0.50	14.00	93.58	3.08	82.65	370.90	0.11	0.02
11	3.00	4	SLE Q	8	19	37.50	-186.27	28.00	134.00	0.50	14.00	93.58	3.08	82.65	494.01	0.14	0.02
12	3.00	3	SLE F	8	19	37.50	-190.74	28.00	134.00	0.50	14.00	93.58	3.08	82.65	505.87	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	838.47	2.50	7185.75	7873.13	7185.75	8.570
1 SLU	0.14	2.85	2.71	ø6/ 8 2 br.	7.07	0.20	678.89	2.50	7185.75	7873.13	7185.75	10.585
1 SLU	2.85	3.00	0.14	ø6/ 8 2 br.	7.07	0.20	978.61	2.50	7185.75	7873.13	7185.75	7.343

Travata n. 15174

Nodi: 1581 -5240 -5241 -5242 -5243 -5244 -5245 -5246 -5247 1582

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	86.94	1506.47	17.328
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	-128.34	-1506.47	11.739

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	62.10	-38.91	164.70	6.91
0.00	4	SLE Q	1	0.00	3.08	3.08	43.92	-27.52	116.49	4.89
3.25	2	SLE R	9	36.11	3.08	3.08	-90.96	241.24	-56.99	10.13
3.25	4	SLE Q	9	36.11	3.08	3.08	-70.85	187.91	-44.39	7.89

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
4	0.00	4	SLE Q	1	19	0.00	43.92	28.00	134.00	0.50	14.00	93.58	3.08	82.65	116.49	0.03	0.01
6	0.00	3	SLE F	1	19	0.00	49.08	28.00	134.00	0.50	14.00	93.58	3.08	82.65	130.18	0.04	0.01
9	3.25	4	SLE Q	9	19	36.11	-70.85	28.00	134.00	0.50	14.00	93.58	3.08	82.65	187.91	0.05	0.01
10	3.25	3	SLE F	9	19	36.11	-76.56	28.00	134.00	0.50	14.00	93.58	3.08	82.65	203.06	0.06	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	486.13	2.50	7185.75	7873.13	7185.75	14.781
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	486.13	2.50	7185.75	7873.13	7185.75	14.781
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	138.53	2.50	7185.75	7873.13	7185.75	51.872

Travata n. 15216

Nodi: 1565 -4930 -4931 -4932 -4933 -4934 -4935 -4936 -4937 1566

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	17.14	1506.47	87.913
1.62	1	SLU	5	18.06	3.08	3.08	3.08	3.08	83.36	1506.47	18.071
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	17.63	1506.47	85.432

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	12.31	-7.71	32.65	1.37



Relazione di calcolo

0.00	4	SLE Q	1	0.00	3.08	3.08	9.62	-6.03	25.52	1.07
1.62	2	SLE R	5	18.06	3.08	3.08	59.45	-37.25	157.68	6.62
1.62	4	SLE Q	5	18.06	3.08	3.08	45.17	-28.30	119.80	5.03
3.25	2	SLE R	9	36.11	3.08	3.08	12.67	-7.94	33.59	1.41
3.25	4	SLE Q	9	36.11	3.08	3.08	9.96	-6.24	26.41	1.11

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	9.62	28.00	134.00	0.50	14.00	93.58	3.08	82.65	25.52	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	10.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.55	0.01	0.00
7	1.62	4	SLE Q	5	19	18.06	45.17	28.00	134.00	0.50	14.00	93.58	3.08	82.65	119.80	0.03	0.01
8	1.62	3	SLE F	5	19	18.06	49.23	28.00	134.00	0.50	14.00	93.58	3.08	82.65	130.57	0.04	0.01
11	3.25	4	SLE Q	9	19	36.11	9.96	28.00	134.00	0.50	14.00	93.58	3.08	82.65	26.41	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	10.73	28.00	134.00	0.50	14.00	93.58	3.08	82.65	28.45	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	60.26	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	35.76	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	47.00	2.50	7185.75	7873.13	7185.75	>100

Travata n. 15217

Nodi: 1583 -5248 -5249 -5250 -5251 -5252 -5253 -5254 -5255 1584

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE <cmq>	S AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-121.08	-1506.47	12.441
3.19	1	SLU	9	32.29	3.08	3.08	3.08	3.08	96.11	1506.47	15.675
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	96.11	1506.47	15.675

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-85.78	227.50	-53.75	9.55
0.00	4	SLE Q	1	0.00	3.08	3.08	-66.61	176.66	-41.74	7.41
3.19	2	SLE R	9	32.29	3.08	3.08	68.45	-42.89	181.54	7.62
3.19	4	SLE Q	9	32.29	3.08	3.08	48.66	-30.49	129.06	5.42
3.23	2	SLE R	9	35.89	3.08	3.08	68.45	-42.89	181.54	7.62
3.23	4	SLE Q	9	35.89	3.08	3.08	48.66	-30.49	129.06	5.42

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	-66.61	28.00	134.00	0.50	14.00	93.58	3.08	82.65	176.66	0.05	0.01
4	0.00	3	SLE F	1	19	0.00	-72.05	28.00	134.00	0.50	14.00	93.58	3.08	82.65	191.10	0.06	0.01
9	3.19	4	SLE Q	9	19	32.29	48.66	28.00	134.00	0.50	14.00	93.58	3.08	82.65	129.06	0.04	0.01
11	3.19	3	SLE F	9	19	32.29	54.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	143.87	0.04	0.01
15	3.23	4	SLE Q	9	19	35.89	48.66	28.00	134.00	0.50	14.00	93.58	3.08	82.65	129.06	0.04	0.01
16	3.23	3	SLE F	9	19	35.89	54.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	143.87	0.04	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	148.18	2.50	7185.75	7873.13	7185.75	48.492
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	452.02	2.50	7185.75	7873.13	7185.75	15.897
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	452.02	2.50	7185.75	7873.13	7185.75	15.897

Travata n. 15259

Nodi: 1567 -4938 -4939 -4940 -4941 -4942 -4943 -4944 -4945 1568

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	S AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
-----------	----	-----	----	-----------	----------------	------------------	-----------------	-----------------	--------------	----------------	------



Relazione di calcolo

0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	17.72	1506.47	85.004
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	83.81	1506.47	17.976
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	17.03	1506.47	88.458

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	$\sigma_{\epsilon}$ sup <daN/cmq>	$\sigma_{\epsilon}$ inf <daN/cmq>	$\sigma_c$ <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	12.72	-7.97	33.73	1.42
0.00	4	SLE Q	1	0.00	3.08	3.08	9.94	-6.23	26.36	1.11
1.44	2	SLE R	5	0.00	3.08	3.08	59.70	-37.41	158.34	6.65
1.44	4	SLE Q	5	0.00	3.08	3.08	45.16	-28.30	119.77	5.03
3.25	2	SLE R	9	36.11	3.08	3.08	12.22	-7.65	32.40	1.36
3.25	4	SLE Q	9	36.11	3.08	3.08	9.54	-5.98	25.30	1.06

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cmq>	$\epsilon_{sm}$	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	9.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	26.36	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	10.73	28.00	134.00	0.50	14.00	93.58	3.08	82.65	28.46	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	45.16	28.00	134.00	0.50	14.00	93.58	3.08	82.65	119.77	0.03	0.01
8	1.44	3	SLE F	5	19	0.00	49.29	28.00	134.00	0.50	14.00	93.58	3.08	82.65	130.74	0.04	0.01
11	3.25	4	SLE Q	9	19	36.11	9.54	28.00	134.00	0.50	14.00	93.58	3.08	82.65	25.30	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	10.30	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.32	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	46.07	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	37.01	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	61.52	2.50	7185.75	7873.13	7185.75	>100

Travata n. 15302

Nodi: 1569 -4946 -4947 -4948 -4949 -4950 -4951 -4952 1570

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-204.59	-1506.47	7.363
1.27	1	SLU	4	18.13	3.08	3.08	3.08	3.08	188.28	1506.47	8.001
2.90	1	SLU	8	36.25	3.08	3.08	3.08	3.08	-205.82	-1506.47	7.319

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	$\sigma_{\epsilon}$ sup <daN/cmq>	$\sigma_{\epsilon}$ inf <daN/cmq>	$\sigma_c$ <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-154.51	409.77	-96.81	17.20
0.00	4	SLE Q	1	0.00	3.08	3.08	-145.11	384.85	-90.92	16.15
1.27	2	SLE R	4	18.13	3.08	3.08	142.29	-89.15	377.37	15.84
1.27	4	SLE Q	4	18.13	3.08	3.08	131.25	-82.24	348.10	14.61
2.90	2	SLE R	8	36.25	3.08	3.08	-155.47	412.32	-97.41	17.31
2.90	4	SLE Q	8	36.25	3.08	3.08	-145.63	386.22	-91.24	16.21

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cmq>	$\epsilon_{sm}$	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	-145.11	28.00	134.00	0.50	14.00	93.58	3.08	82.65	384.85	0.11	0.02
4	0.00	3	SLE F	1	19	0.00	-147.79	28.00	134.00	0.50	14.00	93.58	3.08	82.65	391.95	0.11	0.02
7	1.27	4	SLE Q	4	19	18.13	131.25	28.00	134.00	0.50	14.00	93.58	3.08	82.65	348.10	0.10	0.02
8	1.27	3	SLE F	4	19	18.13	134.42	28.00	134.00	0.50	14.00	93.58	3.08	82.65	356.49	0.10	0.02
11	2.90	4	SLE Q	8	19	36.25	-145.63	28.00	134.00	0.50	14.00	93.58	3.08	82.65	386.22	0.11	0.02
12	2.90	3	SLE F	8	19	36.25	-148.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	393.66	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	898.54	2.50	7185.75	7873.13	7185.75	7.997
1 SLU	0.14	2.75	2.61	ø6/ 8 2 br.	7.07	0.20	598.83	2.50	7185.75	7873.13	7185.75	12.000
1 SLU	2.75	2.90	0.14	ø6/ 8 2 br.	7.07	0.20	897.99	2.50	7185.75	7873.13	7185.75	8.002

Travata n. 15345

Nodi: 1571 -4953 -4954 -4955 -4956 -4957 -4958 -4959 -4960 1572



## Relazione di calcolo

### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <daNm>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	21.24	1506.47	70.932
1.61	1	SLU	5	17.94	3.08	3.08	3.08	3.08	89.86	1506.47	16.765
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	17.53	1506.47	85.925

### Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	$\sigma_e$ sup <daN/cmq>	$\sigma_e$ inf <daN/cmq>	$\sigma_c$ <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	15.20	-9.52	40.31	1.69
0.00	4	SLE Q	1	0.00	3.08	3.08	12.19	-7.64	32.34	1.36
1.61	2	SLE R	5	17.94	3.08	3.08	64.04	-40.12	169.84	7.13
1.61	4	SLE Q	5	17.94	3.08	3.08	49.54	-31.04	131.38	5.51
3.23	2	SLE R	9	35.89	3.08	3.08	12.58	-7.88	33.37	1.40
3.23	4	SLE Q	9	35.89	3.08	3.08	9.90	-6.20	26.26	1.10

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cmq>	$\epsilon_{sm}$	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	12.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	32.34	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	13.05	28.00	134.00	0.50	14.00	93.58	3.08	82.65	34.60	0.01	0.00
7	1.61	4	SLE Q	5	19	17.94	49.54	28.00	134.00	0.50	14.00	93.58	3.08	82.65	131.38	0.04	0.01
8	1.61	3	SLE F	5	19	17.94	53.66	28.00	134.00	0.50	14.00	93.58	3.08	82.65	142.31	0.04	0.01
11	3.23	4	SLE Q	9	19	35.89	9.90	28.00	134.00	0.50	14.00	93.58	3.08	82.65	26.26	0.01	0.00
12	3.23	3	SLE F	9	19	35.89	10.67	28.00	134.00	0.50	14.00	93.58	3.08	82.65	28.29	0.01	0.00

### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	59.48	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	34.98	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	49.95	2.50	7185.75	7873.13	7185.75	>100

## Travata n. 16024

Nodi: 1599 1655 -5619 1644

### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <daNm>	My <daNm>	MRdy <daNm>	Sic.
3.32	1	SLU	3	52.50	6.16	3.08	6.16	3.08	-1954.42	-13043.50	6.674

### Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	$\sigma_e$ sup <daN/cmq>	$\sigma_e$ inf <daN/cmq>	$\sigma_c$ <daN/cmq>
3.32	2	SLE R	3	52.50	6.16	3.08	-1305.36	381.81	-148.19	12.01
3.32	4	SLE Q	3	52.50	6.16	3.08	-885.10	258.89	-100.48	8.14

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cmq>	$\epsilon_{sm}$	Wk <mm>
3	3.32	4	SLE Q	3	16	52.50	-885.10	28.00	31.33	0.50	14.00	87.83	6.16	140.00	258.89	0.08	0.01
4	3.32	3	SLE F	3	16	52.50	-1004.51	28.00	31.33	0.50	14.00	87.83	6.16	140.00	293.81	0.09	0.01

### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1351.91	2.50	7619.38	26714.30	7619.38	5.636
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	826.35	2.50	7619.38	26714.30	7619.38	9.221
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	2942.64	2.50	15238.80	26714.30	15238.80	5.179

## Travata n. 16035

Nodi: 1601 1657 -5622 1651



Relazione di calcolo

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	6.16	3.08	6.16	3.08	-2121.37	-13043.50	6.149

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.32	2	SLE R	3	52.50	6.16	3.08	-1431.36	418.66	-162.50	13.17
3.32	4	SLE Q	3	52.50	6.16	3.08	-990.15	289.61	-112.41	9.11

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-990.15	28.00	31.33	0.50	14.00	87.83	6.16	140.00	289.61	0.08	0.01
4	3.32	3	SLE F	3	16	52.50	-1115.54	28.00	31.33	0.50	14.00	87.83	6.16	140.00	326.29	0.10	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	b <sub>w</sub> <m>	V <sub>sdu</sub> <daN>	ctgθ	V <sub>Rsd</sub> <daN>	V <sub>Rcd</sub> <daN>	V <sub>rdu</sub> <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1527.03	2.50	7619.38	26714.30	7619.38	4.990
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	943.20	2.50	7619.38	26714.30	7619.38	8.078
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	3114.39	2.50	15238.80	26714.30	15238.80	4.893

Travata n. 17021

Nodi: 1761 -5749 -5827 -5923 -6029 1708

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	0.00	3.08	3.08	3.08	3.08	-543.64	-1506.47	2.771

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	0.00	3.08	3.08	-393.05	1042.43	-246.27	43.75
1.90	4	SLE Q	5	0.00	3.08	3.08	-303.17	804.05	-189.96	33.75

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	19	0.00	-303.17	28.00	134.00	0.50	14.00	93.58	3.08	82.65	804.05	0.23	0.04
4	1.90	3	SLE F	5	19	0.00	-328.80	28.00	134.00	0.50	14.00	93.58	3.08	82.65	872.03	0.25	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	b <sub>w</sub>	V <sub>sdu</sub>	ctgθ	V <sub>Rsd</sub>	V <sub>Rcd</sub>	V <sub>rdu</sub>	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	420.67	2.50	7185.75	7873.13	7185.75	17.082
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	437.64	2.50	7185.75	7873.13	7185.75	16.419

Travata n. 17022

Nodi: 1762 -5806 -5893 1777 1709

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	4	70.00	3.08	3.08	3.08	3.08	-393.17	-1506.47	3.832

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	4	70.00	3.08	3.08	-284.82	755.39	-178.46	31.71
1.90	4	SLE Q	4	70.00	3.08	3.08	-224.37	595.07	-140.59	24.98

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	4	19	70.00	-224.37	28.00	134.00	0.50	14.00	93.58	3.08	82.65	595.07	0.17	0.03
4	1.90	3	SLE F	4	19	70.00	-241.63	28.00	134.00	0.50	14.00	93.58	3.08	82.65	640.84	0.19	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
<m>	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	412.78	2.50	7185.75	7873.13	7185.75	17.408
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	429.74	2.50	7185.75	7873.13	7185.75	16.721

Travata n. 17023

Nodi: 1763 -5807 -5894 1778 -6102 1710

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	35.06	6.03	4.02	6.03	4.02	-6288.94	-9551.64	1.519

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	35.06	6.03	4.02	-4708.22	1842.68	-512.50	46.95
1.90	4	SLE Q	5	35.06	6.03	4.02	-4244.76	1661.29	-462.05	42.33

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	30	35.06	-4244.76	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1661.29	0.65	0.14
4	1.90	3	SLE F	5	30	35.06	-4377.31	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1713.17	0.59	0.12

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
<m>	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2700.49	2.50	10241.80	20904.00	10241.80	3.793
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3768.74	2.50	10241.80	20904.00	10241.80	2.718

Travata n. 17024

Nodi: 1789 -6299 1799 1744

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-409.71	-2142.71	5.230

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.82	2	SLE R	3	332.00	3.08	3.08	-285.41	519.91	-139.43	18.35
4.82	4	SLE Q	3	332.00	3.08	3.08	-221.15	402.84	-108.03	14.21

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-221.15	28.00	114.00	0.50	14.00	102.12	3.08	101.43	402.84	0.12	0.02
4	4.82	3	SLE F	3	18	332.00	-239.29	28.00	114.00	0.50	14.00	102.12	3.08	101.43	435.89	0.13	0.02



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2357.46	2.50	7619.38	26714.30	7619.38	3.232
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	411.86	2.50	5079.58	10017.90	5079.58	12.333
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	440.64	2.50	5079.58	10017.90	5079.58	11.528

Travata n. 17027

Nodi: 1792 -6303 1800 1745

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/presoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-447.06	-2142.71	4.793

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	My <daNm>	σ <sub>f</sub> sup <daN/cm>	σ <sub>f</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
4.822	SLE R	3	332.00	3.08	3.08	-312.27	568.85	-152.55	20.07	
4.824	SLE Q	3	332.00	3.08	3.08	-243.09	442.81	-118.75	15.62	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c</sub> eff <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	4.824	SLE Q	3	18	332.00	-243.09	28.00	114.00	0.50	14.00	102.12	3.08	101.43	442.81	0.13	0.02	
4	4.823	SLE F	3	18	332.00	-262.19	28.00	114.00	0.50	14.00	102.12	3.08	101.43	477.60	0.14	0.02	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2181.67	2.50	7619.38	26714.30	7619.38	3.492
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	419.84	2.50	5079.58	10017.90	5079.58	12.099
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	448.62	2.50	5079.58	10017.90	5079.58	11.323

Travata n. 17028

Nodi: 1764 -5808 -5895 1779 -6103 1711

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/presoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
1.901	SLU	5	35.09	6.03	4.02	6.03	4.02	4.02	-7790.20	-9551.64	1.226

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	My <daNm>	σ <sub>f</sub> sup <daN/cm>	σ <sub>f</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
1.902	SLE R	5	35.09	6.03	4.02	-5832.88	2282.84	-634.92	58.16	
1.904	SLE Q	5	35.09	6.03	4.02	-5249.10	2054.36	-571.37	52.34	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c</sub> eff <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5	30	35.09	-5249.10	27.00	116.00	0.50	16.00	123.63	6.03	262.50	2054.36	0.84	0.18	
4	1.903	SLE F	5	30	35.09	-5415.96	27.00	116.00	0.50	16.00	123.63	6.03	262.50	2119.67	0.79	0.17	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	3454.90	2.50	10241.80	20904.00	10241.80	2.964
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	4242.22	2.50	10241.80	20904.00	10241.80	2.414

Travata n. 17029

Nodi: 1765 -5809 -5896 1780 1712



Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		4	70.00	3.08	3.08	3.08	3.08	-359.30	-1506.47	4.193

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		4	70.00	3.08	3.08	-259.93	689.38	-162.87	28.94
1.904	SLE Q		4	70.00	3.08	3.08	-203.19	538.89	-127.31	22.62

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		4	19	70.00	-203.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	538.89	0.16	0.02
4	1.903	SLE F		4	19	70.00	-219.41	28.00	134.00	0.50	14.00	93.58	3.08	82.65	581.90	0.17	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<cm>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	349.52	2.50	7185.75	7873.13	7185.75	20.559
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	366.49	2.50	7185.75	7873.13	7185.75	19.607

Travata n. 17032

Nodi: 1767 -5771 -5839 -5911 -6024 1715

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		5	38.00	3.08	3.08	3.08	3.08	-532.89	-1506.47	2.827

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	38.00	3.08	3.08	-385.10	1021.34	-241.29	42.87
1.904	SLE Q		5	38.00	3.08	3.08	-296.75	787.02	-185.93	33.03

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		5	19	38.00	-296.75	28.00	134.00	0.50	14.00	93.58	3.08	82.65	787.02	0.23	0.04
4	1.903	SLE F		5	19	38.00	-321.97	28.00	134.00	0.50	14.00	93.58	3.08	82.65	853.90	0.25	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<cm>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	405.85	2.50	7185.75	7873.13	7185.75	17.706
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	422.81	2.50	7185.75	7873.13	7185.75	16.995

Travata n. 17033

Nodi: 1768 -5810 -5897 1781 -6105 1716

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		5	35.44	3.08	3.08	3.08	3.08	-384.59	-1506.47	3.917

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
----	----	-----	----	---	-------	-------	----	--------------------	--------------------	----------------



Relazione di calcolo

<m>			<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	5	35.44	3.08	3.08	-278.00	737.30	-174.19	30.95
1.904	SLE Q	5	35.44	3.08	3.08	-217.12	575.83	-136.04	24.17

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	5	19	35.44	-217.12	28.00	134.00	0.50	14.00	93.58	3.08	82.65	575.83	0.17	0.03	
4	1.903	SLE F	5	19	35.44	-234.51	28.00	134.00	0.50	14.00	93.58	3.08	82.65	621.95	0.18	0.03	

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	430.98	2.50	7185.75	7873.13	7185.75	16.673
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	447.95	2.50	7185.75	7873.13	7185.75	16.041

Travata n. 17035

Nodi: 1793 -6304 1801 1751

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R		18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	-438.27	-2142.71	4.889	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	2	SLE R	3	332.00	3.08	3.08	-306.81	558.89	-149.88	19.72
4.824	4	SLE Q	3	332.00	3.08	3.08	-238.73	434.88	-116.62	15.34

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.824	SLE Q	3	18	332.00	-238.73	28.00	114.00	0.50	14.00	102.12	3.08	101.43		434.88	0.13	0.02
4	4.823	SLE F	3	18	332.00	-257.96	28.00	114.00	0.50	14.00	102.12	3.08	101.43		469.91	0.14	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2298.79	2.50	7619.38	26714.30	7619.38	3.315
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	423.75	2.50	5079.58	10017.90	5079.58	11.987
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	452.54	2.50	5079.58	10017.90	5079.58	11.225

Travata n. 17036

Nodi: 1769 -5811 -5898 1782 -6106 1717

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30R		30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	35.43	6.03	4.02	6.03	4.02	-6877.79	-9551.64	1.389	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	5	35.43	6.03	4.02	-5152.05	2016.38	-560.81	51.37	
1.904	SLE Q	5	35.43	6.03	4.02	-4647.40	1818.88	-505.88	46.34	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	5	30	35.43	-4647.40	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1818.88	0.72	0.15	
4	1.903	SLE F	5	30	35.43	-4791.58	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1875.30	0.67	0.14	



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	3130.32	2.50	10241.80	20904.00	10241.80	3.272
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	3700.45	2.50	10241.80	20904.00	10241.80	2.768

Travata n. 17040

Nodi: 1770 -5812 -5899 1783 -6107 1718

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
30R		30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	35.41	6.03	4.02	6.03	4.02	-6909.08	-9551.64	1.382	

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R	5	35.41	6.03	4.02	-5176.55	2025.97	-563.48	51.62	
1.904	SLE Q	5	35.41	6.03	4.02	-4658.98	1823.41	-507.14	46.46	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5	30	35.41	-4658.98	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1823.41	0.73	0.15	
4	1.903	SLE F	5	30	35.41	-4807.01	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1881.34	0.67	0.14	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.38	1.38	ø6/18 2 br.	3.14	0.30	3106.58	2.50	10241.80	20904.00	10241.80	3.297
1 SLU	1.38	1.90	0.52	ø6/18 2 br.	3.14	0.30	3717.78	2.50	10241.80	20904.00	10241.80	2.755

Travata n. 17041

Nodi: 1796 -6308 1802 1752

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R		18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-484.61	-2142.71	4.421

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
4.822	SLE R	3	332.00	3.08	3.08	-340.52	620.29	-166.35	21.89	
4.824	SLE Q	3	332.00	3.08	3.08	-265.97	484.50	-129.93	17.10	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	4.824	SLE Q	3	18	332.00	-265.97	28.00	114.00	0.50	14.00	102.12	3.08	101.43	484.50	0.14	0.02	
4	4.823	SLE F	3	18	332.00	-286.65	28.00	114.00	0.50	14.00	102.12	3.08	101.43	522.17	0.15	0.03	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1960.07	2.50	7619.38	26714.30	7619.38	3.887
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	434.72	2.50	5079.58	10017.90	5079.58	11.685
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	463.50	2.50	5079.58	10017.90	5079.58	10.959

Travata n. 17042

Nodi: 1771 -5813 -5900 1784 -6108 1719



Relazione di calcolo

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	35.43	3.08	3.08	3.08	3.08	-355.85	-1506.47	4.233

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	35.43	3.08	3.08	-257.68	683.40	-161.45	28.68
1.90	4	SLE Q	5	35.43	3.08	3.08	-198.17	525.58	-124.17	22.06

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	19	35.43	-198.17	28.00	134.00	0.50	14.00	93.58	3.08	82.65	525.58	0.15	0.02
4	1.90	3	SLE F	5	19	35.43	-215.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	570.68	0.17	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	408.68	2.50	7185.75	7873.13	7185.75	17.583
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	425.64	2.50	7185.75	7873.13	7185.75	16.882

Travata n. 17070

Nodi: 1800 1656 -5621 1645

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	3.08	3.08	3.08	3.08	-2098.56	-6639.53	3.164

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.32	2	SLE R	3	52.50	3.08	3.08	-1388.30	791.22	-183.93	16.19
3.32	4	SLE Q	3	52.50	3.08	3.08	-950.50	541.71	-125.93	11.08

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-950.50	28.00	94.00	0.50	14.00	119.66	3.08	140.00	541.71	0.16	0.03
4	3.32	3	SLE F	3	16	52.50	-1074.66	28.00	94.00	0.50	14.00	119.66	3.08	140.00	612.47	0.18	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	1646.93	2.50	7619.38	26714.30	7619.38	4.626
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	1360.75	2.50	7619.38	26714.30	7619.38	5.599
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	3182.75	2.50	15238.80	26714.30	15238.80	4.788

Travata n. 17084

Nodi: 1802 1658 -5624 1652

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	3.08	3.08	3.08	3.08	-2493.36	-6639.53	2.663

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
3.32	2	SLE R	3	52.50	3.08	3.08	-1683.37	959.38	-223.02	19.62
3.32	4	SLE Q	3	52.50	3.08	3.08	-1192.91	679.86	-158.04	13.91

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	3.32	4	SLE Q	3	16	52.50	-1192.91	28.00	94.00	0.50	14.00	119.66	3.08	140.00	679.86	0.20	0.04
4	3.32	3	SLE F	3	16	52.50	-1332.16	28.00	94.00	0.50	14.00	119.66	3.08	140.00	759.22	0.22	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	1911.58	2.50	7619.38	26714.30	7619.38	3.986
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	1096.10	2.50	7619.38	26714.30	7619.38	6.951
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	3620.79	2.50	15238.80	26714.30	15238.80	4.209

Travata n. 17088

Nodi: 1777 -5992 -5993 -5994 -5995 -5996 -5997 -5998 1778

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	30.63	1506.47	49.188
3.20	1	SLU	8	40.00	3.08	3.08	3.08	3.08	-55.11	-1506.47	27.336

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-21.51	57.05	-13.48	2.39
0.00	4	SLE Q	1	0.00	3.08	3.08	-21.63	57.38	-13.56	2.41
3.20	2	SLE R	8	40.00	3.08	3.08	-36.94	97.97	-23.15	4.11
3.20	4	SLE Q	8	40.00	3.08	3.08	-23.61	62.62	-14.79	2.63

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
5	0.00	4	SLE Q	1	19	0.00	-21.63	28.00	134.00	0.50	14.00	93.58	3.08	82.65	57.38	0.02	0.00
7	0.00	3	SLE F	1	19	0.00	-21.62	28.00	134.00	0.50	14.00	93.58	3.08	82.65	57.35	0.02	0.00
12	3.20	4	SLE Q	8	19	40.00	-23.61	28.00	134.00	0.50	14.00	93.58	3.08	82.65	62.62	0.02	0.00
13	3.20	3	SLE F	8	19	40.00	-27.41	28.00	134.00	0.50	14.00	93.58	3.08	82.65	72.69	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	352.66	2.50	7185.75	7873.13	7185.75	20.376
1 SLU	0.14	3.06	2.91	ø6/ 8 2 br.	7.07	0.20	352.66	2.50	7185.75	7873.13	7185.75	20.376
1 SLU	3.06	3.20	0.14	ø6/ 8 2 br.	7.07	0.20	206.32	2.50	7185.75	7873.13	7185.75	34.829

Travata n. 17130

Nodi: 1761 -5681 -5682 -5683 -5684 -5685 -5686 -5687 -5688 1762

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	17.49	1506.47	86.143
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	79.17	1506.47	19.027
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	15.13	1506.47	99.584

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	12.49	-7.82	33.11	1.39
0.00	4	SLE Q	1	0.00	3.08	3.08	9.64	-6.04	25.58	1.07



Relazione di calcolo

1.44	2	SLE R	5	0.00	3.08	3.08	56.19	-35.21	149.02	6.26
1.44	4	SLE Q	5	0.00	3.08	3.08	41.91	-26.26	111.15	4.67
3.25	2	SLE R	9	36.11	3.08	3.08	10.83	-6.78	28.72	1.21
3.25	4	SLE Q	9	36.11	3.08	3.08	8.30	-5.20	22.02	0.92

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	9.64	28.00	134.00	0.50	14.00	93.58	3.08	82.65	25.58	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	10.45	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.72	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	41.91	28.00	134.00	0.50	14.00	93.58	3.08	82.65	111.15	0.03	0.01
8	1.44	3	SLE F	5	19	0.00	45.96	28.00	134.00	0.50	14.00	93.58	3.08	82.65	121.89	0.04	0.01
11	3.25	4	SLE Q	9	19	36.11	8.30	28.00	134.00	0.50	14.00	93.58	3.08	82.65	22.02	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	9.02	28.00	134.00	0.50	14.00	93.58	3.08	82.65	23.92	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	46.79	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	33.19	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	57.70	2.50	7185.75	7873.13	7185.75	>100

Travata n. 17131

Nodi: 1779 -5999 -6000 -6001 -6002 -6003 -6004 -6005 1780

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
	<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-172.86	-1506.47	8.715
3.14	1	SLU	8	36.15	3.08	3.08	3.08	3.08	86.55	1506.47	17.405
3.18	1	SLU	8	39.75	3.08	3.08	3.08	3.08	86.55	1506.47	17.405

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-123.31	327.02	-77.26	13.73
0.00	4	SLE Q	1	0.00	3.08	3.08	-98.63	261.58	-61.80	10.98
3.14	2	SLE R	8	36.15	3.08	3.08	61.49	-38.53	163.07	6.84
3.14	4	SLE Q	8	36.15	3.08	3.08	43.28	-27.12	114.79	4.82
3.18	2	SLE R	8	39.75	3.08	3.08	61.49	-38.53	163.07	6.84
3.18	4	SLE Q	8	39.75	3.08	3.08	43.28	-27.12	114.79	4.82

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-98.63	28.00	134.00	0.50	14.00	93.58	3.08	82.65	261.58	0.08	0.01
4	0.00	3	SLE F	1	19	0.00	-105.61	28.00	134.00	0.50	14.00	93.58	3.08	82.65	280.10	0.08	0.01
9	3.14	4	SLE Q	8	19	36.15	43.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	114.79	0.03	0.01
11	3.14	3	SLE F	8	19	36.15	48.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	128.44	0.04	0.01
15	3.18	4	SLE Q	8	19	39.75	43.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	114.79	0.03	0.01
16	3.18	3	SLE F	8	19	39.75	48.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	128.44	0.04	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	144.22	2.50	7185.75	7873.13	7185.75	49.826
1 SLU	0.14	3.04	2.89	ø6/ 8 2 br.	7.07	0.20	428.89	2.50	7185.75	7873.13	7185.75	16.754
1 SLU	3.04	3.18	0.14	ø6/ 8 2 br.	7.07	0.20	428.89	2.50	7185.75	7873.13	7185.75	16.754

Travata n. 17173

Nodi: 1763 -5689 -5690 -5691 -5692 -5693 -5694 -5695 1764

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
	<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-163.66	-1506.47	9.205



Relazione di calcolo

1.31	1	SLU	4	18.75	3.08	3.08	3.08	3.08	193.15	1506.47	7.799
3.00	1	SLU	8	37.50	3.08	3.08	3.08	3.08	-272.65	-1506.47	5.525

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>t</sub> sup	σ <sub>t</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-123.85	328.48	-77.60	13.79
0.00	4	SLE Q	1	0.00	3.08	3.08	-117.48	311.59	-73.61	13.08
1.31	2	SLE R	4	18.75	3.08	3.08	146.47	-91.77	388.46	16.31
1.31	4	SLE Q	4	18.75	3.08	3.08	135.90	-85.15	360.42	15.13
3.00	2	SLE R	8	37.50	3.08	3.08	-204.89	543.41	-128.38	22.81
3.00	4	SLE Q	8	37.50	3.08	3.08	-189.30	502.04	-118.61	21.07

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-117.48	28.00	134.00	0.50	14.00	93.58	3.08	82.65	311.59	0.09	0.01
4	0.00	3	SLE F	1	19	0.00	-119.30	28.00	134.00	0.50	14.00	93.58	3.08	82.65	316.40	0.09	0.01
7	1.31	4	SLE Q	4	19	18.75	135.90	28.00	134.00	0.50	14.00	93.58	3.08	82.65	360.42	0.10	0.02
8	1.31	3	SLE F	4	19	18.75	138.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	368.48	0.11	0.02
11	3.00	4	SLE Q	8	19	37.50	-189.30	28.00	134.00	0.50	14.00	93.58	3.08	82.65	502.04	0.15	0.02
12	3.00	3	SLE F	8	19	37.50	-193.74	28.00	134.00	0.50	14.00	93.58	3.08	82.65	513.81	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	844.73	2.50	7185.75	7873.13	7185.75	8.507
1 SLU	0.14	2.85	2.71	ø6/ 8 2 br.	7.07	0.20	672.92	2.50	7185.75	7873.13	7185.75	10.678
1 SLU	2.85	3.00	0.14	ø6/ 8 2 br.	7.07	0.20	972.64	2.50	7185.75	7873.13	7185.75	7.388

Travata n. 17174

Nodi: 1781 -6006 -6007 -6008 -6009 -6010 -6011 -6012 -6013 1782

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	100.74	1506.47	14.954
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	-138.00	-1506.47	10.916

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>t</sub> sup	σ <sub>t</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	71.93	-45.07	190.77	8.01
0.00	4	SLE Q	1	0.00	3.08	3.08	51.88	-32.51	137.60	5.78
3.25	2	SLE R	9	36.11	3.08	3.08	-97.75	259.25	-61.25	10.88
3.25	4	SLE Q	9	36.11	3.08	3.08	-76.32	202.42	-47.82	8.50

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	51.88	28.00	134.00	0.50	14.00	93.58	3.08	82.65	137.60	0.04	0.01
4	0.00	3	SLE F	1	19	0.00	57.55	28.00	134.00	0.50	14.00	93.58	3.08	82.65	152.64	0.04	0.01
7	3.25	4	SLE Q	9	19	36.11	-76.32	28.00	134.00	0.50	14.00	93.58	3.08	82.65	202.42	0.06	0.01
8	3.25	3	SLE F	9	19	36.11	-82.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	218.51	0.06	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	497.38	2.50	7185.75	7873.13	7185.75	14.447
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	497.38	2.50	7185.75	7873.13	7185.75	14.447
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	138.29	2.50	7185.75	7873.13	7185.75	51.963

Travata n. 17216

Nodi: 1765 -5696 -5697 -5698 -5699 -5700 -5701 -5702 -5703 1766

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94



Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	1	0.00	3.08	3.08	3.08	3.08	18.18	1506.47	82.860
1.621	SLU	5	1	18.06	3.08	3.08	3.08	3.08	87.74	1506.47	17.169
3.251	SLU	9	1	36.11	3.08	3.08	3.08	3.08	18.59	1506.47	81.040

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R	1	1	0.00	3.08	3.08	13.06	-8.18	34.63	1.45
0.004	SLE Q	1	1	0.00	3.08	3.08	10.25	-6.42	27.18	1.14
1.622	SLE R	5	1	18.06	3.08	3.08	62.57	-39.20	165.94	6.97
1.624	SLE Q	5	1	18.06	3.08	3.08	47.66	-29.86	126.41	5.31
3.252	SLE R	9	1	36.11	3.08	3.08	13.35	-8.36	35.40	1.49
3.254	SLE Q	9	1	36.11	3.08	3.08	10.50	-6.58	27.84	1.17

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm <sup>2</sup> q>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	10.25	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.18	0.01	0.00
4	0.003	SLE	F	1	19	0.00	11.05	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.30	0.01	0.00
7	1.624	SLE	Q	5	19	18.06	47.66	28.00	134.00	0.50	14.00	93.58	3.08	82.65	126.41	0.04	0.01
8	1.623	SLE	F	5	19	18.06	51.89	28.00	134.00	0.50	14.00	93.58	3.08	82.65	137.63	0.04	0.01
11	3.254	SLE	Q	9	19	36.11	10.50	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.84	0.01	0.00
12	3.253	SLE	F	9	19	36.11	11.31	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.99	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	61.77	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	37.27	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	47.10	2.50	7185.75	7873.13	7185.75	>100

Travata n. 17217

Nodi: 1783 -6014 -6015 -6016 -6017 -6018 -6019 -6020 -6021 1784

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	1	0.00	3.08	3.08	3.08	3.08	-131.05	-1506.47	11.495
3.191	SLU	9	1	32.29	3.08	3.08	3.08	3.08	112.00	1506.47	13.450
3.231	SLU	9	1	35.89	3.08	3.08	3.08	3.08	112.00	1506.47	13.450

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R	1	1	0.00	3.08	3.08	-92.83	246.20	-58.16	10.33
0.004	SLE Q	1	1	0.00	3.08	3.08	-72.29	191.72	-45.29	8.05
3.192	SLE R	9	1	32.29	3.08	3.08	79.73	-49.96	211.46	8.88
3.194	SLE Q	9	1	32.29	3.08	3.08	57.82	-36.23	153.35	6.44
3.232	SLE R	9	1	35.89	3.08	3.08	79.73	-49.96	211.46	8.88
3.234	SLE Q	9	1	35.89	3.08	3.08	57.82	-36.23	153.35	6.44

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm <sup>2</sup> >	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE Q	1	19	0.00	-72.29	28.00	134.00	0.50	14.00	93.58	3.08	82.65		191.72	0.06	0.01
4	0.003	SLE F	1	19	0.00	-78.10	28.00	134.00	0.50	14.00	93.58	3.08	82.65		207.13	0.06	0.01
7	3.194	SLE Q	9	19	32.29	57.82	28.00	134.00	0.50	14.00	93.58	3.08	82.65		153.35	0.04	0.01
8	3.193	SLE F	9	19	32.29	63.96	28.00	134.00	0.50	14.00	93.58	3.08	82.65		169.63	0.05	0.01
11	3.234	SLE Q	9	19	35.89	57.82	28.00	134.00	0.50	14.00	93.58	3.08	82.65		153.35	0.04	0.01
12	3.233	SLE F	9	19	35.89	63.96	28.00	134.00	0.50	14.00	93.58	3.08	82.65		169.63	0.05	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	154.60	2.50	7185.75	7873.13	7185.75	46.481
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	461.33	2.50	7185.75	7873.13	7185.75	15.576
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	461.33	2.50	7185.75	7873.13	7185.75	15.576



Travata n. 17259

Nodi: 1767 -5704 -5705 -5706 -5707 -5708 -5709 -5710 -5711 1768

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cm²>	<cm²>	<cm²>	<cm²>	<daNm>	<daNm>	
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	18.55	1506.47	81.224
1.441	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	88.05	1506.47	17.109
3.251	SLU	9	36.11	3.08	3.08	3.08	3.08	3.08	18.17	1506.47	82.911

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cm²>	<cm²>	<daNm>	<daN/cm²>	<daN/cm²>	<daN/cm²>
0.002	SLE	R	1	0.00	3.08	3.08	13.30	-8.33	35.28	1.48
0.004	SLE	Q	1	0.00	3.08	3.08	10.39	-6.51	27.56	1.16
1.442	SLE	R	5	0.00	3.08	3.08	62.71	-39.30	166.33	6.98
1.444	SLE	Q	5	0.00	3.08	3.08	47.56	-29.80	126.13	5.29
3.252	SLE	R	9	36.11	3.08	3.08	13.03	-8.17	34.56	1.45
3.254	SLE	Q	9	36.11	3.08	3.08	10.22	-6.40	27.11	1.14

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cm²>	<cm²>	<daN/cm²>		<mm>
3	0.004	SLE	Q	1	19	0.00	10.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.56	0.01	0.00
4	0.003	SLE	F	1	19	0.00	11.22	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.76	0.01	0.00
7	1.444	SLE	Q	5	19	0.00	47.56	28.00	134.00	0.50	14.00	93.58	3.08	82.65	126.13	0.04	0.01
8	1.443	SLE	F	5	19	0.00	51.86	28.00	134.00	0.50	14.00	93.58	3.08	82.65	137.53	0.04	0.01
11	3.254	SLE	Q	9	19	36.11	10.22	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.11	0.01	0.00
12	3.253	SLE	F	9	19	36.11	11.02	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.22	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	46.20	2.50	7185.75	7873.13	7185.75>100
1	SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	38.45	2.50	7185.75	7873.13	7185.75>100
1	SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	62.96	2.50	7185.75	7873.13	7185.75>100

Travata n. 17302

Nodi: 1769 -5712 -5713 -5714 -5715 -5716 -5717 -5718 1770

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cm²>	<cm²>	<cm²>	<cm²>	<daNm>	<daNm>	
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-203.56	-1506.47	7.401
1.271	SLU	4	18.13	3.08	3.08	3.08	3.08	3.08	186.95	1506.47	8.058
2.901	SLU	8	36.25	3.08	3.08	3.08	3.08	3.08	-208.60	-1506.47	7.222

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cm²>	<cm²>	<daNm>	<daN/cm²>	<daN/cm²>	<daN/cm²>
0.002	SLE	R	1	0.00	3.08	3.08	-153.73	407.71	-96.32	17.11
0.004	SLE	Q	1	0.00	3.08	3.08	-144.58	383.44	-90.59	16.09
1.272	SLE	R	4	18.13	3.08	3.08	141.33	-88.55	374.83	15.73
1.274	SLE	Q	4	18.13	3.08	3.08	130.46	-81.74	345.99	14.52
2.902	SLE	R	8	36.25	3.08	3.08	-157.50	417.72	-98.69	17.53
2.904	SLE	Q	8	36.25	3.08	3.08	-147.21	390.42	-92.24	16.39

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cm²>	<cm²>	<daN/cm²>		<mm>
3	0.004	SLE	Q	1	19	0.00	-144.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	383.44	0.11	0.02
4	0.003	SLE	F	1	19	0.00	-147.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	390.34	0.11	0.02
7	1.274	SLE	Q	4	19	18.13	130.46	28.00	134.00	0.50	14.00	93.58	3.08	82.65	345.99	0.10	0.02
8	1.273	SLE	F	4	19	18.13	133.57	28.00	134.00	0.50	14.00	93.58	3.08	82.65	354.25	0.10	0.02
11	2.904	SLE	Q	8	19	36.25	-147.21	28.00	134.00	0.50	14.00	93.58	3.08	82.65	390.42	0.11	0.02
12	2.903	SLE	F	8	19	36.25	-150.15	28.00	134.00	0.50	14.00	93.58	3.08	82.65	398.22	0.12	0.02



Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	895.44	2.50	7185.75	7873.13	7185.75	8.025
1 SLU	0.14	2.75	2.61	ø6/ 8 2 br.	7.07	0.20	600.70	2.50	7185.75	7873.13	7185.75	11.962
1 SLU	2.75	2.90	0.14	ø6/ 8 2 br.	7.07	0.20	900.42	2.50	7185.75	7873.13	7185.75	7.980

Travata n. 17345

Nodi: 1771 -5719 -5720 -5721 -5722 -5723 -5724 -5725 -5726 1772

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	22.52	1506.47	66.891
1.611	SLU	5	17.94	3.08	3.08	3.08	3.08	3.08	93.53	1506.47	16.106
3.231	SLU	9	35.89	3.08	3.08	3.08	3.08	3.08	18.07	1506.47	83.372

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	16.11	-10.10	42.73	1.79	
0.004	SLE Q	1	0.00	3.08	3.08	12.97	-8.13	34.40	1.44	
1.612	SLE R	5	17.94	3.08	3.08	66.66	-41.77	176.79	7.42	
1.614	SLE Q	5	17.94	3.08	3.08	51.71	-32.40	137.15	5.76	
3.232	SLE R	9	35.89	3.08	3.08	12.97	-8.12	34.39	1.44	
3.234	SLE Q	9	35.89	3.08	3.08	10.22	-6.40	27.10	1.14	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmqr>		<mm>
3	0.004	SLE	Q	1	19	0.00	12.97	28.00	134.00	0.50	14.00	93.58	3.08	82.65	34.40	0.01	0.00
4	0.003	SLE	F	1	19	0.00	13.86	28.00	134.00	0.50	14.00	93.58	3.08	82.65	36.76	0.01	0.00
7	1.614	SLE	Q	5	19	17.94	51.71	28.00	134.00	0.50	14.00	93.58	3.08	82.65	137.15	0.04	0.01
8	1.613	SLE	F	5	19	17.94	55.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	148.40	0.04	0.01
11	3.234	SLE	Q	9	19	35.89	10.22	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.10	0.01	0.00
12	3.233	SLE	F	9	19	35.89	11.00	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.18	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	61.09	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	36.58	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	49.85	2.50	7185.75	7873.13	7185.75	>100

Travata n. 18024

Nodi: 1799 1855 -6384 1844

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.321	SLU	3	52.50	6.16	3.08	6.16	3.08	-2090.76	-13043.50	6.239	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.322	SLE R	3	52.50	6.16	3.08	-1405.56	411.12	-159.57	12.93	
3.324	SLE Q	3	52.50	6.16	3.08	-983.38	287.63	-111.64	9.05	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	3.324	SLE Q	3	16	52.50	-983.38	28.00	31.33	0.50	14.00	87.83	6.16	140.00	287.63	0.08	0.01	
4	3.323	SLE F	3	16	52.50	-1102.20	28.00	31.33	0.50	14.00	87.83	6.16	140.00	322.39	0.09	0.01	



## Relazione di calcolo

### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1583.33	2.50	7619.38	26714.30	7619.38	4.812
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	968.62	2.50	7619.38	26714.30	7619.38	7.866
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	3150.82	2.50	15238.80	26714.30	15238.80	4.836

### Travata n. 18035

Nodi: 1801 1857 -6387 1851

#### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
3.321	SLU	3	52.50	6.16	3.08	6.16	3.08	3.08	-2198.61	-13043.50	5.933

### Stato limite d'esercizio - Verifiche tensionali

Xg ⌊m⌋	CC	TCC	El	X ⌊cm⌋	AfE S ⌊cmq⌋	AfE I ⌊cmq⌋	My ⌊daNm⌋	σ <sub>f</sub> sup ⌊daN/cmq⌋	σ <sub>f</sub> inf ⌊daN/cmq⌋	σ <sub>c</sub> ⌊daN/cmq⌋
3.322		SLE R	3	52.50	6.16	3.08	-1486.95	434.92	-168.81	13.68
3.324		SLE Q	3	52.50	6.16	3.08	-1053.76	308.22	-119.63	9.70

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	3.324	SLE Q	3	16	52.50	-1053.76	28.00	31.33	0.50	14.00	87.83	6.16	140.00		308.22	0.09	0.01
4	3.323	SLE F	3	16	52.50	-1175.64	28.00	31.33	0.50	14.00	87.83	6.16	140.00		343.87	0.10	0.01

### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1707.53	2.50	7619.38	26714.30	7619.38	4.462
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	1055.71	2.50	7619.38	26714.30	7619.38	7.217
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	3277.75	2.50	15238.80	26714.30	15238.80	4.649

### Travata n. 18052

Nodi: -6391 1845

#### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
26	R	30.00	24.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
1.301	SLU	1	130.00	4.02	4.02	4.02	4.02	4.02	110.98	2704.33	24.368

### Stato limite d'esercizio - Verifiche tensionali

Xg ⌊m⌋	CC	TCC	El	X ⌊cm⌋	AfE S ⌊cmq⌋	AfE I ⌊cmq⌋	My ⌊daNm⌋	σ <sub>f</sub> sup ⌊daN/cmq⌋	σ <sub>f</sub> inf ⌊daN/cmq⌋	σ <sub>c</sub> ⌊daN/cmq⌋
1.302		SLE R	1	130.00	4.02	4.02	78.87	-24.22	108.89	3.44
1.304		SLE Q	1	130.00	4.02	4.02	67.75	-20.81	93.53	2.96

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
6	1.304	SLE Q	1	26	130.00	67.75	27.00	232.00	0.50	16.00	130.55	4.02	174.06		93.53	0.03	0.01
8	1.303	SLE F	1	26	130.00	70.62	27.00	232.00	0.50	16.00	130.55	4.02	174.06		97.49	0.03	0.01

### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.08	1.08	ø6/14 2 br.	4.04	0.30	537.36	2.50	5805.24	9215.72	5805.24	10.803
1 SLU	1.08	1.30	0.22	ø6/14 2 br.	4.04	0.30	644.34	2.50	5805.24	9215.72	5805.24	9.010

### Travata n. 19021

Nodi: 1961 -6535 -6592 -6676 -6791 1908



Relazione di calcolo

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	5	0.00	3.08	3.08	3.08	3.08	-543.97	-1506.47	2.769

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	5	0.00	3.08	3.08	-392.87	1041.94	-246.16	43.73
1.90	4	SLE Q	5	0.00	3.08	3.08	-300.97	798.21	-188.58	33.50

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	5	19	0.00	-300.97	28.00	134.00	0.50	14.00	93.58	3.08	82.65	798.21	0.23	0.04
4	1.90	3	SLE F	5	19	0.00	-327.23	28.00	134.00	0.50	14.00	93.58	3.08	82.65	867.87	0.25	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	434.45	2.50	7185.75	7873.13	7185.75	16.540
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	451.42	2.50	7185.75	7873.13	7185.75	15.918

Travata n. 19022

Nodi: 1962 -6571 -6658 1977 1909

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	4	70.00	3.08	3.08	3.08	3.08	-353.64	-1506.47	4.260

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	4	70.00	3.08	3.08	-255.50	677.62	-160.09	28.44
1.90	4	SLE Q	4	70.00	3.08	3.08	-197.79	524.58	-123.93	22.02

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	4	19	70.00	-197.79	28.00	134.00	0.50	14.00	93.58	3.08	82.65	524.58	0.15	0.02
4	1.90	3	SLE F	4	19	70.00	-214.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	568.03	0.17	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	343.40	2.50	7185.75	7873.13	7185.75	20.925
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	360.37	2.50	7185.75	7873.13	7185.75	19.940

Travata n. 19023

Nodi: 1963 -6572 -6659 1978 -6867 1910

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	5	35.06	4.02	4.02	4.02	4.02	-3242.42	-6450.78	1.990

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
-----------	----	-----	----	-----------	----------------	----------------	--------------	---------------------------------	---------------------------------	-----------------------------



Relazione di calcolo

1.90	2	SLE R	5	35.06	4.02	4.02	-2371.00	1373.06	-276.95	27.42
1.90	4	SLE Q	5	35.06	4.02	4.02	-1927.05	1115.96	-225.10	22.28

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	30	35.06	-1927.05	27.00	232.00	0.50	16.00	294.62	4.02	262.50	1115.96	0.33	0.16
4	1.90	3	SLE F	5	30	35.06	-2052.82	27.00	232.00	0.50	16.00	294.62	4.02	262.50	1188.80	0.35	0.17

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	1831.66	2.50	10241.80	20904.00	10241.80	5.592
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	2812.94	2.50	10241.80	20904.00	10241.80	3.641

Travata n. 19024

Nodi: 1989 -7064 1999 1944

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-303.93	-2142.71	7.050

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.82	2	SLE R	3	332.00	3.08	3.08	-204.69	372.87	-100.00	13.16
4.82	4	SLE Q	3	332.00	3.08	3.08	-159.34	290.26	-77.84	10.24

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-159.34	28.00	114.00	0.50	14.00	102.12	3.08	101.43	290.26	0.08	0.01
4	4.82	3	SLE F	3	18	332.00	-171.30	28.00	114.00	0.50	14.00	102.12	3.08	101.43	312.05	0.09	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2197.32	2.50	7619.38	26714.30	7619.38	3.468
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	337.88	2.50	5079.58	10017.90	5079.58	15.034
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	366.66	2.50	5079.58	10017.90	5079.58	13.854

Travata n. 19027

Nodi: 1992 -7068 2000 1945

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-384.29	-2142.71	5.576

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.82	2	SLE R	3	332.00	3.08	3.08	-275.40	501.68	-134.54	17.70
4.82	4	SLE Q	3	332.00	3.08	3.08	-216.49	394.36	-105.76	13.91

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-216.49	28.00	114.00	0.50	14.00	102.12	3.08	101.43	394.36	0.11	0.02
4	4.82	3	SLE F	3	18	332.00	-233.56	28.00	114.00	0.50	14.00	102.12	3.08	101.43	425.46	0.12	0.02



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1789.40	2.50	7619.38	26714.30	7619.38	4.258
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	387.85	2.50	5079.58	10017.90	5079.58	13.097
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	416.63	2.50	5079.58	10017.90	5079.58	12.192

Travata n. 19028

Nodi: 1964 -6573 -6660 1979 -6868 1911

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1	SLU	5	35.09	4.02	4.02	4.02	4.02	-4329.89	-6450.78	1.490

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	1	SLE R	5	35.09	4.02	4.02	-3155.70	1827.48	-368.62	36.49
1.904	1	SLE Q	5	35.09	4.02	4.02	-2502.50	1449.21	-292.32	28.94

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904	1	SLE Q	5	30	35.09	-2502.50	27.00	232.00	0.50	16.00	294.62	4.02	262.50	1449.21	0.48	0.24
4	1.903	1	SLE F	5	30	35.09	-2689.25	27.00	232.00	0.50	16.00	294.62	4.02	262.50	1557.36	0.45	0.23

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2391.36	2.50	10241.80	20904.00	10241.80	4.283
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	2995.22	2.50	10241.80	20904.00	10241.80	3.419

Travata n. 19029

Nodi: 1965 -6574 -6661 1980 1912

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1	SLU	4	70.00	3.08	3.08	3.08	3.08	-329.01	-1506.47	4.579

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	1	SLE R	4	70.00	3.08	3.08	-237.74	630.53	-148.96	26.47
1.904	1	SLE Q	4	70.00	3.08	3.08	-183.72	487.25	-115.11	20.45

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904	1	SLE Q	4	19	70.00	-183.72	28.00	134.00	0.50	14.00	93.58	3.08	82.65	487.25	0.14	0.02
4	1.903	1	SLE F	4	19	70.00	-199.06	28.00	134.00	0.50	14.00	93.58	3.08	82.65	527.93	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	297.15	2.50	7185.75	7873.13	7185.75	24.183
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	314.11	2.50	7185.75	7873.13	7185.75	22.876

Travata n. 19032

Nodi: 1967 -6532 -6603 -6682 -6792 1915

Caratteristiche delle sezioni e dei materiali utilizzati



Relazione di calcolo

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	38.00	3.08	3.08	3.08	3.08	-525.67	-1506.47	2.866

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	38.00	3.08	3.08	-379.74	1007.13	-237.93	42.27
1.90	4	SLE Q	5	38.00	3.08	3.08	-291.61	773.40	-182.72	32.46

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	19	38.00	-291.61	28.00	134.00	0.50	14.00	93.58	3.08	82.65	773.40	0.23	0.04
4	1.90	3	SLE F	5	19	38.00	-316.76	28.00	134.00	0.50	14.00	93.58	3.08	82.65	840.10	0.24	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	427.52	2.50	7185.75	7873.13	7185.75	16.808
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	444.48	2.50	7185.75	7873.13	7185.75	16.166

Travata n. 19033

Nodi: 1968 -6575 -6662 1981 -6870 1916

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	35.44	3.08	3.08	3.08	3.08	-359.50	-1506.47	4.190

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	35.44	3.08	3.08	-259.64	688.60	-162.68	28.90
1.90	4	SLE Q	5	35.44	3.08	3.08	-200.59	532.00	-125.68	22.33

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	19	35.44	-200.59	28.00	134.00	0.50	14.00	93.58	3.08	82.65	532.00	0.15	0.02
4	1.90	3	SLE F	5	19	35.44	-217.33	28.00	134.00	0.50	14.00	93.58	3.08	82.65	576.38	0.17	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	393.55	2.50	7185.75	7873.13	7185.75	18.259
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	410.52	2.50	7185.75	7873.13	7185.75	17.504

Travata n. 19035

Nodi: 1993 -7069 2001 1951

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-340.32	-2142.71	6.296

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>			



Relazione di calcolo

								<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>
4.82	2	SLE R	3	332.00	3.08	3.08	-232.60	423.71	-113.63	14.95
4.82	4	SLE Q	3	332.00	3.08	3.08	-185.99	338.81	-90.86	11.95

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg<sup><m></sup></th>	CC	TCC	El	Sez.	X<sup><cm></sup></th>	My<sup><daNm></sup></th>	c<sup><mm></sup></th>	s<sup><mm></sup></th>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <sup><mm></sup></th>	A <sub>s</sub> <sup><cm<sup>q</sup></th></th>	A <sub>c eff</sub> <sup><cm<sup>q</sup></th></th>	σ <sub>s</sub> <sup><daN/cm<sup>q</sup></th></th>	ε <sub>sm</sub>	Wk<sup><mm></sup></th>
3	4.82	4	SLE Q	3	18	332.00	-185.99	28.00	114.00	0.50	14.00	102.12	3.08	101.43	338.81	0.10	0.02
4	4.82	3	SLE F	3	18	332.00	-198.37	28.00	114.00	0.50	14.00	102.12	3.08	101.43	361.36	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0<sup><m></sup></th>	X1<sup><m></sup></th>	Lung.<sup><m></sup></th>	Staff.	AfE St.<sup><cm<sup>q</sup></th></th>	bw<sup><m></sup></th>	Vsdu<sup><daN></sup></th>	ctgθ	VRsd<sup><daN></sup></th>	VRcd<sup><daN></sup></th>	Vrdu<sup><daN></sup></th>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2074.47	2.50	7619.38	26714.30	7619.38	3.673
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	357.77	2.50	5079.58	10017.90	5079.58	14.198
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	386.56	2.50	5079.58	10017.90	5079.58	13.141

Travata n. 19036

Nodi: 1969 -6576 -6663 1982 -6871 1917

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B<sup><cm></sup></th>	H<sup><cm></sup></th>	Cf sup<sup><cm></sup></th>	Cf inf<sup><cm></sup></th>	Fcm<sup><daN/cm<sup>q</sup></th></th>	Fctm<sup><daN/cm<sup>q</sup></th></th>	Fcd<sup><daN/cm<sup>q</sup></th></th>	Fcd (Tag)<sup><daN/cm<sup>q</sup></th></th>	Fctd<sup><daN/cm<sup>q</sup></th></th>	Fym<sup><daN/cm<sup>q</sup></th></th>	Fyd<sup><daN/cm<sup>q</sup></th></th>	Fyd (Tag)<sup><daN/cm<sup>q</sup></th></th>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg<sup><m></sup></th>	CC	TCC	El	X<sup><cm></sup></th>	AfE S<sup><cm<sup>q</sup></th></th>	AfE I<sup><cm<sup>q</sup></th></th>	AfEP S<sup><cm<sup>q</sup></th></th>	AfEP I<sup><cm<sup>q</sup></th></th>	My<sup><daNm></sup></th>	MRdy<sup><daNm></sup></th>	Sic.
1.90	1	SLU	5	35.43	4.02	4.02	4.02	4.02	-3659.67	-6450.78	1.763

Stato limite d'esercizio - Verifiche tensionali

Xg<sup><m></sup></th>	CC	TCC	El	X<sup><cm></sup></th>	AfE S<sup><cm<sup>q</sup></th></th>	AfE I<sup><cm<sup>q</sup></th></th>	My<sup><daNm></sup></th>	σ <sub>f</sub> sup<sup><daN/cm<sup>q</sup></th></th>	σ <sub>f</sub> inf<sup><daN/cm<sup>q</sup></th></th>	σ <sub>c</sub> <sup><daN/cm<sup>q</sup></th></th>
1.90	2	SLE R	5	35.43	4.02	4.02	-2671.22	1546.91	-312.02	30.89
1.90	4	SLE Q	5	35.43	4.02	4.02	-2142.36	1240.65	-250.25	24.77

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg<sup><m></sup></th>	CC	TCC	El	Sez.	X<sup><cm></sup></th>	My<sup><daNm></sup></th>	c<sup><mm></sup></th>	s<sup><mm></sup></th>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <sup><mm></sup></th>	A <sub>s</sub> <sup><cm<sup>q</sup></th></th>	A <sub>c eff</sub> <sup><cm<sup>q</sup></th></th>	σ <sub>s</sub> <sup><daN/cm<sup>q</sup></th></th>	ε <sub>sm</sub>	Wk<sup><mm></sup></th>
3	1.90	4	SLE Q	5	30	35.43	-2142.36	27.00	232.00	0.50	16.00	294.62	4.02	262.50	1240.65	0.37	0.19
4	1.90	3	SLE F	5	30	35.43	-2293.03	27.00	232.00	0.50	16.00	294.62	4.02	262.50	1327.90	0.39	0.19

Stato limite ultimo - Verifiche a taglio

CC	X0<sup><m></sup></th>	X1<sup><m></sup></th>	Lung.<sup><m></sup></th>	Staff.	AfE St.<sup><cm<sup>q</sup></th></th>	bw<sup><m></sup></th>	Vsdu<sup><daN></sup></th>	ctgθ	VRsd<sup><daN></sup></th>	VRcd<sup><daN></sup></th>	Vrdu<sup><daN></sup></th>	Sic.
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	2178.65	2.50	10241.80	20904.00	10241.80	4.701
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	2663.03	2.50	10241.80	20904.00	10241.80	3.846

Travata n. 19040

Nodi: 1970 -6577 -6664 1983 -6872 1918

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B<sup><cm></sup></th>	H<sup><cm></sup></th>	Cf sup<sup><cm></sup></th>	Cf inf<sup><cm></sup></th>	Fcm<sup><daN/cm<sup>q</sup></th></th>	Fctm<sup><daN/cm<sup>q</sup></th></th>	Fcd<sup><daN/cm<sup>q</sup></th></th>	Fcd (Tag)<sup><daN/cm<sup>q</sup></th></th>	Fctd<sup><daN/cm<sup>q</sup></th></th>	Fym<sup><daN/cm<sup>q</sup></th></th>	Fyd<sup><daN/cm<sup>q</sup></th></th>	Fyd (Tag)<sup><daN/cm<sup>q</sup></th></th>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg<sup><m></sup></th>	CC	TCC	El	X<sup><cm></sup></th>	AfE S<sup><cm<sup>q</sup></th></th>	AfE I<sup><cm<sup>q</sup></th></th>	AfEP S<sup><cm<sup>q</sup></th></th>	AfEP I<sup><cm<sup>q</sup></th></th>	My<sup><daNm></sup></th>	MRdy<sup><daNm></sup></th>	Sic.
1.90	1	SLU	5	35.41	6.03	4.02	6.03	4.02	-3722.62	-9551.64	2.566

Stato limite d'esercizio - Verifiche tensionali

Xg<sup><m></sup></th>	CC	TCC	El	X<sup><cm></sup></th>	AfE S<sup><cm<sup>q</sup></th></th>	AfE I<sup><cm<sup>q</sup></th></th>	My<sup><daNm></sup></th>	σ <sub>f</sub> sup<sup><daN/cm<sup>q</sup></th></th>	σ <sub>f</sub> inf<sup><daN/cm<sup>q</sup></th></th>	σ <sub>c</sub> <sup><daN/cm<sup>q</sup></th></th>
1.90	2	SLE R	5	35.41	6.03	4.02	-2718.85	1064.09	-295.95	27.11
1.90	4	SLE Q	5	35.41	6.03	4.02	-2174.13	850.90	-236.66	21.68

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg<sup><m></sup></th>	CC	TCC	El	Sez.	X<sup><cm></sup></th>	My<sup><daNm></sup></th>	c<sup><mm></sup></th>	s<sup><mm></sup></th>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <sup><mm></sup></th>	A <sub>s</sub> <sup><cm<sup>q</sup></th></th>	A <sub>c eff</sub> <sup><cm<sup>q</sup></th></th>	σ <sub>s</sub> <sup><daN/cm<sup>q</sup></th></th>	ε <sub>sm</sub>	Wk<sup><mm></sup></th>
3	1.90	4	SLE Q	5	30	35.41	-2174.13	27.00	116.00	0.50	16.00	123.63	6.03	262.50	850.90	0.25	0.05
4	1.90	3	SLE F	5	30	35.41	-2329.64	27.00	116.00	0.50	16.00	123.63	6.03	262.50	911.76	0.27	0.06

Stato limite ultimo - Verifiche a taglio



Relazione di calcolo

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.38	1.38	ø6/18 2 br.	3.14	0.30	2119.11	2.50	10241.80	20904.00	10241.80	4.833
1 SLU	1.38	1.90	0.52	ø6/18 2 br.	3.14	0.30	2633.11	2.50	10241.80	20904.00	10241.80	3.890

Travata n. 19041

Nodi: 1996 -7073 2002 1952

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
4.821	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-394.98	-2142.71	5.425

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	2	SLE R	3	332.00	3.08	3.08	-283.49	516.41	-138.49	18.22
4.824	4	SLE Q	3	332.00	3.08	3.08	-223.22	406.63	-109.05	14.35

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	4.824	4	SLE Q	3	18	332.00	-223.22	28.00	114.00	0.50	14.00	102.12	3.08	101.43	406.63	0.12	0.02
4	4.823	3	SLE F	3	18	332.00	-240.68	28.00	114.00	0.50	14.00	102.12	3.08	101.43	438.43	0.13	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1709.65	2.50	7619.38	26714.30	7619.38	4.457
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	389.40	2.50	5079.58	10017.90	5079.58	13.045
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	418.18	2.50	5079.58	10017.90	5079.58	12.147

Travata n. 19042

Nodi: 1971 -6578 -6665 1984 -6873 1919

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1	SLU	5	35.43	3.08	3.08	3.08	3.08	-333.84	-1506.47	4.513

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	2	SLE R	5	35.43	3.08	3.08	-240.90	638.90	-150.94	26.82
1.904	4	SLE Q	5	35.43	3.08	3.08	-184.75	489.99	-115.76	20.57

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904	4	SLE Q	5	19	35.43	-184.75	28.00	134.00	0.50	14.00	93.58	3.08	82.65	489.99	0.14	0.02
4	1.903	3	SLE F	5	19	35.43	-200.64	28.00	134.00	0.50	14.00	93.58	3.08	82.65	532.12	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	381.36	2.50	7185.75	7873.13	7185.75	18.843
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	398.32	2.50	7185.75	7873.13	7185.75	18.040

Travata n. 19070

Nodi: 2000 1856 -6386 1845

Caratteristiche delle sezioni e dei materiali utilizzati



Relazione di calcolo

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
3.321	SLU	3	52.50	3.08	3.08	3.08	3.08	3.08	-2917.54	-6639.53	2.276

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
3.322	SLE R	3	52.50	3.08	3.08	-1946.39	1109.28	-257.87	22.69	
3.324	SLE Q	3	52.50	3.08	3.08	-1385.30	789.50	-183.53	16.15	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.324	SLE Q	3	16	52.50	-1385.30	28.00	94.00	0.50	14.00	119.66	3.08	140.00		789.50	0.23	0.05
4	3.323	SLE F	3	16	52.50	-1535.66	28.00	94.00	0.50	14.00	119.66	3.08	140.00		875.19	0.25	0.05

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	2000.29	2.50	7619.38	26714.30	7619.38	3.809
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	1007.39	2.50	7619.38	26714.30	7619.38	7.563
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	3990.00	2.50	15238.80	26714.30	15238.80	3.819

Travata n. 19084

Nodi: 2002 1858 -6389 1852

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
3.321	SLU	3	52.50	3.08	3.08	3.08	3.08	3.08	-3323.76	-6639.53	1.998

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
3.322	SLE R	3	52.50	3.08	3.08	-2250.27	1282.46	-298.13	26.23	
3.324	SLE Q	3	52.50	3.08	3.08	-1631.40	929.76	-216.14	19.02	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.324	SLE	Q	3	16	52.50	-1631.40	28.00	94.00	0.50	14.00	119.66	3.08	140.00	929.76	0.27	0.06
4	3.323	SLE	F	3	16	52.50	-1799.00	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1025.28	0.30	0.06

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	2242.13	2.50	7619.38	26714.30	7619.38	3.398
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	765.55	2.50	7619.38	26714.30	7619.38	9.953
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	4418.50	2.50	15238.80	26714.30	15238.80	3.449

Travata n. 19088

Nodi: 1977 -6757 -6758 -6759 -6760 -6761 -6762 -6763 1978

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	68.73	1506.47	21.918
1.601	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	69.24	1506.47	21.757
3.201	SLU	8	40.00	3.08	3.08	3.08	3.08	3.08	-95.55	-1506.47	15.766



Relazione di calcolo

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE	R	1	0.00	3.08	3.08	49.22	-30.84	130.55	5.48
0.004	SLE	Q	1	0.00	3.08	3.08	35.86	-22.47	95.10	3.99
1.602	SLE	R	5	0.00	3.08	3.08	49.39	-30.94	130.98	5.50
1.604	SLE	Q	5	0.00	3.08	3.08	40.00	-25.06	106.07	4.45
3.202	SLE	R	8	40.00	3.08	3.08	-67.20	178.22	-42.10	7.48
3.204	SLE	Q	8	40.00	3.08	3.08	-49.58	131.50	-31.07	5.52

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
6	0.004	SLE	Q	1	19	0.00	35.86	28.00	134.00	0.50	14.00	93.58	3.08	82.65	95.10	0.03	0.00
8	0.003	SLE	F	1	19	0.00	39.78	28.00	134.00	0.50	14.00	93.58	3.08	82.65	105.51	0.03	0.00
11	1.604	SLE	Q	5	19	0.00	40.00	28.00	134.00	0.50	14.00	93.58	3.08	82.65	106.07	0.03	0.00
12	1.603	SLE	F	5	19	0.00	42.49	28.00	134.00	0.50	14.00	93.58	3.08	82.65	112.69	0.03	0.01
15	3.204	SLE	Q	8	19	40.00	-49.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	131.50	0.04	0.01
16	3.203	SLE	F	8	19	40.00	-54.47	28.00	134.00	0.50	14.00	93.58	3.08	82.65	144.47	0.04	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	424.18	2.50	7185.75	7873.13	7185.75	16.940
1 SLU	0.14	3.06	2.91	ø6/ 8 2 br.	7.07	0.20	424.18	2.50	7185.75	7873.13	7185.75	16.940
1 SLU	3.06	3.20	0.14	ø6/ 8 2 br.	7.07	0.20	106.90	2.50	7185.75	7873.13	7185.75	67.217

Travata n. 19130

Nodi: 1961 -6446 -6447 -6448 -6449 -6450 -6451 -6452 -6453 1962

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	18.34	1506.47	82.149
1.441	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	82.93	1506.47	18.166
3.251	SLU	9	36.11	3.08	3.08	3.08	3.08	3.08	15.86	1506.47	94.958

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE	R	1	0.00	3.08	3.08	13.12	-8.22	34.81	1.46
0.004	SLE	Q	1	0.00	3.08	3.08	10.21	-6.40	27.07	1.14
1.442	SLE	R	5	0.00	3.08	3.08	58.95	-36.94	156.35	6.56
1.444	SLE	Q	5	0.00	3.08	3.08	43.91	-27.51	116.44	4.89
3.252	SLE	R	9	36.11	3.08	3.08	11.36	-7.12	30.12	1.26
3.254	SLE	Q	9	36.11	3.08	3.08	8.64	-5.41	22.91	0.96

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	10.21	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.07	0.01	0.00
4	0.003	SLE	F	1	19	0.00	11.03	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.26	0.01	0.00
7	1.444	SLE	Q	5	19	0.00	43.91	28.00	134.00	0.50	14.00	93.58	3.08	82.65	116.44	0.03	0.01
8	1.443	SLE	F	5	19	0.00	48.16	28.00	134.00	0.50	14.00	93.58	3.08	82.65	127.72	0.04	0.01
11	3.254	SLE	Q	9	19	36.11	8.64	28.00	134.00	0.50	14.00	93.58	3.08	82.65	22.91	0.01	0.00
12	3.253	SLE	F	9	19	36.11	9.41	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.96	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	46.68	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	35.96	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	60.46	2.50	7185.75	7873.13	7185.75	>100

Travata n. 19131

Nodi: 1979 -6764 -6765 -6766 -6767 -6768 -6769 -6770 1980

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
-----------	-----------	-----------	----------------	----------------	------------------	-------------------	------------------	------------------------	-------------------	------------------	------------------	------------------------



Relazione di calcolo

19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
----	---	-------	-------	------	------	--------	-------	--------	--------	-------	---------	---------	---------

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-209.71	-1506.47	7.184
3.14	1	SLU	8	36.15	3.08	3.08	3.08	3.08	118.35	1506.47	12.729
3.18	1	SLU	8	39.75	3.08	3.08	3.08	3.08	118.35	1506.47	12.729

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-149.14	395.53	-93.44	16.60
0.00	4	SLE Q	1	0.00	3.08	3.08	-114.77	304.39	-71.91	12.78
3.14	2	SLE R	8	36.15	3.08	3.08	84.92	-53.21	225.22	9.45
3.14	4	SLE Q	8	36.15	3.08	3.08	64.58	-40.47	171.29	7.19
3.18	2	SLE R	8	39.75	3.08	3.08	84.92	-53.21	225.22	9.45
3.18	4	SLE Q	8	39.75	3.08	3.08	64.58	-40.47	171.29	7.19

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-114.77	28.00	134.00	0.50	14.00	93.58	3.08	82.65	304.39	0.09	0.01
4	0.00	3	SLE F	1	19	0.00	-124.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	329.89	0.10	0.02
7	3.14	4	SLE Q	8	19	36.15	64.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	171.29	0.05	0.01
8	3.14	3	SLE F	8	19	36.15	70.45	28.00	134.00	0.50	14.00	93.58	3.08	82.65	186.85	0.05	0.01
11	3.18	4	SLE Q	8	19	39.75	64.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	171.29	0.05	0.01
12	3.18	3	SLE F	8	19	39.75	70.45	28.00	134.00	0.50	14.00	93.58	3.08	82.65	186.85	0.05	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	139.34	2.50	7185.75	7873.13	7185.75
1	SLU	0.14	3.04	2.89	ø6/ 8 2 br.	7.07	0.20	483.48	2.50	7185.75	7873.13	7185.75
1	SLU	3.04	3.18	0.14	ø6/ 8 2 br.	7.07	0.20	483.48	2.50	7185.75	7873.13	7185.75

Travata n. 19173

Nodi: 1963 -6454 -6455 -6456 -6457 -6458 -6459 -6460 1964

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-28.32	-1506.47	53.192
1.12	1	SLU	4	0.00	3.08	3.08	3.08	3.08	52.40	1506.47	28.752
3.00	1	SLU	8	37.50	3.08	3.08	3.08	3.08	-118.45	-1506.47	12.718

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-20.10	53.31	-12.59	2.24
0.00	4	SLE Q	1	0.00	3.08	3.08	-16.09	42.67	-10.08	1.79
1.12	2	SLE R	4	0.00	3.08	3.08	38.60	-24.19	102.39	4.30
1.12	4	SLE Q	4	0.00	3.08	3.08	28.23	-17.69	74.87	3.14
3.00	2	SLE R	8	37.50	3.08	3.08	-85.04	225.54	-53.28	9.47
3.00	4	SLE Q	8	37.50	3.08	3.08	-65.35	173.32	-40.95	7.27

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-16.09	28.00	134.00	0.50	14.00	93.58	3.08	82.65	42.67	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	-17.17	28.00	134.00	0.50	14.00	93.58	3.08	82.65	45.54	0.01	0.00
7	1.12	4	SLE Q	4	19	0.00	28.23	28.00	134.00	0.50	14.00	93.58	3.08	82.65	74.87	0.02	0.00
8	1.12	3	SLE F	4	19	0.00	31.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.85	0.02	0.00
11	3.00	4	SLE Q	8	19	37.50	-65.35	28.00	134.00	0.50	14.00	93.58	3.08	82.65	173.32	0.05	0.01
12	3.00	3	SLE F	8	19	37.50	-70.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	188.18	0.05	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	115.10	2.50	7185.75	7873.13	7185.75
1	SLU	0.14	2.85	2.71	ø6/ 8 2 br.	7.07	0.20	189.11	2.50	7185.75	7873.13	7185.75
1	SLU	2.85	3.00	0.14	ø6/ 8 2 br.	7.07	0.20	213.62	2.50	7185.75	7873.13	7185.75



Travata n. 19174

Nodi: 1981 -6771 -6772 -6773 -6774 -6775 -6776 -6777 -6778 1982

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>	Afe I <cm<sup>q>	AfeP S <cm<sup>q>	AfeP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	136.73	1506.47	11.018
3.251	SLU	9	36.11	3.08	3.08	3.08	3.08	3.08	-188.35	-1506.47	7.998

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>e</sub> sup <daN/cmq>	σ <sub>e</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	98.41	-61.66	260.99	10.95	
0.004	SLE Q	1	0.00	3.08	3.08	75.36	-47.22	199.85	8.39	
3.252	SLE R	9	36.11	3.08	3.08	-133.88	355.08	-83.89	14.90	
3.254	SLE Q	9	36.11	3.08	3.08	-101.77	269.91	-63.77	11.33	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c</sub> eff <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	75.36	28.00	134.00	0.50	14.00	93.58	3.08	82.65	199.85	0.06	0.01
4	0.003	SLE	F	1	19	0.00	82.02	28.00	134.00	0.50	14.00	93.58	3.08	82.65	217.52	0.06	0.01
7	3.254	SLE	Q	9	19	36.11	-101.77	28.00	134.00	0.50	14.00	93.58	3.08	82.65	269.91	0.08	0.01
8	3.253	SLE	F	9	19	36.11	-110.76	28.00	134.00	0.50	14.00	93.58	3.08	82.65	293.75	0.09	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1	Lung. <m>	Staff.	Afe St. <cm<sup>q>/m</sup>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	578.60	2.50	7185.75	7873.13	7185.75	12.419
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	578.60	2.50	7185.75	7873.13	7185.75	12.419
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	189.53	2.50	7185.75	7873.13	7185.75	37.914

Travata n. 19216

Nodi: 1965 -6461 -6462 -6463 -6464 -6465 -6466 -6467 -6468 1966

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>	Afe I <cm<sup>q>	AfeP S <cm<sup>q>	AfeP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	19.84	1506.47	75.914
1.621	SLU	5	18.06	3.08	3.08	3.08	3.08	3.08	93.87	1506.47	16.048
3.251	SLU	9	36.11	3.08	3.08	3.08	3.08	3.08	19.79	1506.47	76.138

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>e</sub> sup <daN/cmq>	σ <sub>e</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	14.26	-8.93	37.81	1.59	
0.004	SLE Q	1	0.00	3.08	3.08	11.10	-6.95	29.44	1.24	
1.622	SLE R	5	18.06	3.08	3.08	67.00	-41.98	177.70	7.46	
1.624	SLE Q	5	18.06	3.08	3.08	50.67	-31.75	134.40	5.64	
3.252	SLE R	9	36.11	3.08	3.08	14.22	-8.91	37.71	1.58	
3.254	SLE Q	9	36.11	3.08	3.08	11.12	-6.97	29.50	1.24	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	11.10	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.44	0.01	0.00
4	0.003	SLE	F	1	19	0.00	11.99	28.00	134.00	0.50	14.00	93.58	3.08	82.65	31.80	0.01	0.00
7	1.624	SLE	Q	5	19	18.06	50.67	28.00	134.00	0.50	14.00	93.58	3.08	82.65	134.40	0.04	0.01
8	1.623	SLE	F	5	19	18.06	55.27	28.00	134.00	0.50	14.00	93.58	3.08	82.65	146.58	0.04	0.01
11	3.254	SLE	Q	9	19	36.11	11.12	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.50	0.01	0.00
12	3.253	SLE	F	9	19	36.11	11.99	28.00	134.00	0.50	14.00	93.58	3.08	82.65	31.81	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
----	----	----	-------	--------	---------	----	------	------	------	------	------	------



Relazione di calcolo

	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	64.25	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	39.74	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	47.67	2.50	7185.75	7873.13	7185.75	>100

Travata n. 19217

Nodi: 1983 -6779 -6780 -6781 -6782 -6783 -6784 -6785 -6786 1984

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-162.07	-1506.47	9.295
3.19	1	SLU	9	32.29	3.08	3.08	3.08	3.08	136.97	1506.47	10.998
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	136.97	1506.47	10.998

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	My <daNm>	σ <sub>ε</sub> sup <daN/cm>	σ <sub>ε</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
0.00	2	SLE R	1	0.00	3.08	3.08	-114.61	303.97	-71.81	12.76
0.00	4	SLE Q	1	0.00	3.08	3.08	-87.09	230.97	-54.57	9.69
3.19	2	SLE R	9	32.29	3.08	3.08	98.04	-61.43	260.03	10.91
3.19	4	SLE Q	9	32.29	3.08	3.08	75.40	-47.24	199.96	8.39
3.23	2	SLE R	9	35.89	3.08	3.08	98.04	-61.43	260.03	10.91
3.23	4	SLE Q	9	35.89	3.08	3.08	75.40	-47.24	199.96	8.39

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm>	A <sub>c eff</sub> <cm>	σ <sub>s</sub> <daN/cm>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	-87.09	28.00	134.00	0.50	14.00	93.58	3.08	82.65	230.97	0.07	0.01
4	0.00	3	SLE F	1	19	0.00	-94.77	28.00	134.00	0.50	14.00	93.58	3.08	82.65	251.34	0.07	0.01
7	3.19	4	SLE Q	9	19	32.29	75.40	28.00	134.00	0.50	14.00	93.58	3.08	82.65	199.96	0.06	0.01
8	3.19	3	SLE F	9	19	32.29	81.89	28.00	134.00	0.50	14.00	93.58	3.08	82.65	217.18	0.06	0.01
11	3.23	4	SLE Q	9	19	35.89	75.40	28.00	134.00	0.50	14.00	93.58	3.08	82.65	199.96	0.06	0.01
12	3.23	3	SLE F	9	19	35.89	81.89	28.00	134.00	0.50	14.00	93.58	3.08	82.65	217.18	0.06	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	132.03	2.50	7185.75	7873.13	7185.75	54.424
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	510.19	2.50	7185.75	7873.13	7185.75	14.085
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	510.19	2.50	7185.75	7873.13	7185.75	14.085

Travata n. 19259

Nodi: 1967 -6469 -6470 -6471 -6472 -6473 -6474 -6475 -6476 1968

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	20.41	1506.47	73.817
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	94.90	1506.47	15.874
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	18.88	1506.47	79.775

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	My <daNm>	σ <sub>ε</sub> sup <daN/cm>	σ <sub>ε</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
0.00	2	SLE R	1	0.00	3.08	3.08	14.66	-9.18	38.87	1.63
0.00	4	SLE Q	1	0.00	3.08	3.08	11.39	-7.13	30.20	1.27
1.44	2	SLE R	5	0.00	3.08	3.08	67.64	-42.38	179.40	7.53
1.44	4	SLE Q	5	0.00	3.08	3.08	50.79	-31.83	134.72	5.65
3.25	2	SLE R	9	36.11	3.08	3.08	13.55	-8.49	35.92	1.51
3.25	4	SLE Q	9	36.11	3.08	3.08	10.54	-6.60	27.95	1.17

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm>	A <sub>c eff</sub> <cm>	σ <sub>s</sub> <daN/cm>	ε <sub>sm</sub>	Wk <mm>
------	-----------	----	-----	----	------	-----------	--------------	-----------	-----------	----------------	-----------------	-------------------------	------------------------	----------------------------	----------------------------	-----------------	------------



Relazione di calcolo

3	0.00	4	SLE Q	1	19	0.00	11.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	30.20	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	12.31	28.00	134.00	0.50	14.00	93.58	3.08	82.65	32.65	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	50.79	28.00	134.00	0.50	14.00	93.58	3.08	82.65	134.72	0.04	0.01
8	1.44	3	SLE F	5	19	0.00	55.53	28.00	134.00	0.50	14.00	93.58	3.08	82.65	147.27	0.04	0.01
11	3.25	4	SLE Q	9	19	36.11	10.54	28.00	134.00	0.50	14.00	93.58	3.08	82.65	27.95	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	11.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	30.20	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	45.79	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	42.19	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	66.69	2.50	7185.75	7873.13	7185.75	>100

Travata n. 19302

Nodi: 1969 -6477 -6478 -6479 -6480 -6481 -6482 -6483 1970

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-62.24	-1506.47	24.205
1.45	1	SLU	5	0.00	3.08	3.08	3.08	3.08	45.57	1506.47	33.057
2.90	1	SLU	8	36.25	3.08	3.08	3.08	3.08	-74.81	-1506.47	20.137

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm<sup>q>	σ <sub>f</sub> inf <daN/cm<sup>q>	σ <sub>c</sub> <daN/cm<sup>q>
0.00	2	SLE R	1	0.00	3.08	3.08	-44.52	118.08	-27.90	4.96
0.00	4	SLE Q	1	0.00	3.08	3.08	-34.76	92.18	-21.78	3.87
1.45	2	SLE R	5	0.00	3.08	3.08	33.53	-21.01	88.92	3.73
1.45	4	SLE Q	5	0.00	3.08	3.08	24.24	-15.19	64.29	2.70
2.90	2	SLE R	8	36.25	3.08	3.08	-53.87	142.87	-33.75	6.00
2.90	4	SLE Q	8	36.25	3.08	3.08	-41.74	110.70	-26.15	4.65

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm<sup>q>	A <sub>c eff</sub> <cm<sup>q>	σ <sub>s</sub> <daN/cm<sup>q>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	-34.76	28.00	134.00	0.50	14.00	93.58	3.08	82.65	92.18	0.03	0.00
4	0.00	3	SLE F	1	19	0.00	-37.49	28.00	134.00	0.50	14.00	93.58	3.08	82.65	99.44	0.03	0.00
7	1.45	4	SLE Q	5	19	0.00	24.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	64.29	0.02	0.00
8	1.45	3	SLE F	5	19	0.00	26.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	71.44	0.02	0.00
11	2.90	4	SLE Q	8	19	36.25	-41.74	28.00	134.00	0.50	14.00	93.58	3.08	82.65	110.70	0.03	0.01
12	2.90	3	SLE F	8	19	36.25	-45.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	119.82	0.03	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	152.87	2.50	7185.75	7873.13	7185.75	47.005
1 SLU	0.14	2.75	2.61	ø6/ 8 2 br.	7.07	0.20	147.25	2.50	7185.75	7873.13	7185.75	48.798
1 SLU	2.75	2.90	0.14	ø6/ 8 2 br.	7.07	0.20	171.76	2.50	7185.75	7873.13	7185.75	41.836

Travata n. 19345

Nodi: 1971 -6484 -6485 -6486 -6487 -6488 -6489 -6490 -6491 1972

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	24.35	1506.47	61.862
1.61	1	SLU	5	17.94	3.08	3.08	3.08	3.08	102.93	1506.47	14.636
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	20.62	1506.47	73.071

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm<sup>q>	σ <sub>f</sub> inf <daN/cm<sup>q>	σ <sub>c</sub> <daN/cm<sup>q>
0.00	2	SLE R	1	0.00	3.08	3.08	17.47	-10.95	46.33	1.94
0.00	4	SLE Q	1	0.00	3.08	3.08	13.75	-8.61	36.47	1.53



Relazione di calcolo

1.61	2	SLE R	5	17.94	3.08	3.08	73.38	-45.98	194.61	8.17
1.61	4	SLE Q	5	17.94	3.08	3.08	56.04	-35.11	148.63	6.24
3.23	2	SLE R	9	35.89	3.08	3.08	14.75	-9.24	39.12	1.64
3.23	4	SLE Q	9	35.89	3.08	3.08	11.52	-7.22	30.55	1.28

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	InEl	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	13.75	28.00	134.00	0.50	14.00	93.58	3.08	82.65	36.47	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	14.79	28.00	134.00	0.50	14.00	93.58	3.08	82.65	39.23	0.01	0.00
7	1.61	4	SLE Q	5	19	17.94	56.04	28.00	134.00	0.50	14.00	93.58	3.08	82.65	148.63	0.04	0.01
8	1.61	3	SLE F	5	19	17.94	60.87	28.00	134.00	0.50	14.00	93.58	3.08	82.65	161.43	0.05	0.01
11	3.23	4	SLE Q	9	19	35.89	11.52	28.00	134.00	0.50	14.00	93.58	3.08	82.65	30.55	0.01	0.00
12	3.23	3	SLE F	9	19	35.89	12.41	28.00	134.00	0.50	14.00	93.58	3.08	82.65	32.91	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <cm>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	63.31	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	38.81	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	51.41	2.50	7185.75	7873.13	7185.75	>100

Travate n. 3020 5020 7020 9020 11020 13020 15020 17020 19020

3020 (a) Nodi: 307 325 341  
5020 (b) Nodi: 507 525 541  
7020 (c) Nodi: 707 725 741  
9020 (d) Nodi: 907 925 941  
11020 (e) Nodi: 1107 1125 1141  
13020 (f) Nodi: 1307 1325 1341  
15020 (g) Nodi: 1507 1525 1541  
17020 (h) Nodi: 1707 1725 1741  
19020 (i) Nodi: 1907 1925 1941

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
31R	50.00	24.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	InEl	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.35	1	SLU i	1	35.00	8.04	8.04	8.04	8.04	-1066.66	-5327.58	4.995
0.50	1	SLU i	1	50.00	8.04	8.04	8.04	8.04	-1066.66	-5327.58	4.995
2.76	1	SLU c	1	276.07	8.04	8.04	8.04	8.04	460.21	5327.58	11.576
4.87	1	SLU g	1	487.00	8.04	8.04	8.04	8.04	-448.13	-5327.58	11.889
5.55	1	SLU i	2	0.00	8.04	8.04	8.04	8.04	-1525.20	-5327.58	3.493
8.56	1	SLU i	2	301.25	8.04	8.04	8.04	8.04	575.88	5327.58	9.251
10.22	1	SLU a	2	467.00	8.04	8.04	8.04	8.04	-654.13	-5327.58	8.145
10.37	1	SLU a	2	482.00	8.04	8.04	8.04	8.04	-654.13	-5327.58	8.145

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	InEl	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.35	2	SLE R i	1	35.00	8.04	8.04	-803.48	558.89	-143.26	19.19
0.35	4	SLE Q a	1	35.00	8.04	8.04	-661.89	460.41	-118.01	15.81
0.50	2	SLE R i	1	50.00	8.04	8.04	-803.48	558.89	-143.26	19.19
0.50	4	SLE Q a	1	50.00	8.04	8.04	-661.89	460.41	-118.01	15.81
2.76	2	SLE R c	1	276.07	8.04	8.04	352.34	-62.82	245.08	8.41
2.76	4	SLE Q c	1	276.07	8.04	8.04	339.97	-60.61	236.48	8.12
4.87	2	SLE R g	1	487.00	8.04	8.04	-341.37	237.45	-60.86	8.15
4.87	4	SLE Q g	1	487.00	8.04	8.04	-425.58	296.03	-75.88	10.16
5.55	2	SLE R i	2	0.00	8.04	8.04	-1160.40	807.16	-206.89	27.71
5.55	4	SLE Q i	2	0.00	8.04	8.04	-1093.35	760.53	-194.94	26.11
8.56	2	SLE R i	2	301.25	8.04	8.04	439.64	-78.39	305.81	10.50
8.56	4	SLE Q i	2	301.25	8.04	8.04	418.41	-74.60	291.04	9.99
10.22	2	SLE R a	2	467.00	8.04	8.04	-505.50	351.62	-90.13	12.07
10.22	4	SLE Q a	2	467.00	8.04	8.04	-526.64	366.32	-93.90	12.58
10.37	2	SLE R a	2	482.00	8.04	8.04	-505.50	351.62	-90.13	12.07
10.37	4	SLE Q a	2	482.00	8.04	8.04	-526.64	366.32	-93.90	12.58

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	InEl	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
19	0.35	4	SLE Q a	1	31	35.00	-661.89	27.00	144.00	0.50	16.00	110.47	8.04	283.86	460.41	0.13	0.03
36	0.35	3	SLE F i	1	31	35.00	-702.03	27.00	144.00	0.50	16.00	110.47	8.04	283.86	488.32	0.14	0.03
55	0.50	4	SLE Q a	1	31	50.00	-661.89	27.00	144.00	0.50	16.00	110.47	8.04	283.86	460.41	0.13	0.03
72	0.50	3	SLE F i	1	31	50.00	-702.03	27.00	144.00	0.50	16.00	110.47	8.04	283.86	488.32	0.14	0.03
93	2.76	4	SLE Q c	1	31	276.07	339.97	27.00	144.00	0.50	16.00	110.47	8.04	283.86	236.48	0.07	0.01



Relazione di calcolo

102	2.76	3	SLE F	c	1	31	276.07	343.04	27.00	144.00	0.50	16.00	110.47	8.04	283.86	238.62	0.07	0.01
133	4.87	4	SLE Q	g	1	31	487.00	-425.58	27.00	144.00	0.50	16.00	110.47	8.04	283.86	296.03	0.09	0.02
142	4.87	3	SLE F	g	1	31	487.00	-401.26	27.00	144.00	0.50	16.00	110.47	8.04	283.86	279.11	0.08	0.02
171	5.55	4	SLE Q	i	2	31	0.00	-1093.35	27.00	144.00	0.50	16.00	110.47	8.04	283.86	760.53	0.24	0.04
180	5.55	3	SLE F	i	2	31	0.00	-1113.06	27.00	144.00	0.50	16.00	110.47	8.04	283.86	774.23	0.23	0.04
207	8.56	4	SLE Q	i	2	31	301.25	418.41	27.00	144.00	0.50	16.00	110.47	8.04	283.86	291.04	0.08	0.02
216	8.56	3	SLE F	i	2	31	301.25	424.66	27.00	144.00	0.50	16.00	110.47	8.04	283.86	295.39	0.09	0.02
247	10.22	4	SLE Q	a	2	31	467.00	-526.64	27.00	144.00	0.50	16.00	110.47	8.04	283.86	366.32	0.11	0.02
262	10.22	3	SLE F	a	2	31	467.00	-520.55	27.00	144.00	0.50	16.00	110.47	8.04	283.86	362.09	0.11	0.02
293	10.37	4	SLE Q	a	2	31	482.00	-526.64	27.00	144.00	0.50	16.00	110.47	8.04	283.86	366.32	0.11	0.02
302	10.37	3	SLE F	a	2	31	482.00	-520.55	27.00	144.00	0.50	16.00	110.47	8.04	283.86	362.09	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	In	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.50	0.72	0.22	i	ø6/20 2 br.	2.83	0.50	1004.03	2.50	4063.67	15359.50	4063.67	4.047
1 SLU	0.72	4.65	3.93	i	ø6/20 2 br.	2.83	0.50	918.16	2.50	4063.67	15359.50	4063.67	4.426
1 SLU	4.65	4.87	0.22	g	ø6/20 2 br.	2.83	0.50	802.02	2.50	4063.67	15359.50	4063.67	5.067
1 SLU	5.55	5.77	0.22	i	ø6/20 2 br.	2.83	0.50	1264.13	2.50	4063.67	15359.50	4063.67	3.215
1 SLU	5.77	10.00	4.23	i	ø6/20 2 br.	2.83	0.50	1178.26	2.50	4063.67	15359.50	4063.67	3.449
1 SLU	10.00	10.22	0.22	a	ø6/20 2 br.	2.83	0.50	835.35	2.50	4063.67	15359.50	4063.67	4.865

Travata n. 3021

Nodi: 361 -394 -462 -540 -665 308

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfE P S <cmq>	AfE P I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1	SLU	5	0.00	3.08	3.08	3.08	3.08	-427.04	-1506.47	3.528

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	2	SLE R	5	0.00	3.08	3.08	-309.40	820.59	-193.86	34.44
1.904	4	SLE Q	5	0.00	3.08	3.08	-238.20	631.75	-149.25	26.52

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904	4	SLE Q	5	19	0.00	-238.20	28.00	134.00	0.50	14.00	93.58	3.08	82.65	631.75	0.18	0.03
4	1.903	3	SLE F	5	19	0.00	-258.54	28.00	134.00	0.50	14.00	93.58	3.08	82.65	685.70	0.20	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	167.57	2.50	7185.75	7873.13	7185.75	42.882
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	184.54	2.50	7185.75	7873.13	7185.75	38.939

Travata n. 3022

Nodi: 362 -441 -528 377 309

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfE P S <cmq>	AfE P I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1	SLU	4	70.00	3.08	3.08	3.08	3.08	-328.31	-1506.47	4.589

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	2	SLE R	4	70.00	3.08	3.08	-237.89	630.91	-149.05	26.48
1.904	4	SLE Q	4	70.00	3.08	3.08	-185.40	491.72	-116.17	20.64

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
------	-----------	----	-----	----	------	-----------	--------------	-----------	-----------	----------------	-----------------	-------------------------	-------------------------	-----------------------------	-----------------------------	-----------------	------------



Relazione di calcolo

3	1.90	4	SLE Q	4	19	70.00	-185.40	28.00	134.00	0.50	14.00	93.58	3.08	82.65	491.72	0.14	0.02
4	1.90	3	SLE F	4	19	70.00	-200.40	28.00	134.00	0.50	14.00	93.58	3.08	82.65	531.49	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	283.46	2.50	7185.75	7873.13	7185.75	25.350
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	300.42	2.50	7185.75	7873.13	7185.75	23.919

Travata n. 3023

Nodi: 363 -442 -529 378 -737 310

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
30R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	SLU	5	35.06	6.03	4.02	6.03	4.02	4.02	-6855.09	-9551.64	1.393

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm<sup>q>	σ <sub>f</sub> inf <daN/cm<sup>q>	σ <sub>c</sub> <daN/cm<sup>q>
1.902	SLE R	5	35.06	6.03	4.02	-5135.37	2009.86	-559.00	51.21	
1.904	SLE Q	5	35.06	6.03	4.02	-4639.82	1815.91	-505.05	46.26	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm<sup>q>	A <sub>c eff</sub> <cm<sup>q>	σ <sub>s</sub> <daN/cm<sup>q>	ε <sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	5	30	35.06	-4639.82	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1815.91	0.72	0.15
4	1.90	3	SLE F	5	30	35.06	-4781.40	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1871.32	0.67	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2968.52	2.50	10241.80	20904.00	10241.80	3.450
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3634.63	2.50	10241.80	20904.00	10241.80	2.818

Travata n. 3024

Nodi: 389 -934 399 344

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
16R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
4.671	SLU	3	317.00	3.08	3.08	3.08	3.08	3.08	-325.38	-2142.71	6.585
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-325.38	-2142.71	6.585

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm<sup>q>	σ <sub>f</sub> inf <daN/cm<sup>q>	σ <sub>c</sub> <daN/cm<sup>q>
4.672	SLE R	3	317.00	3.08	3.08	-235.54	429.07	-115.07	15.14	
4.674	SLE Q	3	317.00	3.08	3.08	-196.61	358.15	-96.05	12.64	
4.822	SLE R	3	332.00	3.08	3.08	-235.54	429.07	-115.07	15.14	
4.824	SLE Q	3	332.00	3.08	3.08	-196.61	358.15	-96.05	12.64	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm<sup>q>	A <sub>c eff</sub> <cm<sup>q>	σ <sub>s</sub> <daN/cm<sup>q>	ε <sub>sm</sub>	Wk <mm>
3	4.67	4	SLE Q	3	18	317.00	-196.61	28.00	114.00	0.50	14.00	102.12	3.08	101.43	358.15	0.10	0.02
4	4.67	3	SLE F	3	18	317.00	-207.72	28.00	114.00	0.50	14.00	102.12	3.08	101.43	378.39	0.11	0.02
7	4.82	4	SLE Q	3	18	332.00	-196.61	28.00	114.00	0.50	14.00	102.12	3.08	101.43	358.15	0.10	0.02
8	4.82	3	SLE F	3	18	332.00	-207.72	28.00	114.00	0.50	14.00	102.12	3.08	101.43	378.39	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1219.01	2.50	7619.38	26714.30	7619.38	6.250



Relazione di calcolo

1 SLU	1.50	4.46	2.96	ø6/16 2 br.	3.53	0.18	319.41	2.50	5079.58	10017.90	5079.58	15.903
1 SLU	4.46	4.67	0.20	ø6/16 2 br.	3.53	0.18	348.19	2.50	5079.58	10017.90	5079.58	14.588

Travata n. 3027

Nodi: 392 -938 400 345

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>
4.671	1	SLU	3	317.00	3.08
4.821	1	SLU	3	332.00	3.08

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>
4.672	2	SLE R	3	317.00	3.08
4.674	4	SLE Q	3	317.00	3.08
4.822	2	SLE R	3	332.00	3.08
4.824	4	SLE Q	3	332.00	3.08

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm<sup>q>
3	4.674	4	SLE Q	3	18	317.00	-175.30	28.00	114.00	0.50	14.00	102.12	3.08
4	4.673	4	SLE F	3	18	317.00	-186.84	28.00	114.00	0.50	14.00	102.12	3.08
7	4.824	4	SLE Q	3	18	332.00	-175.30	28.00	114.00	0.50	14.00	102.12	3.08
8	4.823	3	SLE F	3	18	332.00	-186.84	28.00	114.00	0.50	14.00	102.12	3.08

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cm<sup>q>/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1309.01	2.50	7619.38	26714.30	7619.38	5.821
1 SLU	1.50	4.46	2.96	ø6/16 2 br.	3.53	0.18	294.57	2.50	5079.58	10017.90	5079.58	17.244
1 SLU	4.46	4.67	0.20	ø6/16 2 br.	3.53	0.18	323.36	2.50	5079.58	10017.90	5079.58	15.709

Travata n. 3028

Nodi: 364 -443 -530 379 -738 311

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>
1.901	1	SLU	5	35.09	6.03

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>
1.902	2	SLE R	5	35.09	6.03
1.904	4	SLE Q	5	35.09	6.03

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm<sup>q>
3	1.904	4	SLE Q	5	30	35.09	-4605.31	27.00	116.00	0.50	16.00	123.63	6.03
4	1.903	3	SLE F	5	30	35.09	-4744.67	27.00	116.00	0.50	16.00	123.63	6.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cm<sup>q>/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2929.97	2.50	10241.80	20904.00	10241.80	3.496
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3600.03	2.50	10241.80	20904.00	10241.80	2.845

Travata n. 3029



Relazione di calcolo

Nodi: 365 -444 -531 380 312

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		4	70.00	5.09	4.02	5.09	4.02	-3278.93	-8099.97	2.470

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902		SLE R	4	70.00	5.09	4.02	-2377.44	1096.12	-266.95	25.19
1.904		SLE Q	4	70.00	5.09	4.02	-1851.85	853.80	-207.94	19.62

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	4	30	70.00	-1851.85	27.67	116.50	0.50	14.73	131.29	5.09	262.50		853.80	0.25	0.06
4	1.903	SLE F	4	30	70.00	-2002.02	27.67	116.50	0.50	14.73	131.29	5.09	262.50		923.03	0.27	0.06

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cm>/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.05	1.05	ø6/ 8 2 br.	7.07	0.20	417.16	2.50	7185.75	7873.13	7185.75	17.226
1 SLU	1.05	1.20	0.14	ø6/ 8 2 br.	7.07	0.20	434.12	2.50	7185.75	7873.13	7185.75	16.552
1 SLU	1.20	1.90	0.70	ø6/14 2 br.	4.04	0.30	3436.04	2.50	13168.00	20904.00	13168.00	3.832

Travate n. 3030 5030 7030 9030 11030 13030 15030 17030 19030

3030 (a) Nodi: 366 -389 -472 -553 -686 313 329 347  
5030 (b) Nodi: 566 -1176 -1247 -1336 -1448 513 529 547  
7030 (c) Nodi: 766 -1935 -2012 -2101 -2211 713 729 747  
9030 (d) Nodi: 966 -2684 -2777 -2866 -2990 913 929 947  
11030 (e) Nodi: 1166 -3474 -3541 -3626 -3735 1113 1129 1147  
13030 (f) Nodi: 1366 -4218 -4307 -4396 -4511 1313 1329 1347  
15030 (g) Nodi: 1566 -5000 -5072 -5161 -5269 1513 1529 1547  
17030 (h) Nodi: 1766 -5758 -5838 -5927 -6036 1713 1729 1747  
19030 (i) Nodi: 1966 -6531 -6602 -6685 -6807 1913 1929 1947

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
31	R	50.00	24.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	In	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>					<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901		SLU	i	5	38.00	10.30	2.26	10.30	2.26	-559.09	-4253.29	7.607
2.251		SLU	i	6	35.00	10.30	8.04	10.30	8.04	-1754.74	-6707.30	3.822
2.401		SLU	i	6	50.00	10.30	8.04	10.30	8.04	-1754.74	-6707.30	3.822
5.561		SLU	d	6	366.47	8.04	8.04	8.04	8.04	516.80	5327.58	10.309
6.771		SLU	a	6	487.00	8.04	8.04	8.04	8.04	-374.13	-5327.58	14.240
7.451		SLU	i	7	0.00	8.04	8.04	8.04	8.04	-1332.30	-5327.58	3.999
10.761		SLU	i	7	331.38	8.04	8.04	8.04	8.04	527.02	5327.58	10.109
12.121		SLU	a	7	467.00	8.04	8.04	8.04	8.04	-570.07	-5327.58	9.346
12.271		SLU	a	7	482.00	8.04	8.04	8.04	8.04	-570.07	-5327.58	9.346

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	In	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R	i	5		38.00	10.30	2.26	-404.67	341.08	-294.63	33.13
1.904	SLE Q	i	5		38.00	10.30	2.26	-312.34	263.26	-227.40	25.57
2.252	SLE R	i	6		35.00	10.30	8.04	-1293.05	708.98	-231.47	28.34
2.254	SLE Q	i	6		35.00	10.30	8.04	-1029.36	564.40	-184.26	22.56
2.402	SLE R	i	6		50.00	10.30	8.04	-1293.05	708.98	-231.47	28.34
2.404	SLE Q	i	6		50.00	10.30	8.04	-1029.36	564.40	-184.26	22.56
5.562	SLE R	d	6		366.47	8.04	8.04	385.74	-68.78	268.32	9.21
5.564	SLE Q	d	6		366.47	8.04	8.04	341.78	-60.94	237.74	8.16
6.772	SLE R	a	6		487.00	8.04	8.04	-300.21	208.82	-53.53	7.17
6.774	SLE Q	a	6		487.00	8.04	8.04	-349.50	243.11	-62.31	8.35
7.452	SLE R	i	7		0.00	8.04	8.04	-1028.92	715.71	-183.45	24.57
7.454	SLE Q	i	7		0.00	8.04	8.04	-984.43	684.76	-175.52	23.51
10.762	SLE R	i	7		331.38	8.04	8.04	405.83	-72.36	282.29	9.69



Relazione di calcolo

10.76	4	SLE	Q	i	7	331.38	8.04	8.04	392.55	-69.99	273.05	9.37
12.12	2	SLE	R	a	7	467.00	8.04	8.04	-445.34	309.77	-79.40	10.64
12.12	4	SLE	Q	a	7	467.00	8.04	8.04	-472.47	328.64	-84.24	11.28
12.27	2	SLE	R	a	7	482.00	8.04	8.04	-445.34	309.77	-79.40	10.64
12.27	4	SLE	Q	a	7	482.00	8.04	8.04	-472.47	328.64	-84.24	11.28

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	In	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>	
	<m>						<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cm q>		<mm>	
63	2.25	4	SLE	Q	i	6	31	35.00	-1029.36	27.67	86.40	0.50	14.91	94.68	10.30	271.93	564.40	0.17	0.03
72	2.25	3	SLE	F	i	6	31	35.00	-1104.58	27.67	86.40	0.50	14.91	94.68	10.30	271.93	605.64	0.18	0.03
99	2.40	4	SLE	Q	i	6	31	50.00	-1029.36	27.67	86.40	0.50	14.91	94.68	10.30	271.93	564.40	0.17	0.03
108	2.40	3	SLE	F	i	6	31	50.00	-1104.58	27.67	86.40	0.50	14.91	94.68	10.30	271.93	605.64	0.18	0.03
130	5.56	4	SLE	Q	d	6	31	366.47	341.78	27.00	144.00	0.50	16.00	110.47	8.04	283.86	237.74	0.07	0.01
139	5.56	3	SLE	F	d	6	31	366.47	354.21	27.00	144.00	0.50	16.00	110.47	8.04	283.86	246.38	0.07	0.01
165	6.77	4	SLE	Q	a	6	31	487.00	-349.50	27.00	144.00	0.50	16.00	110.47	8.04	283.86	243.11	0.07	0.01
176	6.77	3	SLE	F	a	6	31	487.00	-335.47	27.00	144.00	0.50	16.00	110.47	8.04	283.86	233.35	0.07	0.01
214	7.45	4	SLE	Q	i	7	31	0.00	-984.43	27.00	144.00	0.50	16.00	110.47	8.04	283.86	684.76	0.20	0.04
223	7.45	3	SLE	F	i	7	31	0.00	-997.95	27.00	144.00	0.50	16.00	110.47	8.04	283.86	694.17	0.20	0.04
250	10.76	4	SLE	Q	i	7	31	331.38	392.55	27.00	144.00	0.50	16.00	110.47	8.04	283.86	273.05	0.08	0.01
259	10.76	3	SLE	F	i	7	31	331.38	396.50	27.00	144.00	0.50	16.00	110.47	8.04	283.86	275.80	0.08	0.02
282	12.12	4	SLE	Q	a	7	31	467.00	-472.47	27.00	144.00	0.50	16.00	110.47	8.04	283.86	328.64	0.10	0.02
292	12.12	3	SLE	F	a	7	31	467.00	-464.67	27.00	144.00	0.50	16.00	110.47	8.04	283.86	323.22	0.09	0.02
320	12.27	4	SLE	Q	a	7	31	482.00	-472.47	27.00	144.00	0.50	16.00	110.47	8.04	283.86	328.64	0.10	0.02
329	12.27	3	SLE	F	a	7	31	482.00	-464.67	27.00	144.00	0.50	16.00	110.47	8.04	283.86	323.22	0.09	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	In	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>			<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	i	ø6/ 8 2 br.	7.07	0.20	455.72	2.50	7185.75	7873.13	7185.75	15.768
1 SLU	1.75	1.90	0.14	i	ø6/ 8 2 br.	7.07	0.20	472.69	2.50	7185.75	7873.13	7185.75	15.202
1 SLU	2.40	2.62	0.22	i	ø6/20 2 br.	2.83	0.50	1242.96	2.50	4063.67	15359.50	4063.67	3.269
1 SLU	2.62	6.55	3.93	i	ø6/20 2 br.	2.83	0.50	1156.30	2.50	4063.67	15359.50	4063.67	3.514
1 SLU	6.55	6.77	0.22	a	ø6/20 2 br.	2.83	0.50	741.15	2.50	4063.67	15359.50	4063.67	5.483
1 SLU	7.45	7.67	0.22	i	ø6/20 2 br.	2.83	0.50	1188.73	2.50	4063.67	15359.50	4063.67	3.418
1 SLU	7.67	11.90	4.23	i	ø6/20 2 br.	2.83	0.50	1102.08	2.50	4063.67	15359.50	4063.67	3.687
1 SLU	11.90	12.12	0.22	a	ø6/20 2 br.	2.83	0.50	800.49	2.50	4063.67	15359.50	4063.67	5.077

Travata n. 3032

Nodi: 367 -390 -473 -543 -667 315

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/presoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	38.00	3.08	3.08	3.08	3.08	-421.95	-1506.47	3.570

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>	
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	
1.90	2	SLE	R	5	38.00	3.08	3.08	-305.73	810.85	-191.56	34.03
1.90	4	SLE	Q	5	38.00	3.08	3.08	-235.05	623.38	-147.27	26.17

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>	
3	1.90	4	SLE	Q	5	19	38.00	-235.05	28.00	134.00	0.50	14.00	93.58	3.08	82.65	623.38	0.18	0.03
4	1.90	3	SLE	F	5	19	38.00	-255.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	676.94	0.20	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	146.07	2.50	7185.75	7873.13	7185.75	49.195
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	163.03	2.50	7185.75	7873.13	7185.75	44.076

Travata n. 3033

Nodi: 368 -445 -532 381 -740 316

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94



Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	1	SLU	5	35.44	3.08	3.08	3.08	3.08	-325.40	-1506.47	4.630

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	2	SLE R	5	35.44	3.08	3.08	-235.72	625.15	-147.69	26.24
1.904	4	SLE Q	5	35.44	3.08	3.08	-182.89	485.05	-114.59	20.36

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	5	19	35.44	-182.89	28.00	134.00	0.50	14.00	93.58	3.08	82.65		485.05	0.14	0.02
4	1.903	SLE F	5	19	35.44	-197.98	28.00	134.00	0.50	14.00	93.58	3.08	82.65		525.08	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	233.00	2.50	7185.75	7873.13	7185.75	30.840
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	249.97	2.50	7185.75	7873.13	7185.75	28.747

Travata n. 3035

Nodi: 393 -939 401 351

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.671	1	SLU	3	317.00	3.08	3.08	3.08	3.08	-304.79	-2142.71	7.030
4.821	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-304.79	-2142.71	7.030

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.672	2	SLE R	3	317.00	3.08	3.08	-221.14	402.83	-108.03	14.21
4.674	4	SLE Q	3	317.00	3.08	3.08	-185.67	338.22	-90.70	11.93
4.822	2	SLE R	3	332.00	3.08	3.08	-221.14	402.83	-108.03	14.21
4.824	4	SLE Q	3	332.00	3.08	3.08	-185.67	338.22	-90.70	11.93

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.674	SLE Q	3	18	317.00	-185.67	28.00	114.00	0.50	14.00	102.12	3.08	101.43		338.22	0.10	0.02
4	4.673	SLE F	3	18	317.00	-195.79	28.00	114.00	0.50	14.00	102.12	3.08	101.43		356.66	0.10	0.02
7	4.824	SLE Q	3	18	332.00	-185.67	28.00	114.00	0.50	14.00	102.12	3.08	101.43		338.22	0.10	0.02
8	4.823	SLE F	3	18	332.00	-195.79	28.00	114.00	0.50	14.00	102.12	3.08	101.43		356.66	0.10	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1272.29	2.50	7619.38	26714.30	7619.38	5.989
1 SLU	1.50	4.46	2.96	ø6/16 2 br.	3.53	0.18	305.21	2.50	5079.58	10017.90	5079.58	16.643
1 SLU	4.46	4.67	0.20	ø6/16 2 br.	3.53	0.18	334.00	2.50	5079.58	10017.90	5079.58	15.209

Travata n. 3036

Nodi: 369 -446 -533 382 -741 317

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	1	SLU	5	35.41	6.03	4.02	6.03	4.02	-6665.50	-9551.64	1.433



Relazione di calcolo

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm q>	σ <sub>f</sub> inf <daN/cm q>	σ <sub>c</sub> <daN/cm q>
1.902	SLE R	5	35.41	6.03	4.02	-4993.82	1954.46	-543.59	49.79	
1.904	SLE Q	5	35.41	6.03	4.02	-4511.57	1765.71	-491.09	44.99	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm²>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5	30	35.41	-4511.57	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1765.71	0.70	0.15	
4	1.903	SLE F	5	30	35.41	-4649.35	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1819.64	0.64	0.14	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	2930.20	2.50	10241.80	20904.00	10241.80	3.495
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	3480.30	2.50	10241.80	20904.00	10241.80	2.943

Travata n. 3040

Nodi: 370 -447 -534 383 -742 318

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
30R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	35.38	6.03	4.02	6.03	4.02	-6765.50	-9551.64	1.412	

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R	5	35.38	6.03	4.02	-5068.83	1983.81	-551.75	50.54	
1.904	SLE Q	5	35.38	6.03	4.02	-4580.68	1792.76	-498.62	45.67	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5	30	35.38	-4580.68	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1792.76	0.71	0.15	
4	1.903	SLE F	5	30	35.38	-4720.13	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1847.34	0.66	0.14	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	2961.36	2.50	10241.80	20904.00	10241.80	3.458
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	3591.44	2.50	10241.80	20904.00	10241.80	2.852

Travata n. 3041

Nodi: 396 -943 402 352

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.671	SLU	3		317.00	3.08	3.08	3.08	3.08	-332.96	-2142.71	6.435
4.821	SLU	3		332.00	3.08	3.08	3.08	3.08	-332.96	-2142.71	6.435

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm <sup>2</sup> >	σ <sub>f</sub> inf <daN/cm <sup>2</sup> >	σ <sub>c</sub> <daN/cm <sup>2</sup> >
4.672	SLE R	3	317.00	3.08	3.08	-238.42	434.31	-116.47	15.32	
4.674	SLE Q	3	317.00	3.08	3.08	-194.22	353.79	-94.88	12.48	
4.822	SLE R	3	332.00	3.08	3.08	-238.42	434.31	-116.47	15.32	
4.824	SLE Q	3	332.00	3.08	3.08	-194.22	353.79	-94.88	12.48	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
------	-----------	----	-----	----	------	-----------	--------------	-----------	-----------	----------------	-----------------	-------------------------	-------------------------	-----------------------------	-----------------------------	-----------------	------------



Relazione di calcolo

	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.67	4	SLE Q	3	18	317.00	-194.22	28.00	114.00	0.50	14.00	102.12	3.08	101.43	353.79	0.10	0.02
4	4.67	3	SLE F	3	18	317.00	-206.84	28.00	114.00	0.50	14.00	102.12	3.08	101.43	376.79	0.11	0.02
7	4.82	4	SLE Q	3	18	332.00	-194.22	28.00	114.00	0.50	14.00	102.12	3.08	101.43	353.79	0.10	0.02
8	4.82	3	SLE F	3	18	332.00	-206.84	28.00	114.00	0.50	14.00	102.12	3.08	101.43	376.79	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	952.38	2.50	7619.38	26714.30	7619.38	8.000
1 SLU	1.50	4.46	2.96	ø6/16 2 br.	3.53	0.18	312.57	2.50	5079.58	10017.90	5079.58	16.251
1 SLU	4.46	4.67	0.20	ø6/16 2 br.	3.53	0.18	341.36	2.50	5079.58	10017.90	5079.58	14.881

Travata n. 3042

Nodi: 371 -448 -535 384 -743 319

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1	SLU	5	35.43	3.08	3.08	3.08	3.08	-303.06	-1506.47	4.971

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902		SLE R	5	35.43	3.08	3.08	-219.14	581.20	-137.31	24.39
1.904		SLE Q	5	35.43	3.08	3.08	-167.05	443.04	-104.67	18.60

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.904		SLE Q	5	19	35.43	-167.05	28.00	134.00	0.50	14.00	93.58	3.08	82.65	443.04	0.13	0.02
4	1.903		SLE F	5	19	35.43	-181.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	482.52	0.14	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	206.17	2.50	7185.75	7873.13	7185.75	34.854
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	223.13	2.50	7185.75	7873.13	7185.75	32.204

Travate n. 3043 5043 7043 9043 11043 13043 15043 17043 19043

3043 (a) Nodi: 372 -412 -487 -573 -689 320 334 354  
5043 (b) Nodi: 572 -1186 -1259 -1346 -1440 520 534 554  
7043 (c) Nodi: 772 -1951 -2023 -2112 -2199 720 734 754  
9043 (d) Nodi: 972 -2716 -2789 -2875 -2974 920 934 954  
11043 (e) Nodi: 1172 -3481 -3553 -3642 -3753 1120 1134 1154  
13043 (f) Nodi: 1372 -4246 -4319 -4405 -4505 1320 1334 1354  
15043 (g) Nodi: 1572 -5011 -5084 -5170 -5276 1520 1534 1554  
17043 (h) Nodi: 1772 -5777 -5849 -5938 -6042 1720 1734 1754  
19043 (i) Nodi: 1972 -6542 -6613 -6696 -6793 1920 1934 1954

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	b <cm>	H <cm>	h <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R		20.00		18.00		3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
58Ldx		60.00	30.00	24.00	26.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	In	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.901	1	SLU	i	5	38.00	14.33	2.26	14.33	2.26	-621.62	-5227.23	8.409
2.251		SLU	b	6	520.00	23.75	21.49	23.75	21.49	-6442.40	-36808.10	5.713
2.401		SLU	b	6	505.00	23.75	21.49	23.75	21.49	-6442.40	-36808.10	5.713
4.551		SLU	e	6	290.00	21.49	21.49	21.49	21.49	2713.87	33615.50	12.387
6.771		SLU	h	6	68.00	21.49	21.49	21.49	21.49	-2016.26	-33341.50	16.536
6.851		SLU	h	6	60.00	21.49	21.49	21.49	21.49	-2016.26	-33341.50	16.536
7.351		SLU	c	7	527.00	21.49	21.49	21.49	21.49	-7460.86	-33341.50	4.469
7.451		SLU	c	7	517.00	21.49	21.49	21.49	21.49	-7460.86	-33341.50	4.469
9.811		SLU	d	7	281.00	21.49	21.49	21.49	21.49	2961.81	33615.50	11.350
12.121		SLU	a	7	50.00	21.49	21.49	21.49	21.49	-2264.45	-33341.50	14.724
12.271		SLU	a	7	35.00	21.49	21.49	21.49	21.49	-2264.45	-33341.50	14.724

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Xg <m>	CC	TCC	In	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.90	2	SLE R	i	5	38.00	14.33	2.26	-449.37	277.80	-324.66	34.42
1.90	4	SLE Q	i	5	38.00	14.33	2.26	-349.14	215.84	-252.25	26.75
2.25	2	SLE R	b	6	520.00	23.75	21.49	-4587.83	464.06	-248.74	20.45
2.25	4	SLE Q	b	6	520.00	23.75	21.49	-4176.16	422.42	-226.42	18.62
2.40	2	SLE R	b	6	505.00	23.75	21.49	-4587.83	464.06	-248.74	20.45
2.40	4	SLE Q	b	6	505.00	23.75	21.49	-4176.16	422.42	-226.42	18.62
4.55	2	SLE R	e	6	290.00	21.49	21.49	1903.37	-75.06	210.51	6.55
4.55	4	SLE Q	e	6	290.00	21.49	21.49	1919.70	-75.71	212.32	6.61
6.77	2	SLE R	h	6	68.00	21.49	21.49	-1411.11	157.16	-77.54	6.44
6.77	4	SLE Q	h	6	68.00	21.49	21.49	-1560.86	173.84	-85.77	7.13
6.85	2	SLE R	h	6	60.00	21.49	21.49	-1411.11	157.16	-77.54	6.44
6.85	4	SLE Q	h	6	60.00	21.49	21.49	-1560.86	173.84	-85.77	7.13
7.35	2	SLE R	c	7	527.00	21.49	21.49	-5322.29	592.78	-292.45	24.30
7.35	4	SLE Q	c	7	527.00	21.49	21.49	-5009.08	557.89	-275.24	22.87
7.45	2	SLE R	c	7	517.00	21.49	21.49	-5322.29	592.78	-292.45	24.30
7.45	4	SLE Q	c	7	517.00	21.49	21.49	-5009.08	557.89	-275.24	22.87
9.81	2	SLE R	d	7	281.00	21.49	21.49	2095.29	-82.63	231.74	7.21
9.81	4	SLE Q	f	7	281.00	21.49	21.49	2043.71	-80.60	226.03	7.04
12.12	2	SLE R	a	7	50.00	21.49	21.49	-1542.74	171.82	-84.77	7.04
12.12	4	SLE Q	a	7	50.00	21.49	21.49	-1762.21	196.27	-96.83	8.05
12.27	2	SLE R	a	7	35.00	21.49	21.49	-1542.74	171.82	-84.77	7.04
12.27	4	SLE Q	a	7	35.00	21.49	21.49	-1762.21	196.27	-96.83	8.05

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	In	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
56	2.25	4	SLE Q	b	6	58	520.00	-4176.16	26.82	52.80	0.50	16.80	90.77	23.75	525.00	422.42	0.12	0.02
65	2.25	3	SLE F	b	6	58	520.00	-4293.58	26.82	52.80	0.50	16.80	90.77	23.75	525.00	434.30	0.13	0.02
92	2.40	4	SLE Q	b	6	58	505.00	-4176.16	26.82	52.80	0.50	16.80	90.77	23.75	525.00	422.42	0.12	0.02
101	2.40	3	SLE F	b	6	58	505.00	-4293.58	26.82	52.80	0.50	16.80	90.77	23.75	525.00	434.30	0.13	0.02
133	4.55	4	SLE Q	e	6	58	290.00	1919.70	26.00	28.00	0.50	18.22	88.31	5.15	102.66	212.32	0.06	0.01
143	4.55	3	SLE F	e	6	58	290.00	1912.64	26.00	28.00	0.50	18.22	88.31	5.15	102.66	211.53	0.06	0.01
197	6.77	4	SLE Q	h	6	58	68.00	-1560.86	26.33	66.00	0.50	17.54	95.52	21.49	525.00	173.84	0.05	0.01
214	6.77	3	SLE F	h	6	58	68.00	-1518.87	26.33	66.00	0.50	17.54	95.52	21.49	525.00	169.17	0.05	0.01
239	6.85	4	SLE Q	h	6	58	60.00	-1560.86	26.33	66.00	0.50	17.54	95.52	21.49	525.00	173.84	0.05	0.01
247	6.85	3	SLE F	h	6	58	60.00	-1518.87	26.33	66.00	0.50	17.54	95.52	21.49	525.00	169.17	0.05	0.01
268	7.35	4	SLE Q	c	7	58	527.00	-5009.08	26.33	66.00	0.50	17.54	95.52	21.49	525.00	557.89	0.17	0.03
277	7.35	3	SLE F	c	7	58	527.00	-5098.69	26.33	66.00	0.50	17.54	95.52	21.49	525.00	567.87	0.17	0.03
304	7.45	4	SLE Q	c	7	58	517.00	-5009.08	26.33	66.00	0.50	17.54	95.52	21.49	525.00	557.89	0.17	0.03
313	7.45	3	SLE F	c	7	58	517.00	-5098.69	26.33	66.00	0.50	17.54	95.52	21.49	525.00	567.87	0.17	0.03
343	9.81	4	SLE Q	f	7	58	281.00	2043.71	26.00	28.00	0.50	18.22	88.31	5.15	102.66	226.03	0.07	0.01
350	9.81	3	SLE F	d	7	58	281.00	2054.85	26.00	28.00	0.50	18.22	88.31	5.15	102.66	227.26	0.07	0.01
392	12.12	4	SLE Q	a	7	58	50.00	-1762.21	26.33	66.00	0.50	17.54	95.52	21.49	525.00	196.27	0.06	0.01
410	12.12	3	SLE F	a	7	58	50.00	-1699.48	26.33	66.00	0.50	17.54	95.52	21.49	525.00	189.28	0.06	0.01
445	12.27	4	SLE Q	a	7	58	35.00	-1762.21	26.33	66.00	0.50	17.54	95.52	21.49	525.00	196.27	0.06	0.01
454	12.27	3	SLE F	a	7	58	35.00	-1699.48	26.33	66.00	0.50	17.54	95.52	21.49	525.00	189.28	0.06	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	In	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	i	ø6/ 8 2 br.	7.07	0.20	529.74	2.50	7185.75	7873.13	7185.75	13.565
1 SLU	1.75	1.90	0.14	i	ø6/ 8 2 br.	7.07	0.20	546.70	2.50	7185.75	7873.13	7185.75	13.144
1 SLU	2.40	2.62	0.22	d	ø8/10 2 br.	10.05	0.30	5677.35	1.90	24957.10	24957.10	24957.10	4.396
1 SLU	2.62	6.55	3.93	d	ø8/10 2 br.	10.05	0.30	5217.06	1.90	24957.10	24957.10	24957.10	4.784
1 SLU	6.55	6.77	0.22	h	ø8/10 2 br.	10.05	0.30	4079.59	1.90	24957.10	24957.10	24957.10	6.118
1 SLU	7.45	7.67	0.22	c	ø8/10 2 br.	10.05	0.30	6278.14	1.90	24957.10	24957.10	24957.10	3.975
1 SLU	7.67	11.90	4.23	c	ø8/10 2 br.	10.05	0.30	5817.85	1.90	24957.10	24957.10	24957.10	4.290
1 SLU	11.90	12.12	0.22	a	ø8/10 2 br.	10.05	0.30	3972.89	1.90	24957.10	24957.10	24957.10	6.282

Travata n. 3088

Nodi: 377 -627 -628 -629 -630 -631 -632 -633 378

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-47.71	-1506.47	31.573
1.80	1	SLU	5	19.63	3.08	3.08	3.08	3.08	18.66	1506.47	80.717
3.20	1	SLU	8	40.00	3.08	3.08	3.08	3.08	-58.41	-1506.47	25.791

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
----	----	-----	----	---	-------	-------	----	--------------------	--------------------	----------------



Relazione di calcolo

<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-34.26	90.86	-21.47	3.81
0.00	4	SLE Q	1	0.00	3.08	3.08	-28.99	76.89	-18.17	3.23
1.80	2	SLE R	5	19.63	3.08	3.08	12.84	-8.04	34.05	1.43
1.80	4	SLE Q	5	19.63	3.08	3.08	11.01	-6.90	29.20	1.23
3.20	2	SLE R	8	40.00	3.08	3.08	-41.49	110.04	-26.00	4.62
3.20	4	SLE Q	8	40.00	3.08	3.08	-32.19	85.36	-20.17	3.58

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
5	0.00	4	SLE Q	1	19	0.00	-28.99	28.00	134.00	0.50	14.00	93.58	3.08	82.65	76.89	0.02	0.00
6	0.00	3	SLE F	1	19	0.00	-30.50	28.00	134.00	0.50	14.00	93.58	3.08	82.65	80.88	0.02	0.00
9	1.80	4	SLE Q	5	19	19.63	11.01	28.00	134.00	0.50	14.00	93.58	3.08	82.65	29.20	0.01	0.00
10	1.80	3	SLE F	5	19	19.63	11.51	28.00	134.00	0.50	14.00	93.58	3.08	82.65	30.53	0.01	0.00
13	3.20	4	SLE Q	8	19	40.00	-32.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	85.36	0.02	0.00
14	3.20	3	SLE F	8	19	40.00	-34.84	28.00	134.00	0.50	14.00	93.58	3.08	82.65	92.41	0.03	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	312.54	2.50	7185.75	7873.13	7185.75	22.992
1 SLU	0.14	3.06	2.91	ø6/ 8 2 br.	7.07	0.20	312.54	2.50	7185.75	7873.13	7185.75	22.992
1 SLU	3.06	3.20	0.14	ø6/ 8 2 br.	7.07	0.20	217.79	2.50	7185.75	7873.13	7185.75	32.995

Travata n. 3130

Nodi: 361 -316 -317 -318 -319 -320 -321 -322 -323 362

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	11.79	1506.47	>100
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	52.59	1506.47	28.646
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	8.81	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	8.53	-5.34	22.62	0.95
0.00	4	SLE Q	1	0.00	3.08	3.08	6.76	-4.24	17.94	0.75
1.44	2	SLE R	5	0.00	3.08	3.08	37.62	-23.57	99.77	4.19
1.44	4	SLE Q	5	0.00	3.08	3.08	28.24	-17.70	74.91	3.14
3.25	2	SLE R	9	36.11	3.08	3.08	6.40	-4.01	16.96	0.71
3.25	4	SLE Q	9	36.11	3.08	3.08	5.03	-3.15	13.35	0.56

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	6.76	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.94	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	7.27	28.00	134.00	0.50	14.00	93.58	3.08	82.65	19.28	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	28.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	74.91	0.02	0.00
8	1.44	3	SLE F	5	19	0.00	30.91	28.00	134.00	0.50	14.00	93.58	3.08	82.65	81.99	0.02	0.00
11	3.25	4	SLE Q	9	19	36.11	5.03	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.35	0.00	0.00
12	3.25	3	SLE F	9	19	36.11	5.42	28.00	134.00	0.50	14.00	93.58	3.08	82.65	14.38	0.00	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	42.63	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	28.91	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	53.41	2.50	7185.75	7873.13	7185.75	>100

Travata n. 3131

Nodi: 379 -634 -635 -636 -637 -638 -639 -640 380

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione



Relazione di calcolo

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-48.44	-1506.47	31.098
1.59	1	SLU	5	0.00	3.08	3.08	3.08	3.08	29.56	1506.47	50.957
3.18	1	SLU	8	39.75	3.08	3.08	3.08	3.08	-97.32	-1506.47	15.480

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-34.31	90.99	-21.50	3.82
0.00	4	SLE Q	1	0.00	3.08	3.08	-26.29	69.71	-16.47	2.93
1.59	2	SLE R	5	0.00	3.08	3.08	20.87	-13.07	55.34	2.32
1.59	4	SLE Q	5	0.00	3.08	3.08	17.68	-11.08	46.89	1.97
3.18	2	SLE R	8	39.75	3.08	3.08	-70.61	187.28	-44.24	7.86
3.18	4	SLE Q	8	39.75	3.08	3.08	-59.33	157.36	-37.18	6.61

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-26.29	28.00	134.00	0.50	14.00	93.58	3.08	82.65	69.71	0.02	0.00
5	0.00	3	SLE F	1	19	0.00	-28.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	75.80	0.02	0.00
8	1.59	4	SLE Q	5	19	0.00	17.68	28.00	134.00	0.50	14.00	93.58	3.08	82.65	46.89	0.01	0.00
9	1.59	3	SLE F	5	19	0.00	18.59	28.00	134.00	0.50	14.00	93.58	3.08	82.65	49.30	0.01	0.00
12	3.18	4	SLE Q	8	19	39.75	-59.33	28.00	134.00	0.50	14.00	93.58	3.08	82.65	157.36	0.05	0.01
13	3.18	3	SLE F	8	19	39.75	-62.55	28.00	134.00	0.50	14.00	93.58	3.08	82.65	165.90	0.05	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	228.56	2.50	7185.75	7873.13	7185.75	31.439
1 SLU	0.14	3.04	2.89	ø6/ 8 2 br.	7.07	0.20	228.56	2.50	7185.75	7873.13	7185.75	31.439
1 SLU	3.04	3.18	0.14	ø6/ 8 2 br.	7.07	0.20	45.36	2.50	7185.75	7873.13	7185.75	>100

Travata n. 3173

Nodi: 363 -324 -325 -326 -327 -328 -329 -330 364

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-207.93	-1506.47	7.245
1.50	1	SLU	5	0.00	3.08	3.08	3.08	3.08	206.37	1506.47	7.300
3.00	1	SLU	8	37.50	3.08	3.08	3.08	3.08	-204.31	-1506.47	7.373

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-157.40	417.44	-98.62	17.52
0.00	4	SLE Q	1	0.00	3.08	3.08	-148.26	393.21	-92.90	16.50
1.50	2	SLE R	5	0.00	3.08	3.08	155.07	-97.16	411.28	17.26
1.50	4	SLE Q	5	0.00	3.08	3.08	141.59	-88.72	375.52	15.76
3.00	2	SLE R	8	37.50	3.08	3.08	-154.87	410.72	-97.03	17.24
3.00	4	SLE Q	8	37.50	3.08	3.08	-146.07	387.39	-91.52	16.26

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-148.26	28.00	134.00	0.50	14.00	93.58	3.08	82.65	393.21	0.11	0.02
4	0.00	3	SLE F	1	19	0.00	-150.87	28.00	134.00	0.50	14.00	93.58	3.08	82.65	400.13	0.12	0.02
7	1.50	4	SLE Q	5	19	0.00	141.59	28.00	134.00	0.50	14.00	93.58	3.08	82.65	375.52	0.11	0.02
8	1.50	3	SLE F	5	19	0.00	145.44	28.00	134.00	0.50	14.00	93.58	3.08	82.65	385.73	0.11	0.02
11	3.00	4	SLE Q	8	19	37.50	-146.07	28.00	134.00	0.50	14.00	93.58	3.08	82.65	387.39	0.11	0.02
12	3.00	3	SLE F	8	19	37.50	-148.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	394.06	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	914.85	2.50	7185.75	7873.13	7185.75	7.855
1 SLU	0.14	2.85	2.71	ø6/ 8 2 br.	7.07	0.20	615.13	2.50	7185.75	7873.13	7185.75	11.682
1 SLU	2.85	3.00	0.14	ø6/ 8 2 br.	7.07	0.20	911.51	2.50	7185.75	7873.13	7185.75	7.883

Travata n. 3174



Relazione di calcolo

Nodi: 381 -641 -642 -643 -644 -645 -646 -647 -648 382

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-52.07	-1506.47	28.931
1.62	1	SLU	5	18.06	3.08	3.08	3.08	3.08	22.87	1506.47	65.860
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	-52.63	-1506.47	28.625

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-37.41	99.23	-23.44	4.16
0.00	4	SLE Q	1	0.00	3.08	3.08	-31.62	83.85	-19.81	3.52
1.62	2	SLE R	5	18.06	3.08	3.08	15.94	-9.99	42.27	1.77
1.62	4	SLE Q	5	18.06	3.08	3.08	14.12	-8.85	37.45	1.57
3.25	2	SLE R	9	36.11	3.08	3.08	-37.21	98.70	-23.32	4.14
3.25	4	SLE Q	9	36.11	3.08	3.08	-28.27	74.97	-17.71	3.15

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
5	0.00	4	SLE Q	1	19	0.00	-31.62	28.00	134.00	0.50	14.00	93.58	3.08	82.65	83.85	0.02	0.00
7	0.00	3	SLE F	1	19	0.00	-33.27	28.00	134.00	0.50	14.00	93.58	3.08	82.65	88.24	0.03	0.00
11	1.62	4	SLE Q	5	19	18.06	14.12	28.00	134.00	0.50	14.00	93.58	3.08	82.65	37.45	0.01	0.00
12	1.62	3	SLE F	5	19	18.06	14.62	28.00	134.00	0.50	14.00	93.58	3.08	82.65	38.78	0.01	0.00
15	3.25	4	SLE Q	9	19	36.11	-28.27	28.00	134.00	0.50	14.00	93.58	3.08	82.65	74.97	0.02	0.00
16	3.25	3	SLE F	9	19	36.11	-30.83	28.00	134.00	0.50	14.00	93.58	3.08	82.65	81.76	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	370.68	2.50	7185.75	7873.13	7185.75
1	SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	370.68	2.50	7185.75	7873.13	7185.75
1	SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	227.61	2.50	7185.75	7873.13	7185.75

Travata n. 3216

Nodi: 365 -331 -332 -333 -334 -335 -336 -337 -338 366

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	6.06	1506.47	>100
1.81	1	SLU	5	36.11	3.08	3.08	3.08	3.08	71.40	1506.47	21.098
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	15.32	1506.47	98.330

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	4.41	-2.76	11.69	0.49
0.00	4	SLE Q	1	0.00	3.08	3.08	3.55	-2.22	9.41	0.40
1.81	2	SLE R	5	36.11	3.08	3.08	51.16	-32.05	135.68	5.69
1.81	4	SLE Q	5	36.11	3.08	3.08	38.20	-23.93	101.31	4.25
3.25	2	SLE R	9	36.11	3.08	3.08	11.09	-6.95	29.41	1.23
3.25	4	SLE Q	9	36.11	3.08	3.08	8.69	-5.45	23.05	0.97

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
5	0.00	4	SLE Q	1	19	0.00	3.55	28.00	134.00	0.50	14.00	93.58	3.08	82.65	9.41	0.00	0.00
7	0.00	3	SLE F	1	19	0.00	3.80	28.00	134.00	0.50	14.00	93.58	3.08	82.65	10.07	0.00	0.00
11	1.81	4	SLE Q	5	19	36.11	38.20	28.00	134.00	0.50	14.00	93.58	3.08	82.65	101.31	0.03	0.00
12	1.81	3	SLE F	5	19	36.11	41.90	28.00	134.00	0.50	14.00	93.58	3.08	82.65	111.13	0.03	0.01
15	3.25	4	SLE Q	9	19	36.11	8.69	28.00	134.00	0.50	14.00	93.58	3.08	82.65	23.05	0.01	0.00
16	3.25	3	SLE F	9	19	36.11	9.38	28.00	134.00	0.50	14.00	93.58	3.08	82.65	24.86	0.01	0.00



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	67.41	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	42.90	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	39.07	2.50	7185.75	7873.13	7185.75	>100

Travata n. 3217

Nodi: 383 -649 -650 -651 -652 -653 -654 -655 -656 384

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-42.41	-1506.47	35.519
1.081	SLU	4	0.00	3.08	3.08	3.08	3.08	3.08	28.29	1506.47	53.256
3.231	SLU	9	35.89	3.08	3.08	3.08	3.08	3.08	-63.20	-1506.47	23.838

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	-29.93	-29.93	79.37	-18.75	3.33
0.004	SLE Q	1	0.00	3.08	3.08	-22.12	-22.12	58.67	-13.86	2.46
1.082	SLE R	4	0.00	3.08	3.08	19.91	19.91	-12.48	52.81	2.22
1.084	SLE Q	4	0.00	3.08	3.08	17.36	17.36	-10.88	46.04	1.93
3.232	SLE R	9	35.89	3.08	3.08	-45.51	-45.51	120.70	-28.51	5.07
3.234	SLE Q	9	35.89	3.08	3.08	-38.73	-38.73	102.71	-24.27	4.31

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm <sup>2</sup> >	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE Q	1	19	0.00	-22.12	28.00	134.00	0.50	14.00	93.58	3.08	82.65	58.67	0.02	0.00	
5	0.003	SLE F	1	19	0.00	-24.36	28.00	134.00	0.50	14.00	93.58	3.08	82.65	64.60	0.02	0.00	
9	1.084	SLE Q	4	19	0.00	17.36	28.00	134.00	0.50	14.00	93.58	3.08	82.65	46.04	0.01	0.00	
10	1.083	SLE F	4	19	0.00	18.06	28.00	134.00	0.50	14.00	93.58	3.08	82.65	47.90	0.01	0.00	
13	3.234	SLE Q	9	19	35.89	-38.73	28.00	134.00	0.50	14.00	93.58	3.08	82.65	102.71	0.03	0.00	
14	3.233	SLE F	9	19	35.89	-40.66	28.00	134.00	0.50	14.00	93.58	3.08	82.65	107.84	0.03	0.00	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	228.74	2.50	7185.75	7873.13	7185.75	31.414
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	347.49	2.50	7185.75	7873.13	7185.75	20.679
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	347.49	2.50	7185.75	7873.13	7185.75	20.679

Travata n. 3259

Nodi: 367 -339 -340 -341 -342 -343 -344 -345 -346 368

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	11.15	1506.47	>100
1.441	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	51.42	1506.47	29.297
3.251	SLU	9	36.11	3.08	3.08	3.08	3.08	3.08	9.06	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	8.06	8.06	-5.05	21.37	0.90
0.004	SLE Q	1	0.00	3.08	3.08	6.34	6.34	-3.98	16.83	0.71
1.442	SLE R	5	0.00	3.08	3.08	36.76	36.76	-23.03	97.50	4.09
1.444	SLE Q	5	0.00	3.08	3.08	27.47	27.47	-17.21	72.87	3.06
3.252	SLE R	9	36.11	3.08	3.08	6.58	6.58	-4.12	17.44	0.73
3.254	SLE Q	9	36.11	3.08	3.08	5.19	5.19	-3.25	13.77	0.58

Stato limite d'esercizio - Verifiche a fessurazione



Relazione di calcolo

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	6.34	28.00	134.00	0.50	14.00	93.58	3.08	82.65	16.83	0.00	0.00
4	0.00	3	SLE F	1	19	0.00	6.83	28.00	134.00	0.50	14.00	93.58	3.08	82.65	18.12	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	27.47	28.00	134.00	0.50	14.00	93.58	3.08	82.65	72.87	0.02	0.00
8	1.44	3	SLE F	5	19	0.00	30.12	28.00	134.00	0.50	14.00	93.58	3.08	82.65	79.88	0.02	0.00
11	3.25	4	SLE Q	9	19	36.11	5.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.77	0.00	0.00
12	3.25	3	SLE F	9	19	36.11	5.59	28.00	134.00	0.50	14.00	93.58	3.08	82.65	14.82	0.00	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	42.38	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	27.07	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	51.57	2.50	7185.75	7873.13	7185.75	>100

Travata n. 3302

Nodi: 369 -347 -348 -349 -350 -351 -352 -353 370

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-194.68	-1506.47	7.738
1.27	1	SLU	4	18.13	3.08	3.08	3.08	3.08	200.81	1506.47	7.502
2.90	1	SLU	8	36.25	3.08	3.08	3.08	3.08	-199.13	-1506.47	7.565

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cm>	σ <sub>ε</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
0.00	2	SLE R	1	0.00	3.08	3.08	-147.50	391.20	-92.42	16.42
0.00	4	SLE Q	1	0.00	3.08	3.08	-139.23	369.25	-87.24	15.50
1.27	2	SLE R	4	18.13	3.08	3.08	150.94	-94.58	400.32	16.80
1.27	4	SLE Q	4	18.13	3.08	3.08	137.93	-86.42	365.82	15.35
2.90	2	SLE R	8	36.25	3.08	3.08	-150.90	400.21	-94.55	16.80
2.90	4	SLE Q	8	36.25	3.08	3.08	-142.39	377.64	-89.22	15.85

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	-139.23	28.00	134.00	0.50	14.00	93.58	3.08	82.65	369.25	0.11	0.02
4	0.00	3	SLE F	1	19	0.00	-141.59	28.00	134.00	0.50	14.00	93.58	3.08	82.65	375.52	0.11	0.02
7	1.27	4	SLE Q	4	19	18.13	137.93	28.00	134.00	0.50	14.00	93.58	3.08	82.65	365.82	0.11	0.02
8	1.27	3	SLE F	4	19	18.13	141.65	28.00	134.00	0.50	14.00	93.58	3.08	82.65	375.67	0.11	0.02
11	2.90	4	SLE Q	8	19	36.25	-142.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	377.64	0.11	0.02
12	2.90	3	SLE F	8	19	36.25	-144.82	28.00	134.00	0.50	14.00	93.58	3.08	82.65	384.09	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	899.27	2.50	7185.75	7873.13	7185.75	7.991
1 SLU	0.14	2.75	2.61	ø6/ 8 2 br.	7.07	0.20	606.87	2.50	7185.75	7873.13	7185.75	11.841
1 SLU	2.75	2.90	0.14	ø6/ 8 2 br.	7.07	0.20	906.58	2.50	7185.75	7873.13	7185.75	7.926

Travata n. 3345

Nodi: 371 -354 -355 -356 -357 -358 -359 -360 -361 372

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	8.44	1506.47	>100
1.61	1	SLU	5	17.94	3.08	3.08	3.08	3.08	50.48	1506.47	29.843
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	10.66	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
-----------	----	-----	----	-----------	----------------	----------------	--------------	--------------------	--------------------	----------------



Relazione di calcolo

								<daN/cm²>	<daN/cm²>	<daN/cm²>
0.00	2	SLE R	1	0.00	3.08	3.08	6.07	-3.80	16.11	0.68
0.00	4	SLE Q	1	0.00	3.08	3.08	4.67	-2.92	12.37	0.52
1.61	2	SLE R	5	17.94	3.08	3.08	35.97	-22.54	95.39	4.00
1.61	4	SLE Q	5	17.94	3.08	3.08	26.62	-16.68	70.60	2.96
3.23	2	SLE R	9	35.89	3.08	3.08	7.66	-4.80	20.33	0.85
3.23	4	SLE Q	9	35.89	3.08	3.08	5.94	-3.72	15.75	0.66

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	4.67	28.00	134.00	0.50	14.00	93.58	3.08	82.65	12.37	0.00	0.00
4	0.00	3	SLE F	1	19	0.00	5.07	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.44	0.00	0.00
7	1.61	4	SLE Q	5	19	17.94	26.62	28.00	134.00	0.50	14.00	93.58	3.08	82.65	70.60	0.02	0.00
8	1.61	3	SLE F	5	19	17.94	29.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	77.66	0.02	0.00
11	3.23	4	SLE Q	9	19	35.89	5.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	15.75	0.00	0.00
12	3.23	3	SLE F	9	19	35.89	6.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.06	0.00	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	41.38	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	24.42	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	32.51	2.50	7185.75	7873.13	7185.75	>100

Travata n. 4024

Nodi: 399 455 -1028 444

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	3.08	1.57	3.08	1.57	-5893.09	-6638.54	1.127

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cm²>	<daN/cm²>	<daN/cm²>
3.32	2	SLE R	3	52.50	3.08	1.57	-4079.22	2339.96	-594.18	51.42
3.32	4	SLE Q	3	52.50	3.08	1.57	-3027.95	1736.91	-441.05	38.17

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-3027.95	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1736.91	0.56	0.11
4	3.32	3	SLE F	3	16	52.50	-3328.20	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1909.15	0.56	0.11

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.22	1.43	1.53	ø6/16 2 br.	3.53	0.16	2226.94	2.50	15238.80	26714.30	15238.80	6.843
1 SLU	1.43	1.94	0.65	ø6/16 2 br.	3.53	0.16	1984.68	2.50	15238.80	26714.30	15238.80	7.678
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	7075.45	2.50	15238.80	26714.30	15238.80	2.154

Travata n. 4035

Nodi: 401 457 -1031 451

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	3.08	1.57	3.08	1.57	-6524.51	-6638.54	1.017

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cm²>	<daN/cm²>	<daN/cm²>
3.32	2	SLE R	3	52.50	3.08	1.57	-4541.72	2605.25	-661.55	57.25
3.32	4	SLE Q	3	52.50	3.08	1.57	-3426.54	1965.56	-499.11	43.19



Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-3426.54	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1965.56	0.67	0.14
4	3.32	3	SLE F	3	16	52.50	-3744.85	28.00	94.00	0.50	14.00	119.66	3.08	140.00	2148.15	0.63	0.13

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.22	1.43	1.53	ø6/16 2 br.	3.53	0.16	2576.03	2.50	15238.80	26714.30	15238.80	5.916
1 SLU	1.43	1.94	0.65	ø6/12 2 br.	4.71	0.16	2320.18	2.50	20318.30	26714.30	20318.30	8.757
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	7802.83	2.50	15238.80	26714.30	15238.80	1.953

Travata n. 5021

Nodi: 561 -1161 -1236 -1324 -1451 508

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	-429.76	-1506.47	3.505

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	5	0.00	3.08	3.08	3.08	-311.25	825.47	-195.02	34.65
1.904	SLE Q	5	0.00	3.08	3.08	3.08	-239.94	636.37	-150.34	26.71

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	19	0.00	-239.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	636.37	0.19	0.03
4	1.90	3	SLE F	5	19	0.00	-260.31	28.00	134.00	0.50	14.00	93.58	3.08	82.65	690.38	0.20	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	-0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	173.13	2.50	7185.75	7873.13	7185.75	41.505
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	190.09	2.50	7185.75	7873.13	7185.75	37.801

Travata n. 5022

Nodi: 562 -1215 -1302 577 509

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	4	70.00	3.08	3.08	3.08	3.08	3.08	-327.31	-1506.47	4.603

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	4	70.00	3.08	3.08	3.08	-237.17	629.01	-148.60	26.40
1.904	SLE Q	4	70.00	3.08	3.08	3.08	-184.81	490.15	-115.80	20.57

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	4	19	70.00	-184.81	28.00	134.00	0.50	14.00	93.58	3.08	82.65	490.15	0.14	0.02
4	1.90	3	SLE F	4	19	70.00	-199.77	28.00	134.00	0.50	14.00	93.58	3.08	82.65	529.82	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	282.07	2.50	7185.75	7873.13	7185.75	25.475



Relazione di calcolo

1	SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	299.04	2.50	7185.75	7873.13	7185.75	24.030
---	-----	------	------	------	-------------	------	------	--------	------	---------	---------	---------	--------

Travata n. 5023

Nodi: 563 -1216 -1303 578 -1511 510

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm<sup>q>	AfE I <cm<sup>q>	AfEP S <cm<sup>q>	AfEP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
1.90	1	SLU	5	35.06	6.03	4.02	6.03	4.02	-6849.86	-9551.64	1.394

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm<sup>q>	AfE I <cm<sup>q>	My <daNm>	σ<sub>f</sub> sup <daN/cm<sup>q>	σ<sub>f</sub> inf <daN/cm<sup>q>	σ<sub>c</sub> <daN/cm<sup>q>
1.90	2	SLE R	5	35.06	6.03	4.02	-5132.41	2008.70	-558.67	51.18
1.90	4	SLE Q	5	35.06	6.03	4.02	-4637.82	1815.13	-504.84	46.24

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K<sub>2</sub>	Φ<sub>eq</sub>	Δ<sub>sm</sub> <mm>	A<sub>s</sub> <cm<sup>q>	A<sub>c</sub> eff <cm<sup>q>	σ<sub>s</sub> <daN/cm<sup>q>	ε<sub>sm</sub>	Wk <mm>
3	1.90	4	SLE Q	5	30	35.06	-4637.82	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1815.13	0.72	0.15
4	1.90	3	SLE F	5	30	35.06	-4779.13	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1870.43	0.67	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cm<sup>q>/m>	bw <cm>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2964.98	2.50	10241.80	20904.00	10241.80	3.454
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3647.62	2.50	10241.80	20904.00	10241.80	2.808

Travata n. 5024

Nodi: 589 -1708 599 544

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm<sup>q>	AfE I <cm<sup>q>	AfEP S <cm<sup>q>	AfEP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-561.98	-2142.71	3.813

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm<sup>q>	AfE I <cm<sup>q>	My <daNm>	σ<sub>f</sub> sup <daN/cm<sup>q>	σ<sub>f</sub> inf <daN/cm<sup>q>	σ<sub>c</sub> <daN/cm<sup>q>
4.82	2	SLE R	3	332.00	3.08	3.08	-400.14	728.91	-195.48	25.72
4.82	4	SLE Q	3	332.00	3.08	3.08	-326.60	594.93	-159.55	20.99

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K<sub>2</sub>	Φ<sub>eq</sub>	Δ<sub>sm</sub> <mm>	A<sub>s</sub> <cm<sup>q>	A<sub>c</sub> eff <cm<sup>q>	σ<sub>s</sub> <daN/cm<sup>q>	ε<sub>sm</sub>	Wk <mm>
3	4.82	4	SLE Q	3	18	332.00	-326.60	28.00	114.00	0.50	14.00	102.12	3.08	101.43	594.93	0.17	0.03
4	4.82	3	SLE F	3	18	332.00	-347.57	28.00	114.00	0.50	14.00	102.12	3.08	101.43	633.14	0.18	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cm<sup>q>/m>	bw <cm>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1760.51	2.50	7619.38	26714.30	7619.38	4.328
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	486.02	2.50	5079.58	10017.90	5079.58	10.451
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	514.81	2.50	5079.58	10017.90	5079.58	9.867

Travata n. 5027

Nodi: 592 -1712 600 545

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94



Relazione di calcolo

18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
----	---	-------	-------	------	------	--------	-------	--------	--------	-------	---------	---------	---------

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.821	SLU		3	332.00	3.08	3.08	3.08	3.08	-276.81	-2142.71	7.741

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	SLE R		3	332.00	3.08	3.08	-199.85	364.06	-97.63	12.85
4.824	SLE Q		3	332.00	3.08	3.08	-164.82	300.23	-80.52	10.59

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.824	SLE Q		3	18	332.00	-164.82	28.00	114.00	0.50	14.00	102.12	3.08	101.43	300.23	0.09	0.02
4	4.823	SLE F		3	18	332.00	-174.83	28.00	114.00	0.50	14.00	102.12	3.08	101.43	318.48	0.09	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1327.23	2.50	7619.38	26714.30	7619.38	5.741
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	293.32	2.50	5079.58	10017.90	5079.58	17.318
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	322.10	2.50	5079.58	10017.90	5079.58	15.770

Travata n. 5028

Nodi: 564 -1217 -1304 579 -1512 511

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
	<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		5	35.09	6.03	4.02	6.03	4.02	-6847.51	-9551.64	1.395

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	35.09	6.03	4.02	-5130.57	2007.98	-558.47	51.16
1.904	SLE Q		5	35.09	6.03	4.02	-4634.95	1814.00	-504.52	46.22

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		5	30	35.09	-4634.95	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1814.00	0.72	0.15
4	1.903	SLE F		5	30	35.09	-4776.56	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1869.43	0.67	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2954.06	2.50	10241.80	20904.00	10241.80	3.467
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3676.77	2.50	10241.80	20904.00	10241.80	2.786

Travata n. 5029

Nodi: 565 -1218 -1305 580 512

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
	<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		4	70.00	3.08	3.08	3.08	3.08	-326.30	-1506.47	4.617

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		4	70.00	3.08	3.08	-236.41	627.00	-148.13	26.32



Relazione di calcolo

1.904	SLE Q	4	70.00	3.08	3.08	-184.06	488.16	-115.33	20.49
-------	-------	---	-------	------	------	---------	--------	---------	-------

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	4	4	19	70.00	-184.06	28.00	134.00	0.50	14.00	93.58	3.08	82.65	488.16	0.14	0.02
4	1.903	SLE F	4	4	19	70.00	-199.02	28.00	134.00	0.50	14.00	93.58	3.08	82.65	527.83	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	279.92	2.50	7185.75	7873.13	7185.75	25.671
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	296.88	2.50	7185.75	7873.13	7185.75	24.204

Travata n. 5032

Nodi: 567 -1177 -1248 -1314 -1434 515

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	5	38.00	3.08	3.08	3.08	3.08	-415.07	-1506.47	3.629

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	5	5	38.00	3.08	3.08	-300.62	797.28	-188.36	33.46
1.904	SLE Q	5	5	38.00	3.08	3.08	-230.67	611.76	-144.53	25.68

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	5	5	19	38.00	-230.67	28.00	134.00	0.50	14.00	93.58	3.08	82.65	611.76	0.18	0.03
4	1.903	SLE F	5	5	19	38.00	-250.65	28.00	134.00	0.50	14.00	93.58	3.08	82.65	664.76	0.19	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	132.75	2.50	7185.75	7873.13	7185.75	54.132
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	149.71	2.50	7185.75	7873.13	7185.75	47.997

Travata n. 5033

Nodi: 568 -1219 -1306 581 -1514 516

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	5	35.44	3.08	3.08	3.08	3.08	-325.07	-1506.47	4.634

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	5	5	35.44	3.08	3.08	-235.36	624.21	-147.47	26.20
1.904	SLE Q	5	5	35.44	3.08	3.08	-182.23	483.30	-114.18	20.29

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	5	5	19	35.44	-182.23	28.00	134.00	0.50	14.00	93.58	3.08	82.65	483.30	0.14	0.02
4	1.903	SLE F	5	5	19	35.44	-197.41	28.00	134.00	0.50	14.00	93.58	3.08	82.65	523.57	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	229.90	2.50	7185.75	7873.13	7185.75	31.256



## Relazione di calcolo

1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	246.86	2.50	7185.75	7873.13	7185.75	29.108
-------	------	------	------	-------------	------	------	--------	------	---------	---------	---------	--------

### Travata n. 5035

Nodi: 593 -1713 601 551

#### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

#### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm>	Afe I <cm>	Afe S <cm>	Afe I <cm>	My <daNm>	MRdy <daNm>	Sic.
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-594.60	-2142.71	3.604

#### Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	2	SLE R	3	332.00	3.08	3.08	-423.99	772.35	-207.13	27.25
4.824	4	SLE Q	3	332.00	3.08	3.08	-347.21	632.49	-169.62	22.32

#### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	4.824	SLE	Q	3	18	332.00	-347.21	28.00	114.00	0.50	14.00	102.12	3.08	101.43	632.49	0.18	0.03
4	4.823	SLE	F	3	18	332.00	-369.10	28.00	114.00	0.50	14.00	102.12	3.08	101.43	672.36	0.20	0.03

#### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cm>	bw <cm>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1557.61	2.50	7619.38	26714.30	7619.38	4.892
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	497.69	2.50	5079.58	10017.90	5079.58	10.206
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	526.48	2.50	5079.58	10017.90	5079.58	9.648

### Travata n. 5036

Nodi: 569 -1220 -1307 582 -1515 517

#### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

#### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AFe S	AFe I	AFeP S	AFeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	35.41	6.03	4.02	6.03	4.02	-6705.89	-9551.64	1.424	

#### Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE	R	5	35.41	6.03	4.02	-5024.80	1966.58	-546.96	50.10
1.904	SLE	Q	5	35.41	6.03	4.02	-4541.27	1777.34	-494.32	45.28

#### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE	Q	5	30	35.41	-4541.27	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1777.34	0.70	0.15
4	1.903	SLE	F	5	30	35.41	-4679.41	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1831.40	0.65	0.14

#### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cm>	bw <cm>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	2937.03	2.50	10241.80	20904.00	10241.80	3.487
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	3525.77	2.50	10241.80	20904.00	10241.80	2.905

### Travata n. 5040

Nodi: 570 -1221 -1308 583 -1516 518

#### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94



Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		5	35.38	6.03	4.02	6.03	4.02	-6710.09	-9551.64	1.423

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	35.38	6.03	4.02	-5027.72	1967.72	-547.28	50.13
1.904	SLE Q		5	35.38	6.03	4.02	-4541.84	1777.56	-494.39	45.29

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		5	30	35.38	-4541.84	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1777.56	0.70	0.15
4	1.903	SLE F		5	30	35.38	-4680.65	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1831.89	0.65	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.38	1.38	ø6/18 2 br.	3.14	0.30	2903.90	2.50	10241.80	20904.00	10241.80	3.527
1 SLU	1.38	1.90	0.52	ø6/18 2 br.	3.14	0.30	3563.00	2.50	10241.80	20904.00	10241.80	2.874

Travata n. 5041

Nodi: 596 -1717 602 552

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
	<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.821	SLU		3	332.00	3.08	3.08	3.08	3.08	-298.08	-2142.71	7.188

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	SLE R		3	332.00	3.08	3.08	-215.29	392.18	-105.17	13.84
4.824	SLE Q		3	332.00	3.08	3.08	-177.79	323.88	-86.86	11.43

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.824	SLE Q		3	18	332.00	-177.79	28.00	114.00	0.50	14.00	102.12	3.08	101.43	323.88	0.09	0.02
4	4.823	SLE F		3	18	332.00	-188.51	28.00	114.00	0.50	14.00	102.12	3.08	101.43	343.39	0.10	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1358.27	2.50	7619.38	26714.30	7619.38	5.610
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	299.01	2.50	5079.58	10017.90	5079.58	16.988
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	327.79	2.50	5079.58	10017.90	5079.58	15.496

Travata n. 5042

Nodi: 571 -1222 -1309 584 -1517 519

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
	<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		5	35.43	3.08	3.08	3.08	3.08	-314.09	-1506.47	4.796

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	35.43	3.08	3.08	-227.51	603.39	-142.55	25.33



Relazione di calcolo

1.90	4	SLE Q	5	35.43	3.08	3.08	-175.18	464.60	-109.76	19.50
------	---	-------	---	-------	------	------	---------	--------	---------	-------

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	19	35.43	-175.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	464.60	0.14	0.02
4	1.90	3	SLE F	5	19	35.43	-190.13	28.00	134.00	0.50	14.00	93.58	3.08	82.65	504.26	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	214.39	2.50	7185.75	7873.13	7185.75	33.517
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	231.35	2.50	7185.75	7873.13	7185.75	31.059

Travata n. 5070

Nodi: 600 456 -1030 445

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.321	SLU	3	52.50	4.59	7.54	4.59	7.54	-7130.38	-9780.00	1.372	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.322	SLE R	3	52.50	4.59	7.54	-4941.58	1887.47	-478.63	41.43	
3.324	SLE Q	3	52.50	4.59	7.54	-3753.36	1433.62	-363.55	31.47	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
3	3.324	SLE	Q	3	16	52.50	-3753.36	29.80	22.50	0.50	11.23	93.88	4.59	140.00	1433.62	0.49	0.08
4	3.323	SLE	F	3	16	52.50	-4092.36	29.80	22.50	0.50	11.23	93.88	4.59	140.00	1563.10	0.46	0.07

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	-0.18	1.21	1.76	ø8/20 2 br.	5.03	0.16	2552.94	2.50	21672.90	26714.30	21672.90	8.489
1 SLU	1.21	1.72	0.65	ø8/20 2 br.	5.03	0.16	419.72	2.50	21672.90	26714.30	21672.90	51.636
1 SLU	1.92	3.32	1.40	ø8/20 2 br.	5.03	0.16	8339.62	2.50	21672.90	26714.30	21672.90	2.599

Travata n. 5084

Nodi: 602 458 -1033 452

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.321	SLU	3	52.50	4.59	7.54	4.59	7.54	-7755.52	-9780.00	1.261	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.322	SLE R	3	52.50	4.59	7.54	-5401.54	2063.15	-523.19	45.28	
3.324	SLE Q	3	52.50	4.59	7.54	-4145.76	1583.50	-401.55	34.76	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
3	3.324	SLE Q	3	16	52.50	-4145.76	29.80	24.00	0.50	11.23	93.88	4.59	140.00	1583.50	0.57	0.09	
4	3.323	SLE F	3	16	52.50	-4503.85	29.80	24.00	0.50	11.23	93.88	4.59	140.00	1720.27	0.53	0.08	

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	



Relazione di calcolo

1 SLU	-0.18	1.21	1.76	ø8/20 2 br.	5.03	0.16	2893.88	2.50	21672.90	26714.30	21672.90	7.489
1 SLU	1.21	1.72	0.65	ø8/20 2 br.	5.03	0.16	723.61	2.50	21672.90	26714.30	21672.90	29.951
1 SLU	1.92	3.32	1.40	ø8/20 2 br.	5.03	0.16	9032.73	2.50	21672.90	26714.30	21672.90	2.399

Travata n. 5088

Nodi: 577 -1401 -1402 -1403 -1404 -1405 -1406 -1407 578

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-52.69	-1506.47	28.593
2.00	1	SLU	5	40.00	3.08	3.08	3.08	3.08	20.71	1506.47	72.755
3.20	1	SLU	8	40.00	3.08	3.08	3.08	3.08	-53.04	-1506.47	28.404

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cm²>	<daN/cm²>	<daN/cm²>
0.00	2	SLE R	1	0.00	3.08	3.08	-38.07	100.98	-23.86	4.24
0.00	4	SLE Q	1	0.00	3.08	3.08	-33.04	87.63	-20.70	3.68
2.00	2	SLE R	5	40.00	3.08	3.08	14.48	-9.07	38.40	1.61
2.00	4	SLE Q	5	40.00	3.08	3.08	12.83	-8.04	34.04	1.43
3.20	2	SLE R	8	40.00	3.08	3.08	-37.35	99.05	-23.40	4.16
3.20	4	SLE Q	8	40.00	3.08	3.08	-27.88	73.94	-17.47	3.10

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cm²>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-33.04	28.00	134.00	0.50	14.00	93.58	3.08	82.65	87.63	0.03	0.00
4	0.00	3	SLE F	1	19	0.00	-34.48	28.00	134.00	0.50	14.00	93.58	3.08	82.65	91.44	0.03	0.00
7	2.00	4	SLE Q	5	19	40.00	12.83	28.00	134.00	0.50	14.00	93.58	3.08	82.65	34.04	0.01	0.00
8	2.00	3	SLE F	5	19	40.00	13.28	28.00	134.00	0.50	14.00	93.58	3.08	82.65	35.22	0.01	0.00
11	3.20	4	SLE Q	8	19	40.00	-27.88	28.00	134.00	0.50	14.00	93.58	3.08	82.65	73.94	0.02	0.00
12	3.20	3	SLE F	8	19	40.00	-30.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	81.11	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	311.76	2.50	7185.75	7873.13	7185.75	23.049
1 SLU	0.14	3.06	2.91	ø6/ 8 2 br.	7.07	0.20	311.76	2.50	7185.75	7873.13	7185.75	23.049
1 SLU	3.06	3.20	0.14	ø6/ 8 2 br.	7.07	0.20	218.21	2.50	7185.75	7873.13	7185.75	32.931

Travata n. 5130

Nodi: 561 -1090 -1091 -1092 -1093 -1094 -1095 -1096 -1097 562

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	11.93	1506.47	>100
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	52.99	1506.47	28.428
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	8.84	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cm²>	<daN/cm²>	<daN/cm²>
0.00	2	SLE R	1	0.00	3.08	3.08	8.62	-5.40	22.85	0.96
0.00	4	SLE Q	1	0.00	3.08	3.08	6.84	-4.29	18.14	0.76
1.44	2	SLE R	5	0.00	3.08	3.08	37.88	-23.73	100.46	4.22
1.44	4	SLE Q	5	0.00	3.08	3.08	28.40	-17.80	75.33	3.16
3.25	2	SLE R	9	36.11	3.08	3.08	6.41	-4.01	16.99	0.71
3.25	4	SLE Q	9	36.11	3.08	3.08	5.00	-3.13	13.26	0.56

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cm²>		<mm>
3	0.00	4	SLE Q	1	19	0.00	6.84	28.00	134.00	0.50	14.00	93.58	3.08	82.65	18.14	0.01	0.00



Relazione di calcolo

4	0.003	SLE F	1	19	0.00	7.35	28.00	134.00	0.50	14.00	93.58	3.08	82.65	19.49	0.01	0.00
7	1.444	SLE Q	5	19	0.00	28.40	28.00	134.00	0.50	14.00	93.58	3.08	82.65	75.33	0.02	0.00
8	1.443	SLE F	5	19	0.00	31.10	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.49	0.02	0.00
11	3.254	SLE Q	9	19	36.11	5.00	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.26	0.00	0.00
12	3.253	SLE F	9	19	36.11	5.40	28.00	134.00	0.50	14.00	93.58	3.08	82.65	14.33	0.00	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	42.81	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	28.74	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	53.24	2.50	7185.75	7873.13	7185.75	>100

Travata n. 5131

Nodi: 579 -1408 -1409 -1410 -1411 -1412 -1413 -1414 580

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-44.54	-1506.47	33.823
1.191	SLU	4	0.00	3.08	3.08	3.08	3.08	3.08	22.63	1506.47	66.583
3.181	SLU	8	39.75	3.08	3.08	3.08	3.08	3.08	-55.13	-1506.47	27.327

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	3.08	-31.15	82.61	-19.52	3.47
0.004	SLE Q	1	0.00	3.08	3.08	3.08	-22.47	59.59	-14.08	2.50
1.192	SLE R	4	0.00	3.08	3.08	3.08	15.91	-9.97	42.20	1.77
1.194	SLE Q	4	0.00	3.08	3.08	3.08	14.19	-8.89	37.64	1.58
3.182	SLE R	8	39.75	3.08	3.08	3.08	-39.85	105.68	-24.97	4.44
3.184	SLE Q	8	39.75	3.08	3.08	3.08	-34.49	91.47	-21.61	3.84

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmqr>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	-22.47	28.00	134.00	0.50	14.00	93.58	3.08	82.65	59.59	0.02	0.00
5	0.003	SLE	F	1	19	0.00	-24.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	66.18	0.02	0.00
9	1.194	SLE	Q	4	19	0.00	14.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	37.64	0.01	0.00
10	1.193	SLE	F	4	19	0.00	14.66	28.00	134.00	0.50	14.00	93.58	3.08	82.65	38.88	0.01	0.00
13	3.184	SLE	Q	8	19	39.75	-34.49	28.00	134.00	0.50	14.00	93.58	3.08	82.65	91.47	0.03	0.00
14	3.183	SLE	F	8	19	39.75	-36.01	28.00	134.00	0.50	14.00	93.58	3.08	82.65	95.51	0.03	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	221.73	2.50	7185.75	7873.13	7185.75	32.407
1 SLU	0.14	3.04	2.89	ø6/ 8 2 br.	7.07	0.20	315.69	2.50	7185.75	7873.13	7185.75	22.762
1 SLU	3.04	3.18	0.14	ø6/ 8 2 br.	7.07	0.20	315.69	2.50	7185.75	7873.13	7185.75	22.762

Travata n. 5173

Nodi: 563 -1098 -1099 -1100 -1101 -1102 -1103 -1104 564

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-206.93	-1506.47	7.280
1.501	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	207.96	1506.47	7.244
3.001	SLU	8	37.50	3.08	3.08	3.08	3.08	3.08	-203.65	-1506.47	7.397

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	3.08	-156.70	415.58	-98.18	17.44
0.004	SLE Q	1	0.00	3.08	3.08	3.08	-147.64	391.57	-92.51	16.44
1.502	SLE R	5	0.00	3.08	3.08	3.08	156.28	-97.92	414.46	17.40



Relazione di calcolo

1.50	4	SLE Q	5	0.00	3.08	3.08	142.78	-89.46	378.69	15.89
3.00	2	SLE R	8	37.50	3.08	3.08	-154.31	409.26	-96.69	17.18
3.00	4	SLE Q	8	37.50	3.08	3.08	-145.44	385.72	-91.13	16.19

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-147.64	28.00	134.00	0.50	14.00	93.58	3.08	82.65	391.57	0.11	0.02
4	0.00	3	SLE F	1	19	0.00	-150.23	28.00	134.00	0.50	14.00	93.58	3.08	82.65	398.43	0.12	0.02
7	1.50	4	SLE Q	5	19	0.00	142.78	28.00	134.00	0.50	14.00	93.58	3.08	82.65	378.69	0.11	0.02
8	1.50	3	SLE F	5	19	0.00	146.64	28.00	134.00	0.50	14.00	93.58	3.08	82.65	388.90	0.11	0.02
11	3.00	4	SLE Q	8	19	37.50	-145.44	28.00	134.00	0.50	14.00	93.58	3.08	82.65	385.72	0.11	0.02
12	3.00	3	SLE F	8	19	37.50	-147.97	28.00	134.00	0.50	14.00	93.58	3.08	82.65	392.45	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	913.28	2.50	7185.75	7873.13	7185.75	7.868
1 SLU	0.14	2.85	2.71	ø6/ 8 2 br.	7.07	0.20	613.62	2.50	7185.75	7873.13	7185.75	11.710
1 SLU	2.85	3.00	0.14	ø6/ 8 2 br.	7.07	0.20	913.34	2.50	7185.75	7873.13	7185.75	7.868

Travata n. 5174

Nodi: 581 -1415 -1416 -1417 -1418 -1419 -1420 -1421 -1422 582

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-57.99	-1506.47	25.976
1.99	1	SLU	6	18.06	3.08	3.08	3.08	3.08	25.39	1506.47	59.325
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	-44.70	-1506.47	33.700

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-41.90	111.13	-26.25	4.66
0.00	4	SLE Q	1	0.00	3.08	3.08	-36.17	95.92	-22.66	4.03
1.99	2	SLE R	6	18.06	3.08	3.08	18.00	-11.28	47.75	2.00
1.99	4	SLE Q	6	18.06	3.08	3.08	16.15	-10.12	42.82	1.80
3.25	2	SLE R	9	36.11	3.08	3.08	-31.27	82.94	-19.60	3.48
3.25	4	SLE Q	9	36.11	3.08	3.08	-22.49	59.65	-14.09	2.50

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
5	0.00	4	SLE Q	1	19	0.00	-36.17	28.00	134.00	0.50	14.00	93.58	3.08	82.65	95.92	0.03	0.00
6	0.00	3	SLE F	1	19	0.00	-37.80	28.00	134.00	0.50	14.00	93.58	3.08	82.65	100.25	0.03	0.00
9	1.99	4	SLE Q	6	19	18.06	16.15	28.00	134.00	0.50	14.00	93.58	3.08	82.65	42.82	0.01	0.00
10	1.99	3	SLE F	6	19	18.06	16.64	28.00	134.00	0.50	14.00	93.58	3.08	82.65	44.13	0.01	0.00
14	3.25	4	SLE Q	9	19	36.11	-22.49	28.00	134.00	0.50	14.00	93.58	3.08	82.65	59.65	0.02	0.00
16	3.25	3	SLE F	9	19	36.11	-25.01	28.00	134.00	0.50	14.00	93.58	3.08	82.65	66.32	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	369.32	2.50	7185.75	7873.13	7185.75	19.457
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	369.32	2.50	7185.75	7873.13	7185.75	19.457
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	233.88	2.50	7185.75	7873.13	7185.75	30.724

Travata n. 5216

Nodi: 565 -1105 -1106 -1107 -1108 -1109 -1110 -1111 -1112 566

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	8.68	1506.47	>100
1.62	1	SLU	5	18.06	3.08	3.08	3.08	3.08	51.44	1506.47	29.286



Relazione di calcolo

3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	11.34	1506.47	>100
------	---	-----	---	-------	------	------	------	------	-------	---------	------

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	$\sigma_{\epsilon}$ sup <daN/cm <sup>2</sup> >	$\sigma_{\epsilon}$ inf <daN/cm <sup>2</sup> >	$\sigma_c$ <daN/cm <sup>2</sup> >
0.00	2	SLE R	1	0.00	3.08	3.08	6.30	-3.95	16.70	0.70
0.00	4	SLE Q	1	0.00	3.08	3.08	4.91	-3.08	13.03	0.55
1.62	2	SLE R	5	18.06	3.08	3.08	36.77	-23.04	97.51	4.09
1.62	4	SLE Q	5	18.06	3.08	3.08	27.43	-17.19	72.76	3.05
3.25	2	SLE R	9	36.11	3.08	3.08	8.19	-5.13	21.73	0.91
3.25	4	SLE Q	9	36.11	3.08	3.08	6.47	-4.05	17.16	0.72

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cm <sup>2</sup> >	A <sub>c eff</sub> <cm <sup>2</sup> >	$\sigma_s$ <daN/cm <sup>2</sup> >	$\epsilon_{sm}$	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	4.91	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.03	0.00	0.00
4	0.00	3	SLE F	1	19	0.00	5.31	28.00	134.00	0.50	14.00	93.58	3.08	82.65	14.08	0.00	0.00
7	1.62	4	SLE Q	5	19	18.06	27.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	72.76	0.02	0.00
8	1.62	3	SLE F	5	19	18.06	30.09	28.00	134.00	0.50	14.00	93.58	3.08	82.65	79.81	0.02	0.00
11	3.25	4	SLE Q	9	19	36.11	6.47	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.16	0.00	0.00
12	3.25	3	SLE F	9	19	36.11	6.96	28.00	134.00	0.50	14.00	93.58	3.08	82.65	18.47	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	53.28	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	28.77	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	42.31	2.50	7185.75	7873.13	7185.75	>100

Travata n. 5217

Nodi: 583 -1423 -1424 -1425 -1426 -1427 -1428 -1429 -1430 584

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
19R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-32.37	-1506.47	46.543
1.08	1	SLU	4	0.00	3.08	3.08	3.08	3.08	32.44	1506.47	46.440
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	-64.98	-1506.47	23.185

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	$\sigma_{\epsilon}$ sup <daN/cm <sup>2</sup> >	$\sigma_{\epsilon}$ inf <daN/cm <sup>2</sup> >	$\sigma_c$ <daN/cm <sup>2</sup> >
0.00	2	SLE R	1	0.00	3.08	3.08	-22.36	59.30	-14.01	2.49
0.00	4	SLE Q	1	0.00	3.08	3.08	15.94	-9.99	42.27	1.77
1.08	2	SLE R	4	0.00	3.08	3.08	23.29	-14.60	61.78	2.59
1.08	4	SLE Q	4	0.00	3.08	3.08	21.03	-13.18	55.78	2.34
3.23	2	SLE R	9	35.89	3.08	3.08	-47.02	124.72	-29.46	5.23
3.23	4	SLE Q	9	35.89	3.08	3.08	-40.83	108.27	-25.58	4.54

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cm <sup>2</sup> >	A <sub>c eff</sub> <cm <sup>2</sup> >	$\sigma_s$ <daN/cm <sup>2</sup> >	$\epsilon_{sm}$	Wk <mm>
6	0.00	4	SLE Q	1	19	0.00	15.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	42.27	0.01	0.00
7	0.00	3	SLE F	1	19	0.00	-17.01	28.00	134.00	0.50	14.00	93.58	3.08	82.65	45.10	0.01	0.00
11	1.08	4	SLE Q	4	19	0.00	21.03	28.00	134.00	0.50	14.00	93.58	3.08	82.65	55.78	0.02	0.00
12	1.08	3	SLE F	4	19	0.00	21.67	28.00	134.00	0.50	14.00	93.58	3.08	82.65	57.47	0.02	0.00
15	3.23	4	SLE Q	9	19	35.89	-40.83	28.00	134.00	0.50	14.00	93.58	3.08	82.65	108.27	0.03	0.01
16	3.23	3	SLE F	9	19	35.89	-42.59	28.00	134.00	0.50	14.00	93.58	3.08	82.65	112.96	0.03	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cmq/m>	bw <m>	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	243.88	2.50	7185.75	7873.13	7185.75	29.464
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	356.32	2.50	7185.75	7873.13	7185.75	20.167
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	356.32	2.50	7185.75	7873.13	7185.75	20.167

Travata n. 5259

Nodi: 567 -1113 -1114 -1115 -1116 -1117 -1118 -1119 -1120 568

Caratteristiche delle sezioni e dei materiali utilizzati



Relazione di calcolo

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	11.10	1506.47	>100
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	52.01	1506.47	28.965
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	9.12	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	8.02	-5.02	21.27	0.89
0.00	4	SLE Q	1	0.00	3.08	3.08	6.31	-3.95	16.72	0.70
1.44	2	SLE R	5	0.00	3.08	3.08	37.17	-23.29	98.59	4.14
1.44	4	SLE Q	5	0.00	3.08	3.08	27.75	-17.39	73.61	3.09
3.25	2	SLE R	9	36.11	3.08	3.08	6.62	-4.15	17.55	0.74
3.25	4	SLE Q	9	36.11	3.08	3.08	5.20	-3.26	13.78	0.58

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	6.31	28.00	134.00	0.50	14.00	93.58	3.08	82.65	16.72	0.00	0.00
4	0.00	3	SLE F	1	19	0.00	6.79	28.00	134.00	0.50	14.00	93.58	3.08	82.65	18.02	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	27.75	28.00	134.00	0.50	14.00	93.58	3.08	82.65	73.61	0.02	0.00
8	1.44	3	SLE F	5	19	0.00	30.44	28.00	134.00	0.50	14.00	93.58	3.08	82.65	80.72	0.02	0.00
11	3.25	4	SLE Q	9	19	36.11	5.20	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.78	0.00	0.00
12	3.25	3	SLE F	9	19	36.11	5.60	28.00	134.00	0.50	14.00	93.58	3.08	82.65	14.86	0.00	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	41.89	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	29.28	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	53.79	2.50	7185.75	7873.13	7185.75	>100

Travata n. 5302

Nodi: 569 -1121 -1122 -1123 -1124 -1125 -1126 -1127 570

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	AfeP S <cmq>	AfeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-195.85	-1506.47	7.692
1.45	1	SLU	5	0.00	3.08	3.08	3.08	3.08	202.90	1506.47	7.425
2.90	1	SLU	8	36.25	3.08	3.08	3.08	3.08	-195.67	-1506.47	7.699

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-148.42	393.63	-92.99	16.52
0.00	4	SLE Q	1	0.00	3.08	3.08	-140.15	371.70	-87.81	15.60
1.45	2	SLE R	5	0.00	3.08	3.08	152.49	-95.54	404.41	16.97
1.45	4	SLE Q	5	0.00	3.08	3.08	139.38	-87.33	369.66	15.52
2.90	2	SLE R	8	36.25	3.08	3.08	-148.29	393.28	-92.91	16.51
2.90	4	SLE Q	8	36.25	3.08	3.08	-139.87	370.94	-87.64	15.57

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	-140.15	28.00	134.00	0.50	14.00	93.58	3.08	82.65	371.70	0.11	0.02
4	0.00	3	SLE F	1	19	0.00	-142.51	28.00	134.00	0.50	14.00	93.58	3.08	82.65	377.96	0.11	0.02
7	1.45	4	SLE Q	5	19	0.00	139.38	28.00	134.00	0.50	14.00	93.58	3.08	82.65	369.66	0.11	0.02
8	1.45	3	SLE F	5	19	0.00	143.12	28.00	134.00	0.50	14.00	93.58	3.08	82.65	379.58	0.11	0.02
11	2.90	4	SLE Q	8	19	36.25	-139.87	28.00	134.00	0.50	14.00	93.58	3.08	82.65	370.94	0.11	0.02
12	2.90	3	SLE F	8	19	36.25	-142.27	28.00	134.00	0.50	14.00	93.58	3.08	82.65	377.33	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	902.82	2.50	7185.75	7873.13	7185.75	7.959



Relazione di calcolo

1 SLU	0.14	2.75	2.61	ø6/ 8 2 br.	7.07	0.20	604.18	2.50	7185.75	7873.13	7185.75	11.893
1 SLU	2.75	2.90	0.14	ø6/ 8 2 br.	7.07	0.20	903.90	2.50	7185.75	7873.13	7185.75	7.950

Travata n. 5345

Nodi: 571 -1128 -1129 -1130 -1131 -1132 -1133 -1134 -1135 572

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm<sup>q>	AfE I <cm<sup>q>	AfEP S <cm<sup>q>	AfEP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	9.72	1506.47	>100
1.61	1	SLU	5	17.94	3.08	3.08	3.08	3.08	51.36	1506.47	29.331
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	10.67	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm<sup>q>	AfE I <cm<sup>q>	My <daNm>	σ<sub>ε</sub> sup <daN/cm<sup>q>	σ<sub>ε</sub> inf <daN/cm<sup>q>	σ<sub>c</sub> <daN/cm<sup>q>
0.00	2	SLE R	1	0.00	3.08	3.08	7.03	-4.40	18.64	0.78
0.00	4	SLE Q	1	0.00	3.08	3.08	5.53	-3.46	14.66	0.62
1.61	2	SLE R	5	17.94	3.08	3.08	36.70	-23.00	97.34	4.09
1.61	4	SLE Q	5	17.94	3.08	3.08	27.51	-17.24	72.96	3.06
3.23	2	SLE R	9	35.89	3.08	3.08	7.71	-4.83	20.44	0.86
3.23	4	SLE Q	9	35.89	3.08	3.08	6.08	-3.81	16.14	0.68

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K<sub>2</sub>	Φ<sub>eq</sub>	Δ<sub>sm</sub> <mm>	A<sub>s</sub> <cm<sup>q>	A<sub>c</sub> eff <cm<sup>q>	σ<sub>s</sub> <daN/cm<sup>q>	ε<sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	5.53	28.00	134.00	0.50	14.00	93.58	3.08	82.65	14.66	0.00	0.00
4	0.00	3	SLE F	1	19	0.00	5.96	28.00	134.00	0.50	14.00	93.58	3.08	82.65	15.80	0.00	0.00
7	1.61	4	SLE Q	5	19	17.94	27.51	28.00	134.00	0.50	14.00	93.58	3.08	82.65	72.96	0.02	0.00
8	1.61	3	SLE F	5	19	17.94	30.13	28.00	134.00	0.50	14.00	93.58	3.08	82.65	79.91	0.02	0.00
11	3.23	4	SLE Q	9	19	35.89	6.08	28.00	134.00	0.50	14.00	93.58	3.08	82.65	16.14	0.00	0.00
12	3.23	3	SLE F	9	19	35.89	6.55	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.37	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cm<sup>q>/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	52.36	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	27.85	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	42.79	2.50	7185.75	7873.13	7185.75	>100

Travata n. 6024

Nodi: 599 655 -1793 644

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm<sup>q>	AfE I <cm<sup>q>	AfEP S <cm<sup>q>	AfEP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
3.32	1	SLU	3	52.50	6.16	3.08	6.16	3.08	-3118.24	-13043.50	4.183

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm<sup>q>	AfE I <cm<sup>q>	My <daNm>	σ<sub>ε</sub> sup <daN/cm<sup>q>	σ<sub>ε</sub> inf <daN/cm<sup>q>	σ<sub>c</sub> <daN/cm<sup>q>
3.32	2	SLE R	3	52.50	6.16	3.08	-2137.22	625.12	-242.63	19.67
3.32	4	SLE Q	3	52.50	6.16	3.08	-1556.35	455.22	-176.69	14.32

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K<sub>2</sub>	Φ<sub>eq</sub>	Δ<sub>sm</sub> <mm>	A<sub>s</sub> <cm<sup>q>	A<sub>c</sub> eff <cm<sup>q>	σ<sub>s</sub> <daN/cm<sup>q>	ε<sub>sm</sub>	Wk <mm>
3	3.32	4	SLE Q	3	16	52.50	-1556.35	28.00	31.33	0.50	14.00	87.83	6.16	140.00	455.22	0.13	0.02
4	3.32	3	SLE F	3	16	52.50	-1722.21	28.00	31.33	0.50	14.00	87.83	6.16	140.00	503.73	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cm<sup>q>/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1846.11	2.50	7619.38	26714.30	7619.38	4.127
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	1261.13	2.50	7619.38	26714.30	7619.38	6.042



Relazione di calcolo

1	SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	4016.06	2.50	15238.80	26714.30	15238.80	3.794
---	-----	------	------	------	-------------	------	------	---------	------	----------	----------	----------	-------

Travata n. 6035

Nodi: 601 657 -1796 651

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.321	SLU	3	52.50	6.16	3.08	6.16	3.08	-3465.70	-13043.50	3.764	

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>t</sub> sup <daN/cmq>	σ <sub>t</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
3.322	SLE R	3	52.50	6.16	3.08	-2394.82	-2394.82	700.47	-271.88	22.04
3.324	SLE Q	3	52.50	6.16	3.08	-1772.18	-1772.18	518.35	-201.19	16.31

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	3.324	SLE Q	3	16	52.50	-1772.18	28.00	31.33	0.50	14.00	87.83	6.16	140.00	518.35	0.15	0.02	
4	3.323	SLE F	3	16	52.50	-1949.91	28.00	31.33	0.50	14.00	87.83	6.16	140.00	570.34	0.17	0.02	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <cm>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	2059.54	2.50	7619.38	26714.30	7619.38	3.700
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	1449.65	2.50	7619.38	26714.30	7619.38	5.256
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	4369.40	2.50	15238.80	26714.30	15238.80	3.488

Travata n. 7021

Nodi: 761 -1927 -2001 -2090 -2204 708

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	-414.40	-1506.47	3.635

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>t</sub> sup <daN/cmq>	σ <sub>t</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
1.902	SLE R	5	0.00	3.08	3.08	-300.16	-300.16	796.08	-188.07	33.41
1.904	SLE Q	5	0.00	3.08	3.08	-230.48	-230.48	611.27	-144.41	25.66

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5	19	0.00	-230.48	28.00	134.00	0.50	14.00	93.58	3.08	82.65	611.27	0.18	0.03	
4	1.903	SLE F	5	19	0.00	-250.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	664.07	0.19	0.03	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <cm>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	134.49	2.50	7185.75	7873.13	7185.75	53.429
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	151.46	2.50	7185.75	7873.13	7185.75	47.444

Travata n. 7022

Nodi: 762 -1980 -2067 777 709

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94



Relazione di calcolo

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		4	70.00	3.08	3.08	3.08	3.08	-327.91	-1506.47	4.594

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>e</sub> sup	σ <sub>e</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		4	70.00	3.08	3.08	-237.60	630.14	-148.87	26.45
1.904	SLE Q		4	70.00	3.08	3.08	-185.01	490.66	-115.92	20.59

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		4	19	70.00	-185.01	28.00	134.00	0.50	14.00	93.58	3.08	82.65	490.66	0.14	0.02
4	1.903	SLE F		4	19	70.00	-200.03	28.00	134.00	0.50	14.00	93.58	3.08	82.65	530.52	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	281.45	2.50	7185.75	7873.13	7185.75	25.532
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	298.41	2.50	7185.75	7873.13	7185.75	24.080

Travata n. 7023

Nodi: 763 -1981 -2068 778 -2276 710

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30R		30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		5	35.06	6.03	4.02	6.03	4.02	-6868.29	-9551.64	1.391

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>e</sub> sup	σ <sub>e</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	35.06	6.03	4.02	-5145.83	2013.95	-560.13	51.31
1.904	SLE Q		5	35.06	6.03	4.02	-4649.74	1819.79	-506.13	46.36

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		5	30	35.06	-4649.74	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1819.79	0.72	0.15
4	1.903	SLE F		5	30	35.06	-4791.47	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1875.26	0.67	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2971.76	2.50	10241.80	20904.00	10241.80	3.446
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3671.07	2.50	10241.80	20904.00	10241.80	2.790

Travata n. 7024

Nodi: 789 -2473 799 744

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R		18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.821	SLU		3	332.00	3.08	3.08	3.08	3.08	-543.36	-2142.71	3.943

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>e</sub> sup	σ <sub>e</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	SLE R		3	332.00	3.08	3.08	-383.92	699.36	-187.55	24.68
4.824	SLE Q		3	332.00	3.08	3.08	-308.76	562.45	-150.84	19.85



Relazione di calcolo

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-308.76	28.00	114.00	0.50	14.00	102.12	3.08	101.43	562.45	0.16	0.03
4	4.82	3	SLE F	3	18	332.00	-330.20	28.00	114.00	0.50	14.00	102.12	3.08	101.43	601.49	0.18	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2047.65	2.50	7619.38	26714.30	7619.38	3.721
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	479.33	2.50	5079.58	10017.90	5079.58	10.597
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	508.11	2.50	5079.58	10017.90	5079.58	9.997

Travata n. 7027

Nodi: 792 -2477 800 745

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R		18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.821	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-373.31	-2142.71	5.740

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822		SLE R	3	332.00	3.08	3.08	-263.88	480.68	-128.91	16.96
4.824		SLE Q	3	332.00	3.08	3.08	-206.56	376.28	-100.91	13.28

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-206.56	28.00	114.00	0.50	14.00	102.12	3.08	101.43	376.28	0.11	0.02
4	4.82	3	SLE F	3	18	332.00	-222.95	28.00	114.00	0.50	14.00	102.12	3.08	101.43	406.13	0.12	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1212.95	2.50	7619.38	26714.30	7619.38	6.282
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	363.08	2.50	5079.58	10017.90	5079.58	13.990
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	391.86	2.50	5079.58	10017.90	5079.58	12.963

Travata n. 7028

Nodi: 764 -1982 -2069 779 -2277 711

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30R		30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	1	SLU	5	35.09	6.03	4.02	6.03	4.02	-6849.98	-9551.64	1.394

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902		SLE R	5	35.09	6.03	4.02	-5132.80	2008.85	-558.71	51.18
1.904		SLE Q	5	35.09	6.03	4.02	-4637.51	1815.00	-504.80	46.24

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	30	35.09	-4637.51	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1815.00	0.72	0.15
4	1.90	3	SLE F	5	30	35.09	-4779.03	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1870.39	0.67	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	



Relazione di calcolo

1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2944.31	2.50	10241.80	20904.00	10241.80	3.478
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3714.64	2.50	10241.80	20904.00	10241.80	2.757

Travata n. 7029

Nodi: 765 -1983 -2070 780 712

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	1	SLU	4	70.00	3.08	3.08	3.08	3.08	-327.23	-1506.47	4.604

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>r</sub> sup	σ <sub>r</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	1	SLE R	4	70.00	3.08	3.08	-237.07	628.75	-148.54	26.39
1.904	1	SLE Q	4	70.00	3.08	3.08	-184.56	489.49	-115.64	20.55

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	1	SLE Q	4	19	70.00	-184.56	28.00	134.00	0.50	14.00	93.58	3.08	82.65	489.49	0.14	0.02
4	1.903	1	SLE F	4	19	70.00	-199.57	28.00	134.00	0.50	14.00	93.58	3.08	82.65	529.28	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<cm>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	279.79	2.50	7185.75	7873.13	7185.75	25.683
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	296.76	2.50	7185.75	7873.13	7185.75	24.214

Travata n. 7032

Nodi: 767 -1948 -2013 -2085 -2198 715

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	1	SLU	5	38.00	3.08	3.08	3.08	3.08	-409.90	-1506.47	3.675

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>r</sub> sup	σ <sub>r</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	1	SLE R	5	38.00	3.08	3.08	-296.79	787.14	-185.96	33.04
1.904	1	SLE Q	5	38.00	3.08	3.08	-227.47	603.28	-142.53	25.32

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	1	SLE Q	5	19	38.00	-227.47	28.00	134.00	0.50	14.00	93.58	3.08	82.65	603.28	0.18	0.03
4	1.903	1	SLE F	5	19	38.00	-247.27	28.00	134.00	0.50	14.00	93.58	3.08	82.65	655.80	0.19	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<cm>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	123.07	2.50	7185.75	7873.13	7185.75	58.388
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	140.03	2.50	7185.75	7873.13	7185.75	51.315

Travata n. 7033

Nodi: 768 -1984 -2071 781 -2279 716

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94



Relazione di calcolo

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		5	35.44	3.08	3.08	3.08	3.08	-325.28	-1506.47	4.631

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	35.44	3.08	3.08	-235.49	624.55	-147.55	26.21
1.904	SLE Q		5	35.44	3.08	3.08	-182.14	483.07	-114.12	20.28

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		5	19	35.44	-182.14	28.00	134.00	0.50	14.00	93.58	3.08	82.65	483.07	0.14	0.02
4	1.903	SLE F		5	19	35.44	-197.39	28.00	134.00	0.50	14.00	93.58	3.08	82.65	523.50	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	225.55	2.50	7185.75	7873.13	7185.75	31.859
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	242.51	2.50	7185.75	7873.13	7185.75	29.630

Travata n. 7035

Nodi: 793 -2478 801 751

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R		18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.821	SLU		3	332.00	3.08	3.08	3.08	3.08	-578.53	-2142.71	3.704

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	SLE R		3	332.00	3.08	3.08	-410.10	747.04	-200.34	26.36
4.824	SLE Q		3	332.00	3.08	3.08	-330.79	602.57	-161.60	21.26

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.824	SLE Q		3	18	332.00	-330.79	28.00	114.00	0.50	14.00	102.12	3.08	101.43	602.57	0.18	0.03
4	4.823	SLE F		3	18	332.00	-353.40	28.00	114.00	0.50	14.00	102.12	3.08	101.43	643.76	0.19	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1867.73	2.50	7619.38	26714.30	7619.38	4.079
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	492.58	2.50	5079.58	10017.90	5079.58	10.312
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	521.37	2.50	5079.58	10017.90	5079.58	9.743

Travata n. 7036

Nodi: 769 -1985 -2072 782 -2280 717

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30R		30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		5	35.41	6.03	4.02	6.03	4.02	-6699.70	-9551.64	1.426

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	35.41	6.03	4.02	-5020.47	1964.89	-546.49	50.06
1.904	SLE Q		5	35.41	6.03	4.02	-4537.13	1775.72	-493.88	45.24



Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	30	35.41	-4537.13	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1775.72	0.70	0.15
4	1.90	3	SLE F	5	30	35.41	-4675.22	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1829.76	0.65	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	2929.98	2.50	10241.80	20904.00	10241.80	3.495
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	3554.36	2.50	10241.80	20904.00	10241.80	2.881

Travata n. 7040

Nodi: 770 -1986 -2073 783 -2281 718

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
	<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	35.38	6.03	4.02	6.03	4.02	-6736.45	-9551.64	1.418

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	35.38	6.03	4.02	-5047.21	1975.35	-549.40	50.33
1.90	4	SLE Q	5	35.38	6.03	4.02	-4559.84	1784.61	-496.35	45.47

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	30	35.38	-4559.84	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1784.61	0.71	0.15
4	1.90	3	SLE F	5	30	35.38	-4699.08	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1839.10	0.65	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.38	1.38	ø6/18 2 br.	3.14	0.30	2907.46	2.50	10241.80	20904.00	10241.80	3.523
1 SLU	1.38	1.90	0.52	ø6/18 2 br.	3.14	0.30	3595.24	2.50	10241.80	20904.00	10241.80	2.849

Travata n. 7041

Nodi: 796 -2482 802 752

Caratteristiche delle sezioni e dei materiali utilizzati

Sez. Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
	<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-419.94	-2142.71	5.102

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.82	2	SLE R	3	332.00	3.08	3.08	-298.07	542.98	-145.62	19.16
4.82	4	SLE Q	3	332.00	3.08	3.08	-235.54	429.07	-115.07	15.14

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-235.54	28.00	114.00	0.50	14.00	102.12	3.08	101.43	429.07	0.12	0.02
4	4.82	3	SLE F	3	18	332.00	-253.41	28.00	114.00	0.50	14.00	102.12	3.08	101.43	461.61	0.13	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1237.50	2.50	7619.38	26714.30	7619.38	6.157



Relazione di calcolo

1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	381.45	2.50	5079.58	10017.90	5079.58	13.316
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	410.23	2.50	5079.58	10017.90	5079.58	12.382

Travata n. 7042

Nodi: 771 -1987 -2074 784 -2282 719

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>	Afe I <cm<sup>q>	AfeP S <cm<sup>q>	AfeP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
1.901	1	SLU	5	35.43	3.08	3.08	3.08	3.08	-315.87	-1506.47	4.769

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>	Afe I <cm<sup>q>	My <daNm>	σ<sub>f</sub> sup <daN/cm<sup>q>	σ<sub>f</sub> inf <daN/cm<sup>q>	σ<sub>c</sub> <daN/cm<sup>q>
1.902	2	SLE R	5	35.43	3.08	3.08	-228.75	606.67	-143.33	25.46
1.904	4	SLE Q	5	35.43	3.08	3.08	-176.01	466.81	-110.28	19.59

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K<sub>2</sub>	Φ<sub>eq</sub>	Δ<sub>sm</sub> <mm>	A<sub>s</sub> <cm<sup>q>	A<sub>c</sub> eff <cm<sup>q>	σ<sub>s</sub> <daN/cm<sup>q>	ε<sub>sm</sub>	Wk <mm>
3	1.904	4	SLE Q	5	19	35.43	-176.01	28.00	134.00	0.50	14.00	93.58	3.08	82.65	466.81	0.14	0.02
4	1.903	3	SLE F	5	19	35.43	-191.08	28.00	134.00	0.50	14.00	93.58	3.08	82.65	506.78	0.15	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cm<sup>q>/m>	bw <cm>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	215.11	2.50	7185.75	7873.13	7185.75	33.405
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	232.08	2.50	7185.75	7873.13	7185.75	30.963

Travata n. 7070

Nodi: 800 656 -1795 645

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>	Afe I <cm<sup>q>	AfeP S <cm<sup>q>	AfeP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
3.321	1	SLU	3	52.50	3.08	3.08	3.08	3.08	-3842.33	-6639.53	1.728

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>	Afe I <cm<sup>q>	My <daNm>	σ<sub>f</sub> sup <daN/cm<sup>q>	σ<sub>f</sub> inf <daN/cm<sup>q>	σ<sub>c</sub> <daN/cm<sup>q>
3.322	2	SLE R	3	52.50	3.08	3.08	-2639.59	1504.34	-349.71	30.77
3.324	4	SLE Q	3	52.50	3.08	3.08	-1981.86	1129.49	-262.57	23.10

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K<sub>2</sub>	Φ<sub>eq</sub>	Δ<sub>sm</sub> <mm>	A<sub>s</sub> <cm<sup>q>	A<sub>c</sub> eff <cm<sup>q>	σ<sub>s</sub> <daN/cm<sup>q>	ε<sub>sm</sub>	Wk <mm>
3	3.324	4	SLE Q	3	16	52.50	-1981.86	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1129.49	0.33	0.07
4	3.323	3	SLE F	3	16	52.50	-2169.44	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1236.39	0.36	0.07

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	Afe St. <cm<sup>q>/m>	bw <cm>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	2345.37	2.50	7619.38	26714.30	7619.38	3.249
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	662.31	2.50	7619.38	26714.30	7619.38	11.504
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	4818.46	2.50	15238.80	26714.30	15238.80	3.163

Travata n. 7084

Nodi: 802 658 -1798 652

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94



Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.321	SLU		3	52.50	3.08	3.08	3.08	3.08	-4387.02	-6639.53	1.513

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.322	SLE R		3	52.50	3.08	3.08	-3039.32	1732.16	-402.67	35.43
3.324	SLE Q		3	52.50	3.08	3.08	-2316.22	1320.05	-306.87	27.00

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.324	SLE Q		3	16	52.50	-2316.22	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1320.05	0.38	0.08
4	3.323	SLE F		3	16	52.50	-2522.36	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1437.53	0.42	0.09

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	2700.17	2.50	7619.38	26714.30	7619.38	2.822
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	451.68	2.50	7619.38	26714.30	7619.38	16.869
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	5400.85	2.50	15238.80	26714.30	15238.80	2.822

Travata n. 7088

Nodi: 777 -2166 -2167 -2168 -2169 -2170 -2171 -2172 778

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU		1	0.00	3.08	3.08	3.08	3.08	-56.58	-1506.47	26.623
1.801	SLU		5	20.00	3.08	3.08	3.08	3.08	23.17	1506.47	65.024
3.201	SLU		8	40.00	3.08	3.08	3.08	3.08	-48.55	-1506.47	31.032

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R		1	0.00	3.08	3.08	-41.07	108.92	-25.73	4.57
0.004	SLE Q		1	0.00	3.08	3.08	-36.16	95.90	-22.66	4.03
1.802	SLE R		5	20.00	3.08	3.08	16.39	-10.27	43.46	1.82
1.804	SLE Q		5	20.00	3.08	3.08	14.85	-9.30	39.38	1.65
3.202	SLE R		8	40.00	3.08	3.08	-33.89	89.87	-21.23	3.77
3.204	SLE Q		8	40.00	3.08	3.08	-24.35	64.57	-15.25	2.71

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.004	SLE Q		1	19	0.00	-36.16	28.00	134.00	0.50	14.00	93.58	3.08	82.65	95.90	0.03	0.00
4	0.003	SLE F		1	19	0.00	-37.56	28.00	134.00	0.50	14.00	93.58	3.08	82.65	99.61	0.03	0.00
7	1.804	SLE Q		5	19	20.00	14.85	28.00	134.00	0.50	14.00	93.58	3.08	82.65	39.38	0.01	0.00
8	1.803	SLE F		5	19	20.00	15.26	28.00	134.00	0.50	14.00	93.58	3.08	82.65	40.48	0.01	0.00
12	3.204	SLE Q		8	19	40.00	-24.35	28.00	134.00	0.50	14.00	93.58	3.08	82.65	64.57	0.02	0.00
13	3.203	SLE F		8	19	40.00	-27.07	28.00	134.00	0.50	14.00	93.58	3.08	82.65	71.80	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	314.83	2.50	7185.75	7873.13	7185.75	22.824
1 SLU	0.14	3.06	2.91	ø6/ 8 2 br.	7.07	0.20	314.83	2.50	7185.75	7873.13	7185.75	22.824
1 SLU	3.06	3.20	0.14	ø6/ 8 2 br.	7.07	0.20	217.99	2.50	7185.75	7873.13	7185.75	32.964

Travata n. 7130

Nodi: 761 -1855 -1856 -1857 -1858 -1859 -1860 -1861 -1862 762

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94



Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	1	0.00	3.08	3.08	3.08	3.08	10.98	1506.47	>100
1.441	SLU	5	1	0.00	3.08	3.08	3.08	3.08	50.55	1506.47	29.804
3.251	SLU	9	9	36.11	3.08	3.08	3.08	3.08	8.56	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R	1	1	0.00	3.08	3.08	7.93	-4.97	21.03	0.88
0.004	SLE Q	1	1	0.00	3.08	3.08	6.23	-3.90	16.52	0.69
1.442	SLE R	5	5	0.00	3.08	3.08	36.10	-22.62	95.75	4.02
1.444	SLE Q	5	5	0.00	3.08	3.08	26.76	-16.77	70.98	2.98
3.252	SLE R	9	9	36.11	3.08	3.08	6.20	-3.89	16.45	0.69
3.254	SLE Q	9	9	36.11	3.08	3.08	4.81	-3.01	12.75	0.53

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.004	SLE Q	1	19	0.00	6.23	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	16.52	0.00	0.00
4	0.003	SLE F	1	19	0.00	6.72	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	17.81	0.01	0.00
7	1.444	SLE Q	5	19	0.00	26.76	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	70.98	0.02	0.00
8	1.443	SLE F	5	19	0.00	29.42	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	78.03	0.02	0.00
11	3.254	SLE Q	9	19	36.11	4.81	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	12.75	0.00	0.00
12	3.253	SLE F	9	19	36.11	5.21	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	13.81	0.00	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	41.81	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	28.98	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	53.48	2.50	7185.75	7873.13	7185.75	>100

Travata n. 7131

Nodi: 779 -2173 -2174 -2175 -2176 -2177 -2178 -2179 780

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	1	0.00	3.08	3.08	3.08	3.08	-34.94	-1506.47	43.122
1.191	SLU	4	4	0.00	3.08	3.08	3.08	3.08	25.85	1506.47	58.279
3.181	SLU	8	8	39.75	3.08	3.08	3.08	3.08	-62.30	-1506.47	24.183

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R	1	1	0.00	3.08	3.08	-23.97	63.56	-15.02	2.67
0.004	SLE Q	1	1	0.00	3.08	3.08	-15.71	41.67	-9.84	1.75
1.192	SLE R	4	4	0.00	3.08	3.08	18.41	-11.54	48.83	2.05
1.194	SLE Q	4	4	0.00	3.08	3.08	16.76	-10.50	44.46	1.87
3.182	SLE R	8	8	39.75	3.08	3.08	-45.19	119.86	-28.32	5.03
3.184	SLE Q	8	8	39.75	3.08	3.08	-39.64	105.14	-24.84	4.41

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
5	0.004	SLE Q	1	19	0.00	-15.71	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	41.67	0.01	0.00
7	0.003	SLE F	1	19	0.00	-18.08	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	47.95	0.01	0.00
11	1.194	SLE Q	4	19	0.00	16.76	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	44.46	0.01	0.00
12	1.193	SLE F	4	19	0.00	17.21	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	45.65	0.01	0.00
15	3.184	SLE Q	8	19	39.75	-39.64	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	105.14	0.03	0.00
16	3.183	SLE F	8	19	39.75	-41.22	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.65	109.32	0.03	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	225.88	2.50	7185.75	7873.13	7185.75	31.813
1 SLU	0.14	3.04	2.89	ø6/ 8 2 br.	7.07	0.20	315.36	2.50	7185.75	7873.13	7185.75	22.786
1 SLU	3.04	3.18	0.14	ø6/ 8 2 br.	7.07	0.20	315.36	2.50	7185.75	7873.13	7185.75	22.786



Travata n. 7173

Nodi: 763 -1863 -1864 -1865 -1866 -1867 -1868 -1869 764

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-207.89	-1506.47	7.247
1.50	1	SLU	5	0.00	3.08	3.08	3.08	3.08	209.73	1506.47	7.183
3.00	1	SLU	8	37.50	3.08	3.08	3.08	3.08	-201.13	-1506.47	7.490

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-157.35	417.31	-98.59	17.52
0.00	4	SLE Q	1	0.00	3.08	3.08	-148.14	392.90	-92.82	16.49
1.50	2	SLE R	5	0.00	3.08	3.08	157.61	-98.76	418.01	17.55
1.50	4	SLE Q	5	0.00	3.08	3.08	144.07	-90.27	382.11	16.04
3.00	2	SLE R	8	37.50	3.08	3.08	-152.46	404.35	-95.53	16.97
3.00	4	SLE Q	8	37.50	3.08	3.08	-143.75	381.25	-90.07	16.00

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-148.14	28.00	134.00	0.50	14.00	93.58	3.08	82.65	392.90	0.11	0.02
4	0.00	3	SLE F	1	19	0.00	-150.77	28.00	134.00	0.50	14.00	93.58	3.08	82.65	399.87	0.12	0.02
7	1.50	4	SLE Q	5	19	0.00	144.07	28.00	134.00	0.50	14.00	93.58	3.08	82.65	382.11	0.11	0.02
8	1.50	3	SLE F	5	19	0.00	147.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	392.36	0.11	0.02
11	3.00	4	SLE Q	8	19	37.50	-143.75	28.00	134.00	0.50	14.00	93.58	3.08	82.65	381.25	0.11	0.02
12	3.00	3	SLE F	8	19	37.50	-146.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	387.86	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	913.63	2.50	7185.75	7873.13	7185.75 7.865
1	SLU	0.14	2.85	2.71	ø6/ 8 2 br.	7.07	0.20	613.91	2.50	7185.75	7873.13	7185.75 11.705
1	SLU	2.85	3.00	0.14	ø6/ 8 2 br.	7.07	0.20	913.53	2.50	7185.75	7873.13	7185.75 7.866

Travata n. 7174

Nodi: 781 -2180 -2181 -2182 -2183 -2184 -2185 -2186 -2187 782

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-63.53	-1506.47	23.713
1.99	1	SLU	6	18.06	3.08	3.08	3.08	3.08	30.71	1506.47	49.050
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	-36.35	-1506.47	41.441

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-46.05	122.13	-28.85	5.13
0.00	4	SLE Q	1	0.00	3.08	3.08	-40.22	106.66	-25.20	4.48
1.99	2	SLE R	6	18.06	3.08	3.08	22.08	-13.83	58.55	2.46
1.99	4	SLE Q	6	18.06	3.08	3.08	20.24	-12.68	53.68	2.25
3.25	2	SLE R	9	36.11	3.08	3.08	-25.00	66.30	-15.66	2.78
3.25	4	SLE Q	9	36.11	3.08	3.08	-16.51	43.80	-10.35	1.84

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	-40.22	28.00	134.00	0.50	14.00	93.58	3.08	82.65	106.66	0.03	0.00
4	0.00	3	SLE F	1	19	0.00	-41.87	28.00	134.00	0.50	14.00	93.58	3.08	82.65	111.05	0.03	0.01
7	1.99	4	SLE Q	6	19	18.06	20.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	53.68	0.02	0.00
8	1.99	3	SLE F	6	19	18.06	20.73	28.00	134.00	0.50	14.00	93.58	3.08	82.65	54.98	0.02	0.00
14	3.25	4	SLE Q	9	19	36.11	-16.51	28.00	134.00	0.50	14.00	93.58	3.08	82.65	43.80	0.01	0.00
16	3.25	3	SLE F	9	19	36.11	-18.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	50.25	0.01	0.00



Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	372.74	2.50	7185.75	7873.13	7185.75	19.278
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	372.74	2.50	7185.75	7873.13	7185.75	19.278
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	234.98	2.50	7185.75	7873.13	7185.75	30.581

Travata n. 7216

Nodi: 765 -1870 -1871 -1872 -1873 -1874 -1875 -1876 -1877 766

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	8.30	1506.47	>100
1.621	SLU	5	18.06	3.08	3.08	3.08	3.08	3.08	51.18	1506.47	29.435
3.251	SLU	9	36.11	3.08	3.08	3.08	3.08	3.08	11.47	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	3.08	6.02	-3.77	15.96	0.67
0.004	SLE Q	1	0.00	3.08	3.08	3.08	4.65	-2.91	12.32	0.52
1.622	SLE R	5	18.06	3.08	3.08	3.08	36.56	-22.91	96.97	4.07
1.624	SLE Q	5	18.06	3.08	3.08	3.08	27.19	-17.04	72.12	3.03
3.252	SLE R	9	36.11	3.08	3.08	3.08	8.29	-5.19	21.98	0.92
3.254	SLE Q	9	36.11	3.08	3.08	3.08	6.55	-4.11	17.38	0.73

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez .	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	4.65	28.00	134.00	0.50	14.00	93.58	3.08	82.65	12.32	0.00	0.00
4	0.003	SLE	F	1	19	0.00	5.04	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.36	0.00	0.00
7	1.624	SLE	Q	5	19	18.06	27.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	72.12	0.02	0.00
8	1.623	SLE	F	5	19	18.06	29.86	28.00	134.00	0.50	14.00	93.58	3.08	82.65	79.20	0.02	0.00
11	3.254	SLE	Q	9	19	36.11	6.55	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.38	0.01	0.00
12	3.253	SLE	F	9	19	36.11	7.05	28.00	134.00	0.50	14.00	93.58	3.08	82.65	18.69	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	53.14	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	28.64	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	42.19	2.50	7185.75	7873.13	7185.75	>100

Travata n. 7217

Nodi: 783 -2188 -2189 -2190 -2191 -2192 -2193 -2194 -2195 784

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-26.74	-1506.47	56.339
1.081	SLU	4	0.00	3.08	3.08	3.08	3.08	3.08	36.75	1506.47	40.990
3.231	SLU	9	35.89	3.08	3.08	3.08	3.08	3.08	-67.24	-1506.47	22.403

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>ε</sub> sup	σ <sub>ε</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	3.08	-18.09	47.97	-11.33	2.01
0.004	SLE Q	1	0.00	3.08	3.08	3.08	21.08	-13.21	55.92	2.35
1.082	SLE R	4	0.00	3.08	3.08	3.08	26.56	-16.64	70.43	2.96
1.084	SLE Q	4	0.00	3.08	3.08	3.08	24.14	-15.13	64.02	2.69
3.232	SLE R	9	35.89	3.08	3.08	3.08	-48.81	129.45	-30.58	5.43
3.234	SLE Q	9	35.89	3.08	3.08	3.08	-42.91	113.79	-26.88	4.78



## Relazione di calcolo

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
<m>						<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
6	0.00	4	SLE Q	1	19	0.00	21.08	28.00	134.00	0.50	14.00	93.58	3.08	82.65	55.92	0.02	0.00
8	0.00	3	SLE F	1	19	0.00	18.87	28.00	134.00	0.50	14.00	93.58	3.08	82.65	50.04	0.01	0.00
11	1.08	4	SLE Q	4	19	0.00	24.14	28.00	134.00	0.50	14.00	93.58	3.08	82.65	64.02	0.02	0.00
12	1.08	3	SLE F	4	19	0.00	24.82	28.00	134.00	0.50	14.00	93.58	3.08	82.65	65.83	0.02	0.00
15	3.23	4	SLE Q	9	19	35.89	-42.91	28.00	134.00	0.50	14.00	93.58	3.08	82.65	113.79	0.03	0.01
16	3.23	3	SLE F	9	19	35.89	-44.59	28.00	134.00	0.50	14.00	93.58	3.08	82.65	118.25	0.03	0.01

### Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
<m>	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	248.39	2.50	7185.75	7873.13	7185.75	28.929
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	359.28	2.50	7185.75	7873.13	7185.75	20.000
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	359.28	2.50	7185.75	7873.13	7185.75	20.000

### Travata n. 7259

Nodi: 767 -1878 -1879 -1880 -1881 -1882 -1883 -1884 -1885 768

### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE	S AfE	I AfE	P S AfE	P I AfE	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	11.02	1506.47	>100
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	52.03	1506.47	28.953
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	3.08	9.10	1506.47	>100

### Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE	S AfE	I AfE	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE	R	1	0.00	3.08	3.08	7.95	-4.98	21.09	0.89
0.00	4	SLE	Q	1	0.00	3.08	3.08	6.24	-3.91	16.54	0.69
1.44	2	SLE	R	5	0.00	3.08	3.08	37.17	-23.29	98.58	4.14
1.44	4	SLE	Q	5	0.00	3.08	3.08	27.68	-17.34	73.42	3.08
3.25	2	SLE	R	9	36.11	3.08	3.08	6.60	-4.13	17.50	0.73
3.25	4	SLE	Q	9	36.11	3.08	3.08	5.17	-3.24	13.70	0.58

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
<m>						<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	6.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	16.54	0.00	0.00
4	0.00	3	SLE F	1	19	0.00	6.73	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.84	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	27.68	28.00	134.00	0.50	14.00	93.58	3.08	82.65	73.42	0.02	0.00
8	1.44	3	SLE F	5	19	0.00	30.38	28.00	134.00	0.50	14.00	93.58	3.08	82.65	80.58	0.02	0.00
11	3.25	4	SLE Q	9	19	36.11	5.17	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.70	0.00	0.00
12	3.25	3	SLE F	9	19	36.11	5.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	14.79	0.00	0.00

### Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
<m>	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	41.56	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	29.52	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	54.03	2.50	7185.75	7873.13	7185.75	>100

### Travata n. 7302

Nodi: 769 -1886 -1887 -1888 -1889 -1890 -1891 -1892 770

### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE	S AfE	I AfE	P S AfE	P I AfE	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-193.67	-1506.47	7.778
1.45	1	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	204.32	1506.47	7.373
2.90	1	SLU	8	36.25	3.08	3.08	3.08	3.08	3.08	-196.16	-1506.47	7.680

### Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-146.81	389.35	-91.98	16.34
0.00	4	SLE Q	1	0.00	3.08	3.08	-138.61	367.61	-86.85	15.43
1.45	2	SLE R	5	0.00	3.08	3.08	153.57	-96.22	407.28	17.09
1.45	4	SLE Q	5	0.00	3.08	3.08	140.43	-87.99	372.43	15.63
2.90	2	SLE R	8	36.25	3.08	3.08	-148.62	394.15	-93.12	16.54
2.90	4	SLE Q	8	36.25	3.08	3.08	-140.16	371.72	-87.82	15.60

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	-138.61	28.00	134.00	0.50	14.00	93.58	3.08	82.65	367.61	0.11	0.02
4	0.00	3	SLE F	1	19	0.00	-140.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	373.83	0.11	0.02
7	1.45	4	SLE Q	5	19	0.00	140.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	372.43	0.11	0.02
8	1.45	3	SLE F	5	19	0.00	144.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	382.38	0.11	0.02
11	2.90	4	SLE Q	8	19	36.25	-140.16	28.00	134.00	0.50	14.00	93.58	3.08	82.65	371.72	0.11	0.02
12	2.90	3	SLE F	8	19	36.25	-142.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	378.13	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	900.93	2.50	7185.75	7873.13	7185.75	7.976
1 SLU	0.14	2.75	2.61	ø6/ 8 2 br.	7.07	0.20	606.63	2.50	7185.75	7873.13	7185.75	11.845
1 SLU	2.75	2.90	0.14	ø6/ 8 2 br.	7.07	0.20	906.34	2.50	7185.75	7873.13	7185.75	7.928

Travata n. 7345

Nodi: 771 -1893 -1894 -1895 -1896 -1897 -1898 -1899 -1900 772

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	9.84	1506.47	>100
1.61	1	SLU	5	17.94	3.08	3.08	3.08	3.08	51.06	1506.47	29.504
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	10.35	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	7.12	-4.46	18.87	0.79
0.00	4	SLE Q	1	0.00	3.08	3.08	5.58	-3.49	14.79	0.62
1.61	2	SLE R	5	17.94	3.08	3.08	36.47	-22.85	96.73	4.06
1.61	4	SLE Q	5	17.94	3.08	3.08	27.25	-17.08	72.28	3.03
3.23	2	SLE R	9	35.89	3.08	3.08	7.47	-4.68	19.82	0.83
3.23	4	SLE Q	9	35.89	3.08	3.08	5.89	-3.69	15.62	0.66

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	5.58	28.00	134.00	0.50	14.00	93.58	3.08	82.65	14.79	0.00	0.00
4	0.00	3	SLE F	1	19	0.00	6.02	28.00	134.00	0.50	14.00	93.58	3.08	82.65	15.95	0.00	0.00
7	1.61	4	SLE Q	5	19	17.94	27.25	28.00	134.00	0.50	14.00	93.58	3.08	82.65	72.28	0.02	0.00
8	1.61	3	SLE F	5	19	17.94	29.88	28.00	134.00	0.50	14.00	93.58	3.08	82.65	79.25	0.02	0.00
11	3.23	4	SLE Q	9	19	35.89	5.89	28.00	134.00	0.50	14.00	93.58	3.08	82.65	15.62	0.00	0.00
12	3.23	3	SLE F	9	19	35.89	6.34	28.00	134.00	0.50	14.00	93.58	3.08	82.65	16.82	0.00	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	52.74	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	28.23	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	42.30	2.50	7185.75	7873.13	7185.75	>100

Travata n. 8024

Nodi: 799 855 -2558 844

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94



## Relazione di calcolo

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	6.16	3.08	6.16	3.08	-2641.48	-13043.50	4.938

### Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	$\sigma_f$ sup	$\sigma_f$ inf	$\sigma_c$
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.32	2	SLE R	3	52.50	6.16	3.08	-1794.41	524.85	-203.72	16.51
3.32	4	SLE Q	3	52.50	6.16	3.08	-1272.20	372.11	-144.43	11.71

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-1272.20	28.00	31.33	0.50	14.00	87.83	6.16	140.00	372.11	0.11	0.02
4	3.32	3	SLE F	3	16	52.50	-1421.30	28.00	31.33	0.50	14.00	87.83	6.16	140.00	415.72	0.12	0.02

### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1656.90	2.50	7619.38	26714.30	7619.38	4.599
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	1082.18	2.50	7619.38	26714.30	7619.38	7.041
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	3574.81	2.50	15238.80	26714.30	15238.80	4.263

### Travata n. 8035

Nodi: 801 857 -2561 851

### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	6.16	3.08	6.16	3.08	-2923.74	-13043.50	4.461

### Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	$\sigma_f$ sup	$\sigma_f$ inf	$\sigma_c$
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.32	2	SLE R	3	52.50	6.16	3.08	-2006.66	586.93	-227.81	18.47
3.32	4	SLE Q	3	52.50	6.16	3.08	-1446.56	423.11	-164.22	13.31

### Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-1446.56	28.00	31.33	0.50	14.00	87.83	6.16	140.00	423.11	0.12	0.02
4	3.32	3	SLE F	3	16	52.50	-1606.48	28.00	31.33	0.50	14.00	87.83	6.16	140.00	469.88	0.14	0.02

### Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	1.46	1.60	ø6/32 2 br.	1.77	0.16	1884.78	2.50	7619.38	26714.30	7619.38	4.043
1 SLU	1.46	1.94	0.62	ø6/32 2 br.	1.77	0.16	1255.91	2.50	7619.38	26714.30	7619.38	6.067
1 SLU	2.14	3.32	1.18	ø6/16 2 br.	3.53	0.16	3872.41	2.50	15238.80	26714.30	15238.80	3.935

### Travata n. 9021

Nodi: 961 -2695 -2766 -2855 -2978 908

### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	0.00	3.08	3.08	3.08	3.08	-451.10	-1506.47	3.340

### Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	$\sigma_f$ sup	$\sigma_f$ inf	$\sigma_c$
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	0.00	3.08	3.08	-326.56	866.08	-204.61	36.35



Relazione di calcolo

1.904	SLE Q	5	0.00	3.08	3.08	-250.44	664.19	-156.92	27.88
-------	-------	---	------	------	------	---------	--------	---------	-------

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q	5	19	0.00	-250.44	28.00	134.00	0.50	14.00	93.58	3.08	82.65		664.19	0.19	0.03
4	1.903	SLE F	5	19	0.00	-272.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65		721.88	0.21	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	211.90	2.50	7185.75	7873.13	7185.75	33.911
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	228.87	2.50	7185.75	7873.13	7185.75	31.397

Travata n. 9022

Nodi: 962 -2745 -2832 977 909

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	4	70.00	3.08	3.08	3.08	3.08	-356.79	-1506.47	4.222	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	4	70.00	3.08	3.08	-258.44	685.41	-161.93	28.77	
1.904	SLE Q	4	70.00	3.08	3.08	-201.94	535.58	-126.53	22.48	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	4	19	70.00	-201.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	535.58	0.16	0.02	
4	1.903	SLE F	4	19	70.00	-218.08	28.00	134.00	0.50	14.00	93.58	3.08	82.65	578.39	0.17	0.03	

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	345.14	2.50	7185.75	7873.13	7185.75	20.820
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	362.11	2.50	7185.75	7873.13	7185.75	19.844

Travata n. 9023

Nodi: 963 -2746 -2833 978 -3041 910

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30R		30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	35.06	6.03	4.02	6.03	4.02	-6919.69	-9551.64	1.380	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	5	35.06	6.03	4.02	-5183.24	2028.59	-564.21	51.68	
1.904	SLE Q	5	35.06	6.03	4.02	-4680.52	1831.84	-509.48	46.67	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE Q	5	30	35.06	-4680.52	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1831.84	0.73	0.15	
4	1.903	SLE F	5	30	35.06	-4824.14	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1888.04	0.68	0.14	

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	3014.83	2.50	10241.80	20904.00	10241.80	3.397



Relazione di calcolo

1	SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3728.56	2.50	10241.80	20904.00	10241.80	2.747
---	-----	------	------	------	-------------	------	------	---------	------	----------	----------	----------	-------

Travata n. 9024

Nodi: 989 -3238 999 944

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>	Afe I <cm<sup>q>	AfeP S <cm<sup>q>	AfeP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-479.52	-2142.71	4.468

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	SLE R	3	332.00	3.08	3.08	-337.98	615.66	-165.11	21.72	
4.824	SLE Q	3	332.00	3.08	3.08	-270.14	492.10	-131.97	17.36	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c</sub> eff <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	4.824	SLE Q	3	18	332.00	-270.14	28.00	114.00	0.50	14.00	102.12	3.08	101.43	492.10	0.14	0.02	
4	4.823	SLE F	3	18	332.00	-289.48	28.00	114.00	0.50	14.00	102.12	3.08	101.43	527.33	0.15	0.03	

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2239.45	2.50	7619.38	26714.30	7619.38	3.402
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	448.72	2.50	5079.58	10017.90	5079.58	11.320
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	477.50	2.50	5079.58	10017.90	5079.58	10.638

Travata n. 9027

Nodi: 992 -3242 1000 945

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm<sup>q>	Afe I <cm<sup>q>	AfeP S <cm<sup>q>	AfeP I <cm<sup>q>	My <daNm>	MRdy <daNm>	Sic.
4.821	SLU	3	332.00	3.08	3.08	3.08	3.08	3.08	-365.21	-2142.71	5.867

Stato limite d'esercizio - Verifiche tensionali

Xg ⌊m⌋	CC	TCC	El	X ⌊cm⌋	Afe S ⌊cmq⌋	Afe I ⌊cmq⌋	My ⌊daNm⌋	σ <sub>f</sub> sup ⌊daN/cmq⌋	σ <sub>f</sub> inf ⌊daN/cmq⌋	σ <sub>c</sub> ⌊daN/cmq⌋
4.822	SLE R	3	332.00	3.08	3.08	-257.73	469.49	-125.91	16.57	
4.824	SLE Q	3	332.00	3.08	3.08	-201.29	366.68	-98.33	12.94	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c</sub> <i>eff</i> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	4.824	SLE	Q	3	18	332.00	-201.29	28.00	114.00	0.50	14.00	102.12	3.08	101.43	366.68	0.11	0.02
4	4.823	SLE	F	3	18	332.00	-217.42	28.00	114.00	0.50	14.00	102.12	3.08	101.43	396.06	0.12	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1632.77	2.50	7619.38	26714.30	7619.38	4.667
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	365.80	2.50	5079.58	10017.90	5079.58	13.886
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	394.58	2.50	5079.58	10017.90	5079.58	12.873

Travata n. 9028

Nodi: 964 -2747 -2834 979 -3042 911

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
------	------	---	---	--------	--------	-----	------	-----	-----------	------	-----	-----	-----------



Relazione di calcolo

		<cm>	<cm>	<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cm>	<cm>	<cm>	<cm>	<daNm>	<daNm>	
1.90	1	SLU	5	35.09	6.03	4.02	6.03	4.02	-6897.80	-9551.64	1.385

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cm>	<cm>	<daNm>	<daN/cm>	<daN/cm>	<daN/cm>
1.90	2	SLE R	5	35.09	6.03	4.02	-5167.48	2022.42	-562.49	51.53
1.90	4	SLE Q	5	35.09	6.03	4.02	-4665.67	1826.03	-507.87	46.52

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cm>	<cm>	<daN/cm>		<mm>
3	1.90	4	SLE Q	5	30	35.09	-4665.67	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1826.03	0.73	0.15
4	1.90	3	SLE F	5	30	35.09	-4809.05	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1882.14	0.67	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.41	1.41	ø6/18 2 br.	3.14	0.30	2974.69	2.50	10241.80	20904.00	10241.80	3.443
1 SLU	1.41	1.90	0.48	ø6/18 2 br.	3.14	0.30	3796.94	2.50	10241.80	20904.00	10241.80	2.697

Travata n. 9029

Nodi: 965 -2748 -2835 980 912

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cm>	<cm>	<cm>	<cm>	<daNm>	<daNm>	
1.90	1	SLU	4	70.00	3.08	3.08	3.08	3.08	-356.23	-1506.47	4.229

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cm>	<cm>	<daNm>	<daN/cm>	<daN/cm>	<daN/cm>
1.90	2	SLE R	4	70.00	3.08	3.08	-257.98	684.20	-161.64	28.72
1.90	4	SLE Q	4	70.00	3.08	3.08	-201.57	534.60	-126.30	22.44

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cm>	<cm>	<daN/cm>		<mm>
3	1.90	4	SLE Q	4	19	70.00	-201.57	28.00	134.00	0.50	14.00	93.58	3.08	82.65	534.60	0.16	0.02
4	1.90	3	SLE F	4	19	70.00	-217.69	28.00	134.00	0.50	14.00	93.58	3.08	82.65	577.35	0.17	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	346.16	2.50	7185.75	7873.13	7185.75	20.759
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	363.12	2.50	7185.75	7873.13	7185.75	19.789

Travata n. 9032

Nodi: 967 -2703 -2778 -2847 -2964 915

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cm>	<cm>	<cm>	<cm>	<daNm>	<daNm>	
1.90	1	SLU	5	38.00	3.08	3.08	3.08	3.08	-452.43	-1506.47	3.330

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cm>	<cm>	<daNm>	<daN/cm>	<daN/cm>	<daN/cm>
1.90	2	SLE R	5	38.00	3.08	3.08	-327.42	868.38	-205.15	36.45



Relazione di calcolo

1.90	4	SLE Q	5	38.00	3.08	3.08	-251.24	666.33	-157.42	27.97
------	---	-------	---	-------	------	------	---------	--------	---------	-------

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	19	38.00	-251.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	666.33	0.19	0.03
4	1.90	3	SLE F	5	19	38.00	-273.00	28.00	134.00	0.50	14.00	93.58	3.08	82.65	724.05	0.21	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	218.10	2.50	7185.75	7873.13	7185.75	32.947
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	235.07	2.50	7185.75	7873.13	7185.75	30.569

Travata n. 9033

Nodi: 968 -2749 -2836 981 -3044 916

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.90	1	SLU	5	35.44	3.08	3.08	3.08	3.08	-366.69	-1506.47	4.108

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.90	2	SLE R	5	35.44	3.08	3.08	-265.34	703.71	-166.25	29.54
1.90	4	SLE Q	5	35.44	3.08	3.08	-206.65	548.07	-129.48	23.00

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.90	4	SLE Q	5	19	35.44	-206.65	28.00	134.00	0.50	14.00	93.58	3.08	82.65	548.07	0.16	0.03
4	1.90	3	SLE F	5	19	35.44	-223.42	28.00	134.00	0.50	14.00	93.58	3.08	82.65	592.54	0.17	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	349.94	2.50	7185.75	7873.13	7185.75	20.534
1 SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	366.91	2.50	7185.75	7873.13	7185.75	19.584

Travata n. 9035

Nodi: 993 -3243 1001 951

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.82	1	SLU	3	332.00	3.08	3.08	3.08	3.08	-509.33	-2142.71	4.207

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.82	2	SLE R	3	332.00	3.08	3.08	-360.48	656.65	-176.10	23.17
4.82	4	SLE Q	3	332.00	3.08	3.08	-288.66	525.83	-141.02	18.55

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.82	4	SLE Q	3	18	332.00	-288.66	28.00	114.00	0.50	14.00	102.12	3.08	101.43	525.83	0.15	0.03
4	4.82	3	SLE F	3	18	332.00	-309.14	28.00	114.00	0.50	14.00	102.12	3.08	101.43	563.13	0.16	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	



Relazione di calcolo

1 SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	2072.31	2.50	7619.38	26714.30	7619.38	3.677
1 SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	459.28	2.50	5079.58	10017.90	5079.58	11.060
1 SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	488.07	2.50	5079.58	10017.90	5079.58	10.408

Travata n. 9036

Nodi: 969 -2750 -2837 982 -3045 917

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	35.41	6.03	4.02	6.03	4.02	-6755.97	-9551.64	1.414	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	5	35.41	6.03	4.02	-5061.28	1980.86	-550.93	50.47	
1.904	SLE Q	5	35.41	6.03	4.02	-4570.87	1788.92	-497.55	45.58	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cm q>		<mm>
3	1.904	SLE Q	5	30	35.41	-4570.87	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1788.92	0.71	0.15	
4	1.903	SLE F	5	30	35.41	-4710.97	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1843.76	0.66	0.14	

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<cm>		<cmq/m>	<cm>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.42	1.42	ø6/18 2 br.	3.14	0.30	2970.34	2.50	10241.80	20904.00	10241.80	3.448
1 SLU	1.42	1.90	0.48	ø6/18 2 br.	3.14	0.30	3627.34	2.50	10241.80	20904.00	10241.80	2.823

Travata n. 9040

Nodi: 970 -2751 -2838 983 -3046 918

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
30	R	30.00	50.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU	5	35.38	6.03	4.02	6.03	4.02	-6773.59	-9551.64	1.410	

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R	5	35.38	6.03	4.02	-5074.48	1986.02	-552.37	50.60	
1.904	SLE Q	5	35.38	6.03	4.02	-4581.20	1792.97	-498.67	45.68	

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm q>	ε <sub>sm</sub>	Wk <mm>
3	1.904	SLE	Q	5	30	35.38	-4581.20	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1792.97	0.71	0.15
4	1.903	SLE	F	5	30	35.38	-4722.12	27.00	116.00	0.50	16.00	123.63	6.03	262.50	1848.12	0.66	0.14

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<cm>		<cmq/m>	<cm>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.00	1.38	1.38	ø6/18 2 br.	3.14	0.30	2941.16	2.50	10241.80	20904.00	10241.80	3.482
1 SLU	1.38	1.90	0.52	ø6/18 2 br.	3.14	0.30	3652.04	2.50	10241.80	20904.00	10241.80	2.804

Travata n. 9041

Nodi: 996 -3247 1002 952

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94



Relazione di calcolo

18	R	18.00	24.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94
----	---	-------	-------	------	------	--------	-------	--------	--------	-------	---------	---------	---------

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
4.821	SLU		3	332.00	3.08	3.08	3.08	3.08	-408.24	-2142.71	5.249

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
4.822	SLE R		3	332.00	3.08	3.08	-289.43	527.23	-141.39	18.60
4.824	SLE Q		3	332.00	3.08	3.08	-228.08	415.48	-111.42	14.66

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	4.824	SLE Q		3	18	332.00	-228.08	28.00	114.00	0.50	14.00	102.12	3.08	101.43	415.48	0.12	0.02
4	4.823	SLE F		3	18	332.00	-245.61	28.00	114.00	0.50	14.00	102.12	3.08	101.43	447.40	0.13	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
<m>	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	1.50	1.50	ø6/32 2 br.	1.77	0.16	1300.22	2.50	7619.38	26714.30	5.860
1	SLU	1.50	4.62	3.12	ø6/16 2 br.	3.53	0.18	382.28	2.50	5079.58	10017.90	13.287
1	SLU	4.62	4.82	0.20	ø6/16 2 br.	3.53	0.18	411.06	2.50	5079.58	10017.90	12.357

Travata n. 9042

Nodi: 971 -2752 -2839 984 -3047 919

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.901	SLU		5	35.43	3.08	3.08	3.08	3.08	-351.81	-1506.47	4.282

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1.902	SLE R		5	35.43	3.08	3.08	-254.76	675.66	-159.62	28.36
1.904	SLE Q		5	35.43	3.08	3.08	-196.94	522.33	-123.40	21.92

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	1.904	SLE Q		5	19	35.43	-196.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	522.33	0.15	0.02
4	1.903	SLE F		5	19	35.43	-213.47	28.00	134.00	0.50	14.00	93.58	3.08	82.65	566.14	0.16	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	Afe St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
<m>	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	1.75	1.75	ø6/ 8 2 br.	7.07	0.20	337.97	2.50	7185.75	7873.13	21.262
1	SLU	1.75	1.90	0.14	ø6/ 8 2 br.	7.07	0.20	354.94	2.50	7185.75	7873.13	20.245

Travata n. 9070

Nodi: 1000 856 -2560 845

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	Afe S	Afe I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.321	SLU		3	52.50	3.08	3.08	3.08	3.08	-3243.42	-6639.53	2.047

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	Afe S	Afe I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.322	SLE R		3	52.50	3.08	3.08	-2207.94	1258.34	-292.52	25.74



Relazione di calcolo

3.32	4	SLE Q	3	52.50	3.08	3.08	-1620.06	923.30	-214.64	18.89
------	---	-------	---	-------	------	------	----------	--------	---------	-------

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-1620.06	28.00	94.00	0.50	14.00	119.66	3.08	140.00	923.30	0.27	0.05
4	3.32	3	SLE F	3	16	52.50	-1787.69	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1018.83	0.30	0.06

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	1955.25	2.50	7619.38	26714.30	7619.38	3.897
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	1052.43	2.50	7619.38	26714.30	7619.38	7.240
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	4191.71	2.50	15238.80	26714.30	15238.80	3.635

Travata n. 9084

Nodi: 1002 858 -2563 852

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.32	1	SLU	3	52.50	3.08	3.08	3.08	3.08	-3804.11	-6639.53	1.745

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.32	2	SLE R	3	52.50	3.08	3.08	-2620.88	1493.68	-347.23	30.55
3.32	4	SLE Q	3	52.50	3.08	3.08	-1964.51	1119.61	-260.27	22.90

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.32	4	SLE Q	3	16	52.50	-1964.51	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1119.61	0.33	0.07
4	3.32	3	SLE F	3	16	52.50	-2151.61	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1226.24	0.36	0.07

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	-0.20	1.24	1.82	ø6/32 2 br.	1.77	0.16	2287.86	2.50	7619.38	26714.30	7619.38	3.330
1 SLU	1.24	1.72	0.62	ø6/32 2 br.	1.77	0.16	719.82	2.50	7619.38	26714.30	7619.38	10.585
1 SLU	1.92	3.32	1.40	ø6/16 2 br.	3.53	0.16	4777.12	2.50	15238.80	26714.30	15238.80	3.190

Travata n. 9088

Nodi: 977 -2931 -2932 -2933 -2934 -2935 -2936 -2937 978

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-65.24	-1506.47	23.091
1.60	1	SLU	5	0.00	3.08	3.08	3.08	3.08	26.05	1506.47	57.819
3.20	1	SLU	8	40.00	3.08	3.08	3.08	3.08	-54.62	-1506.47	27.580

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-47.46	125.87	-29.74	5.28
0.00	4	SLE Q	1	0.00	3.08	3.08	-42.23	112.00	-26.46	4.70
1.60	2	SLE R	5	0.00	3.08	3.08	18.37	-11.51	48.72	2.04
1.60	4	SLE Q	5	0.00	3.08	3.08	15.99	-10.02	42.42	1.78
3.20	2	SLE R	8	40.00	3.08	3.08	-38.14	101.16	-23.90	4.25
3.20	4	SLE Q	8	40.00	3.08	3.08	-27.43	72.75	-17.19	3.05

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>
	<m>					<cm>	<daNm>	<mm>	<mm>				<cmq>	<cmq>			<mm>



Relazione di calcolo

												<mm>			<daN/cm²>		
3	0.00	4	SLE Q	1	19	0.00	-42.23	28.00	134.00	0.50	14.00	93.58	3.08	82.65	112.00	0.03	0.01
4	0.00	3	SLE F	1	19	0.00	-43.72	28.00	134.00	0.50	14.00	93.58	3.08	82.65	115.95	0.03	0.01
7	1.60	4	SLE Q	5	19	0.00	15.99	28.00	134.00	0.50	14.00	93.58	3.08	82.65	42.42	0.01	0.00
8	1.60	3	SLE F	5	19	0.00	16.67	28.00	134.00	0.50	14.00	93.58	3.08	82.65	44.22	0.01	0.00
11	3.20	4	SLE Q	8	19	40.00	-27.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	72.75	0.02	0.00
12	3.20	3	SLE F	8	19	40.00	-30.49	28.00	134.00	0.50	14.00	93.58	3.08	82.65	80.86	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	331.38	2.50	7185.75	7873.13	7185.75	21.685
1 SLU	0.14	3.06	2.91	ø6/ 8 2 br.	7.07	0.20	331.38	2.50	7185.75	7873.13	7185.75	21.685
1 SLU	3.06	3.20	0.14	ø6/ 8 2 br.	7.07	0.20	201.54	2.50	7185.75	7873.13	7185.75	35.655

Travata n. 9130

Nodi: 961 -2620 -2621 -2622 -2623 -2624 -2625 -2626 -2627 962

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	11.82	1506.47	>100
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	53.62	1506.47	28.095
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	8.68	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cm²>	σ <sub>ε</sub> inf <daN/cm²>	σ <sub>c</sub> <daN/cm²>
0.00	2	SLE R	1	0.00	3.08	3.08	8.52	-5.34	22.59	0.95
0.00	4	SLE Q	1	0.00	3.08	3.08	6.63	-4.16	17.59	0.74
1.44	2	SLE R	5	0.00	3.08	3.08	38.23	-23.95	101.39	4.26
1.44	4	SLE Q	5	0.00	3.08	3.08	28.12	-17.62	74.57	3.13
3.25	2	SLE R	9	36.11	3.08	3.08	6.26	-3.92	16.61	0.70
3.25	4	SLE Q	9	36.11	3.08	3.08	4.75	-2.98	12.60	0.53

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm²>	ε <sub>sm</sub>	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	6.63	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.59	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	7.17	28.00	134.00	0.50	14.00	93.58	3.08	82.65	19.02	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	28.12	28.00	134.00	0.50	14.00	93.58	3.08	82.65	74.57	0.02	0.00
8	1.44	3	SLE F	5	19	0.00	31.00	28.00	134.00	0.50	14.00	93.58	3.08	82.65	82.21	0.02	0.00
11	3.25	4	SLE Q	9	19	36.11	4.75	28.00	134.00	0.50	14.00	93.58	3.08	82.65	12.60	0.00	0.00
12	3.25	3	SLE F	9	19	36.11	5.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.74	0.00	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	42.37	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	29.19	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	53.69	2.50	7185.75	7873.13	7185.75	>100

Travata n. 9131

Nodi: 979 -2938 -2939 -2940 -2941 -2942 -2943 -2944 980

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-33.95	-1506.47	44.374
1.19	1	SLU	4	0.00	3.08	3.08	3.08	3.08	30.71	1506.47	49.058
3.18	1	SLU	8	39.75	3.08	3.08	3.08	3.08	-75.22	-1506.47	20.026

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cm²>	σ <sub>ε</sub> inf <daN/cm²>	σ <sub>c</sub> <daN/cm²>
0.00	2	SLE R	1	0.00	3.08	3.08	-23.08	61.22	-14.46	2.57



Relazione di calcolo

0.004	SLE Q	1	0.00	3.08	3.08	-14.31	37.95	-8.97	1.59
1.192	SLE R	4	0.00	3.08	3.08	21.94	-13.75	58.19	2.44
1.194	SLE Q	4	0.00	3.08	3.08	19.94	-12.50	52.89	2.22
3.182	SLE R	8	39.75	3.08	3.08	-54.66	144.96	-34.25	6.08
3.184	SLE Q	8	39.75	3.08	3.08	-48.36	128.26	-30.30	5.38

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez .	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmqr>	ε <sub>sm</sub>	Wk <mm>
4	0.004	SLE	Q	1	19	0.00	-14.31	28.00	134.00	0.50	14.00	93.58	3.08	82.65	37.95	0.01	0.00
6	0.003	SLE	F	1	19	0.00	-16.83	28.00	134.00	0.50	14.00	93.58	3.08	82.65	44.63	0.01	0.00
10	1.194	SLE	Q	4	19	0.00	19.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	52.89	0.02	0.00
11	1.193	SLE	F	4	19	0.00	20.47	28.00	134.00	0.50	14.00	93.58	3.08	82.65	54.29	0.02	0.00
14	3.184	SLE	Q	8	19	39.75	-48.36	28.00	134.00	0.50	14.00	93.58	3.08	82.65	128.26	0.04	0.01
15	3.183	SLE	F	8	19	39.75	-50.15	28.00	134.00	0.50	14.00	93.58	3.08	82.65	132.99	0.04	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	213.69	2.50	7185.75	7873.13	7185.75	33.628
1 SLU	0.14	3.04	2.89	ø6/ 8 2 br.	7.07	0.20	327.94	2.50	7185.75	7873.13	7185.75	21.912
1 SLU	3.04	3.18	0.14	ø6/ 8 2 br.	7.07	0.20	327.94	2.50	7185.75	7873.13	7185.75	21.912

Travata n. 9173

Nodi: 963 -2628 -2629 -2630 -2631 -2632 -2633 -2634 964

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-208.15	-1506.47	7.237
1.501	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	211.45	1506.47	7.124
3.001	SLU	8	37.50	3.08	3.08	3.08	3.08	3.08	-199.14	-1506.47	7.565

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm q>	σ <sub>f</sub> inf <daN/cm q>	σ <sub>c</sub> <daN/cm q>
0.00	2	SLE R	1	0.00	3.08	3.08	-157.55	417.83	-98.71	17.54
0.00	4	SLE Q	1	0.00	3.08	3.08	-148.32	393.37	-92.93	16.51
1.50	2	SLE R	5	0.00	3.08	3.08	158.88	-99.55	421.37	17.69
1.50	4	SLE Q	5	0.00	3.08	3.08	145.24	-91.00	385.19	16.17
3.00	2	SLE R	8	37.50	3.08	3.08	-151.00	400.48	-94.61	16.81
3.00	4	SLE Q	8	37.50	3.08	3.08	-142.42	377.72	-89.24	15.85

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm <sup>2</sup> >	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	-148.32	28.00	134.00	0.50	14.00	93.58	3.08	82.65	393.37	0.11	0.02
4	0.003	SLE	F	1	19	0.00	-150.95	28.00	134.00	0.50	14.00	93.58	3.08	82.65	400.35	0.12	0.02
7	1.504	SLE	Q	5	19	0.00	145.24	28.00	134.00	0.50	14.00	93.58	3.08	82.65	385.19	0.11	0.02
8	1.503	SLE	F	5	19	0.00	149.13	28.00	134.00	0.50	14.00	93.58	3.08	82.65	395.52	0.12	0.02
11	3.004	SLE	Q	8	19	37.50	-142.42	28.00	134.00	0.50	14.00	93.58	3.08	82.65	377.72	0.11	0.02
12	3.003	SLE	F	8	19	37.50	-144.88	28.00	134.00	0.50	14.00	93.58	3.08	82.65	384.23	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	913.04	2.50	7185.75	7873.13	7185.75	7.870
1 SLU	0.14	2.85	2.71	ø6/ 8 2 br.	7.07	0.20	613.85	2.50	7185.75	7873.13	7185.75	11.706
1 SLU	2.85	3.00	0.14	ø6/ 8 2 br.	7.07	0.20	913.57	2.50	7185.75	7873.13	7185.75	7.866

Travata n. 9174

Nodi: 981 -2945 -2946 -2947 -2948 -2949 -2950 -2951 -2952 982

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19R		20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
-----------	----	-----	----	-----------	----------------	----------------	-----------------	-----------------	--------------	----------------	------



Relazione di calcolo

0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-75.59	-1506.47	19.930
1.81	1	SLU	6	0.00	3.08	3.08	3.08	3.08	35.35	1506.47	42.615
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	-38.79	-1506.47	38.832

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	$\sigma_{\epsilon}$ sup <daN/cm <sup>2</sup> >	$\sigma_{\epsilon}$ inf <daN/cm <sup>2</sup> >	$\sigma_c$ <daN/cm <sup>2</sup> >
0.00	2	SLE R	1	0.00	3.08	3.08	-54.87	145.52	-34.38	6.11
0.00	4	SLE Q	1	0.00	3.08	3.08	-48.32	128.16	-30.28	5.38
1.81	2	SLE R	6	0.00	3.08	3.08	25.30	-15.85	67.10	2.82
1.81	4	SLE Q	6	0.00	3.08	3.08	22.37	-14.02	59.33	2.49
3.25	2	SLE R	9	36.11	3.08	3.08	-26.62	70.61	-16.68	2.96
3.25	4	SLE Q	9	36.11	3.08	3.08	-17.33	45.96	-10.86	1.93

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cm <sup>2</sup> >	$\epsilon_{sm}$	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	-48.32	28.00	134.00	0.50	14.00	93.58	3.08	82.65	128.16	0.04	0.01
4	0.00	3	SLE F	1	19	0.00	-50.18	28.00	134.00	0.50	14.00	93.58	3.08	82.65	133.09	0.04	0.01
7	1.81	4	SLE Q	6	19	0.00	22.37	28.00	134.00	0.50	14.00	93.58	3.08	82.65	59.33	0.02	0.00
8	1.81	3	SLE F	6	19	0.00	23.20	28.00	134.00	0.50	14.00	93.58	3.08	82.65	61.53	0.02	0.00
13	3.25	4	SLE Q	9	19	36.11	-17.33	28.00	134.00	0.50	14.00	93.58	3.08	82.65	45.96	0.01	0.00
15	3.25	3	SLE F	9	19	36.11	-19.99	28.00	134.00	0.50	14.00	93.58	3.08	82.65	53.03	0.02	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	391.89	2.50	7185.75	7873.13	7185.75	18.336
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	391.89	2.50	7185.75	7873.13	7185.75	18.336
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	219.13	2.50	7185.75	7873.13	7185.75	32.792

Travata n. 9216

Nodi: 965 -2635 -2636 -2637 -2638 -2639 -2640 -2641 -2642 966

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	8.41	1506.47	>100
1.62	1	SLU	5	18.06	3.08	3.08	3.08	3.08	54.83	1506.47	27.476
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	12.59	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	$\sigma_{\epsilon}$ sup <daN/cm <sup>2</sup> >	$\sigma_{\epsilon}$ inf <daN/cm <sup>2</sup> >	$\sigma_c$ <daN/cm <sup>2</sup> >
0.00	2	SLE R	1	0.00	3.08	3.08	6.08	-3.81	16.13	0.68
0.00	4	SLE Q	1	0.00	3.08	3.08	4.60	-2.88	12.20	0.51
1.62	2	SLE R	5	18.06	3.08	3.08	39.12	-24.51	103.75	4.35
1.62	4	SLE Q	5	18.06	3.08	3.08	29.00	-18.17	76.92	3.23
3.25	2	SLE R	9	36.11	3.08	3.08	9.08	-5.69	24.07	1.01
3.25	4	SLE Q	9	36.11	3.08	3.08	7.15	-4.48	18.97	0.80

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	$\Phi_{eq}$	$\Delta_{sm}$ <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	$\sigma_s$ <daN/cm <sup>2</sup> >	$\epsilon_{sm}$	Wk <mm>
3	0.00	4	SLE Q	1	19	0.00	4.60	28.00	134.00	0.50	14.00	93.58	3.08	82.65	12.20	0.00	0.00
4	0.00	3	SLE F	1	19	0.00	5.02	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.33	0.00	0.00
7	1.62	4	SLE Q	5	19	18.06	29.00	28.00	134.00	0.50	14.00	93.58	3.08	82.65	76.92	0.02	0.00
8	1.62	3	SLE F	5	19	18.06	31.89	28.00	134.00	0.50	14.00	93.58	3.08	82.65	84.57	0.02	0.00
11	3.25	4	SLE Q	9	19	36.11	7.15	28.00	134.00	0.50	14.00	93.58	3.08	82.65	18.97	0.01	0.00
12	3.25	3	SLE F	9	19	36.11	7.70	28.00	134.00	0.50	14.00	93.58	3.08	82.65	20.43	0.01	0.00

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	52.94	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	28.44	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	43.17	2.50	7185.75	7873.13	7185.75	>100

Travata n. 9217

Nodi: 983 -2953 -2954 -2955 -2956 -2957 -2958 -2959 -2960 984



Relazione di calcolo

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	-29.84	-1506.47	50.477
1.08	1	SLU	4	0.00	3.08	3.08	3.08	3.08	39.87	1506.47	37.784
3.23	1	SLU	9	35.89	3.08	3.08	3.08	3.08	-75.90	-1506.47	19.848

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	-20.22	53.62	-12.67	2.25
0.00	4	SLE Q	1	0.00	3.08	3.08	18.19	-11.40	48.24	2.02
1.08	2	SLE R	4	0.00	3.08	3.08	28.85	-18.08	76.51	3.21
1.08	4	SLE Q	4	0.00	3.08	3.08	26.50	-16.60	70.27	2.95
3.23	2	SLE R	9	35.89	3.08	3.08	-55.21	146.41	-34.59	6.15
3.23	4	SLE Q	9	35.89	3.08	3.08	-48.92	129.74	-30.65	5.45

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
6	0.00	4	SLE Q	1	19	0.00	18.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	48.24	0.01	0.00
8	0.00	3	SLE F	1	19	0.00	15.55	28.00	134.00	0.50	14.00	93.58	3.08	82.65	41.23	0.01	0.00
11	1.08	4	SLE Q	4	19	0.00	26.50	28.00	134.00	0.50	14.00	93.58	3.08	82.65	70.27	0.02	0.00
12	1.08	3	SLE F	4	19	0.00	27.11	28.00	134.00	0.50	14.00	93.58	3.08	82.65	71.91	0.02	0.00
15	3.23	4	SLE Q	9	19	35.89	-48.92	28.00	134.00	0.50	14.00	93.58	3.08	82.65	129.74	0.04	0.01
16	3.23	3	SLE F	9	19	35.89	-50.71	28.00	134.00	0.50	14.00	93.58	3.08	82.65	134.48	0.04	0.01

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1	SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	232.69	2.50	7185.75	7873.13	7185.75
1	SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	369.77	2.50	7185.75	7873.13	7185.75
1	SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	369.77	2.50	7185.75	7873.13	7185.75

Travata n. 9259

Nodi: 967 -2643 -2644 -2645 -2646 -2647 -2648 -2649 -2650 968

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.00	1	SLU	1	0.00	3.08	3.08	3.08	3.08	12.29	1506.47	>100
1.44	1	SLU	5	0.00	3.08	3.08	3.08	3.08	55.81	1506.47	26.992
3.25	1	SLU	9	36.11	3.08	3.08	3.08	3.08	9.08	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	0.00	3.08	3.08	8.85	-5.55	23.48	0.99
0.00	4	SLE Q	1	0.00	3.08	3.08	6.93	-4.34	18.38	0.77
1.44	2	SLE R	5	0.00	3.08	3.08	39.82	-24.95	105.60	4.43
1.44	4	SLE Q	5	0.00	3.08	3.08	29.54	-18.51	78.34	3.29
3.25	2	SLE R	9	36.11	3.08	3.08	6.56	-4.11	17.40	0.73
3.25	4	SLE Q	9	36.11	3.08	3.08	5.03	-3.15	13.35	0.56

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	0.00	4	SLE Q	1	19	0.00	6.93	28.00	134.00	0.50	14.00	93.58	3.08	82.65	18.38	0.01	0.00
4	0.00	3	SLE F	1	19	0.00	7.48	28.00	134.00	0.50	14.00	93.58	3.08	82.65	19.84	0.01	0.00
7	1.44	4	SLE Q	5	19	0.00	29.54	28.00	134.00	0.50	14.00	93.58	3.08	82.65	78.34	0.02	0.00
8	1.44	3	SLE F	5	19	0.00	32.47	28.00	134.00	0.50	14.00	93.58	3.08	82.65	86.11	0.03	0.00
11	3.25	4	SLE Q	9	19	36.11	5.03	28.00	134.00	0.50	14.00	93.58	3.08	82.65	13.35	0.00	0.00
12	3.25	3	SLE F	9	19	36.11	5.47	28.00	134.00	0.50	14.00	93.58	3.08	82.65	14.51	0.00	0.00

Stato limite ultimo - Verifiche a taglio



Relazione di calcolo

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	42.49	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.10	2.96	ø6/ 8 2 br.	7.07	0.20	29.47	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.10	3.25	0.14	ø6/ 8 2 br.	7.07	0.20	53.98	2.50	7185.75	7873.13	7185.75	>100

Travata n. 9302

Nodi: 969 -2651 -2652 -2653 -2654 -2655 -2656 -2657 970

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	-193.36	-1506.47	7.791
1.451	SLU	5	0.00	3.08	3.08	3.08	3.08	3.08	205.46	1506.47	7.332
2.901	SLU	8	36.25	3.08	3.08	3.08	3.08	3.08	-195.00	-1506.47	7.726

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm>	σ <sub>f</sub> inf <daN/cm>	σ <sub>c</sub> <daN/cm>
0.002	SLE R	1	0.00	3.08	3.08	-146.56	388.70	-91.83		16.32
0.004	SLE Q	1	0.00	3.08	3.08	-138.37	366.98	-86.70		15.40
1.452	SLE R	5	0.00	3.08	3.08	154.40	-96.74	409.50		17.19
1.454	SLE Q	5	0.00	3.08	3.08	141.21	-88.48	374.51		15.72
2.902	SLE R	8	36.25	3.08	3.08	-147.78	391.92	-92.59		16.45
2.904	SLE Q	8	36.25	3.08	3.08	-139.40	369.71	-87.34		15.52

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c</sub> <sup>eff</sup> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.004	SLE	Q	1	19	0.00	-138.37	28.00	134.00	0.50	14.00	93.58	3.08	82.65	366.98	0.11	0.02
4	0.003	SLE	F	1	19	0.00	-140.71	28.00	134.00	0.50	14.00	93.58	3.08	82.65	373.19	0.11	0.02
7	1.454	SLE	Q	5	19	0.00	141.21	28.00	134.00	0.50	14.00	93.58	3.08	82.65	374.51	0.11	0.02
8	1.453	SLE	F	5	19	0.00	144.97	28.00	134.00	0.50	14.00	93.58	3.08	82.65	384.50	0.11	0.02
11	2.904	SLE	Q	8	19	36.25	-139.40	28.00	134.00	0.50	14.00	93.58	3.08	82.65	369.71	0.11	0.02
12	2.903	SLE	F	8	19	36.25	-141.80	28.00	134.00	0.50	14.00	93.58	3.08	82.65	376.06	0.11	0.02

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	901.43	2.50	7185.75	7873.13	7185.75	7.972
1 SLU	0.14	2.75	2.61	ø6/ 8 2 br.	7.07	0.20	605.54	2.50	7185.75	7873.13	7185.75	11.867
1 SLU	2.75	2.90	0.14	ø6/ 8 2 br.	7.07	0.20	905.26	2.50	7185.75	7873.13	7185.75	7.938

Travata n. 9345

Nodi: 971 -2658 -2659 -2660 -2661 -2662 -2663 -2664 -2665 972

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
19	R	20.00	18.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	AfEP S <cmq>	AfEP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
0.001	SLU	1	0.00	3.08	3.08	3.08	3.08	3.08	10.38	1506.47	>100
1.611	SLU	5	17.94	3.08	3.08	3.08	3.08	3.08	55.08	1506.47	27.350
3.231	SLU	9	35.89	3.08	3.08	3.08	3.08	3.08	11.39	1506.47	>100

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cmq>	σ <sub>f</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.002	SLE R	1	0.00	3.08	3.08	7.48		-4.69	19.83	0.83
0.004	SLE Q	1	0.00	3.08	3.08	5.82		-3.65	15.43	0.65
1.612	SLE R	5	17.94	3.08	3.08	39.30		-24.62	104.23	4.37
1.614	SLE Q	5	17.94	3.08	3.08	29.35		-18.39	77.84	3.27
3.232	SLE R	9	35.89	3.08	3.08	8.21		-5.15	21.78	0.91
3.234	SLE Q	9	35.89	3.08	3.08	6.43		-4.03	17.05	0.72

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub> <cm<sup>q> <th>A<sub>c eff</sub> &lt;cm&lt;sup&gt;q&gt;<th>σ<sub>s</sub></th><th>ε<sub>sm</sub></th><th>Wk &lt;mm&gt;</th></th>	A <sub>c eff</sub> <cm<sup>q> <th>σ<sub>s</sub></th> <th>ε<sub>sm</sub></th> <th>Wk &lt;mm&gt;</th>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk <mm>
------	-----------	----	-----	----	------	-----------	--------------	-----------	-----------	----------------	-----------------	-----------------	---	--	----------------	-----------------	------------



												mm			daN/cm²		
3	0.004	SLE Q	1	19	0.00	5.82	28.00	134.00	0.50	14.00	93.58	3.08	82.65	15.43	0.00	0.00	
4	0.003	SLE F	1	19	0.00	6.29	28.00	134.00	0.50	14.00	93.58	3.08	82.65	16.69	0.00	0.00	
7	1.614	SLE Q	5	19	17.94	29.35	28.00	134.00	0.50	14.00	93.58	3.08	82.65	77.84	0.02	0.00	
8	1.613	SLE F	5	19	17.94	32.19	28.00	134.00	0.50	14.00	93.58	3.08	82.65	85.36	0.02	0.00	
11	3.234	SLE Q	9	19	35.89	6.43	28.00	134.00	0.50	14.00	93.58	3.08	82.65	17.05	0.00	0.00	
12	3.233	SLE F	9	19	35.89	6.94	28.00	134.00	0.50	14.00	93.58	3.08	82.65	18.40	0.01	0.00	

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmg/m>	bw <m>	Vsdu <dan>	ctgθ	VRsd <dan>	VRcd <dan>	VRdu <dan>	Sic.
1 SLU	0.00	0.14	0.14	ø6/ 8 2 br.	7.07	0.20	52.11	2.50	7185.75	7873.13	7185.75	>100
1 SLU	0.14	3.08	2.94	ø6/ 8 2 br.	7.07	0.20	27.61	2.50	7185.75	7873.13	7185.75	>100
1 SLU	3.08	3.23	0.14	ø6/ 8 2 br.	7.07	0.20	43.90	2.50	7185.75	7873.13	7185.75	>100

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
16	R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Xg <m>	CC	TCC	El	X <cm>	AFe S <cmq>	AFe I <cmq>	AFeP S <cmq>	AFeP I <cmq>	My <daNm>	MRdy <daNm>	Sic.
1.251	SLU	4	-6.25	6.09	10.65	6.09	10.65	-2456.69	-12915.50	5.257	

Xg <m>	CC	TCC	E1	X <cm>	AFe S <cmq>	AFe I <cmq>	My <daNm>	$\sigma_{\text{e sup}}$ <daN/cmq>	$\sigma_{\text{e inf}}$ <daN/cmq>	$\sigma_{\text{c}}$ <daN/cmq>
1.252		SLE R	4	-6.25	6.09	10.65	-1767.16	508.43	-142.91	12.15
1.254		SLE Q	4	-6.25	6.09	10.65	-1364.12	392.47	-110.31	9.38

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.254	SLE	Q	4	16	-6.25	-1364.12	30.25	12.86	0.50	10.21	83.95	6.09	140.00	392.47	0.11	0.02
4	1.253	SLE	F	4	16	-6.25	-1479.28	30.25	12.86	0.50	10.21	83.95	6.09	140.00	425.60	0.12	0.02

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.04	1.25	1.21	ø8/20 2 br.	5.03	0.16	1158.97	2.50	21672.90	26714.30	21672.90	18.700

Sez. Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
16R	16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Xg	CC	TCC	E1	X	AFe S	AFe I	AFeP S	AFeP I	My	MRdy	Sic
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
1.251	SLU	4		-6.25	3.08	1.57	3.08	1.57	-2478.19	-6638.54	2.679

Xg <m>	CC	TCC	E1	X <cm>	AFe S <cmq>	AFe I <cmq>	My <daNm>	$\sigma_{\text{e}}$ sup <daN/cmq>	$\sigma_{\text{e}}$ inf <daN/cmq>	$\sigma_{\text{c}}$ <daN/cmq>
1.252		SLE R	4	-6.25	3.08	1.57	-1782.31	1022.38	-259.61	22.46
1.254		SLE Q	4	-6.25	3.08	1.57	-1380.59	791.95	-201.10	17.40

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	1.254	SLE	Q	4	16	-6.25	-1380.59	28.00	94.00	0.50	14.00	119.66	3.08	140.00	791.95	0.23	0.05
4	1.253	SLE	F	4	16	-6.25	-1495.36	28.00	94.00	0.50	14.00	119.66	3.08	140.00	857.78	0.25	0.05

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
----	-----------	-----------	--------------	--------	--------------------	-----------	---------------	------	---------------	---------------	---------------	------



Relazione di calcolo

1	SLU	0.04	1.25	1.21	ø6/16 2 br.	3.53	0.16	1178.00	2.50	15238.80	26714.30	15238.80	12.936
---	-----	------	------	------	-------------	------	------	---------	------	----------	----------	----------	--------

Travate n. 23103 23203 23303 23403 23503 23603 23703 23803 23903

23103 (a) Nodi: 310 389  
23203 (b) Nodi: 510 589  
23303 (c) Nodi: 710 789  
23403 (d) Nodi: 910 989  
23503 (e) Nodi: 1110 1189  
23603 (f) Nodi: 1310 1389  
23703 (g) Nodi: 1510 1589  
23803 (h) Nodi: 1710 1789  
23903 (i) Nodi: 1910 1989

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Cls	Fck	Fctk	Fcd	Fctd	Tp	Fyk	Fyd
		<cm>	<cm>	<cm>	<cm>		<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>		<daN/cmq>	<daN/cmq>
54	R	46.00	24.00	3.50	3.50	C28/35	290.50	19.84	164.62	13.23	B450C	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	In	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>					<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.351	SLU	a	1		35.00	6.03	6.03	6.03	6.03	-1657.76	-4454.25	2.687

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	In	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>					<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.352	SLE R	a	1		35.00	6.03	6.03	-1229.52	1130.60	-247.08	35.38
0.354	SLE Q	a	1		35.00	6.03	6.03	-1147.22	1054.92	-230.54	33.01

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	In	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c off</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>						<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
19	0.354	SLE Q	a	1		54	35.00	-1147.22	27.00	194.00	0.50	16.00	130.88	6.03	267.58	1054.92	0.31	0.07
28	0.353	SLE F	a	1		54	35.00	-1170.72	27.00	194.00	0.50	16.00	130.88	6.03	267.58	1076.53	0.31	0.07

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	In	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>			<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.50	0.74	0.24	a	ø8/10 2 br.	10.05	0.46	1181.42	2.50	18144.70	24088.00	18144.70	15.358
1 SLU	0.74	5.51	4.77	a	ø8/10 2 br.	10.05	0.46	1095.31	2.50	18144.70	24088.00	18144.70	16.566

Travate n. 23104 23204 23304 23404 23504 23604 23704 23804 23904

23104 (a) Nodi: 311 392  
23204 (b) Nodi: 511 592  
23304 (c) Nodi: 711 792  
23404 (d) Nodi: 911 992  
23504 (e) Nodi: 1111 1192  
23604 (f) Nodi: 1311 1392  
23704 (g) Nodi: 1511 1592  
23804 (h) Nodi: 1711 1792  
23904 (i) Nodi: 1911 1992

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Cls	Fck	Fctk	Fcd	Fctd	Tp	Fyk	Fyd
		<cm>	<cm>	<cm>	<cm>		<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>		<daN/cmq>	<daN/cmq>
54	R	46.00	24.00	3.50	3.50	C28/35	290.50	19.84	164.62	13.23	B450C	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	In	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>					<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.351	SLU	b	1		35.00	6.03	6.03	6.03	6.03	-1768.97	-4454.25	2.518

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	In	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>					<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.352	SLE R	b	1		35.00	6.03	6.03	-1308.24	1202.98	-262.90	37.65
0.354	SLE Q	b	1		35.00	6.03	6.03	-1205.51	1108.52	-242.25	34.69

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	In	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c off</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>						<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
20	0.354	SLE Q	b	1		54	35.00	-1205.51	27.00	194.00	0.50	16.00	130.88	6.03	267.58	1108.52	0.32	0.07
29	0.353	SLE F	b	1		54	35.00	-1234.84	27.00	194.00	0.50	16.00	130.88	6.03	267.58	1135.49	0.33	0.07

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	In	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>			<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	



Relazione di calcolo

1 SLU	0.50	0.74	0.24	b	ø8/10 2 br.	10.05	0.46	1227.25	2.50	18144.70	24088.00	18144.70	14.785
1 SLU	0.74	5.51	4.77	b	ø8/10 2 br.	10.05	0.46	1141.13	2.50	18144.70	24088.00	18144.70	15.901

Travate n. 23105 23205 23305 23405 23505 23605 23705 23805 23905

23105 (a) Nodi: 317 393  
23205 (b) Nodi: 517 593  
23305 (c) Nodi: 717 793  
23405 (d) Nodi: 917 993  
23505 (e) Nodi: 1117 1193  
23605 (f) Nodi: 1317 1393  
23705 (g) Nodi: 1517 1593  
23805 (h) Nodi: 1717 1793  
23905 (i) Nodi: 1917 1993

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Cls	Fck	Fctk	Fcd	Fctd	Tp	Fyk	Fyd
		<cm>	<cm>	<cm>	<cm>		<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>		<daN/cmq>	<daN/cmq>
54	R	46.00	24.00	3.50	3.50	C28/35	290.50	19.84	164.62	13.23	B450C	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	In	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>					<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.351	SLU	a	1		35.00	6.03	6.03	6.03	6.03	-1784.75	-4454.25	2.496

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	In	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>					<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.352	SLE R	a	1		35.00	6.03	6.03	-1320.59	1214.34	-265.38	38.00
0.354	SLE Q	a	1		35.00	6.03	6.03	-1223.77	1125.31	-245.92	35.22

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	In	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>						<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
19	0.354	SLE Q	a	1		54	35.00	-1223.77	27.00	194.00	0.50	16.00	130.88	6.03	267.58	1125.31	0.33	0.07
28	0.353	SLE F	a	1		54	35.00	-1251.36	27.00	194.00	0.50	16.00	130.88	6.03	267.58	1150.68	0.34	0.07

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	In	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>			<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.50	0.74	0.24	a	ø8/10 2 br.	10.05	0.46	1237.34	2.50	18144.70	24088.00	18144.70	14.664
1 SLU	0.74	5.51	4.77	a	ø8/10 2 br.	10.05	0.46	1151.23	2.50	18144.70	24088.00	18144.70	15.761

Travate n. 23106 23206 23306 23406 23506 23606 23706 23806 23906

23106 (a) Nodi: 318 396  
23206 (b) Nodi: 518 596  
23306 (c) Nodi: 718 796  
23406 (d) Nodi: 918 996  
23506 (e) Nodi: 1118 1196  
23606 (f) Nodi: 1318 1396  
23706 (g) Nodi: 1518 1596  
23806 (h) Nodi: 1718 1796  
23906 (i) Nodi: 1918 1996

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Cls	Fck	Fctk	Fcd	Fctd	Tp	Fyk	Fyd
		<cm>	<cm>	<cm>	<cm>		<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>		<daN/cmq>	<daN/cmq>
54	R	46.00	24.00	3.50	3.50	C28/35	290.50	19.84	164.62	13.23	B450C	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	In	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>					<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.351	SLU	b	1		35.00	6.03	6.03	6.03	6.03	-1895.29	-4454.25	2.350

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	In	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
<m>					<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
0.352	SLE R	b	1		35.00	6.03	6.03	-1397.97	1285.49	-280.93	40.23
0.354	SLE Q	b	1		35.00	6.03	6.03	-1282.52	1179.33	-257.73	36.91

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	In	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>						<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
20	0.354	SLE Q	b	1		54	35.00	-1282.52	27.00	194.00	0.50	16.00	130.88	6.03	267.58	1179.33	0.34	0.08
29	0.353	SLE F	b	1		54	35.00	-1315.41	27.00	194.00	0.50	16.00	130.88	6.03	267.58	1209.57	0.35	0.08

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	In	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
----	----	----	-------	----	--------	---------	----	------	------	------	------	------	------



Relazione di calcolo

	<m>	<m>	<m>			<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	0.50	0.74	0.24	b	ø8/10 2 br.	10.05	0.46	1283.02	2.50	18144.70	24088.00	18144.70	14.142
1 SLU	0.74	5.51	4.77	b	ø8/10 2 br.	10.05	0.46	1196.90	2.50	18144.70	24088.00	18144.70	15.160

Travate n. 30009 50009 70009 90009 110009 130009 170009 190009

30009 (a) Nodi: 390 -927 391  
50009 (b) Nodi: 590 -1701 591  
70009 (c) Nodi: 790 -2466 791  
90009 (d) Nodi: 990 -3231 991  
110009 (e) Nodi: 1190 -3996 1191  
130009 (f) Nodi: 1390 -4761 1391  
170009 (g) Nodi: 1790 -6292 1791  
190009 (h) Nodi: 1990 -7057 1991

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
32	R	14.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Travata priva di sollecitazioni perché adiacente ad un muro o per altri motivi

Stato limite d'esercizio - Verifiche tensionali

Travata priva di sollecitazioni perché adiacente ad un muro o per altri motivi

Stato limite ultimo - Verifiche a taglio

Travata priva di sollecitazioni perché adiacente ad un muro o per altri motivi

Travate n. 30011 50011 70011 90011 110011 130011 170011 190011

30011 (a) Nodi: 394 -928 395  
50011 (b) Nodi: 594 -1702 595  
70011 (c) Nodi: 794 -2467 795  
90011 (d) Nodi: 994 -3232 995  
110011 (e) Nodi: 1194 -3997 1195  
130011 (f) Nodi: 1394 -4762 1395  
170011 (g) Nodi: 1794 -6293 1795  
190011 (h) Nodi: 1994 -7058 1995

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
32	R	14.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Travata priva di sollecitazioni perché adiacente ad un muro o per altri motivi

Stato limite d'esercizio - Verifiche tensionali

Travata priva di sollecitazioni perché adiacente ad un muro o per altri motivi

Stato limite ultimo - Verifiche a taglio

Travata priva di sollecitazioni perché adiacente ad un muro o per altri motivi

Travata n. 3003

Nodi: 307 308 -829 -830 -831 -832 -833 -834 -835 -836 309 -837 -838 -839 -840 -841 -842 -843 310 -844 -845 -846 -847  
-848 -849 -850 311 -851 -852 -853 -854 -855 -856 -857 312 -858 -859 -860 -861 -862 -863 -864 -865 313 314 315 -866  
-867 -868 -869 -870 -871 -872 -873 316 -874 -875 -876 -877 -878 -879 -880 -881 317 -882 -883 -884 -885 -886 -887 -888  
318 -889 -890 -891 -892 -893 -894 -895 -896 319 -897 -898 -899 -900 -901 -902 -903 -904 320

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	b	H	h	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
57	L	130.00	30.00	24.00	26.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCCE	El	X	AfE S	AfE I	AfEP S	AfEP I	My	MRdy	Sic.
<m>				<m>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.12	1	SLU	1	12.50	19.23	14.36	19.23	14.36	-4060.40	-29815.80	7.343
1.43	1	SLU	1	142.50	11.44	14.36	11.44	14.36	2294.08	23205.40	10.115
3.05	1	SLU	1	305.00	19.98	18.98	19.98	18.98	-2659.33	-31015.50	11.663
3.45	1	SLU	2	20.00	19.98	18.98	19.98	18.98	-4603.84	-31015.50	6.737
4.69	1	SLU	6	0.00	11.44	16.62	11.44	16.62	2608.42	26709.40	10.240
6.30	1	SLU	10	16.11	23.78	26.86	23.78	26.86	-5006.41	-36884.20	7.367



Relazione di calcolo

6.701	SLU	11	20.00	23.78	26.86	23.78	26.86	-4731.20	-36884.20	7.796
8.101	SLU	15	0.00	11.44	19.67	11.44	19.67	1781.59	31418.60	17.635
9.501	SLU	18	20.00	31.73	33.24	31.73	33.24	-3091.88	-49116.00	15.886
9.901	SLU	19	20.00	31.73	33.24	31.73	33.24	-3976.71	-49116.00	12.351
11.201	SLU	23	0.00	11.44	14.58	11.44	14.58	2002.02	23546.10	11.761
12.501	SLU	26	17.50	31.73	27.08	31.73	27.08	-3753.16	-49069.40	13.074
12.901	SLU	27	20.00	31.73	27.08	31.73	27.08	-2527.36	-49069.40	19.415
13.891	SLU	30	0.00	11.44	12.50	11.44	12.50	1848.62	20332.30	10.999
15.681	SLU	34	19.75	23.78	19.70	23.78	19.70	-5042.65	-36839.20	7.306
16.081	SLU	35	20.00	23.78	19.70	23.78	19.70	-4308.60	-36839.20	8.550
17.321	SLU	39	0.00	11.44	16.62	11.44	16.62	2446.73	26709.40	10.916
18.931	SLU	43	16.11	19.98	18.98	19.98	18.98	-5108.03	-31015.50	6.072
19.331	SLU	44	20.00	19.98	18.98	19.98	18.98	-4082.92	-31015.50	7.596
20.601	SLU	44	146.67	11.44	14.36	11.44	14.36	1749.51	23205.40	13.264
22.181	SLU	44	305.00	28.65	28.40	28.65	28.40	-3058.13	-44366.30	14.508
22.581	SLU	45	20.00	28.65	30.76	28.65	30.76	-4776.13	-44377.20	9.291
23.851	SLU	45	146.67	11.44	18.98	11.44	18.98	1578.96	30351.40	19.222
25.431	SLU	45	305.00	21.52	23.59	21.52	23.59	-2749.27	-33399.00	12.148
25.831	SLU	46	20.00	21.52	23.59	21.52	23.59	-5172.61	-33399.00	6.457
27.071	SLU	50	0.00	11.44	16.62	11.44	16.62	2520.35	26709.40	10.598
28.681	SLU	54	16.11	25.32	17.62	25.32	17.62	-4623.10	-39081.20	8.453
29.081	SLU	55	20.00	25.32	26.86	25.32	26.86	-5516.75	-39248.00	7.114
30.691	SLU	60	0.00	11.44	19.67	11.44	19.67	2044.20	31418.60	15.370
31.931	SLU	63	16.11	31.73	32.80	31.73	32.80	-2388.42	-49113.70	20.563
32.331	SLU	64	20.00	31.73	32.80	31.73	32.80	-3464.49	-49113.70	14.176
33.221	SLU	67	0.00	11.44	14.14	11.44	14.14	1932.20	22864.60	11.834
34.831	SLU	71	16.25	22.31	23.37	22.31	23.37	-3430.36	-34603.60	10.087
35.231	SLU	72	20.00	22.31	23.37	22.31	23.37	-520.72	-34603.60	66.454
36.111	SLU	75	0.00	11.44	19.67	11.44	19.67	2400.86	31418.60	13.086
38.061	SLU	80	15.89	25.32	19.67	25.32	19.67	-7362.48	-39186.50	5.322
38.461	SLU	81	20.00	25.32	19.67	25.32	19.67	-4915.32	-39186.50	7.972
39.701	SLU	85	0.00	11.44	19.67	11.44	19.67	2622.23	31418.60	11.982
41.291	SLU	89	15.89	17.59	19.67	17.59	19.67	-4368.96	-27354.00	6.261

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	E1	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>f</sub> sup <daN/cm <sup>2</sup> >	σ <sub>f</sub> inf <daN/cm <sup>2</sup> >	σ <sub>c</sub> <daN/cm <sup>2</sup> >
0.122	SLE	R	1	12.50	19.23	14.36	-2883.55	362.03	-188.56	15.56
0.124	SLE	Q	1	12.50	19.23	14.36	-2511.31	315.30	-164.22	13.55
1.432	SLE	R	1	142.50	11.44	14.36	1625.19	-48.00	262.63	4.89
1.434	SLE	Q	1	142.50	11.44	14.36	1459.99	-43.12	235.94	4.39
3.052	SLE	R	1	305.00	19.98	18.98	-1884.45	226.01	-110.29	9.18
3.054	SLE	Q	1	305.00	19.98	18.98	-1716.64	205.88	-100.47	8.36
3.452	SLE	R	2	20.00	19.98	18.98	-3284.57	393.94	-192.23	16.00
3.454	SLE	Q	2	20.00	19.98	18.98	-2768.53	332.05	-162.03	13.48
4.692	SLE	R	6	0.00	11.44	16.62	1856.10	-53.55	260.31	5.27
4.694	SLE	Q	6	0.00	11.44	16.62	1539.63	-44.42	215.93	4.37
6.302	SLE	R	10	16.11	23.78	26.86	-3560.21	356.96	-173.90	14.47
6.304	SLE	Q	10	16.11	23.78	26.86	-3021.44	302.94	-147.59	12.28
6.702	SLE	R	11	20.00	23.78	26.86	-3400.75	340.98	-166.11	13.83
6.704	SLE	Q	11	20.00	23.78	26.86	-2997.70	300.56	-146.43	12.19
8.102	SLE	R	15	0.00	11.44	19.67	1263.31	-35.38	150.58	3.37
8.104	SLE	Q	15	0.00	11.44	19.67	1105.66	-30.96	131.79	2.95
9.502	SLE	R	18	20.00	31.73	33.24	-2169.20	163.40	-91.77	7.50
9.504	SLE	Q	18	20.00	31.73	33.24	-1835.70	138.28	-77.66	6.35
9.902	SLE	R	19	20.00	31.73	33.24	-2853.68	214.96	-120.73	9.87
9.904	SLE	Q	19	20.00	31.73	33.24	-2486.97	187.34	-105.22	8.60
11.202	SLE	R	23	0.00	11.44	14.58	1454.15	-42.85	231.55	4.35
11.204	SLE	Q	23	0.00	11.44	14.58	1283.34	-37.82	204.35	3.84
12.502	SLE	R	26	17.50	31.73	27.08	-2682.17	203.61	-126.02	10.19
12.504	SLE	Q	26	17.50	31.73	27.08	-2326.06	176.58	-109.29	8.84
12.902	SLE	R	27	20.00	31.73	27.08	-1766.96	134.13	-83.02	6.71
12.904	SLE	Q	27	20.00	31.73	27.08	-1492.15	113.27	-70.11	5.67
13.892	SLE	R	30	0.00	11.44	12.50	1312.77	-39.55	242.61	4.17
13.894	SLE	Q	30	0.00	11.44	12.50	1148.92	-34.62	212.33	3.65
15.682	SLE	R	34	19.75	23.78	19.70	-3620.74	366.89	-203.65	16.67
15.684	SLE	Q	34	19.75	23.78	19.70	-3188.28	323.07	-179.33	14.68
16.082	SLE	R	35	20.00	23.78	19.70	-3062.31	310.31	-172.24	14.10
16.084	SLE	Q	35	20.00	23.78	19.70	-2620.49	265.54	-147.39	12.07
17.322	SLE	R	39	0.00	11.44	16.62	1740.57	-50.21	244.11	4.94
17.324	SLE	Q	39	0.00	11.44	16.62	1443.84	-41.65	202.50	4.10
18.932	SLE	R	43	16.11	19.98	18.98	-3640.22	436.59	-213.05	17.73
18.934	SLE	Q	43	16.11	19.98	18.98	-3076.12	368.94	-180.03	14.98
19.332	SLE	R	44	20.00	19.98	18.98	-2895.10	347.23	-169.44	14.10
19.334	SLE	Q	44	20.00	19.98	18.98	-2590.97	310.75	-151.64	12.62
20.602	SLE	R	44	146.67	11.44	14.36	1239.74	-36.62	200.34	3.73
20.604	SLE	Q	44	146.67	11.44	14.36	1125.26	-33.24	181.84	3.38
22.182	SLE	R	44	305.00	28.65	28.40	-2169.93	181.41	-100.81	8.25
22.184	SLE	Q	44	305.00	28.65	28.40	-1893.96	158.34	-87.99	7.20
22.582	SLE	R	45	20.00	28.65	30.76	-3401.62	283.58	-151.70	12.48
22.584	SLE	Q	45	20.00	28.65	30.76	-2976.77	248.16	-132.75	10.92



Relazione di calcolo

23.85	2	SLE R	45	146.67	11.44	18.98	1117.33	-31.49	137.86	3.02
23.85	4	SLE Q	45	146.67	11.44	18.98	1010.14	-28.47	124.63	2.73
25.43	2	SLE R	45	305.00	21.52	23.59	-1941.02	215.23	-102.20	8.54
25.43	4	SLE Q	45	305.00	21.52	23.59	-1756.03	194.72	-92.46	7.72
25.83	2	SLE R	46	20.00	21.52	23.59	-3698.63	410.13	-194.74	16.26
25.83	4	SLE Q	46	20.00	21.52	23.59	-3127.99	346.85	-164.69	13.76
27.07	2	SLE R	50	0.00	11.44	16.62	1792.93	-51.72	251.46	5.09
27.07	4	SLE Q	50	0.00	11.44	16.62	1484.60	-42.83	208.21	4.22
28.68	2	SLE R	54	16.11	25.32	17.62	-3279.89	314.25	-191.10	15.48
28.68	4	SLE Q	54	16.11	25.32	17.62	-2778.32	266.19	-161.88	13.11
29.08	2	SLE R	55	20.00	25.32	26.86	-3974.83	375.11	-192.69	15.93
29.08	4	SLE Q	55	20.00	25.32	26.86	-3516.94	331.90	-170.49	14.09
30.69	2	SLE R	60	0.00	11.44	19.67	1457.00	-40.80	173.66	3.88
30.69	4	SLE Q	60	0.00	11.44	19.67	1281.47	-35.89	152.74	3.42
31.93	2	SLE R	63	16.11	31.73	32.80	-1651.84	124.49	-70.39	5.75
31.93	4	SLE Q	63	16.11	31.73	32.80	-1366.24	102.97	-58.22	4.76
32.33	2	SLE R	64	20.00	31.73	32.80	-2479.35	186.85	-105.65	8.63
32.33	4	SLE Q	64	20.00	31.73	32.80	-2157.28	162.58	-91.93	7.51
33.22	2	SLE R	67	0.00	11.44	14.14	1406.19	-41.63	230.67	4.25
33.22	4	SLE Q	67	0.00	11.44	14.14	1245.26	-36.87	204.27	3.77
34.83	2	SLE R	71	16.25	22.31	23.37	-2449.68	262.48	-128.95	10.72
34.83	4	SLE Q	71	16.25	22.31	23.37	-2120.54	227.21	-111.62	9.28
35.23	2	SLE R	72	20.00	22.31	23.37	-306.97	32.89	-16.16	1.34
35.23	4	SLE Q	72	20.00	22.31	23.37	-202.42	21.69	-10.66	0.89
36.11	2	SLE R	75	0.00	11.44	19.67	1722.49	-48.24	205.31	4.59
36.11	4	SLE Q	75	0.00	11.44	19.67	1518.92	-42.54	181.05	4.05
38.06	2	SLE R	80	15.89	25.32	19.67	-5304.40	506.16	-295.97	24.08
38.06	4	SLE Q	80	15.89	25.32	19.67	-4671.28	445.75	-260.64	21.21
38.46	2	SLE R	81	20.00	25.32	19.67	-3493.77	333.39	-194.94	15.86
38.46	4	SLE Q	81	20.00	25.32	19.67	-3001.86	286.45	-167.49	13.63
39.70	2	SLE R	85	0.00	11.44	19.67	1861.83	-52.14	221.92	4.96
39.70	4	SLE Q	85	0.00	11.44	19.67	1549.42	-43.39	184.68	4.13
41.29	2	SLE R	89	15.89	17.59	19.67	-3122.13	422.85	-183.20	15.50
41.29	4	SLE Q	89	15.89	17.59	19.67	-2577.99	349.15	-151.27	12.80

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
3	0.12	4	SLE Q	1	57	12.50	-2511.31	29.00	87.71	0.50	13.60	138.46	19.23	1137.50	315.30	0.09	0.02
4	0.12	3	SLE F	1	57	12.50	-2617.16	29.00	87.71	0.50	13.60	138.46	19.23	1137.50	328.59	0.10	0.02
7	1.43	4	SLE Q	1	57	142.50	1459.99	27.50	24.89	0.50	16.67	104.34	3.93	116.24	235.94	0.07	0.01
8	1.43	3	SLE F	1	57	142.50	1507.09	27.50	24.89	0.50	16.67	104.34	3.93	116.24	243.55	0.07	0.01
13	3.05	4	SLE Q	1	57	305.00	-1716.64	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	205.88	0.06	0.01
15	3.05	3	SLE F	1	57	305.00	-1765.13	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	211.70	0.06	0.01
19	3.45	4	SLE Q	2	57	20.00	-2768.53	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	332.05	0.10	0.02
20	3.45	3	SLE F	2	57	20.00	-2916.16	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	349.75	0.10	0.02
23	4.69	4	SLE Q	6	57	0.00	1539.63	27.50	24.89	0.50	16.67	103.48	3.93	114.23	215.93	0.06	0.01
24	4.69	3	SLE F	6	57	0.00	1630.02	27.50	24.89	0.50	16.67	103.48	3.93	114.23	228.61	0.07	0.01
27	6.30	4	SLE Q	10	57	16.11	-3021.44	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	302.94	0.09	0.02
28	6.30	3	SLE F	10	57	16.11	-3175.25	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	318.37	0.09	0.02
31	6.70	4	SLE Q	11	57	20.00	-2997.70	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	300.56	0.09	0.02
32	6.70	3	SLE F	11	57	20.00	-3112.81	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	312.11	0.09	0.02
35	8.10	4	SLE Q	15	57	0.00	1105.66	28.00	22.40	0.50	15.71	89.88	5.18	111.77	131.79	0.04	0.01
36	8.10	3	SLE F	15	57	0.00	1150.67	28.00	22.40	0.50	15.71	89.88	5.18	111.77	137.15	0.04	0.01
39	9.50	4	SLE Q	18	57	20.00	-1835.70	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	138.28	0.04	0.01
40	9.50	3	SLE F	18	57	20.00	-1931.01	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	145.46	0.04	0.01
43	9.90	4	SLE Q	19	57	20.00	-2486.97	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	187.34	0.05	0.01
44	9.90	3	SLE F	19	57	20.00	-2591.62	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	195.22	0.06	0.01
47	11.20	4	SLE Q	23	57	0.00	1283.34	28.67	23.60	0.50	14.84	96.21	4.43	116.04	204.35	0.06	0.01
48	11.20	3	SLE F	23	57	0.00	1332.12	28.67	23.60	0.50	14.84	96.21	4.43	116.04	212.12	0.06	0.01
51	12.50	4	SLE Q	26	57	17.50	-2326.06	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	176.58	0.05	0.01
52	12.50	3	SLE F	26	57	17.50	-2427.96	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	184.31	0.05	0.01
55	12.90	4	SLE Q	27	57	20.00	-1492.15	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	113.27	0.03	0.01
56	12.90	3	SLE F	27	57	20.00	-1570.91	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	119.25	0.03	0.01
59	13.89	4	SLE Q	30	57	0.00	1148.92	26.20	56.00	0.50	18.09	90.38	12.50	262.50	212.33	0.06	0.01
60	13.89	3	SLE F	30	57	0.00	1195.68	26.20	56.00	0.50	18.09	90.38	12.50	262.50	220.97	0.06	0.01
63	15.68	4	SLE Q	34	57	19.75	-3188.28	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	323.07	0.09	0.02
64	15.68	3	SLE F	34	57	19.75	-3311.60	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	335.57	0.10	0.02
67	16.08	4	SLE Q	35	57	20.00	-2620.49	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	265.54	0.08	0.02
68	16.08	3	SLE F	35	57	20.00	-2746.56	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	278.31	0.08	0.02
71	17.32	4	SLE Q	39	57	0.00	1443.84	28.67	26.00	0.50	14.84	95.61	4.43	114.23	202.50	0.06	0.01
72	17.32	3	SLE F	39	57	0.00	1528.66	28.67	26.00	0.50	14.84	95.61	4.43	114.23	214.39	0.06	0.01
75	18.93	4	SLE Q	43	57	16.11	-3076.12	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	368.94	0.11	0.02
76	18.93	3	SLE F	43	57	16.11	-3237.38	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	388.28	0.11	0.03
79	19.33	4	SLE Q	44	57	20.00	-2590.97	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	310.75	0.09	0.02
80	19.33	3	SLE F	44	57	20.00	-2677.51	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	321.13	0.09	0.02
83	20.60	4	SLE Q	44	57	146.67	1125.26	28.67	26.00	0.50	14.84	96.28	4.43	116.24	181.84	0.05	0.01
84	20.60	3	SLE F	44	57	146.67	1157.89	28.67	26.00	0.50	14.84	96.28	4.43	116.24	177.12	0.05	0.01
87	22.18	4	SLE Q	44	57	305.00	-1893.96	28.33	72.24	0.50	15.20	117.01	28.65	1137.50	158.34	0.05	0.01
88	22.18	3	SLE F	44	57	305.00	-1973.26	28.33	72.24	0.50	15.20	117.01	28.65	1137.50	164.97	0.05	0.01
91	22.58	4	SLE Q	45	57	20.00	-2976.77	28.33	72.24	0.50	15.20	117.01	28.65	1137.50	248.16	0.07	0.01



Relazione di calcolo

92	22.58	3	SLE F	45	57	20.00	-3098.01	28.33	72.24	0.50	15.20	117.01	28.65	1137.50	258.27	0.08	0.01
97	23.85	4	SLE Q	45	57	146.67	1010.14	28.67	19.50	0.50	14.84	94.96	4.43	112.30	124.63	0.04	0.01
99	23.85	3	SLE F	45	57	146.67	1040.73	28.67	19.50	0.50	14.84	94.96	4.43	112.30	128.41	0.04	0.01
103	25.43	4	SLE Q	45	57	305.00	-1756.03	28.81	81.87	0.50	13.84	130.77	21.52	1137.50	194.72	0.06	0.01
104	25.43	3	SLE F	45	57	305.00	-1809.01	28.81	81.87	0.50	13.84	130.77	21.52	1137.50	200.59	0.06	0.01
107	25.83	4	SLE Q	46	57	20.00	-3127.99	28.81	81.87	0.50	13.84	130.77	21.52	1137.50	346.85	0.10	0.02
108	25.83	3	SLE F	46	57	20.00	-3291.17	28.81	81.87	0.50	13.84	130.77	21.52	1137.50	364.95	0.11	0.02
111	27.07	4	SLE Q	50	57	0.00	1484.60	28.67	26.00	0.50	14.84	95.61	4.43	114.23	208.21	0.06	0.01
112	27.07	3	SLE F	50	57	0.00	1572.72	28.67	26.00	0.50	14.84	95.61	4.43	114.23	220.57	0.06	0.01
115	28.68	4	SLE Q	54	57	16.11	-2778.32	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	266.19	0.08	0.02
116	28.68	3	SLE F	54	57	16.11	-2921.45	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	279.90	0.08	0.02
119	29.08	4	SLE Q	55	57	20.00	-3516.94	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	331.90	0.10	0.02
120	29.08	3	SLE F	55	57	20.00	-3647.43	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	344.21	0.10	0.02
123	30.69	4	SLE Q	60	57	0.00	1281.47	28.00	23.60	0.50	15.71	89.88	5.18	111.77	152.74	0.04	0.01
124	30.69	3	SLE F	60	57	0.00	1331.47	28.00	23.60	0.50	15.71	89.88	5.18	111.77	158.70	0.05	0.01
127	31.93	4	SLE Q	63	57	16.11	-1366.24	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	102.97	0.03	0.01
128	31.93	3	SLE F	63	57	16.11	-1448.19	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	109.14	0.03	0.01
131	32.33	4	SLE Q	64	57	20.00	-2157.28	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	162.58	0.05	0.01
132	32.33	3	SLE F	64	57	20.00	-2249.34	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	169.52	0.05	0.01
135	33.22	4	SLE Q	67	57	0.00	1245.26	28.67	23.60	0.50	14.84	96.35	4.43	116.45	204.27	0.06	0.01
136	33.22	3	SLE F	67	57	0.00	1291.17	28.67	23.60	0.50	14.84	96.35	4.43	116.45	211.80	0.06	0.01
139	34.83	4	SLE Q	71	57	16.25	-2120.54	28.88	76.75	0.50	13.65	127.39	22.31	1137.50	227.21	0.07	0.01
140	34.83	3	SLE F	71	57	16.25	-2214.66	28.88	76.75	0.50	13.65	127.39	22.31	1137.50	237.30	0.07	0.01
146	35.23	4	SLE Q	72	57	20.00	-202.42	28.88	76.75	0.50	13.65	127.39	22.31	1137.50	21.69	0.01	0.00
148	35.23	3	SLE F	72	57	20.00	-233.14	28.88	76.75	0.50	13.65	127.39	22.31	1137.50	24.98	0.01	0.00
151	36.11	4	SLE Q	75	57	0.00	1518.92	28.00	23.60	0.50	15.71	89.88	5.18	111.77	181.05	0.05	0.01
152	36.11	3	SLE F	75	57	0.00	1576.77	28.00	23.60	0.50	15.71	89.88	5.18	111.77	187.94	0.05	0.01
155	38.06	4	SLE Q	80	57	15.89	-4671.28	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	445.75	0.13	0.03
156	38.06	3	SLE F	80	57	15.89	-4851.36	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	462.93	0.13	0.03
159	38.46	4	SLE Q	81	57	20.00	-3001.86	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	286.45	0.08	0.02
160	38.46	3	SLE F	81	57	20.00	-3142.55	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	299.87	0.09	0.02
163	39.70	4	SLE Q	85	57	0.00	1549.42	28.00	23.60	0.50	15.71	89.88	5.18	111.77	184.68	0.05	0.01
164	39.70	3	SLE F	85	57	0.00	1638.72	28.00	23.60	0.50	15.71	89.88	5.18	111.77	195.32	0.06	0.01
167	41.29	4	SLE Q	89	57	15.89	-2577.99	28.27	122.80	0.50	15.14	154.40	17.59	1137.50	349.15	0.10	0.03
168	41.29	3	SLE F	89	57	15.89	-2733.22	28.27	122.80	0.50	15.14	154.40	17.59	1137.50	370.18	0.11	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	0.72	0.52	ø8/10 2 br.	10.05	0.30	7514.45	1.90	24957.10	24957.10	24957.10	3.321
1 SLU	0.72	2.53	1.81	ø8/10 2 br.	10.05	0.30	4882.21	1.90	24957.10	24957.10	24957.10	5.112
1 SLU	2.53	3.05	0.52	ø8/10 2 br.	10.05	0.30	6936.75	1.90	24957.10	24957.10	24957.10	3.598
1 SLU	3.45	3.97	0.52	ø8/10 2 br.	10.05	0.30	10693.70	1.90	24957.10	24957.10	24957.10	2.334
1 SLU	3.97	5.78	1.81	ø8/10 2 br.	10.05	0.30	5124.10	1.90	24957.10	24957.10	24957.10	4.871
1 SLU	5.78	6.30	0.52	ø8/10 2 br.	10.05	0.30	10389.80	1.90	24957.10	24957.10	24957.10	2.402
1 SLU	6.70	7.22	0.52	ø8/10 2 br.	10.05	0.30	9056.05	1.90	24957.10	24957.10	24957.10	2.756
1 SLU	7.22	8.98	1.76	ø8/10 2 br.	10.05	0.30	8413.90	1.90	24957.10	24957.10	24957.10	5.184
1 SLU	8.98	9.50	0.52	ø8/10 2 br.	10.05	0.30	7329.98	1.90	24957.10	24957.10	24957.10	3.405
1 SLU	9.90	10.42	0.52	ø8/10 2 br.	10.05	0.30	9045.35	1.90	24957.10	24957.10	24957.10	2.759
1 SLU	10.42	11.98	1.56	ø8/10 2 br.	10.05	0.30	4396.68	1.90	24957.10	24957.10	24957.10	5.676
1 SLU	11.98	12.50	0.52	ø8/10 2 br.	10.05	0.30	8868.30	1.90	24957.10	24957.10	24957.10	2.814
1 SLU	12.90	13.42	0.52	ø8/10 2 br.	10.05	0.30	6926.42	1.90	24957.10	24957.10	24957.10	3.603
1 SLU	13.42	15.16	1.74	ø8/10 2 br.	10.05	0.30	4963.52	1.90	24957.10	24957.10	24957.10	5.028
1 SLU	15.16	15.68	0.52	ø8/10 2 br.	10.05	0.30	8849.57	1.90	24957.10	24957.10	24957.10	2.820
1 SLU	16.08	16.60	0.52	ø8/10 2 br.	10.05	0.30	8849.50	1.90	24957.10	24957.10	24957.10	2.820
1 SLU	16.60	18.41	1.81	ø8/10 2 br.	10.05	0.30	5053.42	1.90	24957.10	24957.10	24957.10	4.939
1 SLU	18.41	18.93	0.52	ø8/10 2 br.	10.05	0.30	11024.00	1.90	24957.10	24957.10	24957.10	2.264
1 SLU	19.33	19.85	0.52	ø8/10 2 br.	10.05	0.30	7585.18	1.90	24957.10	24957.10	24957.10	3.290
1 SLU	19.85	21.66	1.81	ø8/10 2 br.	10.05	0.30	4952.93	1.90	24957.10	24957.10	24957.10	5.039
1 SLU	21.66	22.18	0.52	ø8/10 2 br.	10.05	0.30	6866.02	1.90	24957.10	24957.10	24957.10	3.635
1 SLU	22.58	23.10	0.52	ø8/10 2 br.	10.05	0.30	7936.78	1.90	24957.10	24957.10	24957.10	3.144
1 SLU	23.10	24.91	1.81	ø8/10 2 br.	10.05	0.30	5304.53	1.90	24957.10	24957.10	24957.10	4.705
1 SLU	24.91	25.43	0.52	ø8/10 2 br.	10.05	0.30	6514.42	1.90	24957.10	24957.10	24957.10	3.831
1 SLU	25.83	26.35	0.52	ø8/10 2 br.	10.05	0.30	11110.90	1.90	24957.10	24957.10	24957.10	2.246
1 SLU	26.35	28.16	1.81	ø8/10 2 br.	10.05	0.30	5073.78	1.90	24957.10	24957.10	24957.10	4.919
1 SLU	28.16	28.68	0.52	ø8/10 2 br.	10.05	0.30	10013.20	1.90	24957.10	24957.10	24957.10	2.492
1 SLU	29.08	29.60	0.52	ø8/10 2 br.	10.05	0.30	9920.33	1.90	24957.10	24957.10	24957.10	2.516
1 SLU	29.60	31.41	1.81	ø8/10 2 br.	10.05	0.30	5278.52	1.90	24957.10	24957.10	24957.10	4.728
1 SLU	31.41	31.93	0.52	ø8/10 2 br.	10.05	0.30	7080.47	1.90	24957.10	24957.10	24957.10	3.525
1 SLU	32.33	32.85	0.52	ø8/10 2 br.	10.05	0.30	8560.65	1.90	24957.10	24957.10	24957.10	2.915
1 SLU	32.85	34.31	1.46	ø8/10 2 br.	10.05	0.30	3644.42	1.90	24957.10	24957.10	24957.10	6.848
1 SLU	34.31	34.83	0.52	ø8/10 2 br.	10.05	0.30	8546.41	1.90	24957.10	24957.10	24957.10	2.920
1 SLU	35.23	35.75	0.52	ø8/10 2 br.	10.05	0.30	5496.64	1.90	24957.10	24957.10	24957.10	4.540
1 SLU	35.75	37.54	1.79	ø8/10 2 br.	10.05	0.30	6383.13	1.90	24957.10	24957.10	24957.10	3.910
1 SLU	37.54	38.06	0.52	ø8/10 2 br.	10.05	0.30	11375.30	1.90	24957.10	24957.10	24957.10	2.194
1 SLU	38.46	38.98	0.52	ø8/10 2 br.	10.05	0.30	10259.40	1.90	24957.10	24957.10	24957.10	2.433
1 SLU	38.98	40.77	1.79	ø8/10 2 br.	10.05	0.30	5144.39	1.90	24957.10	24957.10	24957.10	4.851
1 SLU	40.77	41.29	0.52	ø8/10 2 br.	10.05	0.30	10484.90	1.90	24957.10	24957.10	24957.10	2.380



Relazione di calcolo

Nodi: 341 342 343 344 -7184 -7139 -7174 345 346 347 348 349 350 351 -7112 -7085 -7102 352 353 354

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	b <cm>	H <cm>	h <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
56	Ldx	100.00	30.00	24.00	26.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
58	Ldx	60.00	30.00	24.00	26.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	Afe S <cm²>	Afe I <cm²>	AfeP S <cm²>	AfeP I <cm²>	My <daNm>	MRdy <daNm>	Sic.
0.12	1	SLU	1	12.50	11.44	13.73	11.44	13.73	-3074.74	-17875.80	5.814
1.10	1	SLU	1	110.00	11.44	13.73	11.44	13.73	2156.52	22006.10	10.204
3.05	1	SLU	1	305.00	11.44	16.09	11.44	16.09	-2990.27	-17877.30	5.978
3.45	1	SLU	2	20.00	11.44	16.09	11.44	16.09	-3412.69	-17877.30	5.238
4.40	1	SLU	2	115.00	11.44	13.79	11.44	13.79	1553.66	22103.10	14.226
6.30	1	SLU	2	305.00	11.44	16.87	11.44	16.87	-3243.47	-17877.70	5.512
6.70	1	SLU	3	20.00	11.44	16.87	11.44	16.87	-4808.21	-17877.70	3.718
7.94	1	SLU	3	144.44	11.44	14.51	11.44	14.51	2637.35	23218.80	8.804
9.50	1	SLU	3	300.00	26.89	29.97	26.89	29.97	1943.25	47028.40	24.201
12.90	1	SLU	8	20.00	26.89	29.97	26.89	29.97	1781.79	47028.40	26.394
13.52	1	SLU	8	81.78	11.44	14.51	11.44	14.51	2557.72	23218.80	9.078
15.68	1	SLU	8	298.00	11.44	16.87	11.44	16.87	-4477.98	-17877.70	3.992
16.08	1	SLU	9	20.00	11.44	16.87	11.44	16.87	-3646.92	-17877.70	4.902
17.03	1	SLU	9	115.00	11.44	13.79	11.44	13.79	1524.71	22103.10	14.497
18.93	1	SLU	9	305.00	11.44	16.09	11.44	16.09	-3069.91	-17877.30	5.823
19.33	1	SLU	10	20.00	11.44	16.09	11.44	16.09	-4009.38	-17877.30	4.459
20.60	1	SLU	10	146.67	11.44	13.73	11.44	13.73	1779.20	22006.10	12.369
22.18	1	SLU	10	305.00	20.86	23.15	20.86	23.15	-2311.94	-32384.60	14.008
22.58	1	SLU	11	20.00	20.86	23.15	20.86	23.15	-3862.37	-32384.60	8.385
23.85	1	SLU	11	146.67	11.44	13.73	11.44	13.73	1610.16	22006.10	13.667
25.43	1	SLU	11	305.00	16.87	16.09	16.87	16.09	-2724.45	-26230.40	9.628
25.83	1	SLU	12	20.00	16.87	16.09	16.87	16.09	-3365.21	-26230.40	7.795
26.78	1	SLU	12	115.00	11.44	13.79	11.44	13.79	1567.19	22103.10	14.104
28.68	1	SLU	12	305.00	14.51	17.88	14.51	17.88	-3265.87	-22617.40	6.925
29.08	1	SLU	13	20.00	14.51	17.88	14.51	17.88	-4965.30	-22617.40	4.555
30.35	1	SLU	13	146.67	11.44	15.52	11.44	15.52	2713.68	24770.70	9.128
31.93	1	SLU	13	305.00	33.05	30.98	33.05	30.98	1957.92	48582.90	24.814
35.23	1	SLU	18	20.00	29.97	29.97	29.97	29.97	1410.90	47032.90	33.335
36.17	1	SLU	18	114.33	11.44	14.51	11.44	14.51	2562.85	23218.80	9.060
38.06	1	SLU	18	303.00	17.59	14.51	17.59	14.51	-3926.21	-27325.20	6.960
38.46	1	SLU	19	20.00	17.59	14.51	17.59	14.51	-1237.74	-27325.20	22.077
39.09	1	SLU	19	82.89	11.44	14.51	11.44	14.51	1953.25	23218.80	11.887
41.29	1	SLU	19	303.00	14.51	14.51	14.51	14.51	-4921.47	-22609.20	4.594

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	X <cm>	Afe S <cmq>	Afe I <cmq>	My <daNm>	σ <sub>ε</sub> sup <daN/cmq>	σ <sub>ε</sub> inf <daN/cmq>	σ <sub>c</sub> <daN/cmq>
0.12	2	SLE R	1	12.50	11.44	13.73	-2165.14	448.60	-155.83	13.67
0.12	4	SLE Q	1	12.50	11.44	13.73	-1903.05	394.30	-136.97	12.01
1.10	2	SLE R	1	110.00	11.44	13.73	1522.91	-54.52	258.77	5.33
1.10	4	SLE Q	1	110.00	11.44	13.73	1355.13	-48.51	230.26	4.75
3.05	2	SLE R	1	305.00	11.44	16.09	-2119.48	437.65	-143.57	12.72
3.05	4	SLE Q	1	305.00	11.44	16.09	-1912.47	394.90	-129.54	11.48
3.45	2	SLE R	2	20.00	11.44	16.09	-2409.36	497.51	-163.20	14.47
3.45	4	SLE Q	2	20.00	11.44	16.09	-2126.43	439.08	-144.04	12.77
4.40	2	SLE R	2	115.00	11.44	13.79	-686.43	142.21	-49.32	4.33
4.40	2	SLE R	2	115.00	11.44	13.79	1096.93	-39.24	185.57	3.84
4.40	4	SLE Q	2	115.00	11.44	13.79	-597.68	123.82	-42.95	3.77
6.30	2	SLE R	2	305.00	11.44	16.87	-2293.10	473.03	-152.31	13.55
6.30	4	SLE Q	2	305.00	11.44	16.87	-2057.02	424.33	-136.63	12.15
6.70	2	SLE R	3	20.00	11.44	16.87	-3398.08	700.97	-225.71	20.08
6.70	4	SLE Q	3	20.00	11.44	16.87	-2963.04	611.23	-196.81	17.51
7.94	2	SLE R	3	144.44	11.44	14.51	1864.68	-66.13	300.24	6.40
7.94	4	SLE Q	3	144.44	11.44	14.51	1635.15	-57.99	263.28	5.61
9.50	2	SLE R	3	300.00	26.89	29.97	1375.52	-36.34	108.95	3.21
9.50	4	SLE Q	3	300.00	26.89	29.97	1171.55	-30.95	92.80	2.73
12.90	2	SLE R	8	20.00	26.89	29.97	1256.57	-33.19	99.53	2.93
12.90	4	SLE Q	8	20.00	26.89	29.97	1068.69	-28.23	84.65	2.49
13.52	2	SLE R	8	81.78	11.44	14.51	1806.47	-64.06	290.87	6.20
13.52	4	SLE Q	8	81.78	11.44	14.51	1585.76	-56.23	255.33	5.44
15.68	2	SLE R	8	298.00	11.44	16.87	-3158.04	651.45	-209.77	18.66
15.68	4	SLE Q	8	298.00	11.44	16.87	-2755.76	568.47	-183.05	16.28
16.08	2	SLE R	9	20.00	11.44	16.87	-2585.48	533.34	-171.74	15.28
16.08	4	SLE Q	9	20.00	11.44	16.87	-2309.99	476.51	-153.44	13.65
17.03	2	SLE R	9	115.00	11.44	13.79	-816.14	169.08	-58.64	5.15
17.03	2	SLE R	9	115.00	11.44	13.79	1077.02	-38.52	182.20	3.77
17.03	4	SLE Q	9	115.00	11.44	13.79	-731.71	151.59	-52.58	4.61
18.93	2	SLE R	9	305.00	11.44	16.09	-2159.47	445.91	-146.28	12.97
18.93	4	SLE Q	9	305.00	11.44	16.09	-1909.92	394.38	-129.37	11.47
19.33	2	SLE R	10	20.00	11.44	16.09	-2835.98	585.60	-192.10	17.03



Relazione di calcolo

19.33	4	SLE	Q	10	20.00	11.44	16.09	-2516.93	519.72	-170.49	15.11
20.60	2	SLE	R	10	146.67	11.44	13.73	1258.53	-45.05	213.85	4.41
20.60	4	SLE	Q	10	146.67	11.44	13.73	1121.51	-40.15	190.56	3.93
22.18	2	SLE	R	10	305.00	20.86	23.15	-1626.76	186.00	-86.75	7.26
22.18	4	SLE	Q	10	305.00	20.86	23.15	-1452.95	166.13	-77.48	6.49
22.58	2	SLE	R	11	20.00	20.86	23.15	-2733.57	312.55	-145.78	12.21
22.58	4	SLE	Q	11	20.00	20.86	23.15	-2425.87	277.37	-129.37	10.83
23.85	2	SLE	R	11	146.67	11.44	13.73	1137.01	-40.70	193.20	3.98
23.85	4	SLE	Q	11	146.67	11.44	13.73	1011.40	-36.20	171.85	3.54
25.43	2	SLE	R	11	305.00	16.87	16.09	-1920.22	272.37	-122.94	10.34
25.43	4	SLE	Q	11	305.00	16.87	16.09	-1717.76	243.65	-109.98	9.25
25.83	2	SLE	R	12	20.00	16.87	16.09	-2376.45	337.08	-152.16	12.80
25.83	4	SLE	Q	12	20.00	16.87	16.09	-2095.19	297.19	-134.15	11.28
26.78	2	SLE	R	12	115.00	11.44	13.79	-660.62	136.86	-47.47	4.16
26.78	2	SLE	R	12	115.00	11.44	13.79	1106.88	-39.59	187.25	3.87
26.78	4	SLE	Q	12	115.00	11.44	13.79	-573.09	118.73	-41.18	3.61
28.68	2	SLE	R	12	305.00	14.51	17.88	-2307.60	377.34	-144.78	12.49
28.68	4	SLE	Q	12	305.00	14.51	17.88	-2070.13	338.51	-129.89	11.20
29.08	2	SLE	R	13	20.00	14.51	17.88	-3511.72	574.24	-220.34	19.00
29.08	4	SLE	Q	13	20.00	14.51	17.88	-3050.84	498.88	-191.42	16.51
30.35	2	SLE	R	13	146.67	11.44	15.52	1919.82	-67.29	289.74	6.42
30.35	4	SLE	Q	13	146.67	11.44	15.52	1681.80	-58.95	253.82	5.63
31.93	2	SLE	R	13	305.00	33.05	30.98	1388.40	-34.47	106.14	3.06
31.93	4	SLE	Q	13	305.00	33.05	30.98	1174.46	-29.16	89.78	2.59
35.23	2	SLE	R	18	20.00	29.97	29.97	-706.18	56.42	-31.76	2.60
35.23	2	SLE	R	18	20.00	29.97	29.97	993.74	-25.51	78.57	2.27
35.23	4	SLE	Q	18	20.00	29.97	29.97	-738.16	58.97	-33.19	2.71
36.17	2	SLE	R	18	114.33	11.44	14.51	1811.50	-64.24	291.68	6.21
36.17	4	SLE	Q	18	114.33	11.44	14.51	1589.39	-56.36	255.91	5.45
38.06	2	SLE	R	18	303.00	17.59	14.51	-2763.10	377.59	-182.50	15.21
38.06	4	SLE	Q	18	303.00	17.59	14.51	-2362.36	322.83	-156.03	13.00
38.46	2	SLE	R	19	20.00	17.59	14.51	-854.31	116.75	-56.43	4.70
38.46	4	SLE	Q	19	20.00	17.59	14.51	-800.64	109.41	-52.88	4.41
39.09	2	SLE	R	19	82.89	11.44	14.51	1384.23	-49.09	222.88	4.75
39.09	4	SLE	Q	19	82.89	11.44	14.51	1226.96	-43.51	197.56	4.21
41.29	2	SLE	R	19	303.00	14.51	14.51	-3495.84	574.72	-237.83	20.26
41.29	4	SLE	Q	19	303.00	14.51	14.51	-3064.64	503.83	-208.50	17.77

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	El	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>	
3	0.12	4	SLE	Q	1	56	12.50	-1903.05	28.43	152.67	0.50	15.83	177.95	11.44	875.00	394.30	0.11	0.03
4	0.12	3	SLE	F	1	56	12.50	-1977.66	28.43	152.67	0.50	15.83	177.95	11.44	875.00	409.76	0.12	0.04
9	1.10	4	SLE	Q	1	56	110.00	1355.13	29.00	22.40	0.50	14.67	98.25	4.15	113.80	230.26	0.07	0.01
11	1.10	3	SLE	F	1	56	110.00	1403.04	29.00	22.40	0.50	14.67	98.25	4.15	113.80	238.40	0.07	0.01
15	3.05	4	SLE	Q	1	56	305.00	-1912.47	28.43	152.67	0.50	15.83	177.95	11.44	875.00	394.90	0.12	0.03
16	3.05	3	SLE	F	1	56	305.00	-1971.92	28.43	152.67	0.50	15.83	177.95	11.44	875.00	407.18	0.12	0.04
19	3.45	4	SLE	Q	2	56	20.00	-2126.43	28.43	152.67	0.50	15.83	177.95	11.44	875.00	439.08	0.13	0.04
20	3.45	3	SLE	F	2	56	20.00	-2207.35	28.43	152.67	0.50	15.83	177.95	11.44	875.00	455.79	0.13	0.04
26	4.40	4	SLE	Q	2	56	115.00	-597.68	28.43	154.00	0.50	15.83	177.95	11.44	875.00	123.82	0.04	0.01
28	4.40	3	SLE	F	2	56	115.00	-623.10	28.43	154.00	0.50	15.83	177.95	11.44	875.00	129.09	0.04	0.01
31	6.30	4	SLE	Q	2	56	305.00	-2057.02	28.43	152.67	0.50	15.83	177.95	11.44	875.00	424.33	0.12	0.04
32	6.30	3	SLE	F	2	56	305.00	-2124.39	28.43	152.67	0.50	15.83	177.95	11.44	875.00	438.23	0.13	0.04
35	6.70	4	SLE	Q	3	56	20.00	-2963.04	28.43	152.67	0.50	15.83	177.95	11.44	875.00	611.23	0.18	0.05
36	6.70	3	SLE	F	3	56	20.00	-3087.25	28.43	152.67	0.50	15.83	177.95	11.44	875.00	636.85	0.19	0.06
41	7.94	4	SLE	Q	3	56	144.44	1635.15	28.00	28.00	0.50	16.57	107.38	3.64	112.99	263.28	0.08	0.01
43	7.94	3	SLE	F	3	56	144.44	1700.43	28.00	28.00	0.50	16.57	107.38	3.64	112.99	273.79	0.08	0.01
50	9.50	4	SLE	Q	3	56	300.00	1171.55	29.00	15.43	0.50	14.67	94.87	4.15	104.26	92.80	0.03	0.00
52	9.50	3	SLE	F	3	56	300.00	1229.54	29.00	15.43	0.50	14.67	94.87	4.15	104.26	97.39	0.03	0.00
57	12.90	4	SLE	Q	8	56	20.00	1068.69	28.00	16.29	0.50	16.57	79.70	7.29	104.26	84.65	0.02	0.00
59	12.90	3	SLE	F	8	56	20.00	1122.07	28.00	16.29	0.50	16.57	79.70	7.29	104.26	88.88	0.03	0.00
63	13.52	4	SLE	Q	8	56	81.78	1585.76	31.00	29.50	0.50	8.00	151.91	1.01	112.99	255.33	0.07	0.02
65	13.52	3	SLE	F	8	56	81.78	1648.54	31.00	29.50	0.50	8.00	151.91	1.01	112.99	265.44	0.08	0.02
68	15.68	4	SLE	Q	8	56	298.00	-2755.76	28.43	154.67	0.50	15.83	177.95	11.44	875.00	568.47	0.17	0.05
69	15.68	3	SLE	F	8	56	298.00	-2870.63	28.43	154.67	0.50	15.83	177.95	11.44	875.00	592.16	0.17	0.05
72	16.08	4	SLE	Q	9	56	20.00	-2309.99	28.43	154.67	0.50	15.83	177.95	11.44	875.00	476.51	0.14	0.04
73	16.08	3	SLE	F	9	56	20.00	-2388.57	28.43	154.67	0.50	15.83	177.95	11.44	875.00	492.72	0.14	0.04
79	17.03	4	SLE	Q	9	56	115.00	-731.71	28.43	156.00	0.50	15.83	177.95	11.44	875.00	151.59	0.04	0.01
81	17.03	3	SLE	F	9	56	115.00	-755.74	28.43	156.00	0.50	15.83	177.95	11.44	875.00	156.57	0.05	0.01
84	18.93	4	SLE	Q	9	56	305.00	-1909.92	28.43	154.67	0.50	15.83	177.95	11.44	875.00	394.38	0.11	0.03
85	18.93	3	SLE	F	9	56	305.00	-1981.30	28.43	154.67	0.50	15.83	177.95	11.44	875.00	409.12	0.12	0.04
88	19.33	4	SLE	Q	10	56	20.00	-2516.93	28.43	154.67	0.50	15.83	177.95	11.44	875.00	519.72	0.15	0.05
89	19.33	3	SLE	F	10	56	20.00	-2607.81	28.43	154.67	0.50	15.83	177.95	11.44	875.00	538.48	0.16	0.05
92	20.60	4	SLE	Q	10	56	146.67	1121.51	29.00	23.60	0.50	14.67	98.25	4.15	113.80	190.56	0.06	0.01
93	20.60	3	SLE	F	10	56	146.67	1160.59	29.00	23.60	0.50	14.67	98.25	4.15	113.80	197.21	0.06	0.01
98	22.18	4	SLE	Q	10	56	305.00	-1452.95	27.40	103.11	0.50	17.47	128.09	20.86	875.00	166.13	0.05	0.01
100	22.18	3	SLE	F	10	56	305.00	-1502.95	27.40	103.11	0.50	17.47	128.09	20.86	875.00	171.84	0.05	0.01
104	22.58	4	SLE	Q	11	56	20.00	-2425.87	27.40	103.11	0.50	17.47	128.09	20.86	875.00	277.37	0.08	0.02
105	22.58	3	SLE	F	11	56	20.00	-2513.64	27.40	103.11	0.50	17.47	128.09	20.86	875.00	287.41	0.08	0.02
108	23.85	4	SLE	Q	11	56	146.67	1011.40	29.00	23.60	0.50	14.67	98.25	4.15	113.80	171.85	0.05	0.01
109	23.85	3	SLE	F	11	56	146.67	1047.29	29.00	23.60	0.50	14.67	98.25	4.15	113.80	177.95	0.05	0.01



Relazione di calcolo

112	25.43	4	SLE Q	11	56	305.00	-1717.76	28.75	84.36	0.50	14.32	131.77	16.87	875.00	243.65	0.07	0.02
113	25.43	3	SLE F	11	56	305.00	-1775.72	28.75	84.36	0.50	14.32	131.77	16.87	875.00	251.87	0.07	0.02
116	25.83	4	SLE Q	12	56	20.00	-2095.19	28.75	84.36	0.50	14.32	131.77	16.87	875.00	297.19	0.09	0.02
117	25.83	3	SLE F	12	56	20.00	-2175.72	28.75	84.36	0.50	14.32	131.77	16.87	875.00	308.61	0.09	0.02
123	26.78	4	SLE Q	12	56	115.00	-573.09	28.43	156.00	0.50	15.83	177.95	11.44	875.00	118.73	0.03	0.01
125	26.78	3	SLE F	12	56	115.00	-598.21	28.43	156.00	0.50	15.83	177.95	11.44	875.00	123.93	0.04	0.01
128	28.68	4	SLE Q	12	56	305.00	-2070.13	28.33	116.00	0.50	15.40	149.51	14.51	875.00	338.51	0.10	0.03
129	28.68	3	SLE F	12	56	305.00	-2137.80	28.33	116.00	0.50	15.40	149.51	14.51	875.00	349.57	0.10	0.03
132	29.08	4	SLE Q	13	56	20.00	-3050.84	28.33	116.00	0.50	15.40	149.51	14.51	875.00	498.88	0.15	0.04
133	29.08	3	SLE F	13	56	20.00	-3182.49	28.33	116.00	0.50	15.40	149.51	14.51	875.00	520.40	0.15	0.04
138	30.35	4	SLE Q	13	56	146.67	1681.80	29.00	23.60	0.50	14.67	97.61	4.15	111.99	253.82	0.07	0.01
140	30.35	3	SLE F	13	56	146.67	1749.49	29.00	23.60	0.50	14.67	97.61	4.15	111.99	264.03	0.08	0.01
147	31.93	4	SLE Q	13	56	305.00	1174.46	28.00	14.25	0.50	16.57	79.85	7.29	104.88	89.78	0.03	0.00
149	31.93	3	SLE F	13	56	305.00	1235.33	28.00	14.25	0.50	16.57	79.85	7.29	104.88	94.44	0.03	0.00
155	35.23	4	SLE Q	18	56	20.00	-738.16	27.40	65.43	0.50	16.74	103.66	29.97	875.00	58.97	0.02	0.00
156	35.23	3	SLE F	18	56	20.00	859.69	29.00	15.43	0.50	14.67	95.10	4.15	104.89	67.97	0.02	0.00
160	36.17	4	SLE Q	18	56	114.33	1589.39	28.00	28.00	0.50	16.57	107.38	3.64	112.99	255.91	0.07	0.01
161	36.17	3	SLE F	18	56	114.33	1652.45	28.00	28.00	0.50	16.57	107.38	3.64	112.99	266.07	0.08	0.01
164	38.06	4	SLE Q	18	56	303.00	-2362.36	28.27	91.60	0.50	15.14	131.82	17.59	875.00	322.83	0.09	0.02
165	38.06	3	SLE F	18	56	303.00	-2476.99	28.27	91.60	0.50	15.14	131.82	17.59	875.00	338.49	0.10	0.02
171	38.46	4	SLE Q	19	56	20.00	-800.64	28.27	91.60	0.50	15.14	131.82	17.59	875.00	109.41	0.03	0.01
173	38.46	3	SLE F	19	56	20.00	-816.79	28.27	91.60	0.50	15.14	131.82	17.59	875.00	111.62	0.03	0.01
178	39.09	4	SLE Q	19	56	82.89	1226.96	28.00	28.00	0.50	16.57	107.38	3.64	112.99	197.56	0.06	0.01
180	39.09	3	SLE F	19	56	82.89	1271.68	28.00	28.00	0.50	16.57	107.38	3.64	112.99	204.76	0.06	0.01
184	41.29	4	SLE Q	19	56	303.00	-3064.64	28.33	114.50	0.50	15.40	149.51	14.51	875.00	503.83	0.15	0.04
185	41.29	3	SLE F	19	56	303.00	-3187.02	28.33	114.50	0.50	15.40	149.51	14.51	875.00	523.95	0.15	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	0.72	0.52	ø8/10 2 br.	10.05	0.30	6506.61	1.90	24957.10	24957.10	24957.10	3.836
1 SLU	0.72	2.53	1.81	ø8/10 2 br.	10.05	0.30	4375.43	1.90	24957.10	24957.10	24957.10	5.704
1 SLU	2.53	3.05	0.52	ø8/10 2 br.	10.05	0.30	6799.01	1.90	24957.10	24957.10	24957.10	3.671
1 SLU	3.45	3.97	0.52	ø8/10 2 br.	10.05	0.30	6712.18	1.90	24957.10	24957.10	24957.10	3.718
1 SLU	3.97	5.78	1.81	ø8/10 2 br.	10.05	0.30	4288.61	1.90	24957.10	24957.10	24957.10	5.819
1 SLU	5.78	6.30	0.52	ø8/10 2 br.	10.05	0.30	6593.43	1.90	24957.10	24957.10	24957.10	3.785
1 SLU	6.70	7.22	0.52	ø8/10 2 br.	10.05	0.30	8202.59	1.90	24957.10	24957.10	24957.10	3.043
1 SLU	7.22	8.98	1.76	ø8/10 2 br.	10.05	0.30	5779.02	1.90	24957.10	24957.10	24957.10	4.319
1 SLU	8.98	9.50	0.52	ø8/10 2 br.	10.05	0.30	4869.59	1.90	24957.10	24957.10	24957.10	5.125
1 SLU	12.90	13.42	0.52	ø8/10 2 br.	10.05	0.30	5008.69	1.90	24957.10	24957.10	24957.10	4.983
1 SLU	13.42	15.16	1.74	ø8/10 2 br.	10.05	0.30	5546.56	1.90	24957.10	24957.10	24957.10	4.500
1 SLU	15.16	15.68	0.52	ø8/10 2 br.	10.05	0.30	7970.14	1.90	24957.10	24957.10	24957.10	3.131
1 SLU	16.08	16.60	0.52	ø8/10 2 br.	10.05	0.30	6855.27	1.90	24957.10	24957.10	24957.10	3.641
1 SLU	16.60	18.41	1.81	ø8/10 2 br.	10.05	0.30	4431.69	1.90	24957.10	24957.10	24957.10	5.632
1 SLU	18.41	18.93	0.52	ø8/10 2 br.	10.05	0.30	6450.35	1.90	24957.10	24957.10	24957.10	3.869
1 SLU	19.33	19.85	0.52	ø8/10 2 br.	10.05	0.30	7248.40	1.90	24957.10	24957.10	24957.10	3.443
1 SLU	19.85	21.66	1.81	ø8/10 2 br.	10.05	0.30	4824.82	1.90	24957.10	24957.10	24957.10	5.173
1 SLU	21.66	22.18	0.52	ø8/10 2 br.	10.05	0.30	6057.21	1.90	24957.10	24957.10	24957.10	4.120
1 SLU	22.58	23.10	0.52	ø8/10 2 br.	10.05	0.30	7052.08	1.90	24957.10	24957.10	24957.10	3.539
1 SLU	23.10	24.91	1.81	ø8/10 2 br.	10.05	0.30	4628.50	1.90	24957.10	24957.10	24957.10	5.392
1 SLU	24.91	25.43	0.52	ø8/10 2 br.	10.05	0.30	6253.54	1.90	24957.10	24957.10	24957.10	3.991
1 SLU	25.83	26.35	0.52	ø8/10 2 br.	10.05	0.30	6687.66	1.90	24957.10	24957.10	24957.10	3.732
1 SLU	26.35	28.16	1.81	ø8/10 2 br.	10.05	0.30	4264.08	1.90	24957.10	24957.10	24957.10	5.853
1 SLU	28.16	28.68	0.52	ø8/10 2 br.	10.05	0.30	6617.95	1.90	24957.10	24957.10	24957.10	3.771
1 SLU	29.08	29.60	0.52	ø8/10 2 br.	10.05	0.30	8330.50	1.90	24957.10	24957.10	24957.10	2.996
1 SLU	29.60	31.41	1.81	ø8/10 2 br.	10.05	0.30	5906.92	1.90	24957.10	24957.10	24957.10	4.225
1 SLU	31.41	31.93	0.52	ø8/10 2 br.	10.05	0.30	4975.12	1.90	24957.10	24957.10	24957.10	5.016
1 SLU	35.23	35.75	0.52	ø8/10 2 br.	10.05	0.30	5569.29	1.90	24957.10	24957.10	24957.10	4.481
1 SLU	35.75	37.54	1.79	ø8/10 2 br.	10.05	0.30	5219.37	1.90	24957.10	24957.10	24957.10	4.782
1 SLU	37.54	38.06	0.52	ø8/10 2 br.	10.05	0.30	7642.95	1.90	24957.10	24957.10	24957.10	3.265
1 SLU	38.46	38.98	0.52	ø8/10 2 br.	10.05	0.30	5304.45	1.90	24957.10	24957.10	24957.10	4.705
1 SLU	38.98	40.77	1.79	ø8/10 2 br.	10.05	0.30	5484.22	1.90	24957.10	24957.10	24957.10	4.551
1 SLU	40.77	41.29	0.52	ø8/10 2 br.	10.05	0.30	7907.80	1.90	24957.10	24957.10	24957.10	3.156

Travata n. 3070

Nodi: 400 256 -7144 -256 -7156 245

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	El	X <cm>	AfE S <cm>	AfE I <cm>	AfEP S <cm>	AfEP I <cm>	My <daNm>	MRdy <daNm>	Sic.
3.171	1	SLU	5	-6.25	3.08	3.08	3.08	3.08	-6093.88	-6639.53	1.090

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>f</sub> sup	σ <sub>f</sub> inf	σ <sub>c</sub>
----	----	-----	----	---	-------	-------	----	--------------------	--------------------	----------------



Relazione di calcolo

<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.17	2	SLE R	5	-6.25	3.08	3.08	-4254.13	2424.49	-563.61	49.60
3.17	4	SLE Q	5	-6.25	3.08	3.08	-3268.84	1862.96	-433.07	38.11

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
3	3.17	4	SLE Q	5	16	-6.25	-3268.84	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1862.96	0.62	0.13
4	3.17	3	SLE F	5	16	-6.25	-3550.10	28.00	94.00	0.50	14.00	119.66	3.08	140.00	2023.25	0.59	0.12

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	-0.18	1.21	1.76	ø6/16 2 br.	3.53	0.16	2721.92	2.50	15238.80	26714.30	15238.80	5.599
1 SLU	1.21	1.72	0.65	ø6/16 2 br.	3.53	0.16	551.65	2.50	15238.80	26714.30	15238.80	27.624
1 SLU	1.92	3.17	1.25	ø6/16 2 br.	3.53	0.16	3715.70	2.50	15238.80	26714.30	15238.80	4.101

Travata n. 3084

Nodi: 402 258 -7088 -259 -7096 252

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
16R		16.00	65.00	3.50	3.50	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	El	X	AfE S	AfE I	AfE P S	AfE P I	My	MRdy	Sic.
<m>				<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
3.17	1	SLU	5	-6.25	3.08	1.57	3.08	1.57	-5830.50	-6638.54	1.139

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	X	AfE S	AfE I	My	σ <sub>r</sub> sup	σ <sub>r</sub> inf	σ <sub>c</sub>
<m>				<cm>	<cmq>	<cmq>	<daNm>	<daN/cmq>	<daN/cmq>	<daN/cmq>
3.17	2	SLE R	5	-6.25	3.08	1.57	-4080.87	2340.90	-594.42	51.44
3.17	4	SLE Q	5	-6.25	3.08	1.57	-3145.13	1804.13	-458.12	39.64

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	El	Sez.	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>					<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cm q>		<mm>
3	3.17	4	SLE Q	5	16	-6.25	-3145.13	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1804.13	0.59	0.12
4	3.17	3	SLE F	5	16	-6.25	-3412.09	28.00	94.00	0.50	14.00	119.66	3.08	140.00	1957.27	0.57	0.12

Stato limite ultimo - Verifiche a taglio

CC	X0	X1	Lung.	Staff.	AfE St.	bw	Vsdu	ctgθ	VRsd	VRcd	Vrdu	Sic.
	<m>	<m>	<m>		<cmq/m>	<m>	<daN>		<daN>	<daN>	<daN>	
1 SLU	-0.18	1.21	1.76	ø6/16 2 br.	3.53	0.16	2321.06	2.50	15238.80	26714.30	15238.80	6.565
1 SLU	1.21	1.72	0.65	ø6/16 2 br.	3.53	0.16	651.61	2.50	15238.80	26714.30	15238.80	23.387
1 SLU	1.92	3.17	1.25	ø6/16 2 br.	3.53	0.16	3496.15	2.50	15238.80	26714.30	15238.80	4.359

Travate n. 5003 7003 9003 11003 13003 15003 17003 19003

5003 (a) Nodi: 507 508 -1603 -1604 -1605 -1606 -1607 -1608 -1609 -1610 509 -1611 -1612 -1613 -1614 -1615 -1616 -1617 510 -1618 -1619 -1620 -1621 -1622 -1623 -1624 511 -1625 -1626 -1627 -1628 -1629 -1630 -1631 512 -1632 -1633 -1634 -1635 -1636 -1637 -1638 -1639 513 514 515 -1640 -1641 -1642 -1643 -1644 -1645 -1646 -1647 516 -1648 -1649 -1650 -1651 -1652 -1653 -1654 -1655 517 -1656 -1657 -1658 -1659 -1660 -1661 -1662 518 -1663 -1664 -1665 -1666 -1667 -1668 -1669 -1670 519 -1671 -1672 -1673 -1674 -1675 -1676 -1677 -1678 520  
7003 (b) Nodi: 707 708 -2368 -2369 -2370 -2371 -2372 -2373 -2374 -2375 709 -2376 -2377 -2378 -2379 -2380 -2381 -2382 710 -2383 -2384 -2385 -2386 -2387 -2388 -2389 711 -2390 -2391 -2392 -2393 -2394 -2395 -2396 712 -2397 -2398 -2399 -2400 -2401 -2402 -2403 -2404 713 714 715 -2405 -2406 -2407 -2408 -2409 -2410 -2411 -2412 716 -2413 -2414 -2415 -2416 -2417 -2418 -2419 -2420 717 -2421 -2422 -2423 -2424 -2425 -2426 -2427 718 -2428 -2429 -2430 -2431 -2432 -2433 -2434 -2435 719 -2436 -2437 -2438 -2439 -2440 -2441 -2442 -2443 720  
9003 (c) Nodi: 907 908 -3133 -3134 -3135 -3136 -3137 -3138 -3139 -3140 909 -3141 -3142 -3143 -3144 -3145 -3146 -3147 910 -3148 -3149 -3150 -3151 -3152 -3153 -3154 911 -3155 -3156 -3157 -3158 -3159 -3160 -3161 912 -3162 -3163 -3164 -3165 -3166 -3167 -3168 -3169 913 914 915 -3170 -3171 -3172 -3173 -3174 -3175 -3176 -3177 916 -3178 -3179 -3180 -3181 -3182 -3183 -3184 -3185 917 -3186 -3187 -3188 -3189 -3190 -3191 -3192 918 -3193 -3194 -3195 -3196 -3197 -3198 -3199 -3200 919 -3201 -3202 -3203 -3204 -3205 -3206 -3207 -3208 920  
11003 (d) Nodi: 1107 1108 -3898 -3899 -3900 -3901 -3902 -3903 -3904 -3905 1109 -3906 -3907 -3908 -3909 -3910 -3911 -3912 1110 -3913 -3914 -3915 -3916 -3917 -3918 -3919 1111 -3920 -3921 -3922 -3923 -3924 -3925 -3926 1112 -3927 -3928 -3929 -3930 -3931 -3932 -3933 -3934 1113 1114 1115 -3935 -3936 -3937 -3938 -3939 -3940 -3941 -3942 1116 -3943 -3944 -3945 -3946 -3947 -3948 -3949 -3950 1117 -3951 -3952 -3953 -3954 -3955 -3956 -3957 1118 -3958 -3959 -3960 -3961 -3962 -3963 -3964 -3965 1119 -3966 -3967 -3968 -3969 -3970 -3971 -3972 -3973 1120  
13003 (e) Nodi: 1307 1308 -4663 -4664 -4665 -4666 -4667 -4668 -4669 1309 -4671 -4672 -4673 -4674 -4675 -4676 -4677 1310 -4678 -4679 -4680 -4681 -4682 -4683 -4684 1311 -4685 -4686 -4687 -4688 -4689 -4690 -4691 1312 -4692 -4693 -4694 -4695 -4696 -4697 -4698 -4699 1313 1314 1315 -4700 -4701 -4702 -4703 -4704 -4705 -4706 -4707 1316 -4708 -4709 -4710 -4711 -4712 -4713 -4714 -4715 1317 -4716 -4717 -4718 -4719 -4720 -4721 -4722 1318 -4723 -4724 -4725 -4726 -4727 -4728 -4729 -4730 1319 -4731 -4732 -4733 -4734 -4735 -4736 -4737 -4738 1320  
15003 (f) Nodi: 1507 1508 -5428 -5429 -5430 -5431 -5432 -5433 -5434 -5435 1509 -5436 -5437 -5438 -5439 -5440 -5441



Relazione di calcolo

-5442 1510 -5443 -5444 -5445 -5446 -5447 -5448 -5449 1511 -5450 -5451 -5452 -5453 -5454 -5455 -5456 1512 -5457 -5458  
-5459 -5460 -5461 -5462 -5463 -5464 1513 1514 1515 -5465 -5466 -5467 -5468 -5469 -5470 -5471 -5472 1516 -5473 -5474  
-5475 -5476 -5477 -5478 -5479 -5480 1517 -5481 -5482 -5483 -5484 -5485 -5486 -5487 1518 -5488 -5489 -5490 -5491 -5492  
-5493 -5494 -5495 1519 -5496 -5497 -5498 -5499 -5500 -5501 -5502 -5503 1520  
17003 (g) Nodi: 1707 1708 -6194 -6195 -6196 -6197 -6198 -6199 -6200 -6201 1709 -6202 -6203 -6204 -6205 -6206 -6207  
-6208 1710 -6209 -6210 -6211 -6212 -6213 -6214 -6215 1711 -6216 -6217 -6218 -6219 -6220 -6221 -6222 1712 -6223 -6224  
-6225 -6226 -6227 -6228 -6229 -6230 1713 1714 1715 -6231 -6232 -6233 -6234 -6235 -6236 -6237 -6238 1716 -6239 -6240  
-6241 -6242 -6243 -6244 -6245 -6246 1717 -6247 -6248 -6249 -6250 -6251 -6252 -6253 1718 -6254 -6255 -6256 -6257 -6258  
-6259 -6260 -6261 1719 -6262 -6263 -6264 -6265 -6266 -6267 -6268 -6269 1720  
19003 (h) Nodi: 1907 1908 -6959 -6960 -6961 -6962 -6963 -6964 -6965 -6966 1909 -6967 -6968 -6969 -6970 -6971 -6972  
-6973 1910 -6974 -6975 -6976 -6977 -6978 -6979 -6980 1911 -6981 -6982 -6983 -6984 -6985 -6986 -6987 1912 -6988 -6989  
-6990 -6991 -6992 -6993 -6994 -6995 1913 1914 1915 -6996 -6997 -6998 -6999 -7000 -7001 -7002 -7003 1916 -7004 -7005  
-7006 -7007 -7008 -7009 -7010 -7011 1917 -7012 -7013 -7014 -7015 -7016 -7017 -7018 1918 -7019 -7020 -7021 -7022 -7023  
-7024 -7025 -7026 1919 -7027 -7028 -7029 -7030 -7031 -7032 -7033 -7034 1920

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	b <cm>	H <cm>	h <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
57L	L	130.00	30.00	24.00	26.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg <m>	CC	TCC	In	El	X <cm>	Afe S <cm²>	Afe I <cm²>	AfeP S <cm²>	AfeP I <cm²>	My <daNm>	MRdy <daNm>	Sic.
0.121	1	SLU	a	1	12.50	19.23	16.37	19.23	16.37	-4001.52	-29840.80	7.457
2.081	1	SLU	h	1	207.50	11.44	16.37	11.44	16.37	4380.60	26320.20	6.008
3.051	1	SLU	c	1	305.00	19.98	20.99	19.98	20.99	-4632.84	-31025.30	6.697
3.451	1	SLU	b	2	20.00	19.98	20.99	19.98	20.99	-5502.35	-31025.30	5.639
4.691	1	SLU	h	6	0.00	11.44	18.63	11.44	18.63	4800.53	29817.80	6.211
6.301	1	SLU	a	10	16.11	23.78	28.87	23.78	28.87	-5052.21	-36889.30	7.302
6.701	1	SLU	b	11	20.00	23.78	28.87	23.78	28.87	-6276.96	-36889.30	5.877
7.701	1	SLU	h	14	0.00	11.44	21.68	11.44	21.68	3198.99	34522.30	10.792
9.501	1	SLU	e	18	20.00	31.73	35.25	31.73	35.25	-6904.94	-49122.20	7.114
9.901	1	SLU	e	19	20.00	31.73	35.25	31.73	35.25	-5682.67	-49122.20	8.644
11.201	1	SLU	c	23	0.00	11.44	16.59	11.44	16.59	2402.90	26660.80	11.095
12.501	1	SLU	h	26	17.50	31.73	29.09	31.73	29.09	-7645.02	-49090.80	6.421
12.901	1	SLU	g	27	20.00	31.73	29.09	31.73	29.09	-8826.25	-49090.80	5.562
13.891	1	SLU	c	30	0.00	11.44	14.51	11.44	14.51	2571.34	23448.80	9.119
15.681	1	SLU	b	34	19.75	23.78	21.71	23.78	21.71	-6828.06	-36857.90	5.398
16.081	1	SLU	c	35	20.00	23.78	21.71	23.78	21.71	-4999.07	-36857.90	7.373
17.321	1	SLU	h	39	0.00	11.44	18.63	11.44	18.63	5579.07	29817.80	5.345
18.931	1	SLU	a	43	16.11	19.98	20.99	19.98	20.99	-5015.60	-31025.30	6.186
19.331	1	SLU	a	44	20.00	19.98	20.99	19.98	20.99	-3134.55	-31025.30	9.898
20.281	1	SLU	c	44	115.00	11.44	16.37	11.44	16.37	1773.41	26320.20	14.842
22.181	1	SLU	g	44	305.00	28.65	25.79	28.65	25.79	-7011.01	-44348.40	6.326
22.581	1	SLU	g	45	20.00	28.65	25.79	28.65	25.79	-6852.40	-44348.40	6.472
24.801	1	SLU	e	45	241.67	11.44	16.37	11.44	16.37	-1955.08	-17877.50	9.144
25.431	1	SLU	e	45	305.00	21.52	20.99	21.52	20.99	-2587.01	-33387.40	12.906
25.831	1	SLU	b	46	20.00	21.52	20.99	21.52	20.99	-5923.47	-33387.40	5.636
27.071	1	SLU	h	50	0.00	11.44	18.63	11.44	18.63	5446.74	29817.80	5.474
28.681	1	SLU	a	54	16.11	25.32	28.87	25.32	28.87	-4180.98	-39255.40	9.389
29.081	1	SLU	b	55	20.00	25.32	28.87	25.32	28.87	-7463.54	-39255.40	5.260
30.691	1	SLU	c	60	0.00	11.44	21.68	11.44	21.68	2800.57	34522.30	12.327
31.931	1	SLU	g	63	16.11	31.73	35.25	31.73	35.25	-8775.29	-49122.20	5.598
32.331	1	SLU	h	64	20.00	31.73	29.09	31.73	29.09	-4564.74	-49090.80	10.754
33.581	1	SLU	c	68	0.00	11.44	16.59	11.44	16.59	2283.04	26660.80	11.678
34.831	1	SLU	h	71	16.25	22.31	25.82	22.31	25.82	-4857.27	-34613.00	7.126
35.231	1	SLU	g	72	20.00	22.31	25.82	22.31	25.82	-8136.77	-34613.00	4.254
36.111	1	SLU	c	75	0.00	11.44	21.68	11.44	21.68	3094.76	34522.20	11.155
38.061	1	SLU	b	80	15.89	25.32	21.68	25.32	21.68	-8321.07	-39214.70	4.713
38.461	1	SLU	a	81	20.00	25.32	21.68	25.32	21.68	-4299.04	-39214.70	9.122
39.701	1	SLU	h	85	0.00	11.44	21.68	11.44	21.68	6618.29	34522.20	5.216
41.291	1	SLU	b	89	15.89	17.59	21.68	17.59	21.68	-5750.37	-27358.10	4.758

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	In	El	X <cm>	Afe S <cm²>	Afe I <cm²>	My <daNm>	σ <sub>f</sub> sup <daN/cm²>	σ <sub>f</sub> inf <daN/cm²>	σ <sub>c</sub> <daN/cm²>
0.122	2	SLE R a	1		12.50	19.23	16.37	-2842.82	355.45	-177.34	14.71
0.124	2	SLE Q a	1		12.50	19.23	16.37	-2446.55	305.90	-152.62	12.66
2.082	2	SLE R h	1		207.50	11.44	16.37	3090.81	-89.39	439.92	8.83
2.084	2	SLE Q h	1		207.50	11.44	16.37	2555.70	-73.92	363.76	7.30
3.052	2	SLE R c	1		305.00	19.98	20.99	-3324.43	397.46	-186.39	15.59
3.054	2	SLE Q c	1		305.00	19.98	20.99	-3095.47	370.08	-173.56	14.52
3.452	2	SLE R b	2		20.00	19.98	20.99	-3940.07	471.06	-220.91	18.48
3.454	2	SLE Q b	2		20.00	19.98	20.99	-3313.01	396.09	-185.75	15.54
4.692	2	SLE R h	6		0.00	11.44	18.63	3391.04	-95.90	425.88	9.22
4.694	2	SLE Q g	6		0.00	11.44	18.63	2669.09	-75.48	335.21	7.26
6.302	2	SLE R a	10		16.11	23.78	28.87	-3591.54	359.28	-169.12	14.14
6.304	2	SLE Q a	10		16.11	23.78	28.87	-3074.32	307.54	-144.76	12.11
6.702	2	SLE R b	11		20.00	23.78	28.87	-4572.21	457.38	-215.29	18.00
6.704	2	SLE Q b	11		20.00	23.78	28.87	-4150.32	415.18	-195.43	16.34
7.702	2	SLE R h	14		0.00	11.44	21.68	2277.64	-62.63	247.16	5.86
7.704	2	SLE Q h	14		0.00	11.44	21.68	1870.24	-51.43	202.95	4.81



Relazione di calcolo

9.50	2	SLE R e	18	20.00	31.73	35.25	-4861.51	365.44	-199.15	16.34
9.50	4	SLE Q e	18	20.00	31.73	35.25	-4023.32	302.44	-164.82	13.52
9.90	2	SLE R e	19	20.00	31.73	35.25	-4059.06	305.12	-166.28	13.64
9.90	4	SLE Q e	19	20.00	31.73	35.25	-3482.65	261.79	-142.67	11.71
11.20	2	SLE R h	23	0.00	11.44	16.59	-991.44	204.59	-66.32	5.89
11.20	2	SLE R c	23	0.00	11.44	16.59	1753.43	-50.60	246.37	4.98
11.20	4	SLE Q h	23	0.00	11.44	16.59	-777.16	160.37	-51.99	4.62
12.50	2	SLE R h	26	17.50	31.73	29.09	-5423.77	410.59	-245.99	19.96
12.50	4	SLE Q h	26	17.50	31.73	29.09	-4399.62	333.06	-199.54	16.19
12.90	2	SLE R g	27	20.00	31.73	29.09	-6203.06	469.58	-281.33	22.83
12.90	4	SLE Q g	27	20.00	31.73	29.09	-5098.96	386.00	-231.26	18.77
13.89	2	SLE R c	30	0.00	11.44	14.51	1868.68	-55.10	298.81	5.59
13.89	4	SLE Q c	30	0.00	11.44	14.51	1686.55	-49.73	269.69	5.05
15.68	2	SLE R b	34	19.75	23.78	21.71	-4968.76	501.78	-268.15	22.05
15.68	4	SLE Q b	34	19.75	23.78	21.71	-4479.82	452.40	-241.76	19.88
16.08	2	SLE R c	35	20.00	23.78	21.71	-3566.70	360.19	-192.48	15.83
16.08	4	SLE Q c	35	20.00	23.78	21.71	-3099.61	313.02	-167.28	13.76
17.32	2	SLE R h	39	0.00	11.44	18.63	3969.23	-112.25	498.50	10.80
17.32	4	SLE Q h	39	0.00	11.44	18.63	3104.49	-87.80	389.89	8.45
18.93	2	SLE R a	43	16.11	19.98	20.99	-3577.67	427.73	-200.59	16.78
18.93	4	SLE Q a	43	16.11	19.98	20.99	-2996.67	358.27	-168.02	14.06
19.33	2	SLE R a	44	20.00	19.98	20.99	-2207.80	263.96	-123.79	10.36
19.33	4	SLE Q a	44	20.00	19.98	20.99	-2027.78	242.43	-113.69	9.51
20.28	2	SLE R c	44	115.00	11.44	16.37	1256.55	-36.34	178.85	3.59
20.28	4	SLE Q c	44	115.00	11.44	16.37	1141.15	-33.00	162.42	3.26
22.18	2	SLE R g	44	305.00	28.65	25.79	-5021.11	421.26	-244.52	19.91
22.18	4	SLE Q g	44	305.00	28.65	25.79	-4192.19	351.72	-204.16	16.63
22.58	2	SLE R g	45	20.00	28.65	25.79	-4904.33	411.47	-238.84	19.45
22.58	4	SLE Q g	45	20.00	28.65	25.79	-4098.01	343.82	-199.57	16.25
24.80	2	SLE R h	45	241.67	11.44	16.37	-1403.06	289.61	-94.37	8.37
24.80	4	SLE Q e	45	241.67	11.44	16.37	-1268.67	261.87	-85.33	7.57
25.43	2	SLE R e	45	305.00	21.52	20.99	-1841.74	205.00	-102.23	8.48
25.43	4	SLE Q e	45	305.00	21.52	20.99	-1676.75	186.63	-93.08	7.72
25.83	2	SLE R b	46	20.00	21.52	20.99	-4257.08	473.84	-236.31	19.61
25.83	4	SLE Q b	46	20.00	21.52	20.99	-3602.37	400.96	-199.97	16.59
27.07	2	SLE R h	50	0.00	11.44	18.63	3866.72	-109.35	485.62	10.52
27.07	4	SLE Q h	50	0.00	11.44	18.63	3006.83	-85.03	377.63	8.18
28.68	2	SLE R a	54	16.11	25.32	28.87	-2957.43	278.42	-138.25	11.48
28.68	4	SLE Q a	54	16.11	25.32	28.87	-2512.96	236.58	-117.47	9.75
29.08	2	SLE R b	55	20.00	25.32	28.87	-5434.32	511.61	-254.03	21.09
29.08	4	SLE Q b	55	20.00	25.32	28.87	-4910.32	462.28	-229.53	19.06
30.69	2	SLE R c	60	0.00	11.44	21.68	2039.25	-56.08	221.29	5.24
30.69	4	SLE Q c	60	0.00	11.44	21.68	1865.57	-51.30	202.45	4.80
31.93	2	SLE R g	63	16.11	31.73	35.25	-6133.10	461.03	-251.25	20.61
31.93	4	SLE Q g	63	16.11	31.73	35.25	-4967.85	373.44	-203.51	16.70
32.33	2	SLE R h	64	20.00	31.73	29.09	-3226.82	244.28	-146.35	11.88
32.33	4	SLE Q h	64	20.00	31.73	29.09	-2573.52	194.82	-116.72	9.47
33.58	2	SLE R c	68	0.00	11.44	16.59	1666.82	-48.10	234.20	4.74
33.58	4	SLE Q c	68	0.00	11.44	16.59	1488.40	-42.95	209.13	4.23
34.83	2	SLE R h	71	16.25	22.31	25.82	-3425.19	365.84	-171.93	14.38
34.83	4	SLE Q h	71	16.25	22.31	25.82	-2737.97	292.44	-137.43	11.49
35.23	2	SLE R g	72	20.00	22.31	25.82	-5694.10	608.18	-285.82	23.91
35.23	4	SLE Q g	72	20.00	22.31	25.82	-4668.59	498.64	-234.34	19.60
36.11	2	SLE R c	75	0.00	11.44	21.68	2260.97	-62.17	245.35	5.81
36.11	4	SLE Q c	75	0.00	11.44	21.68	2040.27	-56.10	221.41	5.25
38.06	2	SLE R b	80	15.89	25.32	21.68	-6053.68	575.61	-324.18	26.49
38.06	4	SLE Q b	80	15.89	25.32	21.68	-5433.87	516.68	-290.99	23.78
38.46	2	SLE R a	81	20.00	25.32	21.68	-3048.68	289.88	-163.26	13.34
38.46	4	SLE Q a	81	20.00	25.32	21.68	-2663.06	253.22	-142.61	11.66
39.70	2	SLE R h	85	0.00	11.44	21.68	4700.40	-129.25	510.07	12.09
39.70	4	SLE Q h	85	0.00	11.44	21.68	3698.62	-101.70	401.37	9.51
41.29	2	SLE R b	89	15.89	17.59	21.68	-4130.01	557.81	-232.10	19.76
41.29	4	SLE Q b	89	15.89	17.59	21.68	-3375.90	455.96	-189.72	16.15

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg <m>	CC	TCC	InEl	Sez.	X <cm>	My <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
31	0.12	4	SLE Q a	1	57	12.50	-2446.55	29.00	87.71	0.50	13.60	138.46	19.23	1137.50	305.90	0.09	0.02
46	0.12	3	SLE F a	1	57	12.50	-2559.12	29.00	87.71	0.50	13.60	138.46	19.23	1137.50	319.98	0.09	0.02
87	2.08	4	SLE Q c	1	57	207.50	-866.14	28.43	206.00	0.50	15.83	269.49	11.44	1137.50	178.78	0.05	0.02
99	2.08	3	SLE F c	1	57	207.50	-863.80	28.43	206.00	0.50	15.83	269.49	11.44	1137.50	178.30	0.05	0.02
137	3.05	4	SLE Q c	1	57	305.00	-3095.47	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	370.08	0.11	0.03
150	3.05	3	SLE F c	1	57	305.00	-3160.44	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	377.85	0.11	0.03
177	3.45	4	SLE Q b	2	57	20.00	-3313.01	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	396.09	0.12	0.03
185	3.45	3	SLE F b	2	57	20.00	-3492.38	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	417.54	0.12	0.03
214	4.69	4	SLE Q g	6	57	0.00	2669.09	29.25	18.15	0.50	13.65	89.66	4.93	112.57	335.21	0.10	0.01
222	4.69	3	SLE F g	6	57	0.00	2863.94	29.25	18.15	0.50	13.65	89.66	4.93	112.57	359.68	0.10	0.02
240	6.30	4	SLE Q a	10	57	16.11	-3074.32	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	307.54	0.09	0.02
248	6.30	3	SLE F a	10	57	16.11	-3221.84	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	322.30	0.09	0.02
273	6.70	4	SLE Q b	11	57	20.00	-4150.32	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	415.18	0.12	0.03
281	6.70	3	SLE F b	11	57	20.00	-4270.63	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	427.21	0.12	0.03



Relazione di calcolo

311	7.70	4	SLE	Q	h	14	57	0.00	1870.24	29.50	16.86	0.50	13.45	90.91	4.65	110.27	202.95	0.06	0.01
319	7.70	3	SLE	F	h	14	57	0.00	1976.34	29.50	16.86	0.50	13.45	90.91	4.65	110.27	214.47	0.06	0.01
341	9.50	4	SLE	Q	e	18	57	20.00	-4023.32	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	302.44	0.09	0.02
349	9.50	3	SLE	F	e	18	57	20.00	-4259.46	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	320.19	0.09	0.02
373	9.90	4	SLE	Q	e	19	57	20.00	-3482.65	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	261.79	0.08	0.01
381	9.90	3	SLE	F	e	19	57	20.00	-3645.39	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	274.03	0.08	0.02
410	11.20	4	SLE	Q	h	23	57	0.00	-777.16	28.43	206.00	0.50	15.83	269.80	11.44	1137.50	160.37	0.05	0.02
419	11.20	3	SLE	F	h	23	57	0.00	-835.00	28.43	206.00	0.50	15.83	269.80	11.44	1137.50	172.31	0.05	0.02
443	12.50	4	SLE	Q	h	26	57	17.50	-4399.62	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	333.06	0.10	0.02
451	12.50	3	SLE	F	h	26	57	17.50	-4676.39	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	354.01	0.10	0.02
479	12.90	4	SLE	Q	g	27	57	20.00	-5098.96	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	386.00	0.11	0.02
488	12.90	3	SLE	F	g	27	57	20.00	-5407.81	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	409.38	0.12	0.02
514	13.89	4	SLE	Q	c	30	57	0.00	1686.55	31.00	29.50	0.50	8.00	154.39	1.01	116.10	269.69	0.08	0.02
524	13.89	3	SLE	F	c	30	57	0.00	1738.29	31.00	29.50	0.50	8.00	154.39	1.01	116.10	277.96	0.08	0.02
552	15.68	4	SLE	Q	b	34	57	19.75	-4479.82	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	452.40	0.13	0.03
560	15.68	3	SLE	F	b	34	57	19.75	-4618.75	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	466.43	0.14	0.03
585	16.08	4	SLE	Q	c	35	57	20.00	-3099.61	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	313.02	0.09	0.02
593	16.08	3	SLE	F	c	35	57	20.00	-3232.18	28.44	81.87	0.50	14.42	125.84	23.78	1137.50	326.40	0.10	0.02
622	17.32	4	SLE	Q	h	39	57	0.00	3104.49	30.75	18.15	0.50	8.59	103.66	2.29	112.57	389.89	0.11	0.02
630	17.32	3	SLE	F	h	39	57	0.00	3342.50	30.75	18.15	0.50	8.59	103.66	2.29	112.57	419.79	0.12	0.02
647	18.93	4	SLE	Q	a	43	57	16.11	-2996.67	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	358.27	0.10	0.02
655	18.93	3	SLE	F	a	43	57	16.11	-3163.01	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	378.16	0.11	0.03
693	19.33	4	SLE	Q	a	44	57	20.00	-2027.78	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	242.43	0.07	0.02
708	19.33	3	SLE	F	a	44	57	20.00	-2078.91	28.87	87.71	0.50	13.83	136.45	19.98	1137.50	248.55	0.07	0.02
750	20.28	4	SLE	Q	a	44	57	115.00	-465.77	28.43	206.00	0.50	15.83	269.49	11.44	1137.50	96.14	0.03	0.01
764	20.28	3	SLE	F	a	44	57	115.00	-470.49	28.43	206.00	0.50	15.83	269.49	11.44	1137.50	97.12	0.03	0.01
799	22.18	4	SLE	Q	g	44	57	305.00	-4192.19	28.33	72.24	0.50	15.20	117.01	28.65	1137.50	351.72	0.10	0.02
807	22.18	3	SLE	F	g	44	57	305.00	-4428.40	28.33	72.24	0.50	15.20	117.01	28.65	1137.50	371.54	0.11	0.02
831	22.58	4	SLE	Q	g	45	57	20.00	-4098.01	28.33	72.24	0.50	15.20	117.01	28.65	1137.50	343.82	0.10	0.02
839	22.58	3	SLE	F	g	45	57	20.00	-4327.73	28.33	72.24	0.50	15.20	117.01	28.65	1137.50	363.09	0.11	0.02
881	24.80	4	SLE	Q	e	45	57	241.67	-1268.67	28.43	206.00	0.50	15.83	269.49	11.44	1137.50	261.87	0.08	0.03
897	24.80	3	SLE	F	e	45	57	241.67	-1305.16	28.43	206.00	0.50	15.83	269.49	11.44	1137.50	269.40	0.08	0.04
938	25.43	4	SLE	Q	e	45	57	305.00	-1676.75	28.81	81.87	0.50	13.84	130.77	21.52	1137.50	186.63	0.05	0.01
950	25.43	3	SLE	F	e	45	57	305.00	-1724.40	28.81	81.87	0.50	13.84	130.77	21.52	1137.50	191.94	0.06	0.01
971	25.83	4	SLE	Q	b	46	57	20.00	-3602.37	28.81	81.87	0.50	13.84	130.77	21.52	1137.50	400.96	0.12	0.03
979	25.83	3	SLE	F	b	46	57	20.00	-3789.74	28.81	81.87	0.50	13.84	130.77	21.52	1137.50	421.82	0.12	0.03
1009	27.07	4	SLE	Q	h	50	57	0.00	3006.83	30.75	18.15	0.50	8.59	103.66	2.29	112.57	377.63	0.11	0.02
1017	27.07	3	SLE	F	h	50	57	0.00	3243.79	30.75	18.15	0.50	8.59	103.66	2.29	112.57	407.39	0.12	0.02
1038	28.68	4	SLE	Q	a	54	57	16.11	-2512.96	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	236.58	0.07	0.01
1047	28.68	3	SLE	F	a	54	57	16.11	-2639.70	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	248.51	0.07	0.01
1077	29.08	4	SLE	Q	b	55	57	20.00	-4910.32	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	462.28	0.13	0.03
1087	29.08	3	SLE	F	b	55	57	20.00	-5059.03	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	476.28	0.14	0.03
1125	30.69	4	SLE	Q	g	60	57	0.00	-436.20	28.43	206.00	0.50	15.83	276.47	11.44	1137.50	89.54	0.03	0.01
1136	30.69	3	SLE	F	g	60	57	0.00	-507.82	28.43	206.00	0.50	15.83	276.47	11.44	1137.50	104.24	0.03	0.01
1165	31.93	4	SLE	Q	g	63	57	16.11	-4967.85	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	373.44	0.11	0.02
1174	31.93	3	SLE	F	g	63	57	16.11	-5294.21	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	397.97	0.12	0.02
1199	32.33	4	SLE	Q	h	64	57	20.00	-2573.52	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	194.82	0.06	0.01
1207	32.33	3	SLE	F	h	64	57	20.00	-2747.86	28.30	64.63	0.50	15.07	110.64	31.73	1137.50	208.02	0.06	0.01
1231	33.58	4	SLE	Q	h	68	57	0.00	-388.02	28.43	206.00	0.50	15.83	269.80	11.44	1137.50	80.07	0.02	0.01
1239	33.58	3	SLE	F	h	68	57	0.00	-421.27	28.43	206.00	0.50	15.83	269.80	11.44	1137.50	86.93	0.03	0.01
1263	34.83	4	SLE	Q	h	71	57	16.25	-2737.97	28.88	76.75	0.50	13.65	127.39	22.31	1137.50	292.44	0.09	0.02
1271	34.83	3	SLE	F	h	71	57	16.25	-2922.55	28.88	76.75	0.50	13.65	127.39	22.31	1137.50	312.15	0.09	0.02
1295	35.23	4	SLE	Q	g	72	57	20.00	-4668.59	28.88	76.75	0.50	13.65	127.39	22.31	1137.50	498.64	0.15	0.03
1303	35.23	3	SLE	F	g	72	57	20.00	-4955.07	28.88	76.75	0.50	13.65	127.39	22.31	1137.50	529.24	0.15	0.03
1327	36.11	4	SLE	Q	c	75	57	0.00	2040.27	29.50	16.86	0.50	13.45	90.91	4.65	110.27	221.41	0.06	0.01
1336	36.11	3	SLE	F	c	75	57	0.00	2102.62	29.50	16.86	0.50	13.45	90.91	4.65	110.27	228.17	0.07	0.01
1364	38.06	4	SLE	Q	b	80	57	15.89	-5433.87	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	516.68	0.15	0.03
1374	38.06	3	SLE	F	b	80	57	15.89	-5609.61	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	533.39	0.16	0.03
1405	38.46	4	SLE	Q	a	81	57	20.00	-2663.06	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	253.22	0.07	0.02
1415	38.46	3	SLE	F	a	81	57	20.00	-2773.59	28.41	76.75	0.50	14.39	121.48	25.32	1137.50	263.73	0.08	0.02
1448	39.70	4	SLE	Q	h	85	57	0.00	3698.62	29.50	16.86	0.50	13.45	90.91	4.65	110.27	401.37	0.12	0.02
1456	39.70	3	SLE	F	h	85	57	0.00	3970.18	29.50	16.86	0.50	13.45	90.91	4.65	110.27	430.83	0.13	0.02
1476	41.29	4	SLE	Q	b	89	57	15.89	-3375.90	28.27	122.80	0.50	15.14	154.40	17.59	1137.50	455.96	0.13	0.03
1485	41.29	3	SLE	F	b	89	57	15.89	-3590.67	28.27	122.80	0.50	15.14	154.40	17.59	1137.50	484.97	0.14	0.04

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	In	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.20	0.72	0.52	a	ø8/10 2 br.	10.05	0.30	7900.88	1.90	24957.10	24957.10	24957.10	3.159
1 SLU	0.72	2.53	1.81	c	ø8/10 2 br.	10.05	0.30	6182.46	1.90	24957.10	24957.10	24957.10	4.037
1 SLU	2.53	3.05	0.52	c	ø8/10 2 br.	10.05	0.30	8814.69	1.90	24957.10	24957.10	24957.10	2.831
1 SLU	3.45	3.97	0.52	b	ø8/10 2 br.	10.05	0.30	11300.80	1.90	24957.10	24957.10	24957.10	2.208
1 SLU	3.97	5.78	1.81	e	ø8/10 2 br.	10.05	0.30	5315.71	1.90	24957.10	24957.10	24957.10	4.695
1 SLU	5.78	6.30	0.52	a	ø8/10 2 br.	10.05	0.30	10437.40	1.90	24957.10	24957.10	24957.10	2.391
1 SLU	6.70	7.22	0.52	b	ø8/10 2 br.	10.05	0.30	10339.90	1.90	24957.10	24957.10	24957.10	2.414
1 SLU	7.22	8.98	1.76	e	ø8/10 2 br.	10.05	0.30	5866.20	1.90	24957.10	24957.10	24957.10	4.254
1 SLU	8.98	9.50	0.52	e	ø8/10 2 br.	10.05	0.30	9575.78	1.90	24957.10	24957.10	24957.10	2.606
1 SLU	9.90	10.42	0.52	c	ø8/10 2 br.	10.05	0.30	10104.70	1.90	24957.10	24957.10	24957.10	2.470
1 SLU	10.42	11.98	1.56	g	ø8/10 2 br.	10.05	0.30	5490.65	1.90	24957.10	24957.10	24957.10	4.545
1 SLU	11.98	12.50	0.52	g	ø8/10 2 br.	10.05	0.30	10135.10	1.90	24957.10	24957.10	24957.10	2.462
1 SLU	12.90	13.42	0.52	q	ø8/10 2 br.	10.05	0.30	10978.00	1.90	24957.10	24957.10	24957.10	2.273



Relazione di calcolo

1	SLU	13.42	15.16	1.74	g	ø8/10 2 br.	10.05	0.30	6636.65	1.90	24957.10	24957.10	24957.10	3.760
1	SLU	15.16	15.68	0.52	b	ø8/10 2 br.	10.05	0.30	10834.90	1.90	24957.10	24957.10	24957.10	2.303
1	SLU	16.08	16.60	0.52	b	ø8/10 2 br.	10.05	0.30	10178.10	1.90	24957.10	24957.10	24957.10	2.452
1	SLU	16.60	18.41	1.81	d	ø8/10 2 br.	10.05	0.30	5344.01	1.90	24957.10	24957.10	24957.10	4.670
1	SLU	18.41	18.93	0.52	a	ø8/10 2 br.	10.05	0.30	10964.40	1.90	24957.10	24957.10	24957.10	2.276
1	SLU	19.33	19.85	0.52	a	ø8/10 2 br.	10.05	0.30	6797.81	1.90	24957.10	24957.10	24957.10	3.671
1	SLU	19.85	21.66	1.81	g	ø8/10 2 br.	10.05	0.30	6492.96	1.90	24957.10	24957.10	24957.10	3.844
1	SLU	21.66	22.18	0.52	g	ø8/10 2 br.	10.05	0.30	9125.21	1.90	24957.10	24957.10	24957.10	2.735
1	SLU	22.58	23.10	0.52	g	ø8/10 2 br.	10.05	0.30	8849.56	1.90	24957.10	24957.10	24957.10	2.820
1	SLU	23.10	24.91	1.81	g	ø8/10 2 br.	10.05	0.30	6217.32	1.90	24957.10	24957.10	24957.10	4.014
1	SLU	24.91	25.43	0.52	a	ø8/10 2 br.	10.05	0.30	6161.50	1.90	24957.10	24957.10	24957.10	4.050
1	SLU	25.83	26.35	0.52	b	ø8/10 2 br.	10.05	0.30	11713.40	1.90	24957.10	24957.10	24957.10	2.131
1	SLU	26.35	28.16	1.81	b	ø8/10 2 br.	10.05	0.30	5520.56	1.90	24957.10	24957.10	24957.10	4.521
1	SLU	28.16	28.68	0.52	a	ø8/10 2 br.	10.05	0.30	9609.65	1.90	24957.10	24957.10	24957.10	2.597
1	SLU	29.08	29.60	0.52	b	ø8/10 2 br.	10.05	0.30	11526.50	1.90	24957.10	24957.10	24957.10	2.165
1	SLU	29.60	31.41	1.81	g	ø8/10 2 br.	10.05	0.30	6794.83	1.90	24957.10	24957.10	24957.10	3.673
1	SLU	31.41	31.93	0.52	g	ø8/10 2 br.	10.05	0.30	11622.20	1.90	24957.10	24957.10	24957.10	2.147
1	SLU	32.33	32.85	0.52	b	ø8/10 2 br.	10.05	0.30	8638.73	1.90	24957.10	24957.10	24957.10	2.889
1	SLU	32.85	34.31	1.46	g	ø8/10 2 br.	10.05	0.30	3814.99	1.90	24957.10	24957.10	24957.10	6.542
1	SLU	34.31	34.83	0.52	a	ø8/10 2 br.	10.05	0.30	8518.37	1.90	24957.10	24957.10	24957.10	2.930
1	SLU	35.23	35.75	0.52	g	ø8/10 2 br.	10.05	0.30	11365.00	1.90	24957.10	24957.10	24957.10	2.196
1	SLU	35.75	37.54	1.79	b	ø8/10 2 br.	10.05	0.30	6959.34	1.90	24957.10	24957.10	24957.10	3.586
1	SLU	37.54	38.06	0.52	b	ø8/10 2 br.	10.05	0.30	12238.10	1.90	24957.10	24957.10	24957.10	2.039
1	SLU	38.46	38.98	0.52	a	ø8/10 2 br.	10.05	0.30	9720.56	1.90	24957.10	24957.10	24957.10	2.567
1	SLU	38.98	40.77	1.79	d	ø8/10 2 br.	10.05	0.30	5561.69	1.90	24957.10	24957.10	24957.10	4.487
1	SLU	40.77	41.29	0.52	b	ø8/10 2 br.	10.05	0.30	11609.00	1.90	24957.10	24957.10	24957.10	2.150

Travate n. 5009 7009 9009 11009 13009 15009 17009 19009

5009 (a) Nodi: 541 542 543 544 545 546 547 548 549 550 551 552 553 554  
7009 (b) Nodi: 741 742 743 744 745 746 747 748 749 750 751 752 753 754  
9009 (c) Nodi: 941 942 943 944 945 946 947 948 949 950 951 952 953 954  
11009 (d) Nodi: 1141 1142 1143 1144 1145 1146 1147 1148 1149 1150 1151 1152 1153 1154  
13009 (e) Nodi: 1341 1342 1343 1344 1345 1346 1347 1348 1349 1350 1351 1352 1353 1354  
15009 (f) Nodi: 1541 1542 1543 1544 1545 1546 1547 1548 1549 1550 1551 1552 1553 1554  
17009 (g) Nodi: 1741 1742 1743 1744 1745 1746 1747 1748 1749 1750 1751 1752 1753 1754  
19009 (h) Nodi: 1941 1942 1943 1944 1945 1946 1947 1948 1949 1950 1951 1952 1953 1954

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	b <cm>	H <cm>	h <cm>	Cf sup <cm>	Cf inf <cm>	Fcm <daN/cm<sup>q>	Fctm <daN/cm<sup>q>	Fcd <daN/cm<sup>q>	Fcd (Tag) <daN/cm<sup>q>	Fctd <daN/cm<sup>q>	Fym <daN/cm<sup>q>	Fyd <daN/cm<sup>q>	Fyd (Tag) <daN/cm<sup>q>
56	Ldx	100.00	30.00	24.00	26.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
58	Ldx	60.00	30.00	24.00	26.00	3.50	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Xg	CC	TCC	In	El	X	Afe S	Afe I	AfeP S	AfeP I	My	MRdy	Sic.
<m>					<cm>	<cmq>	<cmq>	<cmq>	<cmq>	<daNm>	<daNm>	
0.12	1	SLU	a	1	12.50	16.02	15.27	16.02	15.27	-2613.09	-24925.60	9.539
2.08	1	SLU	h	1	207.50	11.44	15.27	11.44	15.27	4014.04	24382.70	6.074
3.05	1	SLU	b	1	305.00	16.09	17.62	16.09	17.62	-2834.12	-25031.20	8.832
3.45	1	SLU	b	2	20.00	16.09	17.62	16.09	17.62	-3543.78	-25031.20	7.063
5.35	1	SLU	g	2	210.00	11.44	15.33	11.44	15.33	2238.98	24479.80	10.93
6.30	1	SLU	e	2	305.00	16.87	17.34	16.87	17.34	-3065.26	-26237.30	8.560
6.70	1	SLU	b	3	20.00	16.87	17.34	16.87	17.34	-3881.73	-26237.30	6.759
7.94	1	SLU	e	3	144.44	11.44	13.45	11.44	13.45	2585.93	21568.70	8.341
9.50	1	SLU	a	3	300.00	14.51	28.90	14.51	28.90	-1883.26	-22622.90	12.013
9.90	1	SLU	g	4	20.00	20.55	28.90	20.55	28.90	-1954.48	-31911.50	16.327
10.88	1	SLU	h	4	117.50	15.46	15.46	15.46	15.46	-1313.05	-24060.00	18.324
12.50	1	SLU	g	4	280.00	24.88	29.97	24.88	29.97	-1517.18	-38582.70	25.430
12.90	1	SLU	a	5	20.00	29.97	31.98	29.97	31.98	-2301.20	-46408.50	20.167
13.83	1	SLU	h	5	112.67	11.44	16.52	11.44	16.52	2551.07	26322.40	10.318
15.68	1	SLU	c	5	298.00	16.87	20.42	16.87	20.42	-3449.72	-26244.60	7.608
16.08	1	SLU	b	6	20.00	16.87	20.42	16.87	20.42	-3841.80	-26244.60	6.831
17.35	1	SLU	g	6	146.67	11.44	15.33	11.44	15.33	2068.41	24479.80	11.833
18.93	1	SLU	a	6	305.00	16.09	17.48	16.09	17.48	-2596.99	-25030.80	9.638
19.33	1	SLU	a	7	20.00	16.09	17.48	16.09	17.48	-3609.13	-25030.80	6.935
21.23	1	SLU	g	7	210.00	11.44	15.12	11.44	15.12	2089.85	24152.50	11.557
22.18	1	SLU	g	7	305.00	25.45	24.54	25.45	24.54	-3484.20	-39429.80	11.317
22.58	1	SLU	b	8	20.00	25.45	24.54	25.45	24.54	-3466.77	-39429.80	11.374
23.85	1	SLU	a	8	146.67	11.44	15.12	11.44	15.12	1860.10	24152.50	12.985
25.43	1	SLU	g	8	305.00	16.09	17.48	16.09	17.48	-3168.46	-25030.80	7.900
25.83	1	SLU	c	9	20.00	16.09	17.48	16.09	17.48	-3554.61	-25030.80	7.042
27.10	1	SLU	a	9	146.67	11.44	13.79	11.44	13.79	1816.64	22103.10	12.167
28.68	1	SLU	e	9	305.00	16.87	14.80	16.87	14.80	-2964.51	-26222.70	8.846
29.08	1	SLU	b	10	20.00	16.87	17.88	16.87	17.88	-4045.22	-26239.00	6.486
30.35	1	SLU	h	10	146.67	11.44	15.52	11.44	15.52	2876.99	24770.70	8.610
31.93	1	SLU	a	10	305.00	14.51	30.98	14.51	30.98	-1743.09	-22622.70	12.979
32.33	1	SLU	c	11	20.00	20.55	30.98	20.55	30.98	-1653.63	-31913.50	19.299
34.52	1	SLU	g	11	238.75	15.46	15.46	15.46	15.46	-1155.55	-24060.00	20.821
34.83	1	SLU	g	11	270.00	24.88	29.97	24.88	29.97	-1155.55	-38582.70	33.389
35.23	1	SLU	a	12	20.00	29.97	29.97	29.97	29.97	-3218.60	-46399.10	14.416
35.86	1	SLU	a	12	82.89	11.44	23.94	11.44	23.94	-2512.28	-17878.60	7.116



Relazione di calcolo

38.06	1	SLU	c	12	303.00	17.59	14.51	17.59	14.51	-7282.81	-27325.20	3.752
38.46	1	SLU	c	13	20.00	17.59	14.51	17.59	14.51	-4633.22	-27325.20	5.898
39.62	1	SLU	h	13	135.86	11.44	14.51	11.44	14.51	2923.15	23218.80	7.943
41.29	1	SLU	a	13	303.00	14.51	14.51	14.51	14.51	-4388.29	-22609.20	5.152

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	In	El	X <cm>	AfE S <cmq>	AfE I <cmq>	My <daNm>	$\sigma_f$ sup <daN/cmq>	$\sigma_f$ inf <daN/cmq>	$\sigma_e$ <daN/cmq>
0.12	2	SLE R	a	1	12.50	16.02	15.27	-1836.58	274.16	-120.83	10.20
0.12	4	SLE Q	a	1	12.50	16.02	15.27	-1604.01	239.44	-105.53	8.91
2.08	2	SLE R	h	1	207.50	11.44	15.27	2834.28	-99.63	434.55	9.54
2.08	4	SLE Q	g	1	207.50	11.44	15.27	2335.11	-82.08	358.02	7.86
3.05	2	SLE R	b	1	305.00	16.09	17.62	-2019.00	299.06	-125.58	10.68
3.05	4	SLE Q	b	1	305.00	16.09	17.62	-1846.55	273.52	-114.86	9.76
3.45	2	SLE R	b	2	20.00	16.09	17.62	-2505.50	371.13	-155.85	13.25
3.45	4	SLE Q	b	2	20.00	16.09	17.62	-2200.02	325.88	-136.84	11.63
5.35	2	SLE R	g	2	210.00	11.44	15.33	1575.42	-55.34	240.59	5.30
5.35	4	SLE Q	g	2	210.00	11.44	15.33	1401.43	-49.23	214.02	4.71
6.30	2	SLE R	e	2	305.00	16.87	17.34	-2165.20	306.45	-134.63	11.37
6.30	4	SLE Q	a	2	305.00	16.87	17.34	-1938.25	274.33	-120.52	10.18
6.70	2	SLE R	b	3	20.00	16.87	17.34	-2736.00	387.24	-170.13	14.37
6.70	4	SLE Q	b	3	20.00	16.87	17.34	-2336.43	330.69	-145.28	12.27
7.94	2	SLE R	e	3	144.44	11.44	13.45	1820.77	-65.40	315.68	6.43
7.94	4	SLE Q	e	3	144.44	11.44	13.45	1579.42	-56.73	273.83	5.58
9.50	2	SLE R	a	3	300.00	14.51	28.90	-1336.40	216.15	-66.43	5.96
9.50	4	SLE Q	a	3	300.00	14.51	28.90	-1286.73	208.12	-63.96	5.74
9.90	2	SLE R	g	4	20.00	20.55	28.90	-1390.05	160.24	-66.53	5.67
9.90	4	SLE Q	g	4	20.00	20.55	28.90	-1291.12	148.84	-61.79	5.26
10.88	2	SLE R	h	4	117.50	15.46	15.46	-927.97	143.35	-61.10	5.18
10.88	4	SLE Q	h	4	117.50	15.46	15.46	-788.87	121.86	-51.95	4.41
12.50	2	SLE R	g	4	280.00	24.88	29.97	-1089.85	104.23	-50.07	4.17
12.50	4	SLE Q	g	4	280.00	24.88	29.97	-1061.85	101.55	-48.78	4.07
12.90	2	SLE R	a	5	20.00	29.97	31.98	-1640.67	130.77	-71.31	5.85
12.90	4	SLE Q	a	5	20.00	29.97	31.98	-1537.91	122.58	-66.84	5.48
13.83	2	SLE R	h	5	112.67	11.44	16.52	1785.83	-61.90	253.67	5.84
13.83	4	SLE Q	e	5	112.67	11.44	16.52	1514.86	-52.50	215.18	4.95
15.68	2	SLE R	c	5	298.00	16.87	20.42	-2417.33	340.57	-140.33	11.96
15.68	4	SLE Q	e	5	298.00	16.87	20.42	-2062.86	290.63	-119.75	10.21
16.08	2	SLE R	b	6	20.00	16.87	20.42	-2727.29	384.24	-158.32	13.50
16.08	4	SLE Q	c	6	20.00	16.87	20.42	-2431.24	342.53	-141.13	12.03
17.35	2	SLE R	g	6	146.67	11.44	15.33	1473.69	-51.77	225.05	4.95
17.35	4	SLE Q	g	6	146.67	11.44	15.33	1351.17	-47.46	206.34	4.54
18.93	2	SLE R	a	6	305.00	16.09	17.48	-1819.97	269.65	-113.59	9.65
18.93	4	SLE Q	a	6	305.00	16.09	17.48	-1604.79	237.76	-100.16	8.51
19.33	2	SLE R	a	7	20.00	16.09	17.48	-2546.94	377.36	-158.97	13.51
19.33	4	SLE Q	a	7	20.00	16.09	17.48	-2243.14	332.34	-140.01	11.90
21.23	2	SLE R	g	7	210.00	11.44	15.12	1485.93	-52.32	230.00	5.02
21.23	4	SLE Q	g	7	210.00	11.44	15.12	1346.29	-47.41	208.38	4.55
22.18	2	SLE R	g	7	305.00	25.45	24.54	-2472.19	232.92	-125.09	10.28
22.18	4	SLE Q	g	7	305.00	25.45	24.54	-2220.21	209.18	-112.34	9.23
22.58	2	SLE R	b	8	20.00	25.45	24.54	-2452.33	231.04	-124.08	10.20
22.58	4	SLE Q	b	8	20.00	25.45	24.54	-2162.92	203.78	-109.44	9.00
23.85	2	SLE R	a	8	146.67	11.44	15.12	1314.07	-46.27	203.40	4.44
23.85	4	SLE Q	a	8	146.67	11.44	15.12	1170.25	-41.21	181.13	3.95
25.43	2	SLE R	g	8	305.00	16.09	17.48	-2239.87	331.86	-139.80	11.88
25.43	4	SLE Q	g	8	305.00	16.09	17.48	-1992.68	295.24	-124.38	10.57
25.83	2	SLE R	c	9	20.00	16.09	17.48	-2512.27	372.22	-156.81	13.32
25.83	4	SLE Q	c	9	20.00	16.09	17.48	-2191.39	324.68	-136.78	11.62
27.10	2	SLE R	a	9	146.67	11.44	13.79	1283.36	-45.91	217.10	4.49
27.10	4	SLE Q	g	9	146.67	11.44	13.79	1164.19	-41.64	196.94	4.07
28.68	2	SLE R	e	9	305.00	16.87	14.80	-2089.25	297.06	-137.94	11.56
28.68	4	SLE Q	e	9	305.00	16.87	14.80	-1841.52	261.84	-121.58	10.19
29.08	2	SLE R	b	10	20.00	16.87	17.88	-2854.50	403.66	-175.34	14.83
29.08	4	SLE Q	a	10	20.00	16.87	17.88	-2438.65	344.86	-149.80	12.67
30.35	2	SLE R	h	10	146.67	11.44	15.52	2029.16	-71.12	306.24	6.79
30.35	4	SLE Q	g	10	146.67	11.44	15.52	1741.42	-61.04	262.82	5.83
31.93	2	SLE R	a	10	305.00	14.51	30.98	-1233.72	199.28	-58.98	5.33
31.93	4	SLE Q	a	10	305.00	14.51	30.98	-1204.87	194.62	-57.60	5.21
32.33	2	SLE R	c	11	20.00	20.55	30.98	-1176.82	135.41	-54.26	4.65
32.33	4	SLE Q	c	11	20.00	20.55	30.98	-1091.74	125.62	-50.34	4.31
34.52	2	SLE R	g	11	238.75	15.46	15.46	-826.34	127.65	-54.41	4.62
34.52	4	SLE Q	g	11	238.75	15.46	15.46	-849.65	131.25	-55.95	4.75
34.83	2	SLE R	g	11	270.00	24.88	29.97	-826.34	79.03	-37.96	3.17
34.83	4	SLE Q	g	11	270.00	24.88	29.97	-849.65	81.26	-39.03	3.25
35.23	2	SLE R	a	12	20.00	29.97	29.97	-2293.43	183.23	-103.13	8.43
35.23	4	SLE Q	a	12	20.00	29.97	29.97	-2167.06	173.13	-97.45	7.96
35.86	2	SLE R	a	12	82.89	11.44	23.94	-1792.95	367.38	-101.13	9.28
35.86	4	SLE Q	a	12	82.89	11.44	23.94	-1712.49	350.89	-96.59	8.87
38.06	2	SLE R	c	12	303.00	17.59	14.51	-5129.95	701.03	-338.83	28.23
38.06	4	SLE Q	c	12	303.00	17.59	14.51	-4388.17	599.66	-289.83	24.15
38.46	2	SLE R	c	13	20.00	17.59	14.51	-3262.40	445.82	-215.48	17.95



Relazione di calcolo

38.46	4	SLE	Q	c	13	20.00	17.59	14.51	-3080.19	420.92	-203.44	16.95
39.62	2	SLE	R	h	13	135.86	11.44	14.51	2074.45	-73.56	334.01	7.12
39.62	4	SLE	Q	h	13	135.86	11.44	14.51	1706.88	-60.53	274.83	5.86
41.29	2	SLE	R	a	13	303.00	14.51	14.51	-3120.23	512.97	-212.28	18.09
41.29	4	SLE	Q	a	13	303.00	14.51	14.51	-2705.32	444.76	-184.05	15.68

Stato limite d'esercizio - Verifiche a fessurazione

Caso	Xg	CC	TCC	In	El	Sez	X	My	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>	
	<m>						<cm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cm>		<mm>	
34	0.12	4	SLE	Q	a	1	56	12.50	-1604.01	29.67	66.29	0.50	12.75	128.96	16.02	875.00	239.44	0.07	0.02
50	0.12	3	SLE	F	a	1	56	12.50	-1670.13	29.67	66.29	0.50	12.75	128.96	16.02	875.00	249.31	0.07	0.02
91	2.08	4	SLE	Q	g	1	56	207.50	2335.11	29.00	20.36	0.50	14.67	97.69	4.15	112.23	358.02	0.10	0.02
101	2.08	3	SLE	F	h	1	56	207.50	2459.52	29.00	20.36	0.50	14.67	97.69	4.15	112.23	377.09	0.11	0.02
136	3.05	4	SLE	Q	b	1	56	305.00	-1846.55	29.43	71.38	0.50	13.13	130.27	16.09	875.00	273.52	0.08	0.02
152	3.05	3	SLE	F	b	1	56	305.00	-1896.35	29.43	71.38	0.50	13.13	130.27	16.09	875.00	280.90	0.08	0.02
191	3.45	4	SLE	Q	b	2	56	20.00	-2200.02	29.43	71.38	0.50	13.13	130.27	16.09	875.00	325.88	0.09	0.02
203	3.45	3	SLE	F	b	2	56	20.00	-2287.52	29.43	71.38	0.50	13.13	130.27	16.09	875.00	338.84	0.10	0.02
259	5.35	4	SLE	Q	g	2	56	210.00	1401.43	29.00	22.40	0.50	14.67	97.67	4.15	112.17	214.02	0.06	0.01
275	5.35	3	SLE	F	g	2	56	210.00	1449.51	29.00	22.40	0.50	14.67	97.67	4.15	112.17	221.36	0.06	0.01
294	6.30	4	SLE	Q	a	2	56	305.00	-1938.25	28.75	84.36	0.50	14.32	131.77	16.87	875.00	274.33	0.08	0.02
302	6.30	3	SLE	F	a	2	56	305.00	-1999.11	28.75	84.36	0.50	14.32	131.77	16.87	875.00	282.94	0.08	0.02
329	6.70	4	SLE	Q	b	3	56	20.00	-2336.43	28.75	84.36	0.50	14.32	131.77	16.87	875.00	330.69	0.10	0.02
339	6.70	3	SLE	F	b	3	56	20.00	-2451.06	28.75	84.36	0.50	14.32	131.77	16.87	875.00	346.91	0.10	0.02
368	7.94	4	SLE	Q	e	3	56	144.44	1579.42	29.00	22.40	0.50	14.67	98.35	4.15	114.10	273.83	0.08	0.01
376	7.94	3	SLE	F	e	3	56	144.44	1648.40	29.00	22.40	0.50	14.67	98.35	4.15	114.10	285.80	0.08	0.01
412	9.50	4	SLE	Q	a	3	56	300.00	-1286.73	28.33	116.00	0.50	15.40	149.51	14.51	875.00	208.12	0.06	0.02
428	9.50	3	SLE	F	a	3	56	300.00	-1300.59	28.33	116.00	0.50	15.40	149.51	14.51	875.00	210.36	0.06	0.02
466	9.90	4	SLE	Q	g	4	58	20.00	-1291.12	31.00	48.00	0.50	8.00	140.65	1.01	98.83	148.84	0.04	0.01
474	9.90	3	SLE	F	g	4	58	20.00	-1316.96	31.00	48.00	0.50	8.00	140.65	1.01	98.83	151.81	0.04	0.01
502	10.88	4	SLE	Q	h	4	58	117.50	-788.87	26.00	104.80	0.50	18.22	113.89	15.46	525.00	121.86	0.04	0.01
511	10.88	3	SLE	F	h	4	58	117.50	-822.09	26.00	104.80	0.50	18.22	113.89	15.46	525.00	127.00	0.04	0.01
534	12.50	4	SLE	Q	g	4	58	280.00	-1061.85	25.67	64.50	0.50	18.86	91.12	24.88	525.00	101.55	0.03	0.00
542	12.50	3	SLE	F	g	4	58	280.00	-1069.64	25.67	64.50	0.50	18.86	91.12	24.88	525.00	102.30	0.03	0.00
577	12.90	4	SLE	Q	a	5	56	20.00	-1537.91	27.40	66.29	0.50	16.74	103.66	29.97	875.00	122.58	0.04	0.01
593	12.90	3	SLE	F	a	5	56	20.00	-1566.88	27.40	66.29	0.50	16.74	103.66	29.97	875.00	124.89	0.04	0.01
631	13.83	4	SLE	Q	e	5	56	112.67	1514.86	29.00	19.67	0.50	14.67	97.27	4.15	111.03	215.18	0.06	0.01
640	13.83	3	SLE	F	e	5	56	112.67	1585.03	29.00	19.67	0.50	14.67	97.27	4.15	111.03	225.15	0.07	0.01
664	15.68	4	SLE	Q	e	5	56	298.00	-2062.86	28.75	84.36	0.50	14.32	131.77	16.87	875.00	290.63	0.08	0.02
672	15.68	3	SLE	F	e	5	56	298.00	-2163.66	28.75	84.36	0.50	14.32	131.77	16.87	875.00	304.83	0.09	0.02
694	16.08	4	SLE	Q	c	6	56	20.00	-2431.24	28.75	84.36	0.50	14.32	131.77	16.87	875.00	342.53	0.10	0.02
702	16.08	3	SLE	F	c	6	56	20.00	-2515.24	28.75	84.36	0.50	14.32	131.77	16.87	875.00	354.37	0.10	0.02
730	17.35	4	SLE	Q	g	6	56	146.67	1351.17	29.00	23.60	0.50	14.67	97.67	4.15	112.17	206.34	0.06	0.01
738	17.35	3	SLE	F	g	6	56	146.67	1385.43	29.00	23.60	0.50	14.67	97.67	4.15	112.17	211.57	0.06	0.01
772	18.93	4	SLE	Q	a	6	56	305.00	-1604.79	29.43	71.38	0.50	13.13	130.27	16.09	875.00	237.76	0.07	0.02
788	18.93	3	SLE	F	a	6	56	305.00	-1666.48	29.43	71.38	0.50	13.13	130.27	16.09	875.00	246.91	0.07	0.02
830	19.33	4	SLE	Q	a	7	56	20.00	-2243.14	29.43	71.38	0.50	13.13	130.27	16.09	875.00	332.34	0.10	0.02
843	19.33	3	SLE	F	a	7	56	20.00	-2329.75	29.43	71.38	0.50	13.13	130.27	16.09	875.00	345.18	0.10	0.02
900	21.23	4	SLE	Q	g	7	56	210.00	-566.60	28.43	156.00	0.50	15.83	177.95	11.44	875.00	117.15	0.03	0.01
916	21.23	3	SLE	F	g	7	56	210.00	-584.08	28.43	156.00	0.50	15.83	177.95	11.44	875.00	120.77	0.04	0.01
945	22.18	4	SLE	Q	g	7	56	305.00	-2220.21	28.89	54.59	0.50	14.73	108.42	25.45	875.00	209.18	0.06	0.01
954	22.18	3	SLE	F	g	7	56	305.00	-2292.05	28.89	54.59	0.50	14.73	108.42	25.45	875.00	215.94	0.06	0.01
973	22.58	4	SLE	Q	b	8	56	20.00	-2162.92	28.89	54.59	0.50	14.73	108.42	25.45	875.00	203.78	0.06	0.01
981	22.58	3	SLE	F	b	8	56	20.00	-2245.56	28.89	54.59	0.50	14.73	108.42	25.45	875.00	211.56	0.06	0.01
1004	23.85	4	SLE	Q	a	8	56	146.67	1170.25	29.00	21.45	0.50	14.67	97.75	4.15	112.38	181.13	0.05	0.01
1012	23.85	3	SLE	F	a	8	56	146.67	1211.31	29.00	21.45	0.50	14.67	97.75	4.15	112.38	187.49	0.05	0.01
1045	25.43	4	SLE	Q	g	8	56	305.00	-1992.68	29.43	71.38	0.50	13.13	130.27	16.09	875.00	295.24	0.09	0.02
1054	25.43	3	SLE	F	g	8	56	305.00	-2063.42	29.43	71.38	0.50	13.13	130.27	16.09	875.00	305.72	0.09	0.02
1074	25.83	4	SLE	Q	c	9	56	20.00	-2191.39	29.43	71.38	0.50	13.13	130.27	16.09	875.00	324.68	0.09	0.02
1082	25.83	3	SLE	F	c	9	56	20.00	-2283.30	29.43	71.38	0.50	13.13	130.27	16.09	875.00	338.29	0.10	0.02
1110	27.10	4	SLE	Q	g	9	56	146.67	1164.19	29.00	26.22	0.50	14.67	98.23	4.15	113.73	196.94	0.06	0.01
1118	27.10	3	SLE	F	g	9	56	146.67	1196.19	29.00	26.22	0.50	14.67	98.23	4.15	113.73	202.36	0.06	0.01
1140	28.68	4	SLE	Q	e	9	56	305.00	-1841.52	28.75	84.36	0.50	14.32	131.77	16.87	875.00	261.84	0.08	0.02
1148	28.68	3	SLE	F	e	9	56	305.00	-1912.80	28.75	84.36	0.50	14.32	131.77	16.87	875.00	271.97	0.08	0.02
1170	29.08	4	SLE	Q	a	10	56	20.00	-2438.65	28.75	84.36	0.50	14.32	131.77	16.87	875.00	344.86	0.10	0.02
1181	29.08	3	SLE	F	a	10	56	20.00	-2554.88	28.75	84.36	0.50	14.32	131.77	16.87	875.00	361.29	0.11	0.02
1213	30.35	4	SLE	Q	g	10	56	146.67	1741.42	29									



Relazione di calcolo

1548	38.46	4	SLE Q	c	13	56	20.00	-3080.19	28.27	91.60	0.50	15.14	131.82	17.59	875.00	420.92	0.12	0.03
1560	38.46	3	SLE F	c	13	56	20.00	-3132.05	28.27	91.60	0.50	15.14	131.82	17.59	875.00	428.01	0.12	0.03
1599	39.62	4	SLE Q	h	13	56	135.86	1706.88	26.50	28.00	0.50	17.53	95.31	4.68	112.99	274.83	0.08	0.01
1609	39.62	3	SLE F	h	13	56	135.86	1798.37	26.50	28.00	0.50	17.53	95.31	4.68	112.99	289.56	0.08	0.01
1640	41.29	4	SLE Q	a	13	56	303.00	-2705.32	28.33	114.50	0.50	15.40	149.51	14.51	875.00	444.76	0.13	0.03
1655	41.29	3	SLE F	a	13	56	303.00	-2822.96	28.33	114.50	0.50	15.40	149.51	14.51	875.00	464.10	0.14	0.03

Stato limite ultimo - Verifiche a taglio

CC	X0 <m>	X1 <m>	Lung. <m>	In	Staff.	AfE St. <cmq/m>	bw <m>	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Vrdu <daN>	Sic.
1 SLU	0.12	0.64	0.52	g	ø8/10 2 br.	10.05	0.30	6904.22	1.90	24957.10	24957.10	24957.10	3.615
1 SLU	0.64	2.53	1.89	b	ø8/10 2 br.	10.05	0.30	5065.10	1.90	24957.10	24957.10	24957.10	4.927
1 SLU	2.53	3.05	0.52	b	ø8/10 2 br.	10.05	0.30	7488.67	1.90	24957.10	24957.10	24957.10	3.333
1 SLU	3.45	3.97	0.52	b	ø8/10 2 br.	10.05	0.30	6881.97	1.90	24957.10	24957.10	24957.10	3.626
1 SLU	3.97	5.78	1.81	b	ø8/10 2 br.	10.05	0.30	4458.39	1.90	24957.10	24957.10	24957.10	5.598
1 SLU	5.78	6.30	0.52	g	ø8/10 2 br.	10.05	0.30	6844.96	1.90	24957.10	24957.10	24957.10	3.646
1 SLU	6.70	7.22	0.52	b	ø8/10 2 br.	10.05	0.30	7489.34	1.90	24957.10	24957.10	24957.10	3.332
1 SLU	7.22	8.98	1.76	b	ø8/10 2 br.	10.05	0.30	5065.76	1.90	24957.10	24957.10	24957.10	4.927
1 SLU	8.98	9.50	0.52	g	ø8/10 2 br.	10.05	0.30	5921.45	1.90	24957.10	24957.10	24957.10	4.215
1 SLU	9.90	10.42	0.52	b	ø8/10 2 br.	10.05	0.30	2084.19	1.90	24957.10	24957.10	24957.10	11.975
1 SLU	10.42	11.98	1.56	b	ø8/10 2 br.	10.05	0.30	1359.24	1.90	24957.10	24957.10	24957.10	18.361
1 SLU	11.98	12.50	0.52	f	ø8/10 2 br.	10.05	0.30	1659.83	1.90	24957.10	24957.10	24957.10	15.036
1 SLU	12.90	13.42	0.52	a	ø8/10 2 br.	10.05	0.30	6163.57	1.90	24957.10	24957.10	24957.10	4.049
1 SLU	13.42	15.16	1.74	e	ø8/10 2 br.	10.05	0.30	4882.81	1.90	24957.10	24957.10	24957.10	5.111
1 SLU	15.16	15.68	0.52	e	ø8/10 2 br.	10.05	0.30	7306.40	1.90	24957.10	24957.10	24957.10	3.416
1 SLU	16.08	16.60	0.52	c	ø8/10 2 br.	10.05	0.30	7156.83	1.90	24957.10	24957.10	24957.10	3.487
1 SLU	16.60	18.41	1.81	c	ø8/10 2 br.	10.05	0.30	4733.25	1.90	24957.10	24957.10	24957.10	5.273
1 SLU	18.41	18.93	0.52	a	ø8/10 2 br.	10.05	0.30	6290.67	1.90	24957.10	24957.10	24957.10	3.967
1 SLU	19.33	19.85	0.52	a	ø8/10 2 br.	10.05	0.30	7022.03	1.90	24957.10	24957.10	24957.10	3.554
1 SLU	19.85	21.66	1.81	g	ø8/10 2 br.	10.05	0.30	4670.03	1.90	24957.10	24957.10	24957.10	5.344
1 SLU	21.66	22.18	0.52	g	ø8/10 2 br.	10.05	0.30	7093.61	1.90	24957.10	24957.10	24957.10	3.518
1 SLU	22.58	23.10	0.52	a	ø8/10 2 br.	10.05	0.30	6922.45	1.90	24957.10	24957.10	24957.10	3.605
1 SLU	23.10	24.91	1.81	a	ø8/10 2 br.	10.05	0.30	4498.87	1.90	24957.10	24957.10	24957.10	5.547
1 SLU	24.91	25.43	0.52	g	ø8/10 2 br.	10.05	0.30	6626.52	1.90	24957.10	24957.10	24957.10	3.766
1 SLU	25.83	26.35	0.52	c	ø8/10 2 br.	10.05	0.30	6920.48	1.90	24957.10	24957.10	24957.10	3.606
1 SLU	26.35	28.16	1.81	c	ø8/10 2 br.	10.05	0.30	4496.90	1.90	24957.10	24957.10	24957.10	5.550
1 SLU	28.16	28.68	0.52	e	ø8/10 2 br.	10.05	0.30	6532.27	1.90	24957.10	24957.10	24957.10	3.821
1 SLU	29.08	29.60	0.52	b	ø8/10 2 br.	10.05	0.30	7656.80	1.90	24957.10	24957.10	24957.10	3.259
1 SLU	29.60	31.41	1.81	b	ø8/10 2 br.	10.05	0.30	5233.22	1.90	24957.10	24957.10	24957.10	4.769
1 SLU	31.41	31.93	0.52	g	ø8/10 2 br.	10.05	0.30	5927.23	1.90	24957.10	24957.10	24957.10	4.211
1 SLU	32.33	32.85	0.52	c	ø8/10 2 br.	10.05	0.30	2397.81	1.90	24957.10	24957.10	24957.10	10.408
1 SLU	32.85	34.31	1.46	c	ø8/10 2 br.	10.05	0.30	1672.86	1.90	24957.10	24957.10	24957.10	14.919
1 SLU	34.31	34.83	0.52	a	ø8/10 2 br.	10.05	0.30	1661.17	1.90	24957.10	24957.10	24957.10	15.024
1 SLU	35.23	35.75	0.52	a	ø8/10 2 br.	10.05	0.30	6925.22	1.90	24957.10	24957.10	24957.10	3.604
1 SLU	35.75	37.54	1.79	c	ø8/10 2 br.	10.05	0.30	7274.22	1.90	24957.10	24957.10	24957.10	3.431
1 SLU	37.54	38.06	0.52	c	ø8/10 2 br.	10.05	0.30	9697.80	1.90	24957.10	24957.10	24957.10	2.573
1 SLU	38.46	38.98	0.52	c	ø8/10 2 br.	10.05	0.30	7818.69	1.90	24957.10	24957.10	24957.10	3.192
1 SLU	38.98	40.77	1.79	c	ø8/10 2 br.	10.05	0.30	5395.11	1.90	24957.10	24957.10	24957.10	4.626
1 SLU	40.77	41.29	0.52	a	ø8/10 2 br.	10.05	0.30	7780.50	1.90	24957.10	24957.10	24957.10	3.208

Verifiche e armature pilastri

Simbologia

$\Delta_{sm}$	=Distanza media tra le fessure
$\Delta\%$	=Incremento percentuale sicurezza
$\Phi_{eq}$	=Diametro equivalente delle barre
$\varepsilon_{sm}$	=Deformazione unitaria media dell'armatura (*1000)
$\varepsilon_{0i}$	=Deformazione iniziale inferiore (*1000)
$\varepsilon_{0s}$	=Deformazione iniziale superiore (*1000)
$\lambda$	=Snellezza massima
$\lambda^*$	=Snellezza limite
$\mu\Phi_y$	=Valore di progetto della duttilità di curvatura in dir. Y locale
$\mu\Phi_z$	=Valore di progetto della duttilità di curvatura in dir. Z locale
$\mu\Phi_d$	=Domanda della duttilità di curvatura
$\sigma_c$	=Tensione nel calcestruzzo
$\sigma_f$	=Tensione nel ferro
$\sigma_s$	=Tensione nell'acciaio nella sezione fessurata
$A_{c\ eff}$	=Area di calcestruzzo efficace
$A_s$	=Area complessiva dei ferri nell'area di calcestruzzo efficace
$A_fC$	=Area di ferro compressa
$A_fT$	=Area di ferro tesa
B	=Base
$Br_y$	=Numero bracci in dir. Y locale
$Br_z$	=Numero bracci in dir. Z locale
CC	=Combinazione delle condizioni di carico elementari e = eccentricità aggiuntiva in caso di compressione o pressoflessione $\alpha$ = amplificazione per gerarchia delle resistenze TG = taglio da gerarchia delle resistenze
Cf	=Copriferro
El	=Elemento (asta) in cui viene effettuato il progetto/verifica (progressivo sul numero di aste)
Fcd	=Resistenza di calcolo a compressione del calcestruzzo
Fcd (Tag)	=Resistenza di calcolo a compressione del calcestruzzo per verifica a taglio
Fck	=Resistenza caratteristica cilindrica a compressione del calcestruzzo
Fcm	=Resistenza media
Fctd	=Resistenza di calcolo a trazione del calcestruzzo
Fctm	=Resistenza media a trazione
Fyd	=Resistenza di calcolo dell'acciaio



## Relazione di calcolo

Fyd (Tag) = Resistenza di calcolo dell'acciaio per verifica a taglio  
Fyk = Tensione caratteristica di snervamento dell'acciaio  
Fym = Tensione media di snervamento  
H = Altezza  
K<sub>s</sub> = Coefficiente per distribuzione deformazioni  
M'ydy,s = Momento resistente massimo in campo sostanzialmente elastico (ridotto per stabilità) intorno all'asse Y  
M'ydz,s = Momento resistente massimo in campo sostanzialmente elastico (ridotto per stabilità) intorno all'asse Z  
MRdy = Momento resistente allo stato limite ultimo intorno all'asse Y  
MRdy,s = Momento resistente allo stato limite ultimo (ridotto per stabilità) intorno all'asse Y  
MRdz = Momento resistente allo stato limite ultimo intorno all'asse Z  
MRdz,s = Momento resistente allo stato limite ultimo (ridotto per stabilità) intorno all'asse Z  
My = Momento flettente intorno all'asse Y  
My ver. = Momento flettente di verifica intorno all'asse Y  
Mz = Momento flettente intorno all'asse Z  
Mz ver. = Momento flettente di verifica intorno all'asse Z  
N = Sforzo normale  
Nu = Sforzo normale ultimo  
Sez. = Numero della sezione  
Sic. = Sicurezza  
StCam. = Staffatura incamiciatura  
Staff. = Staffatura adottata  
TCC = Tipo di combinazione di carico  
SLU = Stato limite ultimo  
SLE R = Stato limite d'esercizio, combinazione rara  
SLE F = Stato limite d'esercizio, combinazione frequente  
SLE Q = Stato limite d'esercizio, combinazione quasi permanente  
Tipo = Tipologia  
2I = Doppia I  
L = Sezione a L  
Ldx = L destra  
R = Rettangolare  
Rc = Rettangolare cava  
T = Sezione a T  
VRcd,y = Taglio ultimo lato calcestruzzo in dir. Y  
VRcd,z = Taglio ultimo lato calcestruzzo in dir. Z  
VRsd,y = Taglio ultimo lato armatura in dir. Y  
VRsd,z = Taglio ultimo lato armatura in dir. Z  
VRsdCam,y = Taglio ultimo lato armatura camicia in dir. Y  
VRsdCam,z = Taglio ultimo lato armatura camicia in dir. Z  
Vrd,y = Taglio resistente in dir. Y  
Vrd,z = Taglio resistente in dir. Z  
Vsdu,y = Taglio agente in dir. Y  
Vsdu,z = Taglio agente in dir. Z  
Wk = Ampiezza caratteristica delle fessure  
X = Coordinata progressiva rispetto al nodo iniziale  
X0 = Coordinata progressiva (dal nodo iniziale) dell'inizio del tratto  
X1 = Coordinata progressiva (dal nodo iniziale) della fine del tratto  
Xg = Coordinata progressiva (dal primo nodo) in cui viene effettuato il progetto/verifica  
bw,y = Larghezza membratura resistente al taglio in dir. Y  
bw,z = Larghezza membratura resistente al taglio in dir. Z  
c = Ricoprimento dell'armatura  
ctgθ,y = Cotangente dell'angolo di inclinazione dei puntoni di calcestruzzo in dir. Y  
ctgθ,z = Cotangente dell'angolo di inclinazione dei puntoni di calcestruzzo in dir. Z  
d,y = Altezza utile per resistenza al taglio in dir. Y  
d,z = Altezza utile per resistenza al taglio in dir. Z  
esp. = Esponente per verifiche secondo [4.1.19]  
l<sub>0</sub> = Lunghezza libera di inflessione  
s = Distanza massima tra le barre

### Pilastrata n. 7

Nodi: 7 307 507 707 907 1107 1307 1507 1707 1907

#### Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
	59R	25.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	9R	25.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

#### Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
45.00	70.00	249.00	141.10	4500.00	3913.04
45.00	55.00	249.00	141.10	4500.00	3913.04

#### Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	59	0.00	-91925.20	1277.17	1838.50	993.02	1838.50	-625981.00	61824.80	36516.70	1.04	6.810	191.07
0.00	1(e)	SLU	1	59	0.00	-91925.20	1277.17	1838.50	993.02	1838.50	-625981.00	61824.80	36516.70	1.04	6.810	191.07
3.00	1(e)	SLU	1	59	300.00	-88853.90	131.04	1777.08	-1608.99	-1777.08	-625981.00	61436.60	-36329.20	1.03	7.045	191.07
3.50	1(e)	SLU	2	9	0.00	-78687.50	1072.76	1573.75	3017.47	3017.47	-530738.00	43122.10	33340.90	1.04	6.745	483.79
3.50	1(e)	SLU	2	9	0.00	-78687.50	1072.76	1573.75	3017.47	3017.47	-529837.00	43075.20	33284.70	1.04	6.733	491.84
6.00	1(e)	SLU	2	9	250.00	-76676.60	-321.91	-1533.53	-3117.37	-3117.37	-529837.00	-42901.10	-33201.60	1.04	6.910	517.83
15.50	1(e)	SLU	6	9	0.00	-39580.20	181.66	791.60	870.60	870.60	-159844.00	8972.57	5263.50	1.12	4.038	---
15.50	1(e)	SLU	6	9	0.00	-39580.20	181.66	791.60	870.60	870.60	-148812.00	7549.42	5102.38	1.14	3.760	---
18.00	1(e)	SLU	6	9	250.00	-38869.20	-149.68	-777.38	-777.22	-777.38	-148812.00	-7504.66	-5069.61	1.13	3.829	---
18.50	1(e)	SLU	7	9	0.00	-30116.20	169.96	602.33	1149.49	1149.49	-30116.30	6829.81	4555.54	1.09	3.378	---
18.50	1(e)	SLU	7	9	0.00	-30116.20	169.96	602.33	1149.49	1149.49	-30116.30	6829.81	4555.54	1.09	3.378	---
21.00	1(e)	SLU	7	9	250.00	-29405.30	-110.37	-588.11	-974.74	-974.74	-29406.60	-6764.67	-4508.78	1.08	3.815	---
21.50	1(e)	SLU	8	9	0.00	-20095.20	235.68	401.90	1391.02	1391.02	-20097.40	5757.90	3845.05	1.03	2.405	---
21.50	1(e)	SLU	8	9	0.00	-20095.20	235.68	401.90	1391.02	1391.02	-20097.40	5757.90	3845.05	1.03	2.405	---
24.00	1(e)	SLU	8	9	250.00	-19384.30	-175.72	-387.69	-1130.54	-1130.54	-19387.10	-5673.45	-3790.55	1.03	2.832	---
24.50	1	SLU	9	9	0.00	-9685.41	298.53	298.53	1568.22	1568.22	-9687.06	4468.13	3021.02	1.00	1.707	---
24.50	1	SLU	9	9	0.00	-9685.41	298.53	298.53	1568.22	1568.22	-9687.06	4468.13	3021.02	1.00	1.707	---
27.00	1(e)	SLU	9	9	250.00	-8974.47	-0.41	-179.49	-1302.14	-1302.14	-8975.91	-4376.36	-2962.94	1.00	2.081	---

#### Dati per verifiche di stabilità

Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*
-----------	----	-----------------------	---	----	-----------	----	-----------------------	---	----	-----------	----	-----------------------	---	----	-----------	----	-----------------------	---	----



Relazione di calcolo

---	1	3.50	26.94	67.90	---	1	3.50	26.94	67.90	---	1	3.50	26.94	67.90	---	2	3.00	23.09	64.92
---	2	3.00	23.09	64.92	---	2	3.00	23.09	64.92	---	3	3.00	41.57	34.68	---	3	3.00	41.57	34.68
---	3	3.00	41.57	34.68	---	4	3.00	41.57	37.33	---	4	3.00	41.57	37.33	---	4	3.00	41.57	37.33
---	5	3.00	41.57	40.54	---	5	3.00	41.57	40.54	---	5	3.00	41.57	40.54					

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdy,s <daNm>	MRdz <daNm>	MRdz,s <daNm>	esp.	Sic.	Δ%
6.501	(e)	SLU	3	9	0.00	-66209.40	421.07	1324.19	656.77	1324.19	-159844.00	9280.39	8257.97	5400.09	4029.66	1.26	2.414	---
6.501	(e)	SLU	3	9	0.00	-66209.40	421.07	1324.19	656.77	1324.19	-159844.00	9280.39	8257.97	5400.09	4029.66	1.26	2.414	---
9.001	(e)	SLU	3	9	250.00	-65498.40	-304.30	-1309.97	-560.08	-1309.97	-159844.00	-9321.23	-8353.04	-5414.65	-4045.09	1.26	2.440	---
9.501	(e)	SLU	4	9	0.00	-57203.20	535.37	1144.06	673.40	1144.06	-159844.00	9636.17	8764.85	5557.92	4244.70	1.21	2.794	---
9.501	(e)	SLU	4	9	0.00	-57203.20	535.37	1144.06	673.40	1144.06	-159844.00	9636.17	8764.85	5557.92	4244.70	1.21	2.794	---
12.001	(e)	SLU	4	9	250.00	-56492.30	-389.57	-1129.85	-458.30	-1129.85	-159844.00	-9626.95	-8769.80	-5551.29	-4264.66	1.21	2.829	---
12.501	(e)	SLU	5	9	0.00	-48550.40	311.57	971.01	611.88	971.01	-159844.00	9420.53	8690.98	5443.97	4399.41	1.17	3.292	---
12.501	(e)	SLU	5	9	0.00	-48550.40	311.57	971.01	611.88	971.01	-159844.00	9420.53	8690.98	5443.97	4399.41	1.17	3.292	---
15.001	(e)	SLU	5	9	250.00	-47839.40	-198.02	-956.79	-545.19	-956.79	-159844.00	-9393.59	-8672.29	-5431.72	-4400.69	1.17	3.341	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>f</sub>	
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>	
0.00	2	SLE	R	1	59	0.00	-66401.50	705.22	957.85	0.00	47.19	21.58	311.97
0.00	4	SLE	Q	1	59	0.00	-59816.50	618.63	786.29	0.00	47.19	19.23	278.33
0.00	2	SLE	R	1	59	0.00	-66401.50	705.22	957.85	0.00	47.19	21.58	311.97
0.00	4	SLE	Q	1	59	0.00	-59816.50	618.63	786.29	0.00	47.19	19.23	278.33
3.00	2	SLE	R	1	59	300.00	-64039.00	-1141.90	86.88	0.00	47.19	20.67	297.18
3.00	4	SLE	Q	1	59	300.00	-57454.00	-1001.66	-2.84	0.00	47.19	18.31	263.71
3.50	2	SLE	R	2	9	0.00	-56732.70	2142.59	811.15	0.00	47.19	29.26	403.86
3.50	4	SLE	Q	2	9	0.00	-50851.80	1867.26	710.60	0.00	47.19	25.96	358.75
3.50	2	SLE	R	2	9	0.00	-56732.70	2142.59	811.15	0.00	46.94	29.29	404.23
3.50	4	SLE	Q	2	9	0.00	-50851.80	1867.26	710.60	0.00	46.94	25.98	359.08
6.00	2	SLE	R	2	9	250.00	-55185.80	-2214.99	-253.51	0.00	46.94	27.30	378.11
6.00	4	SLE	Q	2	9	250.00	-49304.90	-1918.63	-281.36	0.00	46.94	24.32	337.09
6.50	2	SLE	R	3	9	0.00	-47670.60	465.19	319.40	0.00	9.24	63.33	867.88
6.50	4	SLE	Q	3	9	0.00	-42560.90	396.39	280.86	0.00	9.24	56.02	769.74
6.50	2	SLE	R	3	9	0.00	-47670.60	465.19	319.40	0.00	9.24	63.33	867.88
6.50	4	SLE	Q	3	9	0.00	-42560.90	396.39	280.86	0.00	9.24	56.02	769.74
9.00	2	SLE	R	3	9	250.00	-47123.70	-395.56	-233.03	0.00	9.24	59.75	828.84
9.00	4	SLE	Q	3	9	250.00	-42014.10	-333.30	-219.60	0.00	9.24	52.99	736.53
9.50	2	SLE	R	4	9	0.00	-41176.20	472.84	409.66	0.00	9.24	58.52	789.07
9.50	4	SLE	Q	4	9	0.00	-36699.10	391.20	371.32	0.00	9.24	51.52	697.37
9.50	2	SLE	R	4	9	0.00	-41176.20	472.84	409.66	0.00	9.24	58.52	789.07
9.50	4	SLE	Q	4	9	0.00	-36699.10	391.20	371.32	0.00	9.24	51.52	697.37
12.00	2	SLE	R	4	9	250.00	-40629.30	-320.23	-297.10	0.00	9.24	52.51	726.37
12.00	4	SLE	Q	4	9	250.00	-36152.30	-260.56	-270.17	0.00	9.24	46.22	641.70
12.50	2	SLE	R	5	9	0.00	-34940.10	426.79	247.37	0.00	9.24	48.72	658.21
12.50	4	SLE	Q	5	9	0.00	-31074.90	344.33	237.95	0.00	9.24	42.75	580.35
12.50	2	SLE	R	5	9	0.00	-34940.10	426.79	247.37	0.00	9.24	48.72	658.21
12.50	4	SLE	Q	5	9	0.00	-31074.90	344.33	237.95	0.00	9.24	42.75	580.35
15.00	2	SLE	R	5	9	250.00	-34393.20	-380.96	-159.09	0.00	9.24	45.69	624.33
15.00	4	SLE	Q	5	9	250.00	-30528.00	-309.43	-161.29	0.00	9.24	40.17	551.00
15.50	2	SLE	R	6	9	0.00	-28480.10	609.48	153.54	0.00	9.24	45.33	588.62
15.50	4	SLE	Q	6	9	0.00	-25242.10	497.99	163.03	0.00	9.24	39.57	516.59
15.50	2	SLE	R	6	9	0.00	-28480.10	609.48	153.54	0.00	6.16	46.85	610.68
15.50	4	SLE	Q	6	9	0.00	-25242.10	497.99	163.03	0.00	6.16	40.94	536.49
18.00	2	SLE	R	6	9	250.00	-27933.20	-545.05	-124.64	0.00	6.16	44.23	581.98
18.00	4	SLE	Q	6	9	250.00	-24695.20	-446.50	-131.58	0.00	6.16	38.60	510.31
18.50	2	SLE	R	7	9	0.00	-21670.10	809.73	145.22	0.00	6.16	44.54	549.76
18.50	4	SLE	Q	7	9	0.00	-19110.50	668.34	155.04	0.00	6.16	38.62	479.25
18.50	2	SLE	R	7	9	0.00	-21670.10	809.73	145.22	0.00	6.16	44.54	549.76
18.50	4	SLE	Q	7	9	0.00	-19110.50	668.34	155.04	0.00	6.16	38.62	479.25
21.00	2	SLE	R	7	9	250.00	-21123.20	-687.05	-96.62	0.00	6.16	40.18	503.99
21.00	4	SLE	Q	7	9	250.00	-18563.60	-566.88	-108.16	0.00	6.16	34.80	438.69
21.50	2	SLE	R	8	9	0.00	-14463.00	981.31	191.45	3.08	3.08	45.75	511.94
21.50	4	SLE	Q	8	9	0.00	-12648.90	809.37	188.03	1.54	4.62	38.48	436.47
21.50	2	SLE	R	8	9	0.00	-14463.00	981.31	191.45	3.08	3.08	45.75	511.94
21.50	4	SLE	Q	8	9	0.00	-12648.90	809.37	188.03	1.54	4.62	38.48	436.47
24.00	2	SLE	R	8	9	250.00	-13916.10	-797.81	-141.82	1.54	4.62	37.48	435.97
24.00	4	SLE	Q	8	9	250.00	-12102.10	-657.97	-134.10	1.54	4.62	31.60	370.83
24.50	2	SLE	R	9	9	0.00	-6979.31	1107.39	239.83	3.08	3.08	59.84	991.69
24.50	4	SLE	Q	9	9	0.00	-5964.68	901.50	242.45	3.08	3.08	50.03	789.27
24.50	2	SLE	R	9	9	0.00	-6979.31	1107.39	239.83	3.08	3.08	59.84	991.69
24.50	4	SLE	Q	9	9	0.00	-5964.68	901.50	242.45	3.08	3.08	50.03	789.27
27.00	2	SLE	R	9	9	250.00	-6432.43	-919.64	-26.18	3.08	3.08	43.05	664.53
27.00	4	SLE	Q	9	9	250.00	-5417.81	-739.93	-84.76	3.08	3.08	36.56	528.35

Stato limite d'esercizio - Verifiche a fessurazione

Xg <m>	CC	TCC	El	Sez .	X <cm>	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cm <sup>2</sup> >	ε <sub>sm</sub>	Wk <mm>	
24.50	4	SLE	Q	9	9	0.00	-5964.68	242.45	901.50	39.00	258.00	0.50	14.00	199.00	1.54	133.05	789.27	0.23	0.08



Relazione di calcolo

24.50	3	SLE F	9	9	0.00	-6228.66	241.86	958.65	39.00	258.00	0.50	14.00	202.71	1.54	137.12	847.87	0.25	0.09
24.50	4	SLE Q	9	9	0.00	-5964.68	242.45	901.50	39.00	258.00	0.50	14.00	199.00	1.54	133.05	789.27	0.23	0.08
24.50	3	SLE F	9	9	0.00	-6228.66	241.86	958.65	39.00	258.00	0.50	14.00	202.71	1.54	137.12	847.87	0.25	0.09
27.00	4	SLE Q	9	9	250.00	-5417.81	-84.76	-739.93	39.00	258.00	0.50	14.00	215.65	1.54	151.35	528.35	0.15	0.06
27.00	3	SLE F	9	9	250.00	-5681.79	-68.08	-789.09	39.00	258.00	0.50	14.00	221.32	1.54	157.59	566.93	0.17	0.06

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <m>	d <sub>y</sub> <m>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <m>	d <sub>z</sub> <m>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	Sic
0.00	0.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.40	867.34	2.50	0.00	35581.40	74354.80	32023.30	0.45	0.65	382.04	2.50	0.00	57709.10	77525.50	51938.20	36.9
0.50	2.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.40	867.34	2.50	0.00	35581.40	74283.80	32023.30	0.45	0.65	382.04	2.50	0.00	57709.10	77451.60	51938.20	36.9
2.50	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.40	867.34	2.50	0.00	35581.40	74000.00	32023.30	0.45	0.65	382.04	2.50	0.00	57709.10	77155.60	51938.20	36.9
3.50	3.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.40	2453.94	2.50	0.00	35581.40	59317.20	32023.30	0.45	0.50	557.87	2.50	0.00	44432.50	60604.90	39989.30	13.0
3.95	5.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.40	2453.94	2.50	0.00	35581.40	59267.00	32023.30	0.45	0.50	557.87	2.50	0.00	44432.50	60553.70	39989.30	13.0
5.55	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.40	2453.94	2.50	0.00	35581.40	59088.60	32023.30	0.45	0.50	557.87	2.50	0.00	44432.50	60371.40	39989.30	13.0
6.50	6.95	ø6/15	2	2	---	1	SLU	0.35	0.20	486.74	2.50	5312.50	---	5704.25	5312.50	0.25	0.30	290.15	2.14	6795.68	---	6795.68	6795.68	10.9
6.95	8.55	ø6/15	2	2	---	1	SLU	0.35	0.20	486.74	2.50	5312.50	---	5744.16	5312.50	0.25	0.30	290.15	2.14	6824.61	---	6824.61	6824.61	10.9
8.55	9.00	ø6/15	2	2	---	1	SLU	0.35	0.20	486.74	2.50	5312.50	---	5886.08	5312.50	0.25	0.30	290.15	2.18	6926.48	---	6926.48	6926.48	10.9
9.50	9.95	ø6/15	2	2	---	1	SLU	0.35	0.20	452.68	2.50	5312.50	---	8513.22	5312.50	0.25	0.30	369.98	2.50	7955.54	---	9106.18	7955.54	11.7
9.95	11.55	ø6/15	2	2	---	1	SLU	0.35	0.20	452.68	2.50	5312.50	---	8553.14	5312.50	0.25	0.30	369.98	2.50	7955.54	---	9148.88	7955.54	11.7
11.55	12.00	ø6/15	2	2	---	1	SLU	0.35	0.20	452.68	2.50	5312.50	---	8695.05	5312.50	0.25	0.30	369.98	2.50	7955.54	---	9300.67	7955.54	11.7
12.50	12.95	ø6/15	2	2	---	1	SLU	0.35	0.20	462.83	2.50	5312.50	---	11212.00	5312.50	0.25	0.30	203.84	2.50	7955.54	---	11993.00	7955.54	11.4
12.95	14.55	ø6/15	2	2	---	1	SLU	0.35	0.20	462.83	2.50	5312.50	---	11251.90	5312.50	0.25	0.30	203.84	2.50	7955.54	---	12035.70	7955.54	11.4
14.55	15.00	ø6/15	2	2	---	1	SLU	0.35	0.20	462.83	2.50	5312.50	---	11393.80	5312.50	0.25	0.30	203.84	2.50	7955.54	---	12187.50	7955.54	11.4
15.50	15.95	ø6/15	2	2	---	1	SLU	0.35	0.20	659.13	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	132.54	2.50	7955.54	---	14095.20	7955.54	8.0
15.95	17.55	ø6/15	2	2	---	1	SLU	0.35	0.20	659.13	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	132.54	2.50	7955.54	---	14095.20	7955.54	8.0
17.55	18.00	ø6/15	2	2	---	1	SLU	0.35	0.20	659.13	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	132.54	2.50	7955.54	---	14095.20	7955.54	8.0
18.50	18.95	ø6/15	2	2	---	1	SLU	0.35	0.20	849.69	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	112.13	2.50	7955.54	---	14095.20	7955.54	6.2
18.95	20.55	ø6/15	2	2	---	1	SLU	0.35	0.20	849.69	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	112.13	2.50	7955.54	---	14095.20	7955.54	6.2
20.55	21.00	ø6/15	2	2	---	1	SLU	0.35	0.20	849.69	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	112.13	2.50	7955.54	---	14095.20	7955.54	6.2
21.50	21.95	ø6/15	2	2	---	1	SLU	0.35	0.20	1008.62	2.50	5312.50	---	13048.90	5312.50	0.25	0.30	164.56	2.50	7955.54	---	13957.80	7955.54	5.2
21.95	23.55	ø6/15	2	2	---	1	SLU	0.35	0.20	1008.62	2.50	5312.50	---	13033.00	5312.50	0.25	0.30	164.56	2.50	7955.54	---	13940.70	7955.54	5.2
23.55	24.00	ø6/15	2	2	---	1	SLU	0.35	0.20	1008.62	2.50	5312.50	---	12976.20	5312.50	0.25	0.30	164.56	2.50	7955.54	---	13880.00	7955.54	5.2
24.50	24.95	ø6/15	2	2	---	1	SLU	0.35	0.20	1148.14	2.50	5312.50	---	11750.20	5312.50	0.25	0.30	119.58	2.50	7955.54	---	12568.60	7955.54	4.6
24.95	26.55	ø6/15	2	2	---	1	SLU	0.35	0.20	1148.14	2.50	5312.50	---	11734.30	5312.50	0.25	0.30	119.58	2.50	7955.54	---	12551.60	7955.54	4.6
26.55	27.00	ø6/15	2	2	---	1	SLU	0.35	0.20	1148.14	2.50	5312.50	---	11677.50	5312.50	0.25	0.30	119.58	2.50	7955.54	---	12490.90	7955.54	4.6

Pilastrata n. 8

Nodi: 8 308 508 708 908 1108 1308 1508 1708 1908

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
1	R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X <cm>	N <daNm>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%	
0.00	1	(e)	SLU	1	1	0.00	-215321.00	80.40	4306.41	690.87	4306.41	-797776.00	79971.70	66880.40	1.14	3.705	129.68
0.00	1	(e)	SLU	1	1	0.00	-215321.00	80.40	4306.41	690.87	4306.41	-797776.00	79971.70	66880.40	1.14	3.705	129.68
3.00	1	(e)	SLU	1	1	300.00	-211226.00	3004.74	4224.51	-1170.75	-4224.51	-797776.00	79811.40	-66716.80	1.14	3.777	129.68
3.50	1	(e)	SLU	2	10	0.00	-189774.00	-984.28	-3795.47	1439.05	3795.47	-670786.00	-53412.40	59628.20	1.15	3.535	157.57
3.50	1	(e)	SLU	2	10	0.00	-189774.00	-984.28	-3795.47	1439.05	3795.47	-670786.00	-53412.40	59628.20	1.15	3.535	157.57
6.00	1	(e)	SLU	2	10	250.00	-187092.00	2138.96	3741.85	-1304.03	-3741.85	-670786.00	53400.40	-59567.90	1.15	3.585	157.57
6.50	1	(e)	SLU	3	10	0.00	-166247.00	-1610.00	-3324.93	2163.39	3324.93	-670786.00	-52930.70	58913.70	1.12	4.035	157.57
6.50	1	(e)	SLU	3	10	0.00	-166247.00	-1610.00	-3324.93	2163.39	3324.93	-670786.00	-52930.70	58913.70	1.12	4.035	157.57
9.00	1	(e)	SLU	3	10	250.00	-163565.00	1776.96	3271.31	-994.49	-3271.31	-670786.00	52840.50	-58814.50	1.12	4.101	157.57
9.50	1	(e)	SLU	4	10	0.00	-140222.00	-1786.09	-2804.44	852.57	2804.44	-670786.00	-51989.50	57873.90	1.09	4.784	157.57
9.50	1	(e)	SLU	4	10	0.00	-140222.00	-1786.09	-2804.44	852.57	2804.44	-656377.00	-51795.60	55982.60	1.09	4.681	166.79
12.00	1	(e)	SLU	4	10	250.00	-137541.00	1955.18	2750.81	-562.07	-2750.81	-656377.00	51676.60	-55873.20	1.09	4.772	166.79
12.50	1	(e)	SLU	5	10	0.00	-113985.00	-1468.85	-2279.70	342.39	2279.70	-246024.00	-13182.30	13746.00	1.30	2.158	---
12.50	1	(e)	SLU	5	10	0.00	-113985.00	-1468.85	-2279.70	342.39	2279.70	-246024.00	-13182.30	13746.00	1.30	2.158	---
15.00	1	(e)	SLU	5	10	250.00	-112847.00	1533.95	2256.95	-429.34	-2256.95	-246024.00	13244.10	-13795.90	1.30	2.180	---
18.50	1	(e)	SLU	7	7	0.00	-66237.30	-1950.88	-1950.88	698.51	1324.75	-180916.00	-10091.90	8456.48	1.22	2.731	---
18.50	1	(e)	SLU	7	7	0.00	-66237.30	-1950.88	-1950.88	698.51	1324.75	-180916.00	-10091.90	8456.48	1.22	2.731	---
21.00	1	(e)	SLU	7	7	250.00	-65384.20	1469.63	1469.63	-573.05	-1307.68	-180916.00	10075.10	-8442.06	1.22	2.767	---
21.50	1	(e)	SLU	8	7	0.00	-43768.10	-1931.12	-1931.12	878.66	878.66	-43770.80	-9082.32	7591.69	1.12	3.749	---
21.50	1	(e)	SLU	8	7	0.00	-43768.10	-1931.12	-1931.12	878.66	878.66	-43770.80	-9082.32	7591.69	1.12	3.749	---
24.00	1	(e)	SLU	8	7	250.00	-42915.00	1373.82	1373.82	-700.84	-858.30	-174161.00	8178.52	-6864.63	1.12	4.058	---
24.50	1	(e)	SLU	9	7	0.00	-21869.40	-2067.81	-2067.81	974.05	974.05	-21873.70	-6077.63	5075.80	1.02	1.931	---
24.50	1	(e)	SLU	9	7	0.00	-21869.40	-2067.81	-2067.81	974.05	974.05	-21873.70	-6077.63	5075.80	1.02	1.931	---
27.00	1	(e)	SLU	9	7	250.00	-21016.30	2381.91	2381.91	-760.45	-760.45	-21018.50	5974.05	-4991.15	1.02	1.852	---



Relazione di calcolo

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdy,s <daNm>	MRdz <daNm>	MRdz,s <daNm>	esp.	Sic.	Δ%
15.50	1(e)	SLU	6	7	0.00	-89825.40	-1759.92	-1796.51	432.23	1796.51	-195325.00	-10880.60	-9637.52	7975.43	6492.94	1.30	2.175	---
15.50	1(e)	SLU	6	7	0.00	-89825.40	-1759.92	-1796.51	432.23	1796.51	-180916.00	-9241.00	-8048.15	7713.52	6315.07	1.33	2.014	---
18.00	1(e)	SLU	6	7	250.00	-88972.20	1333.49	1779.44	-444.66	-1779.44	-180916.00	9287.35	8094.04	-7750.67	-6354.35	1.33	2.033	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE	R	1	1	0.00	-154544.00	497.76	89.10	0.00	53.78	477.00
0.00	4	SLE	Q	1	1	0.00	-134716.00	379.00	89.28	0.00	53.78	414.71
0.00	2	SLE	R	1	1	0.00	-154544.00	497.76	89.10	0.00	53.78	477.00
0.00	4	SLE	Q	1	1	0.00	-134716.00	379.00	89.28	0.00	53.78	414.71
3.00	2	SLE	R	1	1	300.00	-151394.00	-841.63	2186.91	0.00	53.78	520.13
3.00	4	SLE	Q	1	1	300.00	-131566.00	-640.52	1680.89	0.00	53.78	445.17
3.50	2	SLE	R	2	10	0.00	-136086.00	1037.78	-699.69	0.00	53.78	550.01
3.50	4	SLE	Q	2	10	0.00	-118316.00	763.70	-519.17	0.00	53.78	471.25
3.50	2	SLE	R	2	10	0.00	-136086.00	1037.78	-699.69	0.00	53.78	550.01
3.50	4	SLE	Q	2	10	0.00	-118316.00	763.70	-519.17	0.00	53.78	471.25
6.00	2	SLE	R	2	10	250.00	-134024.00	-939.55	1558.77	0.00	53.78	567.05
6.00	4	SLE	Q	2	10	250.00	-116254.00	-707.66	1191.91	0.00	53.78	483.58
6.50	2	SLE	R	3	10	0.00	-119154.00	1554.69	-1148.75	0.00	53.78	517.75
6.50	4	SLE	Q	3	10	0.00	-103391.00	1185.97	-868.40	0.00	53.78	440.35
6.50	2	SLE	R	3	10	0.00	-119154.00	1554.69	-1148.75	0.00	53.78	517.75
6.50	4	SLE	Q	3	10	0.00	-103391.00	1185.97	-868.40	0.00	53.78	440.35
9.00	2	SLE	R	3	10	250.00	-117091.00	-717.57	1293.41	0.00	53.78	490.18
9.00	4	SLE	Q	3	10	250.00	-101329.00	-490.28	969.64	0.00	53.78	415.56
9.50	2	SLE	R	4	10	0.00	-100430.00	613.80	-1275.55	0.00	53.78	425.70
9.50	4	SLE	Q	4	10	0.00	-86888.80	316.44	-968.49	0.00	53.78	357.66
9.50	2	SLE	R	4	10	0.00	-100430.00	613.80	-1275.55	0.00	49.76	431.37
9.50	4	SLE	Q	4	10	0.00	-86888.80	316.44	-968.49	0.00	49.76	362.49
12.00	2	SLE	R	4	10	250.00	-98367.70	-402.18	1414.72	0.00	49.76	421.87
12.00	4	SLE	Q	4	10	250.00	-84826.30	-145.04	1062.38	0.00	49.76	352.74
12.50	2	SLE	R	5	10	0.00	-81552.40	243.31	-1057.19	0.00	12.06	917.37
12.50	4	SLE	Q	5	10	0.00	-70236.10	116.32	-807.47	0.00	12.06	768.66
12.50	2	SLE	R	5	10	0.00	-81552.40	243.31	-1057.19	0.00	12.06	917.37
12.50	4	SLE	Q	5	10	0.00	-70236.10	116.32	-807.47	0.00	12.06	768.66
15.00	2	SLE	R	5	10	250.00	-80677.40	-304.46	1108.46	0.00	12.06	921.31
15.00	4	SLE	Q	5	10	250.00	-69361.10	-166.74	840.95	0.00	12.06	769.47
15.50	2	SLE	R	6	7	0.00	-64266.10	306.02	-1268.83	0.00	12.06	1012.80
15.50	4	SLE	Q	6	7	0.00	-55160.80	192.87	-962.88	0.00	12.06	839.83
15.50	2	SLE	R	6	7	0.00	-64266.10	306.02	-1268.83	0.00	8.04	1067.01
15.50	4	SLE	Q	6	7	0.00	-55160.80	192.87	-962.88	0.00	8.04	884.98
18.00	2	SLE	R	6	7	250.00	-63609.80	-315.52	962.55	0.00	8.04	1013.89
18.00	4	SLE	Q	6	7	250.00	-54504.50	-213.66	727.40	0.00	8.04	844.47
18.50	2	SLE	R	7	7	0.00	-47398.00	500.06	-1409.41	0.00	8.04	904.88
18.50	4	SLE	Q	7	7	0.00	-40477.30	354.36	-1080.20	0.00	8.04	741.83
18.50	2	SLE	R	7	7	0.00	-47398.00	500.06	-1409.41	0.00	8.04	904.88
18.50	4	SLE	Q	7	7	0.00	-40477.30	354.36	-1080.20	0.00	8.04	741.83
21.00	2	SLE	R	7	7	250.00	-46741.70	-410.03	1063.39	0.00	8.04	828.95
21.00	4	SLE	Q	7	7	250.00	-39821.00	-293.71	815.01	0.00	8.04	683.08
21.50	2	SLE	R	8	7	0.00	-31326.00	628.28	-1394.92	0.00	8.04	718.57
21.50	4	SLE	Q	8	7	0.00	-26467.20	456.94	-1066.19	0.00	8.04	577.50
21.50	2	SLE	R	8	7	0.00	-31326.00	628.28	-1394.92	0.00	6.16	742.26
21.50	4	SLE	Q	8	7	0.00	-26467.20	456.94	-1066.19	0.00	6.16	596.20
24.00	2	SLE	R	8	7	250.00	-30669.70	-500.99	994.81	0.00	6.16	647.85
24.00	4	SLE	Q	8	7	250.00	-25810.90	-366.28	767.13	0.00	6.16	524.42
24.50	2	SLE	R	9	7	0.00	-15660.00	696.92	-1494.35	1.54	4.62	632.63
24.50	4	SLE	Q	9	7	0.00	-12790.30	513.97	-1141.60	1.54	4.62	480.28
24.50	2	SLE	R	9	7	0.00	-15660.00	696.92	-1494.35	1.54	4.62	632.63
24.50	4	SLE	Q	9	7	0.00	-12790.30	513.97	-1141.60	1.54	4.62	480.28
27.00	2	SLE	R	9	7	250.00	-15003.70	-544.08	1714.62	3.08	3.08	650.62
27.00	4	SLE	Q	9	7	250.00	-12134.00	-404.58	1283.54	3.08	3.08	487.18

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	620.54	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	974.78	2.50	0.00	57709.10	107066.00	51938.20	5
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	620.54	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	974.78	2.50	0.00	57709.10	107066.00	51938.20	5
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	620.54	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	974.78	2.50	0.00	57709.10	107066.00	51938.20	5
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1097.23	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1249.30	2.50	0.00	44432.50	82434.00	39989.30	3
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1097.23	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1249.30	2.50	0.00	44432.50	82434.00	39989.30	3
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1097.23	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1249.30	2.50	0.00	44432.50	82434.00	39989.30	3
6.50	6.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1263.15	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1354.78	2.50	0.00	44432.50	82434.00	39989.30	2
6.96	8.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1263.15	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1354.78	2.50	0.00	44432.50	82434.00	39989.30	2
8.80	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1263.15	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1354.78	2.50	0.00	44432.50	82434.00	39989.30	2
9.50	9.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	565.86	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1496.51	2.50	0.00	44432.50	82434.00	39989.30	2
9.96	11.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	565.86	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1496.51	2.50	0.00	44432.50	82434.00	39989.30	2
11.80	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	565.86	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1496.51	2.50	0.00	44432.50	82434.00	39989.30	2
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	308.69	2.15	7996.06	---	7996.06	7996.06	0.40	0.30	1201.12	2.33	7428.48	---	7428.48	7428.48	---
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	308.69	2.17	8043.86	---	8043.86	8043.86	0.40	0.30	1201.12	2.35	7471.73	---	7471.73	7471.73	---
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	308.69	2.22	8232.29	---	8232.29	8232.29	0.40	0.30	1201.12	2.40	7642.27	---	7642.27	7642.27	---
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	350.76	1.76	4675.82	---	4675.82	4675.82	0.30	0.30	1237.36	1.59	5050.05	---	5050.05	5050.05	---
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	350.76	1.78	4717.56	---	4717.56	4717.56	0.30	0.30	1237.36	1.60	5097.68	---	5097.68	5097.68	---
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	350.76	1.84	4880.95	---	4880.95	4880.95	0.30	0.30	1237.36	1.66	5283.89	---	5283.89	5283.89	---
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	508.62	2.50	6634.02	---	11412.00	6634.02	0.30	0.30	1368.21	2.50	7955.54	---	11730.30	7955.54	---
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	508.62	2.50	6634.02	---	11463.00	6634.02	0.30	0.30	1368.21	2.50	7955.54	---	11782.70	7955.54	---



Relazione di calcolo

20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	508.62	2.50	6634.02	---	---	11666.80	6634.02	0.30	0.30	1368.21	2.50	7955.54	---	---	11992.20	7955.54
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	631.80	2.50	6634.02	---	---	16455.30	6634.02	0.30	0.30	1321.98	2.50	7955.54	---	---	16914.20	7955.54
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	631.80	2.50	6634.02	---	---	16455.30	6634.02	0.30	0.30	1321.98	2.50	7955.54	---	---	16914.20	7955.54
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	631.80	2.50	6634.02	---	---	16455.30	6634.02	0.30	0.30	1321.97	2.50	7955.54	---	---	16914.20	7955.54
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	693.80	2.50	6634.02	---	---	16003.50	6634.02	0.30	0.30	1779.89	2.50	7955.54	---	---	16449.80	7955.54
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	693.80	2.50	6634.02	---	---	15983.10	6634.02	0.30	0.30	1779.89	2.50	7955.54	---	---	16428.90	7955.54
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	693.80	2.50	6634.02	---	---	15901.60	6634.02	0.30	0.30	1779.89	2.50	7955.54	---	---	16345.10	7955.54

Pilastrata n. 9

Nodi: 9 309 509 709 909 1109 1309 1509 1709 1909

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
1	R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cmq>	Fcd <daN/cmq>	Fyk <daN/cmq>	Fyd <daN/cmq>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-225371.00	-96.40	-4507.43	-121.01	-4507.43	-797776.00	-80341.80	-67263.90	1.15	3.540	129.68
0.00	1(e)	SLU	1	1	0.00	-225371.00	-96.40	-4507.43	-121.01	-4507.43	-797776.00	-80341.80	-67263.90	1.15	3.540	129.68
3.00	1(e)	SLU	1	1	300.00	-221276.00	3822.67	4425.53	126.47	4425.53	-797776.00	80195.50	67110.90	1.15	3.605	129.68
3.50	1(e)	SLU	2	10	0.00	-196954.00	-1247.32	-3939.08	-466.62	-3939.08	-670786.00	-53438.70	-59617.60	1.16	3.406	200.56
3.50	1(e)	SLU	2	10	0.00	-196954.00	-1247.32	-3939.08	-466.62	-3939.08	-670786.00	-53438.70	-59617.60	1.16	3.406	200.56
6.00	1(e)	SLU	2	10	250.00	-194273.00	2444.68	3885.46	255.15	3885.46	-670786.00	53429.90	59636.40	1.16	3.453	181.54
6.50	1(e)	SLU	3	10	0.00	-169474.00	-2514.32	-3389.49	576.77	3389.49	-670786.00	-53036.50	59031.50	1.13	3.958	157.57
6.50	1(e)	SLU	3	10	0.00	-169474.00	-2514.32	-3389.49	576.77	3389.49	-670786.00	-53036.50	59031.50	1.13	3.958	157.57
9.00	1(e)	SLU	3	10	250.00	-166793.00	2133.91	3335.86	-493.82	-3335.86	-670786.00	52948.70	-58933.80	1.12	4.022	157.57
9.50	1(e)	SLU	4	10	0.00	-141966.00	-2694.53	-2839.32	1067.63	2839.32	-670786.00	-52056.80	57948.10	1.09	4.725	157.57
9.50	1(e)	SLU	4	10	0.00	-141966.00	-2694.53	-2839.32	1067.63	2839.32	-656377.00	-51872.50	56052.70	1.10	4.623	166.79
12.00	1(e)	SLU	4	10	250.00	-139285.00	2721.02	2785.69	-1009.44	-2785.69	-656377.00	51754.10	-55944.60	1.09	4.712	166.79
12.50	1(e)	SLU	5	10	0.00	-114420.00	-1743.32	-2288.41	41.32	2288.41	-246024.00	-13158.80	13726.70	1.30	2.150	---
12.50	1(e)	SLU	5	10	0.00	-114420.00	-1743.32	-2288.41	41.32	2288.41	-246024.00	-13158.80	13726.70	1.30	2.150	---
15.00	1(e)	SLU	5	10	250.00	-113283.00	1826.22	2265.66	171.38	2265.66	-246024.00	13220.60	13776.80	1.30	2.172	---
18.50	1(e)	SLU	7	7	0.00	-70005.60	-2559.98	-2559.98	-704.51	-1400.11	-180916.00	-10144.00	-8473.29	1.24	2.584	---
18.50	1(e)	SLU	7	7	0.00	-70005.60	-2559.98	-2559.98	-704.51	-1400.11	-180916.00	-10144.00	-8473.29	1.24	2.584	---
21.00	1(e)	SLU	7	7	250.00	-69152.40	2011.66	2011.66	478.05	1383.05	-180916.00	10135.30	8493.68	1.24	2.616	---
21.50	1(e)	SLU	8	7	0.00	-47235.60	-2723.12	-2723.12	-559.43	-944.71	-47237.10	-9315.97	-7791.41	1.13	2.948	---
21.50	1(e)	SLU	8	7	0.00	-47235.60	-2723.12	-2723.12	-559.43	-944.71	-47237.10	-8473.46	-7117.80	1.14	2.682	---
24.00	1(e)	SLU	8	7	250.00	-46382.50	1917.45	1917.45	408.24	927.65	-46382.90	8419.32	7071.24	1.14	3.515	---
24.50	1	SLU	9	7	0.00	-23854.00	-2964.04	-2964.04	-542.49	-542.49	-23856.90	-6314.23	-5271.57	1.03	1.803	---
24.50	1	SLU	9	7	0.00	-23854.00	-2964.04	-2964.04	-542.49	-542.49	-23856.90	-6314.23	-5271.57	1.03	1.803	---
27.00	1(e)	SLU	9	7	250.00	-23000.90	3030.30	3030.30	400.11	-460.02	-23003.00	6213.51	-5187.58	1.03	1.781	---

Dati per verifiche di stabilità

Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*
---	1	3.50	20.21	49.88	---	1	3.50	20.21	49.88	---	1	3.50	20.21	49.88	---	2	3.00	18.90	47.24
---	2	3.00	18.90	47.24	---	2	3.00	18.90	47.24	---	3	3.00	18.90	50.95	---	3	3.00	18.90	50.95
---	3	3.00	18.90	50.95	---	6	3.00	34.64	32.38	---	6	3.00	34.64	32.38	---	6	3.00	34.64	32.38

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdy, s <daNm>	MRdz <daNm>	MRdz, s <daNm>	esp.	Sic.	Δ%
15.50	1(e)	SLU	6	7	0.00	-91088.70	-2094.41	-2094.41	-382.31	-1821.77	-195325.00	-10800.50	-9561.14	-7932.85	-6445.15	1.31	2.144	---
15.50	1(e)	SLU	6	7	0.00	-91088.70	-2094.41	-2094.41	-382.31	-1821.77	-180916.00	-9170.85	-7955.68	-7657.60	-6257.76	1.34	1.986	---
18.00	1(e)	SLU	6	7	250.00	-90235.60	1594.71	1804.71	431.19	1804.71	-180916.00	9218.34	8000.47	7695.60	6296.31	1.33	2.005	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE	R	1	1	0.00	-162102.00	-78.31	-39.41	0.00	53.78	488.39
0.00	4	SLE	Q	1	1	0.00	-140580.00	-33.59	-22.22	0.00	53.78	422.45
0.00	2	SLE	R	1	1	0.00	-162102.00	-78.31	-39.41	0.00	53.78	488.39
0.00	4	SLE	Q	1	1	0.00	-140580.00	-33.59	-22.22	0.00	53.78	422.45
3.00	2	SLE	R	1	1	300.00	-158952.00	78.56	2780.45	0.00	53.78	536.71
3.00	4	SLE	Q	1	1	300.00	-137430.00	13.14	2168.66	0.00	53.78	457.74
3.50	2	SLE	R	2	10	0.00	-141569.00	-305.85	-899.43	0.00	53.78	554.86
3.50	4	SLE	Q	2	10	0.00	-122517.00	-171.08	-680.43	0.00	53.78	474.29
3.50	2	SLE	R	2	10	0.00	-141569.00	-305.85	-899.43	0.00	53.78	554.86
3.50	4	SLE	Q	2	10	0.00	-122517.00	-171.08	-680.43	0.00	53.78	474.29
6.00	2	SLE	R	2	10	250.00	-139507.00	154.05	1784.81	0.00	53.78	571.17
6.00	4	SLE	Q	2	10	250.00	-120454.00	56.90	1382.16	0.00	53.78	485.84
6.50	2	SLE	R	3	10	0.00	-121767.00	459.23	-1811.13	0.00	53.78	516.20
6.50	4	SLE	Q	3	10	0.00	-105177.00	507.18	-1410.57	0.00	53.78	444.21
6.50	2	SLE	R	3	10	0.00	-121767.00	459.23	-1811.13	0.00	53.78	516.20
6.50	4	SLE	Q	3	10	0.00	-105177.00	507.18	-1410.57	0.00	53.78	444.21



Relazione di calcolo

9.00	2	SLE R	3	10	250.00	-119705.00	-393.21	1559.03	0.00	53.78	34.09	498.66
9.00	4	SLE Q	3	10	250.00	-103114.00	-426.71	1195.44	0.00	53.78	29.19	427.43
9.50	2	SLE R	4	10	0.00	-101925.00	833.22	-1943.82	0.00	53.78	31.79	458.99
9.50	4	SLE Q	4	10	0.00	-87748.60	874.68	-1523.88	0.00	53.78	27.35	395.00
9.50	2	SLE R	4	10	0.00	-101925.00	833.22	-1943.82	0.00	49.76	32.18	464.82
9.50	4	SLE Q	4	10	0.00	-87748.60	874.68	-1523.88	0.00	49.76	27.69	400.07
12.00	2	SLE R	4	10	250.00	-99862.90	-787.66	1979.00	0.00	49.76	31.65	456.94
12.00	4	SLE Q	4	10	250.00	-85686.10	-822.80	1529.26	0.00	49.76	27.07	391.05
12.50	2	SLE R	5	10	0.00	-82045.30	57.56	-1261.08	0.00	12.06	65.22	924.90
12.50	4	SLE Q	5	10	0.00	-70278.50	113.76	-981.70	0.00	12.06	55.47	788.17
12.50	2	SLE R	5	10	0.00	-82045.30	57.56	-1261.08	0.00	12.06	65.22	924.90
12.50	4	SLE Q	5	10	0.00	-70278.50	113.76	-981.70	0.00	12.06	55.47	788.17
15.00	2	SLE R	5	10	250.00	-81170.30	95.10	1325.68	0.00	12.06	65.67	927.79
15.00	4	SLE Q	5	10	250.00	-69403.50	16.21	1024.95	0.00	12.06	54.44	774.26
15.50	2	SLE R	6	7	0.00	-65285.30	-255.59	-1516.89	0.00	12.06	76.62	1051.52
15.50	4	SLE Q	6	7	0.00	-55722.10	-173.70	-1171.49	0.00	12.06	63.10	872.70
15.50	2	SLE R	6	7	0.00	-65285.30	-255.59	-1516.89	0.00	8.04	80.87	1109.08
15.50	4	SLE Q	6	7	0.00	-55722.10	-173.70	-1171.49	0.00	8.04	66.59	920.48
18.00	2	SLE R	6	7	250.00	-64629.00	294.60	1156.88	0.00	8.04	75.98	1052.81
18.00	4	SLE Q	6	7	250.00	-55065.80	216.99	891.00	0.00	8.04	62.88	876.96
18.50	2	SLE R	7	7	0.00	-50176.80	-480.31	-1861.65	0.00	8.04	76.39	1005.55
18.50	4	SLE Q	7	7	0.00	-42640.50	-354.85	-1466.82	0.00	8.04	62.46	828.10
18.50	2	SLE R	7	7	0.00	-50176.80	-480.31	-1861.65	0.00	8.04	76.39	1005.55
18.50	4	SLE Q	7	7	0.00	-42640.50	-354.85	-1466.82	0.00	8.04	62.46	828.10
21.00	2	SLE R	7	7	250.00	-49520.50	323.73	1466.36	0.00	8.04	67.82	910.93
21.00	4	SLE Q	7	7	250.00	-41984.20	234.64	1160.12	0.00	8.04	55.70	753.02
21.50	2	SLE R	8	7	0.00	-33865.60	-374.69	-1983.01	0.00	8.04	62.49	797.95
21.50	4	SLE Q	8	7	0.00	-28530.10	-262.97	-1572.93	0.00	8.04	50.37	647.91
21.50	2	SLE R	8	7	0.00	-33865.60	-374.69	-1983.01	0.00	6.16	64.41	824.78
21.50	4	SLE Q	8	7	0.00	-28530.10	-262.97	-1572.93	0.00	6.16	51.89	669.31
24.00	2	SLE R	8	7	250.00	-33209.30	272.28	1400.64	0.00	6.16	53.67	705.07
24.00	4	SLE Q	8	7	250.00	-27873.80	188.75	1121.90	0.00	6.16	43.61	576.32
24.50	2	SLE R	9	7	0.00	-17109.90	-359.56	-2153.76	3.08	3.08	63.37	722.73
24.50	4	SLE Q	9	7	0.00	-14028.10	-246.95	-1692.40	3.08	3.08	48.43	559.31
24.50	2	SLE R	9	7	0.00	-17109.90	-359.56	-2153.76	3.08	3.08	63.37	722.73
24.50	4	SLE Q	9	7	0.00	-14028.10	-246.95	-1692.40	3.08	3.08	48.43	559.31
27.00	2	SLE R	9	7	250.00	-16453.60	264.11	2187.83	3.08	3.08	62.13	702.61
27.00	4	SLE Q	9	7	250.00	-13371.90	179.78	1656.02	3.08	3.08	45.88	528.95

Stato limite d'esercizio - Verifiche a fessurazione

Xg <cm>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
24.50	4	SLE Q	9	7	0.00	-14028.10	-1692.40	-246.95	39.00	208.00	0.50	14.00	146.97	1.54	75.84	345.95	0.10	0.03
24.50	3	SLE F	9	7	0.00	-14845.60	-1824.02	-278.40	39.00	208.00	0.50	14.00	148.15	1.54	77.14	395.10	0.12	0.03
24.50	4	SLE Q	9	7	0.00	-14028.10	-1692.40	-246.95	39.00	208.00	0.50	14.00	146.97	1.54	75.84	345.95	0.10	0.03
24.50	3	SLE F	9	7	0.00	-14845.60	-1824.02	-278.40	39.00	208.00	0.50	14.00	148.15	1.54	77.14	395.10	0.12	0.03
27.00	4	SLE Q	9	7	250.00	-13371.90	1656.02	179.78	39.00	208.00	0.50	14.00	164.83	1.54	95.48	340.68	0.10	0.03
27.00	3	SLE F	9	7	250.00	-14189.40	1808.28	203.51	39.00	208.00	0.50	14.00	168.47	1.54	99.48	402.75	0.12	0.03

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	S
<mm>	<mm>							<cm>	<mm>	<daN>		<daN>		<daN>	<daN>	<mm>	<mm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	82.49	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1306.36	2.50	0.00	57709.10	107066.00	51938.20	39
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	82.49	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1306.36	2.50	0.00	57709.10	107066.00	51938.20	39
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	82.49	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1306.36	2.50	0.00	57709.10	107066.00	51938.20	39
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	288.71	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1476.80	2.50	0.00	44432.50	82434.00	39989.30	27
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	288.71	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1476.80	2.50	0.00	44432.50	82434.00	39989.30	27
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	288.71	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1476.80	2.50	0.00	44432.50	82434.00	39989.30	27
6.50	6.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	428.24	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1859.29	2.50	0.00	44432.50	82434.00	39989.30	21
6.96	8.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	428.24	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1859.29	2.50	0.00	44432.50	82434.00	39989.30	21
8.80	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	428.24	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1859.29	2.50	0.00	44432.50	82434.00	39989.30	21
9.50	9.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	830.83	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2166.22	2.50	0.00	44432.50	82434.00	39989.30	18
9.96	11.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	830.83	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2166.22	2.50	0.00	44432.50	82434.00	39989.30	18
11.80	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	830.83	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2166.22	2.50	0.00	44432.50	82434.00	39989.30	18
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	52.02	2.13	7895.64	---	7895.64	7895.64	0.40	0.30	1427.81	2.31	7337.65	---	7337.65	7337.65	5
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	52.02	2.14	7944.04	---	7944.04	7944.04	0.40	0.30	1427.81	2.32	7381.43	---	7381.43	7381.43	5
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	52.02	2.19	8134.78	---	8134.78	8134.78	0.40	0.30	1427.81	2.37	7554.01	---	7554.01	7554.01	5
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	325.40	1.63	4325.25	---	4325.25	4325.25	0.30	0.30	1475.65	1.46	4649.03	---	4649.03	4649.03	3
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	325.40	1.65	4370.34	---	4370.34	4370.34	0.30	0.30	1475.65	1.48	4700.72	---	4700.72	4700.72	3
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	325.40	1.71	4546.23	---	4546.23	4546.23	0.30	0.30	1475.65	1.54	4902.04	---	4902.04	4902.04	3
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	473.02	2.50	6634.02	---	10189.00	6634.02	0.30	0.30	1828.65	2.50	7955.54	---	10473.10	7955.54	4
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	473.02	2.50	6634.02	---	10239.90	6634.02	0.30	0.30	1828.65	2.50	7955.54	---	10525.50	7955.54	4
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	473.02	2.50	6634.02	---	10443.70	6634.02	0.30	0.30	1828.65	2.50	7955.54	---	10735.00	7955.54	4
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	387.07	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1856.23	2.50	7955.54	---	16914.20	7955.54	4
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	387.07	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1856.23	2.50	7955.54	---	16914.20	7955.54	4
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	387.07	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1856.23	2.50	7955.54	---	16914.20	7955.54	4
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	377.04	2.50	6634.02	---	16261.20	6634.02	0.30	0.30	2397.74	2.50	7955.54	---	16714.70	7955.54	3
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	377.04	2.50	6634.02	---	16240.80	6634.02	0.30	0.30	2397.74	2.50	7955.54	---	16693.70	7955.54	3
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	377.04	2.50	6634.02	---	16159.30	6634.02	0.30	0.30	2397.73	2.50	7955.54	---	16609.90	7955.54	3



Relazione di calcolo

10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04
50.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdz	esp.	Sic.	Δ%	
<m>					<cm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>				
0.00	1	(e)	SLU	1	1	0.00	-253862.00	-483.96	-5077.24	96.83	5077.24	-797776.00	-81185.20	67767.80	1.18	3.143	129.68
0.00	1	(e)	SLU	1	1	0.00	-253862.00	-483.96	-5077.24	96.83	5077.24	-797776.00	-81185.20	67767.80	1.18	3.143	129.68
3.00	1	(e)	SLU	1	1	300.00	-249767.00	5376.61	5376.61	-297.67	-4995.34	-797776.00	81084.30	-67775.60	1.18	3.194	129.68
3.50	1	(e)	SLU	2	10	0.00	-223398.00	-2697.93	-4467.96	388.56	4467.96	-670786.00	-53377.10	59352.20	1.19	3.003	836.36
3.50	1	(e)	SLU	2	10	0.00	-223398.00	-2697.93	-4467.96	388.56	4467.96	-670786.00	-53377.10	59352.20	1.19	3.003	836.36
6.00	1	(e)	SLU	2	10	250.00	-220717.00	3521.13	4414.34	-400.54	-4414.34	-670786.00	53400.80	-59386.70	1.19	3.039	695.74
6.50	1	(e)	SLU	3	10	0.00	-194798.00	-4283.41	-4283.41	1313.93	3895.97	-670786.00	-53431.70	59632.80	1.16	3.443	211.94
6.50	1	(e)	SLU	3	10	0.00	-194798.00	-4283.41	-4283.41	1313.93	3895.97	-670786.00	-53431.70	59632.80	1.16	3.443	211.94
9.00	1	(e)	SLU	3	10	250.00	-192117.00	3423.89	3842.34	-1050.13	-3842.34	-670786.00	53422.10	-59650.50	1.16	3.492	168.18
9.50	1	(e)	SLU	4	10	0.00	-166422.00	-4212.50	-4212.50	1806.98	3328.43	-670786.00	-52936.50	58920.10	1.12	4.031	157.57
9.50	1	(e)	SLU	4	10	0.00	-166422.00	-4212.50	-4212.50	1806.98	3328.43	-656377.00	-52867.50	56968.70	1.13	3.944	166.79
12.00	1	(e)	SLU	4	10	250.00	-163740.00	3147.44	3274.81	-1569.26	-3274.81	-656377.00	52766.20	-56875.90	1.12	4.009	166.79
12.50	1	(e)	SLU	5	10	0.00	-137681.00	-4876.43	-4876.43	1438.98	2753.62	-656377.00	-51682.90	55878.90	1.09	4.767	166.79
12.50	1	(e)	SLU	5	10	0.00	-137681.00	-4876.43	-4876.43	1438.98	2753.62	-656377.00	-51682.90	55878.90	1.09	4.767	166.79
15.00	1	(e)	SLU	5	10	250.00	-135000.00	3587.66	3587.66	-520.94	-2700.00	-656377.00	51561.90	-55768.50	1.09	4.862	166.79
15.50	1	(e)	SLU	6	7	0.00	-106580.00	-5197.65	-5197.65	-600.45	-2131.59	-578772.00	-47227.50	-40859.50	1.07	5.430	315.75
15.50	1	(e)	SLU	6	7	0.00	-106580.00	-5197.65	-5197.65	-600.45	-2131.59	-564362.00	-45718.00	-40673.70	1.07	5.295	391.01
18.00	1	(e)	SLU	6	7	250.00	-104345.00	5232.71	5232.71	966.72	2086.91	-564362.00	45626.80	40591.60	1.07	5.409	387.86
18.50	1	(e)	SLU	7	7	0.00	-74345.30	-2358.82	-2358.82	-484.29	-1486.91	-180916.00	-10011.30	-8322.18	1.26	2.433	---
18.50	1	(e)	SLU	7	7	0.00	-74345.30	-2358.82	-2358.82	-484.29	-1486.91	-180916.00	-10011.30	-8322.18	1.26	2.433	---
21.00	1	(e)	SLU	7	7	250.00	-73492.20	2363.80	2363.80	500.97	1469.84	-180916.00	10050.20	8352.52	1.26	2.462	---
21.50	1	(e)	SLU	8	7	0.00	-46914.60	-3588.94	-3588.94	-837.25	-938.29	-46915.20	-9295.92	-7773.89	1.13	2.318	---
21.50	1	(e)	SLU	8	7	0.00	-46914.60	-3588.94	-3588.94	-837.25	-938.29	-46915.20	-8453.41	-7100.28	1.14	2.103	---
24.00	1	(e)	SLU	8	7	250.00	-46061.50	2628.86	2628.86	696.52	921.23	-46061.90	8397.75	7053.46	1.14	2.734	---
24.50	1		SLU	9	7	0.00	-21197.10	-3213.72	-3213.72	-1144.60	-1144.60	-21200.90	-5996.19	-5009.20	1.02	1.329	---
24.50	1		SLU	9	7	0.00	-21197.10	-3213.72	-3213.72	-1144.60	-1144.60	-21200.90	-5996.19	-5009.20	1.02	1.329	---
27.00	1		SLU	9	7	250.00	-20344.00	2384.06	2384.06	992.51	992.51	-20344.40	5892.40	4924.24	1.01	1.676	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	Aft <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-184034.00	93.16	-378.06	0.00	53.78	37.55	561.59
0.00	4	SLE Q	1	1	0.00	-162462.00	107.33	-463.27	0.00	53.78	33.41	499.10
0.00	2	SLE R	1	1	0.00	-184034.00	93.16	-378.06	0.00	53.78	37.55	561.59
0.00	4	SLE Q	1	1	0.00	-162462.00	107.33	-463.27	0.00	53.78	33.41	499.10
3.00	2	SLE R	1	1	300.00	-180884.00	-250.94	3994.41	0.00	53.78	43.12	632.19
3.00	4	SLE Q	1	1	300.00	-159312.00	-259.20	3431.49	0.00	53.78	37.91	555.90
3.50	2	SLE R	2	10	0.00	-161809.00	342.79	-2046.11	0.00	53.78	45.49	666.54
3.50	4	SLE Q	2	10	0.00	-142459.00	375.22	-1881.23	0.00	53.78	40.42	591.55
3.50	2	SLE R	2	10	0.00	-161809.00	342.79	-2046.11	0.00	53.78	45.49	666.54
3.50	4	SLE Q	2	10	0.00	-142459.00	375.22	-1881.23	0.00	53.78	40.42	591.55
6.00	2	SLE R	2	10	250.00	-159747.00	-341.10	2639.88	0.00	53.78	46.51	677.95
6.00	4	SLE Q	2	10	250.00	-140397.00	-366.74	2297.77	0.00	53.78	40.98	597.09
6.50	2	SLE R	3	10	0.00	-141024.00	1020.97	-3188.66	0.00	53.78	44.96	647.14
6.50	4	SLE Q	3	10	0.00	-123913.00	998.40	-2825.64	0.00	53.78	39.81	572.37
6.50	2	SLE R	3	10	0.00	-141024.00	1020.97	-3188.66	0.00	53.78	44.96	647.14
6.50	4	SLE Q	3	10	0.00	-123913.00	998.40	-2825.64	0.00	53.78	39.81	572.37
9.00	2	SLE R	3	10	250.00	-138961.00	-819.48	2566.73	0.00	53.78	42.38	613.78
9.00	4	SLE Q	3	10	250.00	-121851.00	-807.23	2237.53	0.00	53.78	37.34	540.40
9.50	2	SLE R	4	10	0.00	-120417.00	1390.23	-3139.93	0.00	53.78	40.68	581.19
9.50	4	SLE Q	4	10	0.00	-105564.00	1350.54	-2792.49	0.00	53.78	36.08	514.66
9.50	2	SLE R	4	10	0.00	-120417.00	1390.23	-3139.93	0.00	49.76	41.16	588.21
9.50	4	SLE Q	4	10	0.00	-105564.00	1350.54	-2792.49	0.00	49.76	36.49	520.85
12.00	2	SLE R	4	10	250.00	-118354.00	-1200.17	2365.22	0.00	49.76	38.20	550.12
12.00	4	SLE Q	4	10	250.00	-103501.00	-1154.13	2082.45	0.00	49.76	33.69	484.65
12.50	2	SLE R	5	10	0.00	-99552.00	1138.23	-3620.68	0.00	49.76	36.64	518.73
12.50	4	SLE Q	5	10	0.00	-86999.70	1150.59	-3175.37	0.00	49.76	32.42	458.32
12.50	2	SLE R	5	10	0.00	-99552.00	1138.23	-3620.68	0.00	49.76	36.64	518.73
12.50	4	SLE Q	5	10	0.00	-86999.70	1150.59	-3175.37	0.00	49.76	32.42	458.32
15.00	2	SLE R	5	10	250.00	-97489.50	-459.29	2682.94	0.00	49.76	32.11	460.87
15.00	4	SLE Q	5	10	250.00	-84937.20	-532.00	2328.24	0.00	49.76	28.26	405.16
15.50	2	SLE R	6	7	0.00	-76981.20	-344.77	-3856.33	0.00	49.76	34.62	486.03
15.50	4	SLE Q	6	7	0.00	-66945.30	-149.49	-3373.98	0.00	49.76	29.67	417.32
15.50	2	SLE R	6	7	0.00	-76981.20	-344.77	-3856.33	0.00	45.74	35.13	493.36
15.50	4	SLE Q	6	7	0.00	-66945.30	-149.49	-3373.98	0.00	45.74	30.11	423.70
18.00	2	SLE R	6	7	250.00	-75262.50	610.14	3898.25	0.00	45.74	35.65	498.19
18.00	4	SLE Q	6	7	250.00	-65226.60	380.44	3398.72	0.00	45.74	30.46	426.49
18.50	2	SLE R	7	7	0.00	-53616.50	-321.41	-1752.14	0.00	8.04	75.22	1006.25
18.50	4	SLE Q	7	7	0.00	-46267.70	-229.19	-1529.70	0.00	8.04	64.37	862.88
18.50	2	SLE R	7	7	0.00	-53616.50	-321.41	-1752.14	0.00	8.04	75.22	1006.25
18.50	4	SLE Q	7	7	0.00	-46267.70	-229.19	-1529.70	0.00	8.04	64.37	862.88
21.00	2	SLE R	7	7	250.00	-52960.30	336.72	1758.93	0.00	8.04	75.00	1001.45
21.00	4	SLE Q	7	7	250.00	-45611.40	247.63	1532.73	0.00	8.04	64.15	858.04



Relazione di calcolo

21.50	2	SLE R	8	7	0.00	-33805.60	-568.00	-2669.02	2.01	6.03	77.58	956.74
21.50	4	SLE Q	8	7	0.00	-28856.20	-426.51	-2335.31	2.01	6.03	66.14	816.02
21.50	2	SLE R	8	7	0.00	-33805.60	-568.00	-2669.02	1.54	4.62	80.33	993.38
21.50	4	SLE Q	8	7	0.00	-28856.20	-426.51	-2335.31	1.54	4.62	68.49	847.43
24.00	2	SLE R	8	7	250.00	-33149.40	474.68	1961.98	0.00	6.16	65.32	831.05
24.00	4	SLE Q	8	7	250.00	-28199.90	359.93	1736.66	0.00	6.16	55.84	710.35
24.50	2	SLE R	9	7	0.00	-15232.60	-786.47	-2370.69	3.08	3.08	85.96	1053.58
24.50	4	SLE Q	9	7	0.00	-12509.70	-607.26	-1998.67	3.08	3.08	71.02	894.04
24.50	2	SLE R	9	7	0.00	-15232.60	-786.47	-2370.69	3.08	3.08	85.96	1053.58
24.50	4	SLE Q	9	7	0.00	-12509.70	-607.26	-1998.67	3.08	3.08	71.02	894.04
27.00	2	SLE R	9	7	250.00	-14576.30	685.06	1728.23	3.08	3.08	61.96	696.49
27.00	4	SLE Q	9	7	250.00	-11853.40	533.12	1322.50	3.08	3.08	47.02	534.86

Stato limite d'esercizio - Verifiche a fessurazione

Xg <cm>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	C <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
24.50	4	SLE Q	9	7	0.00	-12509.70	-1998.67	-607.26	39.00	208.00	0.50	14.00	155.48	1.54	85.19	894.04	0.26	0.07
24.50	3	SLE F	9	7	0.00	-13236.20	-2105.12	-656.63	39.00	208.00	0.50	14.00	154.26	1.54	83.86	944.19	0.28	0.07
24.50	4	SLE Q	9	7	0.00	-12509.70	-1998.67	-607.26	39.00	208.00	0.50	14.00	155.48	1.54	85.19	894.04	0.26	0.07
24.50	3	SLE F	9	7	0.00	-13236.20	-2105.12	-656.63	39.00	208.00	0.50	14.00	154.26	1.54	83.86	944.19	0.28	0.07
27.00	4	SLE Q	9	7	250.00	-11853.40	1322.50	533.12	39.00	208.00	0.50	14.00	121.14	1.54	47.43	352.68	0.10	0.02
27.00	3	SLE F	9	7	250.00	-12579.90	1439.56	574.49	39.00	208.00	0.50	14.00	123.10	1.54	49.59	402.37	0.12	0.02

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>
<cm>	<cm>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>
0.00	0.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	131.50	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1953.52	2.50	0.00	57709.10	107066.00	51938.20
0.50	2.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	131.50	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1953.52	2.50	0.00	57709.10	107066.00	51938.20
2.50	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	131.50	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1953.52	2.50	0.00	57709.10	107066.00	51938.20
3.50	3.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	315.64	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2487.62	2.50	0.00	44432.50	82434.00	39989.30
3.95	5.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	315.64	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2487.62	2.50	0.00	44432.50	82434.00	39989.30
5.55	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	315.64	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2487.62	2.50	0.00	44432.50	82434.00	39989.30
6.50	6.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	945.62	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3082.92	2.50	0.00	44432.50	82434.00	39989.30
6.95	8.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	945.62	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3082.92	2.50	0.00	44432.50	82434.00	39989.30
8.55	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	945.62	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3082.92	2.50	0.00	44432.50	82434.00	39989.30
9.50	9.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1350.50	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2943.98	2.50	0.00	44432.50	82434.00	39989.30
9.95	11.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1350.50	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2943.98	2.50	0.00	44432.50	82434.00	39989.30
11.55	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1350.50	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2943.98	2.50	0.00	44432.50	82434.00	39989.30
12.50	12.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	783.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3385.64	2.50	0.00	44432.50	82434.00	39989.30
12.95	14.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	783.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3385.64	2.50	0.00	44432.50	82434.00	39989.30
14.55	15.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	783.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3385.64	2.50	0.00	44432.50	82434.00	39989.30
15.50	15.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	626.87	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	4172.14	2.50	0.00	44432.50	68695.00	39989.30
15.95	17.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	626.87	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	4172.15	2.50	0.00	44432.50	68695.00	39989.30
17.55	18.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	626.87	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	4172.15	2.50	0.00	44432.50	68695.00	39989.30
18.50	18.95	ø6/15	2	2	---	1	SLU	0.35	0.25	394.11	2.50	6634.02	---	8780.44	6634.02	0.30	0.30	1889.05	2.50	7955.54	---	9025.31	7955.54
18.95	20.55	ø6/15	2	2	---	1	SLU	0.35	0.25	394.11	2.50	6634.02	---	8830.29	6634.02	0.30	0.30	1889.05	2.50	7955.54	---	9076.55	7955.54
20.55	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	394.11	2.50	6634.02	---	9007.50	6634.02	0.30	0.30	1889.05	2.50	7955.54	---	9258.70	7955.54
21.50	21.95	ø6/15	2	2	---	1	SLU	0.35	0.25	613.51	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	2487.12	2.50	7955.54	---	16914.20	7955.54
21.95	23.55	ø6/15	2	2	---	1	SLU	0.35	0.25	613.51	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	2487.12	2.50	7955.54	---	16914.20	7955.54
23.55	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	613.51	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	2487.12	2.50	7955.54	---	16914.20	7955.54
24.50	24.95	ø6/15	2	2	---	1	SLU	0.35	0.25	854.84	2.50	6634.02	---	15916.20	6634.02	0.30	0.30	2239.11	2.50	7955.54	---	16360.10	7955.54
24.95	26.55	ø6/15	2	2	---	1	SLU	0.35	0.25	854.84	2.50	6634.02	---	15896.30	6634.02	0.30	0.30	2239.11	2.50	7955.54	---	16339.60	7955.54
26.55	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	854.84	2.50	6634.02	---	15825.40	6634.02	0.30	0.30	2239.11	2.50	7955.54	---	16266.70	7955.54

Pilastrata n. 11

Nodi: 11 311 511 711 911 1111 1311 1511 1711 1911

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
1	R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cmq>	Fcd <daN/cmq>	Fyk <daN/cmq>	Fyd <daN/cmq>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04
50.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdz	esp.	Sic.	Δ%	
<cm>					<cm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>				
0.00	1	(e)	SLU	1	1	0.00	-260071.00	180.40	5201.41	-299.14	-5201.41	-797776.00	81303.00	-67749.40	1.19	3.068	129.68
0.00	1	(e)	SLU	1	1	0.00	-260071.00	180.40	5201.41	-299.14	-5201.41	-797776.00	81303.00	-67749.40	1.19	3.068	129.68
3.00	1	(e)	SLU	1	1	300.00	-255976.00	5113.44	5119.51	335.78	5119.51	-797776.00	81234.30	67762.60	1.18	3.117	129.68
3.50	1	(e)	SLU	2	10	0.00	-230187.00	-2809.96	-4603.74	-725.22	-4603.74	-670786.00	-53309.40	-59257.10	1.20	2.914	1417.27
3.50	1	(e)	SLU	2	10	0.00	-230187.00	-2809.96	-4603.74	-725.22	-4603.74	-670786.00	-53309.40	-59257.10	1.20	2.914	1417.27
6.00	1	(e)	SLU	2	10	250.00	-227506.00	3443.90	4550.12	700.87	4550.12	-670786.00	53337.30	59296.20	1.20	2.948	1135.78
6.50	1	(e)	SLU	3	10	0.00	-227094.00	-4173.77	-4173.77	-685.43	-4055.89	-670786.00	-53453.40	-59571.90	1.17	3.308	265.36
6.50	1	(e)	SLU	3	10	0.00	-227094.00	-4173.77	-4173.77	-685.43	-4055.89	-670786.00	-53453.40	-59571.90	1.17	3.308	265.36
9.00	1	(e)	SLU	3	10	250.00	-200113.00	3344.57	4002.26	688.26	4002.26	-670786.00	53447.60	59593.70	1.17	3.352	227.60
9.50	1	(e)	SLU	4	10	0.00	-176550.00	-4164.79	-4164.79	-988.54	-3531.00	-670786.00	-53259.50	-59278.30	1.14	3.799	157.57
9.50	1	(e)	SLU	4	10	0.00	-176550.00	-4164.79	-4164.79	-988.54	-3531.00	-670786.00	-53259.50	-59278.30	1.14	3.799	157.57
12.00	1	(e)	SLU	4	10	250.00	-173869.00	3084.29	3477.37	889.88	3477.37	-656377.00	53135.80	57217.60	1.14	3.775	166.79
12.50	1	(e)	SLU	5	10	0.00	-150861.00	-4793.43	-4793.43	-629.93	-3017.23	-656377.00	-52252.80	-56401.90	1.11	4.351	166.79
12.50	1	(e)	SLU	5	10	0.00	-150861.00	-4793.43	-4793.43	-629.93	-3017.23	-656377.00	-52252.80	-56401.90	1.11	4.351	166.79
15.00	1	(e)	SLU	5	10	250.00	-148180.00	3678.64	3678.64	-211.45	-2963.60	-656377.00	52140.20	-56298.40	1.10	4.430	166.79
15.50	1	(e)	SLU	6	7	0.00	-123523.00	-4663.99	-4663.99	923.91	2470.45	-787772.00	-47923.10	41370.50	1.09	4.686	328.19



Relazione di calcolo

15.50	1(e)	SLU	6	7	0.00	-123523.00	-4663.99	-4663.99	923.91	2470.45	-564362.00	-46376.40	41264.90	1.10	4.569	446.09
18.00	1(e)	SLU	6	7	250.00	-121288.00	3463.54	3463.54	-1235.70	-2425.77	-564362.00	46293.20	-41190.30	1.10	4.653	303.69
18.50	1(e)	SLU	7	7	0.00	-95467.80	-5683.14	-5683.14	1401.37	1909.36	-564362.00	-45009.50	40169.60	1.06	5.912	414.67
18.50	1(e)	SLU	7	7	0.00	-95467.80	-5683.14	-5683.14	1401.37	1909.36	-564362.00	-45009.50	40169.60	1.06	5.912	414.67
21.00	1(e)	SLU	7	7	250.00	-93233.50	4338.41	4338.41	-897.99	-1864.67	-564362.00	44822.00	-40004.90	1.05	6.053	294.25
21.50	1(e)	SLU	8	7	0.00	-63901.30	-6188.50	-6188.50	1025.65	1278.03	-63904.70	-42129.30	37643.10	1.01	5.665	272.99
21.50	1(e)	SLU	8	7	0.00	-63901.30	-6188.50	-6188.50	1025.65	1278.03	-63902.30	-41403.40	37046.00	1.01	5.581	305.48
24.00	1(e)	SLU	8	7	250.00	-61666.90	4476.71	4476.71	-666.59	-1233.34	-61668.40	41183.30	-36851.80	1.01	7.191	281.04
24.50	1	SLU	9	7	0.00	-30160.70	-5871.18	-5871.18	1131.06	1131.06	-30160.80	-37929.80	33979.10	1.00	5.317	431.70
24.50	1	SLU	9	7	0.00	-30160.70	-5871.18	-5871.18	1131.06	1131.06	-30160.80	-37929.80	33979.10	1.00	5.317	431.70
27.00	1	SLU	9	7	250.00	-27926.40	5150.87	5150.87	-1347.09	-1347.09	-27930.90	37692.00	-33769.10	1.00	5.664	449.46

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-188620.00	-233.71	79.83	0.00	53.78	38.25	572.47
0.00	4	SLE Q	1	1	0.00	-166591.00	-223.91	-87.30	0.00	53.78	33.85	506.39
0.00	2	SLE R	1	1	0.00	-188620.00	-233.71	79.83	0.00	53.78	38.25	572.47
0.00	4	SLE Q	1	1	0.00	-166591.00	-223.91	-87.30	0.00	53.78	33.85	506.39
3.00	2	SLE R	1	1	300.00	-185470.00	274.80	3809.73	0.00	53.78	43.78	642.61
3.00	4	SLE Q	1	1	300.00	-163441.00	275.39	3283.90	0.00	53.78	38.52	565.55
3.50	2	SLE R	2	10	0.00	-166818.00	-573.50	-2120.86	0.00	53.78	47.44	694.02
3.50	4	SLE Q	2	10	0.00	-146962.00	-560.76	-1938.08	0.00	53.78	42.10	615.28
3.50	2	SLE R	2	10	0.00	-166818.00	-573.50	-2120.86	0.00	53.78	47.44	694.02
3.50	4	SLE Q	2	10	0.00	-146962.00	-560.76	-1938.08	0.00	53.78	42.10	615.28
6.00	2	SLE R	2	10	250.00	-164755.00	546.41	2584.39	0.00	53.78	48.07	700.52
6.00	4	SLE Q	2	10	250.00	-144900.00	531.34	2250.02	0.00	53.78	42.34	616.86
6.50	2	SLE R	3	10	0.00	-146915.00	-559.46	-3113.23	0.00	53.78	45.12	652.65
6.50	4	SLE Q	3	10	0.00	-129197.00	-579.21	-2765.05	0.00	53.78	39.96	577.38
6.50	2	SLE R	3	10	0.00	-146915.00	-559.46	-3113.23	0.00	53.78	45.12	652.65
6.50	4	SLE Q	3	10	0.00	-129197.00	-579.21	-2765.05	0.00	53.78	39.96	577.38
9.00	2	SLE R	3	10	250.00	-144853.00	549.64	2510.85	0.00	53.78	43.04	625.56
9.00	4	SLE Q	3	10	250.00	-127135.00	558.11	2191.03	0.00	53.78	37.92	550.87
9.50	2	SLE R	4	10	0.00	-127862.00	-787.74	-3105.21	0.00	53.78	41.00	589.53
9.50	4	SLE Q	4	10	0.00	-112217.00	-793.49	-2758.72	0.00	53.78	36.31	521.47
9.50	2	SLE R	4	10	0.00	-127862.00	-787.74	-3105.21	0.00	49.76	41.48	596.75
9.50	4	SLE Q	4	10	0.00	-112217.00	-793.49	-2758.72	0.00	49.76	36.73	527.84
12.00	2	SLE R	4	10	250.00	-125800.00	699.42	2319.76	0.00	49.76	38.73	561.35
12.00	4	SLE Q	4	10	250.00	-110154.00	693.10	2041.21	0.00	49.76	34.13	494.26
12.50	2	SLE R	5	10	0.00	-109224.00	-536.89	-3562.22	0.00	49.76	37.46	534.80
12.50	4	SLE Q	5	10	0.00	-95617.00	-590.46	-3126.93	0.00	49.76	33.10	472.03
12.50	2	SLE R	5	10	0.00	-109224.00	-536.89	-3562.22	0.00	49.76	37.46	534.80
12.50	4	SLE Q	5	10	0.00	-95617.00	-590.46	-3126.93	0.00	49.76	33.10	472.03
15.00	2	SLE R	5	10	250.00	-107161.00	-84.72	2753.97	0.00	49.76	33.80	487.84
15.00	4	SLE Q	5	10	250.00	-93554.50	28.73	2393.68	0.00	49.76	29.37	424.21
15.50	2	SLE R	6	7	0.00	-89394.00	595.51	-3461.31	0.00	49.76	37.84	534.94
15.50	4	SLE Q	6	7	0.00	-77978.10	410.61	-3024.76	0.00	49.76	32.66	462.41
15.50	2	SLE R	6	7	0.00	-89394.00	595.51	-3461.31	0.00	45.74	38.40	543.04
15.50	4	SLE Q	6	7	0.00	-77978.10	410.61	-3024.76	0.00	45.74	33.15	469.48
18.00	2	SLE R	6	7	250.00	-87675.30	-827.50	2589.11	0.00	45.74	36.06	512.54
18.00	4	SLE Q	6	7	250.00	-76259.40	-617.85	2250.74	0.00	45.74	31.02	441.62
18.50	2	SLE R	7	7	0.00	-69066.50	940.30	-4220.33	0.00	45.74	35.92	496.51
18.50	4	SLE Q	7	7	0.00	-59956.90	708.52	-3689.60	0.00	45.74	30.90	427.61
18.50	2	SLE R	7	7	0.00	-69066.50	940.30	-4220.33	0.00	45.74	35.92	496.51
18.50	4	SLE Q	7	7	0.00	-59956.90	708.52	-3689.60	0.00	45.74	30.90	427.61
21.00	2	SLE R	7	7	250.00	-67347.70	-586.79	3237.44	0.00	45.74	31.28	438.13
21.00	4	SLE Q	7	7	250.00	-58238.10	-414.10	2816.47	0.00	45.74	26.79	375.71
21.50	2	SLE R	8	7	0.00	-46188.70	654.61	-4593.25	0.00	45.74	29.50	399.77
21.50	4	SLE Q	8	7	0.00	-39718.00	432.43	-4013.44	0.00	45.74	25.11	340.73
21.50	2	SLE R	8	7	0.00	-46188.70	654.61	-4593.25	0.00	43.86	29.68	402.32
21.50	4	SLE Q	8	7	0.00	-39718.00	432.43	-4013.44	0.00	43.86	25.27	342.92
24.00	2	SLE R	8	7	250.00	-44469.90	-416.26	3352.16	0.00	43.86	24.56	337.88
24.00	4	SLE Q	8	7	250.00	-37999.30	-258.02	2995.49	0.00	43.86	21.05	289.63
24.50	2	SLE R	9	7	0.00	-21750.70	728.53	-4341.61	18.79	25.07	25.05	320.87
24.50	4	SLE Q	9	7	0.00	-18163.70	487.56	-3710.69	18.79	25.07	20.75	265.66
24.50	2	SLE R	9	7	0.00	-21750.70	728.53	-4341.61	18.79	25.07	25.05	320.87
24.50	4	SLE Q	9	7	0.00	-18163.70	487.56	-3710.69	18.79	25.07	20.75	265.66
27.00	2	SLE R	9	7	250.00	-20032.00	-896.91	3710.93	18.79	25.07	22.76	292.36
27.00	4	SLE Q	9	7	250.00	-16445.00	-655.09	2726.15	17.25	26.61	16.76	217.45

Stato limite d'esercizio - Verifiche a fessurazione

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
24.50	4	SLE Q	9	7	0.00	-18163.70	-3710.69	487.56	71.67	138.59	0.50	18.44	203.51	6.28	205.00	158.26	0.05	0.02
24.50	3	SLE F	9	7	0.00	-19127.90	-3891.67	553.31	71.67	138.59	0.50	18.44	200.20	6.28	193.72	167.56	0.05	0.02
24.50	4	SLE Q	9	7	0.00	-18163.70	-3710.69	487.56	71.67	138.59	0.50	18.44	203.51	6.28	205.00	158.26	0.05	0.02
24.50	3	SLE F	9	7	0.00	-19127.90	-3891.67	553.31	71.67	138.59	0.50	18.44	200.20	6.28	193.72	167.56	0.05	0.02
27.00	4	SLE Q	9	7	250.00	-16445.00	2726.15	-655.09	58.20	141.33	0.50	19.11	177.45	3.14	100.38	94.51	0.03	0.01
27.00	3	SLE F	9	7	250.00	-17409.10	3011.60	-718.82	58.20	141.33	0.50	19.11	183.55	3.14	110.42	113.31	0.03	0.01

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	Sic
0.00	0.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	211.64	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1644.35	2.50	0.00	57709.10	107066.00	51938.20	31.5



Relazione di calcolo

0.50	2.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	211.64	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1644.35	2.50	0.00	57709.10	107066.00	51938.20	31.5
2.50	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	211.64	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1644.35	2.50	0.00	57709.10	107066.00	51938.20	31.5
3.50	3.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	570.44	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2501.54	2.50	0.00	44432.50	82434.00	39989.30	15.9
3.95	5.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	570.44	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2501.54	2.50	0.00	44432.50	82434.00	39989.30	15.9
5.55	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	570.44	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2501.54	2.50	0.00	44432.50	82434.00	39989.30	15.9
6.50	6.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	549.48	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3007.34	2.50	0.00	44432.50	82434.00	39989.30	13.2
6.95	8.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	549.48	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3007.34	2.50	0.00	44432.50	82434.00	39989.30	13.2
8.55	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	549.48	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3007.34	2.50	0.00	44432.50	82434.00	39989.30	13.2
9.50	9.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	751.37	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2899.63	2.50	0.00	44432.50	82434.00	39989.30	13.7
9.95	11.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	751.37	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2899.63	2.50	0.00	44432.50	82434.00	39989.30	13.7
11.55	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	751.37	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2899.63	2.50	0.00	44432.50	82434.00	39989.30	13.7
12.50	12.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	167.39	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3388.83	2.50	0.00	44432.50	82434.00	39989.30	11.8
12.95	14.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	167.39	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3388.83	2.50	0.00	44432.50	82434.00	39989.30	11.8
14.55	15.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	167.39	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3388.83	2.50	0.00	44432.50	82434.00	39989.30	11.8
15.50	15.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	863.85	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	3251.01	2.50	0.00	44432.50	68695.00	39989.30	12.3
15.95	17.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	863.85	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	3251.01	2.50	0.00	44432.50	68695.00	39989.30	12.3
17.55	18.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	863.85	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	3251.01	2.50	0.00	44432.50	68695.00	39989.30	12.3
18.50	18.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	919.75	2.50	0.00	40007.00	67766.00	36006.30	0.50	0.50	4008.62	2.50	0.00	44432.50	68420.20	39989.30	9.9
18.95	20.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	919.75	2.50	0.00	40007.00	67766.00	36006.30	0.50	0.50	4008.62	2.50	0.00	44432.50	68420.20	39989.30	9.9
20.55	21.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	919.75	2.50	0.00	40007.00	67565.40	36006.30	0.50	0.50	4408.82	2.50	0.00	44432.50	59170.70	39989.30	9.0
21.50	21.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	676.89	2.50	0.00	40007.00	63394.30	36006.30	0.50	0.50	4266.09	2.50	0.00	44432.50	64006.40	39989.30	9.3
21.95	23.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	676.89	2.50	0.00	40007.00	63337.90	36006.30	0.50	0.50	4266.09	2.50	0.00	44432.50	63949.40	39989.30	9.3
23.55	24.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	676.89	2.50	0.00	40007.00	63137.30	36006.30	0.50	0.50	4266.09	2.50	0.00	44432.50	63746.90	39989.30	9.3
24.50	24.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	991.26	2.50	0.00	40007.00	58661.40	36006.30	0.50	0.50	4408.82	2.50	0.00	44432.50	59227.70	39989.30	9.0
24.95	26.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	991.26	2.50	0.00	40007.00	58604.90	36006.30	0.50	0.50	4408.82	2.50	0.00	44432.50	59170.70	39989.30	9.0
26.55	27.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	991.26	2.50	0.00	40007.00	58404.30	36006.30	0.50	0.50	4408.82	2.50	0.00	44432.50	58968.20	39989.30	9.0

Pilastrata n. 12

Nodi: 12 312 512 712 912 1112 1312 1512 1712 1912

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
1	R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <cm>	CC	TCC	El	Sez.	X <cm>	N <daNm>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-224063.00	671.67	4481.26	-122.59	-4481.26	-797776.00	80295.50	-67216.10	1.15	3.561	129.68
0.00	1(e)	SLU	1	1	0.00	-224063.00	671.67	4481.26	-122.59	-4481.26	-797776.00	80295.50	-67216.10	1.15	3.561	129.68
3.00	1(e)	SLU	1	1	300.00	-219968.00	4074.45	4399.36	19.59	4399.36	-797776.00	80147.00	67061.00	1.15	3.627	129.68
3.50	1(e)	SLU	2	10	0.00	-195416.00	-1659.64	-3908.32	-229.02	-3908.32	-670786.00	-53433.80	-59628.50	1.16	3.433	189.30
3.50	1(e)	SLU	2	10	0.00	-195416.00	-1659.64	-3908.32	-229.02	-3908.32	-670786.00	-53433.80	-59628.50	1.16	3.433	189.30
6.00	1(e)	SLU	2	10	250.00	-192735.00	2441.46	3854.70	410.56	3854.70	-670786.00	53424.40	59646.50	1.16	3.480	171.77
6.50	1(e)	SLU	3	10	0.00	-167822.00	-2421.22	-3356.44	-541.28	-3356.44	-670786.00	-52982.50	-58971.40	1.13	3.997	157.57
6.50	1(e)	SLU	3	10	0.00	-167822.00	-2421.22	-3356.44	-541.28	-3356.44	-670786.00	-52982.50	-58971.40	1.13	3.997	157.57
9.00	1(e)	SLU	3	10	250.00	-165141.00	2031.15	3302.82	620.33	3302.82	-670786.00	52894.10	58872.80	1.12	4.062	157.57
9.50	1(e)	SLU	4	10	0.00	-139491.00	-2823.94	-2823.94	-1093.42	-2789.82	-670786.00	-51961.10	-57842.60	1.09	4.809	157.57
9.50	1(e)	SLU	4	10	0.00	-139491.00	-2823.94	-2823.94	-1093.42	-2789.82	-656377.00	-51763.20	-55952.90	1.09	4.706	166.79
12.00	1(e)	SLU	4	10	250.00	-136810.00	2743.93	2743.93	1124.56	2736.19	-656377.00	51643.70	55843.20	1.09	4.798	166.79
12.50	1(e)	SLU	5	10	0.00	-110641.00	-1644.80	-2212.82	-198.62	-2212.82	-246024.00	-13361.80	-13890.50	1.29	2.224	---
12.50	1(e)	SLU	5	10	0.00	-110641.00	-1644.80	-2212.82	-198.62	-2212.82	-246024.00	-13361.80	-13890.50	1.29	2.224	---
15.00	1(e)	SLU	5	10	250.00	-109503.00	1702.36	2190.07	0.44	2190.07	-246024.00	13421.70	13938.60	1.29	2.247	---
18.50	1(e)	SLU	7	7	0.00	-62145.70	-2176.72	-2176.72	485.99	1242.91	-180916.00	-9997.09	8375.15	1.20	2.911	---
18.50	1(e)	SLU	7	7	0.00	-62145.70	-2176.72	-2176.72	485.99	1242.91	-180916.00	-9997.09	8375.15	1.20	2.911	---
21.00	1(e)	SLU	7	7	250.00	-61292.60	1621.47	1621.47	-462.29	-1225.85	-180916.00	9971.97	-8353.60	1.20	2.952	---
21.50	1(e)	SLU	8	7	0.00	-40689.50	-2114.90	-2114.90	792.55	813.79	-40690.40	-8851.28	7392.92	1.10	3.409	---
21.50	1(e)	SLU	8	7	0.00	-40689.50	-2114.90	-2114.90	792.55	813.79	-40690.40	-8008.78	6719.27	1.11	3.092	---
24.00	1(e)	SLU	8	7	250.00	-39836.40	1520.25	1520.25	-656.75	-796.73	-39839.10	7940.74	-6661.71	1.11	3.913	---
24.50	1	SLU	9	7	0.00	-20340.50	-2388.46	-2388.46	957.38	957.38	-20343.10	-5891.80	4924.06	1.01	1.694	---
24.50	1	SLU	9	7	0.00	-20340.50	-2388.46	-2388.46	957.38	957.38	-20343.10	-5891.80	4924.06	1.01	1.694	---
27.00	1	SLU	9	7	250.00	-19487.40	2473.08	2473.08	-765.05	-765.05	-19490.20	5787.93	-4837.29	1.01	1.727	---

Dati per verifiche di stabilità

Xg <cm>	El	l <sub>0</sub> <cm>
------------	----	------------------------



Relazione di calcolo

0.00	4	SLE Q	1	1	0.00	-140267.00	-114.23	416.46	0.00	53.78	28.91	431.79
0.00	2	SLE R	1	1	0.00	-161353.00	-94.47	486.62	0.00	53.78	33.20	495.96
0.00	4	SLE Q	1	1	0.00	-140267.00	-114.23	416.46	0.00	53.78	28.91	431.79
3.00	2	SLE R	1	1	300.00	-158203.00	25.64	2965.82	0.00	53.78	36.48	537.08
3.00	4	SLE Q	1	1	300.00	-137117.00	76.95	2322.29	0.00	53.78	31.32	461.60
3.50	2	SLE R	2	10	0.00	-140640.00	-186.58	-1193.68	0.00	53.78	37.77	557.36
3.50	4	SLE Q	2	10	0.00	-122021.00	-246.42	-908.81	0.00	53.78	32.64	482.01
3.50	2	SLE R	2	10	0.00	-140640.00	-186.58	-1193.68	0.00	53.78	37.77	557.36
3.50	4	SLE Q	2	10	0.00	-122021.00	-246.42	-908.81	0.00	53.78	32.64	482.01
6.00	2	SLE R	2	10	250.00	-138577.00	318.35	1781.17	0.00	53.78	39.09	572.49
6.00	4	SLE Q	2	10	250.00	-119959.00	345.58	1374.49	0.00	53.78	33.57	492.29
6.50	2	SLE R	3	10	0.00	-120750.00	-432.63	-1745.22	0.00	53.78	34.92	509.60
6.50	4	SLE Q	3	10	0.00	-104606.00	-476.85	-1360.27	0.00	53.78	30.10	439.62
6.50	2	SLE R	3	10	0.00	-120750.00	-432.63	-1745.22	0.00	53.78	34.92	509.60
6.50	4	SLE Q	3	10	0.00	-104606.00	-476.85	-1360.27	0.00	53.78	30.10	439.62
9.00	2	SLE R	3	10	250.00	-118687.00	482.54	1484.53	0.00	53.78	33.86	495.20
9.00	4	SLE Q	3	10	250.00	-102544.00	499.35	1136.75	0.00	53.78	29.07	425.61
9.50	2	SLE R	4	10	0.00	-100312.00	-850.82	-2036.22	0.00	53.78	31.67	456.57
9.50	4	SLE Q	4	10	0.00	-86660.70	-869.51	-1594.99	0.00	53.78	27.25	393.15
9.50	2	SLE R	4	10	0.00	-100312.00	-850.82	-2036.22	0.00	49.76	32.06	462.31
9.50	4	SLE Q	4	10	0.00	-86660.70	-869.51	-1594.99	0.00	49.76	27.59	398.16
12.00	2	SLE R	4	10	250.00	-98249.20	869.63	1995.75	0.00	49.76	31.49	453.93
12.00	4	SLE Q	4	10	250.00	-84598.20	877.55	1543.13	0.00	49.76	26.97	389.09
12.50	2	SLE R	5	10	0.00	-79485.50	-169.69	-1188.00	0.00	12.06	63.90	904.45
12.50	4	SLE Q	5	10	0.00	-68364.90	-203.40	-920.15	0.00	12.06	54.47	772.74
12.50	2	SLE R	5	10	0.00	-79485.50	-169.69	-1188.00	0.00	12.06	63.90	904.45
12.50	4	SLE Q	5	10	0.00	-68364.90	-203.40	-920.15	0.00	12.06	54.47	772.74
15.00	2	SLE R	5	10	250.00	-78610.50	27.06	1234.46	0.00	12.06	62.49	886.09
15.00	4	SLE Q	5	10	250.00	-67489.90	81.49	947.47	0.00	12.06	53.06	754.46
15.50	2	SLE R	6	7	0.00	-61335.90	101.37	-1544.53	0.00	12.06	71.24	981.24
15.50	4	SLE Q	6	7	0.00	-52595.20	45.07	-1195.06	0.00	12.06	58.75	816.20
15.50	2	SLE R	6	7	0.00	-61335.90	101.37	-1544.53	0.00	8.04	75.35	1036.63
15.50	4	SLE Q	6	7	0.00	-52595.20	45.07	-1195.06	0.00	8.04	62.14	862.27
18.00	2	SLE R	6	7	250.00	-60679.60	-156.38	1145.41	0.00	8.04	70.19	977.14
18.00	4	SLE Q	6	7	250.00	-51938.90	-100.36	881.50	0.00	8.04	58.16	815.78
18.50	2	SLE R	7	7	0.00	-44640.30	329.31	-1575.82	0.00	8.04	65.25	865.90
18.50	4	SLE Q	7	7	0.00	-38110.90	241.41	-1219.18	0.00	8.04	53.32	713.46
18.50	2	SLE R	7	7	0.00	-44640.30	329.31	-1575.82	0.00	8.04	65.25	865.90
18.50	4	SLE Q	7	7	0.00	-38110.90	241.41	-1219.18	0.00	8.04	53.32	713.46
21.00	2	SLE R	7	7	250.00	-43984.10	-316.61	1176.06	0.00	8.04	58.97	794.89
21.00	4	SLE Q	7	7	250.00	-37454.60	-239.79	906.06	0.00	8.04	48.41	657.42
21.50	2	SLE R	8	7	0.00	-29234.80	547.78	-1531.52	0.00	8.04	55.18	699.80
21.50	4	SLE Q	8	7	0.00	-24721.40	425.67	-1186.28	0.00	8.04	44.46	568.17
21.50	2	SLE R	8	7	0.00	-29234.80	547.78	-1531.52	0.00	6.16	56.87	723.39
21.50	4	SLE Q	8	7	0.00	-24721.40	425.67	-1186.28	0.00	6.16	45.80	586.95
24.00	2	SLE R	8	7	250.00	-28578.60	-455.10	1103.16	0.00	6.16	48.46	629.43
24.00	4	SLE Q	8	7	250.00	-24065.10	-356.01	857.38	0.00	6.16	39.33	513.94
24.50	2	SLE R	9	7	0.00	-14620.80	665.20	-1730.95	3.08	3.08	61.38	691.23
24.50	4	SLE Q	9	7	0.00	-11985.90	520.40	-1336.63	3.08	3.08	46.96	535.14
24.50	2	SLE R	9	7	0.00	-14620.80	665.20	-1730.95	3.08	3.08	61.38	691.23
24.50	4	SLE Q	9	7	0.00	-11985.90	520.40	-1336.63	3.08	3.08	46.96	535.14
27.00	2	SLE R	9	7	250.00	-13964.50	-532.16	1784.29	3.08	3.08	59.64	667.41
27.00	4	SLE Q	9	7	250.00	-11329.70	-415.79	1343.96	3.08	3.08	44.61	506.83

Stato limite d'esercizio - Verifiche a fessurazione

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
24.50	4	SLE Q	9	7	0.00	-11985.90	-1336.63	520.40	39.00	208.00	0.50	14.00	121.06	1.54	47.35	347.45	0.10	0.02
24.50	3	SLE F	9	7	0.00	-12680.70	-1449.47	560.61	39.00	208.00	0.50	14.00	123.02	1.54	49.50	395.68	0.12	0.02
24.50	4	SLE Q	9	7	0.00	-11985.90	-1336.63	520.40	39.00	208.00	0.50	14.00	121.06	1.54	47.35	347.45	0.10	0.02
24.50	3	SLE F	9	7	0.00	-12680.70	-1449.47	560.61	39.00	208.00	0.50	14.00	123.02	1.54	49.50	395.68	0.12	0.02
27.00	4	SLE Q	9	7	250.00	-11329.70	1343.96	-415.79	39.00	208.00	0.50	14.00	127.33	1.54	54.24	348.33	0.10	0.02
27.00	3	SLE F	9	7	250.00	-12024.40	1470.13	-448.11	39.00	208.00	0.50	14.00	130.33	1.54	57.54	404.00	0.12	0.03

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	b <sub>w,y</sub>	d <sub>r,y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	b <sub>w,z</sub>	d <sub>r,z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	S
<m>	<m>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	47.39	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1134.26	2.50	0.00	57709.10	107066.00	51938.20	45
0.50	2.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	47.39	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1134.26	2.50	0.00	57709.10	107066.00	51938.20	45
2.50	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	47.39	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1134.26	2.50	0.00	57709.10	107066.00	51938.20	45
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	255.83	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1640.44	2.50	0.00	44432.50	82434.00	39989.30	24
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	255.83	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1640.44	2.50	0.00	44432.50	82434.00	39989.30	24
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	255.83	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1640.44	2.50	0.00	44432.50	82434.00	39989.30	24
6.50	6.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	464.64	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1780.95	2.50	0.00	44432.50	82434.00	39989.30	22
6.96	8.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	464.64	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1780.95	2.50	0.00	44432.50	82434.00	39989.30	22
8.80	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	464.64	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1780.95	2.50	0.00	44432.50	82434.00	39989.30	22
9.50	9.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	887.19	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2227.15	2.50	0.00	44432.50	82434.00	39989.30	17
9.96	11.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	887.19	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2227.15	2.50	0.00	44432.50	82434.00	39989.30	17
11.80	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	887.19	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2227.15	2.50	0.00	44432.50	82434.00	39989.30	17
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	79.62	2.35	8728.47	---	8728.47	8728.47	0.40	0.30	1338.87	2.50	7955.54	---	8192.48	7955.54	5
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	79.62	2.36	8772.28	---	8772.28	8772.28	0.40	0.30	1338.87	2.50	7955.54	---	8262.30	7955.54	5
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	79.62	2.41	8945.38	---	8945.38	8945.38	0.40	0.30	1338.87	2.50	7955.54	---	8541.61	7955.54	5
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	163.78	2.16	5738.58	---	5738.58	5738.58	0.30	0.30	1485.08	1.97	6256.68	---	6256.68	6256.68	4
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	163.78	2.18	5772.64	---	5772.64	5772.64	0.30	0.30	1485.08	1.98	6295.18	---	6295.18	6295.18	4
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	163.78	2.23	5906.92	---	5906.92	5906.92	0.30	0.30	1485.08	2.03	6446.90	---	6446.90	6446.90	4
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	379.31	2.50	6634.02	---	12740.10	6634.02	0.30	0.30	1519.28	2.50	7955.54	---	13095.40	7955.54	5
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	379.31	2.50	6634.02	---	12791.00	6634.02	0.30	0.30	1519.28	2.50	7955.54	---	13147.70	7955.54	5



Relazione di calcolo

20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	379.31	2.50	6634.02	---	12994.80	6634.02	0.30	0.30	1519.27	2.50	7955.54	---	13357.20	7955.54	5
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	579.72	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1454.06	2.50	7955.54	---	16914.20	7955.54	5
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	579.72	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1454.06	2.50	7955.54	---	16914.20	7955.54	5
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	579.72	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1454.06	2.50	7955.54	---	16914.20	7955.54	5
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	688.97	2.50	6634.02	---	15805.00	6634.02	0.30	0.30	1944.62	2.50	7955.54	---	16245.80	7955.54	4
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	688.97	2.50	6634.02	---	15784.60	6634.02	0.30	0.30	1944.62	2.50	7955.54	---	16224.80	7955.54	4
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	688.97	2.50	6634.02	---	15703.10	6634.02	0.30	0.30	1944.62	2.50	7955.54	---	16141.00	7955.54	4

Pilastrata n. 13

Nodi: 13 313 513 713 913 1113 1313 1513 1713 1913

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
1	R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm>	Fcd <daN/cm>	Fyk <daN/cm>	Fyd <daN/cm>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-212452.00	1383.37	4249.04	-520.47	-4249.04	-797776.00	79859.80	-66766.00	1.14	3.755	129.68
0.00	1(e)	SLU	1	1	0.00	-212452.00	1383.37	4249.04	-520.47	-4249.04	-797776.00	79859.80	-66766.00	1.14	3.755	129.68
3.00	1(e)	SLU	1	1	300.00	-208357.00	2286.92	4167.14	645.74	4167.14	-797776.00	79695.60	66598.60	1.13	3.829	129.68
3.50	1(e)	SLU	2	10	0.00	-184777.00	-307.67	-3695.53	-1082.27	-3695.53	-670786.00	-53389.30	-59513.80	1.15	3.630	157.57
3.50	1(e)	SLU	2	10	0.00	-184777.00	-307.67	-3695.53	-1082.27	-3695.53	-670786.00	-53389.30	-59513.80	1.15	3.630	157.57
6.00	1(e)	SLU	2	10	250.00	-182095.00	1689.04	3641.91	1071.23	3641.91	-670786.00	53375.10	59448.80	1.14	3.684	157.57
6.50	1(e)	SLU	3	10	0.00	-159467.00	-850.82	-3189.35	-1441.07	-3189.35	-670786.00	-52699.90	-58658.20	1.11	4.206	157.57
6.50	1(e)	SLU	3	10	0.00	-159467.00	-850.82	-3189.35	-1441.07	-3189.35	-670786.00	-52699.90	-58658.20	1.11	4.206	157.57
9.00	1(e)	SLU	3	10	250.00	-156786.00	1057.52	3135.72	1224.39	3135.72	-670786.00	52605.30	58554.20	1.11	4.278	157.57
9.50	1(e)	SLU	4	10	0.00	-134562.00	-1191.01	-2691.24	-1803.11	-2691.24	-670786.00	-51767.10	-57628.70	1.08	4.985	157.57
9.50	1(e)	SLU	4	10	0.00	-134562.00	-1191.01	-2691.24	-1803.11	-2691.24	-656377.00	-51542.00	-55750.20	1.09	4.878	166.79
12.00	1(e)	SLU	4	10	250.00	-131881.00	1188.49	2637.62	1629.20	2637.62	-656377.00	51419.40	55638.40	1.08	4.977	166.79
12.50	1(e)	SLU	5	10	0.00	-110133.00	-1013.36	-2202.67	-758.70	-2202.67	-246024.00	-13388.50	-13912.00	1.29	2.234	---
12.50	1(e)	SLU	5	10	0.00	-110133.00	-1013.36	-2202.67	-758.70	-2202.67	-246024.00	-13388.50	-13912.00	1.29	2.234	---
15.00	1(e)	SLU	5	10	250.00	-108996.00	985.22	2179.92	771.03	2179.92	-246024.00	13448.40	13959.80	1.29	2.257	---
18.50	1(e)	SLU	7	7	0.00	-65667.30	-1391.45	-1391.45	-858.91	-1313.35	-180916.00	-10081.10	-8446.82	1.22	2.755	---
18.50	1(e)	SLU	7	7	0.00	-65667.30	-1391.45	-1391.45	-858.91	-1313.35	-180916.00	-10081.10	-8446.82	1.22	2.755	---
21.00	1(e)	SLU	7	7	250.00	-64814.20	1048.65	1296.28	676.64	1296.28	-180916.00	10063.00	8432.31	1.22	2.791	---
21.50	1	SLU	8	7	0.00	-43698.90	-1319.25	-1319.25	-942.51	-942.51	-180916.00	-9077.49	-7587.22	1.12	4.140	---
21.50	1	SLU	8	7	0.00	-43698.90	-1319.25	-1319.25	-942.51	-942.51	-174161.00	-8234.99	-6913.57	1.13	3.985	---
24.00	1(e)	SLU	8	7	250.00	-42845.70	989.14	989.14	724.09	856.91	-174161.00	8173.42	6860.18	1.12	4.065	---
24.50	1	SLU	9	7	0.00	-21771.60	-1342.07	-1342.07	-1059.17	-1059.17	-21776.30	-6065.71	-5066.11	1.02	2.399	---
24.50	1	SLU	9	7	0.00	-21771.60	-1342.07	-1342.07	-1059.17	-1059.17	-21776.30	-6065.71	-5066.11	1.02	2.399	---
27.00	1	SLU	9	7	250.00	-20918.40	1659.87	1659.87	841.25	841.25	-20921.90	5962.33	4981.53	1.02	2.291	---

Dati per verifiche di stabilità

Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*
---	1	3.50	20.21	51.39	---	1	3.50	20.21	51.39	---	1	3.50	20.21	51.39	---	2	3.00	18.90	48.78
---	2	3.00	18.90	48.78	---	2	3.00	18.90	48.78	---	3	3.00	18.90	52.54	---	3	3.00	18.90	52.54
---	3	3.00	18.90	52.54	---	6	3.00	34.64	33.01	---	6	3.00	34.64	33.01	---	6	3.00	34.64	33.01

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdy, s <daNm>	MRdz <daNm>	MRdz, s <daNm>	esp.	Sic.	Δ%
15.50	1(e)	SLU	6	7	0.00	-87685.00	-1303.75	-1753.70	-627.79	-1753.70	-195325.00	-11014.60	-9762.20	-8045.86	-6570.99	1.29	2.228	---
15.50	1(e)	SLU	6	7	0.00	-87685.00	-1303.75	-1753.70	-627.79	-1753.70	-180916.00	-9356.38	-8161.47	-7805.88	-6412.30	1.32	2.063	---
18.00	1(e)	SLU	6	7	250.00	-86831.80	972.21	1736.64	532.76	1736.64	-180916.00	9401.60	8205.34	7841.79	6451.60	1.32	2.084	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cm>	AfC <cm>	σ <sub>c</sub> <daN/cm>	σ <sub>f</sub> <daN/cm>
0.00	2	SLE	R	1	1	0.00	-152715.00	-375.82	1026.51	0.00	53.78	488.30
0.00	4	SLE	Q	1	1	0.00	-133534.00	-275.30	895.58	0.00	53.78	425.63
0.00	2	SLE	R	1	1	0.00	-152715.00	-375.82	1026.51	0.00	53.78	488.30
0.00	4	SLE	R	1	1	0.00	-133534.00	-275.30	895.58	0.00	53.78	425.63
3.00	2	SLE	R	1	1	300.00	-149565.00	467.76	1644.47	0.00	53.78	494.12
3.00	4	SLE	Q	1	1	300.00	-130384.00	321.82	1201.85	0.00	53.78	423.78
3.50	2	SLE	R	2	10	0.00	-132683.00	-782.86	-192.23	0.00	53.78	513.84
3.50	4	SLE	Q	2	10	0.00	-115682.00	-540.43	-46.92	0.00	53.78	439.95
3.50	2	SLE	R	2	10	0.00	-132683.00	-782.86	-192.23	0.00	53.78	513.84
3.50	4	SLE	Q	2	10	0.00	-115682.00	-540.43	-46.92	0.00	53.78	439.95
6.00	2	SLE	R	2	10	250.00	-130621.00	775.52	1213.17	0.00	53.78	538.74
6.00	4	SLE	Q	2	10	250.00	-113619.00	563.21	864.82	0.00	53.78	459.25
6.50	2	SLE	R	3	10	0.00	-114432.00	-1048.40	-583.62	0.00	53.78	467.52
6.50	4	SLE	Q	3	10	0.00	-99531.90	-753.92	-359.35	0.00	53.78	397.25
6.50	2	SLE	R	3	10	0.00	-114432.00	-1048.40	-583.62	0.00	53.78	467.52
6.50	4	SLE	Q	3	10	0.00	-99531.90	-753.92	-359.35	0.00	53.78	397.25



Relazione di calcolo

9.00	2	SLE R	3	10	250.00	-112370.00	890.95	759.69	0.00	53.78	31.41	460.97
9.00	4	SLE Q	3	10	250.00	-97469.40	652.30	508.37	0.00	53.78	26.57	391.48
9.50	2	SLE R	4	10	0.00	-96471.10	-1313.43	-827.03	0.00	53.78	28.70	417.50
9.50	4	SLE Q	4	10	0.00	-83627.90	-945.22	-549.29	0.00	53.78	23.99	350.87
9.50	2	SLE R	4	10	0.00	-96471.10	-1313.43	-827.03	0.00	49.76	29.08	423.19
9.50	4	SLE Q	4	10	0.00	-83627.90	-945.22	-549.29	0.00	49.76	24.32	355.73
12.00	2	SLE R	4	10	250.00	-94408.60	1186.25	844.72	0.00	49.76	28.32	412.32
12.00	4	SLE Q	4	10	250.00	-81565.40	856.44	554.59	0.00	49.76	23.61	345.61
12.50	2	SLE R	5	10	0.00	-78858.80	-551.90	-718.31	0.00	12.06	62.30	887.07
12.50	4	SLE Q	5	10	0.00	-68037.50	-403.19	-512.64	0.00	12.06	51.99	745.63
12.50	2	SLE R	5	10	0.00	-78858.80	-551.90	-718.31	0.00	12.06	62.30	887.07
12.50	4	SLE Q	5	10	0.00	-68037.50	-403.19	-512.64	0.00	12.06	51.99	745.63
15.00	2	SLE R	5	10	250.00	-77983.80	560.43	702.21	0.00	12.06	61.66	877.88
15.00	4	SLE Q	5	10	250.00	-67162.50	409.81	489.80	0.00	12.06	51.26	735.49
15.50	2	SLE R	6	7	0.00	-62775.20	-456.44	-927.61	0.00	12.06	70.34	972.14
15.50	4	SLE Q	6	7	0.00	-53987.50	-339.39	-666.66	0.00	12.06	57.94	808.69
15.50	2	SLE R	6	7	0.00	-62775.20	-456.44	-927.61	0.00	8.04	73.89	1021.69
15.50	4	SLE Q	6	7	0.00	-53987.50	-339.39	-666.66	0.00	8.04	60.87	849.87
18.00	2	SLE R	6	7	250.00	-62118.90	387.44	693.66	0.00	8.04	68.97	966.26
18.00	4	SLE Q	6	7	250.00	-53331.20	289.75	494.71	0.00	8.04	57.12	807.08
18.50	2	SLE R	7	7	0.00	-47019.30	-620.67	-989.54	0.00	8.04	63.98	856.88
18.50	4	SLE Q	7	7	0.00	-40249.10	-464.21	-717.33	0.00	8.04	51.88	702.56
18.50	2	SLE R	7	7	0.00	-47019.30	-620.67	-989.54	0.00	8.04	63.98	856.88
18.50	4	SLE Q	7	7	0.00	-40249.10	-464.21	-717.33	0.00	8.04	51.88	702.56
21.00	2	SLE R	7	7	250.00	-46363.00	489.31	747.84	0.00	8.04	57.93	789.75
21.00	4	SLE Q	7	7	250.00	-39592.90	367.25	539.36	0.00	8.04	47.27	650.88
21.50	2	SLE R	8	7	0.00	-31296.40	-681.90	-938.20	0.00	8.04	50.84	657.99
21.50	4	SLE Q	8	7	0.00	-26527.20	-512.10	-684.81	0.00	8.04	40.49	529.90
21.50	2	SLE R	8	7	0.00	-31296.40	-681.90	-938.20	0.00	6.16	52.32	678.95
21.50	4	SLE Q	8	7	0.00	-26527.20	-512.10	-684.81	0.00	6.16	41.66	546.46
24.00	2	SLE R	8	7	250.00	-30640.10	524.11	704.90	0.00	6.16	45.75	605.75
24.00	4	SLE Q	8	7	250.00	-25870.90	393.99	515.96	0.00	6.16	36.67	490.42
24.50	2	SLE R	9	7	0.00	-15603.30	-765.89	-955.73	1.54	4.62	43.02	516.28
24.50	4	SLE Q	9	7	0.00	-12827.10	-578.30	-690.80	1.54	4.62	32.16	391.39
24.50	2	SLE R	9	7	0.00	-15603.30	-765.89	-955.73	1.54	4.62	43.02	516.28
24.50	4	SLE Q	9	7	0.00	-12827.10	-578.30	-690.80	1.54	4.62	32.16	391.39
27.00	2	SLE R	9	7	250.00	-14947.00	608.13	1183.70	1.54	4.62	44.06	525.19
27.00	4	SLE Q	9	7	250.00	-12170.80	459.53	855.67	1.54	4.62	32.52	393.29

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <cm>	X1 <cm>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	388.73	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	301.18	2.50	0.00	57709.10	107066.00	51938.20	>
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	388.73	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	301.18	2.50	0.00	57709.10	107066.00	51938.20	>
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	388.73	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	301.18	2.50	0.00	57709.10	107066.00	51938.20	>
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	861.40	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	798.68	2.50	0.00	44432.50	82434.00	39989.30	5
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	861.40	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	798.68	2.50	0.00	44432.50	82434.00	39989.30	5
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	861.40	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	798.68	2.50	0.00	44432.50	82434.00	39989.30	5
6.50	6.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1066.19	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	763.34	2.50	0.00	44432.50	82434.00	39989.30	4
6.96	8.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1066.19	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	763.34	2.50	0.00	44432.50	82434.00	39989.30	4
8.80	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1066.19	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	763.34	2.50	0.00	44432.50	82434.00	39989.30	4
9.50	9.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1372.92	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	951.80	2.50	0.00	44432.50	82434.00	39989.30	3
9.96	11.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1372.92	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	951.80	2.50	0.00	44432.50	82434.00	39989.30	3
11.80	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1372.92	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	951.80	2.50	0.00	44432.50	82434.00	39989.30	3
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	611.89	2.38	8834.35	---	8834.35	8834.35	0.40	0.30	799.43	2.50	7955.54	---	8361.82	7955.54	
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	611.89	2.39	8877.64	---	8877.64	8877.64	0.40	0.30	799.43	2.50	7955.54	---	8431.65	7955.54	
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	611.89	2.44	9048.72	---	9048.72	9048.72	0.40	0.30	799.43	2.50	7955.54	---	8710.96	7955.54	
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	464.22	1.97	5216.26	---	5216.26	5216.26	0.30	0.30	910.38	1.78	5665.06	---	5665.06	5665.06	
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	464.22	1.98	5253.71	---	5253.71	5253.71	0.30	0.30	910.38	1.79	5707.56	---	5707.56	5707.56	
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	464.22	2.04	5400.90	---	5400.90	5400.90	0.30	0.30	910.38	1.85	5874.47	---	5874.47	5874.47	
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	614.22	2.50	6634.02	---	11597.00	6634.02	0.30	0.30	976.04	2.50	7955.54	---	11920.50	7955.54	
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	614.22	2.50	6634.02	---	11648.00	6634.02	0.30	0.30	976.04	2.50	7955.54	---	11972.80	7955.54	
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	614.22	2.50	6634.02	---	11851.80	6634.02	0.30	0.30	976.04	2.50	7955.54	---	12182.30	7955.54	
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	666.64	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	923.36	2.50	7955.54	---	16914.20	7955.54	
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	666.64	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	923.36	2.50	7955.54	---	16914.20	7955.54	
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	666.64	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	923.36	2.50	7955.54	---	16914.20	7955.54	
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	760.17	2.50	6634.02	---	15990.80	6634.02	0.30	0.30	1200.78	2.50	7955.54	---	16436.80	7955.54	
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	760.17	2.50	6634.02	---	15970.40	6634.02	0.30	0.30	1200.78	2.50	7955.54	---	16415.80	7955.54	
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	760.17	2.50	6634.02	---	15888.90	6634.02	0.30	0.30	1200.78	2.50	7955.54	---	16332.00	7955.54	

Pilastrata n. 14

Nodi: 114 314 514 714 914 1114 1314 1514 1714 1914

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
1	R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94



Relazione di calcolo

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdz	esp.	Sic.	Δ%
<m>					<m>	<daNm>	<daNm>	<daNm>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>			
0.00	1(e)	SLU	1	1	0.00	-189112.00	762.48	3782.25	3548.74	3782.25	-797776.00	78858.90	65758.30	1.11	4.219	129.68
0.00	1(e)	SLU	1	1	0.00	-189112.00	762.48	3782.25	3548.74	3782.25	-797776.00	78858.90	65758.30	1.11	4.219	129.68
3.00	1(e)	SLU	1	1	300.00	-185017.00	1416.22	3700.35	-1152.38	-3700.35	-797776.00	78668.30	-65568.50	1.11	4.312	129.68
3.50	1(e)	SLU	2	10	0.00	-167504.00	1254.57	3350.08	-3.79	-3350.08	-670786.00	52972.10	-58959.70	1.12	4.005	157.57
3.50	1(e)	SLU	2	10	0.00	-167504.00	1254.57	3350.08	-3.79	-3350.08	-670786.00	52972.10	-58959.70	1.12	4.005	157.57
6.00	1(e)	SLU	2	10	250.00	-164823.00	841.32	3296.45	-287.62	-3296.45	-670786.00	52883.20	-58861.10	1.12	4.070	157.57
6.50	1(e)	SLU	3	10	0.00	-146315.00	536.00	2926.30	652.61	2926.30	-670786.00	52222.50	58130.80	1.10	4.585	157.57
6.50	1(e)	SLU	3	10	0.00	-146315.00	536.00	2926.30	652.61	2926.30	-670786.00	52222.50	58130.80	1.10	4.585	157.57
9.00	1(e)	SLU	3	10	250.00	-143634.00	335.07	2872.68	-443.68	-2872.68	-670786.00	52120.70	-58018.80	1.10	4.670	157.57
9.50	1(e)	SLU	4	10	0.00	-124148.00	161.17	2482.95	563.70	2482.95	-670786.00	51344.60	57163.30	1.07	5.403	157.57
9.50	1(e)	SLU	4	10	0.00	-124148.00	161.17	2482.95	563.70	2482.95	-656377.00	51034.80	55308.70	1.07	5.287	166.79
12.00	1(e)	SLU	4	10	250.00	-121467.00	-142.56	-2429.33	-517.16	-2429.33	-656377.00	-50812.10	-55121.60	1.07	5.404	166.79
12.50	1(e)	SLU	5	10	0.00	-101934.00	-467.83	-2038.68	109.23	2038.68	-246024.00	-13808.90	14241.40	1.26	2.414	---
12.50	1(e)	SLU	5	10	0.00	-101934.00	-467.83	-2038.68	109.23	2038.68	-246024.00	-13808.90	14241.40	1.26	2.414	---
15.00	1(e)	SLU	5	10	250.00	-100796.00	370.38	2015.93	-113.20	-2015.93	-246024.00	13865.70	-14269.60	1.26	2.441	---
18.50	1(e)	SLU	7	7	0.00	-61876.60	-467.20	-1237.53	-68.83	-1237.53	-180916.00	-9989.24	-8368.47	1.20	2.924	---
18.50	1(e)	SLU	7	7	0.00	-61876.60	-467.20	-1237.53	-68.83	-1237.53	-180916.00	-9989.24	-8368.47	1.20	2.924	---
21.00	1(e)	SLU	7	7	250.00	-61023.40	397.96	1220.47	67.37	1220.47	-180916.00	9964.07	8346.88	1.20	2.965	---
21.50	1(e)	SLU	8	7	0.00	-41252.30	-445.52	-825.05	-76.96	-825.05	-180916.00	-8895.83	-7430.76	1.11	4.386	---
21.50	1(e)	SLU	8	7	0.00	-41252.30	-445.52	-825.05	-76.96	-825.05	-174161.00	-8053.33	-6757.10	1.11	4.222	---
24.00	1(e)	SLU	8	7	250.00	-40399.20	476.15	807.98	75.75	807.98	-174161.00	7985.73	6700.08	1.11	4.311	---
24.50	1(e)	SLU	9	7	0.00	-20225.60	-228.52	-404.51	-107.44	-404.51	-20228.80	-5878.00	-4912.46	1.01	6.849	---
24.50	1(e)	SLU	9	7	0.00	-20225.60	-228.52	-404.51	-107.44	-404.51	-20228.80	-5878.00	-4912.46	1.01	6.849	---
27.00	1(e)	SLU	9	7	250.00	-19372.50	1036.35	1036.35	103.34	387.45	-19376.00	5773.34	4825.71	1.01	3.921	---

Dati per verifiche di stabilità

Xg	El	l <sub>0</sub>	λ	λ*	Xg	El	l <sub>0</sub>	λ	λ*	Xg	El	l <sub>0</sub>	λ	λ*	Xg	El	l <sub>0</sub>	λ	λ*
<m>		<m>			<m>		<m>			<m>		<m>			<m>		<m>		
---	2	3.00	18.90	51.26	---	2	3.00	18.90	51.26	---	2	3.00	18.90	51.26	---	3	3.00	18.90	54.87
---	3	3.00	18.90	54.87	---	3	3.00	18.90	54.87	---	6	3.00	34.64	34.15	---	6	3.00	34.64	34.15
---	6	3.00	34.64	34.15															

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg	CC	TCC	El	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdy, s	MRdz	MRdz, s	esp.	Sic.	Δ%
<m>					<m>	<daNm>	<daNm>	<daNm>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>			
15.50	1(e)	SLU	6	7	0.00	-81948.20	-422.60	-1638.96	6.73	1638.96	-195325.00	-11365.40	-10145.20	8226.05	6783.76	1.27	2.384	---
15.50	1(e)	SLU	6	7	0.00	-81948.20	-422.60	-1638.96	6.73	1638.96	-180916.00	-9650.85	-8476.33	8039.26	6661.78	1.29	2.208	---
18.00	1(e)	SLU	6	7	250.00	-81095.10	371.59	1621.90	-0.86	-1621.90	-180916.00	9692.88	8515.24	-8072.30	-6707.89	1.29	2.231	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>f</sub>
<m>					<m>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE	R	1	1	0.00	-135584.00	2551.73	573.32	0.00	53.78	480.39
0.00	4	SLE	Q	1	1	0.00	-120297.00	2268.35	422.61	0.00	53.78	424.52
0.00	2	SLE	R	1	1	0.00	-135584.00	2551.73	573.32	0.00	53.78	480.39
0.00	4	SLE	Q	1	1	0.00	-120297.00	2268.35	422.61	0.00	53.78	424.52
3.00	2	SLE	R	1	1	300.00	-132434.00	-826.79	1033.43	0.00	53.78	438.66
3.00	4	SLE	Q	1	1	300.00	-117147.00	-729.04	813.26	0.00	53.78	385.85
3.50	2	SLE	R	2	10	0.00	-119965.00	-4.83	915.86	0.00	53.78	467.61
3.50	4	SLE	Q	2	10	0.00	-106016.00	-11.24	730.99	0.00	53.78	410.93
3.50	2	SLE	R	2	10	0.00	-119965.00	-4.83	915.86	0.00	53.78	467.61
3.50	4	SLE	Q	2	10	0.00	-106016.00	-11.24	730.99	0.00	53.78	410.93
6.00	2	SLE	R	2	10	250.00	-117903.00	-203.75	615.91	0.00	53.78	456.34
6.00	4	SLE	Q	2	10	250.00	-103953.00	-174.27	479.86	0.00	53.78	400.17
6.50	2	SLE	R	3	10	0.00	-104723.00	462.85	396.12	0.00	53.78	408.81
6.50	4	SLE	Q	3	10	0.00	-92279.90	398.30	311.58	0.00	53.78	358.75
6.50	2	SLE	R	3	10	0.00	-104723.00	462.85	396.12	0.00	53.78	408.81
6.50	4	SLE	Q	3	10	0.00	-92279.90	398.30	311.58	0.00	53.78	358.75
9.00	2	SLE	R	3	10	250.00	-102661.00	-312.81	251.59	0.00	53.78	392.23
9.00	4	SLE	Q	3	10	250.00	-90217.40	-266.43	184.26	0.00	53.78	343.26
9.50	2	SLE	R	4	10	0.00	-88775.10	396.25	126.69	0.00	53.78	339.98
9.50	4	SLE	Q	4	10	0.00	-77986.10	336.59	90.21	0.00	53.78	297.65
9.50	2	SLE	R	4	10	0.00	-88775.10	396.25	126.69	0.00	49.76	344.94
9.50	4	SLE	Q	4	10	0.00	-77986.10	336.59	90.21	0.00	49.76	302.00
12.00	2	SLE	R	4	10	250.00	-86712.60	-362.26	-97.71	0.00	49.76	335.36
12.00	4	SLE	Q	4	10	250.00	-75923.60	-305.83	-82.12	0.00	49.76	293.18
12.50	2	SLE	R	5	10	0.00	-72795.00	73.93	-332.78	0.00	12.06	735.60
12.50	4	SLE	Q	5	10	0.00	-63652.60	61.26	-254.36	0.00	12.06	638.77
12.50	2	SLE	R	5	10	0.00	-72795.00	73.93	-332.78	0.00	12.06	735.60
12.50	4	SLE	Q	5	10	0.00	-63652.60	61.26	-254.36	0.00	12.06	638.77
15.00	2	SLE	R	5	10	250.00	-71920.00	-75.79	267.84	0.00	12.06	720.27
15.00	4	SLE	Q	5	10	250.00	-62777.60	-61.52	192.64	0.00	12.06	623.63
15.50	2	SLE	R	6	7	0.00	-58512.00	0.64	-302.62	0.00	12.06	755.58
15.50	4	SLE	Q	6	7	0.00	-50932.60	-2.01	-230.02	0.00	12.06	653.26
15.50	2	SLE	R	6	7	0.00	-58512.00	0.64	-302.62	0.00	8.04	795.62
15.50	4	SLE	Q	6	7	0.00	-50932.60	-2.01	-230.02	0.00	8.04	687.75
18.00	2	SLE	R	6	7	250.00	-57855.70	3.77	268.65	0.00	8.04	782.60
18.00	4	SLE	Q	6	7	250.00	-50276.40	6.27	197.31	0.00	8.04	675.12
18.50	2	SLE	R	7	7	0.00	-44187.00	-50.95	-334.07	0.00	8.04	625.31
18.50	4	SLE	Q	7	7	0.00	-38236.10	-40.85	-252.39	0.00	8.04	535.00
18.50	2	SLE	R	7	7	0.00	-44187.00	-50.95	-334.07	0.00	8.04	625.31
18.50	4	SLE	Q	7	7	0.00	-38236.10	-40.85	-252.39	0.00	8.04	535.00



Relazione di calcolo

21.00	2	SLE R	7	7	250.00	-43530.70	50.13	287.00	0.00	8.04	41.96	609.65
21.00	4	SLE Q	7	7	250.00	-37579.90	40.88	211.75	0.00	8.04	35.69	520.45
21.50	2	SLE R	8	7	0.00	-29465.90	-57.17	-319.08	0.00	8.04	30.51	435.47
21.50	4	SLE Q	8	7	0.00	-25233.80	-46.36	-242.58	0.00	8.04	25.66	367.84
21.50	2	SLE R	8	7	0.00	-29465.90	-57.17	-319.08	0.00	6.16	31.32	447.33
21.50	4	SLE Q	8	7	0.00	-25233.80	-46.36	-242.58	0.00	6.16	26.34	377.79
24.00	2	SLE R	8	7	250.00	-28809.60	56.30	342.95	0.00	6.16	31.07	442.33
24.00	4	SLE Q	8	7	250.00	-24577.60	45.93	259.67	0.00	6.16	26.00	371.79
24.50	2	SLE R	9	7	0.00	-14456.30	-79.33	-163.67	0.00	6.16	16.33	229.61
24.50	4	SLE Q	9	7	0.00	-12008.80	-66.50	-119.72	0.00	6.16	13.35	188.28
24.50	2	SLE R	9	7	0.00	-14456.30	-79.33	-163.67	0.00	6.16	16.33	229.61
24.50	4	SLE Q	9	7	0.00	-12008.80	-66.50	-119.72	0.00	6.16	13.35	188.28
27.00	2	SLE R	9	7	250.00	-13800.00	76.49	744.32	0.00	6.16	24.00	312.17
27.00	4	SLE Q	9	7	250.00	-11352.50	64.40	550.73	0.00	6.16	18.89	247.34

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <cm>	X1 <cm>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <daN>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	S
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1567.04	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	217.91	2.50	0.00	57709.10	107066.00	51938.20	28
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1567.04	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	217.91	2.50	0.00	57709.10	107066.00	51938.20	28
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1567.04	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	217.91	2.50	0.00	57709.10	107066.00	51938.20	28
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	113.53	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	165.30	2.50	0.00	44432.50	82434.00	39989.30	>10
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	113.53	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	165.30	2.50	0.00	44432.50	82434.00	39989.30	>10
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	113.53	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	165.30	2.50	0.00	44432.50	82434.00	39989.30	>10
6.50	6.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	438.52	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	80.37	2.50	0.00	44432.50	82434.00	39989.30	>10
6.96	8.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	438.52	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	80.37	2.50	0.00	44432.50	82434.00	39989.30	>10
8.80	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	438.52	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	80.37	2.50	0.00	44432.50	82434.00	39989.30	>10
9.50	9.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	432.35	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	121.50	2.50	0.00	44432.50	82434.00	39989.30	>10
9.96	11.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	432.35	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	121.50	2.50	0.00	44432.50	82434.00	39989.30	>10
11.80	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	432.35	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	121.50	2.50	0.00	44432.50	82434.00	39989.30	>10
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	88.97	2.50	9277.05	---	11323.10	9277.05	0.40	0.30	335.29	2.50	7955.54	---	11097.30	7955.54	23
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	88.97	2.50	9277.05	---	11394.40	9277.05	0.40	0.30	335.29	2.50	7955.54	---	11167.10	7955.54	23
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	88.97	2.50	9277.05	---	11679.40	9277.05	0.40	0.30	335.29	2.50	7955.54	---	11446.40	7955.54	23
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	3.04	2.43	6445.01	---	6445.01	6445.01	0.30	0.30	317.68	2.22	7053.74	---	7053.74	7053.74	22
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	3.04	2.44	6475.36	---	6475.36	6475.36	0.30	0.30	317.68	2.23	7087.91	---	7087.92	7087.91	22
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	3.04	2.49	6595.34	---	6595.34	6595.34	0.30	0.30	317.68	2.27	7223.00	---	7223.00	7223.00	22
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	54.48	2.50	6634.02	---	12827.40	6634.02	0.30	0.30	346.07	2.50	7955.54	---	13185.10	7955.54	22
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	54.48	2.50	6634.02	---	12878.40	6634.02	0.30	0.30	346.07	2.50	7955.54	---	13237.50	7955.54	22
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	54.48	2.50	6634.02	---	13082.20	6634.02	0.30	0.30	346.07	2.50	7955.54	---	13447.00	7955.54	22
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	61.08	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	368.67	2.50	7955.54	---	16914.20	7955.54	21
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	61.08	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	368.67	2.50	7955.54	---	16914.20	7955.54	21
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	61.08	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	368.67	2.50	7955.54	---	16914.20	7955.54	21
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	84.31	2.50	6634.02	---	15790.10	6634.02	0.30	0.30	505.95	2.50	7955.54	---	16230.40	7955.54	15
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	84.31	2.50	6634.02	---	15769.70	6634.02	0.30	0.30	505.95	2.50	7955.54	---	16209.50	7955.54	15
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	84.31	2.50	6634.02	---	15688.20	6634.02	0.30	0.30	505.95	2.50	7955.54	---	16125.70	7955.54	15

Pilastrata n. 15

Nodi: 115 315 515 715 915 1115 1315 1515 1715 1915

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
1R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	96.57	8.95	4300.00	3583.33	3115.94
10R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	96.57	8.95	4300.00	3583.33	3115.94
7R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	96.57	8.95	4300.00	3583.33	3115.94
7R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-202319.00	530.26	4046.39	1001.10	4046.39	-797776.00	79444.20	66344.50	1.13	3.943	129.68
0.00	1(e)	SLU	1	1	0.00	-202319.00	530.26	4046.39	1001.10	4046.39	-797776.00	79444.20	66344.50	1.13	3.943	129.68
3.00	1(e)	SLU	1	1	300.00	-198224.00	3306.14	3964.49	-1247.30	-3964.49	-797776.00	79267.80	-66167.00	1.12	4.025	129.68
3.50	1(e)	SLU	2	10	0.00	-176846.00	-755.25	-3536.93	1951.81	3536.93	-670786.00	-53268.60	59288.20	1.14	3.793	157.57
3.50	1(e)	SLU	2	10	0.00	-176846.00	-755.25	-3536.93	1951.81	3536.93	-670786.00	-53268.60	59288.20	1.14	3.793	157.57
6.00	1(e)	SLU	2	10	250.00	-174165.00	2166.42	3483.30	-1546.61	-3483.30	-670786.00	53185.70	-59196.80	1.13	3.851	157.57
6.50	1(e)	SLU	3	10	0.00	-152970.00	-1713.60	-3059.41	2472.03	3059.41	-670786.00	-52468.60	58402.50	1.11	4.385	157.57
6.50	1(e)	SLU	3	10	0.00	-152970.00	-1713.60	-3059.41	2472.03	3059.41	-670786.00	-52468.60	58402.50	1.11	4.385	157.57
9.00	1(e)	SLU	3	10	250.00	-150289.00	1767.05	3005.78	-1919.77	-3005.78	-670786.00	52370.40	-58294.40	1.10	4.463	157.57
9.50	1(e)	SLU	4	10	0.00	-129426.00	-1982.37	-2588.51	3089.57	3089.57	-670786.00	-51560.90	57401.40	1.08	5.183	157.57
9.50	1(e)	SLU	4	10	0.00	-129426.00	-1982.37	-2588.51	3089.57	3089.57	-656377.00	-51306.10	55534.60	1.08	5.071	166.79
12.00	1(e)	SLU	4	10	250.00	-126744.00	1985.78	2534.89	-2646.71	-2646.71	-656377.00	51180.60	-55420.30	1.08	5.179	166.79
12.50	1(e)	SLU	5	10	0.00	-106192.00	-1578.83	-2123.84	1056.60	2123.84	-246024.00	-13593.40	14074.30	1.28	2.317	---
12.50	1(e)	SLU	5	10	0.00	-106192.00	-1578.83	-2123.84	1056.60	2123.84	-246024.00	-13593.40	14074.30	1.28	2.317	---
15.00	1(e)	SLU	5	10	250.00	-105055.00	1548.53	2101.09	-1043.40	-2101.09	-246024.00	13651.70	-14119.60	1.27	2.342	---
18.50	1(e)	SLU	7	7	0.00	-63549.70	-1956.62	-1956.62	893.33	1270.99	-180916.00	-10033.80	8406.61	1.21	2.847	---
18.50	1(e)	SLU	7	7	0.00	-63549.70	-1956.62	-1956.62	893.33	1270.99	-180916.00	-10033.80	8406.61	1.21	2.847	---
21.00	1(e)	SLU	7	7	250.00	-62696.60	1423.52	1423.52	-701.53	-1253.93	-180916.00	10012.10	-7898.41	1.21	2.886	---
21.50	1	SLU	8	7	0.00	-42244.50	-1949.50	-1949.50	989.00	989.00	-42247.20	-8970.70	7436.04	1.11	3.464	---
21.50	1	SLU	8	7	0.00	-42244.50	-1949.50	-1949.50	989.00	989.00	-42247.20	-8128.20	6822.39	1.12	3.148	---
24.00	1(e)	SLU	8	7	250.00	-41391.40	1478.02	1478.02	-761.46	-827.83	-41394.80	8064.00	-6766.38	1.11	4.048	---
24.50	1	SLU	9	7	0.00	-20906.70	-1856.78	-1856.78	1079.90	1079.90	-20908.90	-5960.57	4980.26	1.02	1.935	---
24.50	1	SLU	9	7	0.00	-20906.70	-1856.78	-1856.78	1079.90	1079.90	-20908.90	-5960.57	4980.26	1.02	1.935	---
27.00	1	SLU	9	7	250.00	-20053.60	2405.57	2405.57	-852.12	-852.12	-20054.50	5856.90	-4894.69	1.01	1.735	---



Relazione di calcolo

Xg	El	l <sub>0</sub>	λ	λ*	Xg	El	l <sub>0</sub>	λ	λ*	Xg	El	l <sub>0</sub>	λ	λ*	Xg	El	l <sub>0</sub>	λ	λ*
<m>		<m>			<m>		<m>			<m>		<m>			<m>		<m>		
---	1	3.50	20.21	52.67	---	1	3.50	20.21	52.67	---	1	3.50	20.21	52.67	---	2	3.00	18.90	49.87
---	2	3.00	18.90	49.87	---	2	3.00	18.90	49.87	---	3	3.00	18.90	53.66	---	3	3.00	18.90	53.66
---	3	3.00	18.90	53.66	---	6	3.00	34.64	33.57	---	6	3.00	34.64	33.57	---	6	3.00	34.64	33.57

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg	CC	TCC	El	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdy,s	MRdz	MRdz,s	esp.	Sic.	Δ%
<m>					<cm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>			
15.50	1(e)	SLU	6	7	0.00	-84803.10	-1880.47	-1880.47	742.21	1696.06	-195325.00	-11192.50	-9986.74	8137.86	6685.21	1.28	2.303	---
15.50	1(e)	SLU	6	7	0.00	-84803.10	-1880.47	-1880.47	742.21	1696.06	-180916.00	-9507.12	-8304.73	7925.49	6542.27	1.31	2.133	---
18.00	1(e)	SLU	6	7	250.00	-83950.00	1414.86	1679.00	-627.60	-1679.00	-180916.00	9550.69	8344.90	-7959.92	-6579.47	1.30	2.155	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>f</sub>
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE	R	1	1	0.00	-145158.00	727.06	397.01	0.00	53.78	460.95
0.00	4	SLE	Q	1	1	0.00	-126537.00	576.05	299.35	0.00	53.78	399.43
0.00	2	SLE	R	1	1	0.00	-145158.00	727.06	397.01	0.00	53.78	460.95
0.00	4	SLE	Q	1	1	0.00	-126537.00	576.05	299.35	0.00	53.78	399.43
3.00	2	SLE	R	1	1	300.00	-142008.00	-902.94	2400.55	0.00	53.78	498.00
3.00	4	SLE	Q	1	1	300.00	-123387.00	-698.32	1860.79	0.00	53.78	425.86
3.50	2	SLE	R	2	10	0.00	-126752.00	1412.65	-538.22	0.00	53.78	521.79
3.50	4	SLE	Q	2	10	0.00	-110194.00	1096.16	-381.62	0.00	53.78	446.98
3.50	2	SLE	R	2	10	0.00	-126752.00	1412.65	-538.22	0.00	53.78	521.79
3.50	4	SLE	Q	2	10	0.00	-110194.00	1096.16	-381.62	0.00	53.78	446.98
6.00	2	SLE	R	2	10	250.00	-124689.00	-1120.68	1573.05	0.00	53.78	538.75
6.00	4	SLE	Q	2	10	250.00	-108131.00	-868.38	1213.76	0.00	53.78	459.35
6.50	2	SLE	R	3	10	0.00	-109567.00	1791.27	-1233.00	0.00	53.78	492.40
6.50	4	SLE	Q	3	10	0.00	-95040.60	1404.61	-932.50	0.00	53.78	418.34
6.50	2	SLE	R	3	10	0.00	-109567.00	1791.27	-1233.00	0.00	53.78	492.40
6.50	4	SLE	Q	3	10	0.00	-95040.60	1404.61	-932.50	0.00	53.78	418.34
9.00	2	SLE	R	3	10	250.00	-107505.00	-1392.44	1285.69	0.00	53.78	474.80
9.00	4	SLE	Q	3	10	250.00	-92978.10	-1092.36	978.85	0.00	53.78	403.09
9.50	2	SLE	R	4	10	0.00	-92613.40	2239.40	-1425.95	0.00	53.78	449.85
9.50	4	SLE	Q	4	10	0.00	-80064.30	1757.81	-1092.61	0.00	53.78	379.16
9.50	2	SLE	R	4	10	0.00	-92613.40	2239.40	-1425.95	0.00	49.76	455.62
9.50	4	SLE	Q	4	10	0.00	-80064.30	1757.81	-1092.61	0.00	49.76	384.10
12.00	2	SLE	R	4	10	250.00	-90550.90	-1918.55	1441.30	0.00	49.76	438.91
12.00	4	SLE	Q	4	10	250.00	-78001.80	-1498.10	1092.69	0.00	49.76	368.72
12.50	2	SLE	R	5	10	0.00	-75888.00	765.62	-1137.99	0.00	12.06	928.40
12.50	4	SLE	Q	5	10	0.00	-65292.60	592.71	-875.51	0.00	12.06	780.20
12.50	2	SLE	R	5	10	0.00	-75888.00	765.62	-1137.99	0.00	12.06	928.40
12.50	4	SLE	Q	5	10	0.00	-65292.60	592.71	-875.51	0.00	12.06	780.20
15.00	2	SLE	R	5	10	250.00	-75013.00	-755.89	1121.85	0.00	12.06	917.26
15.00	4	SLE	Q	5	10	250.00	-64417.60	-582.42	853.18	0.00	12.06	768.31
15.50	2	SLE	R	6	7	0.00	-60596.90	537.76	-1359.04	0.00	12.06	1019.86
15.50	4	SLE	Q	6	7	0.00	-51975.60	412.91	-1043.10	0.00	12.06	849.40
15.50	2	SLE	R	6	7	0.00	-60596.90	537.76	-1359.04	0.00	8.04	1072.75
15.50	4	SLE	Q	6	7	0.00	-51975.60	412.91	-1043.10	0.00	8.04	893.43
18.00	2	SLE	R	6	7	250.00	-59940.70	-454.77	1024.73	0.00	8.04	999.78
18.00	4	SLE	Q	6	7	250.00	-51319.40	-350.12	781.01	0.00	8.04	834.79
18.50	2	SLE	R	7	7	0.00	-45419.20	651.02	-1414.05	0.00	8.04	905.71
18.50	4	SLE	Q	7	7	0.00	-38779.90	505.66	-1084.68	0.00	8.04	746.29
18.50	2	SLE	R	7	7	0.00	-45419.20	651.02	-1414.05	0.00	8.04	905.71
18.50	4	SLE	Q	7	7	0.00	-38779.90	505.66	-1084.68	0.00	8.04	746.29
21.00	2	SLE	R	7	7	250.00	-44762.90	-511.21	1030.93	0.00	8.04	815.76
21.00	4	SLE	Q	7	7	250.00	-38123.70	-397.26	787.09	0.00	8.04	674.58
21.50	2	SLE	R	8	7	0.00	-30200.80	721.20	-1408.74	0.00	8.04	722.88
21.50	4	SLE	Q	8	7	0.00	-25533.70	561.90	-1078.83	0.00	8.04	585.30
21.50	2	SLE	R	8	7	0.00	-30200.80	721.20	-1408.74	0.00	6.16	747.17
21.50	4	SLE	Q	8	7	0.00	-25533.70	561.90	-1078.83	0.00	6.16	604.58
24.00	2	SLE	R	8	7	250.00	-29544.60	-555.28	1069.74	0.00	6.16	654.45
24.00	4	SLE	Q	8	7	250.00	-24877.50	-432.63	817.50	0.00	6.16	531.78
24.50	2	SLE	R	9	7	0.00	-14956.40	787.55	-1343.54	1.54	4.62	616.24
24.50	4	SLE	Q	9	7	0.00	-12255.20	612.64	-1032.62	1.54	4.62	477.26
24.50	2	SLE	R	9	7	0.00	-14956.40	787.55	-1343.54	1.54	4.62	616.24
24.50	4	SLE	Q	9	7	0.00	-12255.20	612.64	-1032.62	1.54	4.62	477.26
27.00	2	SLE	R	9	7	250.00	-14300.20	-621.35	1737.76	3.08	3.08	680.41
27.00	4	SLE	Q	9	7	250.00	-11599.00	-483.54	1319.29	3.08	3.08	519.46

Stato limite d'esercizio - Verifiche a fessurazione

Xg	CC	TCC	El	Sez.	X	N	My	Mz	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	W <sub>k</sub>	
<m>					<cm>	<daN>	<daNm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>	
27.00	4	SLE	Q	9	7	250.00	-11599.00	1319.29	-483.54	39.00	208.00	0.50	14.00	122.70	1.54	49.15	343.94	0.10	0.02
27.00	3	SLE	F	9	7	250.00	-12309.10	1438.92	-523.02	39.00	208.00	0.50	14.00	124.99	1.54	51.67	395.96	0.12	0.02

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>
----	----	--------	-----------------	-----------------	--------	----	-----	-----------------	----------------	-------------------	-------------------	-------------------	----------------------	-------------------	------------------	-----------------	----------------	-------------------	-------------------	-------------------	----------------------	-------------------	------------------



Relazione di calcolo

<m>	<m>						<m>	<m>	<daN>		<daN>	<daN>	<daN>	<daN>	<m>	<m>	<daN>		<daN>	<daN>	<daN>	<daN>		
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	749.47	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	925.29	2.50	0.00	57709.10	107066.00	51938.20	5
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	749.47	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	925.29	2.50	0.00	57709.10	107066.00	51938.20	5
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	749.47	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	925.29	2.50	0.00	57709.10	107066.00	51938.20	5
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1399.37	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1168.67	2.50	0.00	44432.50	82434.00	39989.30	3
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1399.37	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1168.67	2.50	0.00	44432.50	82434.00	39989.30	3
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1399.37	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1168.67	2.50	0.00	44432.50	82434.00	39989.30	3
6.50	6.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1756.72	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1392.26	2.50	0.00	44432.50	82434.00	39989.30	2
6.96	8.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1756.72	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1392.26	2.50	0.00	44432.50	82434.00	39989.30	2
8.80	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1756.72	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1392.26	2.50	0.00	44432.50	82434.00	39989.30	2
9.50	9.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	2294.51	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1587.26	2.50	0.00	44432.50	82434.00	39989.30	1
9.96	11.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	2294.51	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1587.26	2.50	0.00	44432.50	82434.00	39989.30	1
11.80	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	2294.51	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1587.26	2.50	0.00	44432.50	82434.00	39989.30	1
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	840.00	2.50	9277.05	---	9873.64	9277.05	0.40	0.30	1250.95	2.50	7955.54	---	9676.73	7955.54	
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	840.00	2.50	9277.05	---	9944.88	9277.05	0.40	0.30	1250.95	2.50	7955.54	---	9746.55	7955.54	
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	840.00	2.50	9277.05	---	10229.90	9277.05	0.40	0.30	1250.95	2.50	7955.54	---	10025.90	7955.54	
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	547.92	2.21	5865.79	---	5865.79	5865.79	0.30	0.30	1318.13	2.01	6400.44	---	6400.44	6400.44	
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	547.92	2.22	5899.11	---	5899.11	5899.11	0.30	0.30	1318.13	2.02	6438.08	---	6438.08	6438.08	
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	547.92	2.27	6030.57	---	6030.58	6030.57	0.30	0.30	1318.13	2.07	6586.51	---	6586.51	6586.51	
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	637.95	2.50	6634.02	---	12284.40	6634.02	0.30	0.30	1352.06	2.50	7955.54	---	12626.90	7955.54	
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	637.95	2.50	6634.02	---	12335.30	6634.02	0.30	0.30	1352.06	2.50	7955.54	---	12679.30	7955.54	
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	637.95	2.50	6634.02	---	12539.10	6634.02	0.30	0.30	1352.05	2.50	7955.54	---	12888.80	7955.54	
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	700.18	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1371.01	2.50	7955.54	---	16914.20	7955.54	
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	700.18	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1371.00	2.50	7955.54	---	16914.20	7955.54	
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	700.18	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1371.00	2.50	7955.54	---	16914.20	7955.54	
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	772.81	2.50	6634.02	---	15878.50	6634.02	0.30	0.30	1704.94	2.50	7955.54	---	16321.30	7955.54	
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	772.81	2.50	6634.02	---	15858.10	6634.02	0.30	0.30	1704.94	2.50	7955.54	---	16300.40	7955.54	
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	772.81	2.50	6634.02	---	15776.60	6634.02	0.30	0.30	1704.94	2.50	7955.54	---	16216.60	7955.54	

Pilastrata n. 16

Nodi: 116 316 516 716 916 1116 1316 1516 1716 1916

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
1	R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm>	Fcd <daN/cm>	Fyk <daN/cm>	Fyd <daN/cm>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%	
0.00	1	(e)	SLU	1	1	0.00	-222674.00	1354.31	4453.47	-678.59	-4453.47	-797776.00	80245.90	-67163.80	1.15	3.583	129.68
0.00	1	(e)	SLU	1	1	0.00	-222674.00	1354.31	4453.47	-678.59	-4453.47	-797776.00	80245.90	-67163.80	1.15	3.583	129.68
3.00	1	(e)	SLU	1	1	300.00	-218579.00	3768.98	4371.57	-63.33	-4371.57	-797776.00	80095.30	-67008.10	1.14	3.650	129.68
3.50	1	(e)	SLU	2	10	0.00	-193885.00	-1486.14	-3877.70	829.88	3877.70	-670786.00	-53428.50	59639.00	1.16	3.460	179.00
3.50	1	(e)	SLU	2	10	0.00	-193885.00	-1486.14	-3877.70	829.88	3877.70	-670786.00	-53428.50	59639.00	1.16	3.460	179.00
6.00	1	(e)	SLU	2	10	250.00	-191204.00	2453.43	3824.08	-715.87	-3824.08	-670786.00	53418.40	-59656.20	1.15	3.508	161.60
6.50	1	(e)	SLU	3	10	0.00	-166292.00	-2485.53	-3325.84	1421.12	3325.84	-670786.00	-52932.30	58915.40	1.12	4.034	157.57
6.50	1	(e)	SLU	3	10	0.00	-166292.00	-2485.53	-3325.84	1421.12	3325.84	-670786.00	-52932.30	58915.40	1.12	4.034	157.57
9.00	1	(e)	SLU	3	10	250.00	-163611.00	2117.30	3272.22	-1182.90	-3272.22	-670786.00	52842.10	-58816.10	1.12	4.100	157.57
9.50	1	(e)	SLU	4	10	0.00	-138182.00	-2733.65	-2763.64	2223.08	2763.64	-670786.00	-51910.20	57786.40	1.09	4.854	157.57
9.50	1	(e)	SLU	4	10	0.00	-138182.00	-2733.65	-2763.64	2223.08	2763.64	-656377.00	-51705.10	55899.50	1.09	4.750	166.79
12.00	1	(e)	SLU	4	10	250.00	-135501.00	2697.40	2710.02	-2016.84	-2710.02	-656377.00	51584.50	-55789.10	1.09	4.844	166.79
12.50	1	(e)	SLU	5	10	0.00	-109629.00	-1778.87	-2192.57	459.37	2192.57	-246024.00	-13415.20	13933.20	1.29	2.244	---
12.50	1	(e)	SLU	5	10	0.00	-109629.00	-1778.87	-2192.57	459.37	2192.57	-246024.00	-13415.20	13933.20	1.29	2.244	---
15.00	1	(e)	SLU	5	10	250.00	-108491.00	1812.14	2169.82	-258.27	-2169.82	-246024.00	13474.60	-13980.50	1.28	2.268	---
18.50	1	(e)	SLU	7	7	0.00	-61924.60	-2256.84	-2256.84	-449.93	-1238.49	-180916.00	-9990.60	-8369.58	1.20	2.922	---
18.50	1	(e)	SLU	7	7	0.00	-61924.60	-2256.84	-2256.84	-449.93	-1238.49	-180916.00	-9990.60	-8369.58	1.20	2.922	---
21.00	1	(e)	SLU	7	7	250.00	-61071.50	1639.56	1639.56	416.90	1221.43	-180916.00	9965.49	8348.04	1.20	2.962	---
21.50	1	(e)	SLU	8	7	0.00	-40692.10	-2230.78	-2230.78	-700.21	-813.84	-40694.60	-8851.60	-7393.20	1.10	3.270	---
21.50	1	(e)	SLU	8	7	0.00	-40692.10	-2230.78	-2230.78	-700.21	-813.84	-40694.60	-8009.09	-6719.56	1.11	2.965	---
24.00	1	(e)	SLU	8	7	250.00	-39839.00	1639.10	1639.10	583.13	796.78	-39842.70	7941.08	6661.96	1.11	3.711	---
24.50	1	(e)	SLU	9	7	0.00	-20498.20	-2351.39	-2351.39	-850.83	-850.83	-20498.20	-5910.91	-4939.61	1.01	1.785	---
24.50	1	(e)	SLU	9	7	0.00	-20498.20	-2351.39	-2351.39	-850.83	-850.83	-20498.20	-5910.91	-4939.61	1.01	1.785	---
27.00	1	(e)	SLU	9	7	250.00	-19645.10	2617.57	2617.57	667.40	667.40	-19648.40	5807.11	4853.38	1.01	1.719	---



Relazione di calcolo

0.00	2	SLE R	1	1	0.00	-160265.00	-471.82	998.39	0.00	53.78	34.55	512.66
0.00	4	SLE Q	1	1	0.00	-139275.00	-371.76	820.22	0.00	53.78	29.87	443.59
0.00	2	SLE R	1	1	0.00	-160265.00	-471.82	998.39	0.00	53.78	34.55	512.66
0.00	4	SLE Q	1	1	0.00	-139275.00	-371.76	820.22	0.00	53.78	29.87	443.59
3.00	2	SLE R	1	1	300.00	-157115.00	-65.83	2736.65	0.00	53.78	35.96	529.97
3.00	4	SLE Q	1	1	300.00	-136125.00	-121.76	2137.15	0.00	53.78	30.90	455.82
3.50	2	SLE R	2	10	0.00	-139461.00	632.34	-1077.84	0.00	53.78	38.22	562.48
3.50	4	SLE Q	2	10	0.00	-120960.00	654.62	-822.04	0.00	53.78	33.11	487.38
3.50	2	SLE R	2	10	0.00	-139461.00	632.34	-1077.84	0.00	53.78	38.22	562.48
3.50	4	SLE Q	2	10	0.00	-120960.00	654.62	-822.04	0.00	53.78	33.11	487.38
6.00	2	SLE R	2	10	250.00	-137399.00	-549.04	1785.21	0.00	53.78	39.35	575.12
6.00	4	SLE Q	2	10	250.00	-118898.00	-562.91	1391.00	0.00	53.78	33.86	495.34
6.50	2	SLE R	3	10	0.00	-119577.00	1078.00	-1795.99	0.00	53.78	36.28	525.95
6.50	4	SLE Q	3	10	0.00	-103548.00	1061.36	-1387.31	0.00	53.78	31.28	453.84
6.50	2	SLE R	3	10	0.00	-119577.00	1078.00	-1795.99	0.00	53.78	36.28	525.95
6.50	4	SLE Q	3	10	0.00	-103548.00	1061.36	-1387.31	0.00	53.78	31.28	453.84
9.00	2	SLE R	3	10	250.00	-117515.00	-897.44	1543.66	0.00	53.78	34.70	505.03
9.00	4	SLE Q	3	10	250.00	-101485.00	-878.09	1190.90	0.00	53.78	29.84	434.63
9.50	2	SLE R	4	10	0.00	-99307.30	1678.21	-1975.09	0.00	53.78	33.21	475.33
9.50	4	SLE Q	4	10	0.00	-85751.80	1619.30	-1540.65	0.00	53.78	28.65	410.19
9.50	2	SLE R	4	10	0.00	-99307.30	1678.21	-1975.09	0.00	49.76	33.61	481.28
9.50	4	SLE Q	4	10	0.00	-85751.80	1619.30	-1540.65	0.00	49.76	29.00	415.38
12.00	2	SLE R	4	10	250.00	-97244.80	-1524.48	1961.75	0.00	49.76	32.70	468.63
12.00	4	SLE Q	4	10	250.00	-83689.30	-1472.94	1515.79	0.00	49.76	28.08	402.58
12.50	2	SLE R	5	10	0.00	-78705.00	361.89	-1286.32	0.00	12.06	66.20	928.51
12.50	4	SLE Q	5	10	0.00	-67655.20	383.41	-1002.04	0.00	12.06	56.52	794.34
12.50	2	SLE R	5	10	0.00	-78705.00	361.89	-1286.32	0.00	12.06	66.20	928.51
12.50	4	SLE Q	5	10	0.00	-67655.20	383.41	-1002.04	0.00	12.06	56.52	794.34
15.00	2	SLE R	5	10	250.00	-77830.00	-217.20	1315.73	0.00	12.06	64.59	908.03
15.00	4	SLE Q	5	10	250.00	-66780.20	-258.67	1015.90	0.00	12.06	54.95	774.26
15.50	2	SLE R	6	7	0.00	-60725.80	-21.39	-1595.01	0.00	12.06	70.08	967.39
15.50	4	SLE Q	6	7	0.00	-52041.70	34.30	-1239.26	0.00	12.06	58.69	813.84
15.50	2	SLE R	6	7	0.00	-60725.80	-21.39	-1595.01	0.00	8.04	74.21	1022.95
15.50	4	SLE Q	6	7	0.00	-52041.70	34.30	-1239.26	0.00	8.04	62.10	860.05
18.00	2	SLE R	6	7	250.00	-60069.60	94.06	1196.75	0.00	8.04	69.35	966.57
18.00	4	SLE Q	6	7	250.00	-51385.40	38.27	924.82	0.00	8.04	57.27	804.76
18.50	2	SLE R	7	7	0.00	-44455.60	-292.26	-1636.16	0.00	8.04	65.32	866.40
18.50	4	SLE Q	7	7	0.00	-37930.10	-184.45	-1270.56	0.00	8.04	52.94	709.30
18.50	2	SLE R	7	7	0.00	-44455.60	-292.26	-1636.16	0.00	8.04	65.32	866.40
18.50	4	SLE Q	7	7	0.00	-37930.10	-184.45	-1270.56	0.00	8.04	52.94	709.30
21.00	2	SLE R	7	7	250.00	-43799.30	275.35	1190.74	0.00	8.04	58.34	787.78
21.00	4	SLE Q	7	7	250.00	-37273.90	185.08	920.97	0.00	8.04	47.57	648.13
21.50	2	SLE R	8	7	0.00	-29217.00	-468.64	-1616.69	0.00	8.04	55.04	699.13
21.50	4	SLE Q	8	7	0.00	-24678.90	-329.63	-1252.61	0.00	8.04	43.76	561.37
21.50	2	SLE R	8	7	0.00	-29217.00	-468.64	-1616.69	0.00	6.16	56.73	722.75
21.50	4	SLE Q	8	7	0.00	-24678.90	-329.63	-1252.61	0.00	6.16	45.07	579.88
24.00	2	SLE R	8	7	250.00	-28560.70	392.50	1190.57	0.00	6.16	48.64	631.99
24.00	4	SLE Q	8	7	250.00	-24022.70	281.00	922.47	0.00	6.16	38.95	510.48
24.50	2	SLE R	9	7	0.00	-14721.50	-574.73	-1704.51	3.08	3.08	57.69	656.59
24.50	4	SLE Q	9	7	0.00	-12042.10	-416.64	-1323.13	3.08	3.08	43.46	501.46
24.50	2	SLE R	9	7	0.00	-14721.50	-574.73	-1704.51	3.08	3.08	57.69	656.59
24.50	4	SLE Q	9	7	0.00	-12042.10	-416.64	-1323.13	3.08	3.08	43.46	501.46
27.00	2	SLE R	9	7	250.00	-14065.30	451.46	1892.05	3.08	3.08	60.52	673.79
27.00	4	SLE Q	9	7	250.00	-11385.90	327.51	1438.10	3.08	3.08	44.88	507.82

Stato limite d'esercizio - Verifiche a fessurazione

Xg <cm>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
24.50	3	SLE F	9	7	0.00	-12748.50	-1431.84	-460.62	39.00	208.00	0.50	14.00	122.09	1.54	48.48	334.83	0.10	0.02
24.50	3	SLE F	9	7	0.00	-12748.50	-1431.84	-460.62	39.00	208.00	0.50	14.00	122.09	1.54	48.48	334.83	0.10	0.02
27.00	4	SLE Q	9	7	250.00	-11385.90	1438.10	327.51	39.00	208.00	0.50	14.00	139.09	1.54	67.17	375.24	0.11	0.03
27.00	3	SLE F	9	7	250.00	-12092.30	1567.90	362.05	39.00	208.00	0.50	14.00	141.83	1.54	70.19	435.49	0.13	0.03

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	b <sub>w</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	b <sub>w,z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	
<mm>	<mm>							<cm>	<mm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<mm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	205.09	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	804.89	2.50	0.00	57709.10	107066.00	51938.20	6
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	205.09	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	804.89	2.50	0.00	57709.10	107066.00	51938.20	6
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	205.09	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	804.89	2.50	0.00	57709.10	107066.00	51938.20	6
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	618.30	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1575.83	2.50	0.00	44432.50	82434.00	39989.30	2
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	618.30	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1575.83	2.50	0.00	44432.50	82434.00	39989.30	2
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	618.30	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1575.83	2.50	0.00	44432.50	82434.00	39989.30	2
6.50	6.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1041.61	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1841.13	2.50	0.00	44432.50	82434.00	39989.30	2
6.96	8.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1041.61	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1841.13	2.50	0.00	44432.50	82434.00	39989.30	2
8.80	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1041.61	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1841.13	2.50	0.00	44432.50	82434.00	39989.30	2
9.50	9.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1695.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2172.42	2.50	0.00	44432.50	82434.00	39989.30	1
9.96	11.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1695.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2172.42	2.50	0.00	44432.50	82434.00	39989.30	1
11.80	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1695.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2172.42	2.50	0.00	44432.50	82434.00	39989.30	1
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	287.06	2.41	8938.38	---	8938.38	8938.38	0.40	0.30	1436.40	2.50	7955.54	---	8530.21	7955.54	6
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	287.06	2.42	8981.16	---	8981.16	8981.16	0.40	0.30	1436.40	2.50	7955.54	---	8600.03	7955.54	6
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	287.06	2.47	9150.31	---	9150.31	9150.31	0.40	0.30	1436.40	2.50	7955.54	---	8879.34	7955.54	6
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	87.70	2.23	5908.87	---	5908.87	5908.87	0.30	0.30	1539.59	2.03	6449.11	---	6449.11	6449.11	6
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	87.70	2.24	5941.96	---	5941.96	5941.96	0.30	0.30	1539.59	2.04	6486.47	---	6486.47	6486.47	6
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	87.70	2.29	6072.49	---	6072.49	6072.49	0.30	0.30	1539.59	2.08	6633.81	---	6633.81	6633.81	6
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	346.73	2.50	6634.02	---	12811.80	6634.02	0.30	0.30	1558.56	2.50	7955.54	---	13169.10	7955.54	6
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	346.73	2.50	6634.02	---	12862.70	6634.02	0.30	0.30	1558.56	2.50	7955.54	---	13221.50	7955.54	6
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	346.73	2.50	6634.02	---	13066.50	6634.02	0.30	0.30	1558.56	2.50	7955.54	---	13431.00	7955.54	6



Relazione di calcolo

21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	513.34	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1547.96	2.50	7955.54	---	16914.20	7955.54
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	513.34	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1547.96	2.50	7955.54	---	16914.20	7955.54
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	513.34	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1547.95	2.50	7955.54	---	16914.20	7955.54
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	607.29	2.50	6634.02	---	15825.50	6634.02	0.30	0.30	1987.58	2.50	7955.54	---	16266.80	7955.54
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	607.29	2.50	6634.02	---	15805.10	6634.02	0.30	0.30	1987.58	2.50	7955.54	---	16245.90	7955.54
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	607.29	2.50	6634.02	---	15723.60	6634.02	0.30	0.30	1987.58	2.50	7955.54	---	16162.10	7955.54

Pilastrata n. 17

Nodi: 117 317 517 717 917 1117 1317 1517 1717 1917

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
1	R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cmq>	Fcd <daN/cmq>	Fyk <daN/cmq>	Fyd <daN/cmq>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04
50.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%	
0.00	1	(e)	SLU	1	1	0.00	-256545.00	-299.31	-5130.89	279.92	5130.89	-797776.00	-81247.50	67761.10	1.18	3.110	129.68
0.00	1	(e)	SLU	1	1	0.00	-256545.00	-299.31	-5130.89	279.92	5130.89	-797776.00	-81247.50	67761.10	1.18	3.110	129.68
3.00	1	(e)	SLU	1	1	300.00	-252450.00	5058.66	5058.66	-245.81	-5048.99	-797776.00	81152.00	-67770.80	1.18	3.160	129.68
3.50	1	(e)	SLU	2	10	0.00	-226999.00	-2546.35	-4539.97	569.78	4539.97	-670786.00	-53342.50	59303.50	1.20	2.955	1090.30
3.50	1	(e)	SLU	2	10	0.00	-226999.00	-2546.35	-4539.97	569.78	4539.97	-670786.00	-53342.50	59303.50	1.20	2.955	1090.30
6.00	1	(e)	SLU	2	10	250.00	-224317.00	3367.10	4486.35	-541.99	-4486.35	-670786.00	53368.70	-59340.10	1.20	2.990	893.42
6.50	1	(e)	SLU	3	10	0.00	-199733.00	-4082.45	-4082.45	1102.61	3994.65	-670786.00	-53446.70	59596.70	1.16	3.358	230.88
6.50	1	(e)	SLU	3	10	0.00	-199733.00	-4082.45	-4082.45	1102.61	3994.65	-670786.00	-53446.70	59596.70	1.16	3.358	230.88
9.00	1	(e)	SLU	3	10	250.00	-197051.00	3246.54	3941.02	-908.38	-3941.02	-670786.00	53439.10	-59616.90	1.16	3.404	201.36
9.50	1	(e)	SLU	4	10	0.00	-173187.00	-3982.24	-3982.24	1699.16	3463.73	-670786.00	-53155.10	59162.60	1.13	3.873	157.57
9.50	1	(e)	SLU	4	10	0.00	-173187.00	-3982.24	-3982.24	1699.16	3463.73	-656377.00	-53112.50	57195.40	1.14	3.790	166.79
12.00	1	(e)	SLU	4	10	250.00	-170505.00	2933.25	3410.11	-1446.78	-3410.11	-656377.00	53016.50	-57107.20	1.13	3.850	166.79
12.50	1	(e)	SLU	5	10	0.00	-146737.00	-4712.90	-4712.90	1087.96	2934.73	-656377.00	-52078.80	56242.20	1.10	4.473	166.79
12.50	1	(e)	SLU	5	10	0.00	-146737.00	-4712.90	-4712.90	1087.96	2934.73	-656377.00	-52078.80	56242.20	1.10	4.473	166.79
15.00	1	(e)	SLU	5	10	250.00	-144055.00	3586.54	3586.54	-264.85	-2881.11	-656377.00	51963.70	-56136.30	1.10	4.556	166.79
15.50	1	(e)	SLU	6	7	0.00	-118374.00	-4610.65	-4610.65	-649.09	-2367.47	-578772.00	-47718.60	-41220.30	1.09	4.889	301.98
15.50	1	(e)	SLU	6	7	0.00	-118374.00	-4610.65	-4610.65	-649.09	-2367.47	-564362.00	-46183.20	-41091.60	1.09	4.768	394.12
18.00	1	(e)	SLU	6	7	250.00	-116139.00	3464.19	3464.19	788.60	2322.79	-564362.00	46097.30	41014.50	1.09	4.859	272.29
18.50	1		SLU	7	7	0.00	-89002.90	-4921.21	-4921.21	-1816.99	-1816.99	-564362.00	-44458.30	-39686.60	1.05	6.341	348.29
18.50	1		SLU	7	7	0.00	-89002.90	-4921.21	-4921.21	-1816.99	-1816.99	-564362.00	-44458.30	-39686.60	1.05	6.341	348.29
21.00	1	(e)	SLU	7	7	250.00	-86768.50	3399.03	3399.03	1618.82	1735.37	-564362.00	44262.50	39514.40	1.04	6.504	219.19
21.50	1		SLU	8	7	0.00	-58582.50	-5082.62	-5082.62	-2419.85	-2419.85	-58587.10	-41604.00	-37181.60	1.00	5.380	269.48
21.50	1		SLU	8	7	0.00	-58582.50	-5082.62	-5082.62	-2419.85	-2419.85	-58584.60	-40876.20	-36580.70	1.00	5.301	300.72
24.00	1		SLU	8	7	250.00	-56348.20	3839.72	3839.72	1899.06	1899.06	-56349.60	40652.00	36382.90	1.00	6.834	283.76
24.50	1		SLU	9	7	0.00	-27359.30	-4442.62	-4442.62	-3492.19	-3492.19	-27361.10	-37631.40	-33715.30	1.00	4.512	467.20
24.50	1		SLU	9	7	0.00	-27359.30	-4442.62	-4442.62	-3492.19	-3492.19	-27361.10	-37631.40	-33715.30	1.00	4.512	467.20
27.00	1		SLU	9	7	250.00	-25125.00	4006.36	4006.36	3545.25	3545.25	-25125.10	37391.90	33503.90	1.00	4.696	489.83

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-186046.00	225.07	-217.93	0.00	53.78	37.95	567.45
0.00	4	SLE Q	1	1	0.00	-164403.00	227.36	-304.98	0.00	53.78	33.77	504.50
0.00	2	SLE R	1	1	0.00	-186046.00	225.07	-217.93	0.00	53.78	37.95	567.45
0.00	4	SLE Q	1	1	0.00	-164403.00	227.36	-304.98	0.00	53.78	33.77	504.50
3.00	2	SLE R	1	1	300.00	-182896.00	-217.76	3749.91	0.00	53.78	43.05	632.25
3.00	4	SLE Q	1	1	300.00	-161253.00	-240.04	3221.18	0.00	53.78	37.91	556.82
3.50	2	SLE R	2	10	0.00	-164494.00	474.60	-1948.09	0.00	53.78	46.20	677.10
3.50	4	SLE Q	2	10	0.00	-145002.00	495.34	-1786.49	0.00	53.78	41.08	601.35
3.50	2	SLE R	2	10	0.00	-164494.00	474.60	-1948.09	0.00	53.78	46.20	677.10
3.50	4	SLE Q	2	10	0.00	-145002.00	495.34	-1786.49	0.00	53.78	41.08	601.35
6.00	2	SLE R	2	10	250.00	-162432.00	-442.55	2521.74	0.00	53.78	47.10	686.97
6.00	4	SLE Q	2	10	250.00	-142939.00	-457.11	2203.18	0.00	53.78	41.56	606.01
6.50	2	SLE R	3	10	0.00	-144685.00	869.96	-3044.02	0.00	53.78	45.13	651.44
6.50	4	SLE Q	3	10	0.00	-127322.00	870.09	-2687.63	0.00	53.78	39.98	576.63
6.50	2	SLE R	3	10	0.00	-144685.00	869.96	-3044.02	0.00	53.78	45.13	651.44
6.50	4	SLE Q	3	10	0.00	-127322.00	870.09	-2687.63	0.00	53.78	39.98	576.63
9.00	2	SLE R	3	10	250.00	-142623.00	-716.92	2433.66	0.00	53.78	42.69	619.88
9.00	4	SLE Q	3	10	250.00	-125260.00	-719.48	2126.02	0.00	53.78	37.67	546.70
9.50	2	SLE R	4	10	0.00	-125415.00	1310.60	-2974.18	0.00	53.78	41.28	591.80
9.50	4	SLE Q	4	10	0.00	-110156.00	1271.23	-2638.87	0.00	53.78	36.61	524.19
9.50	2	SLE R	4	10	0.00	-125415.00	1310.60	-2974.18	0.00	49.76	41.77	599.06
9.50	4	SLE Q	4	10	0.00	-110156.00	1271.23	-2638.87	0.00	49.76	37.04	530.60
12.00	2	SLE R	4	10	250.00	-123353.00	-1109.44	2207.27	0.00	49.76	38.81	560.90
12.00	4	SLE Q	4	10	250.00	-108094.00	-1065.71	1944.34	0.00	49.76	34.25	494.62
12.50	2	SLE R	5	10	0.00	-106224.00	878.72	-3501.16	0.00	49.76	37.37	531.91
12.50	4	SLE Q	5	10	0.00	-93070.20	920.11	-3067.25	0.00	49.76	33.10	470.50
12.50	2	SLE R	5	10	0.00	-106224.00	878.72	-3501.16	0.00	49.76	37.37	531.91
12.50	4	SLE Q	5	10	0.00	-93070.20	920.11	-3067.25	0.00	49.76	33.10	470.50



Relazione di calcolo

15.00	2	SLE R	5	10	250.00	-104161.00	-269.69	2683.50	0.00	49.76	33.31	479.97
15.00	4	SLE Q	5	10	250.00	-91007.70	-361.45	2330.07	0.00	49.76	29.36	422.64
15.50	2	SLE R	6	7	0.00	-85646.90	-395.03	-3423.23	0.00	49.76	35.98	509.33
15.50	4	SLE Q	6	7	0.00	-74765.00	-217.63	-2991.24	0.00	49.76	30.99	439.56
15.50	2	SLE R	6	7	0.00	-85646.90	-395.03	-3423.23	0.00	45.74	36.52	517.13
15.50	4	SLE Q	6	7	0.00	-74765.00	-217.63	-2991.24	0.00	45.74	31.47	446.38
18.00	2	SLE R	6	7	250.00	-83928.10	507.32	2588.19	0.00	45.74	33.89	483.16
18.00	4	SLE Q	6	7	250.00	-73046.20	334.59	2247.57	0.00	45.74	29.12	415.98
18.50	2	SLE R	7	7	0.00	-64368.40	-1204.33	-3654.82	0.00	45.74	33.74	465.70
18.50	4	SLE Q	7	7	0.00	-55914.60	-858.64	-3192.51	0.00	45.74	28.73	397.58
18.50	2	SLE R	7	7	0.00	-64368.40	-1204.33	-3654.82	0.00	45.74	33.74	465.70
18.50	4	SLE Q	7	7	0.00	-55914.60	-858.64	-3192.51	0.00	45.74	28.73	397.58
21.00	2	SLE R	7	7	250.00	-62649.60	1087.44	2541.14	0.00	45.74	29.50	412.07
21.00	4	SLE Q	7	7	250.00	-54195.90	800.61	2216.69	0.00	45.74	25.11	351.46
21.50	2	SLE R	8	7	0.00	-42338.20	-1636.44	-3769.88	3.14	42.60	29.34	393.87
21.50	4	SLE Q	8	7	0.00	-36434.20	-1219.17	-3281.85	3.14	42.60	24.67	332.09
21.50	2	SLE R	8	7	0.00	-42338.20	-1636.44	-3769.88	3.14	40.72	29.51	396.27
21.50	4	SLE Q	8	7	0.00	-36434.20	-1219.17	-3281.85	3.14	40.72	24.82	334.14
24.00	2	SLE R	8	7	250.00	-40619.50	1287.93	2873.42	0.00	43.86	24.92	338.62
24.00	4	SLE Q	8	7	250.00	-34715.40	963.95	2530.89	0.00	43.86	21.06	286.61
24.50	2	SLE R	9	7	0.00	-19734.80	-2393.85	-3285.24	17.25	26.61	28.30	357.40
24.50	4	SLE Q	9	7	0.00	-16480.20	-1840.28	-2829.51	17.25	26.61	23.21	293.55
24.50	2	SLE R	9	7	0.00	-19734.80	-2393.85	-3285.24	17.25	26.61	28.30	357.40
24.50	4	SLE Q	9	7	0.00	-16480.20	-1840.28	-2829.51	17.25	26.61	23.21	293.55
27.00	2	SLE R	9	7	250.00	-18016.00	2446.41	2889.25	17.25	26.61	26.73	336.49
27.00	4	SLE Q	9	7	250.00	-14761.40	1900.28	2121.84	17.25	26.61	20.09	254.57

Stato limite d'esercizio - Verifiche a fessurazione

Xg <mm>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
24.50	4	SLE Q	9	7	0.00	-16480.20	-2829.51	-1840.28	71.67	138.59	0.50	18.44	207.88	3.14	109.94	197.21	0.06	0.02
24.50	3	SLE F	9	7	0.00	-17352.30	-2958.90	-1992.77	71.67	138.59	0.50	18.44	208.07	3.14	110.26	210.79	0.06	0.02
24.50	4	SLE Q	9	7	0.00	-16480.20	-2829.51	-1840.28	71.67	138.59	0.50	18.44	207.88	3.14	109.94	197.21	0.06	0.02
24.50	3	SLE F	9	7	0.00	-17352.30	-2958.90	-1992.77	71.67	138.59	0.50	18.44	208.07	3.14	110.26	210.79	0.06	0.02
27.00	4	SLE Q	9	7	250.00	-14761.40	2121.84	1900.28	63.25	138.60	0.50	18.86	188.11	3.14	102.60	162.41	0.05	0.02
27.00	3	SLE F	9	7	250.00	-15633.60	2343.84	2048.15	63.25	138.60	0.50	18.86	190.43	3.14	106.46	184.13	0.05	0.02

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <mm>	X1 <mm>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	Si
0.00	0.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	175.24	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1785.99	2.50	0.00	57709.10	107066.00	51938.20	29.
0.50	2.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	175.24	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1785.99	2.50	0.00	57709.10	107066.00	51938.20	29.
2.50	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	175.24	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1785.99	2.50	0.00	57709.10	107066.00	51938.20	29.
3.50	3.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	444.71	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2365.38	2.50	0.00	44432.50	82434.00	39989.30	16.
3.95	5.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	444.71	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2365.38	2.50	0.00	44432.50	82434.00	39989.30	16.
5.55	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	444.71	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2365.38	2.50	0.00	44432.50	82434.00	39989.30	16.
6.50	6.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	804.39	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2931.60	2.50	0.00	44432.50	82434.00	39989.30	13.
6.95	8.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	804.39	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2931.60	2.50	0.00	44432.50	82434.00	39989.30	13.
8.55	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	804.39	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2931.60	2.50	0.00	44432.50	82434.00	39989.30	13.
9.50	9.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1258.38	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2766.19	2.50	0.00	44432.50	82434.00	39989.30	14.
9.95	11.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1258.38	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2766.19	2.50	0.00	44432.50	82434.00	39989.30	14.
11.55	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1258.38	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2766.19	2.50	0.00	44432.50	82434.00	39989.30	14.
12.50	12.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	541.13	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3319.78	2.50	0.00	44432.50	82434.00	39989.30	12.
12.95	14.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	541.13	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3319.78	2.50	0.00	44432.50	82434.00	39989.30	12.
14.55	15.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	541.13	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3319.78	2.50	0.00	44432.50	82434.00	39989.30	12.
15.50	15.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	575.07	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	3229.93	2.50	0.00	44432.50	68695.00	39989.30	12.
15.95	17.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	575.07	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	3229.93	2.50	0.00	44432.50	68695.00	39989.30	12.
17.55	18.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	575.07	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	3229.93	2.50	0.00	44432.50	68695.00	39989.30	12.
18.50	18.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	1374.32	2.50	0.00	40007.00	66915.50	36006.30	0.50	0.50	3328.09	2.50	0.00	44432.50	67561.50	39989.30	12.
18.95	20.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	1374.32	2.50	0.00	40007.00	66859.10	36006.30	0.50	0.50	3328.09	2.50	0.00	44432.50	67504.60	39989.30	12.
20.55	21.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	1374.32	2.50	0.00	40007.00	66658.50	36006.30	0.50	0.50	3328.09	2.50	0.00	44432.50	67302.00	39989.30	12.
21.50	21.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	1727.56	2.50	0.00	40007.00	62648.30	36006.30	0.50	0.50	3568.94	2.50	0.00	44432.50	63253.10	39989.30	11.
21.95	23.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	1727.56	2.50	0.00	40007.00	62591.80	36006.30	0.50	0.50	3568.94	2.50	0.00	44432.50	63196.10	39989.30	11.
23.55	24.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	1727.56	2.50	0.00	40007.00	62391.30	36006.30	0.50	0.50	3568.94	2.50	0.00	44432.50	62993.60	39989.30	11.
24.50	24.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	2814.97	2.50	0.00	40007.00	58268.40	36006.30	0.50	0.50	3379.59	2.50	0.00	44432.50	58830.90	39989.30	11.
24.95	26.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	2814.97	2.50	0.00	40007.00	58212.00	36006.30	0.50	0.50	3379.59	2.50	0.00	44432.50	58774.00	39989.30	11.
26.55	27.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	2814.97	2.50	0.00	40007.00	58011.40	36006.30	0.50	0.50	3379.59	2.50	0.00	44432.50	58571.40	39989.30	11.

Pilastrata n. 18

Nodi: 118 318 518 718 918 1118 1318 1518 1718 1918

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
1	R	40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94



Relazione di calcolo

Stato limite ultimo – Verifiche a flessione/presoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δs
0.00	1(e)	SLU	1	1	0.00	-253040.00	-3024.58	-5060.80	-1864.75	-5060.80	-797776.00	-81165.90	-67769.60	1.18	3.153	129.68
0.00	1(e)	SLU	1	1	0.00	-253040.00	-3024.58	-5060.80	-1864.75	-5060.80	-797776.00	-81165.90	-67769.60	1.18	3.153	129.68
3.00	1(e)	SLU	1	1	300.00	-248945.00	5428.25	5428.25	1240.17	4978.90	-797776.00	81063.20	67776.70	1.18	3.205	129.68
3.50	1(e)	SLU	2	10	0.00	-224933.00	-1965.23	-4498.66	-1350.38	-4498.66	-670786.00	-53363.00	-59331.90	1.20	2.982	934.83
3.50	1(e)	SLU	2	10	0.00	-224933.00	-1965.23	-4498.66	-1350.38	-4498.66	-670786.00	-53363.00	-59331.90	1.20	2.982	934.83
6.00	1(e)	SLU	2	10	250.00	-222252.00	3188.02	4445.03	1228.35	4445.03	-670786.00	53387.30	59367.10	1.19	3.018	771.07
6.50	1(e)	SLU	3	10	0.00	-198680.00	-4150.32	-4150.32	-1737.16	-3973.59	-670786.00	-53443.90	-59604.80	1.16	3.376	228.13
6.50	1(e)	SLU	3	10	0.00	-198680.00	-4150.32	-4150.32	-1737.16	-3973.59	-670786.00	-53443.90	-59604.80	1.16	3.376	228.13
9.00	1(e)	SLU	3	10	250.00	-195998.00	3131.63	3919.97	1482.35	3919.97	-670786.00	53435.70	59624.40	1.16	3.422	193.37
9.50	1(e)	SLU	4	10	0.00	-172994.00	-4005.81	-4005.81	-1847.29	-3459.88	-670786.00	-53149.10	-59155.80	1.13	3.878	157.57
9.50	1(e)	SLU	4	10	0.00	-172994.00	-4005.81	-4005.81	-1847.29	-3459.88	-656377.00	-53105.80	-57189.20	1.14	3.794	166.79
12.00	1(e)	SLU	4	10	250.00	-170313.00	3015.49	3406.25	1539.45	3406.25	-656377.00	53009.50	57100.90	1.13	3.854	166.79
12.50	1(e)	SLU	5	10	0.00	-147172.00	-4456.06	-4456.06	-1746.54	-2943.44	-656377.00	-52097.40	-56259.20	1.10	4.460	166.79
12.50	1(e)	SLU	5	10	0.00	-147172.00	-4456.06	-4456.06	-1746.54	-2943.44	-656377.00	-52097.40	-56259.20	1.10	4.460	166.79
15.00	1(e)	SLU	5	10	250.00	-144491.00	3485.72	3485.72	616.15	2889.81	-656377.00	51982.50	56153.50	1.10	4.543	166.79
15.50	1(e)	SLU	6	7	0.00	-119124.00	-4469.78	-4469.78	25.40	2382.47	-578772.00	-47748.90	41242.50	1.09	4.859	294.15
15.50	1(e)	SLU	6	7	0.00	-119124.00	-4469.78	-4469.78	25.40	2382.47	-564362.00	-46211.60	41117.00	1.09	4.738	385.44
18.00	1(e)	SLU	6	7	250.00	-116889.00	3367.66	3367.66	-401.33	-2337.79	-564362.00	46126.20	-41040.50	1.09	4.828	267.76
18.50	1(e)	SLU	7	7	0.00	-89764.80	-4778.82	-4778.82	961.74	1795.29	-564362.00	-44524.40	39744.90	1.05	6.287	332.05
18.50	1(e)	SLU	7	7	0.00	-89764.80	-4778.82	-4778.82	961.74	1795.29	-564362.00	-44524.40	39744.90	1.05	6.287	332.05
21.00	1(e)	SLU	7	7	250.00	-87530.40	3344.90	3344.90	-1034.88	-1750.61	-564362.00	44329.60	-39573.30	1.05	6.448	214.43
21.50	1	SLU	8	7	0.00	-59118.80	-4915.23	-4915.23	1684.07	1684.07	-59121.10	-41657.20	37228.20	1.00	6.185	261.90
21.50	1	SLU	8	7	0.00	-59118.80	-4915.23	-4915.23	1684.07	1684.07	-59123.70	-40929.50	36628.30	1.01	6.094	292.34
24.00	1	SLU	8	7	250.00	-56884.40	3537.55	3537.55	-1358.43	-1358.43	-56884.90	40706.20	-36430.30	1.00	8.089	272.74
24.50	1	SLU	9	7	0.00	-27524.00	-4680.78	-4680.78	2763.72	2763.72	-27526.20	-37649.00	33730.90	1.00	4.848	461.12
24.50	1	SLU	9	7	0.00	-27524.00	-4680.78	-4680.78	2763.72	2763.72	-27526.20	-37649.00	33730.90	1.00	4.848	461.12
27.00	1	SLU	9	7	250.00	-25289.60	3780.14	3780.14	-2906.84	-2906.84	-25293.40	37409.40	-33519.80	1.00	5.326	483.83

Stato limite d'esercizio – Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-183490.00	-1364.07	-2236.85	0.00	53.78	42.92	630.06
0.00	4	SLE Q	1	1	0.00	-162156.00	-1209.76	-2153.02	0.00	53.78	38.23	560.62
0.00	2	SLE R	1	1	0.00	-183490.00	-1364.07	-2236.85	0.00	53.78	42.92	630.06
0.00	4	SLE Q	1	1	0.00	-162156.00	-1209.76	-2153.02	0.00	53.78	38.23	560.62
3.00	2	SLE R	1	1	300.00	-180340.00	931.09	4027.50	0.00	53.78	44.37	647.81
3.00	4	SLE Q	1	1	300.00	-159006.00	852.42	3484.09	0.00	53.78	39.08	570.53
3.50	2	SLE R	2	10	0.00	-162978.00	-1035.58	-1515.59	0.00	53.78	46.02	674.26
3.50	4	SLE Q	2	10	0.00	-143663.00	-976.32	-1381.18	0.00	53.78	40.83	597.66
3.50	2	SLE R	2	10	0.00	-162978.00	-1035.58	-1515.59	0.00	53.78	46.02	674.26
3.50	4	SLE Q	2	10	0.00	-143663.00	-976.32	-1381.18	0.00	53.78	40.83	597.66
6.00	2	SLE R	2	10	250.00	-160916.00	935.33	2393.85	0.00	53.78	47.55	691.86
6.00	4	SLE Q	2	10	250.00	-141601.00	878.08	2092.55	0.00	53.78	41.94	609.99
6.50	2	SLE R	3	10	0.00	-143902.00	-1326.66	-3096.30	0.00	53.78	46.14	663.71
6.50	4	SLE Q	3	10	0.00	-126622.00	-1252.49	-2740.70	0.00	53.78	40.84	587.03
6.50	2	SLE R	3	10	0.00	-143902.00	-1326.66	-3096.30	0.00	53.78	46.14	663.71
6.50	4	SLE Q	3	10	0.00	-126622.00	-1252.49	-2740.70	0.00	53.78	40.84	587.03
9.00	2	SLE R	3	10	250.00	-141839.00	1130.19	2352.74	0.00	53.78	43.26	626.61
9.00	4	SLE Q	3	10	250.00	-124559.00	1066.67	2054.54	0.00	53.78	38.13	552.08
9.50	2	SLE R	4	10	0.00	-125252.00	-1417.97	-2990.37	0.00	53.78	41.54	594.89
9.50	4	SLE Q	4	10	0.00	-109982.00	-1353.96	-2653.74	0.00	53.78	36.80	526.47
9.50	2	SLE R	4	10	0.00	-125252.00	-1417.97	-2990.37	0.00	49.76	42.03	602.17
9.50	4	SLE Q	4	10	0.00	-109982.00	-1353.96	-2653.74	0.00	49.76	37.23	532.90
12.00	2	SLE R	4	10	250.00	-123190.00	1176.46	2265.41	0.00	49.76	39.08	564.15
12.00	4	SLE Q	4	10	250.00	-107920.00	1117.50	1995.41	0.00	49.76	34.47	497.15
12.50	2	SLE R	5	10	0.00	-106511.00	-1356.98	-3320.56	0.00	49.76	38.11	541.45
12.50	4	SLE Q	5	10	0.00	-93275.50	-1310.47	-2907.18	0.00	49.76	33.66	477.77
12.50	2	SLE R	5	10	0.00	-106511.00	-1356.98	-3320.56	0.00	49.76	38.11	541.45
12.50	4	SLE Q	5	10	0.00	-93275.50	-1310.47	-2907.18	0.00	49.76	33.66	477.77
15.00	2	SLE R	5	10	250.00	-104449.00	525.05	2611.49	0.00	49.76	33.80	486.34
15.00	4	SLE Q	5	10	250.00	-91213.00	568.07	2268.81	0.00	49.76	29.74	427.60
15.50	2	SLE R	6	7	0.00	-86156.80	-59.15	-3325.13	0.00	49.76	34.71	494.27
15.50	4	SLE Q	6	7	0.00	-75163.60	-155.43	-2899.79	0.00	49.76	30.63	435.38
15.50	2	SLE R	6	7	0.00	-86156.80	-59.15	-3325.13	0.00	45.74	35.25	502.08
15.50	4	SLE Q	6	7	0.00	-75163.60	-155.43	-2899.79	0.00	45.74	31.10	442.19
18.00	2	SLE R	6	7	250.00	-84438.10	-220.94	2519.77	0.00	45.74	32.88	471.22
18.00	4	SLE Q	6	7	250.00	-73444.80	-96.16	2186.66	0.00	45.74	28.26	405.78
18.50	2	SLE R	7	7	0.00	-64888.10	612.49	-3555.23	0.00	45.74	31.61	440.25
18.50	4	SLE Q	7	7	0.00	-56331.30	419.29	-3099.88	0.00	45.74	27.10	378.13
18.50	2	SLE R	7	7	0.00	-64888.10	612.49	-3555.23	0.00	45.74	31.61	440.25
18.50	4	SLE Q	7	7	0.00	-56331.30	419.29	-3099.88	0.00	45.74	27.10	378.13
21.00	2	SLE R	7	7	250.00	-63169.30	-680.54	2502.78	0.00	45.74	28.18	396.39
21.00	4	SLE Q	7	7	250.00	-54612.60	-496.24	2178.57	0.00	45.74	24.09	339.51
21.50	2	SLE R	8	7	0.00	-42704.60	1129.79	-3651.85	0.00	45.74	27.22	368.51
21.50	4	SLE Q	8	7	0.00	-36739.10	857.95	-3176.00	0.00	45.74	23.12	313.55
21.50	2	SLE R	8	7	0.00	-42704.60	1129.79	-3651.85	0.00	43.86	27.38	370.86
21.50	4	SLE Q	8	7	0.00	-36739.10	857.95	-3176.00	0.00	43.86	23.27	315.56
24.00	2	SLE R	8	7	250.00	-40985.80	-915.05	2654.33	0.00	43.86	23.11	316.81
24.00	4	SLE Q	8	7	250.00	-35020.40	-699.50	2353.57	0.00	43.86	19.73	270.53
24.50	2	SLE R	9	7	0.00	-19844.70	1894.31	-3465.57	17.25	26.61	26.54	336.98
24.50	4	SLE Q	9	7	0.00	-16590.80	1474.50	-2951.78	17.25	26.61	21.89	278.28
24.50	2	SLE R	9	7	0.00	-19844.70	1894.31	-3465.57	17.25	26.61	26.54	336.98
24.50	4	SLE Q	9	7	0.00	-16590.80	1474.50	-2951.78	17.25	26.61	21.89	278.28
27.00	2	SLE R	9	7	250.00	-18126.00	-2007.89	2727.12	17.25	26.61	23.50	299.11
27.00	4	SLE Q	9	7	250.00	-14872.10	-1583.03	1984.74	14.11	29.75	17.71	226.80



Relazione di calcolo

Stato limite d'esercizio - Verifiche a fessurazione

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
24.50	4	SLE Q	9	7	0.00	-16590.80	-2951.78	1474.50	63.25	138.59	0.50	18.86	191.83	3.14	108.79	175.39	0.05	0.02
24.50	3	SLE F	9	7	0.00	-17463.40	-3099.13	1589.01	63.25	138.59	0.50	18.86	191.82	3.14	108.78	186.94	0.05	0.02
24.50	4	SLE Q	9	7	0.00	-16590.80	-2951.78	1474.50	63.25	138.59	0.50	18.86	191.83	3.14	108.79	175.39	0.05	0.02
24.50	3	SLE F	9	7	0.00	-17463.40	-3099.13	1589.01	63.25	138.59	0.50	18.86	191.82	3.14	108.78	186.94	0.05	0.02
27.00	4	SLE Q	9	7	250.00	-14872.10	1984.74	-1583.03	71.67	138.60	0.50	18.44	193.64	3.14	85.69	119.89	0.03	0.01
27.00	3	SLE F	9	7	250.00	-15744.70	2200.22	-1696.67	71.67	138.60	0.50	18.44	196.17	3.14	89.99	137.02	0.04	0.01

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <m>	d <sub>y</sub> <m>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <m>	d <sub>z</sub> <m>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	Si
0.00	0.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1034.97	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	2817.61	2.50	0.00	57709.10	107066.00	51938.20	18.
0.50	2.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1034.97	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	2817.61	2.50	0.00	57709.10	107066.00	51938.20	18.
2.50	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1034.97	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	2817.61	2.50	0.00	57709.10	107066.00	51938.20	18.
3.50	3.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1031.49	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2061.30	2.50	0.00	44432.50	82434.00	39989.30	19.
3.95	5.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1031.49	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2061.30	2.50	0.00	44432.50	82434.00	39989.30	19.
5.55	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1031.49	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2061.30	2.50	0.00	44432.50	82434.00	39989.30	19.
6.50	6.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1287.80	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2912.78	2.50	0.00	44432.50	82434.00	39989.30	13.
6.95	8.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1287.80	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2912.78	2.50	0.00	44432.50	82434.00	39989.30	13.
8.55	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1287.80	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2912.78	2.50	0.00	44432.50	82434.00	39989.30	13.
9.50	9.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1354.70	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2808.52	2.50	0.00	44432.50	82434.00	39989.30	14.
9.95	11.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1354.70	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2808.52	2.50	0.00	44432.50	82434.00	39989.30	14.
11.55	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1354.70	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2808.52	2.50	0.00	44432.50	82434.00	39989.30	14.
12.50	12.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	945.08	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3176.71	2.50	0.00	44432.50	82434.00	39989.30	12.
12.95	14.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	945.08	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3176.71	2.50	0.00	44432.50	82434.00	39989.30	12.
14.55	15.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	945.08	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	3176.71	2.50	0.00	44432.50	82434.00	39989.30	12.
15.50	15.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	170.69	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	3134.97	2.50	0.00	44432.50	68695.00	39989.30	12.
15.95	17.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	170.69	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	3134.98	2.50	0.00	44432.50	68695.00	39989.30	12.
17.55	18.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	170.69	2.50	0.00	40007.00	68038.20	36006.30	0.50	0.50	3134.98	2.50	0.00	44432.50	68695.00	39989.30	12.
18.50	18.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	798.65	2.50	0.00	40007.00	67022.40	36006.30	0.50	0.50	3249.49	2.50	0.00	44432.50	67669.40	39989.30	12.
18.95	20.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	798.65	2.50	0.00	40007.00	66966.00	36006.30	0.50	0.50	3249.49	2.50	0.00	44432.50	67612.40	39989.30	12.
20.55	21.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	798.65	2.50	0.00	40007.00	66765.40	36006.30	0.50	0.50	3249.49	2.50	0.00	44432.50	67409.90	39989.30	12.
21.50	21.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	1217.00	2.50	0.00	40007.00	62723.50	36006.30	0.50	0.50	3381.11	2.50	0.00	44432.50	63329.00	39989.30	11.
21.95	23.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	1217.00	2.50	0.00	40007.00	62667.10	36006.30	0.50	0.50	3381.11	2.50	0.00	44432.50	63272.10	39989.30	11.
23.55	24.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	1217.00	2.50	0.00	40007.00	62466.50	36006.30	0.50	0.50	3381.11	2.50	0.00	44432.50	63069.50	39989.30	11.
24.50	24.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	2268.22	2.50	0.00	40007.00	58291.50	36006.30	0.50	0.50	3384.37	2.50	0.00	44432.50	58854.20	39989.30	11.
24.95	26.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	2268.22	2.50	0.00	40007.00	58235.10	36006.30	0.50	0.50	3384.37	2.50	0.00	44432.50	58797.30	39989.30	11.
26.55	27.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.45	2268.22	2.50	0.00	40007.00	58034.50	36006.30	0.50	0.50	3384.37	2.50	0.00	44432.50	58594.80	39989.30	11.

Pilastrata n. 19

Nodi: 19 319 519 719 919 1119 1319 1519 1719 1919

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
1R		40.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10R		40.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7R		30.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7R		30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cmq>	Fcd <daN/cmq>	Fyk <daN/cmq>	Fyd <daN/cmq>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-228409.00	1924.42	4568.18	-779.44	-4568.18	-797776.00	80446.60	-67373.80	1.16	3.493	129.68
0.00	1(e)	SLU	1	1	0.00	-228409.00	1924.42	4568.18	-779.44	-4568.18	-797776.00	80446.60	-67373.80	1.16	3.493	129.68
3.00	1(e)	SLU	1	1	300.00	-224314.00	3354.47	4486.28	987.31	4486.28	-797776.00	80304.30	67225.40	1.15	3.557	129.68
3.50	1(e)	SLU	2	10	0.00	-198099.00	-1580.49	-3961.98	-1317.69	-3961.98	-670786.00	-53442.20	-59609.10	1.16	3.386	209.78
3.50	1(e)	SLU	2	10	0.00	-198099.00	-1580.49	-3961.98	-1317.69	-3961.98	-670786.00	-53442.20	-59609.10	1.16	3.386	209.78
6.00	1(e)	SLU	2	10	250.00	-195418.00	2113.10	3908.36	1270.31	3908.36	-670786.00	53433.80	59628.50	1.16	3.433	189.30
6.50	1(e)	SLU	3	10	0.00	-169473.00	-2577.33	-3389.46	-2012.71	-3389.46	-670786.00	-53036.40	-59031.50	1.13	3.958	157.57
6.50	1(e)	SLU	3	10	0.00	-169473.00	-2577.33	-3389.46	-2012.71	-3389.46	-670786.00	-53036.40	-59031.50	1.13	3.958	157.57
9.00	1(e)	SLU	3	10	250.00	-166792.00	1841.80	3335.84	1757.57	3335.84	-670786.00	52948.60	58933.80	1.12	4.022	157.57
9.50	1(e)	SLU	4	10	0.00	-140795.00	-2780.69	-2815.91	-2528.73	-2815.91	-670786.00	-52011.70	-57898.50	1.09	4.764	157.57
9.50	1(e)	SLU	4	10	0.00	-140795.00	-2780.69	-2815.91	-2528.73	-2815.91	-656377.00	-51821.00	-56005.70	1.10	4.662	166.79
12.00	1(e)	SLU	4	10	250.00	-138114.00	2690.63	2762.28	2357.79	2762.28	-656377.00	51702.10	55896.80	1.09	4.752	166.79
12.50	1(e)	SLU	5	10	0.00	-111804.00	-1338.62	-2236.07	-721.85	-2236.07	-246024.00	-13300.00	-13841.10	1.30	2.200	---
12.50	1(e)	SLU	5	10	0.00	-111804.00	-1338.62	-2236.07	-721.85	-2236.07	-246024.00	-13300.00	-13841.10	1.30	2.200	---
15.00	1(e)	SLU	5	10	250.00	-110666.00	1434.75	2213.32	455.16	2213.32	-246024.00	13360.30	13889.50	1.29	2.223	---
18.50	1(e)	SLU	7	7	0.00	-62612.00	-1815.04	-1815.04	147.42	1252.24	-180916.00	-10009.90	8386.64	1.21	2.889	---
18.50	1(e)	SLU	7	7	0.00	-62612.00	-1815.04	-1815.04	147.42	1252.24	-180916.00	-10009.90	8386.64	1.21	2.889	---
21.00	1(e)	SLU	7	7	250.00	-61758.80	1341.80	1341.80	-177.22	-1235.18	-180916.00	9985.69	-8365.48	1.20	2.929	---
21.50	1(e)	SLU	8	7	0.00	-41059.40	-1772.63	-1772.63	347.98	821.19	-41060.70	-8880.44	7417.69	1.11	3.906	---
21.50	1(e)	SLU	8	7	0.00	-41059.40	-1772.63	-1772.63	347.98	821.19	-41060.70	-8880.44	7417.69	1.11	3.906	---
24.00	1(e)	SLU	8	7	250.00	-40206.20	1222.29	1222.29	-306.74	-804.12	-174161.00	9037.93	-6686.95	1.11	4.348	---
24.50	1	SLU	9	7	0.00	-20886.00	-2129.49	-2129.49	487.42	487.42	-20888.50	-5958.22	4978.24	1.02	2.244	---
24.50	1	SLU	9	7	0.00	-20886.00	-2129.49	-2129.49	487.42	487.42	-20888.50	-5958.22	4978.24	1.02	2.244	---
27.00	1(e)	SLU	9	7	250.00	-20032.80	2115.55	2115.55	-398.54	400.66	-20033.70	5854.48	4982.59	1.01	2.293	---



Relazione di calcolo

---	2	3.00	18.90	47.10	---	2	3.00	18.90	47.10	---	3	3.00	18.90	50.95	---	3	3.00	18.90	50.95
---	3	3.00	18.90	50.95	---	6	3.00	34.64	33.33	---	6	3.00	34.64	33.33	---	6	3.00	34.64	33.33

Stato limite ultimo - Verifiche a flessione/presoflessione - Controlli di stabilità con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdy,s <daNm>	MRdz <daNm>	MRdz,s <daNm>	esp.	Sic.	Δ%
15.501	(e)	SLU	6	7	0.00	-85973.00	-1758.72	-1758.72	-133.92	-1719.46	-195325.00	-11120.70	-9919.39	-8100.97	-6643.24	1.28	2.272	---
15.501	(e)	SLU	6	7	0.00	-85973.00	-1758.72	-1758.72	-133.92	-1719.46	-180916.00	-9446.69	-8247.93	-7877.35	-6490.75	1.31	2.104	---
18.001	(e)	SLU	6	7	250.00	-85119.80	1316.86	1702.40	-1.97	-1702.40	-180916.00	9490.76	8289.67	-7912.45	-6528.26	1.31	2.125	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>f</sub>	
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>	
0.00	2	SLE	R	1	1	0.00	-164408.00	-572.39	1393.18	0.00	53.78	36.21	535.84
0.00	4	SLE	Q	1	1	0.00	-143361.00	-528.01	1189.28	0.00	53.78	31.59	467.41
0.00	2	SLE	R	1	1	0.00	-164408.00	-572.39	1393.18	0.00	53.78	36.21	535.84
0.00	4	SLE	Q	1	1	0.00	-143361.00	-528.01	1189.28	0.00	53.78	31.59	467.41
3.00	2	SLE	R	1	1	300.00	-161258.00	730.07	2434.18	0.00	53.78	37.58	552.18
3.00	4	SLE	Q	1	1	300.00	-140211.00	685.87	1876.71	0.00	53.78	32.38	476.30
3.50	2	SLE	R	2	10	0.00	-142512.00	-983.14	-1142.07	0.00	53.78	39.95	586.01
3.50	4	SLE	Q	2	10	0.00	-124076.00	-930.19	-850.36	0.00	53.78	34.58	507.79
3.50	2	SLE	R	2	10	0.00	-142512.00	-983.14	-1142.07	0.00	53.78	39.95	586.01
3.50	4	SLE	Q	2	10	0.00	-124076.00	-930.19	-850.36	0.00	53.78	34.58	507.79
6.00	2	SLE	R	2	10	250.00	-140449.00	946.57	1543.64	0.00	53.78	40.40	590.25
6.00	4	SLE	Q	2	10	250.00	-122013.00	879.52	1178.05	0.00	53.78	34.81	509.24
6.50	2	SLE	R	3	10	0.00	-121879.00	-1501.45	-1862.07	0.00	53.78	38.00	548.95
6.50	4	SLE	Q	3	10	0.00	-105959.00	-1377.20	-1447.26	0.00	53.78	32.76	473.87
6.50	2	SLE	R	3	10	0.00	-121879.00	-1501.45	-1862.07	0.00	53.78	38.00	548.95
6.50	4	SLE	Q	3	10	0.00	-105959.00	-1377.20	-1447.26	0.00	53.78	32.76	473.87
9.00	2	SLE	R	3	10	250.00	-119817.00	1308.67	1348.75	0.00	53.78	35.72	519.32
9.00	4	SLE	Q	3	10	250.00	-103897.00	1192.00	1008.13	0.00	53.78	30.69	446.84
9.50	2	SLE	R	4	10	0.00	-101194.00	-1894.75	-2007.25	0.00	53.78	34.26	489.62
9.50	4	SLE	Q	4	10	0.00	-87735.50	-1736.67	-1577.58	0.00	53.78	29.50	422.07
9.50	2	SLE	R	4	10	0.00	-101194.00	-1894.75	-2007.25	0.00	49.76	34.67	495.75
9.50	4	SLE	Q	4	10	0.00	-87735.50	-1736.67	-1577.58	0.00	49.76	29.86	427.42
12.00	2	SLE	R	4	10	250.00	-99131.50	1766.62	1956.73	0.00	49.76	33.73	482.68
12.00	4	SLE	Q	4	10	250.00	-85673.00	1618.74	1507.26	0.00	49.76	28.89	414.01
12.50	2	SLE	R	5	10	0.00	-80271.50	-550.66	-974.62	0.00	12.06	65.78	928.86
12.50	4	SLE	Q	5	10	0.00	-69295.20	-515.85	-719.10	0.00	12.06	55.92	792.57
12.50	2	SLE	R	5	10	0.00	-80271.50	-550.66	-974.62	0.00	12.06	65.78	928.86
12.50	4	SLE	Q	5	10	0.00	-69295.20	-515.85	-719.10	0.00	12.06	55.92	792.57
15.00	2	SLE	R	5	10	250.00	-79396.50	358.77	1046.90	0.00	12.06	64.18	908.10
15.00	4	SLE	Q	5	10	250.00	-68420.20	351.08	773.69	0.00	12.06	54.39	772.74
15.50	2	SLE	R	6	7	0.00	-61716.80	-119.18	-1281.44	0.00	12.06	68.48	951.98
15.50	4	SLE	Q	6	7	0.00	-53122.60	-131.05	-952.66	0.00	12.06	57.49	803.12
15.50	2	SLE	R	6	7	0.00	-61716.80	-119.18	-1281.44	0.00	8.04	72.34	1004.73
15.50	4	SLE	Q	6	7	0.00	-53122.60	-131.05	-952.66	0.00	8.04	60.66	846.88
18.00	2	SLE	R	6	7	250.00	-61060.50	17.27	961.12	0.00	8.04	65.69	930.67
18.00	4	SLE	Q	6	7	250.00	-52466.40	37.27	710.50	0.00	8.04	55.22	786.02
18.50	2	SLE	R	7	7	0.00	-44955.40	81.93	-1323.00	0.00	8.04	57.98	789.95
18.50	4	SLE	Q	7	7	0.00	-38521.40	44.59	-983.07	0.00	8.04	47.19	649.79
18.50	2	SLE	R	7	7	0.00	-44955.40	81.93	-1323.00	0.00	8.04	57.98	789.95
18.50	4	SLE	Q	7	7	0.00	-38521.40	44.59	-983.07	0.00	8.04	47.19	649.79
21.00	2	SLE	R	7	7	250.00	-44299.20	-108.66	978.84	0.00	8.04	53.12	734.00
21.00	4	SLE	Q	7	7	250.00	-37865.20	-73.80	725.01	0.00	8.04	43.55	607.29
21.50	2	SLE	R	8	7	0.00	-29488.20	224.96	-1293.26	0.00	8.04	46.70	611.40
21.50	4	SLE	Q	8	7	0.00	-25001.70	168.49	-957.19	0.00	8.04	37.31	493.56
21.50	2	SLE	R	8	7	0.00	-29488.20	224.96	-1293.26	0.00	6.16	48.08	630.93
21.50	4	SLE	Q	8	7	0.00	-25001.70	168.49	-957.19	0.00	6.16	38.40	509.03
24.00	2	SLE	R	8	7	250.00	-28831.90	-201.23	895.03	0.00	6.16	41.42	555.27
24.00	4	SLE	Q	8	7	250.00	-24345.50	-154.04	660.01	0.00	6.16	33.34	450.96
24.50	2	SLE	R	9	7	0.00	-15005.30	324.21	-1549.92	3.08	3.08	46.06	545.43
24.50	4	SLE	Q	9	7	0.00	-12284.00	246.44	-1157.87	3.08	3.08	34.36	413.62
24.50	2	SLE	R	9	7	0.00	-15005.30	324.21	-1549.92	3.08	3.08	46.06	545.43
24.50	4	SLE	Q	9	7	0.00	-12284.00	246.44	-1157.87	3.08	3.08	34.36	413.62
27.00	2	SLE	R	9	7	250.00	-14349.00	-266.56	1528.31	3.08	3.08	44.17	522.34
27.00	4	SLE	Q	9	7	250.00	-11627.70	-200.61	1129.43	3.08	3.08	32.57	391.77

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <m>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <m>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	588.92	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	476.68	2.50	0.00	57709.10	107066.00	51938.20	7
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	588.92	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	476.68	2.50	0.00	57709.10	107066.00	51938.20	7
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	588.92	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	476.68	2.50	0.00	57709.10	107066.00	51938.20	7
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1035.20	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1477.44	2.50	0.00	44432.50	82434.00	39989.30	2
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1035.20	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1477.44	2.50	0.00	44432.50	82434.00	39989.30	2
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1035.20	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1477.44	2.50	0.00	44432.50	82434.00	39989.30	2
6.50	6.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1508.11	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1767.65	2.50	0.00	44432.50	82434.00	39989.30	2
6.96	8.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1508.11	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1767.65	2.50	0.00	44432.50	82434.00	39989.30	2
8.80	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1508.11	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1767.65	2.50	0.00	44432.50	82434.00	39989.30	2
9.50	9.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1954.61	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2188.53	2.50	0.00	44432.50	82434.00	39989.30	1
9.96	11.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1954.61	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2188.53	2.50	0.00	44432.50	82434.00	39989.30	1
11.80	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1954.61	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	2188.53	2.50	0.00	44432.50	82434.00	39989.30	1
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	470.80	2.29	8480.98	---	8480.98	8480.98	0.40	0.30	1109.35	2.47	7867.50	---	7867.50	7867.50	1



Relazione di calcolo

12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	470.80	2.30	8526.06	---	---	8526.06	8526.06	0.40	0.30	1109.35	2.49	7908.34	---	---	7908.34	7908.34
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	470.80	2.35	8704.06	---	---	8704.06	8704.06	0.40	0.30	1109.35	2.50	7955.54	---	---	8153.72	7955.54
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	52.78	2.11	5611.19	---	---	5611.19	5611.19	0.30	0.30	1230.23	1.92	6112.59	---	---	6112.59	6112.59
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	52.78	2.13	5646.01	---	---	5646.01	5646.01	0.30	0.30	1230.23	1.93	6151.99	---	---	6151.99	6151.99
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	52.78	2.18	5783.23	---	---	5783.23	5783.23	0.30	0.30	1230.23	1.98	6307.16	---	---	6307.15	6307.15
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	129.85	2.50	6634.02	---	---	12588.70	6634.02	0.30	0.30	1262.74	2.50	7955.54	---	---	12939.80	7955.54
20.80	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	129.85	2.50	6634.02	---	---	12639.70	6634.02	0.30	0.30	1262.74	2.50	7955.54	---	---	12992.20	7955.54
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	129.85	2.50	6634.02	---	---	12843.50	6634.02	0.30	0.30	1262.74	2.50	7955.54	---	---	13201.60	7955.54
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	261.89	2.50	6634.02	---	---	16455.30	6634.02	0.30	0.30	1197.97	2.50	7955.54	---	---	16914.20	7955.54
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	261.89	2.50	6634.02	---	---	16455.30	6634.02	0.30	0.30	1197.97	2.50	7955.54	---	---	16914.20	7955.54
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	261.89	2.50	6634.02	---	---	16455.30	6634.02	0.30	0.30	1197.97	2.50	7955.54	---	---	16914.20	7955.54
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	354.38	2.50	6634.02	---	---	15875.80	6634.02	0.30	0.30	1698.02	2.50	7955.54	---	---	16318.60	7955.54
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	354.38	2.50	6634.02	---	---	15855.40	6634.02	0.30	0.30	1698.02	2.50	7955.54	---	---	16297.60	7955.54
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	354.38	2.50	6634.02	---	---	15773.90	6634.02	0.30	0.30	1698.02	2.50	7955.54	---	---	16213.80	7955.54

Pilastrata n. 20

Nodi: 20 320 520 720 920 1120 1320 1520 1720 1920

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
1R		40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10R		40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7R		30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/presoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-191332.00	3418.90	3826.64	-1730.57	-3826.64	-784267.00	77092.40	-64513.90	1.12	4.099	134.93
0.00	1(e)	SLU	1	1	0.00	-191332.00	3418.90	3826.64	-1730.57	-3826.64	-784267.00	77092.40	-64513.90	1.12	4.099	134.93
3.00	1(e)	SLU	1	1	300.00	-187237.00	-32.40	-3744.74	2561.55	3744.74	-784267.00	-76898.40	64326.40	1.12	4.189	134.93
3.50	1(e)	SLU	2	10	0.00	-167621.00	2472.16	3352.43	-3484.76	-3484.76	-657277.00	51888.20	-57614.80	1.13	3.921	166.19
3.50	1(e)	SLU	2	10	0.00	-167621.00	2472.16	3352.43	-3484.76	-3484.76	-646245.00	51837.80	-56106.30	1.13	3.855	173.96
6.00	1(e)	SLU	2	10	250.00	-164940.00	-1244.93	-3298.80	2730.00	3298.80	-646245.00	-51740.90	56014.60	1.13	3.918	173.96
6.50	1(e)	SLU	3	10	0.00	-144515.00	1748.81	2890.30	-3738.30	-3738.30	-646245.00	50938.20	-55251.40	1.10	4.472	173.96
6.50	1(e)	SLU	3	10	0.00	-144515.00	1748.81	2890.30	-3738.30	-3738.30	-646245.00	50938.20	-55251.40	1.10	4.472	173.96
9.00	1(e)	SLU	3	10	250.00	-141834.00	-1172.75	-2836.68	2922.48	2922.48	-646245.00	-50824.40	55144.10	1.10	4.556	173.96
9.50	1(e)	SLU	4	10	0.00	-121060.00	1966.38	2421.21	-4112.21	-4112.21	-646245.00	49697.20	-54097.60	1.07	5.338	173.96
9.50	1(e)	SLU	4	10	0.00	-121060.00	1966.38	2421.21	-4112.21	-4112.21	-646245.00	49697.20	-54097.60	1.07	5.338	173.96
12.00	1(e)	SLU	4	10	250.00	-118379.00	-1888.38	-2367.58	3751.45	3751.45	-646245.00	-49470.00	53884.90	1.07	5.459	173.96
12.50	1(e)	SLU	5	10	0.00	-98005.30	852.90	1960.11	-1912.94	-1960.11	-235892.00	12777.70	-13249.70	1.26	2.407	---
12.50	1(e)	SLU	5	10	0.00	-98005.30	852.90	1960.11	-1912.94	-1960.11	-235892.00	12777.70	-13249.70	1.26	2.407	---
15.00	1(e)	SLU	5	10	250.00	-96867.80	-815.82	-1937.36	1972.57	1972.57	-235892.00	-12824.60	13241.50	1.26	2.435	---
15.50	1(e)	SLU	6	7	0.00	-77815.50	831.08	1556.31	-1525.64	-1556.31	-185194.00	10412.90	-7687.93	1.27	2.380	---
15.50	1(e)	SLU	6	7	0.00	-77815.50	831.08	1556.31	-1525.64	-1556.31	-174161.00	9064.94	-7581.05	1.29	2.238	---
18.00	1(e)	SLU	6	7	250.00	-76962.40	-587.16	-1539.25	1272.78	1539.25	-174161.00	-9099.49	7608.12	1.28	2.263	---
18.50	1(e)	SLU	7	7	0.00	-57829.70	643.41	1156.59	-1885.20	-1885.20	-174161.00	9011.19	-7578.87	1.19	3.012	---
18.50	1(e)	SLU	7	7	0.00	-57829.70	643.41	1156.59	-1885.20	-1885.20	-174161.00	9011.19	-7578.87	1.19	3.012	---
21.00	1(e)	SLU	7	7	250.00	-56976.50	-447.76	-1139.53	1451.78	1451.78	-174161.00	-8978.30	7550.08	1.19	3.057	---
21.50	1(e)	SLU	8	7	0.00	-37430.40	583.78	748.61	-2002.21	-2002.21	-37434.10	7739.61	-6488.20	1.10	2.832	---
21.50	1(e)	SLU	8	7	0.00	-37430.40	583.78	748.61	-2002.21	-2002.21	-37434.10	7739.61	-6488.20	1.10	2.832	---
24.00	1(e)	SLU	8	7	250.00	-36577.30	-488.11	-731.55	1524.83	1524.83	-36577.40	-7664.65	6417.96	1.09	3.506	---
24.50	1(e)	SLU	9	7	0.00	-16755.70	105.84	335.11	-2226.72	-2226.72	-16757.10	5448.01	-4558.70	1.00	1.818	---
24.50	1(e)	SLU	9	7	0.00	-16755.70	105.84	335.11	-2226.72	-2226.72	-16757.10	5448.01	-4558.70	1.00	1.818	---
27.00	1	SLU	9	7	250.00	-15902.60	408.22	408.22	1816.19	1816.19	-15903.40	5339.95	4469.79	1.00	2.071	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>ε</sub>	
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>	
0.00	2	SLE	R	1	1	0.00	-137322.00	-1237.01	2452.09	0.00	50.01	34.17	498.48
0.00	4	SLE	Q	1	1	0.00	-121436.00	-1032.28	2227.13	0.00	50.01	30.19	440.55
0.00	2	SLE	R	1	1	0.00	-137322.00	-1237.01	2452.09	0.00	50.01	34.17	498.48
0.00	4	SLE	Q	1	1	0.00	-121436.00	-1032.28	2227.13	0.00	50.01	30.19	440.55
3.00	2	SLE	R	1	1	300.00	-134172.00	1829.53	25.80	0.00	50.01	30.70	451.92
3.00	4	SLE	Q	1	1	300.00	-118286.00	1519.24	-348.55	0.00	50.01	27.42	403.04
3.50	2	SLE	R	2	10	0.00	-120193.00	-2487.89	1745.78	0.00	50.01	40.07	575.15
3.50	4	SLE	Q	2	10	0.00	-105928.00	-2050.72	1804.78	0.00	50.01	35.67	511.25
3.50	2	SLE	R	2	10	0.00	-120193.00	-2487.89	1745.78	0.00	46.94	40.47	580.93
3.50	4	SLE	Q	2	10	0.00	-105928.00	-2050.72	1804.78	0.00	46.94	36.02	516.30
6.00	2	SLE	R	2	10	250.00	-118130.00	1952.76	-852.67	0.00	46.94	36.36	528.44
6.00	4	SLE	Q	2	10	250.00	-103865.00	1611.35	-1021.64	0.00	46.94	32.42	470.22
6.50	2	SLE	R	3	10	0.00	-103566.00	-2678.90	1225.49	0.00	46.94	35.42	507.62
6.50	4	SLE	Q	3	10	0.00	-91053.60	-2203.89	1346.17	0.00	46.94	31.48	450.41
6.50	2	SLE	R	3	10	0.00	-103566.00	-2678.90	1225.49	0.00	46.94	35.42	507.62
6.50	4	SLE	Q	3	10	0.00	-91053.60	-2203.89	1346.17	0.00	46.94	31.48	450.41
9.00	2	SLE	R	3	10	250.00	-101503.00	2096.56	-801.65	0.00	46.94	32.42	468.82
9.00	4	SLE	Q	3	10	250.00	-88991.10	1726.91	-966.61	0.00	46.94	28.84	416.19
9.50	2	SLE	R	4	10	0.00	-86683.40	-2948.52	1384.50	0.00	46.94	32.25	457.56
9.50	4	SLE	Q	4	10	0.00	-75981.00	-2410.06	1485.99	0.00	46.94	28.56	404.61
9.50	2	SLE	R	4	10	0.00	-86683.40	-2948.52	1384.50	0.00	46.94	32.25	457.56
9.50	4	SLE	Q	4	10	0.00	-75981.00	-2410.06	1485.99	0.00	46.94	28.56	404.61
12.00	2	SLE	R	4	10	250.00	-84620.90	2689.40	-1310.42	0.00	46.94	30.93	439.69
12.00	4	SLE	Q	4	10	250.00	-73981.50	2198.09	-1461.31	0.00	46.94	27.48	389.75



Relazione di calcolo

12.50	2	SLE R	5	10	0.00	-70097.20	-1371.64	586.29	0.00	9.24	64.90	903.68
12.50	4	SLE Q	5	10	0.00	-61154.50	-1121.26	711.33	0.00	9.24	58.00	803.34
12.50	2	SLE R	5	10	0.00	-70097.20	-1371.64	586.29	0.00	9.24	64.90	903.68
12.50	4	SLE Q	5	10	0.00	-61154.50	-1121.26	711.33	0.00	9.24	58.00	803.34
15.00	2	SLE R	5	10	250.00	-69222.20	1413.56	-558.60	0.00	9.24	64.44	896.56
15.00	4	SLE Q	5	10	250.00	-60279.50	1152.74	-682.88	0.00	9.24	57.43	794.98
15.50	2	SLE R	6	7	0.00	-55669.90	-1093.85	566.61	0.00	9.24	72.94	979.05
15.50	4	SLE Q	6	7	0.00	-48401.70	-891.34	721.89	0.00	9.24	65.49	874.79
15.50	2	SLE R	6	7	0.00	-55669.90	-1093.85	566.61	0.00	6.16	75.31	1012.74
15.50	4	SLE Q	6	7	0.00	-48401.70	-891.34	721.89	0.00	6.16	67.74	906.21
18.00	2	SLE R	6	7	250.00	-55013.70	913.10	-397.46	0.00	6.16	69.27	945.63
18.00	4	SLE Q	6	7	250.00	-47745.40	744.24	-523.76	0.00	6.16	61.85	840.45
18.50	2	SLE R	7	7	0.00	-41408.80	-1350.49	429.46	0.00	6.16	65.21	848.94
18.50	4	SLE Q	7	7	0.00	-35835.80	-1096.65	616.56	0.00	6.16	58.71	760.68
18.50	2	SLE R	7	7	0.00	-41408.80	-1350.49	429.46	0.00	6.16	65.21	848.94
18.50	4	SLE Q	7	7	0.00	-35835.80	-1096.65	616.56	0.00	6.16	58.71	760.68
21.00	2	SLE R	7	7	250.00	-40752.60	1040.51	-296.75	0.00	6.16	57.50	764.87
21.00	4	SLE Q	7	7	250.00	-35179.60	845.02	-443.00	0.00	6.16	51.40	680.42
21.50	2	SLE R	8	7	0.00	-26854.90	-1434.73	380.79	0.00	6.16	53.50	667.86
21.50	4	SLE Q	8	7	0.00	-23025.90	-1164.29	582.05	1.54	4.62	48.68	604.03
21.50	2	SLE R	8	7	0.00	-26854.90	-1434.73	380.79	0.00	6.16	53.50	667.86
21.50	4	SLE Q	8	7	0.00	-23025.90	-1164.29	582.05	1.54	4.62	48.68	604.03
24.00	2	SLE R	8	7	250.00	-26198.60	1092.77	-319.27	0.00	6.16	45.96	586.51
24.00	4	SLE Q	8	7	250.00	-22369.70	887.38	-466.36	0.00	6.16	41.26	523.50
24.50	2	SLE R	9	7	0.00	-12105.20	-1595.47	50.66	3.08	3.08	50.23	577.37
24.50	4	SLE Q	9	7	0.00	-10063.80	-1280.53	289.25	3.08	3.08	46.55	511.96
24.50	2	SLE R	9	7	0.00	-12105.20	-1595.47	50.66	3.08	3.08	50.23	577.37
24.50	4	SLE Q	9	7	0.00	-10063.80	-1280.53	289.25	3.08	3.08	46.55	511.96
27.00	2	SLE R	9	7	250.00	-11449.00	1301.14	294.67	3.08	3.08	46.06	496.93
27.00	4	SLE Q	9	7	250.00	-9407.60	1031.44	65.42	3.08	3.08	32.20	351.78

Stato limite d'esercizio - Verifiche a fessurazione

Xg <mm>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	C <mm>	S <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>C eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
24.50	4	SLE Q	9	7	0.00	-10063.80	289.25	-1280.53	39.00	258.00	0.50	14.00	181.27	1.54	113.55	511.96	0.15	0.05
24.50	3	SLE F	9	7	0.00	-10619.20	220.52	-1368.02	39.00	258.00	0.50	14.00	199.28	1.54	133.35	528.57	0.15	0.05
24.50	4	SLE Q	9	7	0.00	-10063.80	289.25	-1280.53	39.00	258.00	0.50	14.00	181.27	1.54	113.55	511.96	0.15	0.05
24.50	3	SLE F	9	7	0.00	-10619.20	220.52	-1368.02	39.00	258.00	0.50	14.00	199.28	1.54	133.35	528.57	0.15	0.05

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <mm>	d <sub>y</sub> <mm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <mm>	d <sub>z</sub> <mm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1430.71	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1150.43	2.50	0.00	57709.10	107066.00	51938.20	3
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1430.71	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1150.43	2.50	0.00	57709.10	107066.00	51938.20	3
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1430.71	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	1150.43	2.50	0.00	57709.10	107066.00	51938.20	3
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	2485.90	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1486.84	2.50	0.00	44432.50	82434.00	39989.30	1
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	2485.90	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1486.84	2.50	0.00	44432.50	82434.00	39989.30	1
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	2485.90	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1486.84	2.50	0.00	44432.50	82434.00	39989.30	1
6.50	6.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	2664.31	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1168.62	2.50	0.00	44432.50	82434.00	39989.30	1
6.96	8.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	2664.31	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1168.63	2.50	0.00	44432.50	82434.00	39989.30	1
8.80	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	2664.31	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1168.63	2.50	0.00	44432.50	82434.00	39989.30	1
9.50	9.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	3145.47	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1541.90	2.50	0.00	44432.50	82434.00	39989.30	1
9.96	11.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	3145.47	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1541.90	2.50	0.00	44432.50	82434.00	39989.30	1
11.80	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	3145.46	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1541.90	2.50	0.00	44432.50	82434.00	39989.30	1
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	1554.20	2.50	9277.05	---	12660.50	9277.05	0.40	0.30	667.49	2.50	7955.54	---	12408.00	7955.54	---
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	1554.20	2.50	9277.05	---	12731.70	9277.05	0.40	0.30	667.49	2.50	7955.54	---	12477.80	7955.54	---
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	1554.20	2.50	9277.05	---	13016.70	9277.05	0.40	0.30	667.49	2.50	7955.54	---	12757.10	7955.54	---
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	1119.37	2.50	6634.02	---	7654.11	6634.02	0.30	0.30	567.30	2.48	7904.35	---	7904.35	7904.35	---
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	1119.37	2.50	6634.02	---	7705.06	6634.02	0.30	0.30	567.30	2.49	7934.86	---	7934.86	7934.86	---
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	1119.37	2.50	6634.02	---	7908.85	6634.02	0.30	0.30	567.30	2.50	7955.54	---	8129.42	7955.54	---
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	1334.79	2.50	6634.02	---	14140.90	6634.02	0.30	0.30	436.47	2.50	7955.54	---	14535.30	7955.54	---
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	1334.79	2.50	6634.02	---	14191.80	6634.02	0.30	0.30	436.47	2.50	7955.54	---	14587.60	7955.54	---
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	1334.79	2.50	6634.02	---	14395.60	6634.02	0.30	0.30	436.47	2.50	7955.54	---	14797.10	7955.54	---
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	1410.82	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	428.75	2.50	7955.54	---	16914.20	7955.54	---
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	1410.82	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	428.75	2.50	7955.54	---	16914.20	7955.54	---
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	1410.82	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	428.75	2.50	7955.54	---	16914.20	7955.54	---
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	1617.17	2.50	6634.02	---	15339.60	6634.02	0.30	0.30	120.95	2.50	7955.54	---	15767.40	7955.54	---
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	1617.17	2.50	6634.02	---	15319.20	6634.02	0.30	0.30	120.95	2.50	7955.54	---	15746.40	7955.54	---
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	1617.16	2.50	6634.02	---	15237.70	6634.02	0.30	0.30	120.95	2.50	7955.54	---	15662.70	7955.54	---

Pilastrata n. 25

Nodi: 25 325 525 725 925 1125 1325 1525 1725 1925

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
60	R	25.00	68.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
60	R	25.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94



Relazione di calcolo

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	60	0.00	-128449.00	1729.60	2568.98	547.74	2568.98	-778322.00	96029.10	43877.10	1.05	6.059	144.53
0.00	1(e)	SLU	1	60	0.00	-128449.00	1729.60	2568.98	547.74	2568.98	-778322.00	96029.10	43877.10	1.05	6.059	144.53
3.26	1(e)	SLU	1	60	326.00	-124254.00	1680.96	2485.07	-952.72	-2485.07	-778322.00	95450.40	-43630.20	1.05	6.264	144.53
3.50	1(e)	SLU	2	60	0.00	-112312.00	1504.96	2246.24	994.41	2246.24	-778322.00	93749.30	42912.50	1.04	6.930	144.53
3.50	1(e)	SLU	2	60	0.00	-112312.00	1504.96	2246.24	994.41	2246.24	-763912.00	92135.30	41948.30	1.04	6.802	151.38
6.26	1(e)	SLU	2	60	276.00	-108760.00	995.40	2175.20	-710.95	-2175.20	-763912.00	91670.20	-41727.70	1.04	7.024	151.38
9.50	1(e)	SLU	4	60	0.00	-83910.50	413.31	1678.21	634.81	1678.21	-303890.00	31580.20	10324.40	1.15	3.622	---
9.50	1(e)	SLU	4	60	0.00	-83910.50	413.31	1678.21	634.81	1678.21	-303890.00	31580.20	10324.40	1.15	3.622	---
12.26	1(e)	SLU	4	60	276.00	-82385.60	-365.88	-1647.71	-572.20	-1647.71	-303890.00	-31478.10	-10287.00	1.14	3.689	---
12.50	1(e)	SLU	5	60	0.00	-70734.40	-30.39	-1414.69	553.14	1414.69	-303890.00	-30615.00	9969.79	1.11	4.296	---
12.50	1(e)	SLU	5	60	0.00	-70734.40	-30.39	-1414.69	553.14	1414.69	-303890.00	-30615.00	9969.79	1.11	4.296	---
15.26	1(e)	SLU	5	60	276.00	-69209.50	-205.59	-1384.19	-564.65	-1384.19	-303890.00	-30492.50	-9924.89	1.11	4.391	---
15.50	1(e)	SLU	6	60	0.00	-57394.80	103.25	1147.90	612.22	1147.90	-303890.00	29483.60	9498.58	1.07	5.295	---
15.50	1(e)	SLU	6	60	0.00	-57394.80	103.25	1147.90	612.22	1147.90	-289480.00	25261.70	8760.19	1.08	5.044	---
18.26	1(e)	SLU	6	60	276.00	-55869.90	-142.36	-1117.40	-610.81	-1117.40	-289480.00	-25125.30	-8657.63	1.08	5.181	---
18.50	1(e)	SLU	7	60	0.00	-44024.10	104.09	880.48	618.08	880.48	-289480.00	23465.80	7831.10	1.04	6.575	---
18.50	1(e)	SLU	7	60	0.00	-44024.10	104.09	880.48	618.08	880.48	-289480.00	23465.80	7831.10	1.04	6.575	---
21.26	1(e)	SLU	7	60	276.00	-42499.20	-18.59	-849.99	-608.73	-849.99	-289480.00	-23197.20	-7718.68	1.04	6.811	---
21.50	1(e)	SLU	8	60	0.00	-30635.90	250.28	612.72	668.57	668.57	-30637.10	20879.90	6819.11	1.00	7.950	---
21.50	1(e)	SLU	8	60	0.00	-30635.90	250.28	612.72	668.57	668.57	-30637.10	20879.90	6819.11	1.00	7.950	---
24.26	1(e)	SLU	8	60	276.00	-29111.00	426.54	582.22	-577.07	-582.22	-29115.10	20553.30	-6699.35	1.00	8.689	---
24.50	---	SLU	9	60	0.00	-17229.40	900.46	900.46	762.11	762.11	-17231.40	17781.30	5748.61	1.00	5.458	---
24.50	---	SLU	9	60	0.00	-17229.40	900.46	900.46	762.11	762.11	-17231.40	17781.30	5748.61	1.00	5.458	---
27.26	1	SLU	9	60	276.00	-15704.50	-581.99	-581.99	-1453.14	-1453.14	-15708.10	-17396.60	-5624.43	1.00	3.427	---

Dati per verifiche di stabilità

Xg <m>	El	l <sub>0</sub> <m>	λ	λ*
---	1	3.50	26.94	64.39
---	2	3.00	23.09	68.84
---	3	3.00	41.57	39.98

Xg <m>	El	l <sub>0</sub> <m>	λ	λ*
---	1	3.50	26.94	64.39
---	2	3.00	23.09	68.84

Xg <m>	El	l <sub>0</sub> <m>	λ	λ*
---	1	3.50	26.94	64.39
---	3	3.00	41.57	39.98

Xg <m>	El	l <sub>0</sub> <m>	λ	λ*
---	2	3.00	23.09	68.84
---	3	3.00	41.57	39.98

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdy, s <daNm>	MRdz <daNm>	MRdz, s <daNm>	esp.	Sic.	Δ%
6.50	1(e)	SLU	3	60	0.00	-97052.70	1051.55	1941.05	378.05	1941.05	-303890.00	32335.50	31416.00	10603.20	8497.83	1.18	3.131	---
6.50	1(e)	SLU	3	60	0.00	-97052.70	1051.55	1941.05	378.05	1941.05	-303890.00	32335.50	31416.00	10603.20	8497.83	1.18	3.131	---
9.26	1(e)	SLU	3	60	276.00	-95527.80	73.31	1910.56	-527.37	-1910.56	-303890.00	32259.90	31341.10	-10574.50	-8511.75	1.18	3.181	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	60	0.00	-92226.00	383.89	1284.24	0.00	57.81	21.87	321.90
0.00	4	SLE Q	1	60	0.00	-80456.30	312.31	970.71	0.00	57.81	18.82	277.44
0.00	2	SLE R	1	60	0.00	-92226.00	383.89	1284.24	0.00	57.81	21.87	321.90
0.00	4	SLE Q	1	60	0.00	-80456.30	312.31	970.71	0.00	57.81	18.82	277.44
3.26	2	SLE R	1	60	326.00	-88998.60	-662.84	1257.62	0.00	57.81	21.95	320.59
3.26	4	SLE Q	1	60	326.00	-77228.90	-539.68	1023.99	0.00	57.81	18.86	275.84
3.50	2	SLE R	2	60	0.00	-80509.10	694.27	1111.88	0.00	57.81	20.09	292.67
3.50	4	SLE Q	2	60	0.00	-69996.90	563.91	812.12	0.00	57.81	17.15	250.42
3.50	2	SLE R	2	60	0.00	-80509.10	694.27	1111.88	0.00	53.78	20.31	296.01
3.50	4	SLE Q	2	60	0.00	-69996.90	563.91	812.12	0.00	53.78	17.34	253.31
6.26	2	SLE R	2	60	276.00	-77776.70	-496.02	747.56	0.00	53.78	18.70	274.40
6.26	4	SLE Q	2	60	276.00	-67264.50	-405.24	619.07	0.00	53.78	16.07	236.04
6.50	2	SLE R	3	60	0.00	-69447.20	264.02	777.54	0.00	16.09	42.35	609.81
6.50	4	SLE Q	3	60	0.00	-60154.10	215.96	560.80	0.00	16.09	36.05	520.60
6.50	2	SLE R	3	60	0.00	-69447.20	264.02	777.54	0.00	16.09	42.35	609.81
6.50	4	SLE Q	3	60	0.00	-60154.10	215.96	560.80	0.00	16.09	36.05	520.60
9.26	2	SLE R	3	60	276.00	-68274.20	-368.07	63.70	0.00	16.09	40.06	574.26
9.26	4	SLE Q	3	60	276.00	-58981.10	-301.05	87.61	0.00	16.09	34.53	495.87
9.50	2	SLE R	4	60	0.00	-60015.40	442.71	306.09	0.00	16.09	37.76	532.36
9.50	4	SLE Q	4	60	0.00	-51939.20	361.64	186.40	0.00	16.09	32.08	453.94
9.50	2	SLE R	4	60	0.00	-60015.40	442.71	306.09	0.00	16.09	37.76	532.36
9.50	4	SLE Q	4	60	0.00	-51939.20	361.64	186.40	0.00	16.09	32.08	453.94
12.26	2	SLE R	4	60	276.00	-58842.40	-398.68	-257.69	0.00	16.09	36.40	515.50
12.26	4	SLE Q	4	60	276.00	-50766.20	-324.79	-161.21	0.00	16.09	30.91	439.18
12.50	2	SLE R	5	60	0.00	-50559.20	385.40	-13.45	0.00	16.09	30.94	436.69
12.50	4	SLE Q	5	60	0.00	-43699.40	313.71	-66.58	0.00	16.09	26.73	378.14
12.50	2	SLE R	5	60	0.00	-50559.20	385.40	-13.45	0.00	16.09	30.94	436.69
12.50	4	SLE Q	5	60	0.00	-43699.40	313.71	-66.58	0.00	16.09	26.73	378.14
15.26	2	SLE R	5	60	276.00	-49386.20	-393.58	-145.65	0.00	16.09	30.99	435.76
15.26	4	SLE Q	5	60	276.00	-42526.40	-320.66	-73.15	0.00	16.09	26.24	370.25
15.50	2	SLE R	6	60	0.00	-40988.40	426.52	82.57	0.00	16.09	26.82	371.32
15.50	4	SLE Q	6	60	0.00	-35360.50	347.80	1.19	0.00	16.09	22.59	314.17
15.50	2	SLE R	6	60	0.00	-40988.40	426.52	82.57	0.00	12.06	27.52	381.78
15.50	4	SLE Q	6	60	0.00	-35360.50	347.80	1.19	0.00	12.06	23.17	322.93
18.26	2	SLE R	6	60	276.00	-39815.40	-425.60	-102.76	0.00	12.06	26.97	373.49
18.26	4	SLE Q	6	60	276.00	-34187.50	-346.73	-31.72	0.00	12.06	22.67	315.22
18.50	2	SLE R	7	60	0.00	-31394.90	431.50	82.62	0.00	12.06	22.48	305.86
18.50	4	SLE Q	7	60	0.00	-26999.20	353.30	3.88	0.00	12.06	18.81	257.06
18.50	2	SLE R	7	60	0.00	-31394.90	431.50	82.62	0.00	12.06	22.48	305.86
18.50	4	SLE Q	7	60	0.00	-26999.20	353.30	3.88	0.00	12.06	18.81	257.06
21.26	2	SLE R	7	60	276.00	-30221.90	-425.15	-14.43	0.00	12.06	21.47	291.81
21.26	4	SLE Q	7	60	276.00	-25826.20	-347.95	49.62	0.00	12.06	18.32	249.72



Relazione di calcolo

21.50	2	SLE R	8	60	0.00	-21788.30	466.00	188.96	0.00	12.06	18.28	239.47
21.50	4	SLE Q	8	60	0.00	-18624.20	380.07	98.90	0.00	12.06	15.12	198.92
21.50	2	SLE R	8	60	0.00	-21788.30	466.00	188.96	0.00	12.06	18.28	239.47
21.50	4	SLE Q	8	60	0.00	-18624.20	380.07	98.90	0.00	12.06	15.12	198.92
24.26	2	SLE R	8	60	276.00	-20615.30	-404.03	300.63	0.00	12.06	17.38	229.30
24.26	4	SLE Q	8	60	276.00	-17451.20	-332.22	289.23	0.00	12.06	14.75	194.97
24.50	2	SLE R	9	60	0.00	-12168.80	529.73	652.15	2.01	10.05	16.33	199.91
24.50	4	SLE Q	9	60	0.00	-10239.50	429.67	457.47	0.00	12.06	13.02	159.94
24.50	2	SLE R	9	60	0.00	-12168.80	529.73	652.15	2.01	10.05	16.33	199.91
24.50	4	SLE Q	9	60	0.00	-10239.50	429.67	457.47	0.00	12.06	13.02	159.94
27.26	2	SLE R	9	60	276.00	-10995.80	-1004.14	-426.08	6.03	6.03	25.39	261.25
27.26	4	SLE Q	9	60	276.00	-9066.46	-794.84	-235.09	6.03	6.03	19.19	198.86

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <cm>	X1 <cm>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	Si
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.40	460.26	2.50	0.00	35581.40	95260.90	32023.30	0.45	0.83	14.92	2.50	0.00	73641.10	100819.00	66277.00	69.
0.68	2.58	ø8/20	2	2	ø8/10	1	SLU	0.88	0.40	460.26	2.50	0.00	35581.40	95139.50	32023.30	0.45	0.83	14.92	2.50	0.00	73641.10	100690.00	66277.00	69.
2.58	3.26	ø8/20	2	2	ø8/10	1	SLU	0.88	0.40	460.26	2.50	0.00	35581.40	94800.60	32023.30	0.45	0.83	14.92	2.50	0.00	73641.10	100332.00	66277.00	69.
3.50	4.18	ø6/15	2	2	ø8/10	1	SLU	0.88	0.40	617.88	2.50	0.00	35581.40	93023.90	32023.30	0.45	0.83	184.62	2.50	0.00	73641.10	98451.30	66277.00	51.
4.18	5.58	ø6/15	2	2	ø8/10	1	SLU	0.88	0.40	617.88	2.50	0.00	35581.40	92902.60	32023.30	0.45	0.83	184.62	2.50	0.00	73641.10	98322.90	66277.00	51.
5.58	6.26	ø6/15	2	2	ø8/10	1	SLU	0.88	0.40	617.88	2.50	0.00	35581.40	92652.80	32023.30	0.45	0.83	184.62	2.50	0.00	73641.10	98058.60	66277.00	51.
6.50	7.18	ø6/15	2	2	---	1	SLU	0.68	0.20	328.05	2.50	5312.50	---	20933.10	5312.50	0.25	0.63	354.43	2.50	16677.60	---	24160.00	16677.60	16.
7.18	8.58	ø6/15	2	2	---	1	SLU	0.68	0.20	328.05	2.50	5312.50	---	21050.20	5312.50	0.25	0.63	354.43	2.50	16677.60	---	24295.20	16677.60	16.
8.58	9.26	ø6/15	2	2	---	1	SLU	0.68	0.20	328.05	2.50	5312.50	---	21291.50	5312.50	0.25	0.63	354.43	2.50	16677.60	---	24573.70	16677.60	16.
9.50	10.18	ø6/15	2	2	---	1	SLU	0.68	0.20	437.32	2.50	5312.50	---	25032.10	5312.50	0.25	0.63	282.32	2.50	16677.60	---	28890.90	16677.60	12.
10.18	11.58	ø6/15	2	2	---	1	SLU	0.68	0.20	437.32	2.50	5312.50	---	25149.30	5312.50	0.25	0.63	282.32	2.50	16677.60	---	29026.20	16677.60	12.
11.58	12.26	ø6/15	2	2	---	1	SLU	0.68	0.20	437.32	2.50	5312.50	---	25390.50	5312.50	0.25	0.63	282.32	2.50	16677.60	---	29304.60	16677.60	12.
12.50	13.18	ø6/15	2	2	---	1	SLU	0.68	0.20	405.00	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	63.48	2.50	16677.60	---	29548.40	16677.60	13.
13.18	14.58	ø6/15	2	2	---	1	SLU	0.68	0.20	405.00	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	63.48	2.50	16677.60	---	29548.40	16677.60	13.
14.58	15.26	ø6/15	2	2	---	1	SLU	0.68	0.20	405.00	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	63.48	2.50	16677.60	---	29548.40	16677.60	13.
15.50	16.18	ø6/15	2	2	---	1	SLU	0.68	0.20	443.13	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	88.99	2.50	16677.60	---	29548.40	16677.60	11.
16.18	17.58	ø6/15	2	2	---	1	SLU	0.68	0.20	443.13	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	88.99	2.50	16677.60	---	29548.40	16677.60	11.
17.58	18.26	ø6/15	2	2	---	1	SLU	0.68	0.20	443.13	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	88.99	2.50	16677.60	---	29548.40	16677.60	11.
18.50	19.18	ø6/15	2	2	---	1	SLU	0.68	0.20	444.49	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	44.45	2.50	16677.60	---	29548.40	16677.60	11.
19.18	20.58	ø6/15	2	2	---	1	SLU	0.68	0.20	444.49	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	44.45	2.50	16677.60	---	29548.40	16677.60	11.
20.58	21.26	ø6/15	2	2	---	1	SLU	0.68	0.20	444.49	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	44.45	2.50	16677.60	---	29548.40	16677.60	11.
21.50	22.18	ø6/15	2	2	---	1	SLU	0.68	0.20	451.32	2.50	5312.50	---	24303.50	5312.50	0.25	0.63	63.86	2.50	16677.60	---	28050.00	16677.60	11.
22.18	23.58	ø6/15	2	2	---	1	SLU	0.68	0.20	451.32	2.50	5312.50	---	24256.60	5312.50	0.25	0.63	63.86	2.50	16677.60	---	27995.90	16677.60	11.
23.58	24.26	ø6/15	2	2	---	1	SLU	0.68	0.20	451.32	2.50	5312.50	---	24160.10	5312.50	0.25	0.63	63.86	2.50	16677.60	---	27884.50	16677.60	11.
24.50	25.18	ø6/15	2	2	---	1	SLU	0.68	0.20	802.63	2.50	5312.50	---	22630.90	5312.50	0.25	0.63	537.12	2.50	16677.60	---	26119.60	16677.60	6.
25.18	26.58	ø6/15	2	2	---	1	SLU	0.68	0.20	802.63	2.50	5312.50	---	22584.00	5312.50	0.25	0.63	537.12	2.50	16677.60	---	26065.50	16677.60	6.
26.58	27.26	ø6/15	2	2	---	1	SLU	0.68	0.20	802.63	2.50	5312.50	---	22487.50	5312.50	0.25	0.63	537.12	2.50	16677.60	---	25954.10	16677.60	6.

Pilastrata n. 26

Nodi: 26 326 526 726 926 1126 1326 1526 1726 1926

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
2R		40.00	68.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
21R		30.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
22R		25.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	88.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1 (e)	SLU	1	2	0.00	-196439.00	0.00	3928.79	353.38	3928.79	-964574.00	112980.00	73923.20	1.09	4.910	106.97
0.00	1 (e)	SLU	1	2	0.00	-196439.00	0.00	3928.79	353.38	3928.79	-964574.00	112980.00	73923.20	1.09	4.910	106.97
3.50	1 (e)	SLU	1	2	350.00	-190433.00	0.00	3808.67	-705.96	-3808.67	-964574.00	112175.00	-73398.60	1.08	5.065	106.97
3.50	1 (e)	SLU	2	21	0.00	-171999.00	0.00	3439.99	226.42	3439.99	-797177.00	97465.20	51569.20	1.10	4.635	145.80
3.50	1 (e)	SLU	2	21	0.00	-171999.00	0.00	3439.99	226.42	3439.99	-825996.00	102264.00	53096.40	1.09	4.802	133.90
6.50	1 (e)	SLU	2	21	300.00	-170010.00	0.00	3400.21	-413.48	-3400.21	-825996.00	102038.00	-53012.50	1.09	4.859	133.90
6.50	1 (e)	SLU	3	21	0.00	-151292.00	0.00	3025.84	490.43	3025.84	-353140.00	37098.50	14851.40	1.27	2.334	---
6.50	1 (e)	SLU	3	21	0.00	-151292.00	0.00	3025.84	490.43	3025.84	-353140.00	37098.50	14851.40	1.27	2.334	---
9.50	1 (e)	SLU	3	21	300.00	-149303.00	0.00	2986.06	-548.34	-2986.06	-353140.00	37104.30	-14904.90	1.27	2.365	---
9.50	1 (e)	SLU	4	21	0.00	-130584.00	0.00	2611.69	355.57	2611.69	-353140.00	36831.40	15113.00	1.22	2.704	---
9.50	1 (e)	SLU	4	21	0.00	-130584.00	0.00	2611.69	355.57	2611.69	-353140.00	36831.40	15113.00	1.22	2.704	---
12.50	1 (e)	SLU	4	21	300.00	-128595.00	0.00	2571.91	-426.13	-2571.91	-353140.00	36769.30	-15085.20	1.22	2.746	---
12.50	1 (e)	SLU	5	21	0.00	-109877.00	0.00	2197.54	477.78	2197.54	-353140.00	35902.80	14702.90	1.18	3.214	---
12.50	1 (e)	SLU	5	21	0.00	-109877.00	0.00	2197.54	477.78	2197.54	-353140.00	35902.80	14702.90	1.18	3.214	---
15.50	1 (e)	SLU	5	21	300.00	-107888.00	0.00	2157.76	-825.08	-2157.76	-353140.00	35782.70	-14650.30	1.17	3.273	---
15.50	1 (e)	SLU	6	22	0.00	-89169.30	0.00	1783.39	552.14	1783.39	-275071.00	27478.30	9245.45	1.19	3.085	---
15.50	1 (e)	SLU	6	22	0.00	-89169.30	0.00	1783.39	552.14	1783.39	-289480.00	27688.60	10369.40	1.17	3.246	---
18.50	1 (e)	SLU	6	22	300.00	-87511.80	0.00	1750.24	-757.99	-1750.24	-289480.00	27588.00	-10314.00	1.17	3.308	---
18.50	1 (e)	SLU	7	22	0.00	-68793.30	0.00	1375.87	619.22	1375.87	-289480.00	26236.50	9467.37	1.11	4.208	---
18.50	1 (e)	SLU	7	22	0.00	-68793.30	0.00	1375.87	619.22	1375.87	-289480.00	26236.50	9467.37	1.11	4.208	---
21.50	1 (e)	SLU	7	22	300.00	-67135.80	0.00	1342.72	-801.67	-1342.72	-289480.00	26100.60	-9369.16	1.11	4.312	---
21.50	1 (e)	SLU	8	22	0.00	-48417.20	0.00	968.34	575.55	968.34	-289480.00	24203.80	8145.32	1.06	5.979	---
21.50	1 (e)	SLU	8	22	0.00	-48417.20	0.00	968.34	575.55	968.34	-289480.00	24203.80	8145.32	1.06	5.979	---
24.50	1 (e)	SLU	8	22	300.00	-46759.70	0.00	935.19	-578.38	-935.19	-289480.00	23932.10	-8028.00	1.05	6.191	---
24.50	1 (e)	SLU	9	22	0.00	-28041.20	0.00	-560.82	798.84	798.84	-28045.30	-20320.20	6615.12	1.00	6.740	---
24.50	1 (e)	SLU	9	22	0.00	-28041.20	0.00	-560.82	798.84	798.84	-28045.30	-20320.20	6615.12	1.00	6.740	---
27.50	1 (e)	SLU	9	22	300.00	-26383.70	0.00	-527.67	-1941.18	-1941.18	-26388.30	19952.70	-6484.55	1.00	3.069	---



Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>t</sub>
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	2	0.00	-138095.00	252.20	0.00	0.00	57.81	22.87	342.02
0.00	4	SLE Q	1	2	0.00	-114521.00	203.77	0.00	0.00	57.81	18.95	283.52
0.00	2	SLE R	1	2	0.00	-138095.00	252.20	0.00	0.00	57.81	22.87	342.02
0.00	4	SLE Q	1	2	0.00	-114521.00	203.77	0.00	0.00	57.81	18.95	283.52
3.50	2	SLE R	1	2	350.00	-133475.00	-491.21	0.00	0.00	57.81	22.49	335.52
3.50	4	SLE Q	1	2	350.00	-109901.00	-398.67	0.00	0.00	57.81	18.51	276.15
3.50	2	SLE R	2	21	0.00	-120635.00	158.23	0.00	0.00	45.74	24.08	360.18
3.50	4	SLE Q	2	21	0.00	-99490.20	127.89	0.00	0.00	45.74	19.85	296.97
3.50	2	SLE R	2	21	0.00	-120635.00	158.23	0.00	0.00	53.78	23.53	351.91
3.50	4	SLE Q	2	21	0.00	-99490.20	127.89	0.00	0.00	53.78	19.40	290.15
6.50	2	SLE R	2	21	300.00	-119105.00	-287.99	0.00	0.00	53.78	23.53	351.08
6.50	4	SLE Q	2	21	300.00	-97960.20	-233.40	0.00	0.00	53.78	19.35	288.66
6.50	2	SLE R	3	21	0.00	-106067.00	341.62	0.00	0.00	16.09	49.47	728.07
6.50	4	SLE Q	3	21	0.00	-87388.90	277.07	0.00	0.00	16.09	40.72	599.47
6.50	2	SLE R	3	21	0.00	-106067.00	341.62	0.00	0.00	16.09	49.47	728.07
6.50	4	SLE Q	3	21	0.00	-87388.90	277.07	0.00	0.00	16.09	40.72	599.47
9.50	2	SLE R	3	21	300.00	-104537.00	-381.87	0.00	0.00	16.09	49.15	721.62
9.50	4	SLE Q	3	21	300.00	-85858.90	-309.43	0.00	0.00	16.09	40.33	592.31
9.50	2	SLE R	4	21	0.00	-91499.00	247.73	0.00	0.00	16.09	42.27	623.86
9.50	4	SLE Q	4	21	0.00	-75287.70	201.04	0.00	0.00	16.09	34.75	513.08
9.50	2	SLE R	4	21	0.00	-91499.00	247.73	0.00	0.00	16.09	42.27	623.86
9.50	4	SLE Q	4	21	0.00	-75287.70	201.04	0.00	0.00	16.09	34.75	513.08
12.50	2	SLE R	4	21	300.00	-89969.00	-296.72	0.00	0.00	16.09	42.02	618.19
12.50	4	SLE Q	4	21	300.00	-73757.70	-240.52	0.00	0.00	16.09	34.43	506.56
12.50	2	SLE R	5	21	0.00	-76930.90	332.89	0.00	0.00	16.09	36.62	535.71
12.50	4	SLE Q	5	21	0.00	-63186.50	269.95	0.00	0.00	16.09	30.05	439.69
12.50	2	SLE R	5	21	0.00	-76930.90	332.89	0.00	0.00	16.09	36.62	535.71
12.50	4	SLE Q	5	21	0.00	-63186.50	269.95	0.00	0.00	16.09	30.05	439.69
15.50	2	SLE R	5	21	300.00	-75400.90	-574.88	0.00	0.00	16.09	38.06	547.36
15.50	4	SLE Q	5	21	300.00	-61656.50	-466.14	0.00	0.00	16.09	31.09	447.23
15.50	2	SLE R	6	22	0.00	-62362.70	384.40	0.00	0.00	8.04	39.26	560.71
15.50	4	SLE Q	6	22	0.00	-51085.30	311.64	0.00	0.00	8.04	32.12	458.91
15.50	2	SLE R	6	22	0.00	-62362.70	384.40	0.00	0.00	12.06	37.98	542.50
15.50	4	SLE Q	6	22	0.00	-51085.30	311.64	0.00	0.00	12.06	31.07	444.01
18.50	2	SLE R	6	22	300.00	-61087.70	-527.86	0.00	0.00	12.06	39.10	549.19
18.50	4	SLE Q	6	22	300.00	-49810.30	-427.57	0.00	0.00	12.06	31.85	447.47
18.50	2	SLE R	7	22	0.00	-48049.60	431.42	0.00	0.00	12.06	30.96	433.88
18.50	4	SLE Q	7	22	0.00	-39239.10	350.20	0.00	0.00	12.06	25.26	354.08
18.50	2	SLE R	7	22	0.00	-48049.60	431.42	0.00	0.00	12.06	30.96	433.88
18.50	4	SLE Q	7	22	0.00	-39239.10	350.20	0.00	0.00	12.06	25.26	354.08
21.50	2	SLE R	7	22	300.00	-46774.60	-558.10	0.00	0.00	12.06	31.88	438.60
21.50	4	SLE Q	7	22	300.00	-37964.10	-452.01	0.00	0.00	12.06	25.86	355.87
21.50	2	SLE R	8	22	0.00	-33736.40	401.18	0.00	0.00	12.06	22.97	316.19
21.50	4	SLE Q	8	22	0.00	-27392.80	325.77	0.00	0.00	12.06	18.65	256.74
21.50	2	SLE R	8	22	0.00	-33736.40	401.18	0.00	0.00	12.06	22.97	316.19
21.50	4	SLE Q	8	22	0.00	-27392.80	325.77	0.00	0.00	12.06	18.65	256.74
24.50	2	SLE R	8	22	300.00	-32461.40	-406.93	0.00	0.00	12.06	22.37	306.69
24.50	4	SLE Q	8	22	300.00	-26117.80	-335.34	0.00	0.00	12.06	18.10	247.69
24.50	2	SLE R	9	22	0.00	-19423.20	552.35	0.00	0.00	12.06	17.26	219.81
24.50	4	SLE Q	9	22	0.00	-15546.60	442.44	0.00	0.00	12.06	13.82	175.98
24.50	2	SLE R	9	22	0.00	-19423.20	552.35	0.00	0.00	12.06	17.26	219.81
24.50	4	SLE Q	9	22	0.00	-15546.60	442.44	0.00	0.00	12.06	13.82	175.98
27.50	2	SLE R	9	22	300.00	-18148.20	-1335.26	0.00	6.03	6.03	29.04	315.04
27.50	4	SLE Q	9	22	300.00	-14271.60	-1050.04	0.00	6.03	6.03	22.84	247.75

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	S
<m>	<m>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	302.67	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	0.00	2.50	0.00	73641.10	136624.00	66277.00	>19
0.68	2.58	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	302.67	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	0.00	2.50	0.00	73641.10	136624.00	66277.00	>19
2.58	3.50	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	302.67	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	0.00	2.50	0.00	73641.10	136624.00	66277.00	>19
3.50	3.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	302.67	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	0.00	2.50	0.00	73641.10	113853.00	66277.00	>19
4.18	5.82	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	213.30	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	0.00	2.50	0.00	73641.10	113853.00	66277.00	>19
5.82	6.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	213.30	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	0.00	2.50	0.00	73641.10	113853.00	66277.00	>19
6.50	4.18	ø6/15	2	2	---	1	SLU	0.68	0.25	346.25	2.50	6634.02	---	8261.27	6634.02	0.30	0.63	0.00	1.73	11521.90	---	11521.90	11521.90	19
4.18	5.58	ø6/15	2	2	---	1	SLU	0.68	0.25	213.30	2.50	6634.02	---	8261.27	6634.02	0.30	0.63	0.00	1.73	11521.90	---	11521.90	11521.90	31
5.58	9.50	ø6/15	2	2	---	1	SLU	0.68	0.25	346.25	2.50	6634.02	---	8562.53	6634.02	0.30	0.63	0.00	1.77	11799.10	---	11799.10	11799.10	19
9.50	6.50	ø6/15	2	2	---	1	SLU	0.68	0.25	260.57	2.50	6634.02	---	8760.50	6634.02	0.30	0.63	0.00	1.80	11977.80	---	11977.80	11977.80	25
10.18	11.82	ø6/15	2	2	---	1	SLU	0.68	0.25	260.57	2.50	6634.02	---	21703.30	6634.02	0.30	0.63	0.00	2.50	16677.60	---	24071.00	16677.60	25
11.82	12.50	ø6/15	2	2	---	1	SLU	0.68	0.25	260.57	2.50	6634.02	---	22056.20	6634.02	0.30	0.63	0.00	2.50	16677.60	---	24462.40	16677.60	25
12.50	7.18	ø6/15	2	2	---	1	SLU	0.68	0.25	434.28	2.50	6634.02	---	14982.30	6634.02	0.30	0.63	0.00	2.49	16642.30	---	16642.30	16642.30	15
7.18	8.58	ø6/15	2	2	---	1	SLU	0.68	0.25	346.25	2.50	6634.02	---	14982.30	6634.02	0.30	0.63	0.00	2.49	16642.30	---	16642.30	16642.30	19
8.58	15.50	ø6/15	2	2	---	1	SLU	0.68	0.25	434.28	2.50	6634.02	---	15283.60	6634.02	0.30	0.63	0.00	2.50	16677.60	---	16950.90	16677.60	15
15.50	9.50	ø6/15	2	2	---	1	SLU	0.68	0.20	436.71	2.31	4904.70	---	4904.70	4904.70	0.25	0.63	0.00	1.15	7682.43	---	7682.43	7682.43	11
16.18	17.82	ø6/15	2	2	---	1	SLU	0.68	0.20	436.71	2.50	5312.50	---	23509.00	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27133.10	16677.60	12
17.82	18.50	ø6/15	2	2	---	1	SLU	0.68	0.20	436.71	2.50	5312.50	---	23791.60	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27459.30	16677.60	12
18.50	10.18	ø6/15	2	2	---	1	SLU	0.68	0.20	473.63	2.50	5312.50	---	10615.20	5312.50	0.25	0.63	0.00	2.08	13875.10	---	13875.10	13875.10	11
10.18	11.58	ø6/15	2	2	---	1	SLU	0.68	0.20	260.57	2.50	5312.50	---	10615.20	5312.50	0.25	0.63	0.00	2.08	13875.10	---	13875.10	13875.10	20
11.58	21.50	ø6/15	2	2	---	1	SLU	0.68	0.20	473.63	2.50	5312.50	---	10904.70	5312.50	0.25	0.63	0.00	2.11	14106.10	---	14106.10	14106.10	11



Relazione di calcolo

13.18	14.58	ø6/15	2	2	---	1	SLU	0.68	0.20	434.28	2.50	5312.50	---	17073.90	5312.50	0.25	0.63	0.00	2.50	16677.60	---	19705.90	16677.60	12
14.58	27.50	ø6/15	2	2	---	1	SLU	0.68	0.20	913.34	2.50	5312.50	---	17363.40	5312.50	0.25	0.63	0.00	2.50	16677.60	---	20040.00	16677.60	5
15.50	16.18	ø6/15	2	2	---	1	SLU	0.68	0.20	436.71	2.50	5312.50	---	23391.90	5312.50	0.25	0.63	0.00	2.50	16677.60	---	26997.80	16677.60	12
16.18	17.58	ø6/15	2	2	---	1	SLU	0.68	0.20	436.71	2.50	5312.50	---	23509.00	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27133.10	16677.60	12
17.58	18.26	ø6/15	2	2	---	1	SLU	0.68	0.20	436.71	2.50	5312.50	---	23750.30	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27411.50	16677.60	12
18.50	19.18	ø6/15	2	2	---	1	SLU	0.68	0.20	473.63	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	11
19.18	20.58	ø6/15	2	2	---	1	SLU	0.68	0.20	473.63	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	11
20.58	21.26	ø6/15	2	2	---	1	SLU	0.68	0.20	473.63	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	11
21.50	22.18	ø6/15	2	2	---	1	SLU	0.68	0.20	384.64	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	13
22.18	23.58	ø6/15	2	2	---	1	SLU	0.68	0.20	384.64	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	13
23.58	24.26	ø6/15	2	2	---	1	SLU	0.68	0.20	384.64	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	13
24.50	25.18	ø6/15	2	2	---	1	SLU	0.68	0.20	913.34	2.50	5312.50	---	23979.80	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27676.40	16677.60	5
25.18	26.58	ø6/15	2	2	---	1	SLU	0.68	0.20	913.34	2.50	5312.50	---	23932.90	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27622.30	16677.60	5
26.58	27.26	ø6/15	2	2	---	1	SLU	0.68	0.20	913.34	2.50	5312.50	---	23836.40	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27510.90	16677.60	5

Pilastrata n. 27

Nodi: 27 327 527 727 927 1127 1327 1527 1727 1927

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm<sup>q>cmq>	Fctm <daN/cm<sup>q>cmq>	Fcd <daN/cm<sup>q>cmq>	Fcd (Tag) <daN/cm<sup>q>cmq>	Fctd <daN/cm<sup>q>cmq>	Fym <daN/cm<sup>q>cmq>	Fyd <daN/cm<sup>q>cmq>	Fyd (Tag) <daN/cm<sup>q>cmq>
2R		40.00	68.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
21R		30.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
22R		25.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm<sup>q>cmq>	Fcd <daN/cm<sup>q>cmq>	Fyk <daN/cm<sup>q>cmq>	Fyd <daN/cm<sup>q>cmq>
60.00	88.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/preessoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	2	0.00	-185479.00	2111.57	3709.59	241.51	3709.59	-964574.00	111494.00	72958.80	1.08	5.200	106.97
0.00	1(e)	SLU	1	2	0.00	-185479.00	2111.57	3709.59	241.51	3709.59	-964574.00	111494.00	72958.80	1.08	5.200	106.97
3.50	1(e)	SLU	1	2	350.00	-179473.00	1323.42	3589.47	-539.10	-3589.47	-964574.00	110649.00	-72416.50	1.07	5.374	106.97
3.50	1(e)	SLU	2	21	0.00	-161876.00	1323.42	3237.52	204.62	3237.52	-797177.00	96037.70	50807.10	1.09	4.925	145.80
3.50	1(e)	SLU	2	21	0.00	-161876.00	1323.42	3237.52	204.62	3237.52	-825996.00	101091.00	52625.90	1.08	5.103	133.90
6.50	1(e)	SLU	2	21	300.00	-159887.00	609.76	3197.74	-354.45	-3197.74	-825996.00	100853.00	-52495.60	1.08	5.166	133.90
6.50	1(e)	SLU	3	21	0.00	-142258.00	609.76	2845.16	395.61	2845.16	-353140.00	37070.10	15086.20	1.25	2.482	---
6.50	1(e)	SLU	3	21	0.00	-142258.00	609.76	2845.16	395.61	2845.16	-353140.00	37070.10	15086.20	1.25	2.482	---
9.50	1(e)	SLU	3	21	300.00	-140269.00	133.65	2805.38	-450.28	-2805.38	-353140.00	37045.10	-15135.70	1.25	2.518	---
9.50	1(e)	SLU	4	21	0.00	-122643.00	133.65	2452.86	299.13	2452.86	-353140.00	36548.10	14988.10	1.21	2.879	---
9.50	1(e)	SLU	4	21	0.00	-122643.00	133.65	2452.86	299.13	2452.86	-353140.00	36548.10	14988.10	1.21	2.879	---
12.50	1(e)	SLU	4	21	300.00	-120654.00	-114.84	-2413.08	-347.39	-2413.08	-353140.00	-36462.60	-14949.90	1.20	2.927	---
12.50	1(e)	SLU	5	21	0.00	-103031.00	-114.84	-2060.63	401.40	2060.63	-353140.00	-35469.60	14512.00	1.16	3.428	---
12.50	1(e)	SLU	5	21	0.00	-103031.00	-114.84	-2060.63	401.40	2060.63	-353140.00	-35469.60	14512.00	1.16	3.428	---
15.50	1(e)	SLU	5	21	300.00	-101042.00	-205.77	-2020.85	-710.25	-2020.85	-353140.00	-35333.20	-14452.20	1.16	3.495	---
15.50	1(e)	SLU	6	22	0.00	-83562.20	-205.77	-1671.24	472.69	1671.24	-275071.00	-26946.30	9048.86	1.17	3.292	---
15.50	1(e)	SLU	6	22	0.00	-83562.20	-205.77	-1671.24	472.69	1671.24	-289480.00	-27335.30	10172.80	1.16	3.464	---
18.50	1(e)	SLU	6	22	300.00	-81904.70	-235.70	-1638.09	-645.94	-1638.09	-289480.00	-27223.50	-10109.90	1.15	3.534	---
18.50	1(e)	SLU	7	22	0.00	-64429.80	-235.70	-1288.60	535.94	1288.60	-289480.00	-25873.90	9205.14	1.10	4.493	---
18.50	1(e)	SLU	7	22	0.00	-64429.80	-235.70	-1288.60	535.94	1288.60	-289480.00	-25873.90	9205.14	1.10	4.493	---
21.50	1(e)	SLU	7	22	300.00	-62772.30	-158.83	-1255.45	-705.15	-1255.45	-289480.00	-25732.60	-9104.88	1.10	4.612	---
21.50	1(e)	SLU	8	22	0.00	-45305.70	-158.83	-906.11	475.05	906.11	-289480.00	-23687.20	7925.24	1.05	6.389	---
21.50	1(e)	SLU	8	22	0.00	-45305.70	-158.83	-906.11	475.05	906.11	-289480.00	-23687.20	7925.24	1.05	6.389	---
24.50	1(e)	SLU	8	22	300.00	-43648.20	-49.85	-872.96	-472.24	-872.96	-289480.00	-23400.80	-7803.22	1.04	6.632	---
24.50	1(e)	SLU	9	22	0.00	-26191.20	-49.85	-523.82	706.03	706.03	-26191.70	-19909.20	6469.05	1.00	7.383	---
24.50	1(e)	SLU	9	22	0.00	-26191.20	-49.85	-523.82	706.03	706.03	-26191.70	-19909.20	6469.05	1.00	7.383	---
27.50	1(e)	SLU	9	22	300.00	-24533.70	-0.00	-490.67	-1646.43	-1646.43	-24535.90	-19533.00	-6338.27	1.00	3.510	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	2	0.00	-130532.00	174.94	1566.21	0.00	57.81	23.16	344.04
0.00	4	SLE Q	1	2	0.00	-108502.00	140.97	1232.35	0.00	57.81	19.17	284.91
0.00	2	SLE R	1	2	0.00	-130532.00	174.94	1566.21	0.00	57.81	23.16	344.04
0.00	4	SLE Q	1	2	0.00	-108502.00	140.97	1232.35	0.00	57.81	19.17	284.91
3.50	2	SLE R	1	2	350.00	-125912.00	-375.60	977.61	0.00	57.81	22.11	328.50
3.50	4	SLE Q	1	2	350.00	-103882.00	-305.77	768.55	0.00	57.81	18.19	270.41
3.50	2	SLE R	2	21	0.00	-113650.00	143.43	977.61	0.00	45.74	23.89	355.35
3.50	4	SLE Q	2	21	0.00	-93932.30	116.48	768.55	0.00	45.74	19.69	292.99
3.50	2	SLE R	2	21	0.00	-113650.00	143.43	977.61	0.00	53.78	23.35	347.33
3.50	4	SLE Q	2	21	0.00	-93932.30	116.48	768.55	0.00	53.78	19.24	286.37
6.50	2	SLE R	2	21	300.00	-112120.00	-247.49	454.56	0.00	53.78	22.65	337.26
6.50	4	SLE Q	2	21	300.00	-92402.30	-201.37	352.31	0.00	53.78	18.64	277.51
6.50	2	SLE R	3	21	0.00	-99835.40	276.00	454.56	0.00	16.09	47.81	702.43
6.50	4	SLE Q	3	21	0.00	-82435.60	224.38	352.31	0.00	16.09	39.36	578.62
6.50	2	SLE R	3	21	0.00	-99835.40	276.00	454.56	0.00	16.09	47.81	702.43
6.50	4	SLE Q	3	21	0.00	-82435.60	224.38	352.31	0.00	16.09	39.36	578.62
9.50	2	SLE R	3	21	300.00	-98305.40	-314.19	106.71	0.00	16.09	46.21	679.56
9.50	4	SLE Q	3	21	300.00	-80905.60	-255.34	73.12	0.00	16.09	37.95	558.30
9.50	2	SLE R	4	21	0.00	-86022.40	209.00	106.71	0.00	16.09	39.91	589.36
9.50	4	SLE Q	4	21	0.00	-70939.10	170.38	73.12	0.00	16.09	32.84	485.14
9.50	2	SLE R	4	21	0.00	-86022.40	209.00	106.71	0.00	16.09	39.91	589.36
9.50	4	SLE Q	4	21	0.00	-70939.10	170.38	73.12	0.00	16.09	32.84	485.14
12.50	2	SLE R	4	21	300.00	-84492.40	-242.58	-74.56	0.00	16.09	39.42	580.80
12.50	4	SLE Q	4	21	300.00	-69409.10	-197.52	-72.70	0.00	16.09	32.41	477.50
12.50	2	SLE R	5	21	0.00	-72211.20	280.26	-74.56	0.00	16.09	34.36	503.44



Relazione di calcolo

12.50	4	SLE	Q	5	21	0.00	-59443.40	228.04	-72.70	0.00	16.09	28.31	414.71
12.50	2	SLE	R	5	21	0.00	-72211.20	280.26	-74.56	0.00	16.09	34.36	503.44
12.50	4	SLE	Q	5	21	0.00	-59443.40	228.04	-72.70	0.00	16.09	28.31	414.71
15.50	2	SLE	R	5	21	300.00	-70681.20	-495.68	-141.62	0.00	16.09	35.81	515.83
15.50	4	SLE	Q	5	21	300.00	-57913.40	-402.94	-126.82	0.00	16.09	29.35	422.87
15.50	2	SLE	R	6	22	0.00	-58499.00	329.60	-141.62	0.00	8.04	37.06	530.39
15.50	4	SLE	Q	6	22	0.00	-48027.40	267.92	-126.82	0.00	8.04	30.44	435.73
15.50	2	SLE	R	6	22	0.00	-58499.00	329.60	-141.62	0.00	12.06	35.87	513.45
15.50	4	SLE	Q	6	22	0.00	-48027.40	267.92	-126.82	0.00	12.06	29.47	421.84
18.50	2	SLE	R	6	22	300.00	-57224.00	-450.60	-165.51	0.00	12.06	36.82	518.89
18.50	4	SLE	Q	6	22	300.00	-46752.40	-365.97	-146.47	0.00	12.06	30.11	424.33
18.50	2	SLE	R	7	22	0.00	-45045.20	373.99	-165.51	0.00	12.06	29.39	412.76
18.50	4	SLE	Q	7	22	0.00	-36868.80	304.44	-146.47	0.00	12.06	24.08	338.28
18.50	2	SLE	R	7	22	0.00	-45045.20	373.99	-165.51	0.00	12.06	29.39	412.76
18.50	4	SLE	Q	7	22	0.00	-36868.80	304.44	-146.47	0.00	12.06	24.08	338.28
21.50	2	SLE	R	7	22	300.00	-43770.20	-491.56	-111.18	0.00	12.06	29.94	413.27
21.50	4	SLE	Q	7	22	300.00	-35593.80	-399.03	-99.10	0.00	12.06	24.38	336.49
21.50	2	SLE	R	8	22	0.00	-31597.20	331.87	-111.18	0.00	12.06	21.46	297.42
21.50	4	SLE	Q	8	22	0.00	-25714.60	270.50	-99.10	0.00	12.06	17.51	242.60
21.50	2	SLE	R	8	22	0.00	-31597.20	331.87	-111.18	0.00	12.06	21.46	297.42
21.50	4	SLE	Q	8	22	0.00	-25714.60	270.50	-99.10	0.00	12.06	17.51	242.60
24.50	2	SLE	R	8	22	300.00	-30322.20	-333.43	-35.08	0.00	12.06	20.46	283.03
24.50	4	SLE	Q	8	22	300.00	-24439.60	-275.74	-36.18	0.00	12.06	16.62	229.40
24.50	2	SLE	R	9	22	0.00	-18156.00	488.65	-35.08	0.00	12.06	15.95	204.25
24.50	4	SLE	Q	9	22	0.00	-14566.10	392.63	-36.18	0.00	12.06	12.84	164.40
24.50	2	SLE	R	9	22	0.00	-18156.00	488.65	-35.08	0.00	12.06	15.95	204.25
24.50	4	SLE	Q	9	22	0.00	-14566.10	392.63	-36.18	0.00	12.06	12.84	164.40
27.50	2	SLE	R	9	22	300.00	-16881.00	-1133.57	-0.00	6.03	6.03	24.74	276.14
27.50	4	SLE	Q	9	22	300.00	-13291.10	-894.63	-0.00	6.03	6.03	19.52	217.74

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	S
<cm>	<cm>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	223.03	2.50	0.00	48858.10	132835.00	43972.30	0.60	0.83	225.19	2.50	0.00	73641.10	136510.00	66277.00	>10
0.68	2.58	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	223.03	2.50	0.00	48858.10	132669.00	43972.30	0.60	0.83	225.19	2.50	0.00	73641.10	136339.00	66277.00	>10
2.58	3.50	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	223.03	2.50	0.00	48858.10	132203.00	43972.30	0.60	0.83	225.19	2.50	0.00	73641.10	135861.00	66277.00	>10
3.50	3.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	223.03	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	237.89	2.50	0.00	73641.10	113853.00	66277.00	>10
4.18	5.82	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	186.36	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	237.89	2.50	0.00	73641.10	113853.00	66277.00	>10
5.82	6.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	186.36	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	237.89	2.50	0.00	73641.10	113853.00	66277.00	>10
6.50	4.18	ø6/15	2	2	---	1	SLU	0.68	0.25	281.96	2.50	6634.02	---	11547.00	6634.02	0.30	0.63	237.89	2.14	14256.80	---	14256.80	14256.80	23
4.18	5.58	ø6/15	2	2	---	1	SLU	0.68	0.25	186.36	2.50	6634.02	---	11547.00	6634.02	0.30	0.63	237.89	2.14	14256.80	---	14256.80	14256.80	35
5.58	9.50	ø6/15	2	2	---	1	SLU	0.68	0.25	281.96	2.50	6634.02	---	11848.30	6634.02	0.30	0.63	237.89	2.17	14481.70	---	14481.70	14481.70	23
9.50	6.50	ø6/15	2	2	---	1	SLU	0.68	0.25	215.51	2.50	6634.02	---	12046.30	6634.02	0.30	0.63	237.89	2.19	14627.60	---	14627.60	14627.60	30
10.18	11.82	ø6/15	2	2	---	1	SLU	0.68	0.25	215.51	2.50	6634.02	---	24280.80	6634.02	0.30	0.63	82.83	2.50	16677.60	---	26929.70	16677.60	30
11.82	12.50	ø6/15	2	2	---	1	SLU	0.68	0.25	215.51	2.50	6634.02	---	24633.70	6634.02	0.30	0.63	82.83	2.50	16677.60	---	27321.10	16677.60	30
12.50	7.18	ø6/15	2	2	---	1	SLU	0.68	0.25	370.55	2.50	6634.02	---	17914.40	6634.02	0.30	0.63	158.70	2.50	16677.60	---	19868.80	16677.60	17
7.18	8.58	ø6/15	2	2	---	1	SLU	0.68	0.25	281.96	2.50	6634.02	---	17914.40	6634.02	0.30	0.63	158.70	2.50	16677.60	---	19868.80	16677.60	23
8.58	15.50	ø6/15	2	2	---	1	SLU	0.68	0.25	370.55	2.50	6634.02	---	18215.70	6634.02	0.30	0.63	158.70	2.50	16677.60	---	20202.90	16677.60	17
15.50	9.50	ø6/15	2	2	---	1	SLU	0.68	0.20	372.88	2.50	5312.50	---	7454.04	5312.50	0.25	0.63	158.70	1.66	11042.30	---	11042.30	11042.30	14
16.18	17.82	ø6/15	2	2	---	1	SLU	0.68	0.20	372.88	2.50	5312.50	---	25257.90	5312.50	0.25	0.63	9.97	2.50	16677.60	---	29151.50	16677.60	14
17.82	18.50	ø6/15	2	2	---	1	SLU	0.68	0.20	372.88	2.50	5312.50	---	25540.50	5312.50	0.25	0.63	9.97	2.50	16677.60	---	29477.70	16677.60	14
18.50	10.18	ø6/15	2	2	---	1	SLU	0.68	0.20	413.70	2.50	5312.50	---	13092.10	5312.50	0.25	0.63	82.83	2.36	15742.30	---	15742.30	15742.30	12
10.18	11.58	ø6/15	2	2	---	1	SLU	0.68	0.20	215.51	2.50	5312.50	---	13092.10	5312.50	0.25	0.63	82.83	2.36	15742.30	---	15742.30	15742.30	24
11.58	21.50	ø6/15	2	2	---	1	SLU	0.68	0.20	413.70	2.50	5312.50	---	13381.60	5312.50	0.25	0.63	82.83	2.39	15946.30	---	15946.30	15946.30	12
21.50	12.50	ø6/15	2	2	---	1	SLU	0.68	0.20	315.76	2.50	5312.50	---	13571.80	5312.50	0.25	0.63	82.83	2.41	16079.00	---	16079.00	16079.00	16
22.18	23.82	ø6/15	2	2	---	1	SLU	0.68	0.20	315.76	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	36.33	2.50	16677.60	---	29548.40	16677.60	16
23.82	24.50	ø6/15	2	2	---	1	SLU	0.68	0.20	315.76	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	36.33	2.50	16677.60	---	29548.40	16677.60	16
24.50	13.18	ø6/15	2	2	---	1	SLU	0.68	0.20	784.15	2.50	5312.50	---	19208.90	5312.50	0.25	0.63	30.31	2.50	16677.60	---	22170.10	16677.60	6
13.18	14.58	ø6/15	2	2	---	1	SLU	0.68	0.20	370.55	2.50	5312.50	---	19208.90	5312.50	0.25	0.63	30.31	2.50	16677.60	---	22170.10	16677.60	14
14.58	27.50	ø6/15	2	2	---	1	SLU	0.68	0.20	784.15	2.50	5312.50	---	19498.40	5312.50	0.25	0.63	30.31	2.50	16677.60	---	22504.20	16677.60	6
15.50	16.18	ø6/15	2	2	---	1	SLU	0.68	0.20	372.88	2.50	5312.50	---	25140.70	5312.50	0.25	0.63	9.97	2.50	16677.60	---	29016.30	16677.60	14
16.18	17.58	ø6/15	2	2	---	1	SLU	0.68	0.20	372.88	2.50	5312.50	---	25257.90	5312.50	0.25	0.63	9.97	2.50	16677.60	---	29151.50	16677.60	14
17.58	18.26	ø6/15	2	2	---	1	SLU	0.68	0.20	372.88	2.50	5312.50	---	25499.10	5312.50	0.25	0.63	9.97	2.50	16677.60	---	29429.90	16677.60	14
18.50	19.18	ø6/15	2	2	---	1	SLU	0.68	0.20	413.70	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	25.62	2.50	16677.60	---	29548.40	16677.60	12
19.18	20.58	ø6/15	2	2	---	1	SLU	0.68	0.20	413.70	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	25.62	2.50	16677.60	---	29548.40	16677.60	12
20.58	21.26	ø6/15	2	2	---	1	SLU	0.68	0.20	413.70	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	25.62	2.50	16677.60	---	29548.40	16677.60	12
21.50	22.18	ø6/15	2	2	---	1	SLU	0.68	0.20	315.76	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	36.33	2.50	16677.60	---	29548.40	16677.60	16
22.18	23.58	ø6/15	2	2	---	1	SLU	0.68	0.20	315.76	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	36.33	2.50	16677.60	---	29548.40	16677.60	16
23.58	24.26	ø6/15	2	2	---	1	SLU	0.68	0.20	315.76	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	36.33	2.50	16677.60	---	29548.40	16677.60	16
24.50	25.18	ø6/15	2	2	---	1	SLU	0.68	0.20	784.15	2.50	5312.50	---	23749.00	5312.50	0.25	0.63	16.62	2.50	16677.60	---	27410.00	16677.60	6
25.18	26.58	ø6/15	2	2	---	1	SLU	0.68	0.20	784.15	2.50	5312.50	---	23702.10	5312.50	0.25	0.63	16.62	2.50	16677.60	---	27355.90	16677.60	6
26.58	27.26	ø6/15	2	2	---	1	SLU	0.68	0.20	784.15	2.50	5312.50	---	23605.60	5312.50	0.25	0.63	16.62	2.50	16677.60	---	27244.50	16677.60	6



Relazione di calcolo

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	2	0.00	-184781.00	2820.97	3695.62	-444.38	-3695.62	-964574.00	111396.00	-72895.80	1.08	5.220	106.97
0.00	1(e)	SLU	1	2	0.00	-184781.00	2820.97	3695.62	-444.38	-3695.62	-964574.00	111396.00	-72895.80	1.08	5.220	106.97
3.50	1(e)	SLU	1	2	350.00	-178775.00	1443.56	3575.50	621.40	3575.50	-964574.00	110550.00	72352.70	1.07	5.395	106.97
3.50	1(e)	SLU	2	21	0.00	-161507.00	1443.56	3230.13	-141.96	-3230.13	-797177.00	95984.00	-50778.30	1.09	4.936	145.80
3.50	1(e)	SLU	2	21	0.00	-161507.00	1443.56	3230.13	-141.96	-3230.13	-825996.00	101046.00	-52601.90	1.08	5.114	133.90
6.50	1(e)	SLU	2	21	300.00	-159518.00	537.43	3190.35	347.53	3190.35	-825996.00	100809.00	52471.40	1.08	5.178	133.90
6.50	1(e)	SLU	3	21	0.00	-141995.00	537.43	2839.90	-381.27	-2839.90	-353140.00	37067.50	-15092.70	1.25	2.487	---
6.50	1(e)	SLU	3	21	0.00	-141995.00	537.43	2839.90	-381.27	-2839.90	-353140.00	37067.50	-15092.70	1.25	2.487	---
9.50	1(e)	SLU	3	21	300.00	-140006.00	25.91	2800.12	446.43	2800.12	-353140.00	37041.60	15142.10	1.25	2.522	---
9.50	1(e)	SLU	4	21	0.00	-122449.00	25.91	2448.98	-289.18	-2448.98	-353140.00	36539.90	-14984.70	1.21	2.884	---
9.50	1(e)	SLU	4	21	0.00	-122449.00	25.91	2448.98	-289.18	-2448.98	-353140.00	36539.90	-14984.70	1.21	2.884	---
12.50	1(e)	SLU	4	21	300.00	-120460.00	-190.27	-2409.20	320.93	2409.20	-353140.00	-36453.60	14945.90	1.20	2.932	---
12.50	1(e)	SLU	5	21	0.00	-102892.00	-190.27	-2057.84	-417.01	-2057.84	-353140.00	-35460.20	-14507.80	1.16	3.432	---
12.50	1(e)	SLU	5	21	0.00	-102892.00	-190.27	-2057.84	-417.01	-2057.84	-353140.00	-35460.20	-14507.80	1.16	3.432	---
15.50	1(e)	SLU	5	21	300.00	-100903.00	-232.05	-2018.06	700.34	2018.06	-353140.00	-35323.50	14447.90	1.15	3.500	---
15.50	1(e)	SLU	6	22	0.00	-83473.40	-232.05	-1669.47	-472.43	-1669.47	-275071.00	-26936.90	-9045.40	1.17	3.295	---
15.50	1(e)	SLU	6	22	0.00	-83473.40	-232.05	-1669.47	-472.43	-1669.47	-289480.00	-27329.30	-10169.30	1.16	3.468	---
18.50	1(e)	SLU	6	22	300.00	-81815.90	-177.38	-1636.32	614.08	1636.32	-289480.00	-27217.20	10106.60	1.15	3.538	---
18.50	1(e)	SLU	7	22	0.00	-64382.40	-177.38	-1287.65	-559.51	-1287.65	-289480.00	-25869.70	-9202.19	1.10	4.496	---
18.50	1(e)	SLU	7	22	0.00	-64382.40	-177.38	-1287.65	-559.51	-1287.65	-289480.00	-25869.70	-9202.19	1.10	4.496	---
21.50	1(e)	SLU	7	22	300.00	-62724.90	-74.82	-1254.50	735.50	1254.50	-289480.00	-25728.50	9101.95	1.10	4.615	---
21.50	1(e)	SLU	8	22	0.00	-45290.40	-74.82	-905.81	-438.28	-905.81	-289480.00	-23684.30	-7924.21	1.05	6.392	---
21.50	1(e)	SLU	8	22	0.00	-45290.40	-74.82	-905.81	-438.28	-905.81	-289480.00	-23684.30	-7924.21	1.05	6.392	---
24.50	1(e)	SLU	8	22	300.00	-43632.90	17.37	872.66	346.37	872.66	-289480.00	23398.00	7802.27	1.04	6.634	---
24.50	1(e)	SLU	9	22	0.00	-26197.00	17.37	523.94	-827.71	-827.71	-26197.30	19910.40	-6469.49	1.00	6.483	---
24.50	1(e)	SLU	9	22	0.00	-26197.00	17.37	523.94	-827.71	-827.71	-26197.30	19910.40	-6469.49	1.00	6.483	---
27.50	1(e)	SLU	9	22	300.00	-24539.50	0.00	490.79	1647.57	1647.57	-24540.60	19534.20	6338.65	1.00	3.508	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>f</sub>	
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>	
0.00	2	SLE	R	1	2	0.00	-130050.00	-304.54	2044.07	0.00	57.81	23.79	352.17
0.00	4	SLE	Q	1	2	0.00	-108107.00	-251.65	1634.46	0.00	57.81	19.71	291.81
0.00	2	SLE	R	1	2	0.00	-130050.00	-304.54	2044.07	0.00	57.81	23.79	352.17
0.00	4	SLE	Q	1	2	0.00	-108107.00	-251.65	1634.46	0.00	57.81	19.71	291.81
3.50	2	SLE	R	1	2	350.00	-125430.00	434.42	1054.95	0.00	57.81	22.20	329.59
3.50	4	SLE	Q	1	2	350.00	-103487.00	353.82	837.42	0.00	57.81	18.28	271.37
3.50	2	SLE	R	2	21	0.00	-113398.00	-98.11	1054.95	0.00	45.74	23.83	354.63
3.50	4	SLE	Q	2	21	0.00	-93725.80	-79.11	837.42	0.00	45.74	19.65	292.48
3.50	2	SLE	R	2	21	0.00	-113398.00	-98.11	1054.95	0.00	53.78	23.29	346.61
3.50	4	SLE	Q	2	21	0.00	-93725.80	-79.11	837.42	0.00	53.78	19.20	285.86
6.50	2	SLE	R	2	21	300.00	-111868.00	242.28	402.18	0.00	53.78	22.53	335.53
6.50	4	SLE	Q	2	21	300.00	-92195.80	196.66	310.85	0.00	53.78	18.53	276.11
6.50	2	SLE	R	3	21	0.00	-99657.40	-266.36	402.18	0.00	16.09	47.46	697.95
6.50	4	SLE	Q	3	21	0.00	-82288.80	-217.16	310.85	0.00	16.09	39.09	575.07
6.50	2	SLE	R	3	21	0.00	-99657.40	-266.36	402.18	0.00	16.09	47.46	697.95
6.50	4	SLE	Q	3	21	0.00	-82288.80	-217.16	310.85	0.00	16.09	39.09	575.07
9.50	2	SLE	R	3	21	300.00	-98127.40	311.66	31.95	0.00	16.09	45.84	674.67
9.50	4	SLE	Q	3	21	300.00	-80758.80	253.65	11.89	0.00	16.09	37.65	554.32
9.50	2	SLE	R	4	21	0.00	-85892.90	-201.84	31.95	0.00	16.09	39.52	584.37
9.50	4	SLE	Q	4	21	0.00	-70832.00	-164.13	11.89	0.00	16.09	32.52	481.02
9.50	2	SLE	R	4	21	0.00	-85892.90	-201.84	31.95	0.00	16.09	39.52	584.37
9.50	4	SLE	Q	4	21	0.00	-70832.00	-164.13	11.89	0.00	16.09	32.52	481.02
12.50	2	SLE	R	4	21	300.00	-84362.90	224.21	-126.02	0.00	16.09	39.39	580.71
12.50	4	SLE	Q	4	21	300.00	-69302.00	182.75	-115.99	0.00	16.09	32.39	477.49
12.50	2	SLE	R	5	21	0.00	-72119.60	-291.03	-126.02	0.00	16.09	34.60	506.20
12.50	4	SLE	Q	5	21	0.00	-59367.30	-236.59	-115.99	0.00	16.09	28.50	417.00
12.50	2	SLE	R	5	21	0.00	-72119.60	-291.03	-126.02	0.00	16.09	34.60	506.20
12.50	4	SLE	Q	5	21	0.00	-59367.30	-236.59	-115.99	0.00	16.09	28.50	417.00
15.50	2	SLE	R	5	21	300.00	-70589.60	488.55	-158.15	0.00	16.09	35.77	515.36
15.50	4	SLE	Q	5	21	300.00	-57837.30	397.15	-142.16	0.00	16.09	29.33	422.56
15.50	2	SLE	R	6	22	0.00	-58442.70	-329.68	-158.15	0.00	8.04	37.11	530.89
15.50	4	SLE	Q	6	22	0.00	-47979.80	-268.04	-142.16	0.00	8.04	30.48	436.24
15.50	2	SLE	R	6	22	0.00	-58442.70	-329.68	-158.15	0.00	12.06	35.92	513.97
15.50	4	SLE	Q	6	22	0.00	-47979.80	-268.04	-142.16	0.00	12.06	29.51	422.36
18.50	2	SLE	R	6	22	300.00	-57167.70	428.78	-121.17	0.00	12.06	36.32	513.31
18.50	4	SLE	Q	6	22	300.00	-46704.80	349.42	-111.92	0.00	12.06	29.72	420.00
18.50	2	SLE	R	7	22	0.00	-45017.60	-390.06	-121.17	0.00	12.06	29.37	411.86
18.50	4	SLE	Q	7	22	0.00	-36844.30	-316.36	-111.92	0.00	12.06	24.06	337.49
18.50	2	SLE	R	7	22	0.00	-45017.60	-390.06	-121.17	0.00	12.06	29.37	411.86
18.50	4	SLE	Q	7	22	0.00	-36844.30	-316.36	-111.92	0.00	12.06	24.06	337.49
21.50	2	SLE	R	7	22	300.00	-43742.60	511.96	-50.56	0.00	12.06	29.91	411.93
21.50	4	SLE	Q	7	22	300.00	-35569.30	414.38	-53.96	0.00	12.06	24.36	335.48
21.50	2	SLE	R	8	22	0.00	-31591.60	-307.06	-50.56	0.00	12.06	20.88	290.95
21.50	4	SLE	Q	8	22	0.00	-25707.70	-251.62	-53.96	0.00	12.06	17.07	237.71
21.50	2	SLE	R	8	22	0.00	-31591.60	-307.06	-50.56	0.00	12.06	20.88	290.95
21.50	4	SLE	Q	8	22	0.00	-25707.70	-251.62	-53.96	0.00	12.06	17.07	237.71
24.50	2	SLE	R	8	22	300.00	-30316.60	245.55	11.80	0.00	12.06	19.25	271.31
24.50	4	SLE	Q	8	22	300.00	-24432.70	208.34	-2.57	0.00	12.06	15.62	219.48
24.50	2	SLE	R	9	22	0.00	-18164.20	-573.77	11.80	0.00	12.06	16.91	212.97
24.50	4	SLE	Q	9	22	0.00	-14569.60	-457.94	-2.57	0.00	12.06	13.51	170.16
24.50	2	SLE	R	9	22	0.00	-18164.20	-573.77	11.80	0.00	12.06	16.91	212.97
24.50	4	SLE	Q	9	22	0.00	-14569.60	-457.94	-2.57	0.00	12.06	13.51	170.16
27.50	2	SLE	R	9	22	300.00	-16889.20	1135.19	0.00	6.03	6.03	24.77	276.44
27.50	4	SLE	Q	9	22	300.00	-13294.60	895.34	-0.00	6.03	6.03	19.54	217.87



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	S
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	304.51	2.50	0.00	48858.10	132735.00	43972.30	0.60	0.83	393.55	2.50	0.00	73641.10	136408.00	66277.00	>10
0.68	2.58	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	304.51	2.50	0.00	48858.10	132569.00	43972.30	0.60	0.83	393.55	2.50	0.00	73641.10	136237.00	66277.00	>10
2.58	3.50	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	304.51	2.50	0.00	48858.10	132103.00	43972.30	0.60	0.83	393.55	2.50	0.00	73641.10	135758.00	66277.00	>10
3.50	3.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	304.51	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	393.55	2.50	0.00	73641.10	113853.00	66277.00	>10
4.18	5.82	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	163.16	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	302.04	2.50	0.00	73641.10	113853.00	66277.00	>10
5.82	6.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	163.16	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	302.04	2.50	0.00	73641.10	113853.00	66277.00	>10
6.50	4.18	ø6/15	2	2	---	1	SLU	0.68	0.25	275.90	2.50	6634.02	---	11667.00	6634.02	0.30	0.63	302.04	2.15	14346.70	---	14346.70	14346.70	24
4.18	5.58	ø6/15	2	2	---	1	SLU	0.68	0.25	163.16	2.50	6634.02	---	11667.00	6634.02	0.30	0.63	302.04	2.15	14346.70	---	14346.70	14346.70	40
5.58	9.50	ø6/15	2	2	---	1	SLU	0.68	0.25	275.90	2.50	6634.02	---	11968.20	6634.02	0.30	0.63	302.04	2.18	14570.30	---	14570.30	14570.30	24
9.50	6.50	ø6/15	2	2	---	1	SLU	0.68	0.25	203.37	2.50	6634.02	---	12166.20	6634.02	0.30	0.63	302.04	2.21	14715.30	---	14715.30	14715.30	32
10.18	11.82	ø6/15	2	2	---	1	SLU	0.68	0.25	203.37	2.50	6634.02	---	24343.80	6634.02	0.30	0.63	72.06	2.50	16677.60	---	26999.50	16677.60	32
11.82	12.50	ø6/15	2	2	---	1	SLU	0.68	0.25	203.37	2.50	6634.02	---	24696.70	6634.02	0.30	0.63	72.06	2.50	16677.60	---	27390.90	16677.60	32
12.50	7.18	ø6/15	2	2	---	1	SLU	0.68	0.25	372.45	2.50	6634.02	---	17999.80	6634.02	0.30	0.63	170.51	2.50	16677.60	---	19963.50	16677.60	17
7.18	8.58	ø6/15	2	2	---	1	SLU	0.68	0.25	275.90	2.50	6634.02	---	17999.80	6634.02	0.30	0.63	170.51	2.50	16677.60	---	19963.50	16677.60	24
8.58	15.50	ø6/15	2	2	---	1	SLU	0.68	0.25	372.45	2.50	6634.02	---	18301.10	6634.02	0.30	0.63	170.51	2.50	16677.60	---	20297.60	16677.60	17
15.50	9.50	ø6/15	2	2	---	1	SLU	0.68	0.20	362.17	2.50	5312.50	---	7536.11	5312.50	0.25	0.63	170.51	1.67	11125.00	---	11125.00	11125.00	14
16.18	17.82	ø6/15	2	2	---	1	SLU	0.68	0.20	362.17	2.50	5312.50	---	25285.60	5312.50	0.25	0.63	18.22	2.50	16677.60	---	29183.50	16677.60	14
17.82	18.50	ø6/15	2	2	---	1	SLU	0.68	0.20	362.17	2.50	5312.50	---	25568.20	5312.50	0.25	0.63	18.22	2.50	16677.60	---	29509.60	16677.60	14
18.50	10.18	ø6/15	2	2	---	1	SLU	0.68	0.20	431.67	2.50	5312.50	---	13152.60	5312.50	0.25	0.63	72.06	2.37	15785.20	---	15785.20	15785.20	12
10.18	11.58	ø6/15	2	2	---	1	SLU	0.68	0.20	203.37	2.50	5312.50	---	13152.60	5312.50	0.25	0.63	72.06	2.37	15785.20	---	15785.20	15785.20	26
11.58	21.50	ø6/15	2	2	---	1	SLU	0.68	0.20	431.67	2.50	5312.50	---	13442.10	5312.50	0.25	0.63	72.06	2.40	15988.60	---	15988.60	15988.60	12
21.50	12.50	ø6/15	2	2	---	1	SLU	0.68	0.20	261.55	2.50	5312.50	---	13632.30	5312.50	0.25	0.63	72.06	2.42	16120.90	---	16120.90	16120.90	20
22.18	23.82	ø6/15	2	2	---	1	SLU	0.68	0.20	261.55	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	30.73	2.50	16677.60	---	29548.40	16677.60	20
23.82	24.50	ø6/15	2	2	---	1	SLU	0.68	0.20	261.55	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	30.73	2.50	16677.60	---	29548.40	16677.60	20
24.50	13.18	ø6/15	2	2	---	1	SLU	0.68	0.20	825.09	2.50	5312.50	---	19252.50	5312.50	0.25	0.63	13.93	2.50	16677.60	---	22220.30	16677.60	6
13.18	14.58	ø6/15	2	2	---	1	SLU	0.68	0.20	372.45	2.50	5312.50	---	19252.50	5312.50	0.25	0.63	13.93	2.50	16677.60	---	22220.30	16677.60	14
14.58	27.50	ø6/15	2	2	---	1	SLU	0.68	0.20	825.09	2.50	5312.50	---	19542.00	5312.50	0.25	0.63	13.93	2.50	16677.60	---	22554.50	16677.60	6
15.50	16.18	ø6/15	2	2	---	1	SLU	0.68	0.20	362.17	2.50	5312.50	---	25168.40	5312.50	0.25	0.63	18.22	2.50	16677.60	---	29048.20	16677.60	14
16.18	17.58	ø6/15	2	2	---	1	SLU	0.68	0.20	362.17	2.50	5312.50	---	25285.60	5312.50	0.25	0.63	18.22	2.50	16677.60	---	29183.50	16677.60	14
17.58	18.26	ø6/15	2	2	---	1	SLU	0.68	0.20	362.17	2.50	5312.50	---	25526.80	5312.50	0.25	0.63	18.22	2.50	16677.60	---	29461.90	16677.60	14
18.50	19.18	ø6/15	2	2	---	1	SLU	0.68	0.20	431.67	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	34.19	2.50	16677.60	---	29548.40	16677.60	12
19.18	20.58	ø6/15	2	2	---	1	SLU	0.68	0.20	431.67	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	34.19	2.50	16677.60	---	29548.40	16677.60	12
20.58	21.26	ø6/15	2	2	---	1	SLU	0.68	0.20	431.67	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	34.19	2.50	16677.60	---	29548.40	16677.60	12
21.26	22.18	ø6/15	2	2	---	1	SLU	0.68	0.20	261.55	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	30.73	2.50	16677.60	---	29548.40	16677.60	20
22.18	23.58	ø6/15	2	2	---	1	SLU	0.68	0.20	261.55	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	30.73	2.50	16677.60	---	29548.40	16677.60	20
23.58	24.26	ø6/15	2	2	---	1	SLU	0.68	0.20	261.55	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	30.73	2.50	16677.60	---	29548.40	16677.60	20
24.50	25.18	ø6/15	2	2	---	1	SLU	0.68	0.20	825.09	2.50	5312.50	---	23749.70	5312.50	0.25	0.63	5.79	2.50	16677.60	---	27410.80	16677.60	6
25.18	26.58	ø6/15	2	2	---	1	SLU	0.68	0.20	825.09	2.50	5312.50	---	23702.80	5312.50	0.25	0.63	5.79	2.50	16677.60	---	27356.70	16677.60	6
26.58	27.26	ø6/15	2	2	---	1	SLU	0.68	0.20	825.09	2.50	5312.50	---	23606.30	5312.50	0.25	0.63	5.79	2.50	16677.60	---	27245.40	16677.60	6

Pilastrata n. 29

Nodi: 29 329 529 729 929 1129 1329 1529 1729 1929

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
	2R	40.00	68.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	21R	30.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	22R	25.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	88.00	249.00	141.10	4500.00	3913.04
50.00	88.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdz	esp.	Sic.	Δ%
<m>					<cm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>			
0.00	1(e)	SLU	1	2	0.00	-218915.00	3708.47	4378.29	-524.03	-4378.29	-964574.00	115678.00	-75644.30	1.11	4.406	106.97
0.00	1(e)	SLU	1	2	0.00	-218915.00	3708.47	4378.29	-524.03	-4378.29	-964574.00	115678.00	-75644.30	1.11	4.406	106.97
3.26	1(e)	SLU	1	2	326.00	-213320.00	2948.85	4266.41	684.47	4266.41	-964574.00	115130.00	-75330.60	1.10	4.522	106.97
3.50	1(e)	SLU	2	21	0.00	-191522.00	2884.71	3830.45	-120.98	-3830.45	-840406.00	105664.00	-55090.30	1.11	4.388	128.65
3.50	1(e)	SLU	2	21	0.00	-191522.00	2884.71	3830.45	-120.98	-3830.45	-825996.00	104062.00	-53888.30	1.11	4.313	133.90
6.26	1(e)	SLU	2	21	276.00	-187576.00	914.00	3751.51	515.10	3751.51	-825996.00	103820.00	-53732.80	1.11	4.404	133.90
9.50	1(e)	SLU	4	21	0.00	-143677.00	519.27	2873.54	-409.40	-2873.54	-353140.00	37083.90	-15050.60	1.26	2.458	---
9.50	1(e)	SLU	4	21	0.00	-143677.00	519.27	2873.54	-409.40	-2873.54	-353140.00	37083.90	-15050.60	1.26	2.458	---
12.26	1(e)	SLU	4	21	276.00	-141847.00	-827.63	-2836.94	325.36	2836.94	-353140.00	-37065.90	-10596.50	1.25	2.490	---
12.50	1(e)	SLU	5	21	0.00	-120945.00	-109.53	-2418.89	-502.23	-2418.89	-353140.00	-36475.20	-14955.70	1.20	2.920	---
12.50	1(e)	SLU	5	21	0.00	-120945.00	-109.53	-2418.89	-502.23	-2418.89	-353140.00	-36475.20	-14955.70	1.20	2.920	---
15.26	1(e)	SLU	5	21	276.00	-119115.00	-552.08	-2382.30	670.32	2382.30	-353140.00	-36391.80	-14918.60	1.20	2.965	---
18.50	1(e)	SLU	7	22	0.00	-75510.60	75.20	1510.21	-671.69	-1510.21	-289480.00	27673.50	-9834.50	1.13	3.834	---
18.50	1(e)	SLU	7	22	0.00	-75510.60	75.20	1510.21	-671.69	-1510.21	-289480.00	27673.50	-9834.50	1.13	3.834	---
21.26	1(e)	SLU	7	22	276.00	-73985.70	-189.19	-1479.71	671.34	1479.71	-289480.00	-26647.70	-9760.78	1.13	3.913	---
21.50	1(e)	SLU	8	22	0.00	-52899.20	100.13	1057.98	-555.88	-1057.98	-289480.00	24856.50	-8457.22	1.07	5.472	---
21.50	1(e)	SLU	8	22	0.00	-52899.20	100.13	1057.98	-555.88	-1057.98	-289480.00	24856.50	-8457.22	1.07	5.472	---
24.26	1(e)	SLU	8	22	276.00	-51374.30	875.14	1027.49	367.76	1027.49	-289480.00	24669.30	-8354.39	1.06	5.635	---
24.50	1	SLU	9	22	0.00	-30257.40	1468.02	1468.02	-980.51	-980.51	-30260.00	20800.50	-6789.45	1.00	4.689	---
24.50	1	SLU	9	22	0.00	-30257.40	1468.02	1468.02	-980.51	-980.51	-30260.00	20800.50	-6789.45	1.00	4.689	---
27.26	1	SLU	9	22	276.00	-28732.50	-869.14	-869.14	1519.14	1519.14	-28737.00	-20471.70	-6669.58	1.00	3.701	---



Relazione di calcolo

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdy, s <daNm>	MRdz <daNm>	MRdz, s <daNm>	esp.	Sic.	Δ%
6.50	1(e)	SLU	3	21	0.00	-166421.00	1149.96	3328.43	-316.81	-3328.43	-353140.00	35978.80	34736.80	-14410.00	-11679.70	1.31	2.122	---
6.50	1(e)	SLU	3	21	0.00	-166421.00	1149.96	3328.43	-316.81	-3328.43	-353140.00	35978.80	34736.80	-14410.00	-11679.70	1.31	2.122	---
9.26	1(e)	SLU	3	21	276.00	-164592.00	-236.09	-3291.83	393.33	3291.83	-353140.00	-36151.60	-34861.40	14466.70	11741.00	1.31	2.146	---
15.50	1(e)	SLU	6	22	0.00	-98087.20	65.43	1961.74	-565.00	-1961.74	-303890.00	32384.40	31464.10	-10620.30	-8486.03	1.19	3.098	---
15.50	1(e)	SLU	6	22	0.00	-98087.20	65.43	1961.74	-565.00	-1961.74	-289480.00	28162.40	27242.10	-10612.80	-8491.02	1.20	2.951	---
18.26	1(e)	SLU	6	22	276.00	-96562.30	-330.18	-1931.25	572.95	1931.25	-289480.00	-28089.80	-27171.10	10576.40	8507.07	1.19	2.998	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	2	0.00	-155326.00	-361.57	2703.13	0.00	57.81	28.69	424.25
0.00	4	SLE Q	1	2	0.00	-131849.00	-298.50	2146.73	0.00	57.81	24.18	357.88
0.00	2	SLE R	1	2	0.00	-155326.00	-361.57	2703.13	0.00	57.81	28.69	424.25
0.00	4	SLE Q	1	2	0.00	-131849.00	-298.50	2146.73	0.00	57.81	24.18	357.88
3.26	2	SLE R	1	2	326.00	-151023.00	481.49	2173.26	0.00	57.81	27.62	408.70
3.26	4	SLE Q	1	2	326.00	-127546.00	393.54	1775.31	0.00	57.81	23.24	344.06
3.50	2	SLE R	2	21	0.00	-135660.00	-79.30	2104.81	0.00	57.81	28.50	422.76
3.50	4	SLE Q	2	21	0.00	-114722.00	-59.52	1626.91	0.00	57.81	23.90	354.81
3.50	2	SLE R	2	21	0.00	-135660.00	-79.30	2104.81	0.00	53.78	28.81	427.36
3.50	4	SLE Q	2	21	0.00	-114722.00	-59.52	1626.91	0.00	53.78	24.16	358.69
6.26	2	SLE R	2	21	276.00	-132624.00	358.57	683.21	0.00	53.78	27.12	403.13
6.26	4	SLE Q	2	21	276.00	-111686.00	289.55	565.85	0.00	53.78	22.80	338.99
6.50	2	SLE R	3	21	0.00	-117713.00	-221.25	841.21	0.00	16.09	56.57	833.12
6.50	4	SLE Q	3	21	0.00	-99233.20	-180.18	620.51	0.00	16.09	47.31	697.62
6.50	2	SLE R	3	21	0.00	-117713.00	-221.25	841.21	0.00	16.09	56.57	833.12
6.50	4	SLE Q	3	21	0.00	-99233.20	-180.18	620.51	0.00	16.09	47.31	697.62
9.26	2	SLE R	3	21	276.00	-116306.00	274.06	-157.79	0.00	16.09	53.94	796.70
9.26	4	SLE Q	3	21	276.00	-97825.60	221.94	-106.15	0.00	16.09	45.20	668.10
9.50	2	SLE R	4	21	0.00	-101574.00	-285.10	380.04	0.00	16.09	48.38	711.20
9.50	4	SLE Q	4	21	0.00	-85537.40	-230.51	257.49	0.00	16.09	40.43	595.14
9.50	2	SLE R	4	21	0.00	-101574.00	-285.10	380.04	0.00	16.09	48.38	711.20
9.50	4	SLE Q	4	21	0.00	-85537.40	-230.51	257.49	0.00	16.09	40.43	595.14
12.26	2	SLE R	4	21	276.00	-100166.00	226.70	-581.51	0.00	16.09	47.98	706.11
12.26	4	SLE Q	4	21	276.00	-84129.80	183.57	-433.35	0.00	16.09	40.04	589.88
12.50	2	SLE R	5	21	0.00	-85439.50	-349.98	-69.92	0.00	16.09	40.75	596.45
12.50	4	SLE Q	5	21	0.00	-71838.00	-282.68	-94.73	0.00	16.09	34.30	502.14
12.50	2	SLE R	5	21	0.00	-85439.50	-349.98	-69.92	0.00	16.09	40.75	596.45
12.50	4	SLE Q	5	21	0.00	-71838.00	-282.68	-94.73	0.00	16.09	34.30	502.14
15.26	2	SLE R	5	21	276.00	-84031.90	467.23	-388.12	0.00	16.09	42.31	612.57
15.26	4	SLE Q	5	21	276.00	-70430.40	377.48	-289.79	0.00	16.09	35.21	510.50
15.50	2	SLE R	6	22	0.00	-69217.00	-394.07	54.49	0.00	16.09	40.83	584.10
15.50	4	SLE Q	6	22	0.00	-58055.40	-318.21	-25.23	0.00	16.09	34.01	487.35
15.50	2	SLE R	6	22	0.00	-69217.00	-394.07	54.49	0.00	12.06	41.99	601.45
15.50	4	SLE Q	6	22	0.00	-58055.40	-318.21	-25.23	0.00	12.06	34.97	501.83
18.26	2	SLE R	6	22	276.00	-68044.00	399.87	-229.59	0.00	12.06	42.23	602.92
18.26	4	SLE Q	6	22	276.00	-56882.30	323.34	-148.77	0.00	12.06	34.97	500.24
18.50	2	SLE R	7	22	0.00	-53211.60	-468.28	65.09	0.00	12.06	34.46	483.15
18.50	4	SLE Q	7	22	0.00	-44489.80	-377.18	-12.49	0.00	12.06	28.44	399.84
18.50	2	SLE R	7	22	0.00	-53211.60	-468.28	65.09	0.00	12.06	34.46	483.15
18.50	4	SLE Q	7	22	0.00	-44489.80	-377.18	-12.49	0.00	12.06	28.44	399.84
21.26	2	SLE R	7	22	276.00	-52038.60	467.51	-131.77	0.00	12.06	34.13	477.57
21.26	4	SLE Q	7	22	276.00	-43316.80	375.91	-64.12	0.00	12.06	28.04	393.33
21.50	2	SLE R	8	22	0.00	-37180.20	-389.19	83.38	0.00	12.06	25.03	347.07
21.50	4	SLE Q	8	22	0.00	-30898.30	-315.82	-1.66	0.00	12.06	20.40	283.62
21.50	2	SLE R	8	22	0.00	-37180.20	-389.19	83.38	0.00	12.06	25.03	347.07
21.50	4	SLE Q	8	22	0.00	-30898.30	-315.82	-1.66	0.00	12.06	20.40	283.62
24.26	2	SLE R	8	22	276.00	-36007.20	259.68	622.51	0.00	12.06	25.19	353.73
24.26	4	SLE Q	8	22	276.00	-29725.30	215.88	509.44	0.00	12.06	20.80	291.93
24.50	2	SLE R	9	22	0.00	-21125.90	-680.35	1056.34	0.00	12.06	24.55	310.00
24.50	4	SLE Q	9	22	0.00	-17287.50	-539.91	727.86	0.00	12.06	19.24	243.53
24.50	2	SLE R	9	22	0.00	-21125.90	-680.35	1056.34	0.00	12.06	24.55	310.00
24.50	4	SLE Q	9	22	0.00	-17287.50	-539.91	727.86	0.00	12.06	19.24	243.53
27.26	2	SLE R	9	22	276.00	-19952.90	1047.84	-630.14	2.01	10.05	27.33	325.50
27.26	4	SLE Q	9	22	276.00	-16114.50	821.92	-376.05	0.00	12.06	20.96	250.34

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	S
<m>	<m>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	370.71	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	233.01	2.50	0.00	73641.10	136624.00	66277.00	>10
0.68	2.58	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	370.71	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	233.01	2.50	0.00	73641.10	136624.00	66277.00	>10
2.58	3.26	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	370.71	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	233.01	2.50	0.00	73641.10	136624.00	66277.00	>10
3.50	4.18	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	230.47	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	714.02	2.50	0.00	73641.10	113853.00	66277.00	92
4.18	5.58	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	230.46	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	714.02	2.50	0.00	73641.10	113853.00	66277.00	92
5.58	6.26	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	230.46	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	714.02	2.50	0.00	73641.10	113853.00	66277.00	92
6.50	7.18	ø6/15	2	2	---	1	SLU	0.68	0.25	257.30	2.50	6634.02	---	9925.40	6634.02	0.30	0.63	502.19	1.95	12979.30	---	12979.30	25	
7.18	8.58	ø6/15	2	2	---	1	SLU	0.68	0.25	257.30	2.50	6634.02	---	10071.70	6634.02	0.30	0.63	502.19	1.96	13099.70	---	13099.70	25	
8.58	9.26	ø6/15	2	2	---	1	SLU	0.68	0.25	257.30	2.50	6634.02	---	10373.00	6634.02	0.30	0.63	502.19	2.00	13344.10	---	13344.10	25	
9.50	10.18	ø6/15	2	2	---	1	SLU	0.68	0.25	266.22	2.50	6634.02	---	17307.60	6634.02	0.30	0.63	488.01	2.50	16677.60	---	19195.70	24	
10.18	11.58	ø6/15	2	2	---	1	SLU	0.68	0.25	266.22	2.50	6634.02	---	17453.90	6634.02	0.30	0.63	488.01	2.50	16677.60	---	19358.00	24	
11.58	12.26	ø6/15	2	2	---	1	SLU	0.68	0.25	266.22	2.50	6634.02	---	17755.20	6634.02	0.30	0.63	488.01	2.50	16677.60	---	19692.10	24	
12.50	13.18	ø6/15	2	2	---	1	SLU	0.68	0.25	424.83	2.50	6634.02	---	24685.80	6634.02	0.30	0.63	160.34	2.50	16677.60	---	27378.80	15	
13.18	14.58	ø6/15	2	2	---	1	SLU	0.68	0.25	424.83	2.50	6634.02	---	24832.10	6634.02	0.30	0.63	160.35	2.50	16677.60	---	27541.10	15	
14.58	15.26	ø6/15	2	2	---	1	SLU	0.68	0.25	424.83	2.50	6634.02	---	25133.30	6634.02	0.30	0.63	160.35	2.50	16677.60	---	27875.20	15	
15.50	16.18	ø6/15	2	2	---	1	SLU	0.68	0.20	412.30	2.50	5312.50	---	20610.40	5312.50	0.25	0.63	143.34	2.50	16677.60	---	23877.60	15	



Relazione di calcolo

16.18	17.58	ø6/15	2	2	---	1	SLU	0.68	0.20	412.30	2.50	5312.50	---	20727.60	5312.50	0.25	0.63	143.34	2.50	16677.60	---	23922.80	16677.60	12
17.58	18.26	ø6/15	2	2	---	1	SLU	0.68	0.20	412.30	2.50	5312.50	---	20968.80	5312.50	0.25	0.63	143.34	2.50	16677.60	---	24201.30	16677.60	12
18.50	19.18	ø6/15	2	2	---	1	SLU	0.68	0.20	486.60	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	95.79	2.50	16677.60	---	29548.40	16677.60	10
19.18	20.58	ø6/15	2	2	---	1	SLU	0.68	0.20	486.60	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	95.79	2.50	16677.60	---	29548.40	16677.60	10
20.58	21.26	ø6/15	2	2	---	1	SLU	0.68	0.20	486.60	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	95.79	2.50	16677.60	---	29548.40	16677.60	10
21.50	22.18	ø6/15	2	2	---	1	SLU	0.68	0.20	334.65	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	280.80	2.50	16677.60	---	29548.40	16677.60	15
22.18	23.58	ø6/15	2	2	---	1	SLU	0.68	0.20	334.65	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	280.80	2.50	16677.60	---	29548.40	16677.60	15
23.58	24.26	ø6/15	2	2	---	1	SLU	0.68	0.20	334.65	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	280.80	2.50	16677.60	---	29548.40	16677.60	15
24.50	25.18	ø6/15	2	2	---	1	SLU	0.68	0.20	905.67	2.50	5312.50	---	24256.30	5312.50	0.25	0.63	846.80	2.50	16677.60	---	27995.50	16677.60	5
25.18	26.58	ø6/15	2	2	---	1	SLU	0.68	0.20	905.67	2.50	5312.50	---	24209.40	5312.50	0.25	0.63	846.80	2.50	16677.60	---	27941.40	16677.60	5
26.58	27.26	ø6/15	2	2	---	1	SLU	0.68	0.20	905.67	2.50	5312.50	---	24112.90	5312.50	0.25	0.63	846.80	2.50	16677.60	---	27830.00	16677.60	5

Pilastrata n. 30

Nodi: 130 330 530 730 930 1130 1330 1530 1730 1930

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm<sup>q>cmq>	Fctm <daN/cm<sup>q>cmq>	Fcd <daN/cm<sup>q>cmq>	Fcd (Tag) <daN/cm<sup>q>cmq>	Fctd <daN/cm<sup>q>cmq>	Fym <daN/cm<sup>q>cmq>	Fyd <daN/cm<sup>q>cmq>	Fyd (Tag) <daN/cm<sup>q>cmq>
	2R	40.00	68.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	21R	30.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	22R	25.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm<sup>q>cmq>	Fcd <daN/cm<sup>q>cmq>	Fyk <daN/cm<sup>q>cmq>	Fyd <daN/cm<sup>q>cmq>
60.00	88.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	2	0.00	-197879.00	0.00	3957.58	2618.50	3957.58	-964574.00	113171.00	74047.10	1.09	4.875	106.97
0.00	1(e)	SLU	1	2	0.00	-197879.00	0.00	3957.58	2618.50	3957.58	-964574.00	113171.00	74047.10	1.09	4.875	106.97
3.50	1(e)	SLU	1	2	350.00	-191873.00	-0.00	-3837.46	-678.95	-3837.46	-964574.00	-112369.00	-73525.10	1.08	5.027	106.97
3.50	1(e)	SLU	2	21	0.00	-173368.00	-0.00	-3467.36	246.32	3467.36	-797177.00	-97651.10	51669.40	1.10	4.598	145.80
3.50	1(e)	SLU	2	21	0.00	-173368.00	-0.00	-3467.36	246.32	3467.36	-825996.00	-102419.00	53153.80	1.09	4.764	133.90
6.50	1(e)	SLU	2	21	300.00	-171379.00	-0.00	-3427.58	-493.88	-3427.58	-825996.00	-102194.00	-53070.30	1.09	4.820	133.90
6.50	1(e)	SLU	3	21	0.00	-152589.00	-0.00	-3051.79	402.93	3051.79	-353140.00	-37091.30	14816.00	1.28	2.314	---
6.50	1(e)	SLU	3	21	0.00	-152589.00	-0.00	-3051.79	402.93	3051.79	-353140.00	-37091.30	14816.00	1.28	2.314	---
9.50	1(e)	SLU	3	21	300.00	-150600.00	-0.00	-3012.01	-516.21	-3012.01	-353140.00	-37101.60	-14870.10	1.27	2.345	---
9.50	1(e)	SLU	4	21	0.00	-131811.00	-0.00	-2636.21	380.60	2636.21	-353140.00	-36867.00	15129.60	1.23	2.679	---
9.50	1(e)	SLU	4	21	0.00	-131811.00	-0.00	-2636.21	380.60	2636.21	-353140.00	-36867.00	15129.60	1.23	2.679	---
12.50	1(e)	SLU	4	21	300.00	-129822.00	-0.00	-2596.43	-422.39	-2596.43	-353140.00	-36808.60	-15102.40	1.22	2.720	---
12.50	1(e)	SLU	5	21	0.00	-111032.00	-0.00	-2220.64	474.42	2220.64	-353140.00	-35969.90	14733.00	1.18	3.181	---
12.50	1(e)	SLU	5	21	0.00	-111032.00	-0.00	-2220.64	474.42	2220.64	-353140.00	-35969.90	14733.00	1.18	3.181	---
15.50	1(e)	SLU	5	21	300.00	-109043.00	0.00	2180.86	-818.83	-2180.86	-353140.00	35853.00	-14680.90	1.17	3.239	---
18.50	1(e)	SLU	7	22	0.00	-69521.30	0.00	1390.43	628.79	1390.43	-289480.00	26295.70	9508.71	1.12	4.164	---
18.50	1(e)	SLU	7	22	0.00	-69521.30	0.00	1390.43	628.79	1390.43	-289480.00	26295.70	9508.71	1.12	4.164	---
21.50	1(e)	SLU	7	22	300.00	-67863.80	0.00	1357.28	-839.57	-1357.28	-289480.00	26160.50	-9413.11	1.11	4.266	---
21.50	1(e)	SLU	8	22	0.00	-48931.70	0.00	978.63	526.97	978.63	-289480.00	24286.90	8181.64	1.06	5.916	---
21.50	1(e)	SLU	8	22	0.00	-48931.70	0.00	978.63	526.97	978.63	-289480.00	24286.90	8181.64	1.06	5.916	---
24.50	1(e)	SLU	8	22	300.00	-47274.20	0.00	945.48	-480.91	-945.48	-289480.00	24016.90	-8064.33	1.05	6.123	---
24.50	1(e)	SLU	9	22	0.00	-28342.10	0.00	-566.84	885.63	885.63	-28345.80	-20386.00	6638.78	1.00	6.203	---
24.50	1(e)	SLU	9	22	0.00	-28342.10	0.00	-566.84	885.63	885.63	-28345.80	-20386.00	6638.78	1.00	6.203	---
27.50	1(e)	SLU	9	22	300.00	-26684.60	0.00	533.69	-1926.13	-1926.13	-26685.00	20019.90	-6507.93	1.00	3.100	---

Dati per verifiche di stabilità

Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*
---	2	3.00	20.78	58.11	---	2	3.00	20.78	58.11	---	2	3.00	20.78	58.11	---	6	3.00	41.57	41.52
---	6	3.00	41.57	41.52	---	6	3.00	41.57	41.52										

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdy, s <daNm>	MRdz <daNm>	MRdz, s <daNm>	esp.	Sic.	Δ%
15.50	1(e)	SLU	6	22	0.00	-90110.80	-0.00	-1802.22	547.71	1802.22	-275071.00	-27559.50	-26656.10	9275.06	7361.95	1.19	3.053	---
15.50	1(e)	SLU	6	22	0.00	-90110.80	-0.00	-1802.22	547.71	1802.22	-289480.00	-27743.50	-26833.90	10399.00	8470.36	1.18	3.212	---
18.50	1(e)	SLU	6	22	300.00	-88453.30	0.00	1769.07	-737.75	-1769.07	-289480.00	27645.50	26746.30	-10345.50	-8441.74	1.17	3.273	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	2	0.00	-139095.00	1852.84	0.00	0.00	57.81	25.57	376.45
0.00	4	SLE Q	1	2	0.00	-115327.00	1537.42	0.00	0.00	57.81	21.20	312.15
0.00	2	SLE R	1	2	0.00	-139095.00	1852.84	0.00	0.00	57.81	25.57	376.45
0.00	4	SLE Q	1	2	0.00	-115327.00	1537.42	0.00	0.00	57.81	21.20	312.15
3.50	2	SLE R	1	2	350.00	-134475.00	-472.40	-0.00	0.00	57.81	22.63	337.59
3.50	4	SLE Q	1	2	350.00	-110707.00	-383.12	-0.00	0.00	57.81	18.62	277.80
3.50	2	SLE R	2	21	0.00	-121586.00	172.09	-0.00	0.00	45.74	24.30	363.37
3.50	4	SLE Q	2	21	0.00	-100256.00	139.42	-0.00	0.00	45.74	20.03	299.55
3.50	2	SLE R	2	21	0.00	-121586.00	172.09	-0.00	0.00	53.78	23.74	355.03
3.50	4	SLE Q	2	21	0.00	-100256.00	139.42	-0.00	0.00	53.78	19.57	292.68
6.50	2	SLE R	2	21	300.00	-120056.00	-344.65	-0.00	0.00	53.78	23.84	355.39
6.50	4	SLE Q	2	21	300.00	-98725.90	-280.37	-0.00	0.00	53.78	19.60	292.16
6.50	2	SLE R	3	21	0.00	-106968.00	280.01	-0.00	0.00	16.09	49.33	728.47
6.50	4	SLE Q	3	21	0.00	-88114.50	226.10	-0.00	0.00	16.09	40.59	599.66
6.50	2	SLE R	3	21	0.00	-106968.00	280.01	-0.00	0.00	16.09	49.33	728.47
6.50	4	SLE Q	3	21	0.00	-88114.50	226.10	-0.00	0.00	16.09	40.59	599.66



Relazione di calcolo

9.50	2	SLE R	3	21	300.00	-105438.00	-359.43	-0.00	0.00	16.09	49.35	725.53
9.50	4	SLE Q	3	21	300.00	-86584.50	-291.24	-0.00	0.00	16.09	40.49	595.45
9.50	2	SLE R	4	21	0.00	-92350.50	265.23	-0.00	0.00	16.09	42.79	631.03
9.50	4	SLE Q	4	21	0.00	-75973.10	215.22	-0.00	0.00	16.09	35.18	518.86
9.50	2	SLE R	4	21	0.00	-92350.50	265.23	-0.00	0.00	16.09	42.79	631.03
9.50	4	SLE Q	4	21	0.00	-75973.10	215.22	-0.00	0.00	16.09	35.18	518.86
12.50	2	SLE R	4	21	300.00	-90820.50	-294.14	-0.00	0.00	16.09	42.37	623.56
12.50	4	SLE Q	4	21	300.00	-74443.10	-238.35	-0.00	0.00	16.09	34.71	510.87
12.50	2	SLE R	5	21	0.00	-77732.80	330.51	-0.00	0.00	16.09	36.95	540.77
12.50	4	SLE Q	5	21	0.00	-63831.60	268.12	-0.00	0.00	16.09	30.32	443.77
12.50	2	SLE R	5	21	0.00	-77732.80	330.51	-0.00	0.00	16.09	36.95	540.77
12.50	4	SLE Q	5	21	0.00	-63831.60	268.12	-0.00	0.00	16.09	30.32	443.77
15.50	2	SLE R	5	21	300.00	-76202.80	-570.25	0.00	0.00	16.09	38.37	552.22
15.50	4	SLE Q	5	21	300.00	-62301.60	-462.05	0.00	0.00	16.09	31.33	451.11
15.50	2	SLE R	6	22	0.00	-63015.90	381.60	-0.00	0.00	8.04	39.59	565.75
15.50	4	SLE Q	6	22	0.00	-51609.80	309.69	0.00	0.00	8.04	32.38	463.00
15.50	2	SLE R	6	22	0.00	-63015.90	381.60	-0.00	0.00	12.06	38.29	547.38
15.50	4	SLE Q	6	22	0.00	-51609.80	309.69	0.00	0.00	12.06	31.33	447.97
18.50	2	SLE R	6	22	300.00	-61740.90	-514.07	0.00	0.00	12.06	39.28	552.78
18.50	4	SLE Q	6	22	300.00	-50334.80	-417.08	0.00	0.00	12.06	32.00	450.42
18.50	2	SLE R	7	22	0.00	-48554.00	437.78	0.00	0.00	12.06	31.31	438.65
18.50	4	SLE Q	7	22	0.00	-39643.00	354.67	0.00	0.00	12.06	25.53	357.82
18.50	2	SLE R	7	22	0.00	-48554.00	437.78	0.00	0.00	12.06	31.31	438.65
18.50	4	SLE Q	7	22	0.00	-39643.00	354.67	0.00	0.00	12.06	25.53	357.82
21.50	2	SLE R	7	22	300.00	-47279.00	-583.85	0.00	0.00	12.06	32.47	445.65
21.50	4	SLE Q	7	22	300.00	-38368.00	-471.20	0.00	0.00	12.06	26.31	361.35
21.50	2	SLE R	8	22	0.00	-34092.10	368.00	0.00	0.00	12.06	22.75	315.12
21.50	4	SLE Q	8	22	0.00	-27676.20	300.55	0.00	0.00	12.06	18.49	256.03
21.50	2	SLE R	8	22	0.00	-34092.10	368.00	0.00	0.00	12.06	22.75	315.12
21.50	4	SLE Q	8	22	0.00	-27676.20	300.55	0.00	0.00	12.06	18.49	256.03
24.50	2	SLE R	8	22	300.00	-32817.10	-339.83	0.00	0.00	12.06	21.71	301.64
24.50	4	SLE Q	8	22	300.00	-26401.20	-283.38	0.00	0.00	12.06	17.59	243.84
24.50	2	SLE R	9	22	0.00	-19630.30	612.02	0.00	0.00	12.06	18.12	228.47
24.50	4	SLE Q	9	22	0.00	-15709.40	488.37	0.00	0.00	12.06	14.48	182.67
24.50	2	SLE R	9	22	0.00	-19630.30	612.02	0.00	0.00	12.06	18.12	228.47
24.50	4	SLE Q	9	22	0.00	-15709.40	488.37	0.00	0.00	12.06	14.48	182.67
27.50	2	SLE R	9	22	300.00	-18355.30	-1324.91	0.00	6.03	6.03	28.82	314.61
27.50	4	SLE Q	9	22	300.00	-14434.40	-1041.90	0.00	6.03	6.03	22.66	247.41

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <m>	d <sub>y</sub> <m>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <m>	d <sub>z</sub> <m>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	S
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	942.13	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	0.00	2.50	0.00	73641.10	136624.00	66277.00	46
0.68	2.58	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	942.13	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	0.00	2.50	0.00	73641.10	136624.00	66277.00	46
2.58	3.50	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	942.13	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	0.00	2.50	0.00	73641.10	136624.00	66277.00	46
3.50	3.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	942.13	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	0.00	2.50	0.00	73641.10	113853.00	66277.00	38
4.18	5.82	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	246.73	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	0.00	2.50	0.00	73641.10	113853.00	66277.00	>1
5.82	6.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	246.73	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	0.00	2.50	0.00	73641.10	113853.00	66277.00	>1
6.50	4.18	ø6/15	2	2	---	1	SLU	0.68	0.25	306.38	2.50	6634.02	---	7817.06	6634.02	0.30	0.63	0.00	1.66	11100.60	---	11100.60	11100.60	21
4.18	5.58	ø6/15	2	2	---	1	SLU	0.68	0.25	246.73	2.50	6634.02	---	7817.06	6634.02	0.30	0.63	0.00	1.66	11100.60	---	11100.60	11100.60	26
5.58	9.50	ø6/15	2	2	---	1	SLU	0.68	0.25	306.38	2.50	6634.02	---	8118.33	6634.02	0.30	0.63	0.00	1.71	11388.10	---	11388.10	11388.10	21
9.50	6.50	ø6/15	2	2	---	1	SLU	0.68	0.25	267.66	2.50	6634.02	---	8316.31	6634.02	0.30	0.63	0.00	1.73	11573.10	---	11573.10	11573.10	24
10.18	11.82	ø6/15	2	2	---	1	SLU	0.68	0.25	267.66	2.50	6634.02	---	21305.30	6634.02	0.30	0.63	0.00	2.50	16677.60	---	23629.60	16677.60	24
11.82	12.50	ø6/15	2	2	---	1	SLU	0.68	0.25	267.66	2.50	6634.02	---	21658.20	6634.02	0.30	0.63	0.00	2.50	16677.60	---	24021.00	16677.60	24
12.50	7.18	ø6/15	2	2	---	1	SLU	0.68	0.25	431.08	2.50	6634.02	---	14561.20	6634.02	0.30	0.63	0.00	2.45	16368.50	---	16368.50	16368.50	15
7.18	8.58	ø6/15	2	2	---	1	SLU	0.68	0.25	306.38	2.50	6634.02	---	14561.20	6634.02	0.30	0.63	0.00	2.45	16368.50	---	16368.50	16368.50	21
8.58	15.50	ø6/15	2	2	---	1	SLU	0.68	0.25	431.08	2.50	6634.02	---	14862.50	6634.02	0.30	0.63	0.00	2.48	16564.80	---	16564.80	16564.80	15
15.50	9.50	ø6/15	2	2	---	1	SLU	0.68	0.20	428.49	2.19	4643.53	---	4643.53	4643.53	0.25	0.63	0.00	1.06	7069.96	---	7069.97	7069.96	10
16.18	17.82	ø6/15	2	2	---	1	SLU	0.68	0.20	428.49	2.50	5312.50	---	23215.40	5312.50	0.25	0.63	0.00	2.50	16677.60	---	26794.20	16677.60	12
17.82	18.50	ø6/15	2	2	---	1	SLU	0.68	0.20	428.49	2.50	5312.50	---	23498.00	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27120.30	16677.60	12
18.50	10.18	ø6/15	2	2	---	1	SLU	0.68	0.20	489.45	2.50	5312.50	---	10232.80	5312.50	0.25	0.63	0.00	2.03	13563.80	---	13563.80	13563.80	10
10.18	11.58	ø6/15	2	2	---	1	SLU	0.68	0.20	267.66	2.50	5312.50	---	10232.80	5312.50	0.25	0.63	0.00	2.03	13563.80	---	13563.80	13563.80	19
11.58	21.50	ø6/15	2	2	---	1	SLU	0.68	0.20	489.45	2.50	5312.50	---	10522.30	5312.50	0.25	0.63	0.00	2.07	13800.10	---	13800.10	13800.10	10
21.50	12.50	ø6/15	2	2	---	1	SLU	0.68	0.20	335.96	2.50	5312.50	---	10712.50	5312.50	0.25	0.63	0.00	2.09	13953.10	---	13953.10	13953.10	15
22.18	23.82	ø6/15	2	2	---	1	SLU	0.68	0.20	335.96	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
23.82	24.50	ø6/15	2	2	---	1	SLU	0.68	0.20	335.96	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
24.50	13.18	ø6/15	2	2	---	1	SLU	0.68	0.20	937.25	2.50	5312.50	---	16713.60	5312.50	0.25	0.63	0.00	2.50	16677.60	---	19290.10	16677.60	5
13.18	14.58	ø6/15	2	2	---	1	SLU	0.68	0.20	431.08	2.50	5312.50	---	16713.60	5312.50	0.25	0.63	0.00	2.50	16677.60	---	19290.10	16677.60	12
14.58	27.50	ø6/15	2	2	---	1	SLU	0.68	0.20	937.25	2.50	5312.50	---	17003.10	5312.50	0.25	0.63	0.00	2.50	16677.60	---	19624.20	16677.60	5
15.50	16.18	ø6/15	2	2	---	1	SLU	0.68	0.20	428.49	2.50	5312.50	---	23098.20	5312.50	0.25	0.63	0.00	2.50	16677.60	---	26658.90	16677.60	12
16.18	17.58	ø6/15	2	2	---	1	SLU	0.68	0.20	428.49	2.50	5312.50	---	23215.40	5312.50	0.25	0.63	0.00	2.50	16677.60	---	26794.20	16677.60	12
17.58	18.26	ø6/15	2	2	---	1	SLU	0.68	0.20	428.49	2.50	5312.50	---	23456.60	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27072.60	16677.60	12
18.50	19.18	ø6/15	2	2	---	1	SLU	0.68	0.20	489.45	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	10
19.18	20.58	ø6/15	2	2	---	1	SLU	0.68	0.20	489.45	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	10
20.58	21.26	ø6/15	2	2	---	1	SLU	0.68	0.20	489.45	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	10
21.50	22.18	ø6/15	2	2	---	1	SLU	0.68	0.20	335.96	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
22.18	23.58	ø6/15	2	2	---	1	SLU	0.68	0.20	335.96	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
23.58	24.26	ø6/15	2	2	---	1	SLU	0.68	0.20	335.96	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
24.50	25.18	ø6/15	2	2	---	1	SLU	0.68	0.20	937.25	2.50	5312.50	---	24017.30	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27719.70	16677.60	5
25.18	26.58	ø6/15	2	2	---	1	SLU	0.68	0.20	937.25	2.50	5312.50	---	23970.40	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27665.60	16677.60	5
26.58	27.26	ø6/15	2	2	---	1	SLU	0.68	0.20	937.25	2.50	5312.50	---	23873.90	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27554.20	16677.60	5



Relazione di calcolo

21	R	30.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
22	R	25.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B	H	Fck	Fcd	Fyk	Fyd
<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
60.00	88.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/presoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdz	esp.	Sic.	Δ%
<m>					<cm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>			
-3.60	1(e)	SLU	1	2	0.00	-219883.00	258.48	4397.66	250.21	4397.66	-466051.00	45745.40	26730.20	1.31	2.120	---
-3.60	1(e)	SLU	1	2	0.00	-219883.00	258.48	4397.66	250.21	4397.66	-466051.00	45745.40	26730.20	1.31	2.120	---
-0.35	1(e)	SLU	1	2	325.00	-217010.00	96.08	4340.20	-450.48	-4340.20	-466051.00	45968.30	-26870.40	1.30	2.148	---
0.00	1(e)	SLU	2	2	0.00	-194715.00	-0.00	-3894.30	1537.30	3894.30	-964574.00	-112752.00	73774.80	1.08	4.954	106.97
0.00	1(e)	SLU	2	2	0.00	-194715.00	-0.00	-3894.30	1537.30	3894.30	-964574.00	-112752.00	73774.80	1.08	4.954	106.97
3.50	1(e)	SLU	2	2	350.00	-188709.00	-0.00	-3774.18	-617.25	-3774.18	-964574.00	-111938.00	-73246.50	1.08	5.111	106.97
3.50	1(e)	SLU	3	21	0.00	-170204.00	-0.00	-3404.08	308.02	3404.08	-797177.00	-97218.30	51437.40	1.09	4.684	145.80
3.50	1(e)	SLU	3	21	0.00	-170204.00	-0.00	-3404.08	308.02	3404.08	-825996.00	-102061.00	53020.60	1.09	4.853	133.90
6.50	1(e)	SLU	3	21	300.00	-168215.00	-0.00	-3364.30	-529.84	-3364.30	-825996.00	-101832.00	-52936.40	1.09	4.910	133.90
6.50	1(e)	SLU	4	21	0.00	-149710.00	-0.00	-2994.20	395.43	2994.20	-353140.00	-37103.90	14894.00	1.27	2.359	---
6.50	1(e)	SLU	4	21	0.00	-149710.00	-0.00	-2994.20	395.43	2994.20	-353140.00	-37103.90	14894.00	1.27	2.359	---
9.50	1(e)	SLU	4	21	300.00	-147721.00	-0.00	-2954.42	-522.40	-2954.42	-353140.00	-37104.20	-14946.70	1.27	2.391	---
9.50	1(e)	SLU	5	21	0.00	-129216.00	-0.00	-2584.32	402.87	2584.32	-353140.00	-36790.00	15093.90	1.22	2.733	---
9.50	1(e)	SLU	5	21	0.00	-129216.00	-0.00	-2584.32	402.87	2584.32	-338731.00	-32568.00	15124.00	1.23	2.621	---
12.50	1(e)	SLU	5	21	300.00	-127227.00	-0.00	-2544.54	-445.44	-2544.54	-338731.00	-32501.60	-15090.40	1.23	2.662	---
12.50	1(e)	SLU	6	21	0.00	-108722.00	-0.00	-2174.44	479.83	2174.44	-338731.00	-31611.60	14593.10	1.18	3.116	---
12.50	1(e)	SLU	6	21	0.00	-108722.00	-0.00	-2174.44	479.83	2174.44	-338731.00	-31611.60	14593.10	1.18	3.116	---
15.50	1(e)	SLU	6	21	300.00	-106733.00	-0.00	-2134.66	-826.10	-2134.66	-338731.00	-31488.90	-14518.10	1.18	3.174	---
15.50	1(e)	SLU	7	22	0.00	-88227.80	-0.00	-1764.56	561.80	1764.56	-289480.00	-27631.80	10337.90	1.17	3.281	---
15.50	1(e)	SLU	7	22	0.00	-88227.80	-0.00	-1764.56	561.80	1764.56	-289480.00	-27631.80	10337.90	1.17	3.281	---
18.50	1(e)	SLU	7	22	300.00	-86570.30	-0.00	-1731.41	-755.09	-1731.41	-289480.00	-27529.60	-10282.20	1.17	3.344	---
18.50	1(e)	SLU	8	22	0.00	-68065.30	-0.00	-1361.31	632.80	1361.31	-289480.00	-26177.30	9425.51	1.11	4.253	---
18.50	1(e)	SLU	8	22	0.00	-68065.30	-0.00	-1361.31	632.80	1361.31	-289480.00	-26177.30	9425.51	1.11	4.253	---
21.50	1(e)	SLU	8	22	300.00	-66407.80	-0.00	-1328.16	-839.70	-1328.16	-289480.00	-26040.20	-9324.87	1.11	4.359	---
21.50	1(e)	SLU	9	22	0.00	-47902.70	-0.00	-958.05	548.19	958.05	-289480.00	-24120.60	8108.92	1.05	6.043	---
21.50	1(e)	SLU	9	22	0.00	-47902.70	-0.00	-958.05	548.19	958.05	-289480.00	-24120.60	8108.92	1.05	6.043	---
24.50	1(e)	SLU	9	22	300.00	-46245.20	0.00	924.90	-502.95	-924.90	-289480.00	23846.20	-7991.88	1.05	6.260	---
24.50	1(e)	SLU	10	22	0.00	-27740.20	0.00	-554.80	884.94	884.94	-27743.60	-20254.00	6591.35	1.00	6.186	---
24.50	1(e)	SLU	10	22	0.00	-27740.20	0.00	-554.80	884.94	884.94	-27743.60	-20254.00	6591.35	1.00	6.186	---
27.50	1(e)	SLU	10	22	300.00	-26082.70	0.00	521.65	-1956.23	-1956.23	-26084.80	19884.90	-6460.62	1.00	3.039	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	Aft	Afc	σ <sub>c</sub>	σ <sub>f</sub>
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>
-3.60	2	SLE R	1	2	0.00	-155326.00	175.83	190.89	0.00	20.11	52.78	787.61
-3.60	4	SLE Q	1	2	0.00	-129809.00	147.05	150.90	0.00	20.11	44.08	657.92
-3.60	2	SLE R	1	2	0.00	-155326.00	175.83	190.89	0.00	20.11	52.78	787.61
-3.60	4	SLE Q	1	2	0.00	-129809.00	147.05	150.90	0.00	20.11	44.08	657.92
-0.35	2	SLE R	1	2	325.00	-153116.00	-316.27	70.16	0.00	20.11	52.38	779.96
-0.35	4	SLE Q	1	2	325.00	-127599.00	-264.03	56.65	0.00	20.11	43.65	649.94
0.00	2	SLE R	2	2	0.00	-136897.00	1083.31	-0.00	0.00	57.81	23.99	355.71
0.00	4	SLE Q	2	2	0.00	-113554.00	895.52	-0.00	0.00	57.81	19.89	294.99
0.00	2	SLE R	2	2	0.00	-136897.00	1083.31	-0.00	0.00	57.81	23.99	355.71
0.00	4	SLE Q	2	2	0.00	-113554.00	895.52	-0.00	0.00	57.81	19.89	294.99
3.50	2	SLE R	2	2	350.00	-132277.00	-428.32	-0.00	0.00	57.81	22.20	331.34
3.50	4	SLE Q	2	2	350.00	-108934.00	-345.96	-0.00	0.00	57.81	18.27	272.73
3.50	2	SLE R	3	21	0.00	-119387.00	216.17	-0.00	0.00	45.74	23.97	358.11
3.50	4	SLE Q	3	21	0.00	-98483.30	176.58	-0.00	0.00	45.74	19.77	295.36
3.50	2	SLE R	3	21	0.00	-119387.00	216.17	-0.00	0.00	53.78	23.42	349.91
3.50	4	SLE Q	3	21	0.00	-98483.30	176.58	-0.00	0.00	53.78	19.32	288.60
6.50	2	SLE R	3	21	300.00	-117857.00	-370.25	-0.00	0.00	53.78	23.48	349.76
6.50	4	SLE Q	3	21	300.00	-96953.30	-301.86	-0.00	0.00	53.78	19.31	287.65
6.50	2	SLE R	4	21	0.00	-104968.00	274.24	-0.00	0.00	16.09	48.40	714.80
6.50	4	SLE Q	4	21	0.00	-86502.60	220.68	-0.00	0.00	16.09	39.84	588.58
6.50	2	SLE R	4	21	0.00	-104968.00	274.24	-0.00	0.00	16.09	48.40	714.80
6.50	4	SLE Q	4	21	0.00	-86502.60	220.68	-0.00	0.00	16.09	39.84	588.58
9.50	2	SLE R	4	21	300.00	-103438.00	-363.56	-0.00	0.00	16.09	48.51	712.75
9.50	4	SLE Q	4	21	300.00	-84972.60	-294.34	-0.00	0.00	16.09	39.81	585.13
9.50	2	SLE R	5	21	0.00	-90548.40	280.93	-0.00	0.00	16.09	42.14	620.59
9.50	4	SLE Q	5	21	0.00	-74522.00	228.20	-0.00	0.00	16.09	34.65	510.48
9.50	2	SLE R	5	21	0.00	-90548.40	280.93	-0.00	0.00	12.06	43.22	636.76
9.50	4	SLE Q	5	21	0.00	-74522.00	228.20	-0.00	0.00	12.06	35.54	523.79
12.50	2	SLE R	5	21	300.00	-89018.40	-310.21	-0.00	0.00	12.06	42.78	629.05
12.50	4	SLE Q	5	21	300.00	-72992.00	-251.41	-0.00	0.00	12.06	35.05	515.53
12.50	2	SLE R	6	21	0.00	-76129.00	334.28	-0.00	0.00	12.06	37.19	544.16
12.50	4	SLE Q	6	21	0.00	-62541.40	271.14	-0.00	0.00	12.06	30.52	446.72
12.50	2	SLE R	6	21	0.00	-76129.00	334.28	-0.00	0.00	12.06	37.19	544.16
12.50	4	SLE Q	6	21	0.00	-62541.40	271.14	-0.00	0.00	12.06	30.52	446.72
15.50	2	SLE R	6	21	300.00	-74599.00	-575.30	-0.00	0.00	12.06	38.60	555.45
15.50	4	SLE Q	6	21	300.00	-61011.40	-466.19	-0.00	0.00	12.06	31.53	453.89
15.50	2	SLE R	7	22	0.00	-61709.50	391.42	-0.00	0.00	12.06	37.72	538.12
15.50	4	SLE Q	7	22	0.00	-50560.70	317.62	-0.00	0.00	12.06	30.87	440.53
15.50	2	SLE R	7	22	0.00	-61709.50	391.42	-0.00	0.00	12.06	37.72	538.12
15.50	4	SLE Q	7	22	0.00	-50560.70	317.62	-0.00	0.00	12.06	30.87	440.53
18.50	2	SLE R	7	22	300.00	-60434.50	-526.07	-0.00	0.00	12.06	38.74	543.77
18.50	4	SLE Q	7	22	300.00	-49285.70	-426.67	-0.00	0.00	12.06	31.56	443.18
18.50	2	SLE R	8	22	0.00	-47545.10	440.65	-0.00	0.00	12.06	30.81	430.94



Relazione di calcolo

18.50	4	SLE Q	8	22	0.00	-38835.10	357.13	-0.00	0.00	12.06	25.13	351.67
18.50	2	SLE R	8	22	0.00	-47545.10	440.65	-0.00	0.00	12.06	30.81	430.94
18.50	4	SLE Q	8	22	0.00	-38835.10	357.13	-0.00	0.00	12.06	25.13	351.67
21.50	2	SLE R	8	22	300.00	-46270.10	-584.06	-0.00	0.00	12.06	31.93	437.63
21.50	4	SLE Q	8	22	300.00	-37560.10	-471.74	-0.00	0.00	12.06	25.89	354.97
21.50	2	SLE R	9	22	0.00	-33380.70	382.66	-0.00	0.00	12.06	22.55	311.17
21.50	4	SLE Q	9	22	0.00	-27109.50	312.06	-0.00	0.00	12.06	18.33	252.87
21.50	2	SLE R	9	22	0.00	-33380.70	382.66	-0.00	0.00	12.06	22.55	311.17
21.50	4	SLE Q	9	22	0.00	-27109.50	312.06	-0.00	0.00	12.06	18.33	252.87
24.50	2	SLE R	9	22	300.00	-32105.70	-355.11	0.00	0.00	12.06	21.53	297.77
24.50	4	SLE Q	9	22	300.00	-25834.50	-295.39	0.00	0.00	12.06	17.44	240.74
24.50	2	SLE R	10	22	0.00	-19216.20	611.61	0.00	0.00	12.06	17.90	225.12
24.50	4	SLE Q	10	22	0.00	-15383.80	488.42	-0.00	0.00	12.06	14.31	180.08
24.50	2	SLE R	10	22	0.00	-19216.20	611.61	0.00	0.00	12.06	17.90	225.12
24.50	4	SLE Q	10	22	0.00	-15383.80	488.42	-0.00	0.00	12.06	14.31	180.08
27.50	2	SLE R	10	22	300.00	-17941.20	-1345.61	0.00	6.03	6.03	29.28	315.48
27.50	4	SLE Q	10	22	300.00	-14108.80	-1058.17	-0.00	6.03	6.03	23.02	248.09

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	S
<cm>	<cm>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>		<daN>		<daN>	<daN>	<daN>	<daN>	
-3.60	-2.92	ø8/25	2	2	---	1	SLU	0.68	0.35	215.59	2.50	9895.53	---	14564.70	9895.53	0.40	0.63	49.97	2.30	16346.10	---	16346.10	16346.10	45
-2.92	-1.03	ø8/25	2	2	---	1	SLU	0.68	0.35	215.59	2.50	9895.53	---	14769.30	9895.53	0.40	0.63	49.97	2.32	16482.10	---	16482.10	16482.10	45
-1.03	-0.35	ø8/25	2	2	---	1	SLU	0.68	0.35	215.59	2.50	9895.53	---	15338.00	9895.53	0.40	0.63	49.97	2.37	16854.40	---	16854.40	16854.40	45
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	615.59	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	0.00	2.50	0.00	73641.10	136624.00	66277.00	71
0.68	2.58	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	615.59	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	0.00	2.50	0.00	73641.10	136624.00	66277.00	71
2.58	3.50	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	615.59	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	0.00	2.50	0.00	73641.10	136624.00	66277.00	71
3.50	3.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	615.59	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	0.00	2.50	0.00	73641.10	113853.00	66277.00	58
4.18	5.82	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	279.29	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	0.00	2.50	0.00	73641.10	113853.00	66277.00	>1
5.82	6.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	279.29	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	0.00	2.50	0.00	73641.10	113853.00	66277.00	>1
6.50	4.18	ø6/15	2	2	---	1	SLU	0.68	0.25	305.94	2.50	6634.02	---	8844.06	6634.02	0.30	0.63	0.00	1.81	12052.40	---	12052.40	12052.40	21
4.18	5.58	ø6/15	2	2	---	1	SLU	0.68	0.25	279.29	2.50	6634.02	---	8844.06	6634.02	0.30	0.63	0.00	1.81	12052.40	---	12052.40	12052.40	23
5.58	9.50	ø6/15	2	2	---	1	SLU	0.68	0.25	305.94	2.50	6634.02	---	9145.33	6634.02	0.30	0.63	0.00	1.85	12317.60	---	12317.60	12317.60	21
9.50	6.50	ø6/15	2	2	---	1	SLU	0.68	0.25	282.77	2.50	6634.02	---	9343.30	6634.02	0.30	0.63	0.00	1.87	12488.90	---	12488.90	12488.90	23
10.18	11.82	ø6/15	2	2	---	1	SLU	0.68	0.25	282.77	2.50	6634.02	---	22147.50	6634.02	0.30	0.63	0.00	2.50	16677.60	---	24563.60	16677.60	23
11.82	12.50	ø6/15	2	2	---	1	SLU	0.68	0.25	282.77	2.50	6634.02	---	22504.00	6634.02	0.30	0.63	0.00	2.50	16677.60	---	24955.10	16677.60	23
12.50	7.18	ø6/15	2	2	---	1	SLU	0.68	0.25	435.31	2.50	6634.02	---	15495.80	6634.02	0.30	0.63	0.00	2.50	16677.60	---	17186.30	16677.60	15
7.18	8.58	ø6/15	2	2	---	1	SLU	0.68	0.25	305.94	2.50	6634.02	---	15495.80	6634.02	0.30	0.63	0.00	2.50	16677.60	---	17186.30	16677.60	21
8.58	15.50	ø6/15	2	2	---	1	SLU	0.68	0.25	435.31	2.50	6634.02	---	15797.00	6634.02	0.30	0.63	0.00	2.50	16677.60	---	17520.40	16677.60	15
15.50	9.50	ø6/15	2	2	---	1	SLU	0.68	0.20	438.96	2.45	5205.47	---	5205.47	5205.47	0.25	0.63	0.00	1.25	8368.83	---	8368.83	8368.83	11
16.18	17.82	ø6/15	2	2	---	1	SLU	0.68	0.20	438.96	2.50	5312.50	---	23802.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27472.00	16677.60	12
17.82	18.50	ø6/15	2	2	---	1	SLU	0.68	0.20	438.96	2.50	5312.50	---	24085.30	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27798.20	16677.60	12
18.50	10.18	ø6/15	2	2	---	1	SLU	0.68	0.20	490.83	2.50	5312.50	---	11042.10	5312.50	0.25	0.63	0.00	2.13	14214.40	---	14214.40	14214.40	10
10.18	11.58	ø6/15	2	2	---	1	SLU	0.68	0.20	282.77	2.50	5312.50	---	11042.10	5312.50	0.25	0.63	0.00	2.13	14214.40	---	14214.40	14214.40	18
11.58	21.50	ø6/15	2	2	---	1	SLU	0.68	0.20	490.83	2.50	5312.50	---	11331.60	5312.50	0.25	0.63	0.00	2.16	14440.00	---	14440.00	14440.00	10
21.50	12.50	ø6/15	2	2	---	1	SLU	0.68	0.20	350.38	2.50	5312.50	---	11521.80	5312.50	0.25	0.63	0.00	2.19	14586.30	---	14586.30	14586.30	15
22.18	23.82	ø6/15	2	2	---	1	SLU	0.68	0.20	350.38	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
23.82	24.50	ø6/15	2	2	---	1	SLU	0.68	0.20	350.38	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
24.50	13.18	ø6/15	2	2	---	1	SLU	0.68	0.20	947.05	2.50	5312.50	---	17434.10	5312.50	0.25	0.63	0.00	2.50	16677.60	---	20121.70	16677.60	5
13.18	14.58	ø6/15	2	2	---	1	SLU	0.68	0.20	435.31	2.50	5312.50	---	17434.10	5312.50	0.25	0.63	0.00	2.50	16677.60	---	20121.70	16677.60	12
14.58	27.50	ø6/15	2	2	---	1	SLU	0.68	0.20	947.05	2.50	5312.50	---	17723.60	5312.50	0.25	0.63	0.00	2.50	16677.60	---	20455.80	16677.60	5
15.50	16.18	ø6/15	2	2	---	1	SLU	0.68	0.20	438.96	2.50	5312.50	---	23685.50	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27336.80	16677.60	12
16.18	17.58	ø6/15	2	2	---	1	SLU	0.68	0.20	438.96	2.50	5312.50	---	23802.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27472.00	16677.60	12
17.58	18.26	ø6/15	2	2	---	1	SLU	0.68	0.20	438.96	2.50	5312.50	---	24043.90	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27750.50	16677.60	12
18.50	19.18	ø6/15	2	2	---	1	SLU	0.68	0.20	490.83	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	10
19.18	20.58	ø6/15	2	2	---	1	SLU	0.68	0.20	490.83	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	10
20.58	21.26	ø6/15	2	2	---	1	SLU	0.68	0.20	490.83	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	10
21.50	22.18	ø6/15	2	2	---	1	SLU	0.68	0.20	350.38	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
22.18	23.58	ø6/15	2	2	---	1	SLU	0.68	0.20	350.38	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
23.58	24.26	ø6/15	2	2	---	1	SLU	0.68	0.20	350.38	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	0.00	2.50	16677.60	---	29548.40	16677.60	15
24.50	25.18	ø6/15	2	2	---	1	SLU	0.68	0.20	947.05	2.50	5312.50	---	23942.20	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27633.00	16677.60	5
25.18	26.58	ø6/15	2	2	---	1	SLU	0.68	0.20	947.05	2.50	5312.50	---	23895.30	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27578.90	16677.60	5
26.58	27.26	ø6/15	2	2	---	1	SLU	0.68	0.20	947.05	2.50	5312.50	---	23798.80	5312.50	0.25	0.63	0.00	2.50	16677.60	---	27467.60	16677.60	5



Relazione di calcolo

9.50	1(e)	SLU	4	21	300.00	-140385.00	169.10	2807.71	-439.57	-2807.71	-353140.00	37046.70	-15132.80	1.25	2.516	---
9.50	1(e)	SLU	5	21	0.00	-122748.00	169.10	2454.96	312.14	2454.96	-353140.00	36552.60	14990.00	1.21	2.877	---
9.50	1(e)	SLU	5	21	0.00	-122748.00	169.10	2454.96	312.14	2454.96	-338731.00	32330.70	15002.90	1.22	2.760	---
12.50	1(e)	SLU	5	21	300.00	-120759.00	-56.98	-2415.18	-345.76	-2415.18	-338731.00	-32245.20	-14957.60	1.21	2.805	---
12.50	1(e)	SLU	6	21	0.00	-103125.00	-56.98	-2062.50	405.31	2062.50	-338731.00	-31253.70	14371.70	1.17	3.285	---
12.50	1(e)	SLU	6	21	0.00	-103125.00	-56.98	-2062.50	405.31	2062.50	-338731.00	-31253.70	14371.70	1.17	3.285	---
15.50	1(e)	SLU	6	21	300.00	-101136.00	-151.92	-2022.72	-704.78	-2022.72	-338731.00	-31117.80	-14286.20	1.17	3.349	---
15.50	1(e)	SLU	7	22	0.00	-83644.60	-151.92	-1672.89	480.41	1672.89	-289480.00	-27340.70	10175.80	1.16	3.461	---
15.50	1(e)	SLU	7	22	0.00	-83644.60	-151.92	-1672.89	480.41	1672.89	-289480.00	-27340.70	10175.80	1.16	3.461	---
18.50	1(e)	SLU	7	22	300.00	-81987.10	-145.57	-1639.74	-642.90	-1639.74	-289480.00	-27229.20	-10113.00	1.15	3.531	---
18.50	1(e)	SLU	8	22	0.00	-64502.10	-145.57	-1290.04	541.00	1290.04	-289480.00	-25880.20	9209.55	1.10	4.488	---
18.50	1(e)	SLU	8	22	0.00	-64502.10	-145.57	-1290.04	541.00	1290.04	-289480.00	-25880.20	9209.55	1.10	4.488	---
21.50	1(e)	SLU	8	22	300.00	-62844.60	-79.43	-1256.89	-719.65	-1256.89	-289480.00	-25738.50	-9109.35	1.10	4.606	---
21.50	1(e)	SLU	9	22	0.00	-45366.10	-79.43	-907.32	462.93	907.32	-289480.00	-23697.60	7929.57	1.05	6.381	---
21.50	1(e)	SLU	9	22	0.00	-45366.10	-79.43	-907.32	462.93	907.32	-289480.00	-23697.60	7929.57	1.05	6.381	---
24.50	1(e)	SLU	9	22	300.00	-43708.60	6.31	874.17	-422.96	-874.17	-289480.00	23411.10	-7807.72	1.04	6.623	---
24.50	1(e)	SLU	10	22	0.00	-26238.90	6.31	-524.78	757.88	757.88	-26242.30	-19919.80	6473.04	1.00	6.972	---
24.50	1(e)	SLU	10	22	0.00	-26238.90	6.31	-524.78	757.88	757.88	-26242.30	-19919.80	6473.04	1.00	6.972	---
27.50	1(e)	SLU	10	22	300.00	-24581.40	-0.00	-491.63	-1655.95	-1655.95	-24582.40	-19544.30	-6342.01	1.00	3.493	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σc <daN/cmq>	σt <daN/cmq>
-3.60	2	SLE R	1	2	0.00	-154245.00	399.50	356.20	0.00	20.11	53.95	800.47
-3.60	4	SLE Q	1	2	0.00	-129267.00	351.11	282.00	0.00	20.11	45.25	671.14
-3.60	2	SLE R	1	2	0.00	-154245.00	399.50	356.20	0.00	20.11	53.95	800.47
-3.60	4	SLE Q	1	2	0.00	-129267.00	351.11	282.00	0.00	20.11	45.25	671.14
-0.35	2	SLE R	1	2	325.00	-152035.00	-692.92	410.17	0.00	20.11	54.77	807.52
-0.35	4	SLE Q	1	2	325.00	-127057.00	-609.04	327.35	0.00	20.11	45.87	675.93
0.00	2	SLE R	2	2	0.00	-130627.00	2212.71	635.42	0.00	57.81	25.43	371.91
0.00	4	SLE Q	2	2	0.00	-108570.00	1927.07	507.70	0.00	57.81	21.25	310.59
0.00	2	SLE R	2	2	0.00	-130627.00	2212.71	635.42	0.00	57.81	25.43	371.91
0.00	4	SLE Q	2	2	0.00	-108570.00	1927.07	507.70	0.00	57.81	21.25	310.59
3.50	2	SLE R	2	2	350.00	-126007.00	-431.73	600.34	0.00	57.81	21.82	324.55
3.50	4	SLE Q	2	2	350.00	-103950.00	-355.87	478.56	0.00	57.81	17.98	267.50
3.50	2	SLE R	3	21	0.00	-113733.00	89.61	600.34	0.00	45.74	23.31	347.85
3.50	4	SLE Q	3	21	0.00	-93992.80	68.09	478.56	0.00	45.74	19.23	287.02
3.50	2	SLE R	3	21	0.00	-113733.00	89.61	600.34	0.00	53.78	22.78	339.92
3.50	4	SLE Q	3	21	0.00	-93992.80	68.09	478.56	0.00	53.78	18.79	280.47
6.50	2	SLE R	3	21	300.00	-112203.00	-276.58	363.55	0.00	53.78	22.62	336.82
6.50	4	SLE Q	3	21	300.00	-92462.80	-224.95	286.70	0.00	53.78	18.62	277.27
6.50	2	SLE R	4	21	0.00	-99909.80	248.69	363.55	0.00	16.09	47.27	696.22
6.50	4	SLE Q	4	21	0.00	-82489.50	202.13	286.70	0.00	16.09	38.96	573.91
6.50	2	SLE R	4	21	0.00	-99909.80	248.69	363.55	0.00	16.09	47.27	696.22
6.50	4	SLE Q	4	21	0.00	-82489.50	202.13	286.70	0.00	16.09	38.96	573.91
9.50	2	SLE R	4	21	300.00	-98379.80	-306.71	130.54	0.00	16.09	46.27	680.49
9.50	4	SLE Q	4	21	300.00	-80959.50	-249.38	95.74	0.00	16.09	38.01	559.17
9.50	2	SLE R	5	21	0.00	-86089.90	217.87	130.54	0.00	16.09	40.11	591.71
9.50	4	SLE Q	5	21	0.00	-70988.00	177.35	95.74	0.00	16.09	33.01	487.15
9.50	2	SLE R	5	21	0.00	-86089.90	217.87	130.54	0.00	12.06	41.16	607.43
9.50	4	SLE Q	5	21	0.00	-70988.00	177.35	95.74	0.00	12.06	33.87	500.08
12.50	2	SLE R	5	21	300.00	-84559.90	-241.24	-32.32	0.00	12.06	40.30	594.34
12.50	4	SLE Q	5	21	300.00	-69458.00	-196.18	-38.65	0.00	12.06	33.13	488.62
12.50	2	SLE R	6	21	0.00	-72271.80	282.98	-32.32	0.00	12.06	35.13	515.10
12.50	4	SLE Q	6	21	0.00	-59487.30	230.37	-38.65	0.00	12.06	28.94	424.35
12.50	2	SLE R	6	21	0.00	-72271.80	282.98	-32.32	0.00	12.06	35.13	515.10
12.50	4	SLE Q	6	21	0.00	-59487.30	230.37	-38.65	0.00	12.06	28.94	424.35
15.50	2	SLE R	6	21	300.00	-70741.80	-491.48	-101.36	0.00	12.06	36.52	526.88
15.50	4	SLE Q	6	21	300.00	-57957.30	-399.23	-96.29	0.00	12.06	29.94	432.01
15.50	2	SLE R	7	22	0.00	-58552.80	335.16	-101.36	0.00	12.06	35.79	512.20
15.50	4	SLE Q	7	22	0.00	-48066.50	272.62	-96.29	0.00	12.06	29.41	420.93
15.50	2	SLE R	7	22	0.00	-58552.80	335.16	-101.36	0.00	12.06	35.79	512.20
15.50	4	SLE Q	7	22	0.00	-48066.50	272.62	-96.29	0.00	12.06	29.41	420.93
18.50	2	SLE R	7	22	300.00	-57277.80	-448.53	-98.14	0.00	12.06	36.52	515.17
18.50	4	SLE Q	7	22	300.00	-46791.50	-364.63	-93.78	0.00	12.06	29.88	421.43
18.50	2	SLE R	8	22	0.00	-45093.00	377.26	-98.14	0.00	12.06	29.15	409.62
18.50	4	SLE Q	8	22	0.00	-36903.60	306.64	-93.78	0.00	12.06	23.89	335.76
18.50	2	SLE R	8	22	0.00	-45093.00	377.26	-98.14	0.00	12.06	29.15	409.62
18.50	4	SLE Q	8	22	0.00	-36903.60	306.64	-93.78	0.00	12.06	23.89	335.76
21.50	2	SLE R	8	22	300.00	-43818.00	-501.19	-52.37	0.00	12.06	29.82	411.37
21.50	4	SLE Q	8	22	300.00	-35628.60	-405.99	-55.36	0.00	12.06	24.29	335.05
21.50	2	SLE R	9	22	0.00	-31637.50	323.75	-52.37	0.00	12.06	21.12	293.38
21.50	4	SLE Q	9	22	0.00	-25743.70	264.66	-55.36	0.00	12.06	17.26	239.61
21.50	2	SLE R	9	22	0.00	-31637.50	323.75	-52.37	0.00	12.06	21.12	293.38
21.50	4	SLE Q	9	22	0.00	-25743.70	264.66	-55.36	0.00	12.06	17.26	239.61
24.50	2	SLE R	9	22	300.00	-30362.50	-299.50	6.34	0.00	12.06	19.93	277.70
24.50	4	SLE Q	9	22	300.00	-24468.70	-249.49	-5.40	0.00	12.06	16.17	224.76
24.50	2	SLE R	10	22	0.00	-18188.10	524.21	6.34	0.00	12.06	16.28	207.02
24.50	4	SLE Q	10	22	0.00	-14589.10	420.12	-5.40	0.00	12.06	13.06	166.03
24.50	2	SLE R	10	22	0.00	-18188.10	524.21	6.34	0.00	12.06	16.28	207.02
24.50	4	SLE Q	10	22	0.00	-14589.10	420.12	-5.40	0.00	12.06	13.06	166.03
27.50	2	SLE R	10	22	300.00	-16913.10	-1139.98	-0.00	6.03	6.03	24.87	277.32
27.50	4	SLE Q	10	22	300.00	-13314.10	-899.22	-0.00	6.03	6.03	19.62	218.59

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo



Relazione di calcolo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	b <sub>w</sub> , <sub>y</sub> <m>	d <sub>r</sub> , <sub>y</sub> <m>	Vsdu, <sub>y</sub> <daN>	ctgθ <sub>,y</sub>	VRsd, <sub>y</sub> <daN>	VRsdCam, <sub>y</sub> <daN>	VRcd, <sub>y</sub> <daN>	Vrd, <sub>y</sub> <daN>	b <sub>w</sub> , <sub>z</sub> <m>	d <sub>r</sub> , <sub>z</sub> <m>	Vsdu, <sub>z</sub> <daN>	ctgθ <sub>,z</sub>	VRsd, <sub>z</sub> <daN>	VRsdCam, <sub>z</sub> <daN>	VRcd, <sub>z</sub> <daN>	Vrd, <sub>z</sub> <daN>
-3.60	-2.92	ø8/25	2	2	---	1	SLU	0.68	0.35	459.03	2.50	9895.53	---	15205.00	9895.53	0.40	0.63	21.32	2.36	16768.00	---	16768.00	16768.00
-2.92	-1.03	ø8/25	2	2	---	1	SLU	0.68	0.35	459.03	2.50	9895.53	---	15409.60	9895.53	0.40	0.63	21.32	2.38	16900.70	---	16900.70	16900.70
-1.03	-0.35	ø8/25	2	2	---	1	SLU	0.68	0.35	459.03	2.50	9895.53	---	15978.30	9895.53	0.40	0.63	21.32	2.43	17263.90	---	17263.90	17263.90
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	1040.01	2.50	0.00	48858.10	132856.00	43972.30	0.60	0.83	12.34	2.50	0.00	73641.10	136532.00	66277.00
0.68	2.58	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	1040.01	2.50	0.00	48858.10	132690.00	43972.30	0.60	0.83	12.34	2.50	0.00	73641.10	136361.00	66277.00
2.58	3.50	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	1040.01	2.50	0.00	48858.10	132224.00	43972.30	0.60	0.83	12.34	2.50	0.00	73641.10	135883.00	66277.00
3.50	3.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	1040.01	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	109.76	2.50	0.00	73641.10	113853.00	66277.00
4.18	5.82	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	176.60	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	109.76	2.50	0.00	73641.10	113853.00	66277.00
5.82	6.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	176.60	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	109.76	2.50	0.00	73641.10	113853.00	66277.00
6.50	4.18	ø6/15	2	2	---	1	SLU	0.68	0.25	265.29	2.50	6634.02	---	11504.70	6634.02	0.30	0.63	109.76	2.13	14224.90	---	14224.90	14224.90
4.18	5.58	ø6/15	2	2	---	1	SLU	0.68	0.25	176.60	2.50	6634.02	---	11504.70	6634.02	0.30	0.63	109.76	2.13	14224.90	---	14224.90	14224.90
5.58	9.50	ø6/15	2	2	---	1	SLU	0.68	0.25	265.29	2.50	6634.02	---	11806.00	6634.02	0.30	0.63	109.76	2.17	14450.30	---	14450.30	14450.30
9.50	6.50	ø6/15	2	2	---	1	SLU	0.68	0.25	219.30	2.50	6634.02	---	12004.00	6634.02	0.30	0.63	109.76	2.19	14596.60	---	14596.60	14596.60
10.18	11.82	ø6/15	2	2	---	1	SLU	0.68	0.25	219.30	2.50	6634.02	---	24246.70	6634.02	0.30	0.63	75.36	2.50	16677.60	---	26891.90	16677.60
11.82	12.50	ø6/15	2	2	---	1	SLU	0.68	0.25	219.30	2.50	6634.02	---	24599.60	6634.02	0.30	0.63	75.36	2.50	16677.60	---	27283.90	16677.60
12.50	7.18	ø6/15	2	2	---	1	SLU	0.68	0.25	370.03	2.50	6634.02	---	17876.60	6634.02	0.30	0.63	107.89	2.50	16677.60	---	19826.90	16677.60
7.18	8.58	ø6/15	2	2	---	1	SLU	0.68	0.25	265.29	2.50	6634.02	---	17876.60	6634.02	0.30	0.63	107.89	2.50	16677.60	---	19826.90	16677.60
8.58	15.50	ø6/15	2	2	---	1	SLU	0.68	0.25	370.03	2.50	6634.02	---	18177.90	6634.02	0.30	0.63	107.89	2.50	16677.60	---	20161.00	16677.60
15.50	9.50	ø6/15	2	2	---	1	SLU	0.68	0.20	374.44	2.50	5312.50	---	7417.73	5312.50	0.25	0.63	107.89	1.65	11005.60	---	11005.60	11005.60
16.18	17.82	ø6/15	2	2	---	1	SLU	0.68	0.20	374.44	2.50	5312.50	---	25232.20	5312.50	0.25	0.63	2.12	2.50	16677.60	---	29121.80	16677.60
17.82	18.50	ø6/15	2	2	---	1	SLU	0.68	0.20	374.43	2.50	5312.50	---	25514.80	5312.50	0.25	0.63	2.12	2.50	16677.60	---	29448.00	16677.60
18.50	10.18	ø6/15	2	2	---	1	SLU	0.68	0.20	420.22	2.50	5312.50	---	13059.30	5312.50	0.25	0.63	75.36	2.36	15719.10	---	15719.10	15719.10
10.18	11.58	ø6/15	2	2	---	1	SLU	0.68	0.20	219.30	2.50	5312.50	---	13059.30	5312.50	0.25	0.63	75.36	2.36	15719.10	---	15719.10	15719.10
11.58	21.50	ø6/15	2	2	---	1	SLU	0.68	0.20	420.22	2.50	5312.50	---	13348.80	5312.50	0.25	0.63	75.36	2.39	15923.40	---	15923.40	15923.40
21.50	12.50	ø6/15	2	2	---	1	SLU	0.68	0.20	295.30	2.50	5312.50	---	13539.10	5312.50	0.25	0.63	75.36	2.41	16056.20	---	16056.20	16056.20
22.18	23.82	ø6/15	2	2	---	1	SLU	0.68	0.20	295.30	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	28.58	2.50	16677.60	---	29548.40	16677.60
23.82	24.50	ø6/15	2	2	---	1	SLU	0.68	0.20	295.30	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	28.58	2.50	16677.60	---	29548.40	16677.60
24.50	13.18	ø6/15	2	2	---	1	SLU	0.68	0.20	804.61	2.50	5312.50	---	19179.70	5312.50	0.25	0.63	31.65	2.50	16677.60	---	22136.30	16677.60
13.18	14.58	ø6/15	2	2	---	1	SLU	0.68	0.20	370.03	2.50	5312.50	---	19179.70	5312.50	0.25	0.63	31.65	2.50	16677.60	---	22136.30	16677.60
14.58	27.50	ø6/15	2	2	---	1	SLU	0.68	0.20	804.61	2.50	5312.50	---	19469.20	5312.50	0.25	0.63	31.65	2.50	16677.60	---	22470.50	16677.60
15.50	16.18	ø6/15	2	2	---	1	SLU	0.68	0.20	374.44	2.50	5312.50	---	25115.00	5312.50	0.25	0.63	2.12	2.50	16677.60	---	28986.60	16677.60
16.18	17.58	ø6/15	2	2	---	1	SLU	0.68	0.20	374.44	2.50	5312.50	---	25232.20	5312.50	0.25	0.63	2.12	2.50	16677.60	---	29121.80	16677.60
17.58	18.26	ø6/15	2	2	---	1	SLU	0.68	0.20	374.43	2.50	5312.50	---	25473.40	5312.50	0.25	0.63	2.12	2.50	16677.60	---	29400.30	16677.60
18.50	19.18	ø6/15	2	2	---	1	SLU	0.68	0.20	420.22	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	22.05	2.50	16677.60	---	29548.40	16677.60
19.18	20.58	ø6/15	2	2	---	1	SLU	0.68	0.20	420.22	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	22.05	2.50	16677.60	---	29548.40	16677.60
20.58	21.26	ø6/15	2	2	---	1	SLU	0.68	0.20	420.22	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	22.05	2.50	16677.60	---	29548.40	16677.60
21.50	22.18	ø6/15	2	2	---	1	SLU	0.68	0.20	295.30	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	28.58	2.50	16677.60	---	29548.40	16677.60
22.18	23.58	ø6/15	2	2	---	1	SLU	0.68	0.20	295.30	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	28.58	2.50	16677.60	---	29548.40	16677.60
23.58	24.26	ø6/15	2	2	---	1	SLU	0.68	0.20	295.30	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	28.58	2.50	16677.60	---	29548.40	16677.60
24.50	25.18	ø6/15	2	2	---	1	SLU	0.68	0.20	804.61	2.50	5312.50	---	23754.90	5312.50	0.25	0.63	2.10	2.50	16677.60	---	27416.90	16677.60
25.18	26.58	ø6/15	2	2	---	1	SLU	0.68	0.20	804.61	2.50	5312.50	---	23708.00	5312.50	0.25	0.63	2.10	2.50	16677.60	---	27362.80	16677.60
26.58	27.26	ø6/15	2	2	---	1	SLU	0.68	0.20	804.61	2.50	5312.50	---	23611.50	5312.50	0.25	0.63	2.10	2.50	16677.60	---	27251.40	16677.60

Pilastrata n. 33

Nodi: 133 333 533 733 933 1133 1333 1533 1733 1933

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
2R		40.00	68.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
21R		30.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
22R		25.00	68.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	88.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daNm>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.001	(e)	SLU	1	2	0.00	-187127.00	1200.04	3742.53	-1341.15	-3742.53	-964574.00	111721.00	-73106.70	1.08	5.155	106.97
0.001	(e)	SLU	1	2	0.00	-187127.00	1200.04	3742.53	-1341.15	-3742.53	-964574.00	111721.00	-73106.70	1.08	5.155	106.97
3.501	(e)	SLU	1	2	350.00	-181121.00	787.04	3622.41	549.88	3622.41	-964574.00	110884.00	72565.90	1.07	5.326	106.97
3.501	(e)	SLU	2	21	0.00	-163541.00	787.04	3270.83	-207.31	-3270.83	-797177.00	96278.80	-50934.40	1.09	4.874	145.80
3.501	(e)	SLU	2	21	0.00	-163541.00	787.04	3270.83	-207.31	-3270.83	-825996.00	101287.00	-52734.80	1.08	5.051	133.90
6.501	(e)	SLU	2	21	300.00	-161552.00	362.30	3231.05	374.35	3231.05	-825996.00	101052.00	52604.70	1.08	5.113	133.90
6.501	(e)	SLU	3	21	0.00	-144030.00	362.30	2880.59	-371.55	-2880.59	-353140.00	37087.10	-15041.60	1.26	2.452	---
6.501	(e)	SLU	3	21	0.00	-144030.00	362.30	2880.59	-371.55	-2880.59	-353140.00	37087.10	-15041.60	1.26	2.452	---
9.501	(e)	SLU	3	21	300.00	-142041.00	72.60	2840.81	418.92	2840.81	-353140.00	37068.00	15091.60	1.25	2.486	---
9.501	(e)	SLU	4	21	0.00	-124204.00	72.60	2484.09	-304.29	-2484.09	-353140.00	36610.80	-15015.20	1.21	2.843	---
9.501	(e)	SLU	4	21	0.00	-124204.00	72.60	2484.09	-304.29	-2484.09	-338731.00	32388.90	-15033.70	1.22	2.727	---
12.501	(e)	SLU	4	21	300.00	-122215.00	-77.39	-2444.31	336.25	2444.31	-338731.00	-32307.80	14991.60	1.22	2.772	---
12.501	(e)	SLU	5	21	0.00	-104371.00	-77.39	-2087.41	-388.60	-2087.41	-338731.00	-31336.80	-14424.00	1.17	3.245	---
12.501	(e)	SLU	5	21	0.00	-104371.00	-77.39	-2087.41	-388.60	-2087.41	-338731.00	-31336.80	-14424.00	1.17	3.245	---
15.501	(e)	SLU	5	21	300.00	-102382.00	-142.11	-2047.63	696.16	2047.63	-338731.00	-31203.40	14340.40	1.17	3.309	---
15.501	(e)	SLU	6	22	0.00	-84678.50	-142.11	-1693.57	-476.45	-1693.57	-289480.00	-27408.50	-10214.70	1.16	3.419	---
15.501	(e)	SLU	6	22	0.00	-84678.50	-142.11	-1693.57	-476.45	-1693.57	-289480.00	-27408.50	-10214.70	1.16	3.419	---
18.501	(e)	SLU	6	22	300.00	-83021.00	-142.38	-1660.42	626.74	1660.42	-289480.00	-27299.40	10152.30	1.16	3.487	---
18.501	(e)	SLU	7	22	0.00	-65315.00	-142.38	-1306.30	-544.40	-1306.30	-289480.00	-25948.90	-9258.88	1.10	4.432	---
18.501	(e)	SLU	7	22	0.00	-65315.00	-142.38	-1306.30	-544.40	-1306.30	-289480.00	-25948.90	-9258.88	1.10	4.432	---
21.501	(e)	SLU	7	22	300.00	-63657.50	-97.18	-1273.15	711.37	1273.15	-289480.00	-25808.40	9158.31	1.10	4.547	---
21.501	(e)	SLU	8	22	0.00	-45950.10	-97.18	-919.00	-460.06	-919.00	-289480.00	-23796.00	-7971.03	1.05	6.300	---
21.501	(e)	SLU	8	22	0.00	-45950.10	-97.18	-919.00	-460.06	-919.00	-289480.00	-23796.00	-7971.03	1.05	6.300	---
24.501	(e)	SLU	8	22	300.00	-44292.60	-18.48	-885.85	401.41	885.85	-289480.00	-23512.50	7850.84	1.04	6.536	---
24.501	(e)	SLU	9	22	0.00	-26586.90	-18.48	-531.74	-769.68	-769.68	-26590.00	-19998.00	-6500.44	1.00	6.897	---
24.501	(e)	SLU	9	22	0.00	-26586.90	-18.48	-531.74	-769.68	-769.68	-26590.00	-19998.00	-6500.44	1.00	6.897	---
27.501	(e)	SLU	9	22	300.00	-24929.40	-0.00	-498.59	1645.31	1645.31	-24931.90	-19623.70	6369.70	1.00	3.525	---



Relazione di calcolo

0.00	2	SLE R	1	2	0.00	-131674.00	-926.26	895.59	0.00	57.81	23.83	352.41
0.00	4	SLE Q	1	2	0.00	-109417.00	-749.23	708.75	0.00	57.81	19.73	291.94
3.50	2	SLE R	1	2	350.00	-127054.00	382.75	586.26	0.00	57.81	21.89	325.93
3.50	4	SLE Q	1	2	350.00	-104797.00	309.39	462.02	0.00	57.81	18.03	268.40
3.50	2	SLE R	2	21	0.00	-114805.00	-145.44	586.26	0.00	45.74	23.63	352.33
3.50	4	SLE Q	2	21	0.00	-94859.90	-120.03	462.02	0.00	45.74	19.50	290.75
3.50	2	SLE R	2	21	0.00	-114805.00	-145.44	586.26	0.00	53.78	23.10	344.32
3.50	4	SLE Q	2	21	0.00	-94859.90	-120.03	462.02	0.00	53.78	19.06	284.14
6.50	2	SLE R	2	21	300.00	-113275.00	261.09	273.76	0.00	53.78	22.68	338.01
6.50	4	SLE Q	2	21	300.00	-93329.90	212.22	211.30	0.00	53.78	18.67	278.18
6.50	2	SLE R	3	21	0.00	-101065.00	-259.34	273.76	0.00	16.09	47.55	700.58
6.50	4	SLE Q	3	21	0.00	-83423.50	-211.14	211.30	0.00	16.09	39.17	577.34
6.50	2	SLE R	3	21	0.00	-101065.00	-259.34	273.76	0.00	16.09	47.55	700.58
6.50	4	SLE Q	3	21	0.00	-83423.50	-211.14	211.30	0.00	16.09	39.17	577.34
9.50	2	SLE R	3	21	300.00	-99535.40	292.43	61.04	0.00	16.09	46.40	683.56
9.50	4	SLE Q	3	21	300.00	-81893.50	237.83	40.11	0.00	16.09	38.11	561.68
9.50	2	SLE R	4	21	0.00	-87106.70	-212.31	61.04	0.00	16.09	40.25	594.65
9.50	4	SLE Q	4	21	0.00	-71809.20	-172.86	40.11	0.00	16.09	33.13	489.55
9.50	2	SLE R	4	21	0.00	-87106.70	-212.31	61.04	0.00	12.06	41.30	610.37
9.50	4	SLE Q	4	21	0.00	-71809.20	-172.86	40.11	0.00	12.06	33.99	502.48
12.50	2	SLE R	4	21	300.00	-85576.70	234.91	-49.28	0.00	12.06	40.77	601.48
12.50	4	SLE Q	4	21	300.00	-70279.20	191.74	-48.35	0.00	12.06	33.50	494.25
12.50	2	SLE R	5	21	0.00	-73141.90	-271.07	-49.28	0.00	12.06	35.48	520.75
12.50	4	SLE Q	5	21	0.00	-60189.20	-220.09	-48.35	0.00	12.06	29.20	428.64
12.50	2	SLE R	5	21	0.00	-73141.90	-271.07	-49.28	0.00	12.06	35.48	520.75
12.50	4	SLE Q	5	21	0.00	-60189.20	-220.09	-48.35	0.00	12.06	29.20	428.64
15.50	2	SLE R	5	21	300.00	-71611.90	484.26	-96.95	0.00	12.06	36.83	531.89
15.50	4	SLE Q	5	21	300.00	-58659.20	393.70	-86.69	0.00	12.06	30.17	435.78
15.50	2	SLE R	6	22	0.00	-59275.00	-332.30	-96.95	0.00	12.06	36.12	517.37
15.50	4	SLE Q	6	22	0.00	-48647.70	-270.12	-86.69	0.00	12.06	29.64	424.72
15.50	2	SLE R	6	22	0.00	-59275.00	-332.30	-96.95	0.00	12.06	36.12	517.37
15.50	4	SLE Q	6	22	0.00	-48647.70	-270.12	-86.69	0.00	12.06	29.64	424.72
18.50	2	SLE R	6	22	300.00	-58000.00	437.53	-98.25	0.00	12.06	36.77	519.64
18.50	4	SLE Q	6	22	300.00	-47372.70	356.23	-87.61	0.00	12.06	30.05	424.72
18.50	2	SLE R	7	22	0.00	-45660.90	-379.44	-98.25	0.00	12.06	29.48	414.42
18.50	4	SLE Q	7	22	0.00	-37359.10	-308.02	-87.61	0.00	12.06	24.12	339.20
18.50	2	SLE R	7	22	0.00	-45660.90	-379.44	-98.25	0.00	12.06	29.48	414.42
18.50	4	SLE Q	7	22	0.00	-37359.10	-308.02	-87.61	0.00	12.06	24.12	339.20
21.50	2	SLE R	7	22	300.00	-44385.90	495.31	-67.77	0.00	12.06	30.12	416.10
21.50	4	SLE Q	7	22	300.00	-36084.10	401.65	-63.15	0.00	12.06	24.51	338.62
21.50	2	SLE R	8	22	0.00	-32045.60	-321.92	-67.77	0.00	12.06	21.38	297.31
21.50	4	SLE Q	8	22	0.00	-26068.90	-262.90	-63.15	0.00	12.06	17.44	242.45
21.50	2	SLE R	8	22	0.00	-32045.60	-321.92	-67.77	0.00	12.06	21.38	297.31
21.50	4	SLE Q	8	22	0.00	-26068.90	-262.90	-63.15	0.00	12.06	17.44	242.45
24.50	2	SLE R	8	22	300.00	-30770.60	283.54	-14.09	0.00	12.06	19.98	279.52
24.50	4	SLE Q	8	22	300.00	-24793.90	237.82	-20.18	0.00	12.06	16.26	226.84
24.50	2	SLE R	9	22	0.00	-18431.20	-533.51	-14.09	0.00	12.06	16.56	210.50
24.50	4	SLE Q	9	22	0.00	-14779.10	-426.66	-20.18	0.00	12.06	13.30	169.17
24.50	2	SLE R	9	22	0.00	-18431.20	-533.51	-14.09	0.00	12.06	16.56	210.50
24.50	4	SLE Q	9	22	0.00	-14779.10	-426.66	-20.18	0.00	12.06	13.30	169.17
27.50	2	SLE R	9	22	300.00	-17156.20	1133.40	-0.00	6.03	6.03	24.77	277.78
27.50	4	SLE Q	9	22	300.00	-13504.10	893.82	-0.00	6.03	6.03	19.53	218.91

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <m>	d <sub>y</sub> <m>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <m>	d <sub>z</sub> <m>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	S
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	540.29	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	118.00	2.50	0.00	73641.10	136624.00	66277.00	81
0.68	2.58	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	540.29	2.50	0.00	48858.10	132904.00	43972.30	0.60	0.83	118.00	2.50	0.00	73641.10	136581.00	66277.00	81
2.58	3.50	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	540.29	2.50	0.00	48858.10	132438.00	43972.30	0.60	0.83	118.00	2.50	0.00	73641.10	136103.00	66277.00	81
3.50	3.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	540.29	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	141.58	2.50	0.00	73641.10	113853.00	66277.00	66
4.18	5.82	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	193.89	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	141.58	2.50	0.00	73641.10	113853.00	66277.00	>10
5.82	6.50	ø6/15	2	2	ø8/10	1	SLU	0.88	0.45	193.89	2.50	0.00	40007.00	108861.00	36006.30	0.50	0.83	141.58	2.50	0.00	73641.10	113853.00	66277.00	>10
6.50	4.18	ø6/15	2	2	---	1	SLU	0.68	0.25	263.49	2.50	6634.02	---	11006.50	6634.02	0.30	0.63	141.58	2.08	13844.10	---	13844.10	13844.10	25
4.18	5.58	ø6/15	2	2	---	1	SLU	0.68	0.25	193.89	2.50	6634.02	---	11006.50	6634.02	0.30	0.63	141.58	2.08	13844.10	---	13844.10	13844.10	34
5.58	9.50	ø6/15	2	2	---	1	SLU	0.68	0.25	263.49	2.50	6634.02	---	11307.80	6634.02	0.30	0.63	141.58	2.11	14075.60	---	14075.60	14075.60	25
9.50	6.50	ø6/15	2	2	---	1	SLU	0.68	0.25	213.51	2.50	6634.02	---	11505.80	6634.02	0.30	0.63	141.58	2.13	14225.70	---	14225.70	14225.70	31
10.18	11.82	ø6/15	2	2	---	1	SLU	0.68	0.25	213.51	2.50	6634.02	---	23774.10	6634.02	0.30	0.63	50.00	2.50	16677.60	---	26367.70	16677.60	31
11.82	12.50	ø6/15	2	2	---	1	SLU	0.68	0.25	213.51	2.50	6634.02	---	24127.00	6634.02	0.30	0.63	50.00	2.50	16677.60	---	26759.10	16677.60	31
12.50	7.18	ø6/15	2	2	---	1	SLU	0.68	0.25	360.92	2.50	6634.02	---	17339.40	6634.02	0.30	0.63	96.56	2.50	16677.60	---	19231.00	16677.60	18
7.18	8.58	ø6/15	2	2	---	1	SLU	0.68	0.25	263.49	2.50	6634.02	---	17339.40	6634.02	0.30	0.63	96.56	2.50	16677.60	---	19231.00	16677.60	25
8.58	15.50	ø6/15	2	2	---	1	SLU	0.68	0.25	360.92	2.50	6634.02	---	17640.70	6634.02	0.30	0.63	96.56	2.50	16677.60	---	19565.20	16677.60	18
15.50	9.50	ø6/15	2	2	---	1	SLU	0.68	0.20	367.73	2.50	5312.50	---	6901.47	5312.50	0.25	0.63	96.56	1.57	10468.80	---	10468.80	10468.80	14
16.18	17.82	ø6/15	2	2	---	1	SLU	0.68	0.20	367.73	2.50	5312.50	---	24909.70	5312.50	0.25	0.63	0.09	2.50	16677.60	---	28749.70	16677.60	14
17.82	18.50	ø6/15	2	2	---	1	SLU	0.68	0.20	367.73	2.50	5312.50	---	25192.30	5312.50	0.25	0.63	0.09	2.50	16677.60	---	29075.90	16677.60	14
18.50	10.18	ø6/15	2	2	---	1	SLU	0.68	0.20	418.59	2.50	5312.50	---	12605.20	5312.50	0.25	0.63	50.00	2.31	15393.20	---	15393.20	15393.20	12
10.18	11.58	ø6/15	2	2	---	1	SLU	0.68	0.20	213.51	2.50	5312.50	---	12605.20	5312.50	0.25	0.63	50.00	2.31	15393.20	---	15393.20	15393.20	24
11.58	21.50	ø6/15	2	2	---	1	SLU	0.68	0.20	418.59	2.50	5312.50	---	12894.70	5312.50	0.25	0.63	50.00	2.34	15601.70	---	15601.70	15601.70	12
21.50	12.50	ø6/15	2	2	---	1	SLU	0.68	0.20	287.15	2.50	5312.50	---	13084.90	5312.50	0.25	0.63	50.00	2.36	15737.30	---	15737.30	15737.30	18
22.18	23.82	ø6/15	2	2	---	1	SLU	0.68	0.20	287.15	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	26.23	2.50	16677.60	---	29548.40	16677.60	18



Relazione di calcolo

22.18	23.58	ø6/15	2	2	---	1	SLU	0.68	0.20	287.15	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	26.23	2.50	16677.60	---	29548.40	16677.60	18
23.58	24.26	ø6/15	2	2	---	1	SLU	0.68	0.20	287.15	2.50	5312.50	---	25601.70	5312.50	0.25	0.63	26.23	2.50	16677.60	---	29548.40	16677.60	18
24.50	25.18	ø6/15	2	2	---	1	SLU	0.68	0.20	805.00	2.50	5312.50	---	23798.30	5312.50	0.25	0.63	6.16	2.50	16677.60	---	27467.00	16677.60	6
25.18	26.58	ø6/15	2	2	---	1	SLU	0.68	0.20	805.00	2.50	5312.50	---	23751.50	5312.50	0.25	0.63	6.16	2.50	16677.60	---	27412.90	16677.60	6
26.58	27.26	ø6/15	2	2	---	1	SLU	0.68	0.20	805.00	2.50	5312.50	---	23655.00	5312.50	0.25	0.63	6.16	2.50	16677.60	---	27301.50	16677.60	6

Pilastrata n. 34

Nodi: 34 334 534 734 934 1134 1334 1534 1734 1934

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
2R		40.00	68.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
23R		30.00	50.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
23R		30.00	50.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cmq>	Fcd <daN/cmq>	Fyk <daN/cmq>	Fyd <daN/cmq>
60.00	88.00	249.00	141.10	4500.00	3913.04
50.00	70.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	2	0.00	-200059.00	5471.01	5471.01	-67.55	-4001.17	-964574.00	113456.00	-74233.80	1.09	4.821	106.97
0.00	1(e)	SLU	1	2	0.00	-200059.00	5471.01	5471.01	-67.55	-4001.17	-964574.00	113456.00	-74233.80	1.09	4.821	106.97
3.00	1(e)	SLU	1	2	300.00	-194911.00	2041.64	3898.21	832.63	3898.21	-964574.00	112778.00	73792.00	1.09	4.949	106.97
3.50	1(e)	SLU	2	23	0.00	-173704.00	2625.66	3474.08	-841.68	-3474.08	-713416.00	73446.60	-49601.60	1.12	4.107	146.58
3.50	1(e)	SLU	2	23	0.00	-173704.00	2625.66	3474.08	-841.68	-3474.08	-699006.00	72629.50	-48375.20	1.12	4.024	154.26
6.00	1(e)	SLU	2	23	250.00	-170860.00	-747.94	-3417.20	742.39	3417.20	-699006.00	-72525.40	48287.30	1.12	4.091	154.26
6.50	1(e)	SLU	3	23	0.00	-149999.00	1367.55	2999.97	-810.41	-2999.97	-699006.00	71694.50	-47587.60	1.10	4.660	154.26
6.50	1(e)	SLU	3	23	0.00	-149999.00	1367.55	2999.97	-810.41	-2999.97	-684597.00	69061.90	-47421.50	1.10	4.564	162.79
9.00	1(e)	SLU	3	23	250.00	-147155.00	-1704.90	-2943.10	486.31	2943.10	-684597.00	-68940.40	47306.70	1.10	4.652	162.79
12.50	1(e)	SLU	5	23	0.00	-104873.00	1263.16	2097.46	-459.01	-2097.46	-260510.00	19038.60	-12141.00	1.25	2.484	---
12.50	1(e)	SLU	5	23	0.00	-104873.00	1263.16	2097.46	-459.01	-2097.46	-260510.00	19038.60	-12141.00	1.25	2.484	---
15.00	1(e)	SLU	5	23	250.00	-103654.00	-928.34	-2073.08	417.52	2073.08	-260510.00	-19026.10	12184.90	1.25	2.513	---
15.50	1(e)	SLU	6	23	0.00	-83255.30	692.02	1665.10	-523.05	-1665.10	-260510.00	18528.70	-12022.70	1.18	3.129	---
15.50	1(e)	SLU	6	23	0.00	-83255.30	692.02	1665.10	-523.05	-1665.10	-250378.00	17168.50	-11012.20	1.19	3.007	---
18.00	1(e)	SLU	6	23	250.00	-82036.50	-592.40	-1640.73	477.56	1640.73	-250378.00	-17119.30	10971.40	1.19	3.052	---
18.50	1(e)	SLU	7	23	0.00	-61469.50	421.03	1229.39	-554.70	-1229.39	-250378.00	16031.20	-9980.39	1.12	4.073	---
18.50	1(e)	SLU	7	23	0.00	-61469.50	421.03	1229.39	-554.70	-1229.39	-250378.00	16031.20	-9980.39	1.12	4.073	---
21.00	1(e)	SLU	7	23	250.00	-60250.70	-357.64	-1205.01	496.42	1205.01	-250378.00	-15954.20	9903.90	1.12	4.156	---
21.50	1(e)	SLU	8	23	0.00	-39615.60	117.92	792.31	-567.04	-792.31	-250378.00	14129.50	-8219.33	1.05	6.320	---
21.50	1(e)	SLU	8	23	0.00	-39615.60	117.92	792.31	-567.04	-792.31	-250378.00	14129.50	-8219.33	1.05	6.320	---
24.00	1(e)	SLU	8	23	250.00	-38396.80	38.98	767.94	408.76	767.94	-250378.00	13968.70	8106.27	1.04	6.521	---
24.50	1	SLU	9	23	0.00	-17565.00	486.93	486.93	-757.05	-757.05	-17569.80	10661.00	-6011.54	1.00	5.827	---
24.50	1	SLU	9	23	0.00	-17565.00	486.93	486.93	-757.05	-757.05	-17569.80	10661.00	-6011.54	1.00	5.827	---
27.00	1	SLU	9	23	250.00	-16346.20	-962.81	-962.81	1167.66	1167.66	-16349.70	-10432.50	5882.08	1.00	3.439	---

Dati per verifiche di stabilità

Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*	Xg <m>	El	l <sub>0</sub> <m>	λ	λ*
---	2	3.00	20.78	51.84	---	2	3.00	20.78	51.84	---	2	3.00	20.78	51.84	---	3	3.00	20.78	55.82
---	3	3.00	20.78	55.82	---	3	3.00	20.78	55.82	---	4	3.00	34.64	32.88	---	4	3.00	34.64	32.88
---	4	3.00	34.64	32.88															

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdy, s <daNm>	MRdz <daNm>	MRdz, s <daNm>	esp.	Sic.	Δ%
9.50	1(e)	SLU	4	23	0.00	-126260.00	891.08	2525.21	-286.29	-2525.21	-260510.00	18231.30	16965.20	-11292.80	-9290.98	1.32	2.063	---
9.50	1(e)	SLU	4	23	0.00	-126260.00	891.08	2525.21	-286.29	-2525.21	-260510.00	18231.30	16965.20	-11292.80	-9290.98	1.32	2.063	---
12.00	1(e)	SLU	4	23	250.00	-125042.00	-989.03	-2500.83	361.84	2500.83	-260510.00	-18305.50	-17024.40	11345.70	9350.15	1.32	2.083	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	2	0.00	-141732.00	-32.26	3989.74	0.00	57.81	27.31	402.59
0.00	4	SLE Q	1	2	0.00	-130608.00	-14.23	3157.46	0.00	57.81	24.59	363.38
0.00	2	SLE R	1	2	0.00	-141732.00	-32.26	3989.74	0.00	57.81	27.31	402.59
0.00	4	SLE Q	1	2	0.00	-130608.00	-14.23	3157.46	0.00	57.81	24.59	363.38
3.00	2	SLE R	1	2	300.00	-137772.00	580.80	1451.36	0.00	57.81	24.86	368.20
3.00	4	SLE Q	1	2	300.00	-126648.00	469.81	1382.17	0.00	57.81	22.80	337.87
3.50	2	SLE R	2	23	0.00	-122873.00	-588.32	1932.11	0.00	57.81	33.36	488.32
3.50	4	SLE Q	2	23	0.00	-112967.00	-482.00	1458.98	0.00	57.81	29.92	439.32
3.50	2	SLE R	2	23	0.00	-122873.00	-588.32	1932.11	0.00	53.78	33.78	494.51
3.50	4	SLE Q	2	23	0.00	-112967.00	-482.00	1458.98	0.00	53.78	30.29	444.97
6.00	2	SLE R	2	23	250.00	-120685.00	516.39	-549.18	0.00	53.78	30.47	450.89
6.00	4	SLE Q	2	23	250.00	-110780.00	417.31	-383.51	0.00	53.78	27.59	409.06
6.50	2	SLE R	3	23	0.00	-106048.00	-566.60	1054.51	0.00	53.78	28.16	413.86
6.50	4	SLE Q	3	23	0.00	-97337.00	-463.71	601.08	0.00	53.78	25.00	369.07
6.50	2	SLE R	3	23	0.00	-106048.00	-566.60	1054.51	0.00	49.76	28.54	419.46
6.50	4	SLE Q	3	23	0.00	-97337.00	-463.71	601.08	0.00	49.76	25.34	374.09
9.00	2	SLE R	3	23	250.00	-103861.00	340.05	-1260.14	0.00	49.76	27.79	409.24
9.00	4	SLE Q	3	23	250.00	-95149.50	276.77	-932.09	0.00	49.76	24.94	368.28



Relazione di calcolo

9.50	2	SLE R	4	23	0.00	-89195.80	-199.76	677.66	0.00	12.06	60.01	876.34
9.50	4	SLE Q	4	23	0.00	-81650.40	-162.00	432.12	0.00	12.06	53.40	783.94
9.50	2	SLE R	4	23	0.00	-89195.80	-199.76	677.66	0.00	12.06	60.01	876.34
9.50	4	SLE Q	4	23	0.00	-81650.40	-162.00	432.12	0.00	12.06	53.40	783.94
12.00	2	SLE R	4	23	250.00	-88258.30	252.66	-746.18	0.00	12.06	60.53	879.94
12.00	4	SLE Q	4	23	250.00	-80712.90	204.68	-485.91	0.00	12.06	53.70	785.10
12.50	2	SLE R	5	23	0.00	-74119.60	-321.06	945.64	0.00	12.06	54.28	778.57
12.50	4	SLE Q	5	23	0.00	-67716.80	-259.47	706.92	0.00	12.06	48.12	694.14
12.50	2	SLE R	5	23	0.00	-74119.60	-321.06	945.64	0.00	12.06	54.28	778.57
12.50	4	SLE Q	5	23	0.00	-67716.80	-259.47	706.92	0.00	12.06	48.12	694.14
15.00	2	SLE R	5	23	250.00	-73182.10	292.50	-701.42	0.00	12.06	51.71	746.32
15.00	4	SLE Q	5	23	250.00	-66779.30	237.20	-487.42	0.00	12.06	45.79	664.71
15.50	2	SLE R	6	23	0.00	-58882.40	-366.69	545.17	0.00	12.06	42.97	614.28
15.50	4	SLE Q	6	23	0.00	-53603.30	-297.33	319.88	0.00	12.06	37.48	540.10
15.50	2	SLE R	6	23	0.00	-58882.40	-366.69	545.17	0.00	9.24	44.13	631.44
15.50	4	SLE Q	6	23	0.00	-53603.30	-297.33	319.88	0.00	9.24	38.49	554.98
18.00	2	SLE R	6	23	250.00	-57944.90	335.24	-465.36	0.00	9.24	42.62	612.05
18.00	4	SLE Q	6	23	250.00	-52665.80	271.96	-278.92	0.00	9.24	37.33	539.73
18.50	2	SLE R	7	23	0.00	-43522.40	-389.49	349.05	0.00	9.24	33.63	476.52
18.50	4	SLE Q	7	23	0.00	-39382.50	-315.43	165.22	0.00	9.24	28.92	413.53
18.50	2	SLE R	7	23	0.00	-43522.40	-389.49	349.05	0.00	9.24	33.63	476.52
18.50	4	SLE Q	7	23	0.00	-39382.50	-315.43	165.22	0.00	9.24	28.92	413.53
21.00	2	SLE R	7	23	250.00	-42584.90	348.76	-298.01	0.00	9.24	32.22	458.50
21.00	4	SLE Q	7	23	250.00	-38445.00	282.73	-137.68	0.00	9.24	27.77	398.55
21.50	2	SLE R	8	23	0.00	-28108.60	-398.22	127.83	0.00	9.24	22.75	317.19
21.50	4	SLE Q	8	23	0.00	-25125.40	-322.48	-8.77	0.00	9.24	19.19	270.24
21.50	2	SLE R	8	23	0.00	-28108.60	-398.22	127.83	0.00	9.24	22.75	317.19
21.50	4	SLE Q	8	23	0.00	-25125.40	-322.48	-8.77	0.00	9.24	19.19	270.24
24.00	2	SLE R	8	23	250.00	-27171.10	287.81	-14.76	0.00	9.24	20.07	285.24
24.00	4	SLE Q	8	23	250.00	-24187.90	237.19	85.33	0.00	9.24	18.16	257.89
24.50	2	SLE R	9	23	0.00	-12557.30	-530.60	375.45	0.00	9.24	16.60	212.84
24.50	4	SLE Q	9	23	0.00	-10751.60	-423.24	180.50	0.00	9.24	12.83	165.96
24.50	2	SLE R	9	23	0.00	-12557.30	-530.60	375.45	0.00	9.24	16.60	212.84
24.50	4	SLE Q	9	23	0.00	-10751.60	-423.24	180.50	0.00	9.24	12.83	165.96
27.00	2	SLE R	9	23	250.00	-11619.80	813.29	-701.19	3.08	6.16	23.71	287.24
27.00	4	SLE Q	9	23	250.00	-9814.07	637.09	-474.08	3.08	6.16	17.85	218.94

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <m>	d <sub>y</sub> <m>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <m>	d <sub>z</sub> <m>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	
0.00	0.68	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	300.06	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	1143.12	2.50	0.00	73641.10	136624.00	66277.00	5
0.68	2.32	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	300.06	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	1143.12	2.50	0.00	73641.10	136624.00	66277.00	5
2.32	3.00	ø8/20	2	2	ø8/10	1	SLU	0.88	0.55	300.06	2.50	0.00	48858.10	132945.00	43972.30	0.60	0.83	1143.12	2.50	0.00	73641.10	136624.00	66277.00	5
3.50	4.00	ø6/15	2	2	ø8/10	1	SLU	0.70	0.45	633.63	2.50	0.00	40007.00	86594.00	36006.30	0.50	0.65	1349.44	2.50	0.00	57709.10	89221.40	51938.20	3
4.00	5.50	ø6/15	2	2	ø8/10	1	SLU	0.70	0.45	633.63	2.50	0.00	40007.00	86594.00	36006.30	0.50	0.65	1349.44	2.50	0.00	57709.10	89221.40	51938.20	3
5.50	6.00	ø6/15	2	2	ø8/10	1	SLU	0.70	0.45	633.63	2.50	0.00	40007.00	86594.00	36006.30	0.50	0.65	1349.44	2.50	0.00	57709.10	89221.40	51938.20	3
6.50	7.00	ø6/15	2	2	ø8/10	1	SLU	0.70	0.45	518.69	2.50	0.00	40007.00	86594.00	36006.30	0.50	0.65	1228.98	2.50	0.00	57709.10	89221.40	51938.20	4
7.00	8.50	ø6/15	2	2	ø8/10	1	SLU	0.70	0.45	518.69	2.50	0.00	40007.00	86594.00	36006.30	0.50	0.65	1228.98	2.50	0.00	57709.10	89221.40	51938.20	4
8.50	9.00	ø6/15	2	2	ø8/10	1	SLU	0.70	0.45	518.69	2.50	0.00	40007.00	86594.00	36006.30	0.50	0.65	1228.98	2.50	0.00	57709.10	89221.40	51938.20	4
9.50	10.00	ø6/15	2	---	---	1	SLU	0.50	0.25	259.25	2.37	6276.97	---	6276.97	6276.97	0.30	0.45	752.05	1.72	8199.36	---	8199.36	8199.36	1
10.00	11.50	ø6/15	2	---	---	1	SLU	0.50	0.25	259.25	2.38	6325.28	---	6325.28	6325.28	0.30	0.45	752.05	1.73	8270.96	---	8270.96	8270.96	1
11.50	12.00	ø6/15	2	---	---	1	SLU	0.50	0.25	259.25	2.44	6468.04	---	6468.04	6468.04	0.30	0.45	752.05	1.78	8482.15	---	8482.15	8482.15	1
12.50	13.00	ø6/15	2	---	---	1	SLU	0.50	0.25	350.61	2.50	6634.02	---	12976.70	6634.02	0.30	0.45	876.60	2.50	11920.10	---	13990.00	11920.10	1
13.00	14.50	ø6/15	2	---	---	1	SLU	0.50	0.25	350.61	2.50	6634.02	---	13055.80	6634.02	0.30	0.45	876.60	2.50	11920.10	---	14075.30	11920.10	1
14.50	15.00	ø6/15	2	---	---	1	SLU	0.50	0.25	350.61	2.50	6634.02	---	13293.10	6634.02	0.30	0.45	876.60	2.50	11920.10	---	14331.10	11920.10	1
15.50	16.00	ø6/15	2	---	---	1	SLU	0.50	0.25	400.25	2.50	6634.02	---	19993.10	6634.02	0.30	0.45	513.77	2.50	11920.10	---	21554.30	11920.10	1
16.00	17.50	ø6/15	2	---	---	1	SLU	0.50	0.25	400.25	2.50	6634.02	---	20072.20	6634.02	0.30	0.45	513.77	2.50	11920.10	---	21639.60	11920.10	1
17.50	18.00	ø6/15	2	---	---	1	SLU	0.50	0.25	400.25	2.50	6634.02	---	20309.60	6634.02	0.30	0.45	513.77	2.50	11920.10	---	21895.50	11920.10	1
18.50	19.00	ø6/15	2	---	---	1	SLU	0.50	0.25	420.45	2.50	6634.02	---	23507.60	6634.02	0.30	0.45	311.47	2.50	11920.10	---	25343.20	11920.10	1
19.00	20.50	ø6/15	2	---	---	1	SLU	0.50	0.25	420.45	2.50	6634.02	---	23507.60	6634.02	0.30	0.45	311.47	2.50	11920.10	---	25343.20	11920.10	1
20.50	21.00	ø6/15	2	---	---	1	SLU	0.50	0.25	420.45	2.50	6634.02	---	23507.60	6634.02	0.30	0.45	311.47	2.50	11920.10	---	25343.20	11920.10	1
21.50	22.00	ø6/15	2	---	---	1	SLU	0.50	0.25	390.32	2.50	6634.02	---	23507.60	6634.02	0.30	0.45	31.58	2.50	11920.10	---	25343.20	11920.10	1
22.00	23.50	ø6/15	2	---	---	1	SLU	0.50	0.25	390.32	2.50	6634.02	---	23507.60	6634.02	0.30	0.45	31.58	2.50	11920.10	---	25343.20	11920.10	1
23.50	24.00	ø6/15	2	---	---	1	SLU	0.50	0.25	390.32	2.50	6634.02	---	23507.60	6634.02	0.30	0.45	31.58	2.50	11920.10	---	25343.20	11920.10	1
24.50	25.00	ø6/15	2	---	---	1	SLU	0.50	0.25	769.88	2.50	6634.02	---	21086.50	6634.02	0.30	0.45	579.90	2.50	11920.10	---	22733.10	11920.10	1
25.00	26.50	ø6/15	2	---	---	1	SLU	0.50	0.25	769.88	2.50	6634.02	---	21054.80	6634.02	0.30	0.45	579.90	2.50	11920.10	---	22699.00	11920.10	1
26.50	27.00	ø6/15	2	---	---	1	SLU	0.50	0.25	769.88	2.50	6634.02	---	20959.90	6634.02	0.30	0.45	579.90	2.50	11920.10	---	22596.60	11920.10	1

Pilastrata n. 41

Nodi: 41 341 541 741 941 1141 1341 1541 1741 1941

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
59	R	25.00	50.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
9	R	25.00	35.00	4.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cmq>	Fcd <daN/cmq>	Fyk <daN/cmq>	Fyd <daN/cmq>
45.00	70.00	249.00	141.10	4500.00	3913.04
45.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi



Relazione di calcolo

0.00	1(e)	SLU	1	59	0.00	-83717.80	754.09	1674.36	1064.32	1674.36	-664030.00	65356.50	38439.00	1.02	7.932	162.34
0.00	1(e)	SLU	1	59	0.00	-83717.80	754.09	1674.36	1064.32	1674.36	-664030.00	65356.50	38439.00	1.02	7.932	162.34
3.00	1(e)	SLU	1	59	300.00	-80646.60	1026.93	1612.93	-1433.55	-1612.93	-664030.00	65001.60	-38258.90	1.02	8.234	162.34
3.50	1(e)	SLU	2	9	0.00	-71664.00	77.64	1433.28	2105.34	2105.34	-568788.00	45168.20	35161.10	1.02	7.937	186.12
3.50	1(e)	SLU	2	9	0.00	-71664.00	77.64	1433.28	2105.34	2105.34	-554379.00	44251.20	34324.10	1.02	7.736	223.81
6.00	1(e)	SLU	2	9	250.00	-69653.10	639.14	1393.06	-2031.63	-2031.63	-554379.00	44108.10	-34264.40	1.02	7.959	217.21
12.50	1(e)	SLU	5	9	0.00	-43931.20	-194.53	-878.62	844.37	878.62	-169976.00	-8768.20	6906.87	1.13	3.869	---
12.50	1(e)	SLU	5	9	0.00	-43931.20	-194.53	-878.62	844.37	878.62	-169976.00	-8768.20	6906.87	1.13	3.869	---
15.00	1(e)	SLU	5	9	250.00	-43220.30	127.17	864.41	-670.83	-864.41	-169976.00	8750.28	-6880.20	1.13	3.933	---
15.50	1(e)	SLU	6	9	0.00	-35302.30	-177.39	-706.04	913.79	913.79	-169976.00	-8526.80	6491.49	1.09	4.815	---
15.50	1(e)	SLU	6	9	0.00	-35302.30	-177.39	-706.04	913.79	913.79	-169976.00	-8526.80	6491.49	1.09	4.815	---
18.00	1(e)	SLU	6	9	250.00	-34591.30	125.89	691.83	-754.96	-754.96	-169976.00	8505.06	-6448.47	1.09	4.914	---
18.50	1(e)	SLU	7	9	0.00	-26457.00	-159.71	-529.14	1028.87	1028.87	-26457.40	-8242.51	5912.35	1.05	4.609	---
18.50	1(e)	SLU	7	9	0.00	-26457.00	-159.71	-529.14	1028.87	1028.87	-26457.40	-8242.51	5912.35	1.05	4.609	---
21.00	1(e)	SLU	7	9	250.00	-25746.10	133.42	514.92	-833.13	-833.13	-25746.70	8219.09	-5862.64	1.04	5.367	---
21.50	1(e)	SLU	8	9	0.00	-17436.20	-102.33	-348.72	1114.52	1114.52	-17440.10	-7822.52	5262.60	1.00	3.916	---
21.50	1(e)	SLU	8	9	0.00	-17436.20	-102.33	-348.72	1114.52	1114.52	-17440.10	-7822.52	5262.60	1.00	3.916	---
24.00	1(e)	SLU	8	9	250.00	-16725.20	133.65	334.50	-887.55	-887.55	-16726.00	7761.78	-5209.19	1.00	4.684	---
24.50	1(e)	SLU	9	9	0.00	-8315.70	16.57	166.31	1196.68	1196.68	-8319.07	6898.04	4564.82	1.00	3.493	---
24.50	1(e)	SLU	9	9	0.00	-8315.70	16.57	166.31	1196.68	1196.68	-8319.07	6898.04	4564.82	1.00	3.493	---
27.00	1(e)	SLU	9	9	250.00	-7604.76	55.77	152.09	-989.89	-989.89	-7609.12	6816.83	-4509.09	1.00	4.135	---

Dati per verifiche di stabilità

Xg	El	l <sub>0</sub>	λ	λ*	Xg	El	l <sub>0</sub>	λ	λ*	Xg	El	l <sub>0</sub>	λ	λ*	Xg	El	l <sub>0</sub>	λ	λ*
<m>		<m>			<m>		<m>			<m>		<m>			<m>		<m>		
---	1	3.50	26.94	71.21	---	1	3.50	26.94	71.21	---	1	3.50	26.94	71.21	---	2	3.00	23.09	68.07
---	2	3.00	23.09	68.07	---	2	3.00	23.09	68.07	---	3	3.00	41.57	36.16	---	3	3.00	41.57	36.16
---	3	3.00	41.57	36.16	---	4	3.00	41.57	38.99	---	4	3.00	41.57	38.99	---	4	3.00	41.57	38.99

Stato limite ultimo - Verifiche a flessione/pressoflessione - Controlli di stabilità con rinforzi

Xg	CC	TCC	El	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdy, s	MRdz	MRdz, s	esp.	Sic.	Δ%
<m>					<cm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>			
6.50	1(e)	SLU	3	9	0.00	-60925.30	-8.70	-1218.51	597.61	1218.51	-184385.00	-10906.30	-9970.90	7097.89	5691.78	1.19	3.026	---
6.50	1(e)	SLU	3	9	0.00	-60925.30	-8.70	-1218.51	597.61	1218.51	-184385.00	-10906.30	-9970.90	7097.89	5691.78	1.19	3.026	---
9.00	1(e)	SLU	3	9	250.00	-60214.30	184.24	1204.29	-578.75	-1204.29	-184385.00	10900.10	9979.21	-7119.02	-5718.67	1.19	3.062	---
9.50	1(e)	SLU	4	9	0.00	-52470.10	-164.22	-1049.40	835.47	1049.40	-184385.00	-10797.50	-9985.89	7131.68	5972.25	1.15	3.514	---
9.50	1(e)	SLU	4	9	0.00	-52470.10	-164.22	-1049.40	835.47	1049.40	-169976.00	-8953.05	-8141.48	7139.87	5976.12	1.17	3.239	---
12.00	1(e)	SLU	4	9	250.00	-51759.10	114.23	1035.18	-661.53	-1035.18	-169976.00	8939.97	8134.57	-7125.71	-5988.63	1.17	3.284	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	Aft	Afc	σ <sub>c</sub>	σ <sub>f</sub>
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cm q>	<daN/cm q>
0.00	2	SLE R	1	59	0.00	-60303.50	751.22	554.14	0.00	57.81	18.66	269.50
0.00	4	SLE Q	1	59	0.00	-54950.80	660.26	377.56	0.00	57.81	16.66	241.28
0.00	2	SLE R	1	59	0.00	-60303.50	751.22	554.14	0.00	57.81	18.66	269.50
0.00	4	SLE Q	1	59	0.00	-54950.80	660.26	377.56	0.00	57.81	16.66	241.28
3.00	2	SLE R	1	59	300.00	-57941.00	-1010.43	775.26	0.00	57.81	19.39	276.76
3.00	4	SLE Q	1	59	300.00	-52588.30	-891.65	685.18	0.00	57.81	17.48	249.77
3.50	2	SLE R	2	9	0.00	-51503.00	1482.24	46.61	0.00	57.81	21.56	303.83
3.50	4	SLE Q	2	9	0.00	-46735.00	1302.82	-49.93	0.00	57.81	19.42	273.99
3.50	2	SLE R	2	9	0.00	-51503.00	1482.24	46.61	0.00	53.78	21.89	308.56
3.50	4	SLE Q	2	9	0.00	-46735.00	1302.82	-49.93	0.00	53.78	19.71	278.27
6.00	2	SLE R	2	9	250.00	-49956.10	-1429.27	486.77	0.00	53.78	22.61	316.43
6.00	4	SLE Q	2	9	250.00	-45188.10	-1255.39	465.06	0.00	53.78	20.38	285.41
6.50	2	SLE R	3	9	0.00	-43710.80	419.96	-12.46	0.00	16.09	48.62	676.22
6.50	4	SLE Q	3	9	0.00	-39522.10	363.76	-52.00	0.00	16.09	44.21	614.69
6.50	2	SLE R	3	9	0.00	-43710.80	419.96	-12.46	0.00	16.09	48.62	676.22
6.50	4	SLE Q	3	9	0.00	-39522.10	363.76	-52.00	0.00	16.09	44.21	614.69
9.00	2	SLE R	3	9	250.00	-43163.90	-406.04	144.46	0.00	16.09	49.76	687.29
9.00	4	SLE Q	3	9	250.00	-38975.20	-351.40	156.88	0.00	16.09	44.99	621.71
9.50	2	SLE R	4	9	0.00	-37635.70	585.11	-131.53	0.00	16.09	48.58	647.95
9.50	4	SLE Q	4	9	0.00	-33971.40	504.42	-166.10	0.00	16.09	44.02	587.60
9.50	2	SLE R	4	9	0.00	-37635.70	585.11	-131.53	0.00	12.06	50.68	678.76
9.50	4	SLE Q	4	9	0.00	-33971.40	504.42	-166.10	0.00	12.06	45.98	616.11
12.00	2	SLE R	4	9	250.00	-37088.90	-462.65	93.45	0.00	12.06	46.84	638.97
12.00	4	SLE Q	4	9	250.00	-33424.50	-397.73	117.68	0.00	12.06	42.33	577.75
12.50	2	SLE R	5	9	0.00	-31507.20	589.50	-151.48	0.00	12.06	45.29	596.12
12.50	4	SLE Q	5	9	0.00	-28381.10	506.52	-174.73	0.00	12.06	40.87	538.65
12.50	2	SLE R	5	9	0.00	-31507.20	589.50	-151.48	0.00	12.06	45.29	596.12
12.50	4	SLE Q	5	9	0.00	-28381.10	506.52	-174.73	0.00	12.06	40.87	538.65
15.00	2	SLE R	5	9	250.00	-30960.30	-467.92	101.74	0.00	12.06	41.29	554.46
15.00	4	SLE Q	5	9	250.00	-27834.20	-401.34	121.54	0.00	12.06	37.18	499.77
15.50	2	SLE R	6	9	0.00	-25318.10	637.53	-138.90	0.00	12.06	40.29	515.92
15.50	4	SLE Q	6	9	0.00	-22741.40	545.26	-164.45	0.00	12.06	36.22	464.74
15.50	2	SLE R	6	9	0.00	-25318.10	637.53	-138.90	0.00	12.06	40.29	515.92
15.50	4	SLE Q	6	9	0.00	-22741.40	545.26	-164.45	0.00	12.06	36.22	464.74
18.00	2	SLE R	6	9	250.00	-24771.20	-526.91	100.19	0.00	12.06	36.71	478.47
18.00	4	SLE Q	6	9	250.00	-22194.50	-450.84	119.72	0.00	12.06	32.90	429.57
18.50	2	SLE R	7	9	0.00	-18976.70	718.27	-125.81	0.00	12.06	35.86	440.23
18.50	4	SLE Q	7	9	0.00	-16969.30	614.50	-151.66	0.00	12.06	32.08	394.81
18.50	2	SLE R	7	9	0.00	-18976.70	718.27	-125.81	0.00	12.06	35.86	440.23
18.50	4	SLE Q	7	9	0.00	-16969.30	614.50	-151.66	0.00	12.06	32.08	394.81
21.00	2	SLE R	7	9	250.00	-18429.80	-581.69	105.17	0.00	12.06	31.99	400.59



Relazione di calcolo

21.00	4	SLE Q	7	9	250.00	-16422.40	-497.32	123.52	0.00	12.06	28.52	357.86
21.50	2	SLE R	8	9	0.00	-12512.90	778.10	-83.40	4.02	8.04	31.62	361.74
21.50	4	SLE Q	8	9	0.00	-11094.40	664.56	-113.41	2.01	10.05	28.03	322.47
21.50	2	SLE R	8	9	0.00	-12512.90	778.10	-83.40	4.02	8.04	31.62	361.74
21.50	4	SLE Q	8	9	0.00	-11094.40	664.56	-113.41	2.01	10.05	28.03	322.47
24.00	2	SLE R	8	9	250.00	-11966.10	-619.70	103.44	0.00	12.06	27.06	319.35
24.00	4	SLE Q	8	9	250.00	-10547.60	-529.32	117.31	0.00	12.06	23.87	282.47
24.50	2	SLE R	9	9	0.00	-5980.20	836.05	-1.60	6.03	6.03	30.99	339.88
24.50	4	SLE Q	9	9	0.00	-5164.73	702.97	-55.18	6.03	6.03	27.57	293.86
24.50	2	SLE R	9	9	0.00	-5980.20	836.05	-1.60	6.03	6.03	30.99	339.88
24.50	4	SLE Q	9	9	0.00	-5164.73	702.97	-55.18	6.03	6.03	27.57	293.86
27.00	2	SLE R	9	9	250.00	-5433.33	-691.89	54.37	6.03	6.03	27.09	266.54
27.00	4	SLE Q	9	9	250.00	-4617.85	-572.10	99.51	6.03	6.03	23.87	230.02

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <cm>	X1 <cm>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	Sic
0.00	0.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.40	832.62	2.50	0.00	35581.40	73217.10	32023.30	0.45	0.65	90.94	2.50	0.00	57709.10	76339.30	51938.20	38.4
0.50	2.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.40	832.62	2.50	0.00	35581.40	73146.10	32023.30	0.45	0.65	90.94	2.50	0.00	57709.10	76265.40	51938.20	38.4
2.50	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.40	832.62	2.50	0.00	35581.40	72862.30	32023.30	0.45	0.65	90.94	2.50	0.00	57709.10	75969.40	51938.20	38.4
3.50	3.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.40	1654.79	2.50	0.00	35581.40	58343.60	32023.30	0.45	0.50	224.60	2.50	0.00	44432.50	59610.20	39989.30	19.3
3.95	5.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.40	1654.79	2.50	0.00	35581.40	58293.40	32023.30	0.45	0.50	224.60	2.50	0.00	44432.50	59558.90	39989.30	19.3
5.55	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.40	1654.79	2.50	0.00	35581.40	58115.00	32023.30	0.45	0.50	224.60	2.50	0.00	44432.50	59376.60	39989.30	19.3
6.50	6.95	ø6/15	2	2	---	1	SLU	0.35	0.20	470.55	2.50	5312.50	---	7352.34	5312.50	0.25	0.30	77.18	2.48	7902.52	---	7902.52	7902.52	11.2
6.95	8.55	ø6/15	2	2	---	1	SLU	0.35	0.20	470.55	2.50	5312.50	---	7392.25	5312.50	0.25	0.30	77.18	2.49	7927.41	---	7927.41	7927.41	11.2
8.55	9.00	ø6/15	2	2	---	1	SLU	0.35	0.20	470.55	2.50	5312.50	---	7534.16	5312.50	0.25	0.30	77.18	2.50	7955.54	---	8058.93	7955.54	11.2
9.50	9.95	ø6/15	2	2	---	1	SLU	0.35	0.20	598.80	2.50	5312.50	---	9989.49	5312.50	0.25	0.30	111.38	2.50	7955.54	---	10685.30	7955.54	8.8
9.95	11.55	ø6/15	2	2	---	1	SLU	0.35	0.20	598.80	2.50	5312.50	---	10029.40	5312.50	0.25	0.30	111.38	2.50	7955.54	---	10728.00	7955.54	8.8
11.55	12.00	ø6/15	2	2	---	1	SLU	0.35	0.20	598.80	2.50	5312.50	---	10171.30	5312.50	0.25	0.30	111.38	2.50	7955.54	---	10879.80	7955.54	8.8
12.50	12.95	ø6/15	2	2	---	1	SLU	0.35	0.20	606.08	2.50	5312.50	---	12652.70	5312.50	0.25	0.30	128.68	2.50	7955.54	---	13534.00	7955.54	8.7
12.95	14.55	ø6/15	2	2	---	1	SLU	0.35	0.20	606.08	2.50	5312.50	---	12692.60	5312.50	0.25	0.30	128.68	2.50	7955.54	---	13576.70	7955.54	8.7
14.55	15.00	ø6/15	2	2	---	1	SLU	0.35	0.20	606.08	2.50	5312.50	---	12834.50	5312.50	0.25	0.30	128.68	2.50	7955.54	---	13728.50	7955.54	8.7
15.50	15.95	ø6/15	2	2	---	1	SLU	0.35	0.20	667.50	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	121.31	2.50	7955.54	---	14095.20	7955.54	7.9
15.95	17.55	ø6/15	2	2	---	1	SLU	0.35	0.20	667.50	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	121.31	2.50	7955.54	---	14095.20	7955.54	7.9
17.55	18.00	ø6/15	2	2	---	1	SLU	0.35	0.20	667.50	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	121.31	2.50	7955.54	---	14095.20	7955.54	7.9
18.50	18.95	ø6/15	2	2	---	1	SLU	0.35	0.20	744.80	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	117.25	2.50	7955.54	---	14095.20	7955.54	7.1
18.95	20.55	ø6/15	2	2	---	1	SLU	0.35	0.20	744.80	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	117.25	2.50	7955.54	---	14095.20	7955.54	7.1
20.55	21.00	ø6/15	2	2	---	1	SLU	0.35	0.20	744.80	2.50	5312.50	---	13177.40	5312.50	0.25	0.30	117.25	2.50	7955.54	---	14095.20	7955.54	7.1
21.50	21.95	ø6/15	2	2	---	1	SLU	0.35	0.20	800.83	2.50	5312.50	---	12717.20	5312.50	0.25	0.30	94.39	2.50	7955.54	---	13603.00	7955.54	6.6
21.95	23.55	ø6/15	2	2	---	1	SLU	0.35	0.20	800.83	2.50	5312.50	---	12701.20	5312.50	0.25	0.30	94.39	2.50	7955.54	---	13585.90	7955.54	6.6
23.55	24.00	ø6/15	2	2	---	1	SLU	0.35	0.20	800.83	2.50	5312.50	---	12644.50	5312.50	0.25	0.30	94.39	2.50	7955.54	---	13525.20	7955.54	6.6
24.50	24.95	ø6/15	2	2	---	1	SLU	0.35	0.20	874.63	2.50	5312.50	---	11579.30	5312.50	0.25	0.30	15.68	2.50	7955.54	---	12385.90	7955.54	6.0
24.95	26.55	ø6/15	2	2	---	1	SLU	0.35	0.20	874.63	2.50	5312.50	---	11563.40	5312.50	0.25	0.30	15.68	2.50	7955.54	---	12368.80	7955.54	6.0
26.55	27.00	ø6/15	2	2	---	1	SLU	0.35	0.20	874.63	2.50	5312.50	---	11506.60	5312.50	0.25	0.30	15.68	2.50	7955.54	---	12308.10	7955.54	6.0

Pilastrata n. 42

Nodi: 42 342 542 742 942 1142 1342 1542 1742 1942

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
1	R	40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cmq>	Fcd <daN/cmq>	Fyk <daN/cmq>	Fyd <daN/cmq>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%	
0.00	1	(e)	SLU	1	1	0.00	-155747.00	1718.64	3114.94	718.01	3114.94	-784267.00	74515.20	62433.50	1.08	5.036	134.93
0.00	1	(e)	SLU	1	1	0.00	-155747.00	1718.64	3114.94	718.01	3114.94	-784267.00	74515.20	62433.50	1.08	5.036	134.93
3.00	1	(e)	SLU	1	1	300.00	-151652.00	940.93	3033.04	-502.96	-3033.04	-784267.00	74098.60	-62086.90	1.08	5.171	134.93
3.50	1	(e)	SLU	2	10	0.00	-135591.00	777.14	2711.82	-301.39	-2711.82	-657277.00	50726.90	-56337.80	1.09	4.848	166.19
3.50	1	(e)	SLU	2	10	0.00	-135591.00	777.14	2711.82	-301.39	-2711.82	-646245.00	50554.10	-54888.40	1.09	4.766	173.96
6.00	1	(e)	SLU	2	10	250.00	-132910.00	310.05	2658.19	26.03	2658.19	-646245.00	50435.60	54776.40	1.09	4.862	173.96
6.50	1	(e)	SLU	3	10	0.00	-116973.00	165.55	2339.46	384.65	2339.46	-235892.00	11909.70	12643.60	1.33	2.017	---
6.50	1	(e)	SLU	3	10	0.00	-116973.00	165.55	2339.46	384.65	2339.46	-235892.00	11909.70	12643.60	1.33	2.017	---
9.00	1	(e)	SLU	3	10	250.00	-115836.00	57.02	2316.71	-262.84	-2316.71	-235892.00	11967.30	-12692.30	1.33	2.036	---
9.50	1	(e)	SLU	4	10	0.00	-99370.10	-3.28	-1987.40	195.98	1987.40	-235892.00	-12721.00	13256.70	1.27	2.374	---
9.50	1	(e)	SLU	4	10	0.00	-99370.10	-3.28	-1987.40	195.98	1987.40	-235892.00	-12721.00	13256.70	1.27	2.374	---
12.00	1	(e)	SLU	4	10	250.00	-98232.60	-2.32	-1964.65	-235.83	-1964.65	-235892.00	-12768.20	-13251.40	1.26	2.401	---
12.50	1	(e)	SLU	5	10	0.00	-81933.90	-46.61	-1638.68	231.53	1638.68	-235892.00	-12653.30	12980.60	1.21	2.879	---
12.50	1	(e)	SLU	5	10	0.00	-81933.90	-46.61	-1638.68	231.53	1638.68	-235892.00	-12653.30	12980.60	1.21	2.879	---
15.00	1	(e)	SLU	5	10	250.00	-80796.40	3.33	1615.93	-231.75	-1615.93	-235892.00	12619.30	-12950.20	1.20	2.920	---
15.50	1	(e)	SLU	6	7	0.00	-64663.10	-29.95	-1293.26	177.95	1293.26	-185194.00	-10640.60	7739.54	1.21	2.864	---
15.50	1	(e)	SLU	6	7	0.00	-64663.10	-29.95	-1293.26	177.95	1293.26	-174161.00	-9217.39	7756.06	1.23	2.693	---
18.00	1	(e)	SLU	6	7	250.00	-63810.00	0.71	1276.20	-210.32	-1276.20	-174161.00	9197.86	-7738.49	1.22	2.729	---
18.50	1	(e)	SLU	7	7	0.00	-48149.00	-34.12	-962.98	283.59	962.98	-174161.00	-8530.99	7167.43	1.15	3.617	---
18.50	1	(e)	SLU	7	7	0.00	-48149.00	-34.12	-962.98	283.59	962.98	-174161.00	-8530.99	7167.43	1.15	3.617	---
21.00	1	(e)	SLU	7	7	250.00	-47295.80	21.44	945.92	-292.50	-945.92	-174161.00	8477.37	-7121.07	1.14	3.682	---
21.50	1	(e)	SLU	8	7	0.00	-31868.50	-1.79	-637.37	372.10	637.37	-174161.00	-7219.46	6016.88	1.07	5.465	---
21.50	1	(e)	SLU	8	7	0.00	-31868.50	-1.79	-637.37	372.10	637.37	-174161.00	-7219.46	6016.88	1.07	5.465	---
24.00	1	(e)	SLU	8	7	250.00	-31015.40	42.64	620.31	-366.95	-620.31	-174161.00	7127.76	-5940.66	1.07	5.615	---
24.50	1	(e)	SLU	9	7	0.00	-15765.10	36.92	-315.30	375.44	375.44	-15768.30	-5322.60	4455.76	1.00	6.969	---
24.50	1	(e)	SLU	9	7	0.00	-15765.10	36.92	-315.30	375.44	375.44	-15768.30	-5322.60	4455.76	1.00	6.969	---
27.00	1	(e)	SLU	9	7	250.00	-14912.00	39.52	-298.24	-351.86	-351.86	-14913.30	-5214.18	4366.67	1.00	7.258	---



Relazione di calcolo

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>t</sub>
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	1	0.00	-111180.00	507.16	1257.61	0.00	50.01	25.51	376.02
0.00	4	SLE Q	1	1	0.00	-99759.60	433.44	985.00	0.00	50.01	22.61	333.82
0.00	2	SLE R	1	1	0.00	-111180.00	507.16	1257.61	0.00	50.01	25.51	376.02
0.00	4	SLE Q	1	1	0.00	-99759.60	433.44	985.00	0.00	50.01	22.61	333.82
3.00	2	SLE R	1	1	300.00	-108030.00	-352.07	694.75	0.00	50.01	23.65	350.72
3.00	4	SLE Q	1	1	300.00	-96609.60	-296.84	545.66	0.00	50.01	20.99	311.60
3.50	2	SLE R	2	10	0.00	-96638.20	-218.83	574.67	0.00	50.01	25.87	382.89
3.50	4	SLE Q	2	10	0.00	-86405.60	-222.38	447.68	0.00	50.01	23.02	341.01
3.50	2	SLE R	2	10	0.00	-96638.20	-218.83	574.67	0.00	46.94	26.15	387.07
3.50	4	SLE Q	2	10	0.00	-86405.60	-222.38	447.68	0.00	46.94	23.27	344.76
6.00	2	SLE R	2	10	250.00	-94575.70	26.46	231.48	0.00	46.94	24.28	362.54
6.00	4	SLE Q	2	10	250.00	-84343.10	52.38	179.06	0.00	46.94	21.65	323.30
6.50	2	SLE R	3	10	0.00	-83279.80	267.85	124.26	0.00	9.24	58.01	856.09
6.50	4	SLE Q	3	10	0.00	-74236.50	207.22	88.00	0.00	9.24	51.17	756.98
6.50	2	SLE R	3	10	0.00	-83279.80	267.85	124.26	0.00	9.24	58.01	856.09
6.50	4	SLE Q	3	10	0.00	-74236.50	207.22	88.00	0.00	9.24	51.17	756.98
9.00	2	SLE R	3	10	250.00	-82404.80	-179.84	45.90	0.00	9.24	55.77	828.67
9.00	4	SLE Q	3	10	250.00	-73361.50	-127.89	42.67	0.00	9.24	49.36	734.38
9.50	2	SLE R	4	10	0.00	-70750.90	129.82	-2.75	0.00	9.24	47.26	704.48
9.50	4	SLE Q	4	10	0.00	-62956.90	72.59	-12.75	0.00	9.24	41.75	623.32
9.50	2	SLE R	4	10	0.00	-70750.90	129.82	-2.75	0.00	9.24	47.26	704.48
9.50	4	SLE Q	4	10	0.00	-62956.90	72.59	-12.75	0.00	9.24	41.75	623.32
12.00	2	SLE R	4	10	250.00	-69875.90	-157.07	1.44	0.00	9.24	46.94	698.82
12.00	4	SLE Q	4	10	250.00	-62081.90	-96.13	6.39	0.00	9.24	41.34	616.66
12.50	2	SLE R	5	10	0.00	-58335.60	150.80	-33.83	0.00	9.24	39.72	589.39
12.50	4	SLE Q	5	10	0.00	-51775.00	86.43	-35.80	0.00	9.24	34.86	518.52
12.50	2	SLE R	5	10	0.00	-58335.60	150.80	-33.83	0.00	9.24	39.72	589.39
12.50	4	SLE Q	5	10	0.00	-51775.00	86.43	-35.80	0.00	9.24	34.86	518.52
15.00	2	SLE R	5	10	250.00	-57460.60	-164.16	5.47	0.00	9.24	38.98	579.03
15.00	4	SLE Q	5	10	250.00	-50900.00	-96.79	9.75	0.00	9.24	34.11	508.11
15.50	2	SLE R	6	7	0.00	-46033.60	118.04	-22.07	0.00	9.24	41.02	605.00
15.50	4	SLE Q	6	7	0.00	-40684.70	74.18	-25.86	0.00	9.24	35.83	530.34
15.50	2	SLE R	6	7	0.00	-46033.60	118.04	-22.07	0.00	6.16	42.61	628.69
15.50	4	SLE Q	6	7	0.00	-40684.70	74.18	-25.86	0.00	6.16	37.24	551.34
18.00	2	SLE R	6	7	250.00	-45377.30	-140.64	2.70	0.00	6.16	42.14	620.99
18.00	4	SLE Q	6	7	250.00	-40028.50	-93.89	7.04	0.00	6.16	36.73	543.22
18.50	2	SLE R	7	7	0.00	-34285.80	190.56	-25.91	0.00	6.16	33.60	487.79
18.50	4	SLE Q	7	7	0.00	-30102.30	132.21	-28.98	0.00	6.16	29.00	423.08
18.50	2	SLE R	7	7	0.00	-34285.80	190.56	-25.91	0.00	6.16	33.60	487.79
18.50	4	SLE Q	7	7	0.00	-30102.30	132.21	-28.98	0.00	6.16	29.00	423.08
21.00	2	SLE R	7	7	250.00	-33629.60	-197.29	17.33	0.00	6.16	33.02	479.00
21.00	4	SLE Q	7	7	250.00	-29446.10	-139.63	19.47	0.00	6.16	28.41	414.27
21.50	2	SLE R	8	7	0.00	-22703.50	251.76	-2.97	0.00	6.16	24.17	342.84
21.50	4	SLE Q	8	7	0.00	-19664.60	180.40	-9.50	0.00	6.16	20.40	291.42
21.50	2	SLE R	8	7	0.00	-22703.50	251.76	-2.97	0.00	6.16	24.17	342.84
21.50	4	SLE Q	8	7	0.00	-19664.60	180.40	-9.50	0.00	6.16	20.40	291.42
24.00	2	SLE R	8	7	250.00	-22047.30	-248.75	33.56	0.00	6.16	23.98	338.52
24.00	4	SLE Q	8	7	250.00	-19008.40	-179.16	31.98	0.00	6.16	20.12	286.14
24.50	2	SLE R	9	7	0.00	-11246.60	253.39	27.14	0.00	6.16	14.52	196.50
24.50	4	SLE Q	9	7	0.00	-9328.69	187.84	15.20	0.00	6.16	11.56	157.91
24.50	2	SLE R	9	7	0.00	-11246.60	253.39	27.14	0.00	6.16	14.52	196.50
24.50	4	SLE Q	9	7	0.00	-9328.69	187.84	15.20	0.00	6.16	11.56	157.91
27.00	2	SLE R	9	7	250.00	-10590.40	-237.15	32.57	0.00	6.16	13.74	185.89
27.00	4	SLE Q	9	7	250.00	-8672.44	-179.42	39.97	0.00	6.16	11.20	151.73

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	Si
<m>	<m>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	406.99	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	259.24	2.50	0.00	57709.10	107066.00	51938.20	>10
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	406.99	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	259.24	2.50	0.00	57709.10	107066.00	51938.20	>10
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	406.99	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	259.24	2.50	0.00	57709.10	107066.00	51938.20	>10
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	130.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	186.84	2.50	0.00	44432.50	82434.00	39989.30	>10
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	130.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	186.84	2.50	0.00	44432.50	82434.00	39989.30	>10
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	130.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	186.84	2.50	0.00	44432.50	82434.00	39989.30	>10
6.50	6.96	ø6/15	2	2	---	1	SLU	0.35	0.35	259.00	1.96	7279.39	---	7279.39	7279.39	0.40	0.30	43.41	2.13	6780.97	---	6780.97	6780.97	28.
6.96	8.80	ø6/15	2	2	---	1	SLU	0.35	0.35	259.00	1.98	7331.87	---	7331.87	7331.87	0.40	0.30	43.41	2.15	6828.32	---	6828.32	6828.32	28.
8.80	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	259.00	2.03	7538.12	---	7538.12	7538.12	0.40	0.30	43.41	2.20	7014.52	---	7014.52	7014.52	29.
9.50	9.96	ø6/15	2	2	---	1	SLU	0.35	0.35	172.72	2.50	9277.05	---	12195.90	9277.05	0.40	0.30	0.39	2.50	7955.54	---	11952.70	7955.54	53.
9.96	11.80	ø6/15	2	2	---	1	SLU	0.35	0.35	172.72	2.50	9277.05	---	12267.20	9277.05	0.40	0.30	0.39	2.50	7955.54	---	12022.50	7955.54	53.
11.80	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	172.72	2.50	9277.05	---	12552.10	9277.05	0.40	0.30	0.39	2.50	7955.54	---	12301.80	7955.54	53.
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	193.31	2.50	9277.05	---	18131.30	9277.05	0.40	0.30	19.98	2.50	7955.54	---	17769.70	7955.54	47.
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	193.31	2.50	9277.05	---	18202.60	9277.05	0.40	0.30	19.98	2.50	7955.54	---	17839.60	7955.54	47.
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	193.31	2.50	9277.05	---	18487.60	9277.05	0.40	0.30	19.98	2.50	7955.54	---	18118.90	7955.54	47.
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	155.31	2.50	6634.02	---	11923.00	6634.02	0.30	0.30	12.26	2.50	7955.54	---	12255.50	7955.54	42.
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	155.31	2.50	6634.02	---	11973.90	6634.02	0.30	0.30	12.26	2.50	7955.54	---	12307.90	7955.54	42.
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	155.31	2.50	6634.02	---	12177.70	6634.02	0.30	0.30	12.26	2.50	7955.54	---	12517.30	7955.54	42.
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	230.44	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	22.22	2.50	7955.54	---	16914.20	7955.54	28.
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	230.44	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	22.22	2.50	7955.54	---	16914.20	7955.54	28.
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	230.44	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	22.22	2.50	7955.54	---	16914.20	7955.54	28.
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	295.62	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	17.77	2.50	7955.54	---	16914.20	7955.54	22.
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	295.62	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	17.77	2.50	7955.54	---	16914.20	7955.54	22.
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	295.62	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	17.77	2.50	7955.54	---	16914.20	7955.54	22.
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	290.92	2.50	6634.02	---	15211.00	6634.02	0.30	0.30	1.04	2.50	7955.54	---	15635.20	7955.54	22.
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	290.92	2.50	6634.02	---	15190.60	6634.02	0.30	0.30	1.04	2.50	7955.54	---	15614.30	7955.54	22.
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	290.92	2.50	6634.02	---	15109.10	6634.02	0.30	0.30	1.04	2.50	7955.54	---	15530.50	7955.54	22.



Pilastrata n. 43

Nodi: 43 343 543 743 943 1143 1343 1543 1743 1943

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
	1R	40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	10R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	7R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cmq>	Fcd <daN/cmq>	Fyk <daN/cmq>	Fyd <daN/cmq>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/presoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daNm>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-158669.00	1975.20	3173.37	1118.81	3173.37	-784267.00	74808.20	62678.40	1.09	4.943	134.93
0.00	1(e)	SLU	1	1	0.00	-158669.00	1975.20	3173.37	1118.81	3173.37	-784267.00	74808.20	62678.40	1.09	4.943	134.93
3.00	1(e)	SLU	1	1	300.00	-154574.00	1254.21	3091.47	-1210.89	-3091.47	-784267.00	74396.30	-62334.80	1.08	5.074	134.93
3.50	1(e)	SLU	2	10	0.00	-137228.00	1066.05	2744.55	287.40	2744.55	-657277.00	50791.50	56408.60	1.09	4.790	166.19
3.50	1(e)	SLU	2	10	0.00	-137228.00	1066.05	2744.55	287.40	2744.55	-646245.00	50625.90	54956.10	1.09	4.709	173.96
6.00	1(e)	SLU	2	10	250.00	-134546.00	149.60	2690.93	-152.51	-2690.93	-646245.00	50508.00	-54844.80	1.09	4.803	173.96
6.50	1(e)	SLU	3	10	0.00	-118320.00	118.65	2366.41	509.83	2366.41	-235892.00	11840.60	12584.70	1.33	1.994	---
6.50	1(e)	SLU	3	10	0.00	-118320.00	118.65	2366.41	509.83	2366.41	-235892.00	11840.60	12584.70	1.33	1.994	---
9.00	1(e)	SLU	3	10	250.00	-117183.00	-37.52	-2343.66	-501.66	-2343.66	-235892.00	-11899.10	-12634.50	1.33	2.013	---
9.50	1(e)	SLU	4	10	0.00	-101175.00	96.83	2023.50	500.22	2023.50	-235892.00	12644.90	13237.40	1.27	2.332	---
9.50	1(e)	SLU	4	10	0.00	-101175.00	96.83	2023.50	500.22	2023.50	-235892.00	12644.90	13237.40	1.27	2.332	---
12.00	1(e)	SLU	4	10	250.00	-100037.00	-65.48	-2000.75	-461.16	-2000.75	-235892.00	-12693.10	-13259.20	1.27	2.358	---
12.50	1(e)	SLU	5	10	0.00	-84033.40	34.13	1680.67	401.99	1680.67	-235892.00	12711.70	13034.10	1.21	2.807	---
12.50	1(e)	SLU	5	10	0.00	-84033.40	34.13	1680.67	401.99	1680.67	-235892.00	12711.70	13034.10	1.21	2.807	---
15.00	1(e)	SLU	5	10	250.00	-82895.90	-66.36	-1657.92	-392.02	-1657.92	-235892.00	-12681.60	-13006.00	1.21	2.846	---
15.50	1(e)	SLU	6	7	0.00	-66916.30	33.44	1338.33	179.64	1338.33	-185194.00	10684.10	7771.40	1.22	2.768	---
15.50	1(e)	SLU	6	7	0.00	-66916.30	33.44	1338.33	179.64	1338.33	-174161.00	9260.96	7793.25	1.24	2.603	---
18.00	1(e)	SLU	6	7	250.00	-66063.10	-69.76	-1321.26	-172.80	-1321.26	-174161.00	-9246.41	-7779.94	1.23	2.636	---
18.50	1(e)	SLU	7	7	0.00	-49965.60	8.56	999.31	152.94	999.31	-174161.00	8638.23	7258.90	1.16	3.486	---
18.50	1(e)	SLU	7	7	0.00	-49965.60	8.56	999.31	152.94	999.31	-174161.00	8638.23	7258.90	1.16	3.486	---
21.00	1(e)	SLU	7	7	250.00	-49112.50	-47.82	-982.25	-134.45	-982.25	-174161.00	-8588.15	-7216.13	1.15	3.546	---
21.50	1(e)	SLU	8	7	0.00	-33044.50	31.58	660.89	122.05	660.89	-174161.00	7337.72	6120.06	1.07	5.271	---
21.50	1(e)	SLU	8	7	0.00	-33044.50	31.58	660.89	122.05	660.89	-174161.00	7337.72	6120.06	1.07	5.271	---
24.00	1(e)	SLU	8	7	250.00	-32191.30	-45.31	-643.83	-106.14	-643.83	-174161.00	-7254.26	-6045.50	1.07	5.410	---
24.50	1(e)	SLU	9	7	0.00	-16157.50	41.72	-323.15	66.93	323.15	-16158.50	-5372.43	4496.39	1.00	7.575	---
24.50	1(e)	SLU	9	7	0.00	-16157.50	41.72	-323.15	66.93	323.15	-16158.50	-5372.43	4496.39	1.00	7.575	---
27.00	1(e)	SLU	9	7	250.00	-15304.40	42.42	-306.09	-62.75	-306.09	-15304.70	-5263.99	-4407.46	1.00	7.837	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-113056.00	792.96	1446.09	0.00	50.01	26.75	392.71
0.00	4	SLE Q	1	1	0.00	-100663.00	681.40	1149.49	0.00	50.01	23.55	346.12
0.00	2	SLE R	1	1	0.00	-113056.00	792.96	1446.09	0.00	50.01	26.75	392.71
0.00	4	SLE Q	1	1	0.00	-100663.00	681.40	1149.49	0.00	50.01	23.55	346.12
3.00	2	SLE R	1	1	300.00	-109906.00	-856.45	909.67	0.00	50.01	25.36	373.33
3.00	4	SLE Q	1	1	300.00	-97512.90	-733.71	712.78	0.00	50.01	22.29	328.59
3.50	2	SLE R	2	10	0.00	-97608.10	201.12	772.78	0.00	50.01	26.58	392.33
3.50	4	SLE Q	2	10	0.00	-86543.10	126.91	600.77	0.00	50.01	23.23	343.61
3.50	2	SLE R	2	10	0.00	-97608.10	201.12	772.78	0.00	46.94	26.86	396.55
3.50	4	SLE Q	2	10	0.00	-86543.10	126.91	600.77	0.00	46.94	23.48	347.34
6.00	2	SLE R	2	10	250.00	-95545.60	-103.18	119.32	0.00	46.94	24.42	364.86
6.00	4	SLE Q	2	10	250.00	-84480.60	-36.22	91.81	0.00	46.94	21.42	320.52
6.50	2	SLE R	3	10	0.00	-84052.50	358.54	92.08	0.00	9.24	59.04	869.91
6.50	4	SLE Q	3	10	0.00	-74249.70	275.33	66.99	0.00	9.24	51.61	762.20
6.50	2	SLE R	3	10	0.00	-84052.50	358.54	92.08	0.00	9.24	59.04	869.91
6.50	4	SLE Q	3	10	0.00	-74249.70	275.33	66.99	0.00	9.24	51.61	762.20
9.00	2	SLE R	3	10	250.00	-83177.50	-351.51	-21.94	0.00	9.24	57.66	852.42
9.00	4	SLE Q	3	10	250.00	-73374.70	-264.32	-15.47	0.00	9.24	50.39	746.44
9.50	2	SLE R	4	10	0.00	-71862.40	349.48	66.84	0.00	9.24	50.76	747.12
9.50	4	SLE Q	4	10	0.00	-63349.40	245.95	45.11	0.00	9.24	44.01	650.12
9.50	2	SLE R	4	10	0.00	-71862.40	349.48	66.84	0.00	9.24	50.76	747.12
9.50	4	SLE Q	4	10	0.00	-63349.40	245.95	45.11	0.00	9.24	44.01	650.12
12.00	2	SLE R	4	10	250.00	-70987.40	-321.27	-42.24	0.00	9.24	49.67	732.60
12.00	4	SLE Q	4	10	250.00	-62474.40	-221.94	-30.89	0.00	9.24	43.06	637.28
12.50	2	SLE R	5	10	0.00	-59676.80	278.58	22.60	0.00	9.24	41.70	615.31
12.50	4	SLE Q	5	10	0.00	-52462.60	178.46	10.33	0.00	9.24	35.92	532.45
12.50	2	SLE R	5	10	0.00	-59676.80	278.58	22.60	0.00	9.24	41.70	615.31
12.50	4	SLE Q	5	10	0.00	-52462.60	178.46	10.33	0.00	9.24	35.92	532.45
15.00	2	SLE R	5	10	250.00	-58801.80	-271.10	-42.31	0.00	9.24	41.26	608.25
15.00	4	SLE Q	5	10	250.00	-51587.60	-172.18	-29.79	0.00	9.24	35.50	525.50
15.50	2	SLE R	6	7	0.00	-47510.00	123.99	21.88	0.00	9.24	42.36	624.65
15.50	4	SLE Q	6	7	0.00	-41592.90	70.38	10.08	0.00	9.24	36.32	538.79
15.50	2	SLE R	6	7	0.00	-47510.00	123.99	21.88	0.00	6.16	44.00	649.09
15.50	4	SLE Q	6	7	0.00	-41592.90	70.38	10.08	0.00	6.16	37.74	560.11
18.00	2	SLE R	6	7	250.00	-46853.80	-118.92	-46.11	0.00	6.16	43.68	643.41



Relazione di calcolo

18.00	4	SLE	Q	6	7	250.00	-40936.70	-66.08	-33.28	0.00	6.16	37.43	554.40
18.50	2	SLE	R	7	7	0.00	-35484.10	103.94	2.19	0.00	6.16	32.85	484.55
18.50	4	SLE	Q	7	7	0.00	-30883.40	46.98	-7.69	0.00	6.16	27.94	414.99
18.50	2	SLE	R	7	7	0.00	-35484.10	103.94	2.19	0.00	6.16	32.85	484.55
18.50	4	SLE	Q	7	7	0.00	-30883.40	46.98	-7.69	0.00	6.16	27.94	414.99
21.00	2	SLE	R	7	7	250.00	-34827.80	-90.97	-30.25	0.00	6.16	32.46	478.08
21.00	4	SLE	Q	7	7	250.00	-30227.20	-38.35	-19.16	0.00	6.16	27.38	406.67
21.50	2	SLE	R	8	7	0.00	-23477.80	81.19	18.75	0.00	6.16	22.19	325.51
21.50	4	SLE	Q	8	7	0.00	-20188.30	25.38	7.32	0.00	6.16	18.21	270.70
21.50	2	SLE	R	8	7	0.00	-23477.80	81.19	18.75	0.00	6.16	22.19	325.51
21.50	4	SLE	Q	8	7	0.00	-20188.30	25.38	7.32	0.00	6.16	18.21	270.70
24.00	2	SLE	R	8	7	250.00	-22821.50	-70.26	-26.99	0.00	6.16	21.55	316.27
24.00	4	SLE	Q	8	7	250.00	-19532.10	-19.54	-16.39	0.00	6.16	17.66	262.49
24.50	2	SLE	R	9	7	0.00	-11494.20	42.09	27.86	0.00	6.16	11.17	162.73
24.50	4	SLE	Q	9	7	0.00	-9511.65	-8.80	13.92	0.00	6.16	8.67	128.64
24.50	2	SLE	R	9	7	0.00	-11494.20	42.09	27.86	0.00	6.16	11.17	162.73
24.50	4	SLE	Q	9	7	0.00	-9511.65	-8.80	13.92	0.00	6.16	8.67	128.64
27.00	2	SLE	R	9	7	250.00	-10838.00	-39.34	38.59	0.00	6.16	10.70	155.32
27.00	4	SLE	Q	9	7	250.00	-8855.40	11.01	39.55	0.00	6.16	8.50	124.46

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X<0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	Si
<cm>	<cm>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	776.57	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	240.33	2.50	0.00	57709.10	107066.00	51938.20	56.17
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	776.57	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	240.33	2.50	0.00	57709.10	107066.00	51938.20	56.17
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	776.57	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	240.33	2.50	0.00	57709.10	107066.00	51938.20	56.17
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	175.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	366.58	2.50	0.00	44432.50	82434.00	39989.30	>100.00
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	175.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	366.58	2.50	0.00	44432.50	82434.00	39989.30	>100.00
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	175.97	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	366.58	2.50	0.00	44432.50	82434.00	39989.30	>100.00
6.50	6.96	ø6/15	2	2	---	1	SLU	0.35	0.35	404.59	1.87	6932.14	---	6932.15	6932.14	0.40	0.30	62.47	2.03	6467.92	---	6467.92	6467.92	17.17
6.96	8.80	ø6/15	2	2	---	1	SLU	0.35	0.35	404.59	1.88	6987.23	---	6987.23	6987.23	0.40	0.30	62.47	2.05	6517.55	---	6517.55	6517.55	17.17
8.80	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	404.59	1.94	7203.35	---	7203.35	7203.35	0.40	0.30	62.47	2.11	6712.38	---	6712.38	6712.38	17.17
9.50	9.96	ø6/15	2	2	---	1	SLU	0.35	0.35	384.55	2.50	9277.05	---	11581.50	9277.05	0.40	0.30	64.92	2.50	7955.54	---	11350.60	7955.54	24.29
9.96	11.80	ø6/15	2	2	---	1	SLU	0.35	0.35	384.55	2.50	9277.05	---	11652.80	9277.05	0.40	0.30	64.92	2.50	7955.54	---	11420.40	7955.54	24.29
11.80	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	384.55	2.50	9277.05	---	11937.80	9277.05	0.40	0.30	64.92	2.50	7955.54	---	11699.70	7955.54	24.29
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	317.60	2.50	9277.05	---	17416.70	9277.05	0.40	0.30	40.20	2.50	7955.54	---	17069.30	7955.54	29.29
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	317.60	2.50	9277.05	---	17487.90	9277.05	0.40	0.30	40.20	2.50	7955.54	---	17139.10	7955.54	29.29
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	317.60	2.50	9277.05	---	17772.90	9277.05	0.40	0.30	40.20	2.50	7955.54	---	17418.40	7955.54	29.29
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	140.97	2.50	6634.02	---	11191.70	6634.02	0.30	0.30	41.28	2.50	7955.54	---	11503.80	7955.54	47.72
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	140.97	2.50	6634.02	---	11242.60	6634.02	0.30	0.30	41.28	2.50	7955.54	---	11556.20	7955.54	47.72
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	140.97	2.50	6634.02	---	11446.40	6634.02	0.30	0.30	41.28	2.50	7955.54	---	11765.60	7955.54	47.72
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	114.96	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	22.55	2.50	7955.54	---	16914.20	7955.54	57.72
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	114.96	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	22.55	2.50	7955.54	---	16914.20	7955.54	57.72
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	114.96	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	22.55	2.50	7955.54	---	16914.20	7955.54	57.72
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	91.28	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	30.75	2.50	7955.54	---	16914.20	7955.54	72.72
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	91.28	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	30.75	2.50	7955.54	---	16914.20	7955.54	72.72
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	91.28	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	30.75	2.50	7955.54	---	16914.20	7955.54	72.72
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	51.87	2.50	6634.02	---	15261.90	6634.02	0.30	0.30	0.28	2.50	7955.54	---	15687.60	7955.54	>100.00
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	51.87	2.50	6634.02	---	15241.60	6634.02	0.30	0.30	0.28	2.50	7955.54	---	15666.60	7955.54	>100.00
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	51.87	2.50	6634.02	---	15160.00	6634.02	0.30	0.30	0.28	2.50	7955.54	---	15582.80	7955.54	>100.00

Pilastrata n. 44

Nodi: 44 -7202 -7203 -7204 244 -7185 -7186 -7187 344 444 544 644 744 844 944 1044 1144 1244 1344 1444 1544 1644 1744 1844 1944

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
	1R	40.00	50.00	3.00	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	1R	40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	10R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	7R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B	H	Fck	Fcd	Fyk	Fyd
<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	E	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdz	esp.	Sic.	Δ%	
<cm>					<cm>	<daN>	<daNm>	<daNm>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>				
0.00	1	(e)	SLU	1	1	0.00	-67471.40	-719.97	-1349.43	318.94	1349.43	-333837.00	-20905.20	16419.40	1.09	4.948	---
0.00	1	(e)	SLU	1	1	0.00	-67471.40	-719.97	-1349.43	318.94	1349.43	-333837.00	-20905.20	16419.40	1.09	4.948	---
0.50	1	(e)	SLU	1	1	50.00	-67146.40	-132.88	-1342.93	-130.62	-1342.93	-333837.00	-20875.80	-16395.60	1.08	4.972	---
0.50	1	(e)	SLU	2	1	0.00	-67468.90	52.54	1349.38	-115.67	-1349.38	-333837.00	20904.80	-16419.40	1.09	4.948	---
1.00	1	(e)	SLU	2	1	50.00	-67143.90	682.53	1342.88	-134.64	-1342.88	-333837.00	20875.40	-16395.60	1.08	4.972	---
1.00	1	(e)	SLU	3	1	0.00	-69010.90	872.01	1380.22	-101.28	-1380.22	-333837.00	21024.70	-16514.90	1.09	4.837	---
1.35	1	(e)	SLU	3	1	35.00	-68783.40	1288.40	1375.67	-65.13	-1375.67	-333837.00	21007.00	-16501.10	1.09	4.853	---
2.00	1	(e)	SLU	5	1	0.00	-77280.00	-487.51	-1545.60	-102.12	-1545.60	-333837.00	-21644.30	-17010.60	1.11	4.320	---
2.00	1	(e)	SLU	5	1	0.00	-77280.00	-487.51	-1545.60	-102.12	-1545.60	-333837.00	-21644.30	-17010.60	1.11	4.320	---
2.38	1	(e)	SLU	5	1	37.50	-77036.30	-158.73	-1540.72	318.12	1540.72	-333837.00	-21626.70	16996.60	1.11	4.334	---
2.38	1	(e)	SLU	6	1	0.00	-84257.40	-93.46	-1685.15	252.88	1685.15	-333837.00	-22133.80	17402.20	1.13	3.962	---
2.75	1	(e)	SLU	6	1	37.50	-84013.60	296.96	1680.27	710.46	1680.27	-333837.00	-22117.20	17389.00	1.13	3.974	---
2.75	1	(e)	SLU	7	1	0.00	-93362.20	393.99	1867.24	753.86	1867.24	-333837.00	-22716.70	17868.80	1.15	3.576	---
3.00	1	(e)	SLU	7	1	25.00	-93199.70	692.53	1863.99	1132.30	1863.99	-333837.00	-22707.00	17861.00	1.15	3.582	---
3.50	1	(e)	SLU	9	10	0.00	-141697.00	1363.97	2833.94	-5607.64	-5607.64	-657277.00	50965.10	-56599.20	1.10	4.639	166.19
3.50	1	(e)	SLU	9	10	0.00	-141697.00	1363.97	2833.94	-5607.64	-5607.64	-646245.00	50818.60	-55138.50	1.10	4.561	173.96
4.35	1	(e)	SLU	9	10	85.00	-140785.00	2338.92	2815.70	-2504.60	-2815.70	-646245.00	50779.60	-55101.70	1.10	4.590	173.96
5.00	1	(e)	SLU	10	10	0.00	-130944.00	-5503.04	-5503.04	1159.49	2618.89	-646245.00	-50347.50	54693.30	1.09	4.935	173.96
5.00	1	(e)	SLU	10	10	0.00	-130944.00	-5503.04	-5503.04	1159.49	2618.89	-646245.00	-50347.50	54693.30	1.09	4.935	173.96
6.00	1	(e)	SLU	10	10	100.00	-129872.00	-1484.38	-2597.44	1717.64	2597.44	-646245.00	-50299.20	54647.70	1.08	4.976	173.96



Relazione di calcolo

6.50	1(e)	SLU	11	10	0.00	-119631.00	-406.55	-2392.62	449.31	2392.62	-235892.00	-11772.00	12526.30	1.34	1.972	---
6.50	1(e)	SLU	11	10	0.00	-119631.00	-406.55	-2392.62	449.31	2392.62	-235892.00	-11772.00	12526.30	1.34	1.972	---
7.35	1(e)	SLU	11	10	85.00	-119244.00	1370.75	2384.89	-374.45	-2384.89	-235892.00	11792.50	-12543.80	1.34	1.978	---
8.00	1(e)	SLU	12	10	0.00	-111574.00	-2461.20	-2461.20	340.10	2231.47	-235892.00	-12176.20	12865.50	1.31	2.114	---
8.00	1(e)	SLU	12	10	0.00	-111574.00	-2461.20	-2461.20	340.10	2231.47	-235892.00	-12176.20	12865.50	1.31	2.114	---
9.00	1(e)	SLU	12	10	100.00	-111119.00	-387.11	-2222.37	366.99	2222.37	-235892.00	-12197.90	12883.40	1.31	2.123	---
9.50	1(e)	SLU	13	10	0.00	-101454.00	-329.07	-2029.08	-12.95	-2029.08	-235892.00	-12632.80	-13228.30	1.28	2.325	---
9.50	1(e)	SLU	13	10	0.00	-101454.00	-329.07	-2029.08	-12.95	-2029.08	-235892.00	-12632.80	-13228.30	1.28	2.325	---
10.35	1(e)	SLU	13	10	85.00	-101067.00	1399.92	2021.34	-509.29	-2021.34	-235892.00	12649.40	-13240.90	1.27	2.334	---
11.00	1(e)	SLU	14	10	0.00	-93832.30	-1801.11	-1876.65	400.96	1876.65	-235892.00	-12880.60	13212.20	1.25	2.514	---
11.00	1(e)	SLU	14	10	0.00	-93832.30	-1801.11	-1876.65	400.96	1876.65	-235892.00	-12880.60	13212.20	1.25	2.514	---
12.00	1(e)	SLU	14	10	100.00	-93377.30	-504.23	-1867.55	413.61	1867.55	-235892.00	-12876.70	13206.80	1.25	2.526	---
12.50	1(e)	SLU	15	10	0.00	-83691.40	-664.25	-1673.83	-113.69	-1673.83	-235892.00	-12703.00	-13026.10	1.21	2.819	---
12.50	1(e)	SLU	15	10	0.00	-83691.40	-664.25	-1673.83	-113.69	-1673.83	-235892.00	-12703.00	-13026.10	1.21	2.819	---
13.35	1(e)	SLU	15	10	85.00	-83304.70	1248.26	1666.09	-545.91	-1666.09	-235892.00	12693.10	-13016.70	1.21	2.832	---
14.00	1(e)	SLU	16	10	0.00	-76369.30	-1483.77	-1527.39	363.37	1527.39	-235892.00	-12461.50	12815.30	1.19	3.089	---
14.00	1(e)	SLU	16	10	0.00	-76369.30	-1483.77	-1527.39	363.37	1527.39	-235892.00	-12461.50	12815.30	1.19	3.089	---
15.00	1(e)	SLU	16	10	100.00	-75914.30	-567.28	-1518.28	551.86	1518.28	-235892.00	-12443.10	12800.50	1.18	3.107	---
15.50	1(e)	SLU	17	7	0.00	-66174.50	-883.09	-1323.49	118.63	1323.49	-185194.00	-10671.40	7761.83	1.21	2.799	---
15.50	1(e)	SLU	17	7	0.00	-66174.50	-883.09	-1323.49	118.63	1323.49	-174161.00	-9248.26	7781.82	1.23	2.632	---
16.35	1(e)	SLU	17	7	85.00	-65884.50	1068.87	1317.69	-399.42	-1317.69	-174161.00	9243.20	-7776.93	1.23	2.643	---
17.00	1(e)	SLU	18	7	0.00	-59358.70	-1014.61	-1187.17	335.48	1187.17	-174161.00	-9067.08	7626.47	1.20	2.934	---
17.00	1(e)	SLU	18	7	0.00	-59358.70	-1014.61	-1187.17	335.48	1187.17	-174161.00	-9067.08	7626.47	1.20	2.934	---
18.00	1(e)	SLU	18	7	100.00	-59017.50	-531.78	-1180.35	322.06	1180.35	-174161.00	-9055.59	7616.38	1.20	2.951	---
18.50	1(e)	SLU	19	7	0.00	-49379.80	-980.04	-987.60	-0.48	-987.60	-174161.00	-8603.82	-7229.43	1.15	3.527	---
18.50	1(e)	SLU	19	7	0.00	-49379.80	-980.04	-987.60	-0.48	-987.60	-174161.00	-8603.82	-7229.43	1.15	3.527	---
19.35	1(e)	SLU	19	7	85.00	-49089.70	1014.53	1014.53	-428.49	-981.79	-174161.00	8586.91	-7214.93	1.15	3.548	---
20.00	1(e)	SLU	20	7	0.00	-42623.10	-966.72	-966.72	344.98	852.46	-174161.00	-8156.71	6846.41	1.12	4.086	---
20.00	1(e)	SLU	20	7	0.00	-42623.10	-966.72	-966.72	344.98	852.46	-174161.00	-8156.71	6846.41	1.12	4.086	---
21.00	1(e)	SLU	20	7	100.00	-42281.90	-511.04	-845.64	356.28	845.64	-174161.00	-8131.18	6824.87	1.12	4.119	---
21.50	1(e)	SLU	21	7	0.00	-32583.50	-968.27	-968.27	-31.11	-651.67	-32587.40	-7293.38	-6080.72	1.07	4.859	---
21.50	1(e)	SLU	21	7	0.00	-32583.50	-968.27	-968.27	-31.11	-651.67	-32587.40	-7293.38	-6080.72	1.07	4.859	---
22.35	1(e)	SLU	21	7	85.00	-32293.50	1013.93	1013.93	-435.69	-645.87	-32297.00	7264.71	-6054.77	1.07	4.711	---
23.00	1(e)	SLU	22	7	0.00	-25809.80	-1011.17	-1011.17	341.15	516.20	-25811.90	-6543.58	5459.16	1.04	4.360	---
23.00	1(e)	SLU	22	7	0.00	-25809.80	-1011.17	-1011.17	341.15	516.20	-25811.90	-6543.58	5459.16	1.04	4.360	---
24.00	1(e)	SLU	22	7	100.00	-25468.60	-532.95	-532.95	381.34	509.37	-25470.80	-6504.28	5426.42	1.04	6.246	---
24.50	1(e)	SLU	23	7	0.00	-15690.00	-958.81	-958.81	-20.14	-313.80	-15691.50	-5313.14	-4447.78	1.00	3.984	---
24.50	1(e)	SLU	23	7	0.00	-15690.00	-958.81	-958.81	-20.14	-313.80	-15691.50	-5313.14	-4447.78	1.00	3.984	---
25.35	1	SLU	23	7	85.00	-15400.00	1106.52	1106.52	-487.35	-487.35	-15400.70	5276.13	-4417.49	1.00	3.125	---
26.00	1	SLU	24	7	0.00	-8637.08	-1121.93	-1121.93	277.16	277.16	-8638.38	-4404.25	3702.63	1.00	3.034	---
26.00	1	SLU	24	7	0.00	-8637.08	-1121.93	-1121.93	277.16	277.16	-8638.38	-4404.25	3702.63	1.00	3.034	---
27.00	1(e)	SLU	24	7	100.00	-8295.83	-48.17	-165.92	510.24	510.24	-8298.41	-4359.31	3666.03	1.00	5.642	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>f</sub>
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	1	0.00	-48048.90	227.31	-491.05	0.00	12.31	26.10	379.11
0.00	4	SLE Q	1	1	0.00	-41969.30	195.54	-383.54	0.00	12.31	22.54	327.98
0.00	2	SLE R	1	1	0.00	-48048.90	227.31	-491.05	0.00	12.31	26.10	379.11
0.00	4	SLE Q	1	1	0.00	-41969.30	195.54	-383.54	0.00	12.31	22.54	327.98
0.50	2	SLE R	1	1	50.00	-47798.90	-92.70	-74.96	0.00	12.31	22.89	340.17
0.50	4	SLE Q	1	1	50.00	-41719.30	-80.90	-59.32	0.00	12.31	19.95	296.50
0.50	2	SLE R	2	1	0.00	-48026.80	-82.15	56.09	0.00	12.31	22.83	339.70
0.50	4	SLE Q	2	1	0.00	-41930.10	-72.19	42.84	0.00	12.31	19.90	296.22
1.00	2	SLE R	2	1	50.00	-47776.80	-95.47	502.04	0.00	12.31	25.15	367.78
1.00	4	SLE Q	2	1	50.00	-41680.10	-82.38	390.74	0.00	12.31	21.69	317.73
1.00	2	SLE R	3	1	0.00	-49101.40	-71.87	635.85	0.00	12.31	26.31	383.69
1.00	4	SLE Q	3	1	0.00	-42848.50	-62.17	495.37	0.00	12.31	22.64	330.94
1.35	2	SLE R	3	1	35.00	-48926.40	-45.98	930.58	0.00	12.31	27.61	399.50
1.35	4	SLE Q	3	1	35.00	-42673.50	-37.85	726.06	0.00	12.31	23.61	342.75
2.00	2	SLE R	5	1	0.00	-54895.40	-72.49	-356.97	0.00	12.31	27.49	405.52
2.00	4	SLE Q	5	1	0.00	-47916.40	-73.46	-256.55	0.00	12.31	23.78	351.20
2.00	2	SLE R	5	1	0.00	-54895.40	-72.49	-356.97	0.00	12.31	27.49	405.52
2.00	4	SLE Q	5	1	0.00	-47916.40	-73.46	-256.55	0.00	12.31	23.78	351.20
2.38	2	SLE R	5	1	37.50	-54707.90	225.51	-124.13	0.00	12.31	27.20	401.02
2.38	4	SLE Q	5	1	37.50	-47728.90	193.05	-74.37	0.00	12.31	23.53	347.39
2.38	2	SLE R	6	1	0.00	-59828.00	179.18	-77.91	0.00	12.31	28.99	429.62
2.38	4	SLE Q	6	1	0.00	-52201.90	151.62	-38.14	0.00	12.31	25.11	372.56
2.75	2	SLE R	6	1	37.50	-59640.50	503.31	198.68	0.00	12.31	31.71	461.12
2.75	4	SLE Q	6	1	37.50	-52014.40	437.75	176.30	0.00	12.31	27.66	402.26
2.75	2	SLE R	7	1	0.00	-66269.10	534.04	267.28	0.00	12.31	35.31	513.42
2.75	4	SLE Q	7	1	0.00	-57802.80	464.58	229.28	0.00	12.31	30.77	447.49
3.00	2	SLE R	7	1	25.00	-66144.10	801.64	478.58	0.00	12.31	38.15	546.84
3.00	4	SLE Q	7	1	25.00	-57677.80	702.71	392.72	0.00	12.31	33.16	475.54
3.50	2	SLE R	9	10	0.00	-100518.00	-3972.97	939.26	0.00	50.01	36.62	520.42
3.50	4	SLE Q	9	10	0.00	-87420.40	-3508.45	723.88	0.00	50.01	31.73	451.19
3.50	2	SLE R	9	10	0.00	-100518.00	-3972.97	939.26	0.00	46.94	36.99	525.73
3.50	4	SLE Q	9	10	0.00	-87420.40	-3508.45	723.88	0.00	46.94	32.05	455.83
4.35	2	SLE R	9	10	85.00	-99817.10	-1769.63	1660.71	0.00	46.94	33.45	480.36
4.35	4	SLE Q	9	10	85.00	-86719.20	-1541.76	1227.74	0.00	46.94	28.51	410.54
5.00	2	SLE R	10	10	0.00	-92910.30	819.13	-3746.13	0.00	46.94	34.89	493.13
5.00	4	SLE Q	10	10	0.00	-81215.90	680.37	-2835.75	0.00	46.94	29.27	415.87
5.00	2	SLE R	10	10	0.00	-92910.30	819.13	-3746.13	0.00	46.94	34.89	493.13
5.00	4	SLE Q	10	10	0.00	-81215.90	680.37	-2835.75	0.00	46.94	29.27	415.87
6.00	2	SLE R	10	10	100.00	-92085.30	1208.46	-1017.63	0.00	46.94	28.51	413.90
6.00	4	SLE Q	10	10	100.00	-80390.90	1061.96	-738.14	0.00	46.94	24.52	356.71
6.50	2	SLE R	11	10	0.00	-84771.70	316.78	-314.88	0.00	9.24	61.46	898.27
6.50	4	SLE Q	11	10	0.00	-73622.50	248.51	-229.95	0.00	9.24	52.66	772.11
6.50	2	SLE R	11	10	0.00	-84771.70	316.78	-314.88	0.00	9.24	61.46	898.27
6.50	4	SLE Q	11	10	0.00	-73622.50	248.51	-229.95	0.00	9.24	52.66	772.11
7.35	2	SLE R	11	10	85.00	-84474.20	-261.21	959.48	0.00	9.24	67.53	964.37



Relazione di calcolo

7.354	SLE Q 11	10	85.00	-73325.00	-218.17	705.06	0.00	9.24	57.18	821.25
8.002	SLE R 12	10	0.00	-79111.70	238.23	-1646.64	0.00	9.24	71.07	989.66
8.004	SLE Q 12	10	0.00	-69090.10	177.56	-1216.68	0.00	9.24	59.44	835.11
8.002	SLE R 12	10	0.00	-79111.70	238.23	-1646.64	0.00	9.24	71.07	989.66
8.004	SLE Q 12	10	0.00	-69090.10	177.56	-1216.68	0.00	9.24	59.44	835.11
9.002	SLE R 12	10	100.00	-78761.70	257.10	-280.16	0.00	9.24	56.61	829.02
9.004	SLE Q 12	10	100.00	-68740.10	242.80	-198.01	0.00	9.24	49.09	720.16
9.502	SLE R 13	10	0.00	-71873.30	-9.13	-287.24	0.00	9.24	49.83	735.23
9.504	SLE Q 13	10	0.00	-62361.50	-45.35	-240.99	0.00	9.24	43.51	641.11
9.502	SLE R 13	10	0.00	-71873.30	-9.13	-287.24	0.00	9.24	49.83	735.23
9.504	SLE Q 13	10	0.00	-62361.50	-45.35	-240.99	0.00	9.24	43.51	641.11
10.352	SLE R 13	10	85.00	-71575.80	-356.68	970.22	0.00	9.24	60.17	850.44
10.354	SLE Q 13	10	85.00	-62064.00	-305.94	700.87	0.00	9.24	50.66	720.69
11.002	SLE R 14	10	0.00	-66535.30	280.72	-1165.60	0.00	9.24	58.23	815.67
11.004	SLE Q 14	10	0.00	-58107.70	213.68	-811.01	0.00	9.24	48.37	684.74
11.002	SLE R 14	10	0.00	-66535.30	280.72	-1165.60	0.00	9.24	58.23	815.67
11.004	SLE Q 14	10	0.00	-58107.70	213.68	-811.01	0.00	9.24	48.37	684.74
12.002	SLE R 14	10	100.00	-66185.30	290.78	-364.53	0.00	9.24	49.65	719.98
12.004	SLE Q 14	10	100.00	-57757.70	281.25	-265.64	0.00	9.24	43.04	625.23
12.502	SLE R 15	10	0.00	-59280.60	-80.97	-531.08	0.00	9.24	44.91	648.84
12.504	SLE Q 15	10	0.00	-51349.90	-110.16	-443.05	0.00	9.24	39.10	564.49
12.502	SLE R 15	10	0.00	-59280.60	-80.97	-531.08	0.00	9.24	44.91	648.84
12.504	SLE Q 15	10	0.00	-51349.90	-110.16	-443.05	0.00	9.24	39.10	564.49
13.352	SLE R 15	10	85.00	-58983.10	-382.82	861.03	0.00	9.24	51.09	717.84
13.354	SLE Q 15	10	85.00	-51052.40	-329.50	611.10	0.00	9.24	42.79	605.47
14.002	SLE R 16	10	0.00	-54160.40	254.42	-931.89	0.00	9.24	47.47	664.86
14.004	SLE Q 16	10	0.00	-47277.30	193.27	-612.78	0.00	9.24	39.04	553.78
14.002	SLE R 16	10	0.00	-54160.40	254.42	-931.89	0.00	9.24	47.47	664.86
14.004	SLE Q 16	10	0.00	-47277.30	193.27	-612.78	0.00	9.24	39.04	553.78
15.002	SLE R 16	10	100.00	-53810.40	388.32	-406.89	0.00	9.24	42.99	615.07
15.004	SLE Q 16	10	100.00	-46927.30	364.30	-295.68	0.00	9.24	37.11	532.34
15.502	SLE R 17	7	0.00	-46868.30	82.18	-682.14	0.00	9.24	49.99	707.29
15.504	SLE Q 17	7	0.00	-40491.10	42.49	-559.25	0.00	9.24	42.30	601.58
15.502	SLE R 17	7	0.00	-46868.30	82.18	-682.14	0.00	6.16	52.16	737.56
15.504	SLE Q 17	7	0.00	-40491.10	42.49	-559.25	0.00	6.16	44.15	627.44
16.352	SLE R 17	7	85.00	-46645.20	-279.86	735.75	0.00	6.16	56.07	777.85
16.354	SLE Q 17	7	85.00	-40268.00	-236.45	517.70	0.00	6.16	46.64	652.05
17.002	SLE R 18	7	0.00	-42114.20	235.28	-605.60	0.00	6.16	49.49	689.97
17.004	SLE Q 18	7	0.00	-36737.90	177.15	-356.23	0.00	6.16	40.24	569.78
17.002	SLE R 18	7	0.00	-42114.20	235.28	-605.60	0.00	6.16	49.49	689.97
17.004	SLE Q 18	7	0.00	-36737.90	177.15	-356.23	0.00	6.16	40.24	569.78
18.002	SLE R 18	7	100.00	-41851.70	226.39	-387.55	0.00	6.16	46.00	650.53
18.004	SLE Q 18	7	100.00	-36475.40	214.40	-289.27	0.00	6.16	39.68	562.31
18.502	SLE R 19	7	0.00	-34986.40	-2.40	-755.54	0.00	6.16	41.46	579.11
18.504	SLE Q 19	7	0.00	-30117.30	-33.48	-625.02	0.00	6.16	35.85	500.03
18.502	SLE R 19	7	0.00	-34986.40	-2.40	-755.54	0.00	6.16	41.46	579.11
18.504	SLE Q 19	7	0.00	-30117.30	-33.48	-625.02	0.00	6.16	35.85	500.03
19.352	SLE R 19	7	85.00	-34763.30	-300.57	695.22	0.00	6.16	45.44	619.07
19.354	SLE Q 19	7	85.00	-29894.20	-255.68	481.88	0.00	6.16	37.37	513.56
20.002	SLE R 20	7	0.00	-30275.60	241.94	-571.40	0.00	6.16	38.75	530.29
20.004	SLE Q 20	7	0.00	-26399.70	182.84	-329.52	0.00	6.16	30.91	430.81
20.002	SLE R 20	7	0.00	-30275.60	241.94	-571.40	0.00	6.16	38.75	530.29
20.004	SLE Q 20	7	0.00	-26399.70	182.84	-329.52	0.00	6.16	30.91	430.81
21.002	SLE R 20	7	100.00	-30013.10	250.82	-372.37	0.00	6.16	35.83	496.98
21.004	SLE Q 20	7	100.00	-26137.20	236.52	-274.61	0.00	6.16	30.80	428.13
21.502	SLE R 21	7	0.00	-23105.40	-24.90	-747.34	0.00	6.16	31.32	425.76
21.504	SLE Q 21	7	0.00	-19742.00	-53.95	-615.26	0.00	6.16	26.98	365.85
21.502	SLE R 21	7	0.00	-23105.40	-24.90	-747.34	0.00	6.16	31.32	425.76
21.504	SLE Q 21	7	0.00	-19742.00	-53.95	-615.26	0.00	6.16	26.98	365.85
22.352	SLE R 21	7	85.00	-22882.20	-305.67	695.40	0.00	6.16	35.13	463.99
22.354	SLE Q 21	7	85.00	-19518.80	-260.58	484.24	0.00	6.16	28.41	378.56
23.002	SLE R 22	7	0.00	-18385.90	239.26	-597.66	0.00	6.16	28.67	377.84
23.004	SLE Q 22	7	0.00	-16018.50	180.35	-346.73	0.00	6.16	22.02	296.78
23.002	SLE R 22	7	0.00	-18385.90	239.26	-597.66	0.00	6.16	28.67	377.84
23.004	SLE Q 22	7	0.00	-16018.50	180.35	-346.73	0.00	6.16	22.02	296.78
24.002	SLE R 22	7	100.00	-18123.40	268.62	-389.30	0.00	6.16	25.96	346.66
24.004	SLE Q 22	7	100.00	-15756.00	252.09	-288.88	0.00	6.16	22.18	296.81
24.502	SLE R 23	7	0.00	-11160.90	-17.91	-746.73	0.00	6.16	20.79	268.05
24.504	SLE Q 23	7	0.00	-9317.66	-48.86	-615.20	0.00	6.16	17.83	228.67
24.502	SLE R 23	7	0.00	-11160.90	-17.91	-746.73	0.00	6.16	20.79	268.05
24.504	SLE Q 23	7	0.00	-9317.66	-48.86	-615.20	0.00	6.16	17.83	228.67
25.352	SLE R 23	7	85.00	-10937.80	-342.15	758.71	1.54	4.62	27.35	334.45
25.354	SLE Q 23	7	85.00	-9094.53	-287.13	531.41	1.54	4.62	20.88	258.34
26.002	SLE R 24	7	0.00	-6232.09	198.40	-680.05	3.08	3.08	21.86	253.39
26.004	SLE Q 24	7	0.00	-5403.72	155.36	-443.90	1.54	4.62	14.68	177.54
26.002	SLE R 24	7	0.00	-6232.09	198.40	-680.05	3.08	3.08	21.86	253.39
26.004	SLE Q 24	7	0.00	-5403.72	155.36	-443.90	1.54	4.62	14.68	177.54
27.002	SLE R 24	7	100.00	-5969.59	356.58	-24.23	0.00	6.16	11.68	145.63
27.004	SLE Q 24	7	100.00	-5141.22	306.10	9.91	0.00	6.16	9.87	123.35

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo



Relazione di calcolo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	b <sub>w,y</sub> <m>	d <sub>r,y</sub> <m>	Vsdu <sub>,y</sub> <daN>	ctgθ <sub>,y</sub>	VRsd <sub>,y</sub> <daN>	VRsdCam <sub>,y</sub> <daN>	VRcd <sub>,y</sub> <daN>	Vrd <sub>,y</sub> <daN>	b <sub>w,z</sub> <m>	d <sub>r,z</sub> <m>	Vsdu <sub>,z</sub> <daN>	ctgθ <sub>,z</sub>	VRsd <sub>,z</sub> <daN>	VRsdCam <sub>,z</sub> <daN>	VRcd <sub>,z</sub> <daN>	Vrd <sub>,z</sub> <daN>
0.00	1.35	ø8/20	2	2	---	1	SLU	0.50	0.35	899.11	2.50	12369.40	---	32873.20	12369.40	0.40	0.45	1189.67	2.50	15893.50	---	33791.00	15893.50
2.00	3.00	ø8/20	2	2	---	1	SLU	0.50	0.35	1513.74	2.50	12369.40	---	32873.20	12369.40	0.40	0.45	1194.17	2.50	15893.50	---	33791.00	15893.50
3.50	4.35	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	3650.64	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1147.00	2.50	0.00	44432.50	82434.00	39989.30
5.00	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	558.15	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	4018.66	2.50	0.00	44432.50	82434.00	39989.30
6.50	7.35	ø6/15	2	2	---	1	SLU	0.35	0.35	969.13	1.77	6576.70	---	6576.70	6576.70	0.40	0.30	2090.94	1.93	6148.05	---	6148.05	6148.05
8.00	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	26.89	2.30	8530.49	---	8530.49	8530.49	0.40	0.30	2074.09	2.49	7912.36	---	7912.36	7912.36
9.50	10.35	ø6/15	2	2	---	1	SLU	0.35	0.35	583.92	2.50	9277.05	---	11486.60	9277.05	0.40	0.30	2034.11	2.50	7955.54	---	11257.50	7955.54
11.00	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	12.66	2.50	9277.05	---	14081.00	9277.05	0.40	0.30	1296.88	2.50	7955.54	---	13800.20	7955.54
12.50	13.35	ø6/15	2	2	---	1	SLU	0.35	0.35	508.49	2.50	9277.05	---	17533.10	9277.05	0.40	0.30	2250.01	2.50	7955.54	---	17183.40	7955.54
14.00	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	188.50	2.50	9277.05	---	20025.60	9277.05	0.40	0.30	916.50	2.50	7955.54	---	19626.20	7955.54
15.50	16.35	ø6/15	2	2	---	1	SLU	0.35	0.25	609.48	2.50	6634.02	---	11432.40	6634.02	0.30	0.30	2296.42	2.50	7955.54	---	11751.30	7955.54
17.00	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	13.41	2.50	6634.02	---	13644.60	6634.02	0.30	0.30	482.84	2.50	7955.54	---	14025.10	7955.54
18.50	19.35	ø6/15	2	2	---	1	SLU	0.35	0.25	503.53	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	2346.55	2.50	7955.54	---	16914.20	7955.54
20.00	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	11.30	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	455.68	2.50	7955.54	---	16914.20	7955.54
21.50	22.35	ø6/15	2	2	---	1	SLU	0.35	0.25	475.98	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	2332.00	2.50	7955.54	---	16914.20	7955.54
23.00	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	40.19	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	478.22	2.50	7955.54	---	16914.20	7955.54
24.50	25.35	ø6/15	2	2	---	1	SLU	0.35	0.25	549.66	2.50	6634.02	---	15201.20	6634.02	0.30	0.30	2429.80	2.50	7955.54	---	15625.20	7955.54
26.00	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	233.08	2.50	6634.02	---	14285.60	6634.02	0.30	0.30	1073.76	2.50	7955.54	---	14684.00	7955.54

Pilastrata n. 45

Nodi: 45 -7192 -7194 -7196 245 -7175 -7177 -7179 345 445 545 645 745 845 945 1045 1145 1245 1345 1445 1545 1645 1745 1845 1945

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
	1R	40.00	50.00	3.00	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	1R	40.00	50.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	10R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
	7R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-67164.40	-2876.92	-2876.92	-98.03	-1343.29	-333837.00	-20877.90	-16397.40	1.08	4.970	---
0.00	1(e)	SLU	1	1	0.00	-67164.40	-2876.92	-2876.92	-98.03	-1343.29	-333837.00	-20877.90	-16397.40	1.08	4.970	---
0.50	1(e)	SLU	1	1	50.00	-66839.40	-1176.58	-1336.79	149.94	1336.79	-333837.00	-20841.00	16368.90	1.08	4.995	---
0.50	1(e)	SLU	2	1	0.00	-67971.10	-711.25	-1359.42	163.55	1359.42	-333837.00	-20944.00	16450.60	1.09	4.911	---
1.00	1(e)	SLU	2	1	50.00	-67646.10	1034.90	1352.92	105.69	1352.92	-333837.00	20918.80	16430.30	1.09	4.935	---
1.00	1(e)	SLU	3	1	0.00	-70353.50	1506.74	1506.74	92.81	1407.07	-333837.00	21127.90	16597.40	1.09	4.745	---
1.35	1(e)	SLU	3	1	35.00	-70126.00	2720.59	2720.59	19.81	1402.52	-333837.00	21110.30	16583.50	1.09	4.761	---
2.00	1(e)	SLU	5	1	0.00	-76832.50	-941.24	-1536.65	215.90	1536.65	-333837.00	-21611.80	16984.70	1.11	4.345	---
2.00	1(e)	SLU	5	1	0.00	-76832.50	-941.24	-1536.65	215.90	1536.65	-333837.00	-21611.80	16984.70	1.11	4.345	---
2.38	1(e)	SLU	5	1	37.50	-76588.70	-936.81	-1531.77	-308.76	-1531.77	-333837.00	-21594.00	-16970.60	1.11	4.359	---
2.38	1(e)	SLU	6	1	0.00	-84391.30	-921.11	-1687.83	-216.97	-1687.83	-333837.00	-22142.80	-17409.30	1.13	3.956	---
2.75	1(e)	SLU	6	1	37.50	-84147.60	-855.35	-1682.95	-698.42	-1682.95	-333837.00	-22126.50	-17396.30	1.13	3.967	---
2.75	1(e)	SLU	7	1	0.00	-94040.70	-821.46	-1880.81	-734.19	-1880.81	-333837.00	-22757.10	-17901.40	1.15	3.550	---
3.00	1(e)	SLU	7	1	25.00	-93878.20	-764.64	-1877.56	-1118.48	-1877.56	-333837.00	-22747.50	-17894.00	1.15	3.556	---
3.50	1(e)	SLU	9	10	0.00	-144230.00	-978.73	-2884.61	6326.77	6326.77	-657277.00	-51061.60	56705.50	1.10	4.557	166.19
3.50	1(e)	SLU	9	10	0.00	-144230.00	-978.73	-2884.61	6326.77	6326.77	-646245.00	-50926.20	55240.10	1.10	4.481	173.96
4.35	1(e)	SLU	9	10	85.00	-143319.00	3909.42	3909.42	2704.42	2866.37	-646245.00	50887.50	55203.60	1.10	4.509	173.96
5.00	1(e)	SLU	10	10	0.00	-132444.00	-2545.97	-2648.88	-1237.19	-2648.88	-646245.00	-50414.70	-54756.70	1.09	4.879	173.96
5.00	1(e)	SLU	10	10	0.00	-132444.00	-2545.97	-2648.88	-1237.19	-2648.88	-646245.00	-50414.70	-54756.70	1.09	4.879	173.96
6.00	1(e)	SLU	10	10	100.00	-131371.00	-1656.73	-2627.43	-1929.32	-2627.43	-646245.00	-50366.80	-54711.30	1.09	4.919	173.96
6.50	1(e)	SLU	11	10	0.00	-121491.00	-1578.57	-2429.83	374.17	2429.83	-235892.00	-11672.90	12440.60	1.35	1.942	---
6.50	1(e)	SLU	11	10	0.00	-121491.00	-1578.57	-2429.83	374.17	2429.83	-235892.00	-11672.90	12440.60	1.35	1.942	---
7.35	1(e)	SLU	11	10	85.00	-121105.00	1664.07	2422.09	492.93	2422.09	-235892.00	11693.70	12458.40	1.34	1.948	---
8.00	1(e)	SLU	12	10	0.00	-112493.00	-2121.33	-2249.85	-407.47	-2249.85	-235892.00	-12132.00	-12829.20	1.31	2.097	---
8.00	1(e)	SLU	12	10	0.00	-112493.00	-2121.33	-2249.85	-407.47	-2249.85	-235892.00	-12132.00	-12829.20	1.31	2.097	---
9.00	1(e)	SLU	12	10	100.00	-112038.00	-668.61	-2240.75	-759.51	-2240.75	-235892.00	-12154.00	-12847.20	1.31	2.105	---
9.50	1(e)	SLU	13	10	0.00	-102755.00	-652.00	-2055.11	729.43	2055.11	-235892.00	-12576.90	13185.10	1.28	2.296	---
9.50	1(e)	SLU	13	10	0.00	-102755.00	-652.00	-2055.11	729.43	2055.11	-235892.00	-12576.90	13185.10	1.28	2.296	---
10.35	1(e)	SLU	13	10	85.00	-102369.00	1535.32	2047.37	605.78	2047.37	-235892.00	12593.50	13197.90	1.28	2.304	---
11.00	1(e)	SLU	14	10	0.00	-94469.10	-2165.45	-2165.45	-456.04	-1889.38	-235892.00	-12886.10	-13219.10	1.25	2.497	---
11.00	1(e)	SLU	14	10	0.00	-94469.10	-2165.45	-2165.45	-456.04	-1889.38	-235892.00	-12886.10	-13219.10	1.25	2.497	---
12.00	1(e)	SLU	14	10	100.00	-94014.10	-527.28	-1880.28	-780.78	-1880.28	-235892.00	-12882.20	-13214.20	1.25	2.509	---
12.50	1(e)	SLU	15	10	0.00	-84728.70	-413.50	-1694.57	660.59	1694.57	-235892.00	-12729.30	13050.50	1.22	2.784	---
12.50	1(e)	SLU	15	10	0.00	-84728.70	-413.50	-1694.57	660.59	1694.57	-235892.00	-12729.30	13050.50	1.22	2.784	---
13.35	1(e)	SLU	15	10	85.00	-84342.00	1357.51	1686.84	601.65	1686.84	-235892.00	12719.50	13041.40	1.21	2.797	---
14.00	1(e)	SLU	16	10	0.00	-76757.70	-2217.53	-2217.53	-425.85	-1535.15	-235892.00	-12476.30	-12827.90	1.19	3.073	---
14.00	1(e)	SLU	16	10	0.00	-76757.70	-2217.53	-2217.53	-425.85	-1535.15	-235892.00	-12476.30	-12827.90	1.19	3.073	---
15.00	1(e)	SLU	16	10	100.00	-76302.70	-452.69	-1526.05	-818.35	-1526.05	-235892.00	-12458.90	-12813.20	1.19	3.096	---
15.50	1(e)	SLU	17	7	0.00	-67023.70	-266.53	-1340.47	192.12	1340.47	-185194.00	-10686.00	7772.83	1.22	2.763	---
15.50	1(e)	SLU	17	7	0.00	-67023.70	-266.53	-1340.47	192.12	1340.47	-174161.00	-9262.82	7794.67	1.24	2.599	---
16.35	1(e)	SLU	17	7	85.00	-66733.70	1076.63	1334.67	387.44	1334.67	-174161.00	9257.85	7790.90	1.24	2.610	---
17.00	1(e)	SLU	18	7	0.00	-59607.80	-2080.82	-2080.82	-372.68	-1192.16	-174161.00	-9075.54	-7633.83	1.20	2.922	---
17.00	1(e)	SLU	18	7	0.00	-59607.80	-2080.82	-2080.82	-372.68	-1192.16	-174161.00	-9075.54	-7633.83	1.20	2.922	---
18.00	1(e)	SLU	18	7	100.00	-59266.50	-242.10	-1185.33	-409.43	-1185.33	-174161.00	-9064.03	-7623.73	1.20	2.939	---
18.50	1(e)	SLU	19	7	0.00	-50098.00	-48.48	-1001.96	278.43	1001.96	-174161.00	-8645.85	7265.57	1.16	3.476	---
18.50	1(e)	SLU	19	7	0.00	-50098.00	-48.48	-1001.96	278.43	1001.96	-174161.00	-8645.85	7265.57	1.16	3.476	---
19.35	1(e)	SLU	19	7	85.00	-49807.90	984.52	996.16	417.04	996.16	-174161.00	8628.88	7251.05	1.15	3.497	---
20.00	1(e)	SLU	20	7	0.00	-42916.30	-2118.62	-2118.62	-384.90	-858.33	-42918.00	-8178.85	-6864.63	1.12	3.158	---
20.00	1(e)	SLU	20	7	0.00	-42916.30	-2118.62	-2118.62	-384.90	-858.33	-42918.00	-8178.85	-6864.63	1.12	3.158	---
21.00	1(e)	SLU	20	7	100.00	-42375.00	-170.59	-851.50	-421.85	-851.50	-174161.00	-8153.14	-6843.14	1.12	4.091	---
21.50	1(e)	SLU	21	7	0.00	-33345.10	52.65	666.90	294.09	666.90	-174161.00	7366.34	6145.83	1.08	5.223	---
21.50	1(e)	SLU	21	7	0.00	-33345.10	52.65	666.90	294.09	666.90	-174161.00	7366.34	6145.83	1.08	5.223	---
22.35	1(e)	SLU	21	7	85.00	-33055.00	951.51	951.51	428.79	661.10	-33059.50	7338.54	6121.16	1.07	4.933	---
23.00	1(e)	SLU	22	7	0.00	-26215.80	-2161.65	-2161.65	-364.34	524.32	-26216.80	-6590.37	5498.03	1.04	2.504	---
23.00	1(e)	SLU	22	7	0.00	-26215.80	-2161.65	-2161.65	-364.34	524.32	-26216.80	-6590.37	5498.03	1.04	2.504	---
24.00	1(e)	SLU	22	7	100.00	-25874.50	-389.89	-517.49	-453.65	517.49	-25874.70	-6550.98	5465.20	1.04	6.355	---
24.50	1(e)	SLU	23	7	0.00	-16569.60	-610.50	-610.50	267.49	331.39	-16570.10	-5424.93	4539.27	1.00	5.390	---
24.50	1(e)	SLU	23	7	0.00	-16569.60	-610.50	-610.50	267.49	331.39	-16570.10	-5424.93	4539.27	1.00	5.390	---



Relazione di calcolo

25.35	1	SLU	23	7	85.00	-16279.50	1568.00	1568.00	474.83	474.83	-16283.00	5388.10	4509.38	1.00	2.523	---
26.00	1	SLU	24	7	0.00	-8211.62	-1765.05	-1765.05	-370.32	-370.32	-8214.76	-4348.01	-3657.02	1.00	1.972	---
26.00	1	SLU	24	7	0.00	-8211.62	-1765.05	-1765.05	-370.32	-370.32	-8214.76	-4348.01	-3657.02	1.00	1.972	---
27.00	1(e)	SLU	24	7	100.00	-7870.37	-104.87	-157.41	-544.86	-544.86	-7874.57	-4303.37	-3620.37	1.00	5.345	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>f</sub>
<cm>					<cm>	<daN>	<daNm>	<daNm>	<cmq>		<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	1	0.00	-47769.80	-70.76	-1970.79	0.00	12.31	32.73	460.58
0.00	4	SLE Q	1	1	0.00	-41631.80	-63.70	-1584.78	0.00	12.31	27.83	392.99
0.00	2	SLE R	1	1	0.00	-47769.80	-70.76	-1970.79	0.00	12.31	32.73	460.58
0.00	4	SLE Q	1	1	0.00	-41631.80	-63.70	-1584.78	0.00	12.31	27.83	392.99
0.50	2	SLE R	1	1	50.00	-47519.80	106.84	-790.96	0.00	12.31	26.63	385.53
0.50	4	SLE Q	1	1	50.00	-41381.80	93.50	-646.75	0.00	12.31	22.97	333.06
0.50	2	SLE R	2	1	0.00	-48318.30	116.39	-467.86	0.00	12.31	25.36	370.90
0.50	4	SLE Q	2	1	0.00	-42068.30	101.43	-390.60	0.00	12.31	21.99	321.86
1.00	2	SLE R	2	1	50.00	-48068.30	75.69	743.86	0.00	12.31	26.43	383.86
1.00	4	SLE Q	2	1	50.00	-41818.30	66.82	572.16	0.00	12.31	22.60	329.18
1.00	2	SLE R	3	1	0.00	-49985.00	66.49	1071.39	0.00	12.31	28.97	417.44
1.00	4	SLE Q	3	1	0.00	-43479.00	58.48	831.74	0.00	12.31	24.68	356.69
1.35	2	SLE R	3	1	35.00	-49810.00	14.91	1913.26	0.00	12.31	32.98	466.57
1.35	4	SLE Q	3	1	35.00	-43304.00	13.40	1501.41	0.00	12.31	27.82	395.21
2.00	2	SLE R	5	1	0.00	-54571.70	151.37	-659.64	0.00	12.31	29.47	428.91
2.00	4	SLE Q	5	1	0.00	-47688.70	136.34	-419.63	0.00	12.31	24.95	365.01
2.00	2	SLE R	5	1	0.00	-54571.70	151.37	-659.64	0.00	12.31	29.47	428.91
2.00	4	SLE Q	5	1	0.00	-47688.70	136.34	-419.63	0.00	12.31	24.95	365.01
2.38	2	SLE R	5	1	37.50	-54384.20	-218.94	-647.69	0.00	12.31	29.77	432.06
2.38	4	SLE Q	5	1	37.50	-47501.20	-188.45	-440.26	0.00	12.31	25.32	369.07
2.38	2	SLE R	6	1	0.00	-59913.60	-154.02	-634.90	0.00	12.31	31.80	464.20
2.38	4	SLE Q	6	1	0.00	-52314.80	-131.93	-436.57	0.00	12.31	27.13	397.52
2.75	2	SLE R	6	1	37.50	-59726.10	-494.78	-579.00	0.00	12.31	33.69	485.58
2.75	4	SLE Q	6	1	37.50	-52127.30	-431.78	-423.57	0.00	12.31	28.98	418.52
2.75	2	SLE R	7	1	0.00	-66738.60	-520.15	-552.91	0.00	12.31	36.94	534.00
2.75	4	SLE Q	7	1	0.00	-58237.00	-454.22	-409.93	0.00	12.31	31.85	461.32
3.00	2	SLE R	7	1	25.00	-66613.60	-792.26	-505.70	0.00	12.31	38.45	551.08
3.00	4	SLE Q	7	1	25.00	-58112.00	-697.59	-394.13	0.00	12.31	33.33	478.21
3.50	2	SLE R	9	10	0.00	-102286.00	4483.50	-636.73	0.00	50.01	37.47	532.38
3.50	4	SLE Q	9	10	0.00	-88937.00	3920.21	-569.08	0.00	50.01	32.67	464.05
3.50	2	SLE R	9	10	0.00	-102286.00	4483.50	-636.73	0.00	46.94	37.85	537.90
3.50	4	SLE Q	9	10	0.00	-88937.00	3920.21	-569.08	0.00	46.94	33.01	468.86
4.35	2	SLE R	9	10	85.00	-101584.00	1912.58	2721.33	0.00	46.94	36.99	525.39
4.35	4	SLE Q	9	10	85.00	-88235.70	1652.60	2089.04	0.00	46.94	31.39	447.25
5.00	2	SLE R	10	10	0.00	-93953.80	-871.95	-1788.95	0.00	46.94	30.19	435.64
5.00	4	SLE Q	10	10	0.00	-82116.80	-729.57	-1270.47	0.00	46.94	25.54	370.35
5.00	2	SLE R	10	10	0.00	-93953.80	-871.95	-1788.95	0.00	46.94	30.19	435.64
5.00	4	SLE Q	10	10	0.00	-82116.80	-729.57	-1270.47	0.00	46.94	25.54	370.35
6.00	2	SLE R	10	10	100.00	-93128.80	-1361.75	-1114.36	0.00	46.94	29.39	425.51
6.00	4	SLE Q	10	10	100.00	-81291.80	-1183.69	-836.93	0.00	46.94	25.29	366.91
6.50	2	SLE R	11	10	0.00	-86061.60	266.20	-1045.67	0.00	9.24	69.52	990.45
6.50	4	SLE Q	11	10	0.00	-74718.70	231.84	-845.56	0.00	9.24	59.70	852.73
6.50	2	SLE R	11	10	0.00	-86061.60	266.20	-1045.67	0.00	9.24	69.52	990.45
6.50	4	SLE Q	11	10	0.00	-74718.70	231.84	-845.56	0.00	9.24	59.70	852.73
7.35	2	SLE R	11	10	85.00	-85764.10	346.86	1144.41	0.00	9.24	71.14	1007.99
7.35	4	SLE Q	11	10	85.00	-74421.20	287.80	864.12	0.00	9.24	60.24	858.19
8.00	2	SLE R	12	10	0.00	-79754.20	-282.22	-1504.07	0.00	9.24	70.40	984.17
8.00	4	SLE Q	12	10	0.00	-69651.40	-216.54	-1088.81	0.00	9.24	58.83	829.99
8.00	2	SLE R	12	10	0.00	-79754.20	-282.22	-1504.07	0.00	9.24	70.40	984.17
8.00	4	SLE Q	12	10	0.00	-69651.40	-216.54	-1088.81	0.00	9.24	58.83	829.99
9.00	2	SLE R	12	10	100.00	-79404.20	-538.66	-432.40	0.00	9.24	61.33	884.22
9.00	4	SLE Q	12	10	100.00	-69301.40	-472.92	-326.73	0.00	9.24	53.02	766.12
9.50	2	SLE R	13	10	0.00	-72777.30	518.83	-399.29	0.00	9.24	56.49	813.55
9.50	4	SLE Q	13	10	0.00	-63138.40	459.69	-337.92	0.00	9.24	49.01	705.87
9.50	2	SLE R	13	10	0.00	-72777.30	518.83	-399.29	0.00	9.24	56.49	813.55
9.50	4	SLE Q	13	10	0.00	-63138.40	459.69	-337.92	0.00	9.24	49.01	705.87
10.35	2	SLE R	13	10	85.00	-72479.80	427.23	1040.76	0.00	9.24	62.18	875.30
10.35	4	SLE Q	13	10	85.00	-62840.90	361.41	760.68	0.00	9.24	52.33	741.38
11.00	2	SLE R	14	10	0.00	-66981.00	-315.89	-1539.48	0.00	9.24	62.80	867.50
11.00	4	SLE Q	14	10	0.00	-58496.30	-245.72	-1122.66	0.00	9.24	52.21	728.41
11.00	2	SLE R	14	10	0.00	-66981.00	-315.89	-1539.48	0.00	9.24	62.80	867.50
11.00	4	SLE Q	14	10	0.00	-58496.30	-245.72	-1122.66	0.00	9.24	52.21	728.41
12.00	2	SLE R	14	10	100.00	-66631.00	-556.06	-328.81	0.00	9.24	52.11	749.54
12.00	4	SLE Q	14	10	100.00	-58146.30	-494.17	-235.55	0.00	9.24	45.02	649.09
12.50	2	SLE R	15	10	0.00	-59997.20	473.01	-222.94	0.00	9.24	45.88	663.32
12.50	4	SLE Q	15	10	0.00	-51957.70	435.93	-183.27	0.00	9.24	39.88	576.21
12.50	2	SLE R	15	10	0.00	-59997.20	473.01	-222.94	0.00	9.24	45.88	663.32
12.50	4	SLE Q	15	10	0.00	-51957.70	435.93	-183.27	0.00	9.24	39.88	576.21
13.35	2	SLE R	15	10	85.00	-59699.70	425.15	911.25	0.00	9.24	52.49	735.37
13.35	4	SLE Q	15	10	85.00	-51660.20	364.56	650.99	0.00	9.24	43.94	619.93
14.00	2	SLE R	16	10	0.00	-54432.40	-294.72	-1578.20	0.00	9.24	54.85	747.32
14.00	4	SLE Q	16	10	0.00	-47518.40	-228.22	-1154.87	0.00	9.24	45.25	623.20
14.00	2	SLE R	16	10	0.00	-54432.40	-294.72	-1578.20	0.00	9.24	54.85	747.32
14.00	4	SLE Q	16	10	0.00	-47518.40	-228.22	-1154.87	0.00	9.24	45.25	623.20



Relazione di calcolo

15.00	2	SLE R	16	10	100.00	-54082.40	-584.01	-274.41	0.00	9.24	43.65	623.95
15.00	4	SLE Q	16	10	100.00	-47168.40	-525.93	-183.92	0.00	9.24	37.64	539.56
15.50	2	SLE R	17	7	0.00	-47452.70	140.44	-117.24	0.00	9.24	43.87	640.98
15.50	4	SLE Q	17	7	0.00	-40983.80	139.95	-86.33	0.00	9.24	38.01	554.66
15.50	2	SLE R	17	7	0.00	-47452.70	140.44	-117.24	0.00	6.16	45.59	666.28
15.50	4	SLE Q	17	7	0.00	-40983.80	139.95	-86.33	0.00	6.16	39.47	576.38
16.35	2	SLE R	17	7	85.00	-47229.60	273.20	716.18	0.00	6.16	56.19	781.26
16.35	4	SLE Q	17	7	85.00	-40760.60	230.33	500.11	0.00	6.16	46.72	654.66
17.00	2	SLE R	18	7	0.00	-42288.60	-256.73	-1482.16	0.00	6.16	62.52	834.42
17.00	4	SLE Q	18	7	0.00	-36893.60	-197.28	-1087.51	0.00	6.16	51.16	690.82
17.00	2	SLE R	18	7	0.00	-42288.60	-256.73	-1482.16	0.00	6.16	62.52	834.42
17.00	4	SLE Q	18	7	0.00	-36893.60	-197.28	-1087.51	0.00	6.16	51.16	690.82
18.00	2	SLE R	18	7	100.00	-42026.10	-293.96	-128.09	0.00	6.16	43.59	623.73
18.00	4	SLE Q	18	7	100.00	-36631.10	-268.08	-71.48	0.00	6.16	37.62	539.41
18.50	2	SLE R	19	7	0.00	-35479.20	201.89	36.39	0.00	6.16	34.99	507.10
18.50	4	SLE Q	19	7	0.00	-30530.90	196.52	38.33	0.00	6.16	30.60	441.49
18.50	2	SLE R	19	7	0.00	-35479.20	201.89	36.39	0.00	6.16	34.99	507.10
18.50	4	SLE Q	19	7	0.00	-30530.90	196.52	38.33	0.00	6.16	30.60	441.49
19.35	2	SLE R	19	7	85.00	-35256.10	294.30	647.42	0.00	6.16	45.08	616.89
19.35	4	SLE Q	19	7	85.00	-30307.80	249.73	440.05	0.00	6.16	37.04	511.34
20.00	2	SLE R	20	7	0.00	-30484.00	-265.29	-1510.21	0.00	6.16	52.73	685.35
20.00	4	SLE Q	20	7	0.00	-26582.90	-205.32	-1111.32	0.00	6.16	42.61	560.61
20.00	2	SLE R	20	7	0.00	-30484.00	-265.29	-1510.21	0.00	6.16	52.73	685.35
20.00	4	SLE Q	20	7	0.00	-26582.90	-205.32	-1111.32	0.00	6.16	42.61	560.61
21.00	2	SLE R	20	7	100.00	-30221.50	-303.08	-75.55	0.00	6.16	32.66	462.04
21.00	4	SLE Q	20	7	100.00	-26320.40	-276.90	-25.64	0.00	6.16	28.09	398.33
21.50	2	SLE R	21	7	0.00	-23629.40	212.92	111.79	0.00	6.16	25.88	365.35
21.50	4	SLE Q	21	7	0.00	-20177.50	207.17	104.63	0.00	6.16	22.66	317.88
21.50	2	SLE R	21	7	0.00	-23629.40	212.92	111.79	0.00	6.16	25.88	365.35
21.50	4	SLE Q	21	7	0.00	-20177.50	207.17	104.63	0.00	6.16	22.66	317.88
22.35	2	SLE R	21	7	85.00	-23406.20	302.66	622.11	0.00	6.16	34.49	458.77
22.35	4	SLE Q	21	7	85.00	-19954.40	257.18	419.01	0.00	6.16	27.80	373.38
23.00	2	SLE R	22	7	0.00	-18677.20	-250.58	-1540.66	1.54	4.62	44.39	549.20
23.00	4	SLE Q	22	7	0.00	-16268.90	-194.17	-1135.83	1.54	4.62	34.21	431.49
23.00	2	SLE R	22	7	0.00	-18677.20	-250.58	-1540.66	1.54	4.62	44.39	549.20
23.00	4	SLE Q	22	7	0.00	-16268.90	-194.17	-1135.83	1.54	4.62	34.21	431.49
24.00	2	SLE R	22	7	100.00	-18414.70	-325.58	-223.35	0.00	6.16	24.81	334.30
24.00	4	SLE Q	22	7	100.00	-16006.40	-295.44	-141.15	0.00	6.16	21.02	284.40
24.50	2	SLE R	23	7	0.00	-11769.40	192.95	-339.76	0.00	6.16	18.42	242.10
24.50	4	SLE Q	23	7	0.00	-9818.67	187.52	-248.41	0.00	6.16	15.31	201.11
24.50	2	SLE R	23	7	0.00	-11769.40	192.95	-339.76	0.00	6.16	18.42	242.10
24.50	4	SLE Q	23	7	0.00	-9818.67	187.52	-248.41	0.00	6.16	15.31	201.11
25.35	2	SLE R	23	7	85.00	-11546.30	335.30	1041.96	1.54	4.62	33.70	402.95
25.35	4	SLE Q	23	7	85.00	-9595.55	289.49	737.59	1.54	4.62	25.26	306.81
26.00	2	SLE R	24	7	0.00	-5950.00	-254.22	-1273.44	3.08	3.08	43.15	743.13
26.00	4	SLE Q	24	7	0.00	-5187.54	-220.22	-932.75	3.08	3.08	31.82	458.20
26.00	2	SLE R	24	7	0.00	-5950.00	-254.22	-1273.44	3.08	3.08	43.15	743.13
26.00	4	SLE Q	24	7	0.00	-5187.54	-220.22	-932.75	3.08	3.08	31.82	458.20
27.00	2	SLE R	24	7	100.00	-5687.50	-388.56	-53.75	1.54	4.62	12.69	154.72
27.00	4	SLE Q	24	7	100.00	-4925.04	-330.84	-9.39	0.00	6.16	10.24	125.88

Stato limite d'esercizio - Verifiche a fessurazione

Xg	CC	TCC	El	Sez.	X	N	My	Mz	C	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
<m>					<cm>	<daN>	<daNm>	<daNm>	<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cmq>		<mm>
26.00	4	SLE Q	24	7	0.00	-5187.54	-932.75	-220.22	39.00	208.00	0.50	14.00	177.79	1.54	109.72	458.20	0.13	0.04
26.00	3	SLE F	24	7	0.00	-5380.05	-1034.45	-231.15	39.00	208.00	0.50	14.00	188.03	1.54	120.98	546.63	0.16	0.05
26.00	4	SLE Q	24	7	0.00	-5187.54	-932.75	-220.22	39.00	208.00	0.50	14.00	177.79	1.54	109.72	458.20	0.13	0.04
26.00	3	SLE F	24	7	0.00	-5380.05	-1034.45	-231.15	39.00	208.00	0.50	14.00	188.03	1.54	120.98	546.63	0.16	0.05

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	S
<m>	<m>							<m>	<m>	<daN>		<daN>	<daN>	<daN>	<daN>	<m>	<m>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	1.35	ø6/15	2	2	---	1	SLU	0.50	0.35	495.92	2.50	9277.05	---	32873.20	9277.05	0.40	0.45	3468.13	2.50	11920.10	---	33791.00	11920.10	3
2.00	3.00	ø6/15	2	2	---	1	SLU	0.50	0.35	1537.18	2.50	9277.05	---	32873.20	9277.05	0.40	0.45	227.31	2.50	11920.10	---	33791.00	11920.10	6
3.50	4.35	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	4261.59	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	5750.77	2.50	0.00	44432.50	82434.00	39989.30	6
5.00	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	692.13	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	889.24	2.50	0.00	44432.50	82434.00	39989.30	44
6.50	7.35	ø6/15	2	2	---	1	SLU	0.35	0.35	139.71	1.63	6036.40	---	6036.40	6036.40	0.40	0.30	3814.88	1.78	5663.13	---	5663.13	5663.13	1
8.00	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	352.04	2.25	8330.85	---	8330.85	8330.85	0.40	0.30	1452.72	2.43	7731.51	---	7731.52	7731.51	5
9.50	10.35	ø6/15	2	2	---	1	SLU	0.35	0.35	145.47	2.50	9277.05	---	11043.50	9277.05	0.40	0.30	2573.32	2.50	7955.54	---	10823.30	7955.54	3
11.00	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	324.74	2.50	9277.05	---	13864.20	9277.05	0.40	0.30	1638.17	2.50	7955.54	---	13587.80	7955.54	4
12.50	13.35	ø6/15	2	2	---	1	SLU	0.35	0.35	69.35	2.50	9277.05	---	17180.00	9277.05	0.40	0.30	2083.54	2.50	7955.54	---	16837.30	7955.54	3
14.00	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	392.50	2.50	9277.05	---	19893.40	9277.05	0.40	0.30	1764.84	2.50	7955.54	---	19496.60	7955.54	4
15.50	16.35	ø6/15	2	2	---	1	SLU	0.35	0.25	229.78	2.50	6634.02	---	11156.80	6634.02	0.30	0.30	1580.20	2.50	7955.54	---	11467.90	7955.54	5
17.00	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	36.74	2.50	6634.02	---	13563.80	6634.02	0.30	0.30	1838.73	2.50	7955.54	---	13942.10	7955.54	4
18.50	19.35	ø6/15	2	2	---	1	SLU	0.35	0.25	163.07	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1215.29	2.50	7955.54	---	16914.20	7955.54	6
20.00	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	36.95	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1948.03	2.50	7955.54	---	16914.20	7955.54	4
21.50	22.35	ø6/15	2	2	---	1	SLU	0.35	0.25	158.47	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1057.49	2.50	7955.54	---	16914.20	7955.54	7
23.00	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	89.31	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1771.76	2.50	7955.54	---	16914.20	7955.54	4
24.50	25.35	ø6/15	2	2	---	1	SLU	0.35	0.25	243.93	2.50	6634.02	---	15315.40	6634.02	0.30	0.30	2562.94	2.50	7955.54	---	15742.60	7955.54	3
26.00	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	174.55	2.50	6634.02	---	14230.30	6634.02	0.30	0.30	1660.18	2.50	7955.54	---	14627.20	7955.54	4

Pilastrata n. 46

Nodi: 46 346 546 746 946 1146 1346 1546 1746 1946



Relazione di calcolo

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
1R		40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10R		40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7R		30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fyk <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-161320.00	1619.57	3226.41	-653.85	-3226.41	-784267.00	75070.80	-62895.60	1.09	4.862	134.93
0.00	1(e)	SLU	1	1	0.00	-161320.00	1619.57	3226.41	-653.85	-3226.41	-784267.00	75070.80	-62895.60	1.09	4.862	134.93
3.00	1(e)	SLU	1	1	300.00	-157225.00	1515.72	3144.50	951.58	3144.50	-784267.00	74664.30	62557.50	1.08	4.988	134.93
3.50	1(e)	SLU	2	10	0.00	-139850.00	1429.81	2797.00	165.13	2797.00	-657277.00	50893.90	56521.00	1.09	4.700	166.19
3.50	1(e)	SLU	2	10	0.00	-139850.00	1429.81	2797.00	165.13	2797.00	-646245.00	50739.60	55063.70	1.10	4.621	173.96
6.00	1(e)	SLU	2	10	250.00	-137169.00	349.17	2743.37	-172.97	-2743.37	-646245.00	50623.30	-54953.70	1.09	4.711	173.96
6.50	1(e)	SLU	3	10	0.00	-120935.00	183.93	2418.69	221.38	2418.69	-235892.00	11702.70	12466.30	1.34	1.951	---
6.50	1(e)	SLU	3	10	0.00	-120935.00	183.93	2418.69	221.38	2418.69	-235892.00	11702.70	12466.30	1.34	1.951	---
9.00	1(e)	SLU	3	10	250.00	-119797.00	-57.48	-2395.94	-185.55	-2395.94	-235892.00	-11763.20	-12518.70	1.34	1.969	---
9.50	1(e)	SLU	4	10	0.00	-103451.00	52.51	2069.01	167.70	2069.01	-235892.00	12546.70	13161.60	1.28	2.280	---
9.50	1(e)	SLU	4	10	0.00	-103451.00	52.51	2069.01	167.70	2069.01	-235892.00	12546.70	13161.60	1.28	2.280	---
12.00	1(e)	SLU	4	10	250.00	-102313.00	-104.34	-2046.26	-185.16	-2046.26	-235892.00	-12596.00	-13199.80	1.28	2.306	---
12.50	1(e)	SLU	5	10	0.00	-85915.70	-4.45	-1718.31	128.58	1718.31	-235892.00	-12757.80	13078.10	1.22	2.746	---
12.50	1(e)	SLU	5	10	0.00	-85915.70	-4.45	-1718.31	128.58	1718.31	-235892.00	-12757.80	13078.10	1.22	2.746	---
15.00	1(e)	SLU	5	10	250.00	-84778.20	-85.76	-1695.56	-140.86	-1695.56	-235892.00	-12730.60	-13051.60	1.22	2.782	---
15.50	1(e)	SLU	6	7	0.00	-68351.60	1.91	1367.03	60.39	1367.03	-185194.00	10705.80	7789.72	1.22	2.709	---
15.50	1(e)	SLU	6	7	0.00	-68351.60	1.91	1367.03	60.39	1367.03	-174161.00	9282.60	7811.64	1.24	2.548	---
18.00	1(e)	SLU	6	7	250.00	-67498.40	-62.89	-1349.97	-64.98	-1349.97	-174161.00	-9270.81	-7800.79	1.24	2.580	---
18.50	1(e)	SLU	7	7	0.00	-51030.20	17.02	1020.60	68.16	1020.60	-174161.00	8696.58	7309.06	1.16	3.413	---
18.50	1(e)	SLU	7	7	0.00	-51030.20	17.02	1020.60	68.16	1020.60	-174161.00	8696.58	7309.06	1.16	3.413	---
21.00	1(e)	SLU	7	7	250.00	-50177.10	-55.38	-1003.54	-73.60	-1003.54	-174161.00	-8650.06	-7269.57	1.16	3.471	---
21.50	1(e)	SLU	8	7	0.00	-33761.00	14.53	675.22	92.21	675.22	-174161.00	7406.33	6181.48	1.08	5.159	---
21.50	1(e)	SLU	8	7	0.00	-33761.00	14.53	675.22	92.21	675.22	-174161.00	7406.33	6181.48	1.08	5.159	---
24.00	1(e)	SLU	8	7	250.00	-32907.80	1.98	658.16	-92.74	-658.16	-174161.00	7324.56	-6108.17	1.07	5.292	---
24.50	1(e)	SLU	9	7	0.00	-16560.70	208.27	-331.21	107.73	331.21	-16561.30	-5423.48	4538.34	1.00	7.460	---
24.50	1(e)	SLU	9	7	0.00	-16560.70	208.27	-331.21	107.73	331.21	-16561.30	-5423.48	4538.34	1.00	7.460	---
27.00	1(e)	SLU	9	7	250.00	-15707.60	15.10	-314.15	-106.88	-314.15	-15709.60	-5315.13	-4449.65	1.00	7.710	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-114994.00	-458.56	1218.02	0.00	50.01	26.12	385.55
0.00	4	SLE Q	1	1	0.00	-102482.00	-386.32	962.65	0.00	50.01	23.03	340.44
0.00	2	SLE R	1	1	0.00	-114994.00	-458.56	1218.02	0.00	50.01	26.12	385.55
0.00	4	SLE Q	1	1	0.00	-102482.00	-386.32	962.65	0.00	50.01	23.03	340.44
3.00	2	SLE R	1	1	300.00	-111844.00	668.80	1102.36	0.00	50.01	25.70	378.69
3.00	4	SLE Q	1	1	300.00	-99331.70	558.78	884.12	0.00	50.01	22.60	333.45
3.50	2	SLE R	2	10	0.00	-99524.30	128.54	1032.88	0.00	50.01	27.56	405.64
3.50	4	SLE Q	2	10	0.00	-88344.10	142.43	824.72	0.00	50.01	24.29	357.95
3.50	2	SLE R	2	10	0.00	-99524.30	128.54	1032.88	0.00	46.94	27.85	409.93
3.50	4	SLE Q	2	10	0.00	-88344.10	142.43	824.72	0.00	46.94	24.55	361.76
6.00	2	SLE R	2	10	250.00	-97461.80	-136.45	254.53	0.00	46.94	25.33	377.39
6.00	4	SLE Q	2	10	250.00	-86281.60	-168.28	201.28	0.00	46.94	22.47	334.75
6.50	2	SLE R	3	10	0.00	-85961.30	165.57	132.99	0.00	9.24	58.86	871.92
6.50	4	SLE Q	3	10	0.00	-76040.30	162.94	95.02	0.00	9.24	51.99	770.48
6.50	2	SLE R	3	10	0.00	-85961.30	165.57	132.99	0.00	9.24	58.86	871.92
6.50	4	SLE Q	3	10	0.00	-76040.30	162.94	95.02	0.00	9.24	51.99	770.48
9.00	2	SLE R	3	10	250.00	-85086.30	-142.11	-35.02	0.00	9.24	57.04	849.37
9.00	4	SLE Q	3	10	250.00	-75165.30	-151.98	-20.90	0.00	9.24	50.53	752.09
9.50	2	SLE R	4	10	0.00	-73526.70	135.49	35.71	0.00	9.24	49.47	736.02
9.50	4	SLE Q	4	10	0.00	-64915.40	161.07	16.81	0.00	9.24	43.91	652.69
9.50	2	SLE R	4	10	0.00	-73526.70	135.49	35.71	0.00	9.24	49.47	736.02
9.50	4	SLE Q	4	10	0.00	-64915.40	161.07	16.81	0.00	9.24	43.91	652.69
12.00	2	SLE R	4	10	250.00	-72651.70	-147.60	-69.80	0.00	9.24	49.37	732.80
12.00	4	SLE Q	4	10	250.00	-64040.40	-172.56	-49.61	0.00	9.24	43.80	649.26
12.50	2	SLE R	5	10	0.00	-61056.20	113.15	-5.03	0.00	9.24	40.82	608.38
12.50	4	SLE Q	5	10	0.00	-53765.90	164.63	-14.40	0.00	9.24	36.68	544.10
12.50	2	SLE R	5	10	0.00	-61056.20	113.15	-5.03	0.00	9.24	40.82	608.38
12.50	4	SLE Q	5	10	0.00	-53765.90	164.63	-14.40	0.00	9.24	36.68	544.10
15.00	2	SLE R	5	10	250.00	-60181.20	-121.58	-56.82	0.00	9.24	40.88	606.83
15.00	4	SLE Q	5	10	250.00	-52890.90	-171.76	-40.14	0.00	9.24	36.45	539.36
15.50	2	SLE R	6	7	0.00	-48564.70	56.39	-0.53	0.00	9.24	41.82	622.90
15.50	4	SLE Q	6	7	0.00	-42596.30	87.18	-13.20	0.00	9.24	37.49	554.87
15.50	2	SLE R	6	7	0.00	-48564.70	56.39	-0.53	0.00	6.16	43.47	647.68
15.50	4	SLE Q	6	7	0.00	-42596.30	87.18	-13.20	0.00	6.16	38.95	576.73
18.00	2	SLE R	6	7	250.00	-47908.50	-59.65	-40.34	0.00	6.16	43.52	645.93
18.00	4	SLE Q	6	7	250.00	-41940.00	-90.65	-25.29	0.00	6.16	38.61	570.63
18.50	2	SLE R	7	7	0.00	-36266.20	64.45	9.84	0.00	6.16	32.98	489.08
18.50	4	SLE Q	7	7	0.00	-31627.00	102.50	-4.61	0.00	6.16	29.48	434.03
18.50	2	SLE R	7	7	0.00	-36266.20	64.45	9.84	0.00	6.16	32.98	489.08



Relazione di calcolo

18.50	4	SLE	Q	7	7	0.00	-31627.00	102.50	-4.61	0.00	6.16	29.48	434.03
21.00	2	SLE	R	7	7	250.00	-35610.00	-67.38	-35.09	0.00	6.16	32.81	484.97
21.00	4	SLE	Q	7	7	250.00	-30970.80	-102.45	-20.69	0.00	6.16	29.14	427.94
21.50	2	SLE	R	8	7	0.00	-24004.00	82.03	8.93	0.00	6.16	22.53	331.02
21.50	4	SLE	Q	8	7	0.00	-20686.50	119.48	-3.94	0.00	6.16	20.18	293.25
21.50	2	SLE	R	8	7	0.00	-24004.00	82.03	8.93	0.00	6.16	22.53	331.02
21.50	4	SLE	Q	8	7	0.00	-20686.50	119.48	-3.94	0.00	6.16	20.18	293.25
24.00	2	SLE	R	8	7	250.00	-23347.70	-81.26	4.72	0.00	6.16	21.88	321.60
24.00	4	SLE	Q	8	7	250.00	-20030.30	-115.23	6.16	0.00	6.16	19.57	284.24
24.50	2	SLE	R	9	7	0.00	-11788.90	94.30	142.30	0.00	6.16	13.95	193.84
24.50	4	SLE	Q	9	7	0.00	-9779.02	135.71	92.59	0.00	6.16	12.18	166.88
24.50	2	SLE	R	9	7	0.00	-11788.90	94.30	142.30	0.00	6.16	13.95	193.84
24.50	4	SLE	Q	9	7	0.00	-9779.02	135.71	92.59	0.00	6.16	12.18	166.88
27.00	2	SLE	R	9	7	250.00	-11132.70	-93.09	8.34	0.00	6.16	11.44	163.86
27.00	4	SLE	Q	9	7	250.00	-9122.77	-133.07	22.45	0.00	6.16	10.56	146.72

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X<m>	X1<m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <m>	d <sub>y</sub> <m>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <m>	d <sub>z</sub> <m>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	Si
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	535.14	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	34.62	2.50	0.00	57709.10	107066.00	51938.20	82.1
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	535.14	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	34.62	2.50	0.00	57709.10	107066.00	51938.20	82.1
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	535.14	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	34.62	2.50	0.00	57709.10	107066.00	51938.20	82.1
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	135.24	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	432.26	2.50	0.00	44432.50	82434.00	39989.30	92.1
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	135.24	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	432.26	2.50	0.00	44432.50	82434.00	39989.30	92.1
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	135.24	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	432.26	2.50	0.00	44432.50	82434.00	39989.30	92.1
6.50	6.96	ø6/15	2	2	---	1	SLU	0.35	0.35	162.77	1.67	6203.00	---	6203.00	6203.00	0.40	0.30	96.56	1.83	5812.47	---	5812.47	5812.47	38.1
6.96	8.80	ø6/15	2	2	---	1	SLU	0.35	0.35	162.77	1.69	6264.50	---	6264.50	6264.50	0.40	0.30	96.56	1.84	5867.63	---	5867.63	5867.63	38.1
8.80	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	162.77	1.75	6504.68	---	6504.68	6504.68	0.40	0.30	96.56	1.91	6083.31	---	6083.31	6083.31	39.1
9.50	9.96	ø6/15	2	2	---	1	SLU	0.35	0.35	141.14	2.50	9277.05	---	10806.90	9277.05	0.40	0.30	62.74	2.50	7955.54	---	10591.40	7955.54	65.1
9.96	11.80	ø6/15	2	2	---	1	SLU	0.35	0.35	141.14	2.50	9277.05	---	10878.10	9277.05	0.40	0.30	62.74	2.50	7955.54	---	10661.20	7955.54	65.1
11.80	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	141.14	2.50	9277.05	---	11163.10	9277.05	0.40	0.30	62.74	2.50	7955.54	---	10940.50	7955.54	65.1
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	107.77	2.50	9277.05	---	16775.90	9277.05	0.40	0.30	32.52	2.50	7955.54	---	16441.30	7955.54	86.1
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	107.77	2.50	9277.05	---	16847.10	9277.05	0.40	0.30	32.52	2.50	7955.54	---	16511.20	7955.54	86.1
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	107.77	2.50	9277.05	---	17132.10	9277.05	0.40	0.30	32.52	2.50	7955.54	---	16790.50	7955.54	86.1
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	50.15	2.50	6634.02	---	10725.80	6634.02	0.30	0.30	25.92	2.50	7955.54	---	11024.90	7955.54	>100.1
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	50.15	2.50	6634.02	---	10776.80	6634.02	0.30	0.30	25.92	2.50	7955.54	---	11077.30	7955.54	>100.1
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	50.15	2.50	6634.02	---	10980.60	6634.02	0.30	0.30	25.92	2.50	7955.54	---	11286.80	7955.54	>100.1
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	56.71	2.50	6634.02	---	16347.80	6634.02	0.30	0.30	28.96	2.50	7955.54	---	16803.70	7955.54	>100.1
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	56.71	2.50	6634.02	---	16398.80	6634.02	0.30	0.30	28.96	2.50	7955.54	---	16856.10	7955.54	>100.1
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	56.71	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	28.96	2.50	7955.54	---	16914.20	7955.54	>100.1
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	73.98	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	5.02	2.50	7955.54	---	16914.20	7955.54	89.1
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	73.98	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	5.02	2.50	7955.54	---	16914.20	7955.54	89.1
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	73.98	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	5.02	2.50	7955.54	---	16914.20	7955.54	89.1
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	85.85	2.50	6634.02	---	15314.30	6634.02	0.30	0.30	77.27	2.50	7955.54	---	15741.40	7955.54	77.1
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	85.85	2.50	6634.02	---	15293.90	6634.02	0.30	0.30	77.27	2.50	7955.54	---	15720.40	7955.54	77.1
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	85.85	2.50	6634.02	---	15212.40	6634.02	0.30	0.30	77.27	2.50	7955.54	---	15636.60	7955.54	77.1

Pilastrata n. 47

Nodi: 47 347 547 747 947 1147 1347 1547 1747 1947

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B<m>	H<m>	Cf<m>	Fcm<daN/cm²>	Fctm<daN/cm²>	Fcd<daN/cm²>	Fcd (Tag)<daN/cm²>	Fctd<daN/cm²>	Fym<daN/cm²>	Fyd<daN/cm²>	Fyd (Tag)<daN/cm²>
1	R	40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B<m>	H<m>	Fck<daN/cm²>	Fcd<daN/cm²>	Fyk<daN/cm²>	Fyd<daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X <cm>	N <daNm>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%	
0.00	1	(e)	SLU	1	1	0.00	-155378.00	1806.37	3107.56	39.13	3107.56	-784267.00	74477.70	62402.20	1.08	5.047	134.93
0.00	1	(e)	SLU	1	1	0.00	-155378.00	1806.37	3107.56	39.13	3107.56	-784267.00	74477.70	62402.20	1.08	5.047	134.93
3.00	1	(e)	SLU	1	1	300.00	-151283.00	1557.20	3025.66	-135.91	-3025.66	-784267.00	74060.70	-62055.10	1.08	5.184	134.93
3.50	1	(e)	SLU	2	10	0.00	-134039.00	651.22	2680.78	929.02	2680.78	-657277.00	50665.50	56270.30	1.09	4.904	166.19
3.50	1	(e)	SLU	2	10	0.00	-134039.00	651.22	2680.78	929.02	2680.78	-646245.00	50485.60	54823.60	1.09	4.821	173.96
6.00	1	(e)	SLU	2	10	250.00	-131358.00	670.89	2627.15	-526.75	-2627.15	-646245.00	50366.00	-54710.70	1.09	4.920	173.96
6.50	1	(e)	SLU	3	10	0.00	-114725.00	49.34	2294.51	331.37	2294.51	-235892.00	12022.80	12738.50	1.32	2.056	---
6.50	1	(e)	SLU	3	10	0.00	-114725.00	49.34	2294.51	331.37	2294.51	-235892.00	12022.80	12738.50	1.32	2.056	---
9.00	1	(e)	SLU	3	10	250.00	-113588.00	161.07	2271.76	-277.50	-2271.76	-235892.00	12078.70	-12785.40	1.32	2.077	---
9.50	1	(e)	SLU	4	10	0.00	-97731.00	-188.22	-1954.62	315.78	1954.62	-235892.00	-12789.10	13247.80	1.26	2.414	---
9.50	1	(e)	SLU	4	10	0.00	-97731.00	-188.22	-1954.62	315.78	1954.62	-235892.00	-12789.10	13247.80	1.26	2.414	---
12.00	1	(e)	SLU	4	10	250.00	-96593.50	81.50	1931.87	-237.90	-1931.87	-235892.00	12835.90	-13239.60	1.26	2.442	---
12.50	1	(e)	SLU	5	10	0.00	-80920.80	-310.28	-1618.42	182.62	1618.42	-235892.00	-12623.20	12953.50	1.20	2.915	---
12.50	1	(e)	SLU	5	10	0.00	-80920.80	-310.28	-1618.42	182.62	1618.42	-235892.00	-12623.20	12953.50	1.20	2.915	---
15.00	1	(e)	SLU	5	10	250.00	-79783.30	163.32	1595.67	-140.65	-1595.67	-235892.00	12585.30	-12920.80	1.20	2.957	---
15.50	1	(e)	SLU	6	7	0.00	-64181.90	-262.99	-1283.64	48.02	1283.64	-185194.00	-10630.20	7731.94	1.21	2.885	---
15.50	1	(e)	SLU	6	7	0.00	-64181.90	-262.99	-1283.64	48.02	1283.64	-174161.00	-9207.08	7746.27	1.22	2.714	---
18.00	1	(e)	SLU	6	7	250.00	-63328.70	166.92	1266.57	-36.49	-1266.57	-174161.00	9185.70	-7728.31	1.22	2.750	---
18.50	1	(e)	SLU	7	7	0.00	-47878.10	-273.45	-957.56	20.01	957.56	-174161.00	-8513.96	7152.80	1.15	3.638	---
18.50	1	(e)	SLU	7	7	0.00	-47878.10	-273.45	-957.56	20.01	957.56	-174161.00	-8513.96	7152.80	1.15	3.638	---
21.00	1	(e)	SLU	7	7	250.00	-47025.00	203.97	940.50	-11.19	-940.50	-174161.00	8460.26	-7106.33	1.14	3.704	---
21.50	1	(e)	SLU	8	7	0.00	-31626.10	-224.38	-632.52	0.96	632.52	-174161.00	-7193.55	5995.11	1.07	5.507	---
21.50	1	(e)	SLU	8	7	0.00	-31626.10	-224.38	-632.52	0.96	632.52	-174161.00	-7193.55	5995.11	1.07	5.507	---
24.00	1	(e)	SLU	8	7	250.00	-30773.00	263.90	615.46	0.94	615.46	-174161.00	7101.76	5918.88	1.06	5.660	---
24.50	1	(e)	SLU	9	7	0.00	-15445.90	13.68	-308.92	-10.92	-308.92	-15450.90	-5282.12	-4422.69	1.00	7.792	---
24.50	1	(e)	SLU	9	7	0.00	-15445.90	13.68	-308.92	-10.92	-308.92	-15450.90	-5282.12	-4422.69	1.00	7.792	---
27.00	1	(e)	SLU	9	7	250.00	-14592.80	151.67	-298.86	14.58	291.86	-14596.80	-5174.06	4333.68	1.00	8.081	---



Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>t</sub>
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>
0.00	2	SLE R	1	1	0.00	-111101.00	31.64	1310.13	0.00	50.01	24.65	365.25
0.00	4	SLE Q	1	1	0.00	-99995.50	33.71	1002.02	0.00	50.01	21.91	325.11
0.00	2	SLE R	1	1	0.00	-111101.00	31.64	1310.13	0.00	50.01	24.65	365.25
0.00	4	SLE Q	1	1	0.00	-99995.50	33.71	1002.02	0.00	50.01	21.91	325.11
3.00	2	SLE R	1	1	300.00	-107951.00	-100.41	1158.42	0.00	50.01	23.90	354.17
3.00	4	SLE Q	1	1	300.00	-96845.50	-100.23	998.07	0.00	50.01	21.40	317.11
3.50	2	SLE R	2	10	0.00	-95665.00	665.21	460.16	0.00	50.01	26.38	388.85
3.50	4	SLE Q	2	10	0.00	-85766.50	584.01	293.52	0.00	50.01	23.31	344.42
3.50	2	SLE R	2	10	0.00	-95665.00	665.21	460.16	0.00	46.94	26.67	393.11
3.50	4	SLE Q	2	10	0.00	-85766.50	584.01	293.52	0.00	46.94	23.57	348.23
6.00	2	SLE R	2	10	250.00	-93602.50	-378.69	508.68	0.00	46.94	25.60	378.36
6.00	4	SLE Q	2	10	250.00	-83704.00	-338.00	474.92	0.00	46.94	22.94	338.98
6.50	2	SLE R	3	10	0.00	-81769.80	237.93	28.35	0.00	9.24	55.73	826.87
6.50	4	SLE Q	3	10	0.00	-73053.30	202.20	-19.91	0.00	9.24	49.63	736.95
6.50	2	SLE R	3	10	0.00	-81769.80	237.93	28.35	0.00	9.24	55.73	826.87
6.50	4	SLE Q	3	10	0.00	-73053.30	202.20	-19.91	0.00	9.24	49.63	736.95
9.00	2	SLE R	3	10	250.00	-80894.80	-199.43	128.79	0.00	9.24	55.85	825.78
9.00	4	SLE Q	3	10	250.00	-72178.30	-171.43	140.88	0.00	9.24	50.04	739.11
9.50	2	SLE R	4	10	0.00	-69639.50	228.92	-148.47	0.00	9.24	49.02	721.61
9.50	4	SLE Q	4	10	0.00	-62074.40	195.80	-175.56	0.00	9.24	44.07	647.35
9.50	2	SLE R	4	10	0.00	-69639.50	228.92	-148.47	0.00	9.24	49.02	721.61
9.50	4	SLE Q	4	10	0.00	-62074.40	195.80	-175.56	0.00	9.24	44.07	647.35
12.00	2	SLE R	4	10	250.00	-68764.50	-172.71	70.82	0.00	9.24	47.10	697.80
12.00	4	SLE Q	4	10	250.00	-61199.40	-148.53	95.32	0.00	9.24	42.21	624.23
12.50	2	SLE R	5	10	0.00	-57648.50	136.32	-233.34	0.00	9.24	41.24	604.35
12.50	4	SLE Q	5	10	0.00	-51240.30	125.30	-236.07	0.00	9.24	36.99	540.97
12.50	2	SLE R	5	10	0.00	-57648.50	136.32	-233.34	0.00	9.24	41.24	604.35
12.50	4	SLE Q	5	10	0.00	-51240.30	125.30	-236.07	0.00	9.24	36.99	540.97
15.00	2	SLE R	5	10	250.00	-56773.50	-105.29	128.34	0.00	9.24	39.26	580.14
15.00	4	SLE Q	5	10	250.00	-50365.30	-97.63	139.13	0.00	9.24	35.14	518.07
15.50	2	SLE R	6	7	0.00	-45710.80	38.48	-197.08	0.00	9.24	41.76	612.94
15.50	4	SLE Q	6	7	0.00	-40459.90	37.76	-203.31	0.00	9.24	37.41	547.47
15.50	2	SLE R	6	7	0.00	-45710.80	38.48	-197.08	0.00	6.16	43.48	638.10
15.50	4	SLE Q	6	7	0.00	-40459.90	37.76	-203.31	0.00	6.16	38.96	570.00
18.00	2	SLE R	6	7	250.00	-45054.50	-29.47	128.63	0.00	6.16	41.77	617.09
18.00	4	SLE Q	6	7	250.00	-39803.70	-29.41	134.89	0.00	6.16	37.27	549.12
18.50	2	SLE R	7	7	0.00	-34103.50	19.02	-203.63	0.00	6.16	33.08	483.30
18.50	4	SLE Q	7	7	0.00	-30000.70	22.02	-208.65	0.00	6.16	29.61	430.74
18.50	2	SLE R	7	7	0.00	-34103.50	19.02	-203.63	0.00	6.16	33.08	483.30
18.50	4	SLE Q	7	7	0.00	-30000.70	22.02	-208.65	0.00	6.16	29.61	430.74
21.00	2	SLE R	7	7	250.00	-33447.20	-11.81	153.84	0.00	6.16	31.68	465.55
21.00	4	SLE Q	7	7	250.00	-29344.40	-15.02	154.56	0.00	6.16	28.15	412.36
21.50	2	SLE R	8	7	0.00	-22537.20	5.55	-167.06	0.00	6.16	22.21	323.28
21.50	4	SLE Q	8	7	0.00	-19586.40	11.35	-178.60	0.00	6.16	19.89	287.38
21.50	2	SLE R	8	7	0.00	-22537.20	5.55	-167.06	0.00	6.16	22.21	323.28
21.50	4	SLE Q	8	7	0.00	-19586.40	11.35	-178.60	0.00	6.16	19.89	287.38
24.00	2	SLE R	8	7	250.00	-21881.00	-3.18	194.91	0.00	6.16	21.99	318.64
24.00	4	SLE Q	8	7	250.00	-18930.20	-8.14	183.23	0.00	6.16	19.32	278.93
24.50	2	SLE R	9	7	0.00	-11025.50	-2.63	1.47	0.00	6.16	9.72	145.47
24.50	4	SLE Q	9	7	0.00	-9222.21	6.22	-57.36	0.00	6.16	9.00	131.24
24.50	2	SLE R	9	7	0.00	-11025.50	-2.63	1.47	0.00	6.16	9.72	145.47
24.50	4	SLE Q	9	7	0.00	-9222.21	6.22	-57.36	0.00	6.16	9.00	131.24
27.00	2	SLE R	9	7	250.00	-10369.20	6.13	115.29	0.00	6.16	10.83	155.43
27.00	4	SLE Q	9	7	250.00	-8565.96	-1.70	145.50	0.00	6.16	9.60	135.75

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	Si
<m>	<m>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	58.35	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	83.05	2.50	0.00	57709.10	107066.00	51938.20	>100
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	58.35	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	83.05	2.50	0.00	57709.10	107066.00	51938.20	>100
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	58.35	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	83.05	2.50	0.00	57709.10	107066.00	51938.20	>100
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	582.31	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	7.87	2.50	0.00	44432.50	82434.00	39989.30	75.
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	582.31	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	7.87	2.50	0.00	44432.50	82434.00	39989.30	75.
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	582.31	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	7.87	2.50	0.00	44432.50	82434.00	39989.30	75.
6.50	6.96	ø6/15	2	2	---	1	SLU	0.35	0.35	243.55	2.11	7824.58	---	7824.58	7824.58	0.40	0.30	44.70	2.29	7273.39	---	7273.39	7273.39	32.
6.96	8.80	ø6/15	2	2	---	1	SLU	0.35	0.35	243.55	2.12	7873.42	---	7873.42	7873.42	0.40	0.30	44.70	2.30	7317.55	---	7317.55	7317.55	32.
8.80	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	243.55	2.17	8065.83	---	8065.83	8065.83	0.40	0.30	44.70	2.35	7491.60	---	7491.61	7491.60	33.
9.50	9.96	ø6/15	2	2	---	1	SLU	0.35	0.35	221.47	2.50	9277.05	---	12753.90	9277.05	0.40	0.30	107.89	2.50	7955.54	---	12499.50	7955.54	41.
9.96	11.80	ø6/15	2	2	---	1	SLU	0.35	0.35	221.47	2.50	9277.05	---	12825.10	9277.05	0.40	0.30	107.89	2.50	7955.54	---	12569.30	7955.54	41.
11.80	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	221.47	2.50	9277.05	---	13110.10	9277.05	0.40	0.30	107.89	2.50	7955.54	---	12848.60	7955.54	41.
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	129.31	2.50	9277.05	---	18476.20	9277.05	0.40	0.30	189.44	2.50	7955.54	---	18107.70	7955.54	41.
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	129.31	2.50	9277.05	---	18547.50	9277.05	0.40	0.30	189.44	2.50	7955.54	---	18177.60	7955.54	41.
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	129.31	2.50	9277.05	---	18832.40	9277.05	0.40	0.30	189.44	2.50	7955.54	---	18456.90	7955.54	41.
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	33.80	2.50	6634.02	---	12079.20	6634.02	0.30	0.30	171.96	2.50	7955.54	---	12416.00	7955.54	46.
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	33.80	2.50	6634.02	---	12130.10	6634.02	0.30	0.30	171.96	2.50	7955.54	---	12468.40	7955.54	46.
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	33.80	2.50	6634.02	---	12333.90	6634.02	0.30	0.30	171.96	2.50	7955.54	---	12677.90	7955.54	46.
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	12.48	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	190.97	2.50	7955.54	---	16914.20	7955.54	41.
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	12.48	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	190.97	2.50	7955.54	---	16914.20	7955.54	41.
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	12.48	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	190.97	2.50	7955.54	---	16914.20	7955.54	41.
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	0.01	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	195.31	2.50	7955.54	---	16914.20	7955.54	40.
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	0.01	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	195.31	2.50	7955.54	---	16914.20	7955.54	40.
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	0.01	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	195.31	2.50	7955.54	---	16914.20	7955.54	40.
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	10.20	2.50	6634.02	---	15169.60	6634.02	0.30	0.30	55.19	2.50	7955.54	---	15592.60	7955.54	>100



Relazione di calcolo

24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	10.20	2.50	6634.02	---	15149.20	6634.02	0.30	0.30	55.19	2.50	7955.54	---	15571.70	7955.54	>10
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	10.20	2.50	6634.02	---	15067.70	6634.02	0.30	0.30	55.19	2.50	7955.54	---	15487.90	7955.54	>10

Pilastrata n. 48

Nodi: 148 348 548 748 948 1148 1348 1548 1748 1948

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
1R		40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10R		40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7R		30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/presoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-154259.00	2782.14	3085.19	2729.46	3085.19	-784267.00	74364.60	62308.20	1.08	5.084	134.93
0.00	1(e)	SLU	1	1	0.00	-154259.00	2782.14	3085.19	2729.46	3085.19	-784267.00	74364.60	62308.20	1.08	5.084	134.93
3.00	1(e)	SLU	1	1	300.00	-150164.00	1071.24	3003.29	-790.91	-3003.29	-784267.00	73944.80	-61958.80	1.08	5.223	134.93
3.50	1(e)	SLU	2	10	0.00	-134505.00	801.75	2690.10	371.74	2690.10	-657277.00	50684.00	56290.60	1.09	4.887	166.19
3.50	1(e)	SLU	2	10	0.00	-134505.00	801.75	2690.10	371.74	2690.10	-646245.00	50506.20	54843.20	1.09	4.805	173.96
6.00	1(e)	SLU	2	10	250.00	-131824.00	333.52	2636.48	-498.31	-2636.48	-646245.00	50387.00	-54730.50	1.09	4.902	173.96
6.50	1(e)	SLU	3	10	0.00	-116214.00	201.79	2324.28	339.73	2324.28	-235892.00	11948.30	12676.40	1.33	2.030	---
6.50	1(e)	SLU	3	10	0.00	-116214.00	201.79	2324.28	339.73	2324.28	-235892.00	11948.30	12676.40	1.33	2.030	---
9.00	1(e)	SLU	3	10	250.00	-115077.00	35.33	2301.53	-283.24	-2301.53	-235892.00	12005.50	-12723.90	1.32	2.050	---
9.50	1(e)	SLU	4	10	0.00	-99495.60	-13.87	-1989.91	213.75	1989.91	-235892.00	-12715.80	13257.10	1.27	2.371	---
9.50	1(e)	SLU	4	10	0.00	-99495.60	-13.87	-1989.91	213.75	1989.91	-235892.00	-12715.80	13257.10	1.27	2.371	---
12.00	1(e)	SLU	4	10	250.00	-98358.10	-61.09	-1967.16	-179.34	-1967.16	-235892.00	-12763.10	-13252.20	1.26	2.398	---
12.50	1(e)	SLU	5	10	0.00	-82664.60	-98.18	-1653.29	30.62	1653.29	-235892.00	-12674.80	13000.00	1.21	2.854	---
12.50	1(e)	SLU	5	10	0.00	-82664.60	-98.18	-1653.29	30.62	1653.29	-235892.00	-12674.80	13000.00	1.21	2.854	---
15.00	1(e)	SLU	5	10	250.00	-81527.10	-26.87	-1630.54	-15.96	-1630.54	-235892.00	-12641.20	-12969.70	1.20	2.893	---
15.50	1(e)	SLU	6	7	0.00	-65783.40	-68.11	-1315.67	-50.97	-1315.67	-185194.00	-10664.20	-7756.68	1.21	2.815	---
15.50	1(e)	SLU	6	7	0.00	-65783.40	-68.11	-1315.67	-50.97	-1315.67	-174161.00	-9241.07	-7775.20	1.23	2.647	---
18.00	1(e)	SLU	6	7	250.00	-64930.30	3.53	1298.61	58.35	1298.61	-174161.00	9223.01	7760.69	1.23	2.682	---
18.50	1(e)	SLU	7	7	0.00	-49183.50	-48.13	-983.67	-103.64	-983.67	-174161.00	-8592.22	-7219.77	1.15	3.541	---
18.50	1(e)	SLU	7	7	0.00	-49183.50	-48.13	-983.67	-103.64	-983.67	-174161.00	-8592.22	-7219.77	1.15	3.541	---
21.00	1(e)	SLU	7	7	250.00	-48330.40	48.04	966.61	102.56	966.61	-174161.00	8542.08	7176.76	1.15	3.604	---
21.50	1(e)	SLU	8	7	0.00	-32549.30	12.69	650.99	-132.60	-650.99	-174161.00	7290.00	-6077.55	1.07	5.351	---
21.50	1(e)	SLU	8	7	0.00	-32549.30	12.69	650.99	-132.60	-650.99	-174161.00	7290.00	-6077.55	1.07	5.351	---
24.00	1(e)	SLU	8	7	250.00	-31696.10	121.23	633.92	127.45	633.92	-174161.00	7200.80	6001.30	1.07	5.495	---
24.50	1(e)	SLU	9	7	0.00	-15885.40	147.56	-317.71	-144.23	-317.71	-15885.40	-5337.96	-4467.96	1.00	7.655	---
24.50	1(e)	SLU	9	7	0.00	-15885.40	147.56	-317.71	-144.23	-317.71	-15885.40	-5337.96	-4467.96	1.00	7.655	---
27.00	1(e)	SLU	9	7	250.00	-15032.20	14.72	-300.64	140.92	300.64	-15033.50	-5229.50	4379.20	1.00	7.928	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-110097.00	1956.65	2013.04	0.00	50.01	29.35	424.28
0.00	4	SLE Q	1	1	0.00	-98797.40	1759.32	1662.05	0.00	50.01	26.10	377.75
0.00	2	SLE R	1	1	0.00	-110097.00	1956.65	2013.04	0.00	50.01	29.35	424.28
0.00	4	SLE Q	1	1	0.00	-98797.40	1759.32	1662.05	0.00	50.01	26.10	377.75
3.00	2	SLE R	1	1	300.00	-106947.00	-566.72	784.27	0.00	50.01	23.99	354.60
3.00	4	SLE Q	1	1	300.00	-95647.40	-510.46	633.10	0.00	50.01	21.35	315.77
3.50	2	SLE R	2	10	0.00	-95843.60	261.45	589.38	0.00	50.01	25.81	381.68
3.50	4	SLE Q	2	10	0.00	-85705.90	208.50	468.47	0.00	50.01	22.87	338.68
3.50	2	SLE R	2	10	0.00	-95843.60	261.45	589.38	0.00	46.94	26.09	385.84
3.50	4	SLE Q	2	10	0.00	-85705.90	208.50	468.47	0.00	46.94	23.12	342.39
6.00	2	SLE R	2	10	250.00	-93781.10	-352.31	245.78	0.00	46.94	24.90	369.78
6.00	4	SLE Q	2	10	250.00	-83643.40	-297.71	190.87	0.00	46.94	22.09	328.40
6.50	2	SLE R	3	10	0.00	-82718.90	240.46	148.43	0.00	9.24	57.64	850.40
6.50	4	SLE Q	3	10	0.00	-73746.20	194.03	108.97	0.00	9.24	50.94	753.18
6.50	2	SLE R	3	10	0.00	-82718.90	240.46	148.43	0.00	9.24	57.64	850.40
6.50	4	SLE Q	3	10	0.00	-73746.20	194.03	108.97	0.00	9.24	50.94	753.18
9.00	2	SLE R	3	10	250.00	-81843.90	-199.30	29.08	0.00	9.24	55.41	823.40
9.00	4	SLE Q	3	10	250.00	-72871.20	-157.66	25.54	0.00	9.24	49.14	730.89
9.50	2	SLE R	4	10	0.00	-70816.50	149.26	-9.44	0.00	9.24	47.56	708.05
9.50	4	SLE Q	4	10	0.00	-63025.10	105.09	-14.50	0.00	9.24	42.12	627.79
9.50	2	SLE R	4	10	0.00	-70816.50	149.26	-9.44	0.00	9.24	47.56	708.05
9.50	4	SLE Q	4	10	0.00	-63025.10	105.09	-14.50	0.00	9.24	42.12	627.79
12.00	2	SLE R	4	10	250.00	-69941.50	-124.36	-41.07	0.00	9.24	47.09	700.45
12.00	4	SLE Q	4	10	250.00	-62150.10	-83.97	-29.93	0.00	9.24	41.52	618.72
12.50	2	SLE R	5	10	0.00	-58831.70	18.58	-69.67	0.00	9.24	39.15	583.76
12.50	4	SLE Q	5	10	0.00	-52225.80	-5.24	-60.32	0.00	9.24	34.63	516.79
12.50	2	SLE R	5	10	0.00	-58831.70	18.58	-69.67	0.00	9.24	39.15	583.76
12.50	4	SLE Q	5	10	0.00	-52225.80	-5.24	-60.32	0.00	9.24	34.63	516.79
15.00	2	SLE R	5	10	250.00	-57956.70	-7.68	-16.89	0.00	9.24	37.92	567.87
15.00	4	SLE Q	5	10	250.00	-51350.80	15.24	-12.65	0.00	9.24	33.66	503.81
15.50	2	SLE R	6	7	0.00	-46810.20	-37.50	-48.49	0.00	9.24	40.67	604.56
15.50	4	SLE Q	6	7	0.00	-41390.10	-45.17	-46.49	0.00	9.24	36.21	537.21
15.50	2	SLE R	6	7	0.00	-46810.20	-37.50	-48.49	0.00	6.16	42.30	628.90



Relazione di calcolo

15.50	4	SLE	Q	6	7	0.00	-41390.10	-45.17	-46.49	0.00	6.16	37.66	558.76
18.00	2	SLE	R	6	7	250.00	-46154.00	43.04	4.80	0.00	6.16	41.20	614.36
18.00	4	SLE	Q	6	7	250.00	-40733.80	50.05	5.73	0.00	6.16	36.59	544.57
18.50	2	SLE	R	7	7	0.00	-35007.30	-75.91	-34.13	0.00	6.16	32.41	478.40
18.50	4	SLE	Q	7	7	0.00	-30774.20	-81.59	-34.19	0.00	6.16	28.81	423.83
18.50	2	SLE	R	7	7	0.00	-35007.30	-75.91	-34.13	0.00	6.16	32.41	478.40
18.50	4	SLE	Q	7	7	0.00	-30774.20	-81.59	-34.19	0.00	6.16	28.81	423.83
21.00	2	SLE	R	7	7	250.00	-34351.10	75.12	36.22	0.00	6.16	31.86	469.98
21.00	4	SLE	Q	7	7	250.00	-30117.90	80.01	30.18	0.00	6.16	28.15	414.30
21.50	2	SLE	R	8	7	0.00	-23179.10	-97.19	9.33	0.00	6.16	22.07	322.92
21.50	4	SLE	Q	8	7	0.00	-20133.70	-101.27	-0.46	0.00	6.16	19.34	282.24
21.50	2	SLE	R	8	7	0.00	-23179.10	-97.19	9.33	0.00	6.16	22.07	322.92
21.50	4	SLE	Q	8	7	0.00	-20133.70	-101.27	-0.46	0.00	6.16	19.34	282.24
24.00	2	SLE	R	8	7	250.00	-22522.90	93.37	89.24	0.00	6.16	22.57	326.25
24.00	4	SLE	Q	8	7	250.00	-19477.40	96.78	71.21	0.00	6.16	19.70	284.01
24.50	2	SLE	R	9	7	0.00	-11329.60	-106.15	107.34	0.00	6.16	13.24	184.37
24.50	4	SLE	Q	9	7	0.00	-9473.38	-109.90	76.34	0.00	6.16	11.24	155.76
24.50	2	SLE	R	9	7	0.00	-11329.60	-106.15	107.34	0.00	6.16	13.24	184.37
24.50	4	SLE	Q	9	7	0.00	-9473.38	-109.90	76.34	0.00	6.16	11.24	155.76
27.00	2	SLE	R	9	7	250.00	-10673.40	103.76	11.44	0.00	6.16	11.26	160.19
27.00	4	SLE	Q	9	7	250.00	-8817.13	107.19	19.69	0.00	6.16	9.81	137.73

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	S
<cm>	<cm>							<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	<cm>	<cm>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1173.46	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	570.30	2.50	0.00	57709.10	107066.00	51938.20	37
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1173.46	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	570.30	2.50	0.00	57709.10	107066.00	51938.20	37
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1173.46	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	570.30	2.50	0.00	57709.10	107066.00	51938.20	37
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	348.02	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	187.29	2.50	0.00	44432.50	82434.00	39989.30	>10
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	348.02	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	187.29	2.50	0.00	44432.50	82434.00	39989.30	>10
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	348.02	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	187.29	2.50	0.00	44432.50	82434.00	39989.30	>10
6.50	6.96	ø6/15	2	2	---	1	SLU	0.35	0.35	249.19	2.01	7467.93	---	7467.93	7467.93	0.40	0.30	66.58	2.18	6951.15	---	6951.15	6951.15	29
6.96	8.80	ø6/15	2	2	---	1	SLU	0.35	0.35	249.19	2.03	7519.09	---	7519.09	7519.09	0.40	0.30	66.58	2.20	6997.34	---	6997.34	6997.34	30
8.80	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	249.19	2.08	7720.34	---	7720.34	7720.34	0.40	0.30	66.58	2.26	7179.16	---	7179.16	7179.16	30
9.50	9.96	ø6/15	2	2	---	1	SLU	0.35	0.35	157.24	2.50	9277.05	---	12153.20	9277.05	0.40	0.30	18.89	2.50	7955.54	---	11910.80	7955.54	59
9.96	11.80	ø6/15	2	2	---	1	SLU	0.35	0.35	157.24	2.50	9277.05	---	12224.40	9277.05	0.40	0.30	18.89	2.50	7955.54	---	11980.60	7955.54	59
11.80	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	157.24	2.50	9277.05	---	12509.40	9277.05	0.40	0.30	18.89	2.50	7955.54	---	12259.90	7955.54	59
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	18.63	2.50	9277.05	---	17882.60	9277.05	0.40	0.30	28.52	2.50	7955.54	---	17526.00	7955.54	>10
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	18.63	2.50	9277.05	---	17953.80	9277.05	0.40	0.30	28.52	2.50	7955.54	---	17595.80	7955.54	>10
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	18.63	2.50	9277.05	---	18238.80	9277.05	0.40	0.30	28.52	2.50	7955.54	---	17875.10	7955.54	>10
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	43.73	2.50	6634.02	---	11559.40	6634.02	0.30	0.30	28.65	2.50	7955.54	---	11881.70	7955.54	>10
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	43.73	2.50	6634.02	---	11610.30	6634.02	0.30	0.30	28.65	2.50	7955.54	---	11934.10	7955.54	>10
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	43.73	2.50	6634.02	---	11814.10	6634.02	0.30	0.30	28.65	2.50	7955.54	---	12143.60	7955.54	>10
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	82.48	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	38.47	2.50	7955.54	---	16914.20	7955.54	80
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	82.48	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	38.47	2.50	7955.54	---	16914.20	7955.54	80
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	82.48	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	38.47	2.50	7955.54	---	16914.20	7955.54	80
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	104.02	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	43.41	2.50	7955.54	---	16914.20	7955.54	63
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	104.02	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	43.41	2.50	7955.54	---	16914.20	7955.54	63
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	104.02	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	43.41	2.50	7955.54	---	16914.20	7955.54	63
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	114.06	2.50	6634.02	---	15226.60	6634.02	0.30	0.30	53.14	2.50	7955.54	---	15651.30	7955.54	58
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	114.06	2.50	6634.02	---	15206.20	6634.02	0.30	0.30	53.14	2.50	7955.54	---	15630.30	7955.54	58
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	114.06	2.50	6634.02	---	15124.70	6634.02	0.30	0.30	53.14	2.50	7955.54	---	15546.50	7955.54	58

Pilastrata n. 49

Nodi: 149 349 549 749 949 1149 1349 1549 1749 1949

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
1	R	40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B	H	Fck	Fcd	Fyk	Fyd
<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X	N	My	My ver.	Mz	Mz ver.	Nu	MRdy	MRdz	esp.	Sic.	Δ%	
<cm>					<cm>	<daN>	<daNm>		<daNm>		<daN>	<daNm>	<daNm>				
0.00	1	(e)	SLU	1	1	0.00	-152309.00	1565.01	3046.18	294.48	3046.18	-784267.00	74166.50	62143.10	1.08	5.149	134.93
0.00	1	(e)	SLU	1	1	0.00	-152309.00	1565.01	3046.18	294.48	3046.18	-784267.00	74166.50	62143.10	1.08	5.149	134.93
3.00	1	(e)	SLU	1	1	300.00	-148214.00	1104.68	2964.28	-160.93	-2964.28	-784267.00	73742.80	-61790.10	1.07	5.291	134.93
3.50	1	(e)	SLU	2	10	0.00	-132723.00	970.62	2654.45	490.73	2654.45	-657277.00	50613.00	56212.60	1.08	4.952	166.19
3.50	1	(e)	SLU	2	10	0.00	-132723.00	970.62	2654.45	490.73	2654.45	-646245.00	50427.10	54768.40	1.09	4.869	173.96
6.00	1	(e)	SLU	2	10	250.00	-130041.00	343.03	2600.83	-377.80	-2600.83	-646245.00	50306.80	-54654.80	1.08	4.970	173.96
6.50	1	(e)	SLU	3	10	0.00	-114341.00	191.75	2286.81	350.08	2286.81	-235892.00	12041.80	12754.30	1.32	2.063	---
6.50	1	(e)	SLU	3	10	0.00	-114341.00	191.75	2286.81	350.08	2286.81	-235892.00	12041.80	12754.30	1.32	2.063	---
9.00	1	(e)	SLU	3	10	250.00	-113203.00	-0.24	-2264.06	-329.99	-2264.06	-235892.00	-12097.50	-12801.00	1.32	2.084	---
9.50	1	(e)	SLU	4	10	0.00	-97851.40	-2.88	-1957.03	357.39	1957.03	-235892.00	-12784.20	13248.70	1.26	2.411	---
9.50	1	(e)	SLU	4	10	0.00	-97851.40	-2.88	-1957.03	357.39	1957.03	-235892.00	-12784.20	13248.70	1.26	2.411	---
12.00	1	(e)	SLU	4	10	250.00	-96713.90	-51.00	-1934.28	-345.56	-1934.28	-235892.00	-12831.00	-13240.40	1.26	2.439	---
12.50	1	(e)	SLU	5	10	0.00	-81236.40	-52.75	-1624.73	282.77	1624.73	-235892.00	-12632.60	12962.00	1.20	2.904	---
12.50	1	(e)	SLU	5	10	0.00	-81236.40	-52.75	-1624.73	282.77	1624.73	-235892.00	-12632.60	12962.00	1.20	2.904	---
15.00	1	(e)	SLU	5	10	250.00	-80098.90	-49.71	-1601.98	-280.34	-1601.98	-235892.00	-12595.90	-12930.00	1.20	2.945	---
15.50	1	(e)	SLU	6	7	0.00	-64599.80	-43.68	-1292.00	109.89	1292.00	-185194.00	-10639.20	7738.54	1.21	2.896	---
15.50	1	(e)	SLU	6	7	0.00	-64599.80	-43.68	-1292.00	109.89	1292.00	-174161.00	-9216.03	7755.02	1.23	2.687	---
18.00	1	(e)	SLU	6	7	250.00	-63746.70	-21.33	-1274.93	-110.22	-1274.93	-174161.00	-9196.27	-7737.13	1.22	2.732	---
18.50	1	(e)	SLU	7	7	0.00	-48339.90	-16.22	-966.80	116.04	966.80	-174161.00	-8542.78	7177.07	1.15	3.603	---



Relazione di calcolo

18.50	1(e)	SLU	7	7	0.00	-48339.90	-16.22	-966.80	116.04	966.80	-174161.00	-8542.78	7177.07	1.15	3.603	---
21.00	1(e)	SLU	7	7	250.00	-47486.70	19.94	949.74	-110.33	-949.74	-174161.00	8489.34	-7131.47	1.14	3.668	---
21.50	1(e)	SLU	8	7	0.00	-32004.80	41.83	640.10	118.01	640.10	-174161.00	7234.49	6028.82	1.07	5.442	---
21.50	1(e)	SLU	8	7	0.00	-32004.80	41.83	640.10	118.01	640.10	-174161.00	7234.49	6028.82	1.07	5.442	---
24.00	1(e)	SLU	8	7	250.00	-31151.70	54.54	623.03	-110.67	-623.03	-174161.00	7142.52	-5952.64	1.07	5.591	---
24.50	1(e)	SLU	9	7	0.00	-15609.00	98.41	-312.18	147.72	312.18	-15610.00	-5302.67	4439.27	1.00	7.740	---
24.50	1(e)	SLU	9	7	0.00	-15609.00	98.41	-312.18	147.72	312.18	-15610.00	-5302.67	4439.27	1.00	7.740	---
27.00	1(e)	SLU	9	7	250.00	-14755.90	13.19	-295.12	-141.06	-295.12	-14760.10	-5194.68	-4350.70	1.00	8.023	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>f</sub>	
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>	
0.00	2	SLE	R	1	1	0.00	-108627.00	210.88	1135.90	0.00	50.01	24.22	358.45
0.00	4	SLE	Q	1	1	0.00	-97293.00	177.62	943.19	0.00	50.01	21.55	319.19
0.00	2	SLE	R	1	1	0.00	-108627.00	210.88	1135.90	0.00	50.01	24.22	358.45
0.00	4	SLE	Q	1	1	0.00	-97293.00	177.62	943.19	0.00	50.01	21.55	319.19
3.00	2	SLE	R	1	1	300.00	-105477.00	-115.03	801.50	0.00	50.01	22.85	339.45
3.00	4	SLE	Q	1	1	300.00	-94143.00	-96.51	643.86	0.00	50.01	20.26	301.31
3.50	2	SLE	R	2	10	0.00	-94496.00	348.79	704.62	0.00	50.01	25.98	382.99
3.50	4	SLE	Q	2	10	0.00	-84316.30	286.68	561.83	0.00	50.01	22.95	338.85
3.50	2	SLE	R	2	10	0.00	-94496.00	348.79	704.62	0.00	46.94	26.26	387.12
3.50	4	SLE	Q	2	10	0.00	-84316.30	286.68	561.83	0.00	46.94	23.20	342.53
6.00	2	SLE	R	2	10	250.00	-92433.50	-267.55	252.47	0.00	46.94	24.38	362.41
6.00	4	SLE	Q	2	10	250.00	-82253.80	-217.38	197.20	0.00	46.94	21.57	321.00
6.50	2	SLE	R	3	10	0.00	-81310.30	248.75	143.10	0.00	9.24	56.74	836.97
6.50	4	SLE	Q	3	10	0.00	-72311.80	199.34	109.49	0.00	9.24	50.07	739.84
6.50	2	SLE	R	3	10	0.00	-81310.30	248.75	143.10	0.00	9.24	56.74	836.97
6.50	4	SLE	Q	3	10	0.00	-72311.80	199.34	109.49	0.00	9.24	50.07	739.84
9.00	2	SLE	R	3	10	250.00	-80435.30	-234.12	2.82	0.00	9.24	54.55	810.46
9.00	4	SLE	Q	3	10	250.00	-71436.80	-187.13	0.39	0.00	9.24	48.23	717.24
9.50	2	SLE	R	4	10	0.00	-69577.90	253.91	-0.49	0.00	9.24	47.66	706.53
9.50	4	SLE	Q	4	10	0.00	-61753.10	195.01	-3.45	0.00	9.24	42.04	624.06
9.50	2	SLE	R	4	10	0.00	-69577.90	253.91	-0.49	0.00	9.24	47.66	706.53
9.50	4	SLE	Q	4	10	0.00	-61753.10	195.01	-3.45	0.00	9.24	42.04	624.06
12.00	2	SLE	R	4	10	250.00	-68702.90	-245.03	-34.95	0.00	9.24	47.37	701.03
12.00	4	SLE	Q	4	10	250.00	-60878.10	-187.65	-28.80	0.00	9.24	41.67	617.67
12.50	2	SLE	R	5	10	0.00	-57756.00	201.19	-36.57	0.00	9.24	39.85	589.64
12.50	4	SLE	Q	5	10	0.00	-51120.30	152.75	-31.30	0.00	9.24	35.02	518.96
12.50	2	SLE	R	5	10	0.00	-57756.00	201.19	-36.57	0.00	9.24	39.85	589.64
12.50	4	SLE	Q	5	10	0.00	-51120.30	152.75	-31.30	0.00	9.24	35.02	518.96
15.00	2	SLE	R	5	10	250.00	-56881.00	-199.03	-33.94	0.00	9.24	39.24	580.56
15.00	4	SLE	Q	5	10	250.00	-50245.30	-150.37	-28.90	0.00	9.24	34.40	509.89
15.50	2	SLE	R	6	7	0.00	-45918.60	78.92	-30.28	0.00	9.24	40.38	597.89
15.50	4	SLE	Q	6	7	0.00	-40473.50	56.02	-27.80	0.00	9.24	35.37	524.77
15.50	2	SLE	R	6	7	0.00	-45918.60	78.92	-30.28	0.00	6.16	41.96	621.60
15.50	4	SLE	Q	6	7	0.00	-40473.50	56.02	-27.80	0.00	6.16	36.77	545.68
18.00	2	SLE	R	6	7	250.00	-45262.30	-78.94	-13.89	0.00	6.16	41.15	610.40
18.00	4	SLE	Q	6	7	250.00	-39817.30	-56.16	-12.77	0.00	6.16	35.99	534.72
18.50	2	SLE	R	7	7	0.00	-34368.60	82.85	-11.02	0.00	6.16	31.64	467.59
18.50	4	SLE	Q	7	7	0.00	-30107.50	56.22	-12.28	0.00	6.16	27.48	407.15
18.50	2	SLE	R	7	7	0.00	-34368.60	82.85	-11.02	0.00	6.16	31.64	467.59
18.50	4	SLE	Q	7	7	0.00	-30107.50	56.22	-12.28	0.00	6.16	27.48	407.15
21.00	2	SLE	R	7	7	250.00	-33712.30	-78.63	15.50	0.00	6.16	31.06	458.94
21.00	4	SLE	Q	7	7	250.00	-29451.30	-53.17	10.27	0.00	6.16	26.83	397.68
21.50	2	SLE	R	8	7	0.00	-22765.30	83.56	30.36	0.00	6.16	21.77	318.40
21.50	4	SLE	Q	8	7	0.00	-19698.50	54.51	19.53	0.00	6.16	18.44	271.32
21.50	2	SLE	R	8	7	0.00	-22765.30	83.56	30.36	0.00	6.16	21.77	318.40
21.50	4	SLE	Q	8	7	0.00	-19698.50	54.51	19.53	0.00	6.16	18.44	271.32
24.00	2	SLE	R	8	7	250.00	-22109.00	-78.27	42.07	0.00	6.16	21.28	310.71
24.00	4	SLE	Q	8	7	250.00	-19042.30	-50.78	32.31	0.00	6.16	17.99	264.06
24.50	2	SLE	R	9	7	0.00	-11119.00	104.24	74.13	0.00	6.16	12.55	176.03
24.50	4	SLE	Q	9	7	0.00	-9256.70	70.89	56.68	0.00	6.16	10.11	142.96
24.50	2	SLE	R	9	7	0.00	-11119.00	104.24	74.13	0.00	6.16	12.55	176.03
24.50	4	SLE	Q	9	7	0.00	-9256.70	70.89	56.68	0.00	6.16	10.11	142.96
27.00	2	SLE	R	9	7	250.00	-10462.80	-99.57	10.23	0.00	6.16	10.99	156.50
27.00	4	SLE	Q	9	7	250.00	-8600.45	-68.13	9.54	0.00	6.16	8.82	126.41

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0	X1	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub>	d <sub>y</sub>	Vsdu <sub>y</sub>	ctgθ <sub>y</sub>	VRsd <sub>y</sub>	VRsdCam <sub>y</sub>	VRcd <sub>y</sub>	Vrd <sub>y</sub>	bw <sub>z</sub>	d <sub>z</sub>	Vsdu <sub>z</sub>	ctgθ <sub>z</sub>	VRsd <sub>z</sub>	VRsdCam <sub>z</sub>	VRcd <sub>z</sub>	Vrd <sub>z</sub>	Si
<m>	<m>							<m>	<m>	<daN>		<daN>	<daN>	<daN>	<daN>	<m>	<m>	<daN>		<daN>	<daN>	<daN>	<daN>	
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	151.80	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	153.44	2.50	0.00	57709.10	107066.00	51938.20	>100
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	151.80	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	153.44	2.50	0.00	57709.10	107066.00	51938.20	>100
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	151.80	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	153.44	2.50	0.00	57709.10	107066.00	51938.20	>100
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	347.41	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	251.04	2.50	0.00	44432.50	82434.00	39989.30	>100
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	347.41	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	251.04	2.50	0.00	44432.50	82434.00	39989.30	>100
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	347.41	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	251.04	2.50	0.00	44432.50	82434.00	39989.30	>100
6.50	6.96	ø6/15	2	---	---	1	SLU	0.35	0.35	272.03	2.13	7914.13	---	7914.13	7914.13	0.40	0.30	76.80	2.31	7354.37	---	7354.37	7354.37	29.
6.96	8.80	ø6/15	2	---	---	1	SLU	0.35	0.35	272.03	2.15	7962.43	---	7962.43	7962.43	0.40	0.30	76.80	2.32	7398.06	---	7398.05	7398.05	29.
8.80	9.00	ø6/15	2	---	---	1	SLU	0.35	0.35	272.03	2.20	8152.74	---	8152.74	8152.74	0.40	0.30	76.80	2.38	7570.26	---	7570.26	7570.26	29.
9.50	9.96	ø6/15	2	---	---	1	SLU	0.35	0.35	281.18	2.50	9277.05	---	12712.90	9277.05	0.40	0.30	19.25	2.50	7955.54	---	12459.30	7955.54	32.
9.96	11.80	ø6/15	2	---	---	1	SLU	0.35	0.35	281.18	2.50	9277.05	---	12784.10	9277.05	0.40	0.30	19.25	2.50	7955.54	---	12529.20	7955.54	32.
11.80	12.00	ø6/15	2	---	---	1	SLU	0.35	0.35	281.18	2.50	9277.05	---	13069.10	9277.05	0.40	0.30	19.25	2.50	7955.54	---	12808.50	7955.54	32.
12.50	12.96	ø6/15	2	---	---	1	SLU	0.35	0.35	225.24	2.50	9277.05	---	18368.80	9277.05	0.40	0.30	1.22	2.50	7955.54	---	18002.40	7955.54	41.
12.96	14.80	ø6/15	2	---	---	1	SLU	0.35	0.35	225.24	2.50	9277.05	---	18440.00	9277.05	0.40	0.30	1.22	2.50	7955.54	---	18072.30	7955.54	41.
14.80	15.00	ø6/15	2	---	---	1	SLU	0.35	0.35	225.24	2.50	9277.05	---	18725.00	9277.05	0.40	0.30	1.22	2.50	7955.54	---	18351.60	7955.54	41.
15.50	15.96	ø6/15	2	---	---	1	SLU	0.35	0.25	88.04	2.50	6634.02	---	11943.50	6634.02	0.30	0.30	8.94	2.50	7955.54	---	12276.60	7955.54	75.
15.96	17.80	ø6/15	2	---	---	1	SLU	0.35	0.25	88.04	2.50	6634.02	---	11994.50	6634.02	0.30	0.30	8.94	2.50	7955.54	---	12329.00	7955.54	75.



Relazione di calcolo

17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	88.04	2.50	6634.02	---	12198.30	6634.02	0.30	0.30	8.94	2.50	7955.54	---	12538.50	7955.54	75.
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	90.55	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	14.47	2.50	7955.54	---	16914.20	7955.54	73.
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	90.55	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	14.47	2.50	7955.54	---	16914.20	7955.54	73.
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	90.55	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	14.47	2.50	7955.54	---	16914.20	7955.54	73.
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	91.47	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	5.08	2.50	7955.54	---	16914.20	7955.54	72.
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	91.47	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	5.08	2.50	7955.54	---	16914.20	7955.54	72.
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	91.47	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	5.08	2.50	7955.54	---	16914.20	7955.54	72.
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	115.51	2.50	6634.02	---	15190.70	6634.02	0.30	0.30	34.09	2.50	7955.54	---	15614.40	7955.54	57.
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	115.51	2.50	6634.02	---	15170.30	6634.02	0.30	0.30	34.09	2.50	7955.54	---	15593.40	7955.54	57.
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	115.51	2.50	6634.02	---	15088.80	6634.02	0.30	0.30	34.09	2.50	7955.54	---	15509.60	7955.54	57.

Pilastrata n. 50

Nodi: 150 350 550 750 950 1150 1350 1550 1750 1950

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
1	R	40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <cm>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-158671.00	2040.15	3173.42	604.90	3173.42	-784267.00	74808.20	62678.40	1.09	4.943	134.93
0.00	1(e)	SLU	1	1	0.00	-158671.00	2040.15	3173.42	604.90	3173.42	-784267.00	74808.20	62678.40	1.09	4.943	134.93
3.00	1(e)	SLU	1	1	300.00	-154576.00	1398.16	3091.52	-817.00	-3091.52	-784267.00	74396.70	-62334.80	1.08	5.074	134.93
3.50	1(e)	SLU	2	10	0.00	-137078.00	1128.71	2741.55	987.93	2741.55	-657277.00	50785.70	56402.00	1.09	4.795	166.19
3.50	1(e)	SLU	2	10	0.00	-137078.00	1128.71	2741.55	987.93	2741.55	-646245.00	50619.40	54950.00	1.09	4.714	173.96
6.00	1(e)	SLU	2	10	250.00	-134396.00	111.21	2687.93	-680.11	-2687.93	-646245.00	50501.50	-54838.50	1.09	4.809	173.96
6.50	1(e)	SLU	3	10	0.00	-118147.00	96.66	2362.93	502.89	2362.93	-235892.00	11849.70	12592.20	1.33	1.997	---
6.50	1(e)	SLU	3	10	0.00	-118147.00	96.66	2362.93	502.89	2362.93	-235892.00	11849.70	12592.20	1.33	1.997	---
9.00	1(e)	SLU	3	10	250.00	-117009.00	-50.68	-2340.18	-538.70	-2340.18	-235892.00	-11907.90	-12641.90	1.33	2.016	---
9.50	1(e)	SLU	4	10	0.00	-100809.00	110.68	2016.18	647.49	2016.18	-235892.00	12660.50	13249.20	1.27	2.340	---
9.50	1(e)	SLU	4	10	0.00	-100809.00	110.68	2016.18	647.49	2016.18	-235892.00	12660.50	13249.20	1.27	2.340	---
12.00	1(e)	SLU	4	10	250.00	-99671.70	-93.25	-1993.43	-604.98	-1993.43	-235892.00	-12708.30	-13257.80	1.27	2.367	---
12.50	1(e)	SLU	5	10	0.00	-83579.90	27.50	1671.60	577.72	1671.60	-235892.00	12700.10	13023.30	1.21	2.822	---
12.50	1(e)	SLU	5	10	0.00	-83579.90	27.50	1671.60	577.72	1671.60	-235892.00	12700.10	13023.30	1.21	2.822	---
15.00	1(e)	SLU	5	10	250.00	-82442.40	-101.20	-1648.85	-569.45	-1648.85	-235892.00	-12668.20	-12994.00	1.21	2.861	---
15.50	1(e)	SLU	6	7	0.00	-66379.30	18.16	1327.59	263.87	1327.59	-185194.00	10675.00	7764.46	1.22	2.790	---
15.50	1(e)	SLU	6	7	0.00	-66379.30	18.16	1327.59	263.87	1327.59	-174161.00	9251.84	7785.22	1.23	2.624	---
18.00	1(e)	SLU	6	7	250.00	-65526.10	-75.13	-1310.52	-264.63	-1310.52	-174161.00	-9235.68	-7770.85	1.23	2.658	---
18.50	1(e)	SLU	7	7	0.00	-49480.30	39.55	989.61	291.58	989.61	-174161.00	8609.75	7234.49	1.15	3.520	---
18.50	1(e)	SLU	7	7	0.00	-49480.30	39.55	989.61	291.58	989.61	-174161.00	8609.75	7234.49	1.15	3.520	---
21.00	1(e)	SLU	7	7	250.00	-48627.10	-46.60	-972.54	-267.01	-972.54	-174161.00	-8559.61	-7191.67	1.15	3.582	---
21.50	1(e)	SLU	8	7	0.00	-32685.90	62.95	653.72	274.09	653.72	-174161.00	7302.92	6089.33	1.07	5.328	---
21.50	1(e)	SLU	8	7	0.00	-32685.90	62.95	653.72	274.09	653.72	-174161.00	7302.92	6089.33	1.07	5.328	---
24.00	1(e)	SLU	8	7	250.00	-31832.80	-35.93	-636.65	-248.43	-636.65	-174161.00	-7215.87	-6013.64	1.07	5.471	---
24.50	1(e)	SLU	9	7	0.00	-15988.80	89.67	-319.77	305.30	319.77	-15993.10	-5350.80	4479.18	1.00	7.625	---
24.50	1(e)	SLU	9	7	0.00	-15988.80	89.67	-319.77	305.30	319.77	-15993.10	-5350.80	4479.18	1.00	7.625	---
27.00	1(e)	SLU	9	7	250.00	-15135.60	18.20	-302.71	-289.06	-302.71	-15139.50	-5242.72	-4390.25	1.00	7.893	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-113078.00	429.72	1461.58	0.00	50.01	26.08	384.21
0.00	4	SLE Q	1	1	0.00	-100643.00	348.64	1157.20	0.00	50.01	22.91	338.08
0.00	2	SLE R	1	1	0.00	-113078.00	429.72	1461.58	0.00	50.01	26.08	384.21
0.00	4	SLE Q	1	1	0.00	-100643.00	348.64	1157.20	0.00	50.01	22.91	338.08
3.00	2	SLE R	1	1	300.00	-109928.00	-579.10	1003.05	0.00	50.01	24.98	368.58
3.00	4	SLE Q	1	1	300.00	-97493.00	-482.17	803.20	0.00	50.01	21.95	324.29
3.50	2	SLE R	2	10	0.00	-97520.20	699.51	812.09	0.00	50.01	27.84	408.06
3.50	4	SLE Q	2	10	0.00	-86433.30	562.24	648.62	0.00	50.01	24.35	357.67
3.50	2	SLE R	2	10	0.00	-97520.20	699.51	812.09	0.00	46.94	28.13	412.41
3.50	4	SLE Q	2	10	0.00	-86433.30	562.24	648.62	0.00	46.94	24.61	361.50
6.00	2	SLE R	2	10	250.00	-95457.70	-479.75	89.91	0.00	46.94	25.21	374.86
6.00	4	SLE Q	2	10	250.00	-84370.80	-363.53	71.74	0.00	46.94	22.12	329.26
6.50	2	SLE R	3	10	0.00	-83947.40	355.69	75.28	0.00	9.24	58.77	866.61
6.50	4	SLE Q	3	10	0.00	-74130.80	272.75	55.69	0.00	9.24	51.39	759.44
6.50	2	SLE R	3	10	0.00	-83947.40	355.69	75.28	0.00	9.24	58.77	866.61
6.50	4	SLE Q	3	10	0.00	-74130.80	272.75	55.69	0.00	9.24	51.39	759.44
9.00	2	SLE R	3	10	250.00	-83072.40	-380.17	-32.04	0.00	9.24	57.98	855.75
9.00	4	SLE Q	3	10	250.00	-73255.80	-289.48	-24.37	0.00	9.24	50.65	749.11
9.50	2	SLE R	4	10	0.00	-71619.70	456.82	77.19	0.00	9.24	51.74	757.85
9.50	4	SLE Q	4	10	0.00	-63113.40	335.35	54.67	0.00	9.24	44.81	658.84
9.50	2	SLE R	4	10	0.00	-71619.70	456.82	77.19	0.00	9.24	51.74	757.85
9.50	4	SLE Q	4	10	0.00	-63113.40	335.35	54.67	0.00	9.24	44.81	658.84
12.00	2	SLE R	4	10	250.00	-70744.70	-426.35	-62.72	0.00	9.24	50.73	744.26
12.00	4	SLE Q	4	10	250.00	-62238.40	-310.17	-47.71	0.00	9.24	43.93	646.71
12.50	2	SLE R	5	10	0.00	-59370.10	407.20	18.29	0.00	9.24	42.69	626.06
12.50	4	SLE Q	5	10	0.00	-52176.80	289.25	7.72	0.00	9.24	36.77	541.63
12.50	2	SLE R	5	10	0.00	-59370.10	407.20	18.29	0.00	9.24	42.69	626.06



Relazione di calcolo

12.50	4	SLE Q	5	10	0.00	-52176.80	289.25	7.72	0.00	9.24	36.77	541.63
15.00	2	SLE R	5	10	250.00	-58495.10	-400.92	-67.96	0.00	9.24	42.58	622.62
15.00	4	SLE Q	5	10	250.00	-51301.80	-283.81	-51.46	0.00	9.24	36.61	537.60
15.50	2	SLE R	6	7	0.00	-47141.60	186.28	11.32	0.00	9.24	42.96	629.38
15.50	4	SLE Q	6	7	0.00	-41257.30	125.80	1.38	0.00	9.24	36.86	543.01
15.50	2	SLE R	6	7	0.00	-47141.60	186.28	11.32	0.00	6.16	44.58	653.54
15.50	4	SLE Q	6	7	0.00	-41257.30	125.80	1.38	0.00	6.16	38.26	564.07
18.00	2	SLE R	6	7	250.00	-46485.30	-186.57	-50.03	0.00	6.16	44.56	651.08
18.00	4	SLE Q	6	7	250.00	-40601.00	-125.98	-37.26	0.00	6.16	38.20	561.15
18.50	2	SLE R	7	7	0.00	-35148.40	205.23	25.74	0.00	6.16	34.60	501.66
18.50	4	SLE Q	7	7	0.00	-30576.70	134.81	12.05	0.00	6.16	29.22	427.09
18.50	2	SLE R	7	7	0.00	-35148.40	205.23	25.74	0.00	6.16	34.60	501.66
18.50	4	SLE Q	7	7	0.00	-30576.70	134.81	12.05	0.00	6.16	29.22	427.09
21.00	2	SLE R	7	7	250.00	-34492.10	-187.86	-29.47	0.00	6.16	33.79	490.58
21.00	4	SLE Q	7	7	250.00	-29920.40	-122.47	-20.37	0.00	6.16	28.55	417.62
21.50	2	SLE R	8	7	0.00	-23229.10	192.40	42.35	0.00	6.16	24.19	345.52
21.50	4	SLE Q	8	7	0.00	-19958.20	122.22	25.45	0.00	6.16	19.90	287.57
21.50	2	SLE R	8	7	0.00	-23229.10	192.40	42.35	0.00	6.16	24.19	345.52
21.50	4	SLE Q	8	7	0.00	-19958.20	122.22	25.45	0.00	6.16	19.90	287.57
24.00	2	SLE R	8	7	250.00	-22572.90	-174.37	-20.36	0.00	6.16	23.00	330.27
24.00	4	SLE Q	8	7	250.00	-19301.90	-110.05	-13.58	0.00	6.16	18.95	274.94
24.50	2	SLE R	9	7	0.00	-11378.30	214.09	63.15	0.00	6.16	14.48	197.01
24.50	4	SLE Q	9	7	0.00	-9393.21	136.18	40.54	0.00	6.16	11.10	153.68
24.50	2	SLE R	9	7	0.00	-11378.30	214.09	63.15	0.00	6.16	14.48	197.01
24.50	4	SLE Q	9	7	0.00	-9393.21	136.18	40.54	0.00	6.16	11.10	153.68
27.00	2	SLE R	9	7	250.00	-10722.10	-202.62	20.30	0.00	6.16	13.10	179.61
27.00	4	SLE Q	9	7	250.00	-8736.96	-127.27	21.78	0.00	6.16	10.11	140.53

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <cm>	X1 <cm>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	b <sub>w,y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	b <sub>w,z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	Si
0.00	0.54	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	473.97	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	214.00	2.50	0.00	57709.10	107066.00	51938.20	92.
0.54	2.72	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	473.97	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	214.00	2.50	0.00	57709.10	107066.00	51938.20	92.
2.72	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	473.97	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	214.00	2.50	0.00	57709.10	107066.00	51938.20	92.
3.50	3.96	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	667.22	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	407.00	2.50	0.00	44432.50	82434.00	39989.30	65.
3.96	5.80	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	667.22	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	407.00	2.50	0.00	44432.50	82434.00	39989.30	65.
5.80	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	667.22	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	407.00	2.50	0.00	44432.50	82434.00	39989.30	65.
6.50	6.96	ø6/15	2	2	---	1	SLU	0.35	0.35	416.64	1.88	6977.89	---	6977.89	6977.89	0.40	0.30	58.94	2.05	6509.13	---	6509.13	6509.13	16.
6.96	8.80	ø6/15	2	2	---	1	SLU	0.35	0.35	416.64	1.90	7032.61	---	7032.61	7032.61	0.40	0.30	58.94	2.06	6558.45	---	6558.45	6558.45	16.
8.80	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	416.64	1.95	7247.38	---	7247.38	7247.38	0.40	0.30	58.94	2.12	6752.09	---	6752.09	6752.09	17.
9.50	9.96	ø6/15	2	2	---	1	SLU	0.35	0.35	500.99	2.50	9277.05	---	11706.00	9277.05	0.40	0.30	81.57	2.50	7955.54	---	11472.60	7955.54	18.
9.96	11.80	ø6/15	2	2	---	1	SLU	0.35	0.35	500.99	2.50	9277.05	---	11777.30	9277.05	0.40	0.30	81.57	2.50	7955.54	---	11542.40	7955.54	18.
11.80	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	500.99	2.50	9277.05	---	12062.30	9277.05	0.40	0.30	81.57	2.50	7955.54	---	11821.70	7955.54	18.
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	458.87	2.50	9277.05	---	17571.00	9277.05	0.40	0.30	51.48	2.50	7955.54	---	17220.60	7955.54	20.
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	458.87	2.50	9277.05	---	17642.30	9277.05	0.40	0.30	51.48	2.50	7955.54	---	17290.40	7955.54	20.
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	458.87	2.50	9277.05	---	17927.30	9277.05	0.40	0.30	51.48	2.50	7955.54	---	17569.70	7955.54	20.
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	211.40	2.50	6634.02	---	11366.00	6634.02	0.30	0.30	37.32	2.50	7955.54	---	11683.00	7955.54	31.
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	211.40	2.50	6634.02	---	11416.90	6634.02	0.30	0.30	37.32	2.50	7955.54	---	11735.30	7955.54	31.
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	211.40	2.50	6634.02	---	11620.70	6634.02	0.30	0.30	37.32	2.50	7955.54	---	11944.80	7955.54	31.
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	223.44	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	34.46	2.50	7955.54	---	16914.20	7955.54	29.
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	223.44	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	34.46	2.50	7955.54	---	16914.20	7955.54	29.
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	223.44	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	34.46	2.50	7955.54	---	16914.20	7955.54	29.
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	209.01	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	39.55	2.50	7955.54	---	16914.20	7955.54	31.
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	209.01	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	39.55	2.50	7955.54	---	16914.20	7955.54	31.
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	209.01	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	39.55	2.50	7955.54	---	16914.20	7955.54	31.
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	237.74	2.50	6634.02	---	15240.00	6634.02	0.30	0.30	28.59	2.50	7955.54	---	15665.00	7955.54	27.
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	237.74	2.50	6634.02	---	15219.70	6634.02	0.30	0.30	28.59	2.50	7955.54	---	15644.10	7955.54	27.
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	237.74	2.50	6634.02	---	15138.10	6634.02	0.30	0.30	28.59	2.50	7955.54	---	15560.30	7955.54	27.

Pilastrata n. 51

Nodi: 151 -7130 -7131 -7132 251 -7113 -7114 -7115 351 451 551 651 751 851 951 1051 1151 1251 1351 1451 1551 1651 1751  
1851 1951

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
1	R	40.00	50.00	3.00	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
1	R	40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-69164.60	497.44	1383.29	168.49	1383.29	-333837.00	21036.40	16524.40	1.09	4.827	---
0.00	1(e)	SLU	1	1	0.00	-69164.60	497.44	1383.29	168.49	1383.29	-333837.00	21036.40	16524.40	1.09	4.827	---
0.50	1(e)	SLU	1	1	50.00	-68839.60	987.14	1376.79	-120.85	-1376.79	-333837.00	21011.50	-16504.40	1.09	4.849	---
0.50	1(e)	SLU	2	1	0.00	-68809.40	1121.35	1376.19	-97.84	-1376.19	-333837.00	21009.30	-16502.50	1.09	4.852	---
1.00	1(e)	SLU	2	1	50.00	-68484.40	1589.75	1589.75	-100.38	-1369.69	-333837.00	20983.80	-16482.50	1.09	4.875	---
1.00	1(e)	SLU	3	1	0.00	-170218.10	1707.20	1707.20	-79.12	-1402.56	-333837.00	21110.50	-16583.50	1.09	4.760	---
1.35	1(e)	SLU	3	1	35.00	-69900.60	1997.69	1997.69	-54.42	-1398.01	-333837.00	21093.10	-16569.70	1.09	4.776	---
2.00	1(e)	SLU	5	1	0.00	-78217.70	-130.55	-1564.35	-127.49	-1564.35	-333837.00	-21712.00	-17065.10	1.11	4.268	---
2.00	1(e)	SLU	5	1	0.00	-78217.70	-130.55	-1564.35	-127.49	-1564.35	-333837.00	-21712.00	-17065.10	1.11	4.268	---
2.38	1(e)	SLU	5	1	37.50	-77974.00	-26.10	-1559.48	304.56	1559.48	-333837.00	-21694.50	17051.00	1.11	4.281	---



Relazione di calcolo

2.38	1(e)	SLU	6	1	0.00	-85342.00	-10.11	-1706.84	234.03	1706.84	-333837.00	-22206.60	17460.70	1.13	3.912	---
2.75	1(e)	SLU	6	1	37.50	-85098.30	174.88	1701.96	724.63	1701.96	-333837.00	22190.30	17447.60	1.13	3.923	---
2.75	1(e)	SLU	7	1	0.00	-94701.30	225.89	1894.03	762.64	1894.03	-333837.00	22796.50	17932.40	1.15	3.525	---
3.00	1(e)	SLU	7	1	25.00	-94538.80	386.79	1890.78	1218.86	1890.78	-333837.00	22786.80	17924.80	1.15	3.531	---
3.50	1(e)	SLU	9	10	0.00	-143321.00	792.80	2866.41	-5198.43	-5198.43	-657277.00	51027.20	-56667.30	1.10	4.586	166.19
3.50	1(e)	SLU	9	10	0.00	-143321.00	792.80	2866.41	-5198.43	-5198.43	-646245.00	50887.70	-55203.80	1.10	4.509	173.96
4.35	1(e)	SLU	9	10	85.00	-142409.00	1697.50	2848.18	-2360.00	-2848.18	-646245.00	50848.90	-55167.30	1.10	4.538	173.96
5.00	1(e)	SLU	10	10	0.00	-131959.00	-7087.11	-7087.11	1055.62	2639.19	-646245.00	-50393.10	54736.20	1.09	4.897	225.38
5.00	1(e)	SLU	10	10	0.00	-131959.00	-7087.11	-7087.11	1055.62	2639.19	-646245.00	-50393.10	54736.20	1.09	4.897	225.38
6.00	1(e)	SLU	10	100.00	0.00	-130887.00	-1782.70	-2617.74	1573.88	2617.74	-646245.00	-50344.90	54690.80	1.09	4.937	173.96
6.50	1(e)	SLU	11	10	0.00	-120881.00	-176.17	-2417.61	226.20	2417.61	-235892.00	-11705.70	12468.70	1.34	1.951	---
6.50	1(e)	SLU	11	10	0.00	-120881.00	-176.17	-2417.61	226.20	2417.61	-235892.00	-11705.70	12468.70	1.34	1.951	---
7.35	1(e)	SLU	11	10	85.00	-120494.00	1447.39	2409.88	-350.27	-2409.88	-235892.00	11726.30	-12486.50	1.34	1.958	---
8.00	1(e)	SLU	12	10	0.00	-112603.00	-2986.17	-2986.17	426.91	2252.07	-235892.00	-12126.80	12824.80	1.31	2.095	---
8.00	1(e)	SLU	12	10	0.00	-112603.00	-2986.17	-2986.17	426.91	2252.07	-235892.00	-12126.80	12824.80	1.31	2.095	---
9.00	1(e)	SLU	12	10	100.00	-112148.00	-310.89	-2242.97	342.52	2242.97	-235892.00	-12148.60	12842.80	1.31	2.103	---
9.50	1(e)	SLU	13	10	0.00	-102332.00	-31.03	-2046.64	-167.81	-2046.64	-235892.00	-12595.10	-13199.20	1.28	2.305	---
9.50	1(e)	SLU	13	10	0.00	-102332.00	-31.03	-2046.64	-167.81	-2046.64	-235892.00	-12595.10	-13199.20	1.28	2.305	---
10.35	1(e)	SLU	13	10	85.00	-101945.00	1490.19	2038.90	-436.42	-2038.90	-235892.00	12611.70	-13212.00	1.28	2.314	---
11.00	1(e)	SLU	14	10	0.00	-94555.70	-2270.26	-2270.26	492.16	1891.11	-235892.00	-12886.90	13220.00	1.25	2.495	---
11.00	1(e)	SLU	14	10	0.00	-94555.70	-2270.26	-2270.26	492.16	1891.11	-235892.00	-12886.90	13220.00	1.25	2.495	---
12.00	1(e)	SLU	14	10	100.00	-94100.70	-445.39	-1882.01	324.25	1882.01	-235892.00	-12883.00	13215.10	1.25	2.507	---
12.50	1(e)	SLU	15	10	0.00	-84031.30	-399.05	-1680.63	-169.66	-1680.63	-235892.00	-12711.70	-13034.10	1.21	2.807	---
12.50	1(e)	SLU	15	10	0.00	-84031.30	-399.05	-1680.63	-169.66	-1680.63	-235892.00	-12711.70	-13034.10	1.21	2.807	---
13.35	1(e)	SLU	15	10	85.00	-83644.50	1318.93	1672.89	-496.75	-1672.89	-235892.00	12701.80	-13024.80	1.21	2.820	---
14.00	1(e)	SLU	16	10	0.00	-76593.30	-1960.89	-1960.89	302.52	1531.87	-235892.00	-12470.00	12822.60	1.19	3.080	---
14.00	1(e)	SLU	16	10	0.00	-76593.30	-1960.89	-1960.89	302.52	1531.87	-235892.00	-12470.00	12822.60	1.19	3.080	---
15.00	1(e)	SLU	16	10	100.00	-76138.30	-517.89	-1522.77	554.48	1522.77	-235892.00	-12452.40	12807.70	1.19	3.098	---
15.50	1(e)	SLU	17	7	0.00	-66281.20	-638.74	-1325.62	6.93	1325.62	-185194.00	-10673.30	7763.17	1.21	2.794	---
15.50	1(e)	SLU	17	7	0.00	-66281.20	-638.74	-1325.62	6.93	1325.62	-174161.00	-9250.10	7783.56	1.23	2.628	---
16.35	1(e)	SLU	17	7	85.00	-65991.10	1125.28	1319.82	-362.15	-1319.82	-174161.00	9245.13	-7778.65	1.23	2.639	---
17.00	1(e)	SLU	18	7	0.00	-59365.30	-1500.03	-1500.03	271.99	1187.31	-174161.00	-9067.38	7626.54	1.20	2.934	---
17.00	1(e)	SLU	18	7	0.00	-59365.30	-1500.03	-1500.03	271.99	1187.31	-174161.00	-9067.38	7626.54	1.20	2.934	---
18.00	1(e)	SLU	18	7	100.00	-59024.10	-448.94	-1180.48	353.41	1180.48	-174161.00	-9055.74	7616.58	1.20	2.951	---
18.50	1(e)	SLU	19	7	0.00	-49276.00	-698.86	-985.52	-101.36	-985.52	-174161.00	-8597.86	-7224.26	1.15	3.534	---
18.50	1(e)	SLU	19	7	0.00	-49276.00	-698.86	-985.52	-101.36	-985.52	-174161.00	-8597.86	-7224.26	1.15	3.534	---
19.35	1(e)	SLU	19	7	85.00	-48985.90	1097.82	1097.82	-389.14	-979.72	-174161.00	8580.86	-7209.68	1.15	3.555	---
20.00	1(e)	SLU	20	7	0.00	-42501.90	-1310.31	-1310.31	276.73	850.04	-174161.00	-8147.61	6838.61	1.12	4.098	---
20.00	1(e)	SLU	20	7	0.00	-42501.90	-1310.31	-1310.31	276.73	850.04	-174161.00	-8147.61	6838.61	1.12	4.098	---
21.00	1(e)	SLU	20	7	100.00	-42160.70	-458.21	-843.21	384.89	843.21	-174161.00	-8121.89	6817.24	1.12	4.131	---
21.50	1(e)	SLU	21	7	0.00	-32464.70	-752.93	-752.93	-144.53	-649.29	-174161.00	-7281.62	-6069.83	1.07	5.365	---
21.50	1(e)	SLU	21	7	0.00	-32464.70	-752.93	-752.93	-144.53	-649.29	-174161.00	-7281.62	-6069.83	1.07	5.365	---
22.35	1(e)	SLU	21	7	85.00	-32174.70	1060.86	1060.86	-400.91	643.49	-32175.70	7252.35	6043.85	1.07	4.574	---
23.00	1(e)	SLU	22	7	0.00	-25710.00	-1319.36	-1319.36	271.55	514.20	-25711.20	-6532.11	5449.44	1.04	3.630	---
23.00	1(e)	SLU	22	7	0.00	-25710.00	-1319.36	-1319.36	271.55	514.20	-25711.20	-6532.11	5449.44	1.04	3.630	---
24.00	1(e)	SLU	22	7	100.00	-25368.80	-475.56	507.38	418.86	507.38	-25368.80	6492.71	5416.58	1.04	6.389	---
24.50	1(e)	SLU	23	7	0.00	-15644.40	-755.83	-755.83	-78.14	312.89	-15646.30	-5307.16	4443.00	1.00	4.698	---
24.50	1(e)	SLU	23	7	0.00	-15644.40	-755.83	-755.83	-78.14	312.89	-15646.30	-5307.16	4443.00	1.00	4.698	---
25.35	1	SLU	23	7	85.00	-15354.40	1167.03	1167.03	-432.25	-432.25	-15358.10	5270.59	-4413.01	1.00	3.131	---
26.00	1	SLU	24	7	0.00	-8685.45	-1314.75	-1314.75	213.24	213.24	-8687.84	-4410.26	3707.91	1.00	2.812	---
26.00	1	SLU	24	7	0.00	-8685.45	-1314.75	-1314.75	213.24	213.24	-8687.84	-4410.26	3707.91	1.00	2.812	---
27.00	1(e)	SLU	24	7	100.00	-8344.20	-60.44	-166.88	500.07	500.07	-8348.33	-4365.39	3671.37	1.00	5.733	---

Stato limite d'esercizio - Verifiche tensionali

Xg	CC	TCC	El	Sez.	X	N	Mz	My	AfT	AfC	σ <sub>c</sub>	σ <sub>ε</sub>	
<m>					<cm>	<daN>	<daNm>	<daNm>	<cmq>	<cmq>	<daN/cmq>	<daN/cmq>	
0.00	2	SLE	R	1	1	0.00	-49294.80	120.76	357.55	0.00	12.31	25.25	370.83
0.00	4	SLE	Q	1	1	0.00	-43033.30	91.03	285.28	0.00	12.31	21.81	320.88
0.00	2	SLE	R	1	1	0.00	-49294.80	120.76	357.55	0.00	12.31	25.25	370.83
0.00	4	SLE	Q	1	1	0.00	-43033.30	91.03	285.28	0.00	12.31	21.81	320.88
0.50	2	SLE	R	1	1	50.00	-49044.80	-85.66	705.84	0.00	12.31	26.74	388.88
0.50	4	SLE	Q	1	1	50.00	-42783.30	-74.97	558.64	0.00	12.31	23.03	335.56
0.50	2	SLE	R	2	1	0.00	-49021.00	-69.35	801.21	0.00	12.31	27.12	393.61
0.50	4	SLE	Q	2	1	0.00	-42778.40	-60.88	633.63	0.00	12.31	23.33	339.28
1.00	2	SLE	R	2	1	50.00	-48771.00	-71.19	1134.55	0.00	12.31	28.78	413.54
1.00	4	SLE	Q	2	1	50.00	-42528.40	-60.02	895.17	0.00	12.31	24.59	354.37
1.00	2	SLE	R	3	1	0.00	-49936.60	-56.13	1218.14	0.00	12.31	29.65	425.77
1.00	4	SLE	Q	3	1	0.00	-43556.80	-47.25	960.98	0.00	12.31	25.32	364.69
1.35	2	SLE	R	3	1	35.00	-49761.60	-38.41	1425.11	0.00	12.31	30.54	436.56
1.35	4	SLE	Q	3	1	35.00	-43381.80	-30.74	1123.94	0.00	12.31	25.99	372.73
2.00	2	SLE	R	5	1	0.00	-55608.00	-90.36	-108.32	0.00	12.31	26.63	395.75
2.00	4	SLE	Q	5	1	0.00	-48508.20	-87.44	-54.98	0.00	12.31	23.08	343.34
2.00	2	SLE	R	5	1	0.00	-55608.00	-90.36	-108.32	0.00	12.31	26.63	395.75
2.00	4	SLE	Q	5	1	0.00	-48508.20	-87.44	-54.98	0.00	12.31	23.08	343.34
2.38	2	SLE	R	5	1	37.50	-55420.50	216.07	-31.76	0.00	12.31	26.98	399.22
2.38	4	SLE	Q	5	1	37.50	-48320.70	184.68	5.56	0.00	12.31	23.38	346.37
2.38	2	SLE	R	6	1	0.00	-60648.20	165.97	-19.92	0.00	12.31	28.97	430.49
2.38	4	SLE	Q	6	1	0.00	-52880.50	140.15	14.75	0.00	12.31	25.22	374.83
2.75	2	SLE	R	6	1	37.50	-60460.70	513.69	113.50	0.00	12.31	31.70	462.05
2.75	4	SLE	Q	6	1	37.50	-52693.00	446.65	117.69	0.00	12.31	27.72	403.82
2.75	2	SLE	R	7	1	0.00	-67274.80	540.62	150.00	0.00	12.31	35.19	513.27
2.75	4	SLE	Q	7	1	0.00	-58636.20	470.25	145.48	0.00	12.31	30.75	448.24
3.00	2	SLE	R	7	1	25.00	-67149.80	863.34	265.40	0.00	12.31	37.90	544.74
3.00	4	SLE	Q	7	1	25.00	-58511.20	757.21	234.36	0.00	12.31	33.07	475.25
3.50	2	SLE	R	9	10	0.00	-101764.00	-3684.75	542.62	0.00	50.01	35.22	503.71
3.50	4	SLE	Q	9	10	0.00	-88407.20	-3256.04	425.47	0.00	50.01	30.60	437.75
3.50	2	SLE	R	9	10	0.00	-101764.00	-3684.75	542.62	0.00	46.94	35.58	509.01
3.50	4	SLE	Q	9	10	0.00	-88407.20	-3256.04	425.47	0.00	46.94	30.92	442.37
4.35	2	SLE	R	9	10	85.00	-101062.00	-1668.27	1206.97	0.00	46.94	32.34	467.39
4.35	4	SLE	Q	9	10	85.00	-87705.90	-1456.58	872.56	0.00	46.94	27.63	400.25
5.00	2	SLE	R	10	10	0.00	-93707.70	746.04	-4894.47	0.00	46.94	37.90	530.88
5.00	4	SLE	Q	10	10	0.00	-81814.70	615.69	-3795.71	0.00	46.94	31.76	447.07
5.00	2	SLE	R	10	10	0.00	-93707.70	746.04	-4894.47	0.00	46.94	37.90	530.88



# Relazione di calcolo

5.004	SLE Q 10	10	0.00	-81814.70	615.69	-3795.71	0.00	46.94	31.76	447.07
6.002	SLE R 10	10	100.00	-92882.70	1105.70	-1232.93	0.00	46.94	29.03	420.74
6.004	SLE Q 10	10	100.00	-80989.70	982.90	-915.63	0.00	46.94	24.94	362.30
6.502	SLE R 11	10	0.00	-85738.50	159.82	-145.90	0.00	9.24	58.80	870.62
6.504	SLE Q 11	10	0.00	-74373.50	112.34	-86.77	0.00	9.24	50.33	747.66
6.502	SLE R 11	10	0.00	-85738.50	159.82	-145.90	0.00	9.24	58.80	870.62
6.504	SLE Q 11	10	0.00	-74373.50	112.34	-86.77	0.00	9.24	50.33	747.66
7.352	SLE R 11	10	85.00	-85441.00	-244.09	1014.98	0.00	9.24	68.58	978.37
7.354	SLE Q 11	10	85.00	-74076.00	-206.22	754.49	0.00	9.24	58.08	833.00
8.002	SLE R 12	10	0.00	-79908.60	300.16	-2037.73	0.00	9.24	76.30	1049.88
8.004	SLE Q 12	10	0.00	-69695.80	230.48	-1541.77	0.00	9.24	63.77	884.77
8.002	SLE R 12	10	0.00	-79908.60	300.16	-2037.73	0.00	9.24	76.30	1049.88
8.004	SLE Q 12	10	0.00	-69695.80	230.48	-1541.77	0.00	9.24	63.77	884.77
9.002	SLE R 12	10	100.00	-79558.60	238.70	-223.76	0.00	9.24	56.36	828.18
9.004	SLE Q 12	10	100.00	-69345.80	231.99	-151.78	0.00	9.24	48.90	719.47
9.502	SLE R 13	10	0.00	-72566.30	-117.98	-65.30	0.00	9.24	48.99	728.16
9.504	SLE Q 13	10	0.00	-62886.80	-149.89	-58.07	0.00	9.24	42.92	636.49
9.502	SLE R 13	10	0.00	-72566.30	-117.98	-65.30	0.00	9.24	48.99	728.16
9.504	SLE Q 13	10	0.00	-62886.80	-149.89	-58.07	0.00	9.24	42.92	636.49
10.352	SLE R 13	10	85.00	-72268.80	-304.74	1037.15	0.00	9.24	60.83	859.25
10.354	SLE Q 13	10	85.00	-62589.30	-265.35	758.26	0.00	9.24	51.22	728.00
11.002	SLE R 14	10	0.00	-67102.20	346.36	-1519.59	0.00	9.24	62.96	869.74
11.004	SLE Q 14	10	0.00	-58531.60	272.45	-1098.62	0.00	9.24	52.24	728.91
11.002	SLE R 14	10	0.00	-67102.20	346.36	-1519.59	0.00	9.24	62.96	869.74
11.004	SLE Q 14	10	0.00	-58531.60	272.45	-1098.62	0.00	9.24	52.24	728.91
12.002	SLE R 14	10	100.00	-66752.20	225.92	-320.03	0.00	9.24	48.93	713.13
12.004	SLE Q 14	10	100.00	-58181.60	232.87	-230.56	0.00	9.24	42.48	619.91
12.502	SLE R 15	10	0.00	-59578.70	-119.00	-331.17	0.00	9.24	43.36	632.65
12.504	SLE Q 15	10	0.00	-51544.00	-150.86	-282.17	0.00	9.24	37.92	552.13
12.502	SLE R 15	10	0.00	-59578.70	-119.00	-331.17	0.00	9.24	43.36	632.65
12.504	SLE Q 15	10	0.00	-51544.00	-150.86	-282.17	0.00	9.24	37.92	552.13
13.352	SLE R 15	10	85.00	-59281.20	-347.46	914.47	0.00	9.24	51.50	723.06
13.354	SLE Q 15	10	85.00	-51246.50	-302.35	655.85	0.00	9.24	43.12	609.58
14.002	SLE R 16	10	0.00	-54359.20	212.15	-1292.60	0.00	9.24	50.99	704.17
14.004	SLE Q 16	10	0.00	-47394.50	159.06	-903.87	0.00	9.24	41.86	585.07
14.002	SLE R 16	10	0.00	-54359.20	212.15	-1292.60	0.00	9.24	50.99	704.17
14.004	SLE Q 16	10	0.00	-47394.50	159.06	-903.87	0.00	9.24	41.86	585.07
15.002	SLE R 16	10	100.00	-54009.20	388.29	-369.64	0.00	9.24	42.72	612.66
15.004	SLE Q 16	10	100.00	-47044.50	371.03	-266.30	0.00	9.24	36.94	530.80
15.502	SLE R 17	7	0.00	-46986.10	4.36	-497.96	0.00	9.24	46.30	667.74
15.504	SLE Q 17	7	0.00	-40539.30	-26.17	-412.02	0.00	9.24	40.09	577.44
15.502	SLE R 17	7	0.00	-46986.10	4.36	-497.96	0.00	6.16	48.31	696.35
15.504	SLE Q 17	7	0.00	-40539.30	-26.17	-412.02	0.00	6.16	41.81	601.96
16.352	SLE R 17	7	85.00	-46762.90	-253.24	778.70	0.00	6.16	56.33	781.49
16.354	SLE Q 17	7	85.00	-40316.20	-215.25	553.04	0.00	6.16	46.83	654.54
17.002	SLE R 18	7	0.00	-42143.90	190.91	-971.57	0.00	6.16	53.99	740.34
17.004	SLE Q 18	7	0.00	-36717.40	139.56	-654.32	0.00	6.16	43.84	609.97
17.002	SLE R 18	7	0.00	-42143.90	190.91	-971.57	0.00	6.16	53.99	740.34
17.004	SLE Q 18	7	0.00	-36717.40	139.56	-654.32	0.00	6.16	43.84	609.97
18.002	SLE R 18	7	100.00	-41881.40	247.43	-325.28	0.00	6.16	45.49	644.79
18.004	SLE Q 18	7	100.00	-36454.90	235.61	-238.68	0.00	6.16	39.30	557.78
18.502	SLE R 19	7	0.00	-34939.20	-72.29	-544.37	0.00	6.16	39.58	557.43
18.504	SLE Q 19	7	0.00	-30035.80	-98.49	-454.23	0.00	6.16	34.44	483.42
18.502	SLE R 19	7	0.00	-34939.20	-72.29	-544.37	0.00	6.16	39.58	557.43
18.504	SLE Q 19	7	0.00	-30035.80	-98.49	-454.23	0.00	6.16	34.44	483.42
19.352	SLE R 19	7	85.00	-34716.10	-272.42	758.20	0.00	6.16	45.82	623.44
19.354	SLE Q 19	7	85.00	-29812.70	-233.71	534.43	0.00	6.16	37.68	516.92
20.002	SLE R 20	7	0.00	-30201.90	194.05	-831.48	0.00	6.16	41.59	561.96
20.004	SLE Q 20	7	0.00	-26303.50	141.81	-537.09	0.00	6.16	33.09	455.11
20.002	SLE R 20	7	0.00	-30201.90	194.05	-831.48	0.00	6.16	41.59	561.96
20.004	SLE Q 20	7	0.00	-26303.50	141.81	-537.09	0.00	6.16	33.09	455.11
21.002	SLE R 20	7	100.00	-29939.40	269.96	-332.70	0.00	6.16	35.52	493.11
21.004	SLE Q 20	7	100.00	-26041.00	257.60	-243.90	0.00	6.16	30.63	425.73
21.502	SLE R 21	7	0.00	-23034.40	-103.15	-585.73	0.00	6.16	30.27	413.07
21.504	SLE Q 21	7	0.00	-19656.70	-127.21	-486.19	0.00	6.16	26.30	357.23
21.502	SLE R 21	7	0.00	-23034.40	-103.15	-585.73	0.00	6.16	30.27	413.07
21.504	SLE Q 21	7	0.00	-19656.70	-127.21	-486.19	0.00	6.16	26.30	357.23
22.352	SLE R 21	7	85.00	-22811.20	-280.90	731.25	0.00	6.16	35.16	464.36
22.354	SLE Q 21	7	85.00	-19433.60	-241.21	512.66	0.00	6.16	28.41	378.52
23.002	SLE R 22	7	0.00	-18316.10	190.12	-830.60	0.00	6.16	31.11	405.06
23.004	SLE Q 22	7	0.00	-15938.30	139.09	-539.11	0.00	6.16	24.00	318.85
23.002	SLE R 22	7	0.00	-18316.10	190.12	-830.60	0.00	6.16	31.11	405.06
23.004	SLE Q 22	7	0.00	-15938.30	139.09	-539.11	0.00	6.16	24.00	318.85
24.002	SLE R 22	7	100.00	-18053.60	294.22	-346.54	0.00	6.16	25.73	343.49
24.004	SLE Q 22	7	100.00	-15675.80	277.76	-253.58	0.00	6.16	22.04	294.70
24.502	SLE R 23	7	0.00	-11130.00	-57.68	-595.17	0.00	6.16	19.22	250.25
24.504	SLE Q 23	7	0.00	-9281.45	-95.83	-488.67	0.00	6.16	16.72	215.89
24.502	SLE R 23	7	0.00	-11130.00	-57.68	-595.17	0.00	6.16	19.22	250.25
24.504	SLE Q 23	7	0.00	-9281.45	-95.83	-488.67	0.00	6.16	16.72	215.89
25.352	SLE R 23	7	85.00	-10906.90	-302.43	804.45	1.54	4.62	27.38	334.95
25.354	SLE Q 23	7	85.00	-9058.33	-255.46	567.69	1.54	4.62	20.86	258.29



Relazione di calcolo

26.00	2	SLE R	24	7	0.00	-6265.29	150.74	-825.83	3.08	3.08	24.90	280.34
26.00	4	SLE Q	24	7	0.00	-5423.51	116.36	-571.86	3.08	3.08	16.94	199.97
26.00	2	SLE R	24	7	0.00	-6265.29	150.74	-825.83	3.08	3.08	24.90	280.34
26.00	4	SLE Q	24	7	0.00	-5423.51	116.36	-571.86	3.08	3.08	16.94	199.97
27.00	2	SLE R	24	7	100.00	-6002.79	349.33	-33.01	0.00	6.16	11.70	146.07
27.00	4	SLE Q	24	7	100.00	-5161.01	306.43	2.76	0.00	6.16	9.78	122.44

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <cm>	X1 <cm>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>
0.00	1.35	ø8/20	2	2	---	1	SLU	0.50	0.35	578.68	2.50	12369.40	---	32873.20	12369.40	0.40	0.45	979.41	2.50	15893.50	---	33791.00	15893.50
2.00	3.00	ø8/20	2	2	---	1	SLU	0.50	0.35	1824.88	2.50	12369.40	---	32873.20	12369.40	0.40	0.45	643.63	2.50	15893.50	---	33791.00	15893.50
3.50	4.35	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	3339.32	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	1064.35	2.50	0.00	44432.50	82434.00	39989.30
5.00	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	518.25	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	5304.41	2.50	0.00	44432.50	82434.00	39989.30
6.50	7.35	ø6/15	2	2	---	1	SLU	0.35	0.35	678.20	1.68	6218.94	---	6218.94	6218.94	0.40	0.30	1910.07	1.83	5826.76	---	5826.76	5826.76
8.00	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	84.39	2.24	8306.44	---	8306.44	8306.44	0.40	0.30	2675.28	2.42	7709.40	---	7709.40	7709.40
9.50	10.35	ø6/15	2	2	---	1	SLU	0.35	0.35	316.01	2.50	9277.05	---	11187.70	9277.05	0.40	0.30	1789.67	2.50	7955.54	---	10964.60	7955.54
11.00	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	167.91	2.50	9277.05	---	13834.80	9277.05	0.40	0.30	1824.87	2.50	7955.54	---	13558.80	7955.54
12.50	13.35	ø6/15	2	2	---	1	SLU	0.35	0.35	384.81	2.50	9277.05	---	17417.40	9277.05	0.40	0.30	2021.15	2.50	7955.54	---	17070.00	7955.54
14.00	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	251.96	2.50	9277.05	---	19949.30	9277.05	0.40	0.30	1442.99	2.50	7955.54	---	19551.50	7955.54
15.50	16.35	ø6/15	2	2	---	1	SLU	0.35	0.25	434.21	2.50	6634.02	---	11397.80	6634.02	0.30	0.30	2075.31	2.50	7955.54	---	11715.70	7955.54
17.00	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	81.42	2.50	6634.02	---	13642.50	6634.02	0.30	0.30	1051.09	2.50	7955.54	---	14022.90	7955.54
18.50	19.35	ø6/15	2	2	---	1	SLU	0.35	0.25	338.57	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	2113.74	2.50	7955.54	---	16914.20	7955.54
20.00	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	108.16	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	852.10	2.50	7955.54	---	16914.20	7955.54
21.50	22.35	ø6/15	2	2	---	1	SLU	0.35	0.25	301.62	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	2133.87	2.50	7955.54	---	16914.20	7955.54
23.00	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	147.31	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	843.79	2.50	7955.54	---	16914.20	7955.54
24.50	25.35	ø6/15	2	2	---	1	SLU	0.35	0.25	416.60	2.50	6634.02	---	15195.30	6634.02	0.30	0.30	2262.18	2.50	7955.54	---	15619.10	7955.54
26.00	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	286.83	2.50	6634.02	---	14291.90	6634.02	0.30	0.30	1254.31	2.50	7955.54	---	14690.40	7955.54

Pilastrata n. 52

Nodi: 152 -7120 -7122 -7124 252 -7103 -7105 -7107 352 452 552 652 752 852 952 1052 1152 1252 1352 1452 1552 1652 1752 1852 1952

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
1	R	40.00	50.00	3.00	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
1	R	40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%	
0.00	1	(e)	SLU	1	1	0.00	-70030.00	-667.26	-1400.60	-16.33	-1400.60	-333837.00	-21103.00	-16577.60	1.09	4.767	---
0.00	1	(e)	SLU	1	1	0.00	-70030.00	-667.26	-1400.60	-16.33	-1400.60	-333837.00	-21103.00	-16577.60	1.09	4.767	---
0.50	1	(e)	SLU	1	1	50.00	-69705.00	586.17	1394.10	138.92	1394.10	-333837.00	21078.00	16557.60	1.09	4.789	---
0.50	1	(e)	SLU	2	1	0.00	-69691.30	897.18	1393.83	107.73	1393.83	-333837.00	21077.10	16556.90	1.09	4.790	---
1.00	1	(e)	SLU	2	1	50.00	-69366.30	2141.26	2141.26	74.75	1387.33	-333837.00	21052.10	16537.00	1.09	4.813	---
1.00	1	(e)	SLU	3	1	0.00	-71093.20	2445.71	2445.71	63.46	1421.86	-333837.00	21184.00	16642.40	1.09	4.696	---
1.35	1	(e)	SLU	3	1	35.00	-70865.70	3300.45	3300.45	23.21	1417.31	-333837.00	21166.70	16628.80	1.09	4.711	---
2.00	1	(e)	SLU	5	1	0.00	-76213.20	-962.68	-1524.26	207.88	1524.26	-333837.00	-21566.50	16948.40	1.11	4.380	---
2.00	1	(e)	SLU	5	1	0.00	-76213.20	-962.68	-1524.26	207.88	1524.26	-322805.00	-20654.00	15249.50	1.11	4.236	---
2.38	1	(e)	SLU	5	1	37.50	-75969.50	-1126.86	-1519.39	-284.14	-1519.39	-322805.00	-20625.50	-15235.20	1.11	4.249	---
2.38	1	(e)	SLU	6	1	0.00	-83293.50	-1148.80	-1665.87	-208.43	-1665.87	-322805.00	-21422.10	-15650.80	1.13	3.876	---
2.75	1	(e)	SLU	6	1	37.50	-83049.80	-1239.14	-1661.00	-685.50	-1661.00	-322805.00	-21397.10	-15637.60	1.13	3.887	---
2.75	1	(e)	SLU	7	1	0.00	-92528.10	-1243.49	-1850.56	-720.82	-1850.56	-322805.00	-22291.10	-16129.10	1.16	3.489	---
3.00	1	(e)	SLU	7	1	25.00	-92365.60	-1297.62	-1847.31	-1105.12	-1847.31	-322805.00	-22276.70	-16121.20	1.16	3.495	---
3.50	1	(e)	SLU	9	10	0.00	-140317.00	-1937.61	-2806.34	6885.73	6885.73	-646245.00	-50759.60	55082.70	1.10	4.606	197.23
3.50	1	(e)	SLU	9	10	0.00	-140317.00	-1937.61	-2806.34	6885.73	6885.73	-646245.00	-50759.60	55082.70	1.10	4.606	197.23
4.35	1	(e)	SLU	9	10	85.00	-139405.00	3853.76	3853.76	2915.53	2915.53	-646245.00	50720.40	55045.60	1.10	4.636	173.96
5.00	1	(e)	SLU	10	10	0.00	-128003.00	-2774.67	-2774.67	-1194.12	-2560.06	-646245.00	-50214.40	-54567.90	1.08	5.049	173.96
5.00	1	(e)	SLU	10	10	0.00	-128003.00	-2774.67	-2774.67	-1194.12	-2560.06	-646245.00	-50214.40	-54567.90	1.08	5.049	173.96
6.00	1	(e)	SLU	10	10	100.00	-126930.00	-2113.92	-2538.61	-2539.13	-2539.13	-646245.00	-50165.50	-54521.70	1.08	5.091	173.96
6.50	1	(e)	SLU	11	10	0.00	-116218.00	-2172.94	-2324.35	300.24	2324.35	-235892.00	-11948.10	12676.10	1.33	2.030	---
6.50	1	(e)	SLU	11	10	0.00	-116218.00	-2172.94	-2324.35	300.24	2324.35	-235892.00	-11948.10	12676.10	1.33	2.030	---
7.35	1	(e)	SLU	11	10	85.00	-115831.00	1903.51	2316.62	451.31	2316.62	-235892.00	11967.70	12692.40	1.33	2.037	---
8.00	1	(e)	SLU	12	10	0.00	-106651.00	-2040.75	-2133.02	-444.84	-2133.02	-235892.00	-12404.60	-13050.10	1.29	2.212	---
8.00	1	(e)	SLU	12	10	0.00	-106651.00	-2040.75	-2133.02	-444.84	-2133.02	-235892.00	-12404.60	-13050.10	1.29	2.212	---
9.00	1	(e)	SLU	12	10	100.00	-106196.00	-930.44	-2123.92	-298.16	-2123.92	-235892.00	-12425.10	-13066.20	1.29	2.221	---
9.50	1	(e)	SLU	13	10	0.00	-98387.10	-1129.62	-1967.74	90.66	1967.74	-235892.00	-12761.80	13252.40	1.26	2.398	---
9.50	1	(e)	SLU	13	10	0.00	-98387.10	-1129.62	-1967.74	90.66	1967.74	-235892.00	-12761.80	13252.40	1.26	2.398	---
10.35	1	(e)	SLU	13	10	85.00	-98000.40	1848.23	1960.01	342.02	1960.01	-235892.00	12777.90	13249.70	1.26	2.407	---
11.00	1	(e)	SLU	14	10	0.00	-89501.50	-2065.68	-2065.68	-532.46	-1790.03	-235892.00	-12827.00	-13148.10	1.23	2.636	---
11.00	1	(e)	SLU	14	10	0.00	-89501.50	-2065.68	-2065.68	-532.46	-1790.03	-235892.00	-12827.00	-13148.10	1.23	2.636	---
12.00	1	(e)	SLU	14	10	100.00	-89046.50	-771.21	-1780.93	102.46	1780.93	-235892.00	-12819.30	13140.20	1.23	2.649	---
12.50	1	(e)	SLU	15	10	0.00	-82537.80	-878.95	-1650.76	-434.49	-1650.76	-235892.00	-12671.00	-12996.50	1.21	2.858	---
12.50	1	(e)	SLU	15	10	0.00	-82537.80	-878.95	-1650.76	-434.49	-1650.76	-235892.00	-12671.00	-12996.50	1.21	2.858	---
13.35	1	(e)	SLU	15	10	85.00	-82151.10	1655.02	1655.02	174.02	1643.02	-235892.00	12659.60	12986.40	1.21	2.871	---
14.00	1	(e)	SLU	16	10	0.00	-73964.30	-2119.24	-2119.24	-488.78	-1479.29	-235892.00	-12361.20	-12733.60	1.18	3.189	---
14.00	1	(e)	SLU	16	10	0.00	-73964.30	-2119.24	-2119.24	-488.78	-1479.29	-235892.00	-12361.20	-12733.60	1.18	3.189	---
15.00	1	(e)	SLU	16	10	100.00	-73509.30	-666.41	-1470.19	26.90	1470.19	-235892.00	-12340.90	12717.50	1.18	3.209	---
15.50	1	(e)	SLU	17	7	0.00	-65867.10	-693.20	-1317.34	-279.73	-1317.34	-185194.00	-10665.90	-7757.73	1.21	2.812	---
15.50	1	(e)	SLU	17	7	0.00	-65867.10	-693.20	-1317.34	-279.73	-1317.34	-174161.00	-9242.78	-7776.60	1.23	2.644	---
16.35	1	(e)	SLU	17	7	85.00	-65577.10	1310.43	1311.54	227.60	1311.54	-174161.00	9236.76	7771.63	1.23	2.656	---
17.00	1	(e)	SLU	18	7	0.00	-57917.50	-2001.32	-2001.32	-463.79	-1158.35	-174161.00	-9014.69	-7581.69	1.19	3.007	---
17.00	1	(e)	SLU	18	7	0.00	-57917.50	-2001.32	-2001.32	-463.79	-1158.35	-174161.00	-9014.69	-7581.69	1.19	3.007	---
18.00	1	(e)	SLU	18	7	100.00	-57576.30	-421.96	-1151.53	1.55	1151.53	-174161.00	-9001.74	7570.31	1.19	3.025	---
18.50	1	(e)	SLU	19	7	0.00	-49488.30	-424.45	-989.77	-177.17	-989.77	-174161.00	-8610.10	-7235.05	1.15	3.519	---
18.50	1	(e)	SLU	19	7	0.00	-49488.30	-424.45	-989.77	-177.17	-989.77	-174161.00	-8610.10	-7235.05	1.15	3.519	---
19.35	1	(e)	SLU	19	7	85.00	-49198.20	1205.75	1205.75	261.92	983.97	-174161.00	8593.28	7220.33	1.15	3.540	---



Relazione di calcolo

20.00	1(e)	SLU	20	7	0.00	-41829.50	-2029.05	-2029.05	-463.54	-836.59	-41834.40	-8097.00	-6795.71	1.12	3.230	---
20.00	1(e)	SLU	20	7	0.00	-41829.50	-2029.05	-2029.05	-463.54	-836.59	-41834.40	-8097.00	-6795.71	1.12	3.230	---
21.00	1(e)	SLU	20	7	100.00	-41488.20	-354.89	-829.76	-53.04	-829.76	-174161.00	-8071.29	-6772.63	1.12	4.198	---
21.50	1(e)	SLU	21	7	0.00	-33021.80	-347.94	-660.44	-134.56	-660.44	-174161.00	-7335.54	-6118.22	1.07	5.274	---
21.50	1(e)	SLU	21	7	0.00	-33021.80	-347.94	-660.44	-134.56	-660.44	-174161.00	-7335.54	-6118.22	1.07	5.274	---
22.35	1(e)	SLU	21	7	85.00	-32731.70	1166.15	1166.15	284.58	654.63	-32733.50	7307.38	6093.18	1.07	4.334	---
23.00	1(e)	SLU	22	7	0.00	-25398.90	-2070.14	-2070.14	-447.97	-507.98	-25399.60	-6496.44	-5419.53	1.04	2.560	---
23.00	1(e)	SLU	22	7	0.00	-25398.90	-2070.14	-2070.14	-447.97	-507.98	-25399.60	-6496.44	-5419.53	1.04	2.560	---
24.00	1(e)	SLU	22	7	100.00	-25057.70	-592.31	-592.31	-94.84	501.15	-25058.40	-6456.45	5386.78	1.04	5.904	---
24.50	1(e)	SLU	23	7	0.00	-16306.70	-1006.68	-1006.68	-29.09	326.13	-16308.10	-5391.48	4511.96	1.00	3.861	---
24.50	1(e)	SLU	23	7	0.00	-16306.70	-1006.68	-1006.68	-29.09	326.13	-16308.10	-5391.48	4511.96	1.00	3.861	---
25.35	1(e)	SLU	23	7	85.00	-16016.70	1759.46	1759.46	318.35	320.33	-16018.50	5354.78	4481.80	1.00	2.500	---
26.00	1	SLU	24	7	0.00	-7841.58	-1672.38	-1672.38	-398.48	-398.48	-7844.24	-4299.86	-3617.07	1.00	2.004	---
26.00	1	SLU	24	7	0.00	-7841.58	-1672.38	-1672.38	-398.48	-398.48	-7844.24	-4299.86	-3617.07	1.00	2.004	---
27.00	1	SLU	24	7	100.00	-7500.33	-175.27	-175.27	-223.25	-223.25	-7504.42	-4254.74	-3580.44	1.00	9.658	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <m>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-49859.80	-9.77	-434.38	0.00	12.31	25.18	371.11
0.00	4	SLE Q	1	1	0.00	-43428.70	20.11	-343.44	0.00	12.31	21.82	321.88
0.00	2	SLE R	1	1	0.00	-49859.80	-9.77	-434.38	0.00	12.31	25.18	371.11
0.00	4	SLE Q	1	1	0.00	-43428.70	20.11	-343.44	0.00	12.31	21.82	321.88
0.50	2	SLE R	1	1	50.00	-49609.80	99.39	436.58	0.00	12.31	25.67	376.44
0.50	4	SLE Q	1	1	50.00	-43178.70	90.51	347.66	0.00	12.31	22.20	325.87
0.50	2	SLE R	2	1	0.00	-49595.80	76.99	652.85	0.00	12.31	26.66	388.57
0.50	4	SLE Q	2	1	0.00	-43171.60	69.62	518.79	0.00	12.31	22.96	335.25
1.00	2	SLE R	2	1	50.00	-49345.80	53.41	1517.35	0.00	12.31	30.94	440.81
1.00	4	SLE Q	2	1	50.00	-42921.60	44.83	1205.17	0.00	12.31	26.30	375.90
1.00	2	SLE R	3	1	0.00	-50569.00	45.44	1728.97	0.00	12.31	32.56	462.24
1.00	4	SLE Q	3	1	0.00	-43992.70	38.46	1372.95	0.00	12.31	27.63	393.59
1.35	2	SLE R	3	1	35.00	-50394.00	17.08	2322.49	0.00	12.31	35.42	497.14
1.35	4	SLE Q	3	1	35.00	-43817.70	13.95	1845.28	0.00	12.31	29.88	420.97
2.00	2	SLE R	5	1	0.00	-54189.90	145.80	-675.94	0.00	12.31	29.34	426.91
2.00	4	SLE Q	5	1	0.00	-47355.10	131.41	-428.52	0.00	12.31	24.81	362.91
2.00	2	SLE R	5	1	0.00	-54189.90	145.80	-675.94	0.00	9.24	29.91	435.37
2.00	4	SLE Q	5	1	0.00	-47355.10	131.41	-428.52	0.00	9.24	25.31	370.32
2.38	2	SLE R	5	1	37.50	-54002.40	-201.74	-784.12	0.00	9.24	30.78	445.51
2.38	4	SLE Q	5	1	37.50	-47167.60	-173.44	-548.15	0.00	9.24	26.15	380.09
2.38	2	SLE R	6	1	0.00	-59197.70	-148.14	-798.21	0.00	9.24	32.92	478.57
2.38	4	SLE Q	6	1	0.00	-51695.00	-126.48	-566.21	0.00	9.24	28.03	409.25
2.75	2	SLE R	6	1	37.50	-59010.20	-486.12	-853.85	0.00	9.24	35.46	507.90
2.75	4	SLE Q	6	1	37.50	-51507.50	-424.88	-645.56	0.00	9.24	30.43	436.94
2.75	2	SLE R	7	1	0.00	-65735.40	-511.19	-855.17	0.00	9.24	38.79	557.16
2.75	4	SLE Q	7	1	0.00	-57372.70	-447.04	-654.14	0.00	9.24	33.37	480.40
3.00	2	SLE R	7	1	25.00	-65610.40	-783.48	-887.30	0.00	9.24	40.79	580.16
3.00	4	SLE Q	7	1	25.00	-57247.70	-693.54	-704.00	0.00	9.24	35.29	502.48
3.50	2	SLE R	9	10	0.00	-99621.40	4885.20	-1324.61	0.00	46.94	39.93	562.08
3.50	4	SLE Q	9	10	0.00	-86576.40	4296.49	-1132.72	0.00	46.94	34.77	489.42
3.50	2	SLE R	9	10	0.00	-99621.40	4885.20	-1324.61	0.00	46.94	39.93	562.08
3.50	4	SLE Q	9	10	0.00	-86576.40	4296.49	-1132.72	0.00	46.94	34.77	489.42
4.35	2	SLE R	9	10	85.00	-98920.10	2064.33	2692.05	0.00	46.94	36.61	519.01
4.35	4	SLE Q	9	10	85.00	-85875.10	1796.16	2078.40	0.00	46.94	31.12	442.36
5.00	2	SLE R	10	10	0.00	-90898.00	-842.72	-1950.06	0.00	46.94	29.77	428.50
5.00	4	SLE Q	10	10	0.00	-79421.70	-707.34	-1400.40	0.00	46.94	25.16	363.77
5.00	2	SLE R	10	10	0.00	-90898.00	-842.72	-1950.06	0.00	46.94	29.77	428.50
5.00	4	SLE Q	10	10	0.00	-79421.70	-707.34	-1400.40	0.00	46.94	25.16	363.77
6.00	2	SLE R	10	10	100.00	-90073.00	-1796.48	-1448.23	0.00	46.94	30.53	437.82
6.00	4	SLE Q	10	10	100.00	-78596.70	-1601.56	-1111.65	0.00	46.94	26.32	378.16
6.50	2	SLE R	11	10	0.00	-82412.70	214.25	-1482.77	0.00	9.24	71.25	1000.08
6.50	4	SLE Q	11	10	0.00	-71463.60	195.66	-1206.15	0.00	9.24	61.04	859.02
6.50	2	SLE R	11	10	0.00	-82412.70	214.25	-1482.77	0.00	9.24	71.25	1000.08
6.50	4	SLE Q	11	10	0.00	-71463.60	195.66	-1206.15	0.00	9.24	61.04	859.02
7.35	2	SLE R	11	10	85.00	-82115.20	317.63	1320.16	0.00	9.24	70.34	989.67
7.35	4	SLE Q	11	10	85.00	-71166.10	268.20	1012.18	0.00	9.24	59.50	841.54
8.00	2	SLE R	12	10	0.00	-75684.80	-309.43	-1444.79	0.00	9.24	67.39	940.60
8.00	4	SLE Q	12	10	0.00	-66042.10	-239.03	-1042.28	0.00	9.24	56.21	791.86
8.00	2	SLE R	12	10	0.00	-75684.80	-309.43	-1444.79	0.00	9.24	67.39	940.60
8.00	4	SLE Q	12	10	0.00	-66042.10	-239.03	-1042.28	0.00	9.24	56.21	791.86
9.00	2	SLE R	12	10	100.00	-75334.80	-211.62	-626.18	0.00	9.24	57.60	830.92
9.00	4	SLE Q	12	10	100.00	-65692.10	-203.71	-487.79	0.00	9.24	49.79	719.89
9.50	2	SLE R	13	10	0.00	-69749.20	65.71	-752.14	0.00	9.24	53.90	774.99
9.50	4	SLE Q	13	10	0.00	-60393.60	74.24	-627.90	0.00	9.24	46.59	670.23
9.50	2	SLE R	13	10	0.00	-69749.20	65.71	-752.14	0.00	9.24	53.90	774.99
9.50	4	SLE Q	13	10	0.00	-60393.60	74.24	-627.90	0.00	9.24	46.59	670.23
10.35	2	SLE R	13	10	85.00	-69451.70	240.21	1271.05	0.00	9.24	60.85	851.91
10.35	4	SLE Q	13	10	85.00	-60096.10	204.53	953.71	0.00	9.24	51.08	719.75
11.00	2	SLE R	14	10	0.00	-63509.00	-371.07	-1465.86	0.00	9.24	60.29	831.17
11.00	4	SLE Q	14	10	0.00	-55375.80	-294.72	-1064.52	0.00	9.24	50.04	696.63
11.00	2	SLE R	14	10	0.00	-63509.00	-371.07	-1465.86	0.00	9.24	60.29	831.17
11.00	4	SLE Q	14	10	0.00	-55375.80	-294.72	-1064.52	0.00	9.24	50.04	696.63
12.00	2	SLE R	14	10	100.00	-63159.00	71.82	-510.09	0.00	9.24	47.12	683.19
12.00	4	SLE Q	14	10	100.00	-55025.80	45.34	-385.46	0.00	9.24	40.26	586.43
12.50	2	SLE R	15	10	0.00	-58496.10	-305.26	-568.14	0.00	9.24	46.94	670.35



Relazione di calcolo

12.50	4	SLE Q	15	10	0.00	-50534.30	-232.82	-465.81	0.00	9.24	39.99	572.77
12.50	2	SLE R	15	10	0.00	-58496.10	-305.26	-568.14	0.00	9.24	46.94	670.35
12.50	4	SLE Q	15	10	0.00	-50534.30	-232.82	-465.81	0.00	9.24	39.99	572.77
13.35	2	SLE R	15	10	85.00	-58198.60	121.35	1131.23	0.00	9.24	50.92	712.73
13.35	4	SLE Q	15	10	85.00	-50236.80	105.44	834.17	0.00	9.24	42.46	598.71
14.00	2	SLE R	16	10	0.00	-52484.00	-340.29	-1505.16	0.00	9.24	53.25	724.86
14.00	4	SLE Q	16	10	0.00	-45718.70	-269.06	-1098.42	0.00	9.24	43.88	603.59
14.00	2	SLE R	16	10	0.00	-52484.00	-340.29	-1505.16	0.00	9.24	53.25	724.86
14.00	4	SLE Q	16	10	0.00	-45718.70	-269.06	-1098.42	0.00	9.24	43.88	603.59
15.00	2	SLE R	16	10	100.00	-52134.00	18.01	-434.57	0.00	9.24	38.64	560.94
15.00	4	SLE Q	16	10	100.00	-45368.70	-7.86	-312.71	0.00	9.24	32.86	479.65
15.50	2	SLE R	17	7	0.00	-46669.70	-195.51	-434.80	0.00	9.24	48.41	687.96
15.50	4	SLE Q	17	7	0.00	-40211.30	-149.53	-346.10	0.00	9.24	41.01	585.19
15.50	2	SLE R	17	7	0.00	-46669.70	-195.51	-434.80	0.00	6.16	50.37	715.82
15.50	4	SLE Q	17	7	0.00	-40211.30	-149.53	-346.10	0.00	6.16	42.67	608.93
16.35	2	SLE R	17	7	85.00	-46446.60	159.47	890.16	0.00	6.16	56.06	778.45
16.35	4	SLE Q	17	7	85.00	-39988.20	134.09	643.51	0.00	6.16	46.46	650.24
17.00	2	SLE R	18	7	0.00	-41108.20	-322.42	-1422.61	0.00	6.16	61.75	821.07
17.00	4	SLE Q	18	7	0.00	-35787.50	-254.13	-1042.43	0.00	6.16	50.51	679.17
17.00	2	SLE R	18	7	0.00	-41108.20	-322.42	-1422.61	0.00	6.16	61.75	821.07
17.00	4	SLE Q	18	7	0.00	-35787.50	-254.13	-1042.43	0.00	6.16	50.51	679.17
18.00	2	SLE R	18	7	100.00	-40845.70	-0.70	-263.41	0.00	6.16	39.53	578.04
18.00	4	SLE Q	18	7	100.00	-35525.00	-18.29	-179.63	0.00	6.16	33.97	498.04
18.50	2	SLE R	19	7	0.00	-35069.00	-123.06	-243.55	0.00	6.16	36.26	520.57
18.50	4	SLE Q	19	7	0.00	-30104.00	-83.91	-189.86	0.00	6.16	30.48	440.01
18.50	2	SLE R	19	7	0.00	-35069.00	-123.06	-243.55	0.00	6.16	36.26	520.57
18.50	4	SLE Q	19	7	0.00	-30104.00	-83.91	-189.86	0.00	6.16	30.48	440.01
19.35	2	SLE R	19	7	85.00	-34845.90	183.72	812.67	0.00	6.16	45.21	618.16
19.35	4	SLE Q	19	7	85.00	-29880.90	156.50	575.61	0.00	6.16	37.02	510.75
20.00	2	SLE R	20	7	0.00	-29717.30	-322.42	-1443.57	0.00	6.16	52.08	674.81
20.00	4	SLE Q	20	7	0.00	-25856.70	-254.68	-1060.06	0.00	6.16	42.08	551.65
20.00	2	SLE R	20	7	0.00	-29717.30	-322.42	-1443.57	0.00	6.16	52.08	674.81
20.00	4	SLE Q	20	7	0.00	-25856.70	-254.68	-1060.06	0.00	6.16	42.08	551.65
21.00	2	SLE R	20	7	100.00	-29454.80	-39.23	-214.15	0.00	6.16	29.51	427.47
21.00	4	SLE Q	20	7	100.00	-25594.20	-52.50	-136.70	0.00	6.16	25.24	366.88
21.50	2	SLE R	21	7	0.00	-23410.20	-93.08	-185.80	0.00	6.16	24.72	353.09
21.50	4	SLE Q	21	7	0.00	-19932.00	-55.77	-139.29	0.00	6.16	20.38	293.52
21.50	2	SLE R	21	7	0.00	-23410.20	-93.08	-185.80	0.00	6.16	24.72	353.09
21.50	4	SLE Q	21	7	0.00	-19932.00	-55.77	-139.29	0.00	6.16	20.38	293.52
22.35	2	SLE R	21	7	85.00	-23187.00	199.66	782.68	0.00	6.16	34.85	463.13
22.35	4	SLE Q	21	7	85.00	-19708.80	170.91	550.61	0.00	6.16	28.00	375.77
23.00	2	SLE R	22	7	0.00	-18089.00	-311.94	-1473.35	1.54	4.62	44.10	543.12
23.00	4	SLE Q	22	7	0.00	-15714.10	-246.14	-1082.69	1.54	4.62	33.93	425.87
23.00	2	SLE R	22	7	0.00	-18089.00	-311.94	-1473.35	1.54	4.62	44.10	543.12
23.00	4	SLE Q	22	7	0.00	-15714.10	-246.14	-1082.69	1.54	4.62	33.93	425.87
24.00	2	SLE R	22	7	100.00	-17826.50	-68.33	-375.20	0.00	6.16	22.12	305.32
24.00	4	SLE Q	22	7	100.00	-15451.60	-77.39	-262.06	0.00	6.16	18.58	257.87
24.50	2	SLE R	23	7	0.00	-11581.00	-19.61	-633.77	0.00	6.16	19.52	255.58
24.50	4	SLE Q	23	7	0.00	-9616.81	4.57	-491.15	0.00	6.16	15.51	204.62
24.50	2	SLE R	23	7	0.00	-11581.00	-19.61	-633.77	0.00	6.16	19.52	255.58
24.50	4	SLE Q	23	7	0.00	-9616.81	4.57	-491.15	0.00	6.16	15.51	204.62
25.35	2	SLE R	23	7	85.00	-11357.80	223.49	1187.41	3.08	3.08	34.68	410.90
25.35	4	SLE Q	23	7	85.00	-9393.69	188.48	858.89	3.08	3.08	25.63	309.83
26.00	2	SLE R	24	7	0.00	-5680.33	-277.58	-1205.51	3.08	3.08	42.17	716.45
26.00	4	SLE Q	24	7	0.00	-4955.39	-225.92	-879.54	3.08	3.08	30.57	433.89
26.00	2	SLE R	24	7	0.00	-5680.33	-277.58	-1205.51	3.08	3.08	42.17	716.45
26.00	4	SLE Q	24	7	0.00	-4955.39	-225.92	-879.54	3.08	3.08	30.57	433.89
27.00	2	SLE R	24	7	100.00	-5417.83	-157.01	-106.19	0.00	6.16	8.91	115.51
27.00	4	SLE Q	24	7	100.00	-4692.89	-133.31	-51.01	0.00	6.16	7.09	93.11

Stato limite d'esercizio - Verifiche a fessurazione

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	C <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	Wk <mm>
26.00	4	SLE Q	24	7	0.00	-4955.39	-879.54	-225.92	39.00	208.00	0.50	14.00	172.01	1.54	103.37	433.89	0.13	0.04
26.00	3	SLE F	24	7	0.00	-5137.19	-976.82	-241.76	39.00	208.00	0.50	14.00	180.54	1.54	112.75	521.28	0.15	0.05
26.00	4	SLE Q	24	7	0.00	-4955.39	-879.54	-225.92	39.00	208.00	0.50	14.00	172.01	1.54	103.37	433.89	0.13	0.04
26.00	3	SLE F	24	7	0.00	-5137.19	-976.82	-241.76	39.00	208.00	0.50	14.00	180.54	1.54	112.75	521.28	0.15	0.05

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>v</sub> <cm>	d <sub>v</sub> <cm>	Vsdu <sub>v</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>v</sub> <daN>	VRsdCam <sub>v</sub> <daN>	VRcd <sub>v</sub> <daN>	Vrd <sub>v</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>
0.00	1.35	ø8/20	2	2	---	1	SLU	0.50	0.35	310.50	2.50	12369.40	---	32873.20	12369.40	0.40	0.45	2506.87	2.50	15893.50	---	33791.00	15893.50
2.00	3.00	ø8/20	2	2	---	1	SLU	0.50	0.35	1537.19	2.50	12369.40	---	32873.20	12369.40	0.40	0.45	437.81	2.50	15893.50	---	33791.00	15893.50
3.50	4.35	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	4670.83	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	6813.38	2.50	0.00	44432.50	82434.00	39989.30
5.00	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1345.01	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	660.75	2.50	0.00	44432.50	82434.00	39989.30
6.50	7.35	ø6/15	2	2	---	1	SLU	0.35	0.35	177.73	2.01	7467.07	---	7467.07	7467.07	0.40	0.30	4795.82	2.18	6950.37	---	6950.37	6950.37
8.00	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	146.68	2.50	9277.05	---	9717.46	9277.05	0.40	0.30	1110.31	2.50	7955.54	---	9523.67	7955.54
9.50	10.35	ø6/15	2	2	---	1	SLU	0.35	0.35	295.72	2.50	9277.05	---	12530.50	9277.05	0.40	0.30	3503.35	2.50	7955.54	---	12280.60	7955.54
11.00	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	634.92	2.50	9277.05	---	15555.30	9277.05	0.40	0.30	1294.47	2.50	7955.54	---	15245.10	7955.54
12.50	13.35	ø6/15	2	2	---	1	SLU	0.35	0.35	715.89	2.50	9277.05	---	17925.80	9277.05	0.40	0.30	2981.13	2.50	7955.54	---	17568.30	7955.54
14.00	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	515.69	2.50	9277.05	---	20844.30	9277.05	0.40	0.30	1452.84	2.50	7955.54	---	20428.60	7955.54
15.50	16.35	ø6/15	2	2	---	1	SLU	0.35	0.25	596.85	2.50	6634.02	---	11532.20	6634.02	0.30	0.30	2357.21	2.50	7955.54	---	11853.80	7955.54
17.00	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	465.34	2.50	6634.02	---	14112.40	6634.02	0.30	0.30	1579.35	2.50	7955.54	---	14506.00	7955.54
18.50	19.35	ø6/15	2	2	---	1	SLU	0.35	0.25	516.57	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1917.89	2.50	7955.54	---	16914.20	7955.54



Relazione di calcolo

20.00	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	410.50	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1674.16	2.50	7955.54	---	16914.20	7955.54
21.50	22.35	ø6/15	2	2	---	1	SLU	0.35	0.25	493.10	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1781.28	2.50	7955.54	---	16914.20	7955.54
23.00	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	353.13	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	1477.83	2.50	7955.54	---	16914.20	7955.54
24.50	25.35	ø6/15	2	2	---	1	SLU	0.35	0.25	408.75	2.50	6634.02	---	15281.30	6634.02	0.30	0.30	3254.29	2.50	7955.54	---	15707.50	7955.54
26.00	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	175.23	2.50	6634.02	---	14182.30	6634.02	0.30	0.30	1497.12	2.50	7955.54	---	14577.80	7955.54

Pilastrata n. 53

Nodi: 153 353 553 753 953 1153 1353 1553 1753 1953

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B	H	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
		<cm>	<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
1	R	40.00	50.00	4.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B	H	Fck	Fcd	Fyk	Fyd
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%
0.00	1(e)	SLU	1	1	0.00	-170883.00	3055.56	3417.66	-2333.91	-3417.66	-784267.00	75989.80	-63543.40	1.10	4.589	134.93
0.00	1(e)	SLU	1	1	0.00	-170883.00	3055.56	3417.66	-2333.91	-3417.66	-784267.00	75989.80	-63543.40	1.10	4.589	134.93
3.00	1(e)	SLU	1	1	300.00	-166788.00	1743.74	3335.76	2221.04	3335.76	-784267.00	75601.90	63337.40	1.09	4.702	134.93
3.50	1(e)	SLU	2	10	0.00	-151291.00	1403.29	3025.82	-175.99	-3025.82	-657277.00	51324.30	-56994.10	1.11	4.344	166.19
3.50	1(e)	SLU	2	10	0.00	-151291.00	1403.29	3025.82	-175.99	-3025.82	-646245.00	50126.70	-56869.90	1.11	4.272	173.96
6.00	1(e)	SLU	2	10	250.00	-148610.00	206.95	2972.19	455.03	2972.19	-646245.00	50032.40	56750.00	1.11	4.349	173.96
6.50	1(e)	SLU	3	10	0.00	-134487.00	0.38	2689.74	-840.59	-2689.74	-646245.00	49510.60	-56087.10	1.09	4.805	173.96
6.50	1(e)	SLU	3	10	0.00	-134487.00	0.38	2689.74	-840.59	-2689.74	-646245.00	49510.60	-56087.10	1.09	4.805	173.96
9.00	1(e)	SLU	3	10	250.00	-131806.00	-111.14	-2636.12	867.25	2636.12	-646245.00	-49407.60	55956.20	1.09	4.903	173.96
9.50	1(e)	SLU	4	10	0.00	-113498.00	-41.37	-2269.96	-1316.83	-2269.96	-646245.00	-48373.30	-54329.80	1.06	5.694	173.96
9.50	1(e)	SLU	4	10	0.00	-113498.00	-41.37	-2269.96	-1316.83	-2269.96	-646245.00	-48373.30	-54329.80	1.06	5.694	173.96
12.00	1(e)	SLU	4	10	250.00	-110817.00	1.75	2216.33	1627.00	2216.33	-646245.00	48174.40	54065.30	1.06	5.832	173.96
12.50	1(e)	SLU	5	10	0.00	-90896.30	-0.08	-1817.93	-809.67	-1817.93	-235892.00	-11397.70	-14901.40	1.24	2.595	---
12.50	1(e)	SLU	5	10	0.00	-90896.30	-0.08	-1817.93	-809.67	-1817.93	-235892.00	-11397.70	-14901.40	1.24	2.595	---
15.00	1(e)	SLU	5	10	250.00	-89758.80	0.58	1795.18	914.43	1795.18	-235892.00	11381.90	14882.00	1.23	2.628	---
15.50	1(e)	SLU	6	7	0.00	-71245.60	-52.89	-1424.91	-615.69	-1424.91	-185194.00	-9289.40	-8909.13	1.24	2.599	---
15.50	1(e)	SLU	6	7	0.00	-71245.60	-52.89	-1424.91	-615.69	-1424.91	-174161.00	-9311.96	-7778.78	1.26	2.445	---
18.00	1(e)	SLU	6	7	250.00	-70392.50	16.38	1407.85	605.27	1407.85	-174161.00	9304.87	7803.00	1.25	2.474	---
18.50	1(e)	SLU	7	7	0.00	-52548.10	-60.80	-1050.96	-713.46	-1050.96	-174161.00	-8776.40	-7377.96	1.17	3.314	---
18.50	1(e)	SLU	7	7	0.00	-52548.10	-60.80	-1050.96	-713.46	-1050.96	-174161.00	-8776.40	-7377.96	1.17	3.314	---
21.00	1(e)	SLU	7	7	250.00	-51695.00	16.95	1033.90	678.10	1033.90	-174161.00	8732.71	7339.74	1.16	3.369	---
21.50	1(e)	SLU	8	7	0.00	-34544.10	-78.77	-690.88	-785.36	-785.36	-174161.00	-7480.19	-6248.54	1.08	5.042	---
21.50	1(e)	SLU	8	7	0.00	-34544.10	-78.77	-690.88	-785.36	-785.36	-174161.00	-7480.19	-6248.54	1.08	5.042	---
24.00	1(e)	SLU	8	7	250.00	-33690.90	12.75	673.82	740.97	740.97	-174161.00	7399.58	6175.51	1.08	5.169	---
24.50	1(e)	SLU	9	7	0.00	-17075.30	-5.89	-341.50	-764.68	-764.68	-17076.90	-5487.76	-4591.68	1.00	4.371	---
24.50	1(e)	SLU	9	7	0.00	-17075.30	-5.89	-341.50	-764.68	-764.68	-17076.90	-5487.76	-4591.68	1.00	4.371	---
27.00	1(e)	SLU	9	7	250.00	-16222.10	95.12	324.44	721.33	721.33	-16225.20	5380.29	4503.35	1.00	4.536	---

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cm>	σ <sub>ε</sub> <daN/cm>
0.00	2	SLE R	1	1	0.00	-121810.00	-1653.89	2242.75	0.00	50.01	31.50	457.24
0.00	4	SLE Q	1	1	0.00	-109267.00	-1409.87	1920.73	0.00	50.01	27.96	406.41
0.00	2	SLE R	1	1	0.00	-121810.00	-1653.89	2242.75	0.00	50.01	31.50	457.24
0.00	4	SLE Q	1	1	0.00	-109267.00	-1409.87	1920.73	0.00	50.01	27.96	406.41
3.00	2	SLE R	1	1	300.00	-118660.00	1576.42	1254.12	0.00	50.01	29.09	424.80
3.00	4	SLE Q	1	1	300.00	-106117.00	1327.31	1029.74	0.00	50.01	25.71	375.92
3.50	2	SLE R	2	10	0.00	-107690.00	-126.04	1004.78	0.00	50.01	29.50	434.91
3.50	4	SLE Q	2	10	0.00	-96335.00	-53.01	804.07	0.00	50.01	26.00	384.22
3.50	2	SLE R	2	10	0.00	-107690.00	-126.04	1004.78	0.00	46.94	29.82	439.74
3.50	4	SLE Q	2	10	0.00	-96335.00	-53.01	804.07	0.00	46.94	26.29	388.53
6.00	2	SLE R	2	10	250.00	-105628.00	323.57	157.00	0.00	46.94	27.55	410.40
6.00	4	SLE Q	2	10	250.00	-94272.50	205.46	102.78	0.00	46.94	24.30	362.60
6.50	2	SLE R	3	10	0.00	-95649.70	-593.39	13.44	0.00	46.94	25.32	376.37
6.50	4	SLE Q	3	10	0.00	-85378.90	-426.98	-40.90	0.00	46.94	22.44	333.85
6.50	2	SLE R	3	10	0.00	-95649.70	-593.39	13.44	0.00	46.94	25.32	376.37
6.50	4	SLE Q	3	10	0.00	-85378.90	-426.98	-40.90	0.00	46.94	22.44	333.85
9.00	2	SLE R	3	10	250.00	-93587.20	613.08	-67.46	0.00	46.94	24.99	370.98
9.00	4	SLE Q	3	10	250.00	-83316.40	416.33	-56.98	0.00	46.94	21.94	326.33
9.50	2	SLE R	4	10	0.00	-80644.30	-926.79	-15.47	0.00	46.94	22.36	330.12
9.50	4	SLE Q	4	10	0.00	-71784.00	-648.64	-64.88	0.00	46.94	19.63	290.27
9.50	2	SLE R	4	10	0.00	-80644.30	-926.79	-15.47	0.00	46.94	22.36	330.12
9.50	4	SLE Q	4	10	0.00	-71784.00	-648.64	-64.88	0.00	46.94	19.63	290.27
12.00	2	SLE R	4	10	250.00	-78581.80	1147.45	2.39	0.00	46.94	22.33	328.52
12.00	4	SLE Q	4	10	250.00	-69721.50	804.27	33.93	0.00	46.94	19.40	286.16
12.50	2	SLE R	5	10	0.00	-64494.10	-569.91	1.56	0.00	9.24	47.13	688.94
12.50	4	SLE Q	5	10	0.00	-57152.30	-397.48	-8.16	0.00	9.24	40.86	600.03
12.50	2	SLE R	5	10	0.00	-64494.10	-569.91	1.56	0.00	9.24	47.13	688.94
12.50	4	SLE Q	5	10	0.00	-57152.30	-397.48	-8.16	0.00	9.24	40.86	600.03
15.00	2	SLE R	5	10	250.00	-63619.10	643.87	-0.37	0.00	9.24	47.22	688.05
15.00	4	SLE Q	5	10	250.00	-56277.30	444.98	19.87	0.00	9.24	40.85	597.93
15.50	2	SLE R	6	7	0.00	-50544.90	-432.65	-34.91	0.00	9.24	49.95	715.42



Relazione di calcolo

15.50	4	SLE Q	6	7	0.00	-44616.50	-301.65	-54.11	0.00	9.24	43.14	621.83
15.50	2	SLE R	6	7	0.00	-50544.90	-432.65	-34.91	0.00	6.16	52.06	745.26
15.50	4	SLE Q	6	7	0.00	-44616.50	-301.65	-54.11	0.00	6.16	44.93	647.42
18.00	2	SLE R	6	7	250.00	-49888.60	425.34	10.37	0.00	6.16	51.01	731.48
18.00	4	SLE Q	6	7	250.00	-43960.20	294.88	30.31	0.00	6.16	43.90	633.85
18.50	2	SLE R	7	7	0.00	-37291.10	-501.31	-40.76	0.00	6.16	41.70	584.22
18.50	4	SLE Q	7	7	0.00	-32727.80	-347.25	-60.72	0.00	6.16	35.39	500.37
18.50	2	SLE R	7	7	0.00	-37291.10	-501.31	-40.76	0.00	6.16	41.70	584.22
18.50	4	SLE Q	7	7	0.00	-32727.80	-347.25	-60.72	0.00	6.16	35.39	500.37
21.00	2	SLE R	7	7	250.00	-36634.80	476.47	10.59	0.00	6.16	40.27	566.47
21.00	4	SLE Q	7	7	250.00	-32071.60	329.70	31.95	0.00	6.16	34.10	484.12
21.50	2	SLE R	8	7	0.00	-24527.40	-552.16	-53.27	0.00	6.16	31.56	427.54
21.50	4	SLE Q	8	7	0.00	-21255.40	-382.48	-68.59	0.00	6.16	26.05	357.17
21.50	2	SLE R	8	7	0.00	-24527.40	-552.16	-53.27	0.00	6.16	31.56	427.54
21.50	4	SLE Q	8	7	0.00	-21255.40	-382.48	-68.59	0.00	6.16	26.05	357.17
24.00	2	SLE R	8	7	250.00	-23871.20	520.94	6.15	0.00	6.16	29.79	405.99
24.00	4	SLE Q	8	7	250.00	-20599.20	360.67	27.36	0.00	6.16	24.52	338.20
24.50	2	SLE R	9	7	0.00	-12140.60	-537.03	-6.24	0.00	6.16	19.79	254.81
24.50	4	SLE Q	9	7	0.00	-10086.60	-368.65	-37.64	0.00	6.16	15.60	203.19
24.50	2	SLE R	9	7	0.00	-12140.60	-537.03	-6.24	0.00	6.16	19.79	254.81
24.50	4	SLE Q	9	7	0.00	-10086.60	-368.65	-37.64	0.00	6.16	15.60	203.19
27.00	2	SLE R	9	7	250.00	-11484.40	506.16	64.06	0.00	6.16	19.52	249.89
27.00	4	SLE Q	9	7	250.00	-9430.38	348.44	74.32	0.00	6.16	15.21	196.81

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo

X0 <cm>	X1 <cm>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>y</sub> <cm>	d <sub>y</sub> <cm>	Vsdu <sub>y</sub> <daN>	ctgθ <sub>y</sub>	VRsd <sub>y</sub> <daN>	VRsdCam <sub>y</sub> <daN>	VRcd <sub>y</sub> <daN>	Vrd <sub>y</sub> <daN>	bw <sub>z</sub> <cm>	d <sub>z</sub> <cm>	Vsdu <sub>z</sub> <daN>	ctgθ <sub>z</sub>	VRsd <sub>z</sub> <daN>	VRsdCam <sub>z</sub> <daN>	VRcd <sub>z</sub> <daN>	Vrd <sub>z</sub> <daN>	S
0.00	0.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1518.31	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	437.27	2.50	0.00	57709.10	107066.00	51938.20	28
0.50	2.50	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1518.31	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	437.27	2.50	0.00	57709.10	107066.00	51938.20	28
2.50	3.00	ø8/20	2	2	ø8/10	1	SLU	0.70	0.55	1518.31	2.50	0.00	48858.10	105752.00	43972.30	0.60	0.65	437.27	2.50	0.00	57709.10	107066.00	51938.20	28
3.50	3.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	252.41	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	478.54	2.50	0.00	44432.50	82434.00	39989.30	83
3.95	5.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	252.41	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	478.54	2.50	0.00	44432.50	82434.00	39989.30	83
5.55	6.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	252.41	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	478.54	2.50	0.00	44432.50	82434.00	39989.30	83
6.50	6.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	683.13	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	44.61	2.50	0.00	44432.50	82434.00	39989.30	64
6.95	8.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	683.13	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	44.61	2.50	0.00	44432.50	82434.00	39989.30	64
8.55	9.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	683.13	2.50	0.00	48858.10	83090.90	43972.30	0.60	0.50	44.61	2.50	0.00	44432.50	82434.00	39989.30	64
9.50	9.95	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1177.53	2.50	0.00	48858.10	82675.50	43972.30	0.60	0.50	17.25	2.50	0.00	44432.50	82021.90	39989.30	37
9.95	11.55	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1177.53	2.50	0.00	48858.10	82606.60	43972.30	0.60	0.50	17.25	2.50	0.00	44432.50	81953.60	39989.30	37
11.55	12.00	ø6/15	2	2	ø8/10	1	SLU	0.55	0.55	1177.53	2.50	0.00	48858.10	82361.60	43972.30	0.60	0.50	17.25	2.50	0.00	44432.50	81710.50	39989.30	37
12.50	12.95	ø6/15	2	2	---	1	SLU	0.35	0.35	689.64	2.50	9277.05	---	15080.50	9277.05	0.40	0.30	0.26	2.50	7955.54	---	14779.70	7955.54	13
12.95	14.55	ø6/15	2	2	---	1	SLU	0.35	0.35	689.64	2.50	9277.05	---	15150.20	9277.05	0.40	0.30	0.26	2.50	7955.54	---	14848.00	7955.54	13
14.55	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	689.64	2.50	9277.05	---	15398.00	9277.05	0.40	0.30	0.26	2.50	7955.54	---	15090.90	7955.54	13
15.50	15.95	ø6/15	2	2	---	1	SLU	0.35	0.25	488.39	2.50	6634.02	---	9786.51	6634.02	0.30	0.30	27.71	2.50	7955.54	---	10059.40	7955.54	13
15.95	17.55	ø6/15	2	2	---	1	SLU	0.35	0.25	488.39	2.50	6634.02	---	9836.35	6634.02	0.30	0.30	27.71	2.50	7955.54	---	10110.70	7955.54	13
17.55	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	488.39	2.50	6634.02	---	10013.60	6634.02	0.30	0.30	27.71	2.50	7955.54	---	10292.80	7955.54	13
18.50	18.95	ø6/15	2	2	---	1	SLU	0.35	0.25	556.62	2.50	6634.02	---	15855.10	6634.02	0.30	0.30	31.10	2.50	7955.54	---	16297.30	7955.54	11
18.95	20.55	ø6/15	2	2	---	1	SLU	0.35	0.25	556.62	2.50	6634.02	---	15905.00	6634.02	0.30	0.30	31.10	2.50	7955.54	---	16348.50	7955.54	11
20.55	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	556.62	2.50	6634.02	---	16082.20	6634.02	0.30	0.30	31.10	2.50	7955.54	---	16530.70	7955.54	11
21.50	21.95	ø6/15	2	2	---	1	SLU	0.35	0.25	610.53	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	36.61	2.50	7955.54	---	16914.20	7955.54	10
21.95	23.55	ø6/15	2	2	---	1	SLU	0.35	0.25	610.53	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	36.61	2.50	7955.54	---	16914.20	7955.54	10
23.55	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	610.53	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	36.61	2.50	7955.54	---	16914.20	7955.54	10
24.50	24.95	ø6/15	2	2	---	1	SLU	0.35	0.25	594.40	2.50	6634.02	---	15381.10	6634.02	0.30	0.30	40.40	2.50	7955.54	---	15810.00	7955.54	11
24.95	26.55	ø6/15	2	2	---	1	SLU	0.35	0.25	594.40	2.50	6634.02	---	15361.20	6634.02	0.30	0.30	40.40	2.50	7955.54	---	15789.50	7955.54	11
26.55	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	594.40	2.50	6634.02	---	15290.30	6634.02	0.30	0.30	40.40	2.50	7955.54	---	15716.70	7955.54	11

Pilastrata n. 54

Nodi: 54 354 554 754 954 1154 1354 1554 1754 1954

Caratteristiche delle sezioni e dei materiali utilizzati

Sez.	Tipo	B <cm>	H <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
1	R	40.00	50.00	4.80	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.80	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.60	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
10	R	40.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
7	R	30.00	35.00	4.30	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Caratteristiche incamiciatura e materiali utilizzati

B <cm>	H <cm>	Fck <daN/cm²>	Fcd <daN/cm²>	Fyk <daN/cm²>	Fyd <daN/cm²>
60.00	70.00	249.00	141.10	4500.00	3913.04
60.00	55.00	249.00	141.10	4500.00	3913.04

Stato limite ultimo - Verifiche a flessione/pressoflessione con rinforzi

Xg <cm>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	My ver. <daNm>	Mz <daNm>	Mz ver. <daNm>	Nu <daN>	MRdy <daNm>	MRdz <daNm>	esp.	Sic.	Δ%	
0.00	1	(e)	SLU	1	1	0.00	-122242.00	1573.91	2444.83	-2170.33	-2444.83	-875227.00	84005.60	-69325.30	1.03	7.160	106.03
0.00	1	(e)	SLU	1	1	0.00	-122242.00	1573.91	2444.83	-2170.33	-2444.83	-875227.00	84005.60	-69325.30	1.03	7.160	106.03
3.00	1	(e)	SLU	1	1	300.00	-118147.00	3083.57	3083.57	3109.97	3109.97	-875227.00	83530.10	68943.50	1.03	7.408	106.03
3.50	1	(e)	SLU	2	10	0.00	-103614.00	-504.60	-2072.28	-2591.50	-2591.50	-600719.00	-33462.90	-37737.80	1.06	5.798	77.79
3.50	1	(e)	SLU	2	10	0.00	-103614.00	-504.60	-2072.28	-2591.50	-2591.50	-600719.00	-33462.90	-37737.80	1.06	5.798	77.79
6.00	1	(e)	SLU	2	10	250.00	-100933.00	1826.53	2018.65	3545.78	3545.78	-600719.00	33304.30	37476.60	1.06	5.952	77.79
6.50	1	(e)	SLU	3	10	0.00	-86968.70	-630.33	-1739.37	-1209.86	-1739.37	-337884.00	-20687.70	-24374.80	1.13	3.885	---
6.50	1	(e)	SLU	3	10	0.00	-86968.70	-630.33	-1739.37	-1209.86	-1739.37	-235892.00	-12780.20	-13099.80	1.22	2.712	---
9.00	1	(e)	SLU	3	10	250.00	-85831.20	697.52	1716.62	1258.07	1716.62	-235892.00	12756.00	13076.10	1.22	2.748	---
9.50	1	(e)	SLU	4	10	0.00	-74292.60	-961.43	-1485.85	-1137.16	-1485.85	-235892.00	-12375.20	-12745.10	1.18	3.175	---
9.50	1	(e)	SLU	4	10	0.00	-74292.60	-961.43	-1485.85	-1137.16	-1485.85	-235892.00	-12375.20	-12745.10	1.18	3.175	---
12.00	1	(e)	SLU	4	10	250.00	-73155.10	998.30	1463.10	835.37	1463.10	-235892.00	12324.80	12705.10	1.18	3.225	---
12.50	1	(e)	SLU	5	10	0.00	-61836.20	-1196.32	-1236.72	-1125.25	-1236.72	-235892.00	-11699.50	-12239.60	1.14	3.815	---
12.50	1	(e)	SLU	5	10	0.00	-61836.20	-1196.32	-1236.72	-1125.25	-1236.72	-235892.00	-11699.50	-12239.60	1.14	3.815	---



Relazione di calcolo

15.00	1(e)	SLU	5	10	250.00	-60698.70	1196.26	1213.97	1233.72	1233.72	-235892.00	11623.50	12187.10	1.13	3.886	----
15.50	1(e)	SLU	6	7	0.00	-48993.50	-1155.32	-1155.32	-914.79	-979.87	-185194.00	-10004.40	-7384.81	1.14	3.780	----
15.50	1(e)	SLU	6	7	0.00	-48993.50	-1155.32	-1155.32	-914.79	-979.87	-174161.00	-8581.21	-7209.99	1.15	3.555	----
18.00	1	SLU	6	7	250.00	-48140.30	1104.24	1104.24	973.63	973.63	-174161.00	8530.31	7166.82	1.15	3.618	----
18.50	1	SLU	7	7	0.00	-36256.40	-1299.49	-1299.49	-1247.69	-1247.69	-36259.00	-7636.45	-6391.85	1.09	3.189	----
18.50	1	SLU	7	7	0.00	-36256.40	-1299.49	-1299.49	-1247.69	-1247.69	-36259.00	-7636.45	-6391.85	1.09	3.189	----
21.00	1	SLU	7	7	250.00	-35403.30	1195.86	1195.86	1206.88	1206.88	-35406.80	7559.48	6322.09	1.09	3.328	----
21.50	1	SLU	8	7	0.00	-23035.80	-1352.11	-1352.11	-1419.69	-1419.69	-23039.70	-6217.34	-5191.16	1.03	2.115	----
21.50	1	SLU	8	7	0.00	-23035.80	-1352.11	-1352.11	-1419.69	-1419.69	-23039.70	-6217.34	-5191.16	1.03	2.115	----
24.00	1	SLU	8	7	250.00	-22182.60	1270.42	1270.42	1344.59	1344.59	-22185.30	6115.93	5106.58	1.02	2.194	----
24.50	1	SLU	9	7	0.00	-9558.85	-1091.12	-1091.12	-1601.87	-1601.87	-9561.55	-4524.59	-3801.44	1.00	1.509	----
24.50	1	SLU	9	7	0.00	-9558.85	-1091.12	-1091.12	-1601.87	-1601.87	-9561.55	-4524.59	-3801.44	1.00	1.509	----
27.00	1	SLU	9	7	250.00	-8705.73	786.25	786.25	1616.49	1616.49	-8709.40	4412.88	3710.23	1.00	1.629	----

Stato limite d'esercizio - Verifiche tensionali

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	Mz <daNm>	My <daNm>	AfT <cmq>	AfC <cmq>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
0.00	2	SLE R	1	1	0.00	-87129.20	-1538.50	1178.71	0.00	75.40	21.07	305.35
0.00	4	SLE Q	1	1	0.00	-81567.40	-1346.23	771.04	0.00	75.40	19.03	276.91
0.00	2	SLE R	1	1	0.00	-87129.20	-1538.50	1178.71	0.00	75.40	21.07	305.35
0.00	4	SLE Q	1	1	0.00	-81567.40	-1346.23	771.04	0.00	75.40	19.03	276.91
3.00	2	SLE R	1	1	300.00	-83979.20	2207.05	2180.06	0.00	75.40	23.30	332.55
3.00	4	SLE Q	1	1	300.00	-78417.40	1934.46	2106.93	0.00	75.40	21.63	308.99
3.50	2	SLE R	2	10	0.00	-73696.30	-1839.91	-297.61	0.00	37.70	25.09	330.82
3.50	4	SLE Q	2	10	0.00	-68763.90	-1622.94	-562.78	0.00	37.70	24.02	312.74
3.50	2	SLE R	2	10	0.00	-73696.30	-1839.91	-297.61	0.00	37.70	25.09	330.82
3.50	4	SLE Q	2	10	0.00	-68763.90	-1622.94	-562.78	0.00	37.70	24.02	312.74
6.00	2	SLE R	2	10	250.00	-71633.80	2518.54	1252.39	0.00	37.70	29.37	357.20
6.00	4	SLE Q	2	10	250.00	-66701.40	2199.71	1375.12	0.00	37.70	27.59	333.97
6.50	2	SLE R	3	10	0.00	-61766.80	-859.39	-419.92	0.00	37.70	41.19	580.07
6.50	4	SLE Q	3	10	0.00	-57448.00	-736.59	-511.24	0.00	37.70	38.88	545.45
6.50	2	SLE R	3	10	0.00	-61766.80	-859.39	-419.92	0.00	9.24	52.81	746.33
6.50	4	SLE Q	3	10	0.00	-57448.00	-736.59	-511.24	0.00	9.24	49.79	701.27
9.00	2	SLE R	3	10	250.00	-60891.80	894.14	466.55	0.00	9.24	53.07	747.09
9.00	4	SLE Q	3	10	250.00	-56573.00	751.37	561.13	0.00	9.24	49.89	700.19
9.50	2	SLE R	4	10	0.00	-52765.20	-807.94	-637.53	0.00	9.24	48.77	678.24
9.50	4	SLE Q	4	10	0.00	-48951.60	-657.52	-777.41	0.00	9.24	46.32	640.71
9.50	2	SLE R	4	10	0.00	-52765.20	-807.94	-637.53	0.00	9.24	48.77	678.24
9.50	4	SLE Q	4	10	0.00	-48951.60	-657.52	-777.41	0.00	9.24	46.32	640.71
12.00	2	SLE R	4	10	250.00	-51890.20	593.73	669.27	0.00	9.24	46.48	649.69
12.00	4	SLE Q	4	10	250.00	-48076.60	464.98	781.99	0.00	9.24	43.95	611.39
12.50	2	SLE R	5	10	0.00	-43925.10	-797.74	-806.70	0.00	9.24	44.71	610.65
12.50	4	SLE Q	5	10	0.00	-40633.90	-616.43	-878.24	0.00	9.24	41.58	566.82
12.50	2	SLE R	5	10	0.00	-43925.10	-797.74	-806.70	0.00	9.24	44.71	610.65
12.50	4	SLE Q	5	10	0.00	-40633.90	-616.43	-878.24	0.00	9.24	41.58	566.82
15.00	2	SLE R	5	10	250.00	-43050.10	874.94	808.03	0.00	9.24	44.89	610.82
15.00	4	SLE Q	5	10	250.00	-39758.90	689.55	878.65	0.00	9.24	41.72	566.44
15.50	2	SLE R	6	7	0.00	-34813.20	-647.58	-779.53	0.00	9.24	50.71	669.01
15.50	4	SLE Q	6	7	0.00	-32078.10	-518.17	-840.69	0.00	9.24	47.04	620.83
15.50	2	SLE R	6	7	0.00	-34813.20	-647.58	-779.53	0.00	6.16	52.55	694.04
15.50	4	SLE Q	6	7	0.00	-32078.10	-518.17	-840.69	0.00	6.16	48.84	645.03
18.00	2	SLE R	6	7	250.00	-34156.90	689.36	745.21	0.00	6.16	52.19	687.35
18.00	4	SLE Q	6	7	250.00	-31421.80	551.86	802.62	0.00	6.16	48.30	636.32
18.50	2	SLE R	7	7	0.00	-25799.30	-883.25	-878.35	0.00	6.16	50.17	633.78
18.50	4	SLE Q	7	7	0.00	-23632.10	-709.28	-936.07	0.00	6.16	46.15	583.87
18.50	2	SLE R	7	7	0.00	-25799.30	-883.25	-878.35	0.00	6.16	50.17	633.78
18.50	4	SLE Q	7	7	0.00	-23632.10	-709.28	-936.07	0.00	6.16	46.15	583.87
21.00	2	SLE R	7	7	250.00	-25143.10	854.20	808.08	0.00	6.16	48.05	608.53
21.00	4	SLE Q	7	7	250.00	-22975.80	685.74	860.49	0.00	6.16	44.06	558.74
21.50	2	SLE R	8	7	0.00	-16445.20	-1004.57	-915.81	1.54	4.62	48.57	575.08
21.50	4	SLE Q	8	7	0.00	-14902.80	-808.00	-967.86	1.54	4.62	44.33	525.80
21.50	2	SLE R	8	7	0.00	-16445.20	-1004.57	-915.81	1.54	4.62	48.57	575.08
21.50	4	SLE Q	8	7	0.00	-14902.80	-808.00	-967.86	1.54	4.62	44.33	525.80
24.00	2	SLE R	8	7	250.00	-15789.00	951.15	858.75	1.54	4.62	45.80	543.78
24.00	4	SLE Q	8	7	250.00	-14246.60	766.16	907.75	1.54	4.62	41.81	496.84
24.50	2	SLE R	9	7	0.00	-6906.91	-1133.53	-747.31	3.08	3.08	58.79	923.82
24.50	4	SLE Q	9	7	0.00	-6034.07	-892.82	-806.77	4.62	1.54	52.29	788.58
24.50	2	SLE R	9	7	0.00	-6906.91	-1133.53	-747.31	3.08	3.08	58.79	923.82
24.50	4	SLE Q	9	7	0.00	-6034.07	-892.82	-806.77	4.62	1.54	52.29	788.58
27.00	2	SLE R	9	7	250.00	-6250.66	1143.98	545.90	3.08	3.08	53.90	915.07
27.00	4	SLE Q	9	7	250.00	-5377.82	886.61	597.37	3.08	3.08	46.45	733.61

Stato limite d'esercizio - Verifiche a fessurazione

Xg <m>	CC	TCC	El	Sez.	X <cm>	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
24.50	4	SLE Q	9	7	0.00	-6034.07	-806.77	-892.82	39.00	258.00	0.50	14.00	188.39	1.54	78.97	788.58	0.23	0.07
24.50	3	SLE F	9	7	0.00	-6258.06	-789.23	-958.89	39.00	258.00	0.50	14.00	186.22	1.54	81.35	824.03	0.24	0.08
24.50	4	SLE Q	9	7	0.00	-6034.07	-806.77	-892.82	39.00	258.00	0.50	14.00	188.39	1.54	78.97	788.58	0.23	0.07
24.50	3	SLE F	9	7	0.00	-6258.06	-789.23	-958.89	39.00	258.00	0.50	14.00	186.22	1.54	81.35	824.03	0.24	0.08
27.00	4	SLE Q	9	7	250.00	-5377.82	597.37	886.61	39.00	258.00	0.50	14.00	181.87	1.54	88.87	733.61	0.21	0.07
27.00	3	SLE F	9	7	250.00	-5601.81	581.86	956.12	39.00	258.00	0.50	14.00	179.75	1.54	93.92	781.57	0.23	0.07

Stato limite ultimo - Verifiche a taglio con sistema di rinforzo



## Relazione di calcolo

X0 <m>	X1 <m>	Staff.	Br <sub>y</sub>	Br <sub>z</sub>	StCam.	CC	TCC	bw <sub>,y</sub> <m>	d <sub>,y</sub> <m>	Vsdu <sub>,y</sub> <daN>	ctgθ <sub>,y</sub>	VRsd <sub>,y</sub> <daN>	VRsdCam <sub>,y</sub> <daN>	VRcd <sub>,y</sub> <daN>	Vrd <sub>,y</sub> <daN>	bw <sub>,z</sub> <m>	d <sub>,z</sub> <m>	Vsdu <sub>,z</sub> <daN>	ctgθ <sub>,z</sub>	VRsd <sub>,z</sub> <daN>	VRsdCam <sub>,z</sub> <daN>	VRcd <sub>,z</sub> <daN>	Vrd <sub>,z</sub> <daN>
0.00	0.54	ø8/10	2	2	ø8/10	1	SLU	0.70	0.55	1760.10	2.50	0.00	48858.10	102053.00	43972.30	0.60	0.65	503.22	2.50	0.00	57709.10	103320.00	51938.20
0.54	2.72	ø8/10	2	2	ø8/10	1	SLU	0.70	0.55	1760.10	2.50	0.00	48858.10	101947.00	43972.30	0.60	0.65	503.22	2.50	0.00	57709.10	103213.00	51938.20
2.72	3.00	ø8/10	2	2	ø8/10	1	SLU	0.70	0.55	1760.10	2.50	0.00	48858.10	101523.00	43972.30	0.60	0.65	503.22	2.50	0.00	57709.10	102784.00	51938.20
3.50	3.96	ø8/10	2	2	ø8/10	1	SLU	0.55	0.35	2454.91	2.50	31067.40	---	51673.60	27960.60	0.60	0.30	932.46	2.50	26641.80	---	48341.10	23977.60
3.96	5.80	ø8/10	2	2	ø8/10	1	SLU	0.55	0.35	2454.91	2.50	31067.40	---	51628.80	27960.60	0.60	0.30	932.46	2.50	26641.80	---	48299.20	23977.60
5.80	6.00	ø8/10	2	2	ø8/10	1	SLU	0.55	0.35	2454.91	2.50	31067.40	---	51449.70	27960.60	0.60	0.30	932.46	2.50	26641.80	---	48131.60	23977.60
6.50	6.96	ø6/15	2	2	---	1	SLU	0.35	0.35	987.17	2.50	9277.05	---	16417.50	9277.05	0.40	0.30	531.14	2.50	7955.54	---	16090.00	7955.54
6.96	8.80	ø6/15	2	2	---	1	SLU	0.35	0.35	987.17	2.50	9277.05	---	16488.70	9277.05	0.40	0.30	531.14	2.50	7955.54	---	16159.90	7955.54
8.80	9.00	ø6/15	2	2	---	1	SLU	0.35	0.35	987.17	2.50	9277.05	---	16773.70	9277.05	0.40	0.30	531.14	2.50	7955.54	---	16439.20	7955.54
9.50	9.96	ø6/15	2	2	---	1	SLU	0.35	0.35	789.01	2.50	9277.05	---	20732.50	9277.05	0.40	0.30	783.89	2.50	7955.54	---	20319.10	7955.54
9.96	11.80	ø6/15	2	2	---	1	SLU	0.35	0.35	789.01	2.50	9277.05	---	20803.80	9277.05	0.40	0.30	783.89	2.50	7955.54	---	20388.90	7955.54
11.80	12.00	ø6/15	2	2	---	1	SLU	0.35	0.35	789.01	2.50	9277.05	---	21088.80	9277.05	0.40	0.30	783.89	2.50	7955.54	---	20668.20	7955.54
12.50	12.96	ø6/15	2	2	---	1	SLU	0.35	0.35	943.59	2.50	9277.05	---	23011.20	9277.05	0.40	0.30	957.03	2.50	7955.54	---	22552.30	7955.54
12.96	14.80	ø6/15	2	2	---	1	SLU	0.35	0.35	943.59	2.50	9277.05	---	23011.20	9277.05	0.40	0.30	957.03	2.50	7955.54	---	22552.30	7955.54
14.80	15.00	ø6/15	2	2	---	1	SLU	0.35	0.35	943.59	2.50	9277.05	---	23011.20	9277.05	0.40	0.30	957.03	2.50	7955.54	---	22552.30	7955.54
15.50	15.96	ø6/15	2	2	---	1	SLU	0.35	0.25	755.37	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	903.83	2.50	7955.54	---	16914.20	7955.54
15.96	17.80	ø6/15	2	2	---	1	SLU	0.35	0.25	755.37	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	903.83	2.50	7955.54	---	16914.20	7955.54
17.80	18.00	ø6/15	2	2	---	1	SLU	0.35	0.25	755.37	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	903.83	2.50	7955.54	---	16914.20	7955.54
18.50	18.96	ø6/15	2	2	---	1	SLU	0.35	0.25	981.83	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	998.14	2.50	7955.54	---	16914.20	7955.54
18.96	20.80	ø6/15	2	2	---	1	SLU	0.35	0.25	981.83	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	998.14	2.50	7955.54	---	16914.20	7955.54
20.80	21.00	ø6/15	2	2	---	1	SLU	0.35	0.25	981.83	2.50	6634.02	---	16455.30	6634.02	0.30	0.30	998.14	2.50	7955.54	---	16914.20	7955.54
21.50	21.96	ø6/15	2	2	---	1	SLU	0.35	0.25	1105.71	2.50	6634.02	---	16154.90	6634.02	0.30	0.30	1049.01	2.50	7955.54	---	16605.50	7955.54
21.96	23.80	ø6/15	2	2	---	1	SLU	0.35	0.25	1105.71	2.50	6634.02	---	16134.50	6634.02	0.30	0.30	1049.01	2.50	7955.54	---	16584.50	7955.54
23.80	24.00	ø6/15	2	2	---	1	SLU	0.35	0.25	1105.71	2.50	6634.02	---	16053.00	6634.02	0.30	0.30	1049.01	2.50	7955.54	---	16500.70	7955.54
24.50	24.96	ø6/15	2	2	---	1	SLU	0.35	0.25	1287.34	2.50	6634.02	---	14405.30	6634.02	0.30	0.30	750.95	2.50	7955.54	---	14807.00	7955.54
24.96	26.80	ø6/15	2	2	---	1	SLU	0.35	0.25	1287.34	2.50	6634.02	---	14384.90	6634.02	0.30	0.30	750.95	2.50	7955.54	---	14786.00	7955.54
26.80	27.00	ø6/15	2	2	---	1	SLU	0.35	0.25	1287.34	2.50	6634.02	---	14303.40	6634.02	0.30	0.30	750.95	2.50	7955.54	---	14702.20	7955.54

## Verifiche e armature nuclei

### Simbologia

Δ <sub>sm</sub>	= Distanza media tra le fessure
Φ <sub>eq</sub>	= Diametro equivalente delle barre
ε <sub>sm</sub>	= Deformazione unitaria media dell'armatura (*1000)
σ <sub>c</sub>	= Tensione nel calcestruzzo
σ <sub>f</sub>	= Tensione nel ferro
σ <sub>s</sub>	= Tensione nell'acciaio nella sezione fessurata
A <sub>c eff</sub>	= Area di calcestruzzo efficace
A <sub>s</sub>	= Area complessiva dei ferri nell'area di calcestruzzo efficace
CC	= Numero della combinazione delle condizioni di carico elementari
Cf	= Copriferro
Fcd	= Resistenza di calcolo a compressione del calcestruzzo
Fcd (Tag)	= Resistenza di calcolo a compressione del calcestruzzo per verifica a taglio
Fcm	= Resistenza media
Fctd	= Resistenza di calcolo a trazione del calcestruzzo
Fctm	= Resistenza media a trazione
Fyd	= Resistenza di calcolo dell'acciaio
Fyd (Tag)	= Resistenza di calcolo dell'acciaio per verifica a taglio
Fym	= Tensione media di snervamento
K <sub>2</sub>	= Coefficiente per distribuzione deformazioni
Liv.	= Numero del livello
M'ydy,r	= Momento resistente massimo in campo sostanzialmente elastico (ridotto del 30%) intorno all'asse Y
M'ydz,r	= Momento resistente massimo in campo sostanzialmente elastico (ridotto del 30%) intorno all'asse Z
MRdy,r	= Momento resistente allo stato limite ultimo (ridotto del 30%) intorno all'asse Y
MRdz,r	= Momento resistente allo stato limite ultimo (ridotto del 30%) intorno all'asse Z
My	= Momento flettente intorno all'asse Y
Mz	= Momento flettente intorno all'asse Z
N	= Sforzo normale
Nu	= Sforzo normale ultimo
Pos.	= Posizione (P=Piede, T=Testa)
Sic.	= Sicurezza
Spess.	= Spessore
TCC	= Tipo di combinazione di carico
	SLU = Stato limite ultimo
	SLE R = Stato limite d'esercizio, combinazione rara
	SLE F = Stato limite d'esercizio, combinazione frequente
	SLE Q = Stato limite d'esercizio, combinazione quasi permanente
VRcd	= Taglio ultimo lato calcestruzzo
VRsd	= Taglio ultimo lato armatura
Vsdu	= Taglio agente nella direzione del momento ultimo
Wk	= Ampiezza caratteristica delle fessure
c	= Ricoprimento dell'armatura
ctgθ	= Cotangente dell'angolo di inclinazione dei puntoni di calcestruzzo
s	= Distanza massima tra le barre

### Numero del nucleo n. 306

Nodi: -15 -22 -29 -36

### Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1	P	1	SLU	-129640.00	-794.82	0.00	-429422.00	-5643.37	0.00	3.312



Relazione di calcolo

2P	1	SLU	-131061.00	783.11	0.00	-429421.00	5663.33	0.00	3.276
3P	1	SLU	-131956.00	-501.36	0.00	-429421.00	-5675.89	0.00	3.254
4P	1	SLU	-129807.00	1173.64	0.00	-429421.00	5645.68	0.00	3.308
5P	1	SLU	-118427.00	1566.38	0.00	-118427.00	5465.38	0.00	3.489
6P	1	SLU	-116220.00	-590.70	0.00	-429421.00	-5428.56	0.00	3.695
7P	1	SLU	-116773.00	521.66	0.00	-429421.00	5437.77	0.00	3.677

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm <sup>2</sup> >	σ <sub>f</sub> <daN/cm <sup>2</sup> >
1P	2	SLE R		-92961.90	-570.27	0.00	42.49	569.58
1P	4	SLE Q		-79790.30	-488.23	0.00	36.45	488.73
2P	2	SLE R		-93951.10	562.70	0.00	42.72	574.02
2P	4	SLE Q		-80552.30	481.56	0.00	36.62	492.05
3P	2	SLE R		-94561.40	-361.16	0.00	39.75	553.38
3P	4	SLE Q		-80995.90	-309.98	0.00	34.06	474.07
4P	2	SLE R		-92994.90	847.90	0.00	46.89	602.73
4P	4	SLE Q		-79568.20	726.01	0.00	40.13	515.77
5P	2	SLE R		-84736.00	1130.36	0.00	48.39	591.68
5P	4	SLE Q		-72422.10	966.62	0.00	41.37	505.76
6P	2	SLE R		-83111.70	-426.47	0.00	36.66	499.33
6P	2	SLE R		-83111.70	0.00	-3453.13	34.09	508.89
6P	4	SLE Q		-70947.20	-363.95	0.00	31.30	426.23
7P	2	SLE R		-83474.40	377.91	0.00	36.03	495.52
7P	2	SLE R		-83474.40	0.00	-3405.79	34.16	510.03
7P	4	SLE Q		-71208.60	327.66	0.00	30.82	423.33

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	1018.08	2.50	17295.40	42217.40	16.988	
2P	1	1005.77	2.50	17295.40	41677.00	17.196	
3P	1	1065.45	2.50	17295.40	41336.80	16.233	
4P	1	482.47	2.50	17295.40	42154.10	35.847	
5P	1	1869.76	2.50	17295.40	45760.00	9.250	
6P	1	2155.33	2.50	17295.40	45760.00	8.024	

Numero del nucleo n. 307

Nodi: 163 164 165 166 -7136 -7084 -7137 167 168

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	F <sub>cm</sub> <daN/cm <sup>2</sup> >	F <sub>ctm</sub> <daN/cm <sup>2</sup> >	F <sub>cd</sub> <daN/cm <sup>2</sup> >	F <sub>cd</sub> (Tag) <daN/cm <sup>2</sup> >	F <sub>ctd</sub> <daN/cm <sup>2</sup> >	F <sub>ym</sub> <daN/cm <sup>2</sup> >	F <sub>yd</sub> <daN/cm <sup>2</sup> >	F <sub>yd</sub> (Tag) <daN/cm <sup>2</sup> >
50.00	3.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
20.00	3.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MR <sub>dy, r</sub> <daNm>	MR <sub>dz, r</sub> <daNm>	Sic.
1P	1	SLU		-931953.00	-6945.81	0.00	-11610800.00	-165934.00	0.00	12.459
2P	1	SLU		-183468.00	-209.84	0.00	-850286.00	-10008.80	0.00	4.635
3P	1	SLU		-182569.00	250.35	0.00	-850286.00	10775.60	0.00	4.657
4P	1	SLU		-178256.00	764.53	0.00	-850286.00	10611.70	0.00	4.770
5T	1	SLU		-168863.00	2618.95	0.00	-168863.00	10253.70	0.00	3.915
6P	1	SLU		-149304.00	-1120.66	0.00	-850286.00	-8547.22	0.00	5.695

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm <sup>2</sup> >	σ <sub>f</sub> <daN/cm <sup>2</sup> >
1P	2	SLE R		-669879.00	0.00	248485.00	9.56	143.38
1P	4	SLE Q		-600113.00	0.00	207298.00	8.50	127.37
2P	2	SLE R		-130716.00	0.00	450.79	22.85	334.60
2P	4	SLE Q		-114051.00	0.00	343.41	19.92	291.69
3P	2	SLE R		-130029.00	183.99	0.00	23.53	321.54
3P	4	SLE Q		-113338.00	147.30	0.00	20.44	280.92
4P	2	SLE R		-126915.00	544.89	0.00	24.85	295.43
4P	4	SLE Q		-110514.00	430.66	0.00	21.41	259.46
5T	2	SLE R		-120138.00	1850.07	0.00	30.39	212.45
5T	4	SLE Q		-104414.00	1446.48	0.00	25.58	192.77
6P	2	SLE R		-106249.00	-797.27	0.00	22.00	310.46
6P	2	SLE R		-106249.00	0.00	-642.53	18.68	273.41
6P	4	SLE Q		-92894.40	-573.19	0.00	18.60	265.20

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
------	------	----	---------------	------	---------------	---------------	------



Relazione di calcolo

1P	1	8319.00	2.50	209408.00	1331560.00	25.172
2P	1	140.40	2.50	37874.70	107367.00	269.771
3P	1	56.73	2.50	37874.70	107367.00	667.618
4P	1	83.35	2.50	37874.70	107367.00	454.394
5T	1	51.08	2.50	37874.70	107367.00	741.537

Numero del nucleo n. 309

Nodi: -106 -107 -108

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-136564.00	950.88	0.00	-381658.00	5174.54	0.00	2.795
2P	1	SLU		-130869.00	-405.13	0.00	-381658.00	-5207.38	0.00	2.916
3P	1	SLU		-126496.00	333.63	0.00	-381658.00	5174.69	0.00	3.017

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ<sub>c</sub> <daN/cm<sup>q</sup>>	σ<sub>t</sub> <daN/cm<sup>q</sup>>
1P	2	SLE	R	-98114.70	679.27	0.00	51.86	687.04
1P	4	SLE	Q	-82795.00	550.75	0.00	43.36	576.77
2T	2	SLE	R	-93529.80	301.66	0.00	43.27	608.70
2P	4	SLE	Q	-79367.90	-232.45	0.00	36.30	513.39
3P	2	SLE	R	-90845.40	238.29	0.00	41.05	583.91
3P	4	SLE	Q	-76671.70	188.77	0.00	34.43	491.16

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		463.67	2.50	15313.10	29226.80	33.026
2T	1		487.63	2.50	15313.10	31625.80	31.403

Numero del nucleo n. 311

Nodi: -106 -124 -141 -158

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-127012.00	-235.83	0.00	-429421.00	-5606.45	0.00	3.381
2P	1	SLU		-127193.00	179.84	0.00	-429421.00	5609.00	0.00	3.376
3P	1	SLU		-126318.00	-217.88	0.00	-429421.00	-5596.75	0.00	3.400

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ<sub>c</sub> <daN/cm<sup>q</sup>>	σ<sub>t</sub> <daN/cm<sup>q</sup>>
1P	2	SLE	R	-90973.40	0.00	-7470.16	41.78	621.38
1P	4	SLE	Q	-77681.30	0.00	-5975.30	35.19	523.56
2P	2	SLE	R	-91057.50	0.00	-6342.17	40.45	602.16
2P	4	SLE	Q	-77653.50	0.00	-5053.71	34.06	507.34
3P	2	SLE	R	-90389.40	0.00	-5161.27	38.78	577.97
3P	4	SLE	Q	-77027.50	0.00	-4091.02	32.67	487.17

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		4991.13	2.50	17295.40	43217.00	3.465
2P	1		5048.93	2.50	17295.40	43148.10	3.426

Numero del nucleo n. 312

Nodi: -108 -126 -143 -160



Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P		1SLU	-127259.00	274.19	0.00	-429421.00	5609.91	0.00	3.374
	2P		1SLU	-126720.00	-170.43	0.00	-429421.00	-5602.34	0.00	3.389
	3P		1SLU	-125164.00	223.46	0.00	-429421.00	5577.73	0.00	3.431

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N	My	Mz	σc	σf
				<daN>	<daNm>	<daNm>	<daN/cmq>	<daN/cmq>
	1P		2SLE R	-91066.80	0.00	-8487.94	43.05	639.63
	1P		4SLE Q	-77775.80	0.00	-6809.94	36.23	538.62
	2P		2SLE R	-90646.30	0.00	-7304.19	41.46	616.72
	2P		4SLE Q	-77326.00	0.00	-5852.60	34.91	519.50
	3P		2SLE R	-89503.40	0.00	-5957.12	39.42	587.06
	3P		4SLE Q	-76303.30	0.00	-4763.89	33.23	494.99

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu	ctgθ	VRsd	VRcd	Sic.
			<daN>		<daN>	<daN>	
	1P		1 7435.55	2.50	17295.40	43122.80	2.326
	2P		1 7643.25	2.50	17295.40	43327.90	2.263

Numero del nucleo n. 313

Nodi: -17 -24 -31 -38

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P		1SLU	-119090.00	-243.16	0.00	-429422.00	-5476.38	0.00	3.606
	2P		1SLU	-116638.00	462.88	0.00	-429421.00	5435.54	0.00	3.682
	3P		1SLU	-114132.00	-492.86	0.00	-429421.00	-5393.80	0.00	3.762
	4P		1SLU	-114264.00	1220.50	0.00	-429421.00	5395.99	0.00	3.758
	5P		1SLU	-132340.00	1806.90	0.00	-132340.00	5681.27	0.00	3.144
	6P		1SLU	-132682.00	-690.59	0.00	-429421.00	-5686.07	0.00	3.236
	7P		1SLU	-129582.00	837.24	0.00	-429421.00	5642.53	0.00	3.314

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N	My	Mz	σc	σf
				<daN>	<daNm>	<daNm>	<daN/cmq>	<daN/cmq>
	1P		2SLE R	-85394.00	-174.78	0.00	33.50	481.76
	1P		2SLE R	-85394.00	0.00	-1788.98	32.90	492.20
	1P		4SLE Q	-73329.10	-148.40	0.00	28.74	413.50
	2P		2SLE R	-83586.60	332.67	0.00	35.35	490.75
	2P		4SLE Q	-71703.20	283.28	0.00	30.29	420.74
	3P		2SLE R	-81739.30	-352.91	0.00	35.01	483.18
	3P		4SLE Q	-70046.30	-299.73	0.00	29.96	413.74
	4P		2SLE R	-81796.30	872.96	0.00	43.26	545.25
	4P		4SLE Q	-70021.70	745.09	0.00	37.00	466.50
	5P		2SLE R	-94680.90	1294.42	0.00	54.57	664.85
	5P		2SLE R	-94680.90	0.00	-9691.95	45.80	680.13
	5P		4SLE Q	-80902.00	1104.87	0.00	46.61	567.96
	6P		2SLE R	-94891.50	0.00	-6953.13	42.57	633.52
	6P		4SLE Q	-80992.80	0.00	-5728.07	36.08	537.12
	7P		2SLE R	-92634.70	599.38	0.00	42.83	571.27
	7P		2SLE R	-92634.70	0.00	-5380.73	39.85	593.92
	7P		4SLE Q	-79024.60	508.52	0.00	36.49	487.01

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu	ctgθ	VRsd	VRcd	Sic.
			<daN>		<daN>	<daN>	
	1P		1 3801.27	2.50	17295.40	45760.00	4.550
	2P		1 4027.34	2.50	17295.40	45760.00	4.294
	3P		1 3977.46	2.50	17295.40	45760.00	4.348
	4P		1 4113.63	2.50	17295.40	45760.00	4.204



Relazione di calcolo

5P	1	6806.09	2.50	17295.40	41190.50	2.541
6P	1	6805.75	2.50	17295.40	41060.70	2.541

Numero del nucleo n. 314

Nodi: -15 -16 -17

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1	P	1	SLU	-115587.00	462.20	0.00	-381658.00	5028.14	0.00	3.302
2	P	1	SLU	-113622.00	-266.73	0.00	-381658.00	-5000.46	0.00	3.359
3	P	1	SLU	-111764.00	141.81	0.00	-381658.00	4973.79	0.00	3.415
4	P	1	SLU	-112484.00	-154.64	0.00	-381658.00	-4984.53	0.00	3.393
5	P	1	SLU	-127377.00	261.66	0.00	-381658.00	5184.78	0.00	2.996
6	P	1	SLU	-126042.00	-118.23	0.00	-381658.00	-5169.53	0.00	3.028
7	P	1	SLU	-122893.00	155.47	0.00	-381658.00	5131.10	0.00	3.106

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>e</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-82930.80	328.86	0.00	39.46	547.93
1	P	4	SLE Q	-70980.80	278.74	0.00	33.73	468.61
2	P	2	SLE R	-81508.90	-189.61	0.00	36.40	520.67
2	P	2	SLE R	-81508.90	0.00	-2005.39	36.10	539.42
2	P	4	SLE Q	-69619.20	-156.47	0.00	30.99	443.99
3	P	2	SLE R	-80164.90	0.00	-1827.89	35.28	527.35
3	P	4	SLE Q	-68320.50	0.00	-1563.21	30.08	449.56
4	P	2	SLE R	-80670.60	0.00	-4932.52	40.25	598.70
4	P	4	SLE Q	-68604.30	0.00	-4216.74	34.26	509.63
5	P	2	SLE R	-91330.00	0.00	5053.49	44.75	666.14
5	P	4	SLE Q	-77565.10	0.00	4283.43	37.99	565.55
6	P	2	SLE R	-90369.50	0.00	3244.86	41.59	620.53
6	P	4	SLE Q	-76727.20	0.00	2758.43	35.32	526.93
7	P	2	SLE R	-88086.90	0.00	1616.93	38.17	570.86
7	P	4	SLE Q	-74690.10	0.00	1378.84	32.37	484.21

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	1090.01	2.50	15313.10	37184.30	14.049
2	P	1	1271.76	2.50	15313.10	37929.70	12.041
3	P	1	1081.92	2.50	15313.10	38634.60	14.154
4	P	1	2670.27	2.50	15313.10	38361.40	5.735
5	P	1	10.03	2.50	15313.10	32711.90	*****
6	T	1	2942.79	2.50	15313.10	33456.90	5.204

Numero del nucleo n. 316

Nodi: 154 155 156 -1 157 -2 158

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
50.00	3.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1	T	1	SLU	-915944.00	0.00	536939.00	-915944.00	0.00	3951040.00	7.358

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>e</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-717523.00	0.00	323610.00	13.69	205.18
1	T	2	SLE R	-660598.00	0.00	398223.00	13.35	200.05
1	P	4	SLE Q	-635577.00	0.00	291305.00	12.16	182.26

Stato limite ultimo - Verifiche a taglio



Relazione di calcolo

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	T	1	28432.40	2.50	166723.00	1087000.00	5.864

Numero del nucleo n. 318

Nodi: 162 -50 168

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
40.00	3.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	T	1	SLU	-166428.00	-22548.90	0.00	-166428.00	-26590.70	0.00	1.179

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	T	2	SLE R	-117960.00	-15921.70	0.00	22.05	276.37
1	T	4	SLE Q	-101258.00	-13476.80	0.00	18.48	232.70

Stato limite d'esercizio - Verifiche a fessurazione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
1	T	4	SLE Q	-101258.00	-13476.80	0.00	31.00	283.44	0.50	6.00	424.65	5.37	3246.99	202.33	0.06	0.04
1	T	3	SLE F	-105957.00	-14164.40	0.00	31.00	283.44	0.50	6.00	427.57	5.37	3273.18	216.95	0.06	0.05

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	T	1	7208.39	2.50	67873.10	333507.00	9.416

Numero del nucleo n. 319

Nodi: 158 -9 -18 -25 -32 -39

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
50.00	3.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	T	1	SLU	-176898.00	-33582.60	0.00	-176898.00	-35845.70	0.00	1.067

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	T	2	SLE R	-127858.00	-24170.60	0.00	22.45	423.33
1	T	4	SLE Q	-111742.00	-20885.80	0.00	19.15	346.02

Stato limite d'esercizio - Verifiche a fessurazione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
1	T	4	SLE Q	-111742.00	-20885.80	0.00	31.00	288.53	0.50	6.00	562.55	5.65	4717.55	346.02	0.10	0.10
1	T	3	SLE F	-116305.00	-21815.50	0.00	31.00	288.53	0.50	6.00	562.55	5.65	4717.55	367.72	0.11	0.10

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	T	1	9274.08	2.50	72894.90	440566.00	7.860

Numero del nucleo n. 321

Nodi: -158 -159 -160

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
--------	----	-----	------	-----	-----------	------	-----	-----	-----------



Relazione di calcolo

<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-89864.40	-410.33	0.00	-381658.00	-4584.27	0.00	4.247
2	P	1	SLU	-93242.10	647.02	0.00	-381658.00	4648.85	0.00	4.093
3	P	1	SLU	-97371.60	-586.92	0.00	-381658.00	-4727.87	0.00	3.920

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1	P	2	SLE R	-63991.40	-289.75	0.00	31.09	427.61
1	P	4	SLE Q	-55629.60	-233.33	0.00	26.70	369.25
2	T	2	SLE R	-65887.00	-480.11	0.00	35.25	464.58
2	P	4	SLE Q	-57476.20	366.78	0.00	29.82	398.31
3	P	2	SLE R	-69292.10	-415.27	0.00	35.47	476.60
3	P	4	SLE Q	-59763.20	-323.45	0.00	29.98	406.42

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	1358.15	2.50	15313.10	40515.40	11.275
2	P	1	1422.30	2.50	15313.10	40515.40	10.766

Numero del nucleo n. 322

Nodi: -36 -37 -38

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-105833.00	-325.40	0.00	-381658.00	-4874.71	0.00	3.606
2	P	1	SLU	-106078.00	277.21	0.00	-381658.00	4878.81	0.00	3.598
3	P	1	SLU	-106795.00	-113.31	0.00	-381658.00	-4890.81	0.00	3.574
4	P	1	SLU	-105341.00	-113.78	0.00	-381658.00	-4866.55	0.00	3.623
5	P	1	SLU	-93753.80	102.44	0.00	-381658.00	4658.65	0.00	4.071
6	P	1	SLU	-94279.10	149.20	0.00	-381658.00	4668.63	0.00	4.048
7	P	1	SLU	-97299.80	-332.63	0.00	-381658.00	-4726.48	0.00	3.922

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1	P	2	SLE R	-75841.50	-232.82	0.00	34.88	492.01
1	P	2	SLE R	-75841.50	0.00	1622.94	33.22	496.58
1	P	4	SLE Q	-65321.80	-190.61	0.00	29.86	422.44
2	P	2	SLE R	-75964.90	197.53	0.00	34.30	488.04
2	P	4	SLE Q	-65430.50	163.97	0.00	29.43	419.54
3	P	2	SLE R	-76429.20	-79.67	0.00	32.38	475.11
3	P	2	SLE R	-76429.20	0.00	707.07	32.05	480.00
3	P	4	SLE Q	-65825.80	-64.24	0.00	27.81	408.61
4	P	2	SLE R	-75316.10	0.00	-2873.94	34.92	520.89
4	P	4	SLE Q	-64877.50	0.00	-2458.03	30.05	448.31
5	P	2	SLE R	-66883.00	0.00	1552.59	29.48	440.59
5	P	4	SLE Q	-57652.40	0.00	1354.54	25.43	380.14
6	T	2	SLE R	-66715.40	-273.08	0.00	31.90	441.93
6	P	2	SLE R	-67199.30	0.00	2181.95	30.57	456.35
6	T	4	SLE Q	-57332.50	-206.12	0.00	26.90	375.96
7	P	2	SLE R	-69318.00	-233.45	0.00	32.24	452.45
7	P	4	SLE Q	-59502.40	-176.04	0.00	27.24	385.13

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	5923.82	2.50	15313.10	40515.50	2.585
2	P	1	2622.35	2.50	15313.10	40515.50	5.839
3	P	1	6269.12	2.50	15313.10	40515.50	2.443
4	P	1	574.50	2.50	15313.10	40515.50	26.655
5	P	1	1348.45	2.50	15313.10	40515.50	11.356
6	T	1	4194.80	2.50	15313.10	40515.50	3.651



Numero del nucleo n. 323

Nodi: 44 -7201 -7138 -7191 45

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
20.00	3.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-190598.00	-1630.12	0.00	-891415.00	-11338.80	0.00	4.677
2	P	1	SLU	-188169.00	-664.22	0.00	-891415.00	-11244.90	0.00	4.737
3	P	1	SLU	-182620.00	202.41	0.00	-891415.00	11030.50	0.00	4.881
4	T	1	SLU	-172134.00	3014.24	0.00	-172134.00	10601.90	0.00	3.517
5	P	1	SLU	-151412.00	-1160.26	0.00	-891415.00	-9715.83	0.00	5.887

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ<sub>c</sub> <daN/cm<sup>q</sup>>	σ<sub>f</sub> <daN/cm<sup>q</sup>>
1	P	2	SLE R	-135676.00	-1127.32	0.00	27.79	388.69
1	P	4	SLE Q	-118390.00	-889.64	0.00	23.79	334.61
2	P	2	SLE R	-133900.00	-452.52	0.00	24.19	351.58
2	P	4	SLE Q	-116743.00	-360.14	0.00	20.92	304.86
3	P	2	SLE R	-129909.00	153.35	0.00	22.07	327.24
3	P	4	SLE Q	-113164.00	115.05	0.00	19.14	284.16
4	T	2	SLE R	-122357.00	2123.50	0.00	30.49	404.23
4	T	4	SLE Q	-106388.00	1651.18	0.00	25.55	342.00
5	P	2	SLE R	-107655.00	-825.82	0.00	21.71	305.08
5	P	4	SLE Q	-94198.70	-596.57	0.00	18.38	260.83

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	3087.78	2.50	39196.20	111113.00	12.694
2	P	1	3337.32	2.50	39196.20	111113.00	11.745
3	P	1	3385.70	2.50	39196.20	111113.00	11.577
4	T	1	3333.48	2.50	39196.20	111113.00	11.758

Numero del nucleo n. 396

Nodi: -224 -231 -237 -245

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-116773.00	521.66	0.00	-429421.00	5437.77	0.00	3.677
2	P	1	SLU	-119757.00	82.13	0.00	-429421.00	5487.50	0.00	3.586
3	P	1	SLU	-108812.00	591.25	0.00	-429421.00	5296.34	0.00	3.946

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ<sub>c</sub> <daN/cm<sup>q</sup>>	σ<sub>f</sub> <daN/cm<sup>q</sup>>
1	P	2	SLE R	-83474.40	377.91	0.00	36.03	495.52
1	P	2	SLE R	-83474.40	0.00	-3405.79	34.16	510.03
1	P	4	SLE Q	-71208.60	327.66	0.00	30.82	423.33
2	T	2	SLE R	-84999.10	-211.41	0.00	33.94	483.98
2	T	4	SLE Q	-72344.20	-167.55	0.00	28.69	410.45
3	P	2	SLE R	-77833.00	0.00	-7973.08	37.66	559.21
3	P	4	SLE Q	-66365.70	0.00	-6500.98	31.75	471.63

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	2973.61	2.50	17295.40	45760.00	5.816
2	T	1	1199.57	2.50	17295.40	45760.00	14.418

Numero del nucleo n. 397



Relazione di calcolo

Nodi: 251 -7099 -262 -7095 252

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
20.00	3.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1	P	1	SLU	-149304.00	-1120.66	0.00	-862444.00	-9555.51	0.00	5.776
2	P	1	SLU	-133905.00	-629.60	0.00	-862444.00	-8867.32	0.00	6.441
3	P	1	SLU	-114117.00	-345.52	0.00	-862444.00	-7933.62	0.00	7.558
4	P	1	SLU	-72114.10	-138.36	0.00	-862444.00	-5805.65	0.00	11.959

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1	P	2	SLE R	-106249.00	-797.27	0.00	22.07	310.41
1	P	4	SLE Q	-92894.40	-573.19	0.00	18.67	265.19
2	P	2	SLE R	-95282.00	-447.12	0.00	18.43	264.94
2	P	4	SLE Q	-83263.50	-317.25	0.00	15.74	227.84
3	P	2	SLE R	-81199.00	-243.83	0.00	15.01	218.90
3	P	4	SLE Q	-70911.40	-172.08	0.00	12.90	189.12
4	P	2	SLE R	-51339.50	-95.02	0.00	9.19	135.44
4	T	2	SLE R	-50795.70	99.66	0.00	9.12	134.29
4	P	4	SLE Q	-44825.10	-69.34	0.00	7.96	117.57

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	398.10	2.50	37874.70	107367.00	95.138
2	P	1	202.07	2.50	37874.70	106428.00	187.431
3	P	1	49.54	2.50	37874.70	103394.00	764.585
4	P	1	509.85	2.50	37874.70	96952.30	74.286

Numero del nucleo n. 399

Nodi: -221 -222 -223

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1	P	1	SLU	-126496.00	333.63	0.00	-381658.00	5174.69	0.00	3.017
2	P	1	SLU	-122252.00	-135.61	0.00	-381658.00	-5122.07	0.00	3.122
3	P	1	SLU	-117923.00	81.69	0.00	-381658.00	5061.00	0.00	3.236

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1	P	2	SLE R	-90845.40	238.29	0.00	41.05	583.91
1	P	4	SLE Q	-76671.70	188.77	0.00	34.43	491.16
2	T	2	SLE R	-87289.60	245.22	0.00	39.73	563.23
2	T	4	SLE Q	-73586.70	190.82	0.00	33.21	472.69
3	P	2	SLE R	-84663.20	58.73	0.00	35.35	522.34
3	P	2	SLE R	-84663.20	0.00	-398.77	34.91	523.26
3	P	4	SLE Q	-71452.40	47.10	0.00	29.79	440.51

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	464.89	2.50	15313.10	33046.30	32.939
2	T	1	439.00	2.50	15313.10	34894.50	34.882

Numero del nucleo n. 401

Nodi: -221 -229 -235 -242

Caratteristiche delle sezioni e dei materiali utilizzati



Relazione di calcolo

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P	1	SLU	-126318.00	-217.88	0.00	-429421.00	-5596.75	0.00	3.400
	2P	1	SLU	-127153.00	560.84	0.00	-429421.00	5608.46	0.00	3.377
	3P	1	SLU	-114493.00	500.11	0.00	-429421.00	5399.88	0.00	3.751

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N	My	Mz	σ <sub>c</sub>	σ <sub>f</sub>
				<daN>	<daNm>	<daNm>	<daN/cmq>	<daN/cmq>
	1P	2	SLE R	-90389.40	0.00	-5161.27	38.78	577.97
	1P	4	SLE Q	-77027.50	0.00	-4091.02	32.67	487.17
	2T	2	SLE R	-90367.40	-477.79	0.00	40.09	544.59
	2T	4	SLE Q	-76853.90	-395.85	0.00	33.93	461.91
	3P	2	SLE R	-81961.30	0.00	-7976.04	39.15	581.55
	3P	4	SLE Q	-69820.00	0.00	-6438.87	32.92	489.20

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu	ctgθ	VRsd	VRcd	Sic.
			<daN>		<daN>	<daN>	
	1P	1	5860.80	2.50	17295.40	43481.00	2.951
	2P	1	3257.67	2.50	17295.40	43163.20	5.309

Numero del nucleo n. 402

Nodi: -223 -230 -236 -244

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P	1	SLU	-125164.00	223.46	0.00	-429421.00	5577.73	0.00	3.431
	2P	1	SLU	-125126.00	-527.86	0.00	-429422.00	-5577.14	0.00	3.432
	3P	1	SLU	-112447.00	-472.80	0.00	-429421.00	-5365.81	0.00	3.819

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N	My	Mz	σ <sub>c</sub>	σ <sub>f</sub>
				<daN>	<daNm>	<daNm>	<daN/cmq>	<daN/cmq>
	1P	2	SLE R	-89503.40	0.00	-5957.12	39.42	587.06
	1P	4	SLE Q	-76303.30	0.00	-4763.89	33.23	494.99
	2T	2	SLE R	-88880.20	445.36	0.00	39.04	532.71
	2T	4	SLE Q	-75641.10	367.66	0.00	33.04	452.01
	3P	2	SLE R	-80486.80	0.00	-7617.36	38.18	567.33
	3P	4	SLE Q	-68648.30	0.00	-6153.67	32.15	477.90

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu	ctgθ	VRsd	VRcd	Sic.
			<daN>		<daN>	<daN>	
	1P	1	8493.24	2.50	17295.40	43919.60	2.036
	2P	1	5914.06	2.50	17295.40	43934.00	2.924

Numero del nucleo n. 403

Nodi: -226 -232 -238 -247

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P	1	SLU	-129582.00	837.24	0.00	-429421.00	5642.53	0.00	3.314
	2P	1	SLU	-128048.00	-978.50	0.00	-429421.00	-5620.97	0.00	3.354
	3P	1	SLU	-113848.00	-359.81	0.00	-429421.00	-5389.13	0.00	3.772



Relazione di calcolo

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-92634.70	599.38	0.00	42.83	571.27
1P	2	SLE	R	-92634.70	0.00	-5380.73	39.85	593.92
1P	4	SLE	Q	-79024.60	508.52	0.00	36.49	487.01
2P	2	SLE	R	-91475.20	-695.76	0.00	43.94	576.46
2T	2	SLE	R	-90930.10	697.78	0.00	43.77	573.75
2P	4	SLE	Q	-77972.10	-580.33	0.00	37.25	489.85
3P	2	SLE	R	-81452.80	0.00	-7628.61	38.55	572.74
3P	4	SLE	Q	-69524.20	0.00	-6231.14	32.56	483.98

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		7015.50	2.50	17295.40	42239.60	2.465
2P	1		4549.60	2.50	17295.40	42822.70	3.802

Numero del nucleo n. 404

Nodi: -224 -225 -226

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-122893.00	155.47	0.00	-381658.00	5131.10	0.00	3.106
2P	1	SLU		-119625.00	-59.64	0.00	-381658.00	-5084.95	0.00	3.190
3P	1	SLU		-115905.00	31.29	0.00	-381658.00	5032.58	0.00	3.293

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-88086.90	0.00	1616.93	38.17	570.86
1P	4	SLE	Q	-74690.10	0.00	1378.84	32.37	484.21
2T	2	SLE	R	-85238.20	215.03	0.00	38.37	546.73
2P	2	SLE	R	-85722.10	0.00	1465.47	36.98	553.15
2T	4	SLE	Q	-72130.00	167.17	0.00	32.20	460.68
3P	2	SLE	R	-83054.30	0.00	624.49	34.61	518.45
3P	4	SLE	Q	-70319.50	0.00	540.11	29.32	439.20

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		1149.44	2.50	15313.10	34412.90	13.322
2P	1		2282.13	2.50	15313.10	35652.80	6.710

Numero del nucleo n. 406

Nodi: -242 -243 -244

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-97371.60	-586.92	0.00	-381658.00	-4727.87	0.00	3.920
2T	1	SLU		-97512.80	-2531.90	0.00	-97512.80	-4730.58	0.00	1.868
3P	1	SLU		-86222.20	2257.24	0.00	-86222.20	4513.31	0.00	1.999

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-69292.10	-415.27	0.00	35.47	476.60
1P	4	SLE	Q	-59763.20	-323.45	0.00	29.98	406.42
2T	2	SLE	R	-69377.00	-1797.57	0.00	60.42	662.90
2T	4	SLE	Q	-59567.90	-1371.12	0.00	48.58	545.30
3P	2	SLE	R	-61386.80	1600.30	0.00	53.66	587.94



Relazione di calcolo

3P	4SLE Q	-53183.60	1221.43	0.00	43.32	486.49
----	--------	-----------	---------	------	-------	--------

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	1407.73	2.50	15313.10	40515.40	10.878
	2P	1	1313.20	2.50	15313.10	40515.40	11.661

Numero del nucleo n. 407

Nodi: -245 -246 -247

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-97299.80	-332.63	0.00	-381658.00	-4726.48	0.00	3.922
2	T	1	SLU	-95812.80	-2130.60	0.00	-95812.80	-4698.05	0.00	2.205
3	P	1	SLU	-84239.20	2252.60	0.00	-84239.20	4470.87	0.00	1.985

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-69318.00	-233.45	0.00	32.24	452.45
1	P	4	SLE Q	-59502.40	-176.04	0.00	27.24	385.13
2	T	2	SLE R	-68230.50	-1506.25	0.00	54.49	616.01
2	T	4	SLE Q	-58408.50	-1130.72	0.00	43.82	506.11
3	P	2	SLE R	-60042.70	1591.77	0.00	53.03	578.87
3	P	4	SLE Q	-51910.70	1205.34	0.00	42.52	476.62

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	1211.93	2.50	15313.10	40515.50	12.635
2	P	1	4418.04	2.50	15313.10	40515.50	3.466

Numero del nucleo n. 408

Nodi: 244 -7151 -261 -7155 245

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm²>	Fctm <daN/cm²>	Fcd <daN/cm²>	Fcd (Tag) <daN/cm²>	Fctd <daN/cm²>	Fym <daN/cm²>	Fyd <daN/cm²>	Fyd (Tag) <daN/cm²>
20.00	3.40	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-151412.00	-1160.26	0.00	-891415.00	-9715.83	0.00	5.887
2	P	1	SLU	-135657.00	-643.92	0.00	-891415.00	-9003.82	0.00	6.571
3	P	1	SLU	-115684.00	-300.50	0.00	-891415.00	-8054.47	0.00	7.706
4	P	1	SLU	-72906.40	-16.72	0.00	-891415.00	-5876.71	0.00	12.227

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
	1P	2	SLE R	-107655.00	-825.82	0.00	21.71	305.08
	1P	4	SLE Q	-94198.70	-596.57	0.00	18.38	260.83
	2P	2	SLE R	-96443.40	-457.01	0.00	18.07	259.59
	2P	4	SLE Q	-84349.60	-325.34	0.00	15.44	223.43
	3P	2	SLE R	-82239.90	-211.58	0.00	14.53	212.72
	3P	4	SLE Q	-71889.10	-146.71	0.00	12.52	184.09
	4T	2	SLE R	-51294.10	164.06	0.00	9.22	134.23
	4T	4	SLE Q	-44773.20	122.51	0.00	7.95	116.16

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	2861.15	2.50	39196.20	111113.00	13.700	
2P	1	3075.95	2.50	39196.20	109702.00	12.743	
3P	1	3116.15	2.50	39196.20	106638.00	12.578	



Relazione di calcolo

4P	1	2897.05	2.50	39196.20	100075.00	13.530
----	---	---------	------	----------	-----------	--------

Numero del nucleo n. 488

Nodi: -911 -918 -924 394

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-108812.00	591.25	0.00	-429421.00	5296.34	0.00	3.946
2P	1	SLU		-109806.00	-225.90	0.00	-429421.00	-5315.37	0.00	3.911
3P	1	SLU		-109461.00	-60.48	0.00	-429421.00	-5308.76	0.00	3.923

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE	R	-77833.00	0.00	-7973.08	37.66	559.21
1P	4	SLE	Q	-66365.70	0.00	-6500.98	31.75	471.63
2P	2	SLE	R	-78489.90	0.00	-6483.92	36.09	536.79
2P	4	SLE	Q	-66866.00	0.00	-5224.57	30.39	452.08
3P	2	SLE	R	-78207.40	0.00	-3926.82	32.90	490.68
3P	4	SLE	Q	-66614.90	0.00	-3164.45	27.80	414.80

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		7055.47	2.50	17295.40	45760.00	2.451
2T	1		9826.72	2.50	17295.40	45760.00	1.760

Numero del nucleo n. 496

Nodi: -908 -909 -910

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-117923.00	81.69	0.00	-381658.00	5061.00	0.00	3.236
2P	1	SLU		-112826.00	103.18	0.00	-381658.00	4989.32	0.00	3.383
3P	1	SLU		-109150.00	25.05	0.00	-381658.00	4930.09	0.00	3.497

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE	R	-84663.20	58.73	0.00	35.35	522.34
1P	2	SLE	R	-84663.20	0.00	-398.77	34.91	523.26
1P	4	SLE	Q	-71452.40	47.10	0.00	29.79	440.51
2T	2	SLE	R	-80596.90	164.65	0.00	35.59	511.79
2T	4	SLE	Q	-67988.70	127.32	0.00	29.81	430.18
3P	2	SLE	R	-78371.90	0.00	-248.17	32.13	481.72
3P	4	SLE	Q	-66130.00	0.00	-209.38	27.11	406.47

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		386.77	2.50	15313.10	36298.10	39.592
2P	1		351.94	2.50	15313.10	38231.60	43.511

Numero del nucleo n. 498

Nodi: -908 -916 -922 390

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
--------	----	-----	------	-----	-----------	------	-----	-----	-----------



Relazione di calcolo

<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1	P	1	SLU	-114493.00	500.11	0.00	-429421.00	5399.88	0.00	3.751
2	P	1	SLU	-114855.00	-154.88	0.00	-429421.00	-5405.84	0.00	3.739
3	P	1	SLU	-113714.00	-138.74	0.00	-429421.00	-5386.84	0.00	3.776

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1	P	2	SLE R	-81961.30	0.00	-7976.04	39.15	581.55
1	P	4	SLE Q	-69820.00	0.00	-6438.87	32.92	489.20
2	P	2	SLE R	-82164.60	0.00	-6402.45	37.32	555.21
2	P	4	SLE Q	-69929.10	0.00	-5094.02	31.33	466.34
3	P	2	SLE R	-81307.60	0.00	-3678.71	33.71	503.09
3	P	4	SLE Q	-69188.60	0.00	-2897.13	28.41	424.04

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	6530.53	2.50	17295.40	45760.00	2.648
2	T	1	9237.27	2.50	17295.40	45760.00	1.872

Numero del nucleo n. 499

Nodi: -910 -917 -923 391

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1	P	1	SLU	-112447.00	-472.80	0.00	-429421.00	-5365.81	0.00	3.819
2	P	1	SLU	-112635.00	160.56	0.00	-429421.00	5368.89	0.00	3.812
3	P	1	SLU	-111217.00	137.93	0.00	-429421.00	5342.42	0.00	3.861

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1	P	2	SLE R	-80486.80	0.00	-7617.36	38.18	567.33
1	P	4	SLE Q	-68648.30	0.00	-6153.67	32.15	477.90
2	P	2	SLE R	-80574.70	0.00	-6283.71	36.60	544.55
2	P	4	SLE Q	-68667.00	0.00	-4993.86	30.76	457.78
3	P	2	SLE R	-79529.00	0.00	-4054.65	33.53	500.04
3	P	4	SLE Q	-67769.40	0.00	-3203.83	28.27	421.72

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	6691.16	2.50	17295.40	45760.00	2.585
2	P	1	9267.07	2.50	17295.40	45760.00	1.866

Numero del nucleo n. 500

Nodi: -913 -919 -925 395

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1	P	1	SLU	-113848.00	-359.81	0.00	-429421.00	-5389.13	0.00	3.772
2	P	1	SLU	-113124.00	81.24	0.00	-429421.00	5377.07	0.00	3.796
3	P	1	SLU	-111070.00	204.16	0.00	-429421.00	5339.59	0.00	3.866

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-81452.80	0.00	-7628.61	38.55	572.74
1P	4	SLE	Q	-69524.20	0.00	-6231.14	32.56	483.98
2P	2	SLE	R	-80884.10	0.00	-6107.04	36.50	543.14
2P	4	SLE	Q	-68988.70	0.00	-4905.02	30.76	457.97
3P	2	SLE	R	-79380.90	0.00	-3771.63	33.13	494.31
3P	4	SLE	Q	-67699.60	0.00	-3023.74	28.02	418.20

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		6324.22	2.50	17295.40	45760.00	2.735
2P	1		8748.14	2.50	17295.40	45760.00	1.977

Numero del nucleo n. 501

Nodi: -911 -912 -913

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-115905.00	31.29	0.00	-381658.00	5032.58	0.00	3.293
2P	1	SLU		-110982.00	142.43	0.00	-381658.00	4960.70	0.00	3.439
3P	1	SLU		-107148.00	5.78	0.00	-381658.00	4896.63	0.00	3.562

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-83054.30	0.00	624.49	34.61	518.45
1P	4	SLE	Q	-70319.50	0.00	540.11	29.32	439.20
2T	2	SLE	R	-79123.00	134.94	0.00	34.46	498.86
2T	4	SLE	Q	-66946.30	103.73	0.00	28.97	420.69
3P	2	SLE	R	-76793.60	0.00	402.36	31.73	475.52
3P	4	SLE	Q	-64984.80	0.00	342.15	26.85	402.43

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		1137.42	2.50	15313.10	37063.70	13.463
2T	1		1745.52	2.50	15313.10	39136.00	8.773

Numero del nucleo n. 504

Nodi: 390 -927 391

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-86222.20	2257.24	0.00	-86222.20	4513.31	0.00	1.999
2P	1	SLU		-88475.40	-490.27	0.00	-381658.00	-4557.72	0.00	4.314
3P	1	SLU		-92418.20	-36.73	0.00	-381658.00	-4633.11	0.00	4.130

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-61386.80	1600.30	0.00	53.66	587.94
1P	4	SLE	Q	-53183.60	1221.43	0.00	43.32	486.49
2P	2	SLE	R	-62983.10	-346.16	0.00	31.69	429.02
2P	4	SLE	Q	-54340.70	-262.72	0.00	26.70	365.35
3P	2	SLE	R	-65761.50	-25.83	0.00	27.10	403.08
3P	4	SLE	Q	-56488.30	-21.91	0.00	23.28	346.20

Stato limite ultimo - Verifiche a taglio



Relazione di calcolo

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	876.21	2.50	15313.10	40515.40	17.477
	2T	1	868.23	2.50	15313.10	40515.40	17.637

Numero del nucleo n. 505

Nodi: 394 -928 395

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-84239.20	2252.60	0.00	-84239.20	4470.87	0.00	1.985
	2P	1	SLU	-86599.60	-533.11	0.00	-381658.00	-4521.37	0.00	4.407
	3P	1	SLU	-90540.00	8.04	0.00	-381658.00	4597.19	0.00	4.215

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
	1P	2	SLE R	-60042.70	1591.77	0.00	53.03	578.87
	1P	4	SLE Q	-51910.70	1205.34	0.00	42.52	476.62
	2P	2	SLE R	-61707.00	-375.62	0.00	31.70	425.21
	2P	4	SLE Q	-53140.30	-282.89	0.00	26.57	360.75
	3P	2	SLE R	-64472.80	0.00	297.00	26.58	398.33
	3P	4	SLE Q	-55292.80	0.00	275.66	22.82	342.07

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	799.54	2.50	15313.10	40515.50	19.152
	2P	1	892.21	2.50	15313.10	40515.50	17.163

Numero del nucleo n. 588

Nodi: -998 -1005 -1011 -1019

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-109461.00	-60.48	0.00	-429421.00	-5308.76	0.00	3.923
	2P	1	SLU	-110853.00	468.59	0.00	-429421.00	5335.40	0.00	3.874
	3P	1	SLU	-97554.50	523.01	0.00	-429421.00	5080.37	0.00	4.402

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
	1P	2	SLE R	-78207.40	0.00	-3926.82	32.90	490.68
	1P	4	SLE Q	-66614.90	0.00	-3164.45	27.80	414.80
	2T	2	SLE R	-78682.20	-432.87	0.00	35.17	476.18
	2T	2	SLE R	-78682.20	0.00	3023.82	31.98	477.50
	2T	4	SLE Q	-66890.60	-356.53	0.00	29.72	403.45
	3P	2	SLE R	-69784.20	0.00	-6356.23	32.81	487.56
	3P	4	SLE Q	-59500.20	0.00	-5179.28	27.68	411.52

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	10018.40	2.50	17295.40	45760.00	1.726
	2P	1	7186.56	2.50	17295.40	45760.00	2.407

Numero del nucleo n. 596

Nodi: -995 -996 -997



Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-109150.00	25.05	0.00	-381658.00	4930.09	0.00	3.497
2	P	1	SLU	-103857.00	97.07	0.00	-381658.00	4841.74	0.00	3.675
3	P	1	SLU	-99518.80	-100.50	0.00	-381658.00	-4769.00	0.00	3.835

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-78371.90	0.00	-248.17	32.13	481.72
1	P	4	SLE Q	-66130.00	0.00	-209.38	27.11	406.47
2	T	2	SLE R	-74169.00	184.27	0.00	33.33	475.35
2	T	4	SLE Q	-62554.20	143.32	0.00	27.90	399.30
3	P	2	SLE R	-71481.60	-70.25	0.00	30.21	443.78
3	P	4	SLE Q	-60368.90	-54.38	0.00	25.43	374.13

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	314.31	2.50	15313.10	39626.10	48.719
2	P	1	288.96	2.50	15313.10	40515.40	52.993

Numero del nucleo n. 598

Nodi: -995 -1003 -1009 -1016

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-113714.00	-138.74	0.00	-429421.00	-5386.84	0.00	3.776
2	P	1	SLU	-114548.00	521.94	0.00	-429421.00	5400.73	0.00	3.749
3	P	1	SLU	-100475.00	529.44	0.00	-429421.00	5136.93	0.00	4.274

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-81307.60	0.00	-3678.71	33.71	503.09
1	P	4	SLE Q	-69188.60	0.00	-2897.13	28.41	424.04
2	T	2	SLE R	-81380.50	-451.11	0.00	36.43	492.91
2	T	4	SLE Q	-69124.00	-371.85	0.00	30.77	417.33
3	P	2	SLE R	-71920.40	0.00	-6239.72	33.43	497.06
3	P	4	SLE Q	-61259.90	0.00	-5034.33	28.14	418.50

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	9292.68	2.50	17295.40	45760.00	1.861
2	P	1	6099.95	2.50	17295.40	45760.00	2.835

Numero del nucleo n. 599

Nodi: -997 -1004 -1010 -1018

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-111217.00	137.93	0.00	-429421.00	5342.42	0.00	3.861
2	P	1	SLU	-112090.00	-484.92	0.00	-429421.00	-5359.08	0.00	3.831



Relazione di calcolo

3P	1SLU	-99918.30	-466.93	0.00	-429421.00	-5126.32	0.00	4.298
----	------	-----------	---------	------	------------	----------	------	-------

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R		-79529.00	0.00	-4054.65	33.53	500.04
1P	4	SLE Q		-67769.40	0.00	-3203.83	28.27	421.72
2T	2	SLE R		-79630.80	404.02	0.00	35.06	477.87
2T	4	SLE Q		-67715.10	333.72	0.00	29.65	405.19
3P	2	SLE R		-71502.70	0.00	-5733.25	32.67	485.98
3P	4	SLE Q		-60915.60	0.00	-4628.04	27.52	409.55

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		9278.88	2.50	17295.40	45760.00	1.864
2P	1		6713.23	2.50	17295.40	45760.00	2.576

Numero del nucleo n. 600

Nodi: -1000 -1006 -1012 -1021

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1P	1	SLU		-111070.00	204.16	0.00	-429421.00	5339.59	0.00	3.866
2P	1	SLU		-111333.00	-496.20	0.00	-429421.00	-5344.64	0.00	3.857
3P	1	SLU		-99151.30	-423.52	0.00	-429421.00	-5111.70	0.00	4.331

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R		-79380.90	0.00	-3771.63	33.13	494.31
1P	4	SLE Q		-67699.60	0.00	-3023.74	28.02	418.20
2T	2	SLE R		-79042.80	388.62	0.00	34.60	472.87
2T	4	SLE Q		-67266.90	320.43	0.00	29.28	401.20
3P	2	SLE R		-70912.00	0.00	-5080.66	31.67	471.41
3P	4	SLE Q		-60461.40	0.00	-4128.63	26.76	398.39

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		8498.88	2.50	17295.40	45760.00	2.035
2T	1		6144.23	2.50	17295.40	45760.00	2.815

Numero del nucleo n. 601

Nodi: -998 -999 -1000

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1P	1	SLU		-107148.00	5.78	0.00	-381658.00	4896.63	0.00	3.562
2P	1	SLU		-101814.00	107.39	0.00	-381658.00	4807.68	0.00	3.749
3P	1	SLU		-97312.10	-106.31	0.00	-381658.00	-4726.72	0.00	3.922

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R		-76793.60	0.00	402.36	31.73	475.52
1P	4	SLE Q		-64984.80	0.00	342.15	26.85	402.43
2T	2	SLE R		-72572.60	160.68	0.00	32.27	462.50
2T	4	SLE Q		-61382.40	124.46	0.00	27.09	389.65
3P	2	SLE R		-69773.80	-74.28	0.00	29.59	433.94
3P	4	SLE Q		-59092.60	-56.84	0.00	24.95	366.70



Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	1121.26	2.50	15313.10	40385.60	13.657
	2P	1	1392.50	2.50	15313.10	40515.50	10.997

Numero del nucleo n. 604

Nodi: -1016 -1017 -1018

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
	1P	1	SLU	-92418.20	-36.73	0.00	-381658.00	-4633.11	0.00	4.130
	2T	1	SLU	-93171.70	-2760.62	0.00	-93171.70	-4647.47	0.00	1.683
	3P	1	SLU	-81705.80	2579.37	0.00	-81705.80	4416.57	0.00	1.712

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P	2	SLE R	-65761.50	-25.83	0.00	27.10	403.08
	1P	4	SLE Q	-56488.30	-21.91	0.00	23.28	346.20
	2T	2	SLE R	-66261.70	-1961.41	0.00	63.06	669.02
	2T	4	SLE Q	-56655.00	-1502.97	0.00	50.06	546.35
	3P	2	SLE R	-58125.70	1836.49	0.00	58.16	604.54
	3P	4	SLE Q	-50163.40	1402.82	0.00	45.87	494.25

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	859.35	2.50	15313.10	40515.40	17.819
	2P	1	705.01	2.50	15313.10	40515.40	21.720

Numero del nucleo n. 605

Nodi: -1019 -1020 -1021

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
	1P	1	SLU	-90540.00	8.04	0.00	-381658.00	4597.19	0.00	4.215
	2T	1	SLU	-91385.50	-2501.33	0.00	-91385.50	-4613.34	0.00	1.844
	3P	1	SLU	-80629.80	2309.30	0.00	-80629.80	4393.50	0.00	1.903

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P	2	SLE R	-64472.80	0.00	297.00	26.58	398.33
	1P	4	SLE Q	-55292.80	0.00	275.66	22.82	342.07
	2T	2	SLE R	-65029.20	-1770.74	0.00	58.42	633.72
	2T	4	SLE Q	-55524.30	-1346.11	0.00	46.54	517.56
	3P	2	SLE R	-57405.00	1638.12	0.00	53.22	570.45
	3P	4	SLE Q	-49464.50	1238.00	0.00	42.21	466.47

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	995.52	2.50	15313.10	40515.50	15.382
	2T	1	930.97	2.50	15313.10	40515.50	16.449

Numero del nucleo n. 688

Nodi: -1685 -1692 -1698 594



Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-97554.50	523.01	0.00	-429421.00	5080.37	0.00	4.402
2	P	1	SLU	-98392.30	-170.43	0.00	-429421.00	-5097.18	0.00	4.364
3	P	1	SLU	-97358.30	-119.71	0.00	-429421.00	-5076.18	0.00	4.411

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1	P	2	SLE R	-69784.20	0.00	-6356.23	32.81	487.56
1	P	4	SLE Q	-59500.20	0.00	-5179.28	27.68	411.52
2	P	2	SLE R	-70327.80	0.00	-5075.55	31.45	468.17
2	P	4	SLE Q	-59900.30	0.00	-4057.45	26.47	394.12
3	P	2	SLE R	-69555.30	0.00	-2471.05	28.02	418.59
3	P	4	SLE Q	-59243.20	0.00	-1955.93	23.69	353.93

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	6835.22	2.50	17295.40	45760.00	2.530
2	T	1	9667.15	2.50	17295.40	45760.00	1.789

Numero del nucleo n. 696

Nodi: -1682 -1683 -1684

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-99518.80	-100.50	0.00	-381658.00	-4769.00	0.00	3.835
2	P	1	SLU	-94374.40	207.28	0.00	-381658.00	4670.48	0.00	4.044
3	P	1	SLU	-91254.30	-83.52	0.00	-381658.00	-4610.78	0.00	4.182

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1	P	2	SLE R	-71481.60	-70.25	0.00	30.21	443.78
1	P	4	SLE Q	-60368.90	-54.38	0.00	25.43	374.13
2	P	2	SLE R	-67787.20	147.48	0.00	30.09	431.65
2	T	2	SLE R	-67372.50	140.49	0.00	29.80	428.20
2	P	4	SLE Q	-57282.30	114.70	0.00	25.25	363.43
3	P	2	SLE R	-65528.80	-58.50	0.00	27.59	406.03
3	P	4	SLE Q	-55309.70	-44.54	0.00	23.20	342.07

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	247.58	2.50	15313.10	40515.40	61.850
2	T	1	204.93	2.50	15313.10	40515.40	74.723

Numero del nucleo n. 698

Nodi: -1682 -1690 -1696 590

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
------	------	----	-----	------------	--------------	--------------	-------------	-------------------	-------------------	------



Relazione di calcolo

1P	1SLU	-100475.00	529.44	0.00	-429421.00	5136.93	0.00	4.274
2P	1SLU	-100957.00	-168.68	0.00	-429421.00	-5146.16	0.00	4.254
3P	1SLU	-99497.60	-142.87	0.00	-429421.00	-5118.35	0.00	4.316

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P	2	SLE	R	-71920.40	0.00	-6239.72	33.43	497.06
1P	4	SLE	Q	-61259.90	0.00	-5034.33	28.14	418.50
2P	2	SLE	R	-72209.40	0.00	-4941.69	31.97	475.99
2P	4	SLE	Q	-61442.60	0.00	-3897.98	26.83	399.67
3P	2	SLE	R	-71129.80	0.00	-2219.80	28.29	422.70
3P	4	SLE	Q	-60525.50	0.00	-1702.21	23.84	356.43

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		6001.94	2.50	17295.40	45760.00	2.882
2T	1		9045.02	2.50	17295.40	45760.00	1.912

Numero del nucleo n. 699

Nodi: -1684 -1691 -1697 591

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1P	1	SLU		-99918.30	-466.93	0.00	-429421.00	-5126.32	0.00	4.298
2P	1	SLU		-100674.00	170.65	0.00	-429421.00	5140.74	0.00	4.265
3P	1	SLU		-99169.00	155.86	0.00	-429421.00	5112.09	0.00	4.330

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P	2	SLE	R	-71502.70	0.00	-5733.25	32.67	485.98
1P	4	SLE	Q	-60915.60	0.00	-4628.04	27.52	409.55
2P	2	SLE	R	-71984.50	0.00	-4362.17	31.19	464.67
2P	4	SLE	Q	-61245.90	0.00	-3440.84	26.21	390.64
3P	2	SLE	R	-70874.70	0.00	-2192.97	28.16	420.86
3P	4	SLE	Q	-60298.80	0.00	-1698.31	23.76	355.14

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		6045.91	2.50	17295.40	45760.00	2.861
2P	1		8491.14	2.50	17295.40	45760.00	2.037

Numero del nucleo n. 700

Nodi: -1687 -1693 -1699 595

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1P	1	SLU		-99151.30	-423.52	0.00	-429421.00	-5111.70	0.00	4.331
2P	1	SLU		-99506.80	139.89	0.00	-429421.00	5118.45	0.00	4.316
3P	1	SLU		-97697.70	169.53	0.00	-429421.00	5083.49	0.00	4.395

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P	2	SLE	R	-70912.00	0.00	-5080.66	31.67	471.41
1P	4	SLE	Q	-60461.40	0.00	-4128.63	26.76	398.39
2P	2	SLE	R	-71104.70	0.00	-3628.53	29.98	447.13
2P	4	SLE	Q	-60545.10	0.00	-2869.32	25.26	376.89



Relazione di calcolo

3P	2	SLE R	-69778.20	0.00	-1646.25	27.11	405.41
3P	4	SLE Q	-59412.20	98.63	0.00	22.94	332.45

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	5121.33	2.50	17295.40	45760.00	3.377	
2T	1	7120.25	2.50	17295.40	45760.00	2.429	

Numero del nucleo n. 701

Nodi: -1685 -1686 -1687

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-97312.10	-106.31	0.00	-381658.00	-4726.72	0.00	3.922	
2P	1	SLU	-92330.30	197.64	0.00	-381658.00	4631.40	0.00	4.134	
3P	1	SLU	-89228.10	-80.63	0.00	-381658.00	-4572.03	0.00	4.277	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ<sub>c</sub> <daN/cm<sup>q</sup>>	σ<sub>ε</sub> <daN/cm<sup>q</sup>>
1P	2	SLE R	-69773.80	-74.28	0.00	29.59	433.94	
1P	4	SLE Q	-59092.60	-56.84	0.00	24.95	366.70	
2P	2	SLE R	-66205.80	140.06	0.00	29.32	421.05	
2T	2	SLE R	-65791.00	124.43	0.00	28.87	416.44	
2P	4	SLE Q	-56100.00	108.27	0.00	24.66	355.39	
3P	2	SLE R	-63966.40	-56.35	0.00	26.92	396.25	
3P	4	SLE Q	-54134.20	-42.20	0.00	22.68	334.61	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	1060.88	2.50	15313.10	40515.50	14.434	
2P	1	1197.85	2.50	15313.10	40515.50	12.784	

Numero del nucleo n. 704

Nodi: 590 -1701 591

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-81705.80	2579.37	0.00	-81705.80	4416.57	0.00	1.712	
2P	1	SLU	-83319.00	-624.42	0.00	-381658.00	-4451.13	0.00	4.581	
3P	1	SLU	-87110.50	-0.58	0.00	-381658.00	-4531.66	0.00	4.381	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ<sub>c</sub> <daN/cm<sup>q</sup>>	σ<sub>ε</sub> <daN/cm<sup>q</sup>>
1P	2	SLE R	-58125.70	1836.49	0.00	58.16	604.54	
1P	4	SLE Q	-50163.40	1402.82	0.00	45.87	494.25	
2P	2	SLE R	-59285.30	-443.81	0.00	31.93	419.61	
2P	4	SLE Q	-50972.90	-338.00	0.00	26.68	354.95	
3P	2	SLE R	-61969.00	0.00	65.64	25.21	378.03	
3P	4	SLE Q	-53045.70	0.00	53.53	21.57	323.53	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	482.51	2.50	15313.10	40515.40	31.736	
2P	1	560.41	2.50	15313.10	40515.40	27.325	



Numero del nucleo n. 705

Nodi: 594 -1702 595

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-80629.80	2309.30	0.00	-80629.80	4393.50	0.00	1.903
2	P	1	SLU	-82125.10	-557.03	0.00	-381658.00	-4425.58	0.00	4.647
3	P	1	SLU	-85777.20	-5.94	0.00	-381658.00	-4503.73	0.00	4.449

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-57405.00	1638.12	0.00	53.22	570.45
1	P	4	SLE Q	-49464.50	1238.00	0.00	42.21	466.47
2	P	2	SLE R	-58472.80	-394.49	0.00	30.72	408.08
2	P	4	SLE Q	-50209.20	-296.28	0.00	25.62	344.73
3	P	2	SLE R	-61047.10	0.00	164.72	24.98	374.60
3	P	4	SLE Q	-52201.10	0.00	140.25	21.36	320.31

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	131.20	2.50	15313.10	40515.50	116.719
2	T	1	241.69	2.50	15313.10	40515.50	63.357

Numero del nucleo n. 788

Nodi: -1763 -1770 -1776 -1784

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-97358.30	-119.71	0.00	-429421.00	-5076.18	0.00	4.411
2	P	1	SLU	-98494.70	518.27	0.00	-429421.00	5099.22	0.00	4.360
3	P	1	SLU	-84813.30	522.42	0.00	-429421.00	4807.58	0.00	5.063

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-69555.30	0.00	-2471.05	28.02	418.59
1	P	4	SLE Q	-59243.20	0.00	-1955.93	23.69	353.93
2	T	2	SLE R	-69842.70	-448.14	0.00	32.23	430.27
2	T	2	SLE R	-69842.70	0.00	4285.90	30.32	451.78
2	T	4	SLE Q	-59349.90	-369.75	0.00	27.21	364.31
3	P	2	SLE R	-60663.30	0.00	-4895.35	27.76	412.85
3	P	4	SLE Q	-51704.20	0.00	-3969.07	23.41	348.33

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	9833.95	2.50	17295.40	45760.00	1.759
2	P	1	6567.82	2.50	17295.40	45760.00	2.633

Numero del nucleo n. 796

Nodi: -1760 -1761 -1762

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94



Relazione di calcolo

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-91254.30	-83.52	0.00	-381658.00	-4610.78	0.00	4.182
2P		1	SLU	-86301.50	160.05	0.00	-381658.00	4514.93	0.00	4.422
3P		1	SLU	-82652.50	-170.91	0.00	-381658.00	-4436.80	0.00	4.618

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P		2	SLE R	-65528.80	-58.50	0.00	27.59	406.03
1P		4	SLE Q	-55309.70	-44.54	0.00	23.20	342.07
2T		2	SLE R	-61553.20	174.26	0.00	28.04	397.35
2T		4	SLE Q	-51916.00	135.72	0.00	23.45	333.63
3P		2	SLE R	-59349.20	-120.66	0.00	26.19	376.79
3P		4	SLE Q	-50120.60	-94.18	0.00	21.98	317.17

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	162.71	2.50	15313.10	40515.40	94.114
2T		1	128.79	2.50	15313.10	40515.40	118.899

Numero del nucleo n. 798

Nodi: -1760 -1768 -1774 -1781

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-99497.60	-142.87	0.00	-429421.00	-5118.35	0.00	4.316
2P		1	SLU	-100425.00	548.03	0.00	-429421.00	5135.98	0.00	4.276
3P		1	SLU	-86205.70	552.87	0.00	-429421.00	4837.40	0.00	4.981

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P		2	SLE R	-71129.80	0.00	-2219.80	28.29	422.70
1P		4	SLE Q	-60525.50	0.00	-1702.21	23.84	356.43
2T		2	SLE R	-71266.50	-459.40	0.00	32.92	439.29
2T		2	SLE R	-71266.50	0.00	4059.83	30.56	455.53
2T		4	SLE Q	-60505.00	-378.93	0.00	27.78	371.64
3P		2	SLE R	-61694.90	388.66	0.00	28.36	379.22
3P		2	SLE R	-61694.90	0.00	-4866.82	28.09	417.92
3P		4	SLE Q	-52533.90	318.17	0.00	23.94	321.39

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	9079.20	2.50	17295.40	45760.00	1.905
2P		1	5548.68	2.50	17295.40	45760.00	3.117

Numero del nucleo n. 799

Nodi: -1762 -1769 -1775 -1783

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-99169.00	155.86	0.00	-429421.00	5112.09	0.00	4.330
2P		1	SLU	-100004.00	-533.58	0.00	-429421.00	-5127.95	0.00	4.294
3P		1	SLU	-86822.80	-518.36	0.00	-429421.00	-4850.59	0.00	4.946

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N	My	Mz	$\sigma_c$	$\sigma_f$
------	------	----	-----	---	----	----	------------	------------



Relazione di calcolo

			<daN>	<daNm>	<daNm>	<daN/cmq>	<daN/cmq>
1P	2	SLE R	-70874.70	0.00	-2192.97	28.16	420.86
1P	4	SLE Q	-60298.80	0.00	-1698.31	23.76	355.14
2T	2	SLE R	-70950.60	439.86	0.00	32.50	435.26
2T	2	SLE R	-70950.60	0.00	3852.32	30.20	450.20
2T	4	SLE Q	-60227.00	362.21	0.00	27.41	368.15
3P	2	SLE R	-62111.40	-364.86	0.00	28.13	378.64
3P	2	SLE R	-62111.40	0.00	-4546.43	27.86	414.59
3P	4	SLE Q	-52862.00	-298.03	0.00	23.74	320.77

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	8782.15	2.50	17295.40	45760.00	1.969	
2P	1	5515.66	2.50	17295.40	45760.00	3.136	

Numero del nucleo n. 800

Nodi: -1765 -1771 -1777 -1786

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1P	1	SLU	-97697.70	169.53	0.00	-429421.00	5083.49	0.00	4.395	
2P	1	SLU	-98167.30	-515.04	0.00	-429421.00	-5092.90	0.00	4.374	
3P	1	SLU	-85256.10	-497.41	0.00	-429421.00	-4817.00	0.00	5.037	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>f</sub> <daN/cm>
1P	2	SLE R	-69778.20	0.00	-1646.25	27.11	405.41	
1P	4	SLE Q	-59412.20	98.63	0.00	22.94	332.45	
2T	2	SLE R	-69590.10	415.90	0.00	31.63	425.07	
2T	2	SLE R	-69590.10	0.00	3548.31	29.34	437.56	
2T	4	SLE Q	-59116.30	341.80	0.00	26.69	359.73	
3P	2	SLE R	-60950.10	-349.46	0.00	27.47	370.54	
3P	2	SLE R	-60950.10	0.00	-3982.09	26.75	398.48	
3P	4	SLE Q	-51914.50	-285.37	0.00	23.20	314.15	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	7320.00	2.50	17295.40	45760.00	2.363	
2P	1	4306.12	2.50	17295.40	45760.00	4.016	

Numero del nucleo n. 801

Nodi: -1763 -1764 -1765

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
1P	1	SLU	-89228.10	-80.63	0.00	-381658.00	-4572.03	0.00	4.277	
2P	1	SLU	-84501.60	146.94	0.00	-381658.00	4476.38	0.00	4.517	
3P	1	SLU	-80834.00	-158.92	0.00	-381658.00	-4397.84	0.00	4.722	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>f</sub> <daN/cm>
1P	2	SLE R	-63966.40	-56.35	0.00	26.92	396.25	
1P	4	SLE Q	-54134.20	-42.20	0.00	22.68	334.61	
2T	2	SLE R	-60162.00	158.21	0.00	27.19	386.75	
2T	4	SLE Q	-50873.50	122.92	0.00	22.80	325.59	
3P	2	SLE R	-57948.60	-111.91	0.00	25.47	367.11	
3P	4	SLE Q	-49063.90	-86.63	0.00	21.42	309.74	



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	1017.86	2.50	15313.10	40515.50	15.044
	2P	1	1070.34	2.50	15313.10	40515.50	14.307

Numero del nucleo n. 804

Nodi: -1781 -1782 -1783

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
	1P	1	SLU	-87110.50	-0.58	0.00	-381658.00	-4531.66	0.00	4.381
	2T	1	SLU	-87468.60	-3180.96	0.00	-87468.60	-4538.49	0.00	1.427
	3P	1	SLU	-74246.30	3036.38	0.00	-74246.30	4256.69	0.00	1.402

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P	2	SLE R	-61969.00	0.00	65.64	25.21	378.03
	1P	4	SLE Q	-53045.70	0.00	53.53	21.57	323.53
	2T	2	SLE R	-62204.00	-2263.29	0.00	70.52	693.30
	2T	4	SLE Q	-53003.70	-1746.07	0.00	54.90	562.31
	3P	2	SLE R	-52822.50	2161.21	0.00	67.58	625.34
	3P	4	SLE Q	-45504.30	1660.83	0.00	51.75	507.98

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	500.81	2.50	15313.10	40515.40	30.577
	2P	1	443.25	2.50	15313.10	40515.40	34.547

Numero del nucleo n. 805

Nodi: -1784 -1785 -1786

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy,r <daNm>	MRdz,r <daNm>	Sic.
	1P	1	SLU	-85777.20	-5.94	0.00	-381658.00	-4503.73	0.00	4.449
	2T	1	SLU	-86065.30	-2928.87	0.00	-86065.30	-4509.93	0.00	1.540
	3P	1	SLU	-73310.50	2774.41	0.00	-73310.50	4236.65	0.00	1.527

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P	2	SLE R	-61047.10	0.00	164.72	24.98	374.60
	1P	4	SLE Q	-52201.10	0.00	140.25	21.36	320.31
	2T	2	SLE R	-61224.20	-2076.81	0.00	65.05	658.85
	2T	4	SLE Q	-52123.10	-1594.43	0.00	50.85	534.08
	3P	2	SLE R	-52185.40	1967.67	0.00	61.28	592.34
	3P	4	SLE Q	-44904.30	1502.74	0.00	47.15	480.04

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	277.22	2.50	15313.10	40515.50	55.238
	2P	1	248.64	2.50	15313.10	40515.50	61.587

Numero del nucleo n. 888

Nodi: -2450 -2457 -2463 794



Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-84813.30	522.42	0.00	-429421.00	4807.58	0.00	5.063
2	P	1	SLU	-85603.90	-181.26	0.00	-429421.00	-4824.51	0.00	5.016
3	P	1	SLU	-84271.50	-136.03	0.00	-429421.00	-4795.94	0.00	5.096

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1	P	2	SLE R	-60663.30	0.00	-4895.35	27.76	412.85
1	P	4	SLE Q	-51704.20	0.00	-3969.07	23.41	348.33
2	P	2	SLE R	-61172.00	0.00	-3763.82	26.57	395.87
2	P	4	SLE Q	-52068.50	0.00	-2972.82	22.34	332.93
3	P	2	SLE R	-60185.20	-95.91	0.00	23.18	336.30
3	P	2	SLE R	-60185.20	0.00	-1222.80	23.14	346.24
3	P	4	SLE Q	-51229.90	-78.62	0.00	19.68	285.90

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	5951.34	2.50	17295.40	45760.00	2.906
2	P	1	9100.33	2.50	17295.40	45760.00	1.901

Numero del nucleo n. 896

Nodi: -2447 -2448 -2449

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-82652.50	-170.91	0.00	-381658.00	-4436.80	0.00	4.618
2	P	1	SLU	-77815.60	254.14	0.00	-381658.00	4333.20	0.00	4.905
3	P	1	SLU	-75187.30	-132.30	0.00	-381658.00	-4276.88	0.00	5.076

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1	P	2	SLE R	-59349.20	-120.66	0.00	26.19	376.79
1	P	4	SLE Q	-50120.60	-94.18	0.00	21.98	317.17
2	P	2	SLE R	-55871.00	180.75	0.00	25.86	363.69
2	P	4	SLE Q	-47213.20	140.63	0.00	21.63	305.71
3	P	2	SLE R	-53964.00	-93.47	0.00	23.53	340.43
3	P	4	SLE Q	-45530.90	-72.31	0.00	19.73	286.35

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	93.75	2.50	15313.10	40515.40	163.334
2	P	1	63.00	2.50	15313.10	40515.40	243.053

Numero del nucleo n. 898

Nodi: -2447 -2455 -2461 790

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
------	------	----	-----	------------	--------------	--------------	-------------	-------------------	-------------------	------



Relazione di calcolo

1P	1SLU	-86205.70	552.87	0.00	-429421.00	4837.40	0.00	4.981
2P	1SLU	-86831.50	-192.10	0.00	-429421.00	-4850.78	0.00	4.945
3P	1SLU	-85239.50	-147.15	0.00	-429421.00	-4816.72	0.00	5.038

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-61694.90	388.66	0.00	28.36	379.22
1P	2	SLE	R	-61694.90	0.00	-4866.82	28.09	417.92
1P	4	SLE	Q	-52533.90	318.17	0.00	23.94	321.39
2P	2	SLE	R	-62087.20	0.00	-3716.12	26.84	399.98
2P	4	SLE	Q	-52799.50	0.00	-2897.10	22.51	335.56
3P	2	SLE	R	-60912.90	-103.94	0.00	23.57	341.19
3P	2	SLE	R	-60912.90	0.00	-1067.36	23.21	347.45
3P	4	SLE	Q	-51805.70	-85.42	0.00	20.00	289.82

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		5287.21	2.50	17295.40	45760.00	3.271
2P	1		8642.80	2.50	17295.40	45760.00	2.001

Numero del nucleo n. 899

Nodi: -2449 -2456 -2462 791

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-86822.80	-518.36	0.00	-429421.00	-4850.59	0.00	4.946
2P	1	SLU		-87548.20	195.24	0.00	-429421.00	4866.18	0.00	4.905
3P	1	SLU		-85962.30	155.78	0.00	-429421.00	4832.18	0.00	4.995

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-62111.40	-364.86	0.00	28.13	378.64
1P	2	SLE	R	-62111.40	0.00	-4546.43	27.86	414.59
1P	4	SLE	Q	-52862.00	-298.03	0.00	23.74	320.77
2P	2	SLE	R	-62574.20	0.00	-3403.72	26.64	397.16
2P	4	SLE	Q	-53181.70	0.00	-2648.42	22.34	333.29
3P	2	SLE	R	-61405.60	109.93	0.00	23.84	344.56
3P	2	SLE	R	-61405.60	0.00	-1076.24	23.40	350.27
3P	4	SLE	Q	-52186.90	90.45	0.00	20.21	292.48

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		5066.29	2.50	17295.40	45760.00	3.414
2P	1		8154.06	2.50	17295.40	45760.00	2.121

Numero del nucleo n. 900

Nodi: -2452 -2458 -2464 795

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-85256.10	-497.41	0.00	-429421.00	-4817.00	0.00	5.037
2P	1	SLU		-85683.60	177.60	0.00	-429421.00	4826.20	0.00	5.012
3P	1	SLU		-83971.90	155.12	0.00	-429421.00	4789.57	0.00	5.114

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
------	------	----	-----	------------	--------------	--------------	-----------------------------	-----------------------------



Relazione di calcolo

1P	2SLE R	-60950.10	-349.46	0.00	27.47	370.54
1P	2SLE R	-60950.10	0.00	-3982.09	26.75	398.48
1P	4SLE Q	-51914.50	-285.37	0.00	23.20	314.15
2P	2SLE R	-61199.30	0.00	-2818.50	25.44	379.53
2P	4SLE Q	-52054.80	0.00	-2190.79	21.39	319.22
3P	2SLE R	-59942.90	109.28	0.00	23.30	336.58
3P	4SLE Q	-50985.00	90.02	0.00	19.78	285.94

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	4033.86	2.50	17295.40	45760.00	4.288
	2P	1	6752.30	2.50	17295.40	45760.00	2.561

Numero del nucleo n. 901

Nodi: -2450 -2451 -2452

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-80834.00	-158.92	0.00	-381658.00	-4397.84	0.00	4.722
	2P	1	SLU	-76264.60	233.12	0.00	-381658.00	4299.94	0.00	5.004
	3P	1	SLU	-73721.90	-120.32	0.00	-381658.00	-4245.39	0.00	5.177

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P	2	SLE R	-57948.60	-111.91	0.00	25.47	367.11
	1P	4	SLE Q	-49063.90	-86.63	0.00	21.42	309.74
	2P	2	SLE R	-54670.80	165.19	0.00	25.09	354.31
	2P	4	SLE Q	-46315.00	127.86	0.00	21.04	298.55
	3P	2	SLE R	-52829.80	-84.75	0.00	22.91	332.37
	3P	4	SLE Q	-44682.10	-64.91	0.00	19.26	280.21

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	946.86	2.50	15313.10	40515.50	16.173
	2T	1	955.50	2.50	15313.10	40515.50	16.026

Numero del nucleo n. 904

Nodi: 790 -2466 791

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-74246.30	3036.38	0.00	-74246.30	4256.69	0.00	1.402
	2P	1	SLU	-75438.70	-783.99	0.00	-381658.00	-4282.33	0.00	5.059
	3P	1	SLU	-78951.70	45.65	0.00	-381658.00	4357.60	0.00	4.834

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P	2	SLE R	-52822.50	2161.21	0.00	67.58	625.34
	1P	4	SLE Q	-45504.30	1660.83	0.00	51.75	507.98
	2P	2	SLE R	-53681.60	-557.11	0.00	31.68	400.70
	2P	4	SLE Q	-46062.30	-427.82	0.00	26.29	337.11
	3P	2	SLE R	-56167.50	32.66	0.00	23.34	345.69
	3P	4	SLE Q	-47969.30	22.18	0.00	19.83	294.47

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
------	------	----	---------------	------	---------------	---------------	------



Relazione di calcolo

1P	1	221.76	2.50	15313.10	40515.40	69.052
2P	1	252.31	2.50	15313.10	40515.40	60.690

Numero del nucleo n. 905

Nodi: 794 -2467 795

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-73310.50	2774.41	0.00	-73310.50	4236.65	0.00	1.527
2P		1	SLU	-74368.60	-714.22	0.00	-381658.00	-4259.32	0.00	5.132
3P		1	SLU	-77662.20	37.05	0.00	-381658.00	4329.92	0.00	4.914

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P		2	SLE R	-52185.40	1967.67	0.00	61.28	592.34
1P		4	SLE Q	-44904.30	1502.74	0.00	47.15	480.04
2P		2	SLE R	-52941.20	-505.77	0.00	30.46	389.34
2P		4	SLE Q	-45384.70	-385.49	0.00	25.26	327.34
3P		2	SLE R	-55261.50	26.29	0.00	22.86	339.34
3P		4	SLE Q	-47162.00	16.89	0.00	19.41	288.86

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	228.36	2.50	15313.10	40515.50	67.058
2P		1	179.95	2.50	15313.10	40515.50	85.098

Numero del nucleo n. 988

Nodi: -2528 -2535 -2541 -2549

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-84271.50	-136.03	0.00	-429421.00	-4795.94	0.00	5.096
2P		1	SLU	-85235.10	537.56	0.00	-429421.00	4816.63	0.00	5.038
3P		1	SLU	-71257.10	537.84	0.00	-429421.00	4493.68	0.00	6.026

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P		2	SLE R	-60185.20	-95.91	0.00	23.18	336.30
1P		2	SLE R	-60185.20	0.00	-1222.80	23.14	346.24
1P		4	SLE Q	-51229.90	-78.62	0.00	19.68	285.90
2T		2	SLE R	-60348.00	-453.51	0.00	28.90	379.65
2T		2	SLE R	-60348.00	0.00	5056.23	27.84	413.95
2T		4	SLE Q	-51229.70	-374.15	0.00	24.36	321.00
3P		2	SLE R	-50955.10	377.49	0.00	24.32	319.91
3P		2	SLE R	-50955.10	0.00	-3910.64	23.07	343.27
3P		4	SLE Q	-43401.80	308.82	0.00	20.51	270.98

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	9259.32	2.50	17295.40	45760.00	1.868
2T		1	5828.25	2.50	17295.40	45760.00	2.967

Numero del nucleo n. 996

Nodi: -2525 -2526 -2527



Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-75187.30	-132.30	0.00	-381658.00	-4276.88	0.00	5.076
2	P	1	SLU	-70482.10	192.66	0.00	-381658.00	4170.44	0.00	5.415
3	P	1	SLU	-67302.40	-209.19	0.00	-381658.00	-4095.80	0.00	5.671

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-53964.00	-93.47	0.00	23.53	340.43
1	P	4	SLE Q	-45530.90	-72.31	0.00	19.73	286.35
2	T	2	SLE R	-50166.30	168.90	0.00	23.33	327.44
2	T	4	SLE Q	-42286.60	131.82	0.00	19.48	274.59
3	P	2	SLE R	-48300.80	-148.17	0.00	22.21	313.33
3	P	4	SLE Q	-40768.90	-116.13	0.00	18.59	263.27

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	35.47	2.50	15313.10	40515.40	431.752
2	T	1	15.73	2.50	15313.10	40515.40	973.461

Numero del nucleo n. 998

Nodi: -2525 -2533 -2539 -2546

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-85239.50	-147.15	0.00	-429421.00	-4816.72	0.00	5.038
2	P	1	SLU	-86165.50	563.63	0.00	-429421.00	4836.56	0.00	4.984
3	P	1	SLU	-71784.80	573.85	0.00	-429421.00	4506.15	0.00	5.982

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-60912.90	-103.94	0.00	23.57	341.19
1	P	2	SLE R	-60912.90	0.00	-1067.36	23.21	347.45
1	P	4	SLE Q	-51805.70	-85.42	0.00	20.00	289.82
2	T	2	SLE R	-61048.80	-463.80	0.00	29.32	384.65
2	T	2	SLE R	-61048.80	0.00	4841.09	27.83	413.99
2	T	4	SLE Q	-51786.30	-382.29	0.00	24.69	324.97
3	P	2	SLE R	-51360.70	403.63	0.00	24.88	325.20
3	P	2	SLE R	-51360.70	0.00	-3971.83	23.29	346.53
3	P	4	SLE Q	-43718.30	330.92	0.00	20.97	275.31

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	8680.38	2.50	17295.40	45760.00	1.992
2	P	1	4989.95	2.50	17295.40	45760.00	3.466

Numero del nucleo n. 999

Nodi: -2527 -2534 -2540 -2548

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
------	------	----	-----	---	----	----	----	---------	---------	------



Relazione di calcolo

			<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
1P	1	SLU	-85962.30	155.78	0.00	-429421.00	4832.18	0.00	4.995
2P	1	SLU	-86877.10	-552.49	0.00	-429421.00	-4851.79	0.00	4.943
3P	1	SLU	-73242.20	-548.55	0.00	-429421.00	-4540.43	0.00	5.863

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>e</sub> <daN/cmq>	σ <sub>r</sub> <daN/cmq>
1P	2	SLE	R	-61405.60	109.93	0.00	23.84	344.56
1P	2	SLE	R	-61405.60	0.00	-1076.24	23.40	350.27
1P	4	SLE	Q	-52186.90	90.45	0.00	20.21	292.48
2T	2	SLE	R	-61536.10	453.04	0.00	29.32	386.00
2T	2	SLE	R	-61536.10	0.00	4608.31	27.72	412.56
2T	4	SLE	Q	-52156.60	372.99	0.00	24.68	325.86
3P	2	SLE	R	-52373.30	-386.39	0.00	24.97	328.62
3P	2	SLE	R	-52373.30	0.00	-3757.22	23.40	348.25
3P	4	SLE	Q	-44520.90	-316.12	0.00	21.03	277.89

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	8301.34	2.50	17295.40	45760.00	2.083
	2P	1	4837.38	2.50	17295.40	45760.00	3.575

Numero del nucleo n. 1000

Nodi: -2530 -2536 -2542 -2551

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-83971.90	155.12	0.00	-429421.00	4789.57	0.00	5.114
2P	1	SLU		-84701.80	-526.49	0.00	-429421.00	-4805.13	0.00	5.070
3P	1	SLU		-71481.60	-535.50	0.00	-429421.00	-4498.96	0.00	6.007

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>e</sub> <daN/cmq>	σ <sub>r</sub> <daN/cmq>
1P	2	SLE	R	-59942.90	109.28	0.00	23.30	336.58
1P	4	SLE	Q	-50985.00	90.02	0.00	19.78	285.94
2T	2	SLE	R	-59939.40	425.11	0.00	28.30	374.07
2T	2	SLE	R	-59939.40	0.00	4083.31	26.51	394.79
2T	4	SLE	Q	-50844.90	349.18	0.00	23.83	315.95
3P	2	SLE	R	-51080.00	-376.55	0.00	24.35	320.47
3P	2	SLE	R	-51080.00	0.00	-3491.49	22.61	336.64
3P	4	SLE	Q	-43463.10	-308.23	0.00	20.52	271.24

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	6783.17	2.50	17295.40	45760.00	2.550
2	P	1	3617.75	2.50	17295.40	45760.00	4.781

Numero del nucleo n. 1001

Nodi: -2528 -2529 -2530

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-73721.90	-120.32	0.00	-381658.00	-4245.39	0.00	5.177
2P	1	SLU		-69291.00	174.25	0.00	-381658.00	4142.45	0.00	5.508
3P	1	SLU		-66107.50	-192.03	0.00	-381658.00	-4067.70	0.00	5.773

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1	P	2	SLE R	-52829.80	-84.75	0.00	22.91	332.37
1	P	4	SLE Q	-44682.10	-64.91	0.00	19.26	280.21
2	T	2	SLE R	-49237.00	155.93	0.00	22.73	320.05
2	T	4	SLE Q	-41600.70	121.49	0.00	19.02	269.05
3	P	2	SLE R	-47371.60	-135.63	0.00	21.61	306.00
3	P	4	SLE Q	-40079.00	-105.70	0.00	18.12	257.69

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	860.76	2.50	15313.10	40515.50	17.790
2	T	1	833.18	2.50	15313.10	40515.50	18.379

Numero del nucleo n. 1004

Nodi: -2546 -2547 -2548

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-78951.70	45.65	0.00	-381658.00	4357.60	0.00	4.834
2	T	1	SLU	-78983.80	-3361.06	0.00	-78983.80	-4358.24	0.00	1.297
3	P	1	SLU	-64809.00	3239.11	0.00	-64809.00	4037.22	0.00	1.246

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1	P	2	SLE R	-56167.50	32.66	0.00	23.34	345.69
1	P	4	SLE Q	-47969.30	22.18	0.00	19.83	294.47
2	T	2	SLE R	-56170.90	-2394.57	0.00	75.22	679.09
2	T	4	SLE Q	-47735.30	-1854.66	0.00	57.80	550.25
3	P	2	SLE R	-46100.60	2307.50	0.00	74.62	602.08
3	P	4	SLE Q	-39663.20	1782.87	0.00	56.44	492.43

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	217.36	2.50	15313.10	40515.40	70.452
2	P	1	179.20	2.50	15313.10	40515.40	85.454

Numero del nucleo n. 1005

Nodi: -2549 -2550 -2551

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-77662.20	37.05	0.00	-381658.00	4329.92	0.00	4.914
2	T	1	SLU	-77567.30	-3100.43	0.00	-77567.30	-4327.88	0.00	1.396
3	P	1	SLU	-63808.50	2984.18	0.00	-63808.50	4013.70	0.00	1.345

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1	P	2	SLE R	-55261.50	26.29	0.00	22.86	339.34
1	P	4	SLE Q	-47162.00	16.89	0.00	19.41	288.86
2	T	2	SLE R	-55167.00	-2201.31	0.00	68.70	644.72
2	T	4	SLE Q	-46855.70	-1698.08	0.00	52.92	521.18
3	P	2	SLE R	-45405.00	2118.28	0.00	67.51	574.00
3	P	4	SLE Q	-39031.40	1629.59	0.00	51.06	466.89

Stato limite ultimo - Verifiche a taglio



Relazione di calcolo

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	122.57	2.50	15313.10	40515.50	124.937
	2T	1	134.33	2.50	15313.10	40515.50	113.996

Numero del nucleo n. 1088

Nodi: -3215 -3222 -3228 994

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-71257.10	537.84	0.00	-429421.00	4493.68	0.00	6.026
	2P	1	SLU	-72040.50	-192.52	0.00	-429421.00	-4512.10	0.00	5.961
	3P	1	SLU	-70536.20	-140.41	0.00	-429421.00	-4476.72	0.00	6.088

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
	1P	2	SLE R	-50955.10	377.49	0.00	24.32	319.91
	1P	2	SLE R	-50955.10	0.00	-3910.64	23.07	343.27
	1P	4	SLE Q	-43401.80	308.82	0.00	20.51	270.98
	2P	2	SLE R	-51457.50	0.00	-2913.16	22.04	328.59
	2P	4	SLE Q	-43757.80	0.00	-2271.88	18.50	275.84
	3P	2	SLE R	-50347.20	-99.03	0.00	19.69	283.56
	3P	4	SLE Q	-42815.20	-81.18	0.00	16.69	240.78

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	5037.56	2.50	17295.40	45760.00	3.433
	2T	1	8348.36	2.50	17295.40	45760.00	2.072

Numero del nucleo n. 1096

Nodi: -3212 -3213 -3214

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-67302.40	-209.19	0.00	-381658.00	-4095.80	0.00	5.671
	2P	1	SLU	-62762.50	276.52	0.00	-381658.00	3989.06	0.00	6.081
	3P	1	SLU	-60532.10	-158.59	0.00	-381658.00	-3936.53	0.00	6.305

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
	1P	2	SLE R	-48300.80	-148.17	0.00	22.21	313.33
	1P	4	SLE Q	-40768.90	-116.13	0.00	18.59	263.27
	2P	2	SLE R	-45038.40	196.65	0.00	21.75	299.98
	2P	4	SLE Q	-38034.20	153.47	0.00	18.14	251.65
	3P	2	SLE R	-43420.30	-112.45	0.00	19.60	278.89
	3P	4	SLE Q	-36583.00	-87.62	0.00	16.38	234.03

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	4.65	2.50	15313.10	40515.40	*****
	2T	1	20.93	2.50	15313.10	40515.40	731.682

Numero del nucleo n. 1098

Nodi: -3212 -3220 -3226 990



Relazione di calcolo

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-71784.80	573.85	0.00	-429421.00	4506.15	0.00	5.982
2	P	1	SLU	-72497.50	-205.53	0.00	-429421.00	-4522.92	0.00	5.923
3	P	1	SLU	-70832.10	-147.65	0.00	-429421.00	-4483.71	0.00	6.063

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-51360.70	403.63	0.00	24.88	325.20
1	P	2	SLE R	-51360.70	0.00	-3971.83	23.29	346.53
1	P	4	SLE Q	-43718.30	330.92	0.00	20.97	275.31
2	P	2	SLE R	-51813.30	0.00	-2940.87	22.21	331.00
2	P	4	SLE Q	-44033.50	0.00	-2273.98	18.60	277.37
3	P	2	SLE R	-50584.80	-104.27	0.00	19.86	285.47
3	P	4	SLE Q	-42996.50	-85.65	0.00	16.83	242.29

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	4635.25	2.50	17295.40	45760.00	3.731
2	T	1	8161.03	2.50	17295.40	45760.00	2.119

Numero del nucleo n. 1099

Nodi: -3214 -3221 -3227 991

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-73242.20	-548.55	0.00	-429421.00	-4540.43	0.00	5.863
2	P	1	SLU	-73992.00	210.90	0.00	-429421.00	4557.98	0.00	5.804
3	P	1	SLU	-72342.10	155.52	0.00	-429421.00	4519.26	0.00	5.936

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-52373.30	-386.39	0.00	24.97	328.62
1	P	2	SLE R	-52373.30	0.00	-3757.22	23.40	348.25
1	P	4	SLE Q	-44520.90	-316.12	0.00	21.03	277.89
2	P	2	SLE R	-52854.40	0.00	-2706.01	22.30	332.52
2	P	4	SLE Q	-44854.30	0.00	-2081.99	18.66	278.45
3	P	2	SLE R	-51640.40	109.72	0.00	20.32	291.81
3	P	4	SLE Q	-43821.60	90.17	0.00	17.20	247.28

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	4444.45	2.50	17295.40	45760.00	3.891
2	P	1	7779.21	2.50	17295.40	45760.00	2.223

Numero del nucleo n. 1100

Nodi: -3217 -3223 -3229 995

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
------	------	----	-----	------------	--------------	--------------	-------------	-------------------	-------------------	------



Relazione di calcolo

1P	1SLU	-71481.60	-535.50	0.00	-429421.00	-4498.96	0.00	6.007
2P	1SLU	-72013.60	197.54	0.00	-429421.00	4511.58	0.00	5.963
3P	1SLU	-70344.60	151.67	0.00	-429421.00	4472.28	0.00	6.105

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P	2	SLE	R	-51080.00	-376.55	0.00	24.35	320.47
1P	2	SLE	R	-51080.00	0.00	-3491.49	22.61	336.64
1P	4	SLE	Q	-43463.10	-308.23	0.00	20.52	271.24
2P	2	SLE	R	-51404.90	0.00	-2392.55	21.40	319.23
2P	4	SLE	Q	-43666.50	0.00	-1851.78	17.96	268.03
3P	2	SLE	R	-50178.60	106.80	0.00	19.75	283.58
3P	4	SLE	Q	-42624.60	87.88	0.00	16.73	240.55

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1P	1		3761.03	2.50	17295.40	45760.00	4.599
2P	1		6758.35	2.50	17295.40	45760.00	2.559

Numero del nucleo n. 1101

Nodi: -3215 -3216 -3217

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-66107.50	-192.03	0.00	-381658.00	-4067.70	0.00	5.773
2P	1	SLU		-61810.90	254.97	0.00	-381658.00	3966.68	0.00	6.175
3P	1	SLU		-59633.70	-143.28	0.00	-381658.00	-3915.42	0.00	6.400

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P	2	SLE	R	-47371.60	-135.63	0.00	21.61	306.00
1P	4	SLE	Q	-40079.00	-105.70	0.00	18.12	257.69
2P	2	SLE	R	-44291.70	180.69	0.00	21.16	293.31
2P	4	SLE	Q	-37488.60	140.56	0.00	17.69	246.61
3P	2	SLE	R	-42715.80	-101.25	0.00	19.11	273.12
3P	4	SLE	Q	-36068.10	-78.33	0.00	16.01	229.65

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1P	1		738.85	2.50	15313.10	40515.50	20.726
2T	1		699.18	2.50	15313.10	40515.50	21.901

Numero del nucleo n. 1104

Nodi: 990 -3231 991

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-64809.00	3239.11	0.00	-64809.00	4037.22	0.00	1.246
2P	1	SLU		-65593.30	-859.40	0.00	-65593.30	-4055.61	0.00	4.719
3P	1	SLU		-68845.80	67.61	0.00	-381658.00	4132.12	0.00	5.544

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P	2	SLE	R	-46100.60	2307.50	0.00	74.62	602.08
1P	4	SLE	Q	-39663.20	1782.87	0.00	56.44	492.43
2P	2	SLE	R	-46665.20	-611.51	0.00	29.81	365.33



Relazione di calcolo

2P	4	SLE Q	-39985.30	-472.92	0.00	24.63	306.21
3P	2	SLE R	-48961.90	48.49	0.00	20.70	304.02
3P	4	SLE Q	-41742.20	35.26	0.00	17.54	258.38

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	128.31	2.50	15313.10	40515.40	119.349	
2P	1	148.67	2.50	15313.10	40515.40	103.003	

Numero del nucleo n. 1105

Nodi: 994 -3232 995

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-63808.50	2984.18	0.00	-63808.50	4013.70	0.00	1.345	
2P	1	SLU	-64496.40	-789.30	0.00	-64496.40	-4029.90	0.00	5.106	
3P	1	SLU	-67553.70	55.99	0.00	-381658.00	4101.77	0.00	5.650	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R	-45405.00	2118.28	0.00	67.51	574.00	
1P	4	SLE Q	-39031.40	1629.59	0.00	51.06	466.89	
2P	2	SLE R	-45893.70	-559.63	0.00	28.57	353.71	
2P	4	SLE Q	-39298.30	-430.62	0.00	23.60	296.38	
3P	2	SLE R	-48042.10	39.84	0.00	20.17	297.28	
3P	4	SLE Q	-40939.30	28.17	0.00	17.09	252.55	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	268.31	2.50	15313.10	40515.50	57.073	
2P	1	229.78	2.50	15313.10	40515.50	66.644	

Numero del nucleo n. 1188

Nodi: -3293 -3300 -3306 -3314

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-70536.20	-140.41	0.00	-429421.00	-4476.72	0.00	6.088	
2P	1	SLU	-71430.40	548.45	0.00	-429421.00	4497.82	0.00	6.012	
3P	1	SLU	-57210.60	559.13	0.00	-57210.60	4148.41	0.00	7.419	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R	-50347.20	-99.03	0.00	19.69	283.56	
1P	4	SLE Q	-42815.20	-81.18	0.00	16.69	240.78	
2T	2	SLE R	-50461.10	-456.26	0.00	25.39	326.60	
2T	2	SLE R	-50461.10	0.00	5235.57	24.50	363.71	
2T	4	SLE Q	-42773.20	-376.26	0.00	21.35	275.59	
3P	2	SLE R	-40898.50	392.57	0.00	20.94	267.41	
3P	2	SLE R	-40898.50	0.00	-3545.14	19.01	282.61	
3P	4	SLE Q	-34807.50	321.38	0.00	17.62	226.07	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	8514.14	2.50	17295.40	45760.00	2.031	
2P	1	4964.82	2.50	17295.40	45760.00	3.484	



Numero del nucleo n. 1196

Nodi: -3290 -3291 -3292

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-60532.10	-158.59	0.00	-381658.00	-3936.53	0.00	6.305
2	P	1	SLU	-56053.30	207.45	0.00	-381658.00	3827.10	0.00	6.809
3	P	1	SLU	-53126.30	-226.67	0.00	-381658.00	-3753.38	0.00	7.184

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1	P	2	SLE R	-43420.30	-112.45	0.00	19.60	278.89
1	P	4	SLE Q	-36583.00	-87.62	0.00	16.38	234.03
2	T	2	SLE R	-39786.50	170.50	0.00	19.16	264.57
2	T	4	SLE Q	-33466.60	133.11	0.00	15.93	221.17
3	P	2	SLE R	-38100.80	-160.74	0.00	18.30	253.03
3	P	4	SLE Q	-32090.40	-126.44	0.00	15.25	211.91

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	35.52	2.50	15313.10	40515.40	431.159
2	P	1	44.08	2.50	15313.10	40515.40	347.379

Numero del nucleo n. 1198

Nodi: -3290 -3298 -3304 -3311

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-70832.10	-147.65	0.00	-429421.00	-4483.71	0.00	6.063
2	P	1	SLU	-71801.80	572.03	0.00	-429421.00	4506.50	0.00	5.981
3	P	1	SLU	-57203.30	592.86	0.00	-57203.30	4148.25	0.00	6.997

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1	P	2	SLE R	-50584.80	-104.27	0.00	19.86	285.47
1	P	4	SLE Q	-42996.50	-85.65	0.00	16.83	242.29
2	T	2	SLE R	-50753.10	-466.05	0.00	25.65	329.34
2	T	2	SLE R	-50753.10	0.00	5135.22	24.48	363.53
2	T	4	SLE Q	-43006.40	-383.85	0.00	21.56	277.75
3	P	2	SLE R	-40912.30	417.17	0.00	21.33	270.41
3	P	2	SLE R	-40912.30	0.00	-3717.34	19.22	285.69
3	P	4	SLE Q	-34816.60	342.17	0.00	17.95	228.59

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	8200.47	2.50	17295.40	45760.00	2.109
2	P	1	4432.09	2.50	17295.40	45760.00	3.902

Numero del nucleo n. 1199

Nodi: -3292 -3299 -3305 -3313

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
--------	----	-----	------	-----	-----------	------	-----	-----	-----------



Relazione di calcolo

<cm>	<cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>	<daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-72342.10	155.52	0.00	-429421.00	4519.26	0.00	5.936
2	P	1	SLU	-73308.10	-559.50	0.00	-429421.00	-4541.98	0.00	5.858
3	P	1	SLU	-59496.10	-569.80	0.00	-429421.00	-4206.12	0.00	7.218

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>f</sub> <daN/cm>
1	P	2	SLE R	-51640.40	109.72	0.00	20.32	291.81
1	P	4	SLE Q	-43821.60	90.17	0.00	17.20	247.28
2	T	2	SLE R	-51808.00	457.05	0.00	25.88	333.96
2	T	2	SLE R	-51808.00	0.00	5011.21	24.71	367.07
2	T	4	SLE Q	-43818.80	376.40	0.00	21.73	281.26
3	P	2	SLE R	-42516.40	-401.73	0.00	21.66	277.23
3	P	2	SLE R	-42516.40	0.00	-3291.12	19.28	286.91
3	P	4	SLE Q	-36066.60	-329.22	0.00	18.19	233.80

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	7862.97	2.50	17295.40	45760.00	2.200
2	T	1	4298.87	2.50	17295.40	45760.00	4.023

Numero del nucleo n. 1200

Nodi: -3295 -3301 -3307 -3316

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-70344.60	151.67	0.00	-429421.00	4472.28	0.00	6.105
2	P	1	SLU	-71197.00	-534.75	0.00	-429421.00	-4492.27	0.00	6.031
3	P	1	SLU	-57818.60	-551.33	0.00	-429421.00	-4163.76	0.00	7.427

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>f</sub> <daN/cm>
1	P	2	SLE R	-50178.60	106.80	0.00	19.75	283.58
1	P	4	SLE Q	-42624.60	87.88	0.00	16.73	240.55
2	T	2	SLE R	-50262.30	431.58	0.00	24.92	322.59
2	T	2	SLE R	-50262.30	0.00	4504.00	23.54	349.88
2	T	4	SLE Q	-42556.80	354.65	0.00	20.93	271.86
3	P	2	SLE R	-41288.10	-388.03	0.00	21.00	268.98
3	P	2	SLE R	-41288.10	0.00	-3142.93	18.66	277.70
3	P	4	SLE Q	-35071.10	-318.06	0.00	17.66	227.10

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	6730.67	2.50	17295.40	45760.00	2.570
2	T	1	3447.33	2.50	17295.40	45760.00	5.017

Numero del nucleo n. 1201

Nodi: -3293 -3294 -3295

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-59633.70	-143.28	0.00	-381658.00	-3915.42	0.00	6.400



Relazione di calcolo

2P	1	SLU	-55425.70	188.73	0.00	-381658.00	3811.41	0.00	6.886
3P	1	SLU	-52566.10	-209.33	0.00	-381658.00	-3739.34	0.00	7.261

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P	2	SLE	R	-42715.80	-101.25	0.00	19.11	273.12
1P	4	SLE	Q	-36068.10	-78.33	0.00	16.01	229.65
2T	2	SLE	R	-39285.00	157.72	0.00	18.73	259.82
2T	4	SLE	Q	-33114.10	122.87	0.00	15.61	217.66
3P	2	SLE	R	-37652.60	-148.02	0.00	17.89	248.60
3P	4	SLE	Q	-31781.00	-116.00	0.00	14.94	208.64

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1P	1		621.22	2.50	15313.10	40515.50	24.650
2P	1		576.91	2.50	15313.10	40515.50	26.543

Numero del nucleo n. 1204

Nodi: -3311 -3312 -3313

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-68845.80	67.61	0.00	-381658.00	4132.12	0.00	5.544
2T	1	SLU		-68556.50	-3459.65	0.00	-68556.50	-4125.28	0.00	1.192
3P	1	SLU		-53810.60	3405.66	0.00	-53810.60	3770.67	0.00	1.107

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P	2	SLE	R	-48961.90	48.49	0.00	20.70	304.02
1P	4	SLE	Q	-41742.20	35.26	0.00	17.54	258.38
2T	2	SLE	R	-48731.70	-2465.04	0.00	79.90	639.41
2T	4	SLE	Q	-41323.40	-1912.34	0.00	60.86	520.38
3P	2	SLE	R	-38252.20	2428.36	0.00	82.94	850.64
3P	4	SLE	Q	-32917.70	1881.98	0.00	62.75	521.47

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1P	1		131.99	2.50	15313.10	40515.40	116.016
2T	1		101.03	2.50	15313.10	40515.40	151.571

Numero del nucleo n. 1205

Nodi: -3314 -3315 -3316

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-67553.70	55.99	0.00	-381658.00	4101.77	0.00	5.650
2T	1	SLU		-67182.70	-3220.77	0.00	-67182.70	-4093.03	0.00	1.271
3P	1	SLU		-52759.90	3135.42	0.00	-52759.90	3744.25	0.00	1.194

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P	2	SLE	R	-48042.10	39.84	0.00	20.17	297.28
1P	4	SLE	Q	-40939.30	28.17	0.00	17.09	252.55
2T	2	SLE	R	-47747.30	-2287.51	0.00	73.29	611.25
2T	4	SLE	Q	-40475.20	-1769.57	0.00	55.78	495.61
3P	2	SLE	R	-37507.90	2227.28	0.00	74.93	676.02



Relazione di calcolo

3P	4SLE Q	-32257.00	1718.97	0.00	56.38	432.69
----	--------	-----------	---------	------	-------	--------

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	160.75	2.50	15313.10	40515.50	95.260	
2T	1	166.99	2.50	15313.10	40515.50	91.701	

Numero del nucleo n. 1288

Nodi: -3980 -3987 -3993 1194

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-57210.60	559.13	0.00	-57210.60	4148.41	0.00	7.419	
2P	1	SLU	-57960.60	-203.28	0.00	-429421.00	-4167.38	0.00	7.409	
3P	1	SLU	-56391.30	-140.33	0.00	-429421.00	-4127.69	0.00	7.615	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R	-40898.50	392.57	0.00	20.94	267.41	
1P	2	SLE R	-40898.50	0.00	-3545.14	19.01	282.61	
1P	4	SLE Q	-34807.50	321.38	0.00	17.62	226.07	
2P	2	SLE R	-41376.20	0.00	-2611.83	18.05	268.91	
2P	4	SLE Q	-35145.20	0.00	-2009.72	15.08	224.78	
3P	2	SLE R	-40218.40	-98.98	0.00	16.04	228.88	
3P	4	SLE Q	-34162.30	-81.17	0.00	13.58	194.07	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	4469.27	2.50	17295.40	45310.90	3.870	
2P	1	7950.66	2.50	17295.40	45425.00	2.175	

Numero del nucleo n. 1296

Nodi: -3977 -3978 -3979

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-53126.30	-226.67	0.00	-381658.00	-3753.38	0.00	7.184	
2P	1	SLU	-48588.20	293.64	0.00	-381658.00	3638.85	0.00	7.855	
3P	1	SLU	-46406.10	-171.31	0.00	-381658.00	-3583.53	0.00	8.224	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R	-38100.80	-160.74	0.00	18.30	253.03	
1P	4	SLE Q	-32090.40	-126.44	0.00	15.25	211.91	
2P	2	SLE R	-34834.30	209.02	0.00	17.84	239.63	
2P	4	SLE Q	-29345.80	163.73	0.00	14.81	200.22	
3P	2	SLE R	-33244.20	-121.62	0.00	15.64	218.28	
3P	4	SLE Q	-27911.10	-95.14	0.00	13.00	182.33	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	52.99	2.50	15313.10	40473.50	288.980	
2P	1	57.25	2.50	15313.10	39784.90	267.495	

Numero del nucleo n. 1298



Relazione di calcolo

Nodi: -3977 -3985 -3991 1190

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P	1	SLU	-57203.30	592.86	0.00	-57203.30	4148.25	0.00	6.997
	2P	1	SLU	-57870.20	-218.04	0.00	-429421.00	-4165.02	0.00	7.420
	3P	1	SLU	-56166.40	-147.01	0.00	-429421.00	-4122.00	0.00	7.646

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N	My	Mz	σc	σf
				<daN>	<daNm>	<daNm>	<daN/cmq>	<daN/cmq>
	1P	2	SLE R	-40912.30	417.17	0.00	21.33	270.41
	1P	2	SLE R	-40912.30	0.00	-3717.34	19.22	285.69
	1P	4	SLE Q	-34816.60	342.17	0.00	17.95	228.59
	2P	2	SLE R	-41331.30	0.00	-2686.18	18.13	269.97
	2P	4	SLE Q	-35107.70	0.00	-2065.25	15.13	225.54
	3P	2	SLE R	-40075.40	-103.85	0.00	16.07	228.68
	3P	4	SLE Q	-34050.50	-85.38	0.00	13.61	193.96

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu	ctgθ	VRsd	VRcd	Sic.
			<daN>		<daN>	<daN>	
	1P	1	4767.66	2.50	17295.40	45309.80	3.628
	2P	1	8512.36	2.50	17295.40	45411.30	2.032

Numero del nucleo n. 1299

Nodi: -3979 -3986 -3992 1191

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P	1	SLU	-59496.10	-569.80	0.00	-429421.00	-4206.12	0.00	7.218
	2P	1	SLU	-60333.50	223.22	0.00	-429421.00	4227.25	0.00	7.117
	3P	1	SLU	-58679.00	157.30	0.00	-429421.00	4185.43	0.00	7.318

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N	My	Mz	σc	σf
				<daN>	<daNm>	<daNm>	<daN/cmq>	<daN/cmq>
	1P	2	SLE R	-42516.40	-401.73	0.00	21.66	277.23
	1P	2	SLE R	-42516.40	0.00	-3291.12	19.28	286.91
	1P	4	SLE Q	-36066.60	-329.22	0.00	18.19	233.80
	2P	2	SLE R	-43059.30	0.00	-2281.01	18.26	272.23
	2P	4	SLE Q	-36450.20	0.00	-1735.74	15.22	227.04
	3P	2	SLE R	-41842.60	111.01	0.00	16.82	239.07
	3P	4	SLE Q	-35414.30	91.13	0.00	14.19	202.01

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu	ctgθ	VRsd	VRcd	Sic.
			<daN>		<daN>	<daN>	
	1P	1	4115.01	2.50	17295.40	45658.60	4.203
	2P	1	7589.77	2.50	17295.40	45760.00	2.279

Numero del nucleo n. 1300

Nodi: -3982 -3988 -3994 1195

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94



Relazione di calcolo

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-57818.60	-551.33	0.00	-429421.00	-4163.76	0.00	7.427
2P		1	SLU	-58437.60	209.57	0.00	-429421.00	4179.32	0.00	7.348
3P		1	SLU	-56748.90	150.75	0.00	-429421.00	4136.72	0.00	7.567

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P		2	SLE R	-41288.10	-388.03	0.00	21.00	268.98
1P		2	SLE R	-41288.10	0.00	-3142.93	18.66	277.70
1P		4	SLE Q	-35071.10	-318.06	0.00	17.66	227.10
2P		2	SLE R	-41674.60	0.00	-2103.84	17.54	261.67
2P		4	SLE Q	-35326.20	0.00	-1620.58	14.68	218.97
3P		2	SLE R	-40435.20	106.10	0.00	16.23	230.89
3P		4	SLE Q	-34274.70	87.17	0.00	13.72	195.39

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	3613.83	2.50	17295.40	45403.40	4.786
2T		1	6771.21	2.50	17295.40	45405.20	2.554

Numero del nucleo n. 1301

Nodi: -3980 -3981 -3982

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-52566.10	-209.33	0.00	-381658.00	-3739.34	0.00	7.261
2P		1	SLU	-48426.80	268.45	0.00	-381658.00	3634.79	0.00	7.881
3P		1	SLU	-46475.10	-156.47	0.00	-381658.00	-3585.31	0.00	8.212

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
1P		2	SLE R	-37652.60	-148.02	0.00	17.89	248.60
1P		4	SLE Q	-31781.00	-116.00	0.00	14.94	208.64
2P		2	SLE R	-34684.90	190.35	0.00	17.44	236.22
2P		4	SLE Q	-29281.50	148.51	0.00	14.51	197.79
3P		2	SLE R	-33269.30	-110.71	0.00	15.45	216.97
3P		4	SLE Q	-27992.10	-86.23	0.00	12.88	181.63

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	505.76	2.50	15313.10	40388.50	30.278
2T		1	468.65	2.50	15313.10	39678.60	32.675

Numero del nucleo n. 1304

Nodi: 1190 -3996 1191

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-53810.60	3405.66	0.00	-53810.60	3770.67	0.00	1.107
2P		1	SLU	-54551.20	-915.57	0.00	-54551.20	-3789.35	0.00	4.139
3P		1	SLU	-57798.60	75.39	0.00	-381658.00	3871.09	0.00	6.603

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
------	------	----	-----	------------	--------------	--------------	--------------------------------------	--------------------------------------



Relazione di calcolo

1P	2SLE R	-38252.20	2428.36	0.00	82.94	850.64
1P	4SLE Q	-32917.70	1881.98	0.00	62.75	521.47
2P	2SLE R	-38792.70	-652.33	0.00	27.34	322.95
2P	4SLE Q	-33223.80	-506.38	0.00	22.49	269.60
3P	2SLE R	-41091.40	54.02	0.00	17.61	256.93
3P	4SLE Q	-34987.50	39.66	0.00	14.88	217.92

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	55.02	2.50	15313.10	40515.40	278.294
2	P	1	24.92	2.50	15313.10	40515.40	614.389

Numero del nucleo n. 1305

Nodi: 1194 -3997 1195

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-52759.90	3135.42	0.00	-52759.90	3744.25	0.00	1.194
2	P	1	SLU	-53236.90	-839.94	0.00	-53236.90	-3756.20	0.00	4.472
3	P	1	SLU	-56153.50	67.68	0.00	-381658.00	3829.68	0.00	6.797

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-37507.90	2227.28	0.00	74.93	676.02
1	P	4	SLE Q	-32257.00	1718.97	0.00	56.38	432.69
2	P	2	SLE R	-37847.40	-596.18	0.00	25.96	309.70
2	P	4	SLE Q	-32399.60	-460.67	0.00	21.34	258.48
3	P	2	SLE R	-39896.20	48.26	0.00	17.02	248.90
3	P	4	SLE Q	-33959.60	35.17	0.00	14.38	211.07

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	148.77	2.50	15313.10	40417.90	102.933	
2P	1	103.27	2.50	15313.10	40490.30	148.277	

Numero del nucleo n. 1388

Nodi: -4058 -4065 -4071 -4079

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-56391.30	-140.33	0.00	-429421.00	-4127.69	0.00	7.615
2	T	1	SLU	-56702.30	-646.63	0.00	-56702.30	-4135.52	0.00	6.395
3	P	1	SLU	-43006.80	580.93	0.00	-43006.80	3782.38	0.00	6.511

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE R	-40218.40	-98.98	0.00	16.04	228.88	
1P	4	SLE Q	-34162.30	-81.17	0.00	13.58	194.07	
2T	2	SLE R	-40347.40	-454.83	0.00	21.72	271.83	
2T	2	SLE R	-40347.40	0.00	5232.01	20.85	309.05	
2T	4	SLE Q	-34131.30	-374.96	0.00	18.22	228.79	
3P	2	SLE R	-30721.80	408.03	0.00	17.52	214.31	
3P	2	SLE R	-30721.80	0.00	-3424.78	15.20	225.57	
3P	4	SLE Q	-26109.30	334.57	0.00	14.69	180.68	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu	ctgθ	VRsd	VRcd	Sic.
------	------	----	------	------	------	------	------



Relazione di calcolo

			<daN>		<daN>	<daN>	
1P	1	8058.10	2.50	17295.40	45186.30	2.146	
2P	1	4439.13	2.50	17295.40	45326.00	3.896	

Numero del nucleo n. 1396

Nodi: -4055 -4056 -4057

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-46406.10	-171.31	0.00	-381658.00	-3583.53	0.00	8.224
2P	1	SLU		-41940.80	218.28	0.00	-381658.00	3469.58	0.00	9.100
3P	1	SLU		-39273.60	-243.03	0.00	-381658.00	-3398.88	0.00	9.718

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-33244.20	-121.62	0.00	15.64	218.28
1P	4	SLE	Q	-27911.10	-95.14	0.00	13.00	182.33
2T	2	SLE	R	-29615.60	168.11	0.00	14.99	202.45
2T	4	SLE	Q	-24796.10	130.77	0.00	12.38	168.17
3P	2	SLE	R	-28117.30	-172.73	0.00	14.47	193.96
3P	4	SLE	Q	-23576.70	-136.48	0.00	11.98	161.52

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		49.53	2.50	24500.90	39453.80	494.672
2P	1		35.09	2.50	24500.90	38776.20	698.289

Numero del nucleo n. 1398

Nodi: -4055 -4063 -4069 -4076

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-56166.40	-147.01	0.00	-429421.00	-4122.00	0.00	7.646
2T	1	SLU		-56429.30	-666.76	0.00	-56429.30	-4128.65	0.00	6.192
3P	1	SLU		-42367.30	600.99	0.00	-42367.30	3765.43	0.00	6.265

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1P	2	SLE	R	-40075.40	-103.85	0.00	16.07	228.68
1P	4	SLE	Q	-34050.50	-85.38	0.00	13.61	193.96
2T	2	SLE	R	-40168.50	-470.09	0.00	21.90	272.67
2T	2	SLE	R	-40168.50	0.00	5746.20	21.41	317.05
2T	4	SLE	Q	-33995.20	-387.35	0.00	18.37	229.52
3P	2	SLE	R	-30275.40	422.74	0.00	17.59	213.64
3P	2	SLE	R	-30275.40	0.00	-2999.78	14.53	215.75
3P	4	SLE	Q	-25760.40	346.68	0.00	14.76	180.24

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1		8562.10	2.50	17295.40	45152.10	2.020
2P	1		4661.77	2.50	17295.40	45284.50	3.710

Numero del nucleo n. 1399

Nodi: -4057 -4064 -4070 -4078



## Relazione di calcolo

### Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-58679.00	157.30	0.00	-429421.00	4185.43	0.00	7.318
2	T	1	SLU	-59076.20	655.26	0.00	-59076.20	4195.49	0.00	6.403
3	P	1	SLU	-45633.10	-590.56	0.00	-45633.10	-3852.07	0.00	6.523

### Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cmq>	$\sigma_f$ <daN/cmq>
1	P	2	SLE R	-41842.60	111.01	0.00	16.82	239.07
1	P	4	SLE Q	-35414.30	91.13	0.00	14.19	202.01
2	T	2	SLE R	-42038.90	462.12	0.00	22.45	281.83
2	T	2	SLE R	-42038.90	0.00	5236.20	21.47	318.25
2	T	4	SLE Q	-35433.70	380.41	0.00	18.78	236.47
3	P	2	SLE R	-32581.60	-416.32	0.00	18.32	225.33
3	P	2	SLE R	-32581.60	0.00	-3069.53	15.44	229.41
3	P	4	SLE Q	-27544.10	-341.41	0.00	15.32	189.24

### Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	7650.71	2.50	17295.40	45534.30	2.261
2	T	1	3920.68	2.50	17295.40	45594.70	4.411

### Numero del nucleo n. 1400

Nodi: -4060 -4066 -4072 -4081

### Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-56748.90	150.75	0.00	-429421.00	4136.72	0.00	7.567
2	T	1	SLU	-57013.10	620.87	0.00	-57013.10	4143.41	0.00	6.674
3	P	1	SLU	-43932.70	-569.74	0.00	-43932.70	-3806.92	0.00	6.682

### Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cmq>	$\sigma_f$ <daN/cmq>
1	P	2	SLE R	-40435.20	106.10	0.00	16.23	230.89
1	P	4	SLE Q	-34274.70	87.17	0.00	13.72	195.39
2	T	2	SLE R	-40534.60	437.16	0.00	21.51	270.74
2	T	2	SLE R	-40534.60	0.00	4744.74	20.33	301.56
2	T	4	SLE Q	-34220.80	359.11	0.00	18.00	227.39
3	P	2	SLE R	-31344.90	-401.16	0.00	17.63	216.85
3	P	2	SLE R	-31344.90	0.00	-3109.46	15.04	223.44
3	P	4	SLE Q	-26557.80	-328.88	0.00	14.77	182.43

### Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	6766.66	2.50	17295.40	45240.70	2.556
2	P	1	3349.92	2.50	17295.40	45373.30	5.163

### Numero del nucleo n. 1401

Nodi: -4058 -4059 -4060

### Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione



Relazione di calcolo

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-46475.10	-156.47	0.00	-381658.00	-3585.31	0.00	8.212
	2P	1	SLU	-42372.10	198.66	0.00	-381658.00	3480.97	0.00	9.007
	3P	1	SLU	-39678.60	-219.65	0.00	-381658.00	-3409.67	0.00	9.619

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
	1P	2	SLE R	-33269.30	-110.71	0.00	15.45	216.97
	1P	4	SLE Q	-27992.10	-86.23	0.00	12.88	181.63
	2T	2	SLE R	-29912.50	161.63	0.00	15.00	203.38
	2T	4	SLE Q	-25098.00	125.90	0.00	12.41	169.35
	3P	2	SLE R	-28398.10	-155.46	0.00	14.28	193.36
	3P	4	SLE Q	-23859.80	-122.20	0.00	11.84	161.33

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	415.87	2.50	15313.10	39464.30	36.822
	2T	1	383.45	2.50	15313.10	38759.90	39.935

Numero del nucleo n. 1404

Nodi: -4076 -4077 -4078

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-57798.60	75.39	0.00	-381658.00	3871.09	0.00	6.603
	2T	1	SLU	-57556.50	-3591.00	0.00	-57556.50	-3864.98	0.00	1.076
	3P	1	SLU	-42328.80	3471.81	0.00	-42328.80	3479.87	0.00	1.002

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
	1P	2	SLE R	-41091.40	54.02	0.00	17.61	256.93
	1P	4	SLE Q	-34987.50	39.66	0.00	14.88	217.92
	2T	2	SLE R	-40902.60	-2560.34	0.00	87.17	871.65
	2T	4	SLE Q	-34610.50	-1990.69	0.00	66.47	559.90
	3P	2	SLE R	-30077.70	2473.67	0.00	88.78	1298.48
	3P	4	SLE Q	-25918.00	1915.87	0.00	67.50	871.92

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	22.55	2.50	15313.10	40515.40	678.924
	2P	1	31.49	2.50	15313.10	40515.40	486.234

Numero del nucleo n. 1405

Nodi: -4079 -4080 -4081

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-56153.50	67.68	0.00	-381658.00	3829.68	0.00	6.797
	2T	1	SLU	-55634.00	-3324.28	0.00	-55634.00	-3816.68	0.00	1.148
	3P	1	SLU	-40728.30	3280.99	0.00	-40728.30	3437.52	0.00	1.048

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
	1P	2	SLE R	-39896.20	48.26	0.00	17.02	248.90
	1P	4	SLE Q	-33959.60	35.17	0.00	14.38	211.07



Relazione di calcolo

2T	2	SLE R	-39496.60	-2361.82	0.00	79.58	728.40
2T	4	SLE Q	-33410.60	-1829.51	0.00	60.39	453.06
3P	2	SLE R	-28912.30	2331.49	0.00	83.41	1194.51
3P	4	SLE Q	-24909.60	1804.16	0.00	63.32	796.27

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	57.55	2.50	15313.10	40515.50	266.077	
2P	1	60.55	2.50	15313.10	40515.50	252.893	

Numero del nucleo n. 1488

Nodi: -4745 -4752 -4758 1394

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-43006.80	580.93	0.00	-43006.80	3782.38	0.00	6.511	
2P	1	SLU	-43796.60	-214.91	0.00	-429421.00	-3803.35	0.00	9.805	
3P	1	SLU	-42209.80	-139.70	0.00	-429421.00	-3761.24	0.00	10.174	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1P	2	SLE R	-30721.80	408.03	0.00	17.52	214.31	
1P	2	SLE R	-30721.80	0.00	-3424.78	15.20	225.57	
1P	4	SLE Q	-26109.30	334.57	0.00	14.69	180.68	
2P	2	SLE R	-31225.40	0.00	-2484.69	14.24	211.90	
2P	4	SLE Q	-26465.60	0.00	-1898.80	11.82	175.99	
3P	2	SLE R	-30052.60	-98.50	0.00	12.38	173.94	
3P	4	SLE Q	-25469.70	-80.74	0.00	10.45	147.09	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	4220.73	2.50	17295.40	43150.20	4.098	
2T	1	7825.80	2.50	17295.40	43178.00	2.210	

Numero del nucleo n. 1496

Nodi: -4742 -4743 -4744

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-39273.60	-243.03	0.00	-381658.00	-3398.88	0.00	9.718	
2P	1	SLU	-35061.10	296.57	0.00	-381658.00	3286.85	0.00	10.886	
3P	1	SLU	-33286.80	-181.85	0.00	-381658.00	-3239.53	0.00	11.466	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm>	σ <sub>t</sub> <daN/cm>
1P	2	SLE R	-28117.30	-172.73	0.00	14.47	193.96	
1P	4	SLE Q	-23576.70	-136.48	0.00	11.98	161.52	
2P	2	SLE R	-25092.00	210.90	0.00	13.92	180.68	
2P	4	SLE Q	-21042.00	165.02	0.00	11.47	149.93	
3P	2	SLE R	-23804.40	-129.40	0.00	11.95	161.96	
3P	4	SLE Q	-19868.90	-101.78	0.00	9.86	134.35	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	9.48	2.50	20417.40	38371.50	*****	
2T	1	8.53	2.50	20417.40	37650.50	*****	



Numero del nucleo n. 1498

Nodi: -4742 -4750 -4756 1390

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P		1SLU	-42367.30	600.99	0.00	-42367.30	3765.43	0.00	6.265
	2P		1SLU	-43139.60	-222.87	0.00	-429421.00	-3785.84	0.00	9.954
	3P		1SLU	-41348.40	-144.01	0.00	-429421.00	-3738.24	0.00	10.386

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
	1P		2SLE R	-30275.40	422.74	0.00	17.59	213.64
	1P		2SLE R	-30275.40	0.00	-2999.78	14.53	215.75
	1P		4SLE Q	-25760.40	346.68	0.00	14.76	180.24
	2P		2SLE R	-30770.50	0.00	-2111.43	13.63	202.93
	2P		4SLE Q	-26116.80	-124.65	0.00	11.37	155.79
	3P		2SLE R	-29449.80	-101.66	0.00	12.21	171.06
	3P		4SLE Q	-25005.30	-83.49	0.00	10.32	144.91

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P		1 3855.43	2.50	17295.40	43052.90	4.486
	2P		1 7614.42	2.50	17295.40	43170.40	2.271

Numero del nucleo n. 1499

Nodi: -4744 -4751 -4757 1391

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P		1SLU	-45633.10	-590.56	0.00	-45633.10	-3852.07	0.00	6.523
	2P		1SLU	-46497.90	232.06	0.00	-429421.00	3875.01	0.00	9.235
	3P		1SLU	-44833.60	155.41	0.00	-429421.00	3830.96	0.00	9.578

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
	1P		2SLE R	-32581.60	-416.32	0.00	18.32	225.33
	1P		2SLE R	-32581.60	0.00	-3069.53	15.44	229.41
	1P		4SLE Q	-27544.10	-341.41	0.00	15.32	189.24
	2P		2SLE R	-33145.60	164.56	0.00	14.53	198.48
	2P		2SLE R	-33145.60	0.00	-2110.26	14.48	215.73
	2P		4SLE Q	-27945.90	129.78	0.00	12.11	166.28
	3P		2SLE R	-31922.80	109.66	0.00	13.23	185.36
	3P		4SLE Q	-26904.70	89.84	0.00	11.11	155.92

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P		1 3744.62	2.50	17295.40	43549.80	4.619
	2P		1 7348.85	2.50	17295.40	43681.30	2.353

Numero del nucleo n. 1500

Nodi: -4747 -4753 -4759 1395

Caratteristiche delle sezioni e dei materiali utilizzati



Relazione di calcolo

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P	1	SLU	-43932.70	-569.74	0.00	-43932.70	-3806.92	0.00	6.682
	2P	1	SLU	-44556.10	221.34	0.00	-429421.00	3823.47	0.00	9.638
	3P	1	SLU	-42819.70	148.62	0.00	-429421.00	3777.39	0.00	10.029

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N	My	Mz	σ <sub>c</sub>	σ <sub>t</sub>
				<daN>	<daNm>	<daNm>	<daN/cmq>	<daN/cmq>
	1P	2	SLE R	-31344.90	-401.16	0.00	17.63	216.85
	1P	2	SLE R	-31344.90	0.00	-3109.46	15.04	223.44
	1P	4	SLE Q	-26557.80	-328.88	0.00	14.77	182.43
	2P	2	SLE R	-31736.80	0.00	-2100.67	13.96	207.96
	2P	4	SLE Q	-26821.00	123.59	0.00	11.61	159.47
	3P	2	SLE R	-30465.30	104.61	0.00	12.62	176.89
	3P	4	SLE Q	-25744.80	85.83	0.00	10.62	149.18

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu	ctgθ	VRsd	VRcd	Sic.
			<daN>		<daN>	<daN>	
	1P	1	3730.36	2.50	17295.40	43291.10	4.636
	2P	1	7107.00	2.50	17295.40	43385.90	2.434

Numero del nucleo n. 1501

Nodi: -4745 -4746 -4747

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P	1	SLU	-39678.60	-219.65	0.00	-381658.00	-3409.67	0.00	9.619
	2P	1	SLU	-35535.00	279.03	0.00	-381658.00	3299.56	0.00	10.740
	3P	1	SLU	-33603.30	-163.63	0.00	-381658.00	-3247.95	0.00	11.358

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N	My	Mz	σ <sub>c</sub>	σ <sub>t</sub>
				<daN>	<daNm>	<daNm>	<daN/cmq>	<daN/cmq>
	1P	2	SLE R	-28398.10	-155.46	0.00	14.28	193.36
	1P	4	SLE Q	-23859.80	-122.20	0.00	11.84	161.33
	2P	2	SLE R	-25426.40	197.91	0.00	13.83	180.97
	2P	4	SLE Q	-21354.70	154.81	0.00	11.41	150.47
	3P	2	SLE R	-24025.00	-115.94	0.00	11.80	161.50
	3P	4	SLE Q	-20073.70	-90.71	0.00	9.75	134.11

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu	ctgθ	VRsd	VRcd	Sic.
			<daN>		<daN>	<daN>	
	1P	1	337.74	2.50	15313.10	38433.00	45.340
	2T	1	313.31	2.50	15313.10	37722.50	48.875

Numero del nucleo n. 1504

Nodi: 1390 -4761 1391

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>	<daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N	My	Mz	Nu	MRdy, r	MRdz, r	Sic.
				<daN>	<daNm>	<daNm>	<daN>	<daNm>	<daNm>	
	1P	1	SLU	-42328.80	3471.81	0.00	-42328.80	3479.87	0.00	1.002
	2P	1	SLU	-42610.90	-940.33	0.00	-42610.90	-3487.21	0.00	3.708
	3P	1	SLU	-45547.50	89.26	0.00	-381658.00	3561.75	0.00	8.379



Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P		2SLE R	-30077.70	2473.67	0.00	88.78	1298.48
	1P		4SLE Q	-25918.00	1915.87	0.00	67.50	871.92
	2P		2SLE R	-30279.80	-669.46	0.00	24.20	273.51
	2P		4SLE Q	-25930.50	-519.57	0.00	19.77	227.04
	3P		2SLE R	-32347.00	63.73	0.00	14.24	205.09
	3P		4SLE Q	-27492.20	47.80	0.00	11.99	173.46

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P		1 73.64	2.50	15313.10	38835.10	207.946
	2P		1 49.26	2.50	15313.10	38877.90	310.875

Numero del nucleo n. 1505

Nodi: 1394 -4762 1395

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P		1SLU	-40728.30	3280.99	0.00	-40728.30	3437.52	0.00	1.048
	2P		1SLU	-41165.60	-888.37	0.00	-41165.60	-3449.07	0.00	3.882
	3P		1SLU	-44127.30	83.53	0.00	-381658.00	3525.78	0.00	8.649

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P		2SLE R	-28912.30	2331.49	0.00	83.41	1194.51
	1P		4SLE Q	-24909.60	1804.16	0.00	63.32	796.27
	2P		2SLE R	-29224.50	-630.85	0.00	23.08	261.94
	2P		4SLE Q	-25031.30	-489.21	0.00	18.86	217.52
	3P		2SLE R	-31306.20	59.46	0.00	13.74	198.19
	3P		4SLE Q	-26620.40	44.49	0.00	11.58	167.72

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P		1 14.48	2.50	15313.10	38592.30	*****
	2T		1 52.25	2.50	15313.10	38576.80	293.048

Numero del nucleo n. 1588

Nodi: -4823 -4830 -4836 -4844

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P		1SLU	-42209.80	-139.70	0.00	-429421.00	-3761.24	0.00	10.174
	2T		1SLU	-42579.80	-644.48	0.00	-42579.80	-3771.00	0.00	5.851
	3P		1SLU	-28833.40	593.57	0.00	-28833.40	3402.95	0.00	5.733

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P		2SLE R	-30052.60	-98.50	0.00	12.38	173.94
	1P		4SLE Q	-25469.70	-80.74	0.00	10.45	147.09
	2T		2SLE R	-30220.40	-453.30	0.00	18.05	216.97
	2T		2SLE R	-30220.40	0.00	5272.49	17.26	255.08
	2T		4SLE Q	-25470.80	-373.18	0.00	15.08	181.82
	3P		2SLE R	-20555.00	417.13	0.00	14.00	160.50
	3P		2SLE R	-20555.00	0.00	-3385.08	11.49	169.99



Relazione di calcolo

3P	4SLE Q	-17417.20	342.59	0.00	11.69	134.71
----	--------	-----------	--------	------	-------	--------

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	7872.56	2.50	17295.40	43029.00	2.197
2	P	1	4256.36	2.50	17295.40	43177.70	4.063

Numero del nucleo n. 1596

Nodi: -4820 -4821 -4822

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-33286.80	-181.85	0.00	-363646.00	-2772.45	0.00	10.925
2	T	1	SLU	-28549.40	250.93	0.00	-28549.40	2639.67	0.00	10.520
3	P	1	SLU	-26508.60	-237.41	0.00	-26508.60	-2582.20	0.00	10.876

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cm>
1	P	2	SLE R	-23804.40	-129.40	0.00	12.31	166.93
1	P	4	SLE Q	-19868.90	-101.78	0.00	10.16	138.48
2	T	2	SLE R	-20375.90	178.59	0.00	11.78	152.17
2	T	4	SLE Q	-16927.50	139.07	0.00	9.61	125.15
3	P	2	SLE R	-18944.00	-168.81	0.00	11.00	141.86
3	P	4	SLE Q	-15758.70	-133.38	0.00	9.02	117.04

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	31.16	2.50	20417.40	37463.10	655.284
2	T	1	46.79	2.50	20417.40	36744.30	436.408

Numero del nucleo n. 1598

Nodi: -4820 -4828 -4834 -4841

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm<sup>q</sup>>	Fctm <daN/cm<sup>q</sup>>	Fcd <daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd <daN/cm<sup>q</sup>>	Fym <daN/cm<sup>q</sup>>	Fyd <daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-41348.40	-144.01	0.00	-429421.00	-3738.24	0.00	10.386
2	T	1	SLU	-41660.40	-656.40	0.00	-41660.40	-3746.54	0.00	5.708
3	P	1	SLU	-27595.00	617.62	0.00	-27595.00	3369.56	0.00	5.456

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R	-29449.80	-101.66	0.00	12.21	171.06	
1P	4	SLE Q	-25005.30	-83.49	0.00	10.32	144.91	
2T	2	SLE R	-29578.50	-462.39	0.00	17.97	214.59	
2T	2	SLE R	-29578.50	0.00	5475.82	17.27	255.16	
2T	4	SLE Q	-24983.20	-380.38	0.00	15.01	180.04	
3P	2	SLE R	-19684.80	434.98	0.00	13.97	157.92	
3P	2	SLE R	-19684.80	0.00	-3145.51	10.89	161.12	
3P	4	SLE Q	-16751.10	357.17	0.00	11.68	132.84	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	7664.32	2.50	17295.40	42897.90	2.257
2	P	1	3845.39	2.50	17295.40	43037.80	4.498



**Numero del nucleo n. 1599**

Nodi: -4822 -4829 -4835 -4843

**Caratteristiche delle sezioni e dei materiali utilizzati**

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

**Stato limite ultimo - Verifiche a flessione/pressoflessione**

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-44833.60	155.41	0.00	-429421.00	3830.96	0.00	9.578
2	T	1	SLU	-45298.80	654.08	0.00	-45298.80	3843.23	0.00	5.876
3	P	1	SLU	-31675.90	-605.77	0.00	-31675.90	-3479.47	0.00	5.744

**Stato limite d'esercizio - Verifiche tensionali**

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-31922.80	109.66	0.00	13.23	185.36
1	P	4	SLE Q	-26904.70	89.84	0.00	11.11	155.92
2	T	2	SLE R	-32168.10	461.23	0.00	18.88	228.43
2	T	2	SLE R	-32168.10	0.00	5216.04	17.89	264.61
2	T	4	SLE Q	-26963.80	379.27	0.00	15.71	190.60
3	P	2	SLE R	-22582.50	-427.13	0.00	14.89	172.63
3	P	2	SLE R	-22582.50	0.00	-3221.50	12.03	178.08
3	P	4	SLE Q	-18966.40	-350.87	0.00	12.38	144.06

**Stato limite ultimo - Verifiche a taglio**

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	7342.09	2.50	17295.40	43428.10	2.356
2	T	1	3642.80	2.50	17295.40	43498.90	4.748

**Numero del nucleo n. 1600**

Nodi: -4825 -4831 -4837 -4846

**Caratteristiche delle sezioni e dei materiali utilizzati**

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

**Stato limite ultimo - Verifiche a flessione/pressoflessione**

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-42819.70	148.62	0.00	-429421.00	3777.39	0.00	10.029
2	T	1	SLU	-43088.00	623.93	0.00	-43088.00	3784.59	0.00	6.066
3	P	1	SLU	-29771.00	-582.57	0.00	-29771.00	-3428.19	0.00	5.885

**Stato limite d'esercizio - Verifiche tensionali**

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>f</sub> <daN/cmq>
1	P	2	SLE R	-30465.30	104.61	0.00	12.62	176.89
1	P	4	SLE Q	-25744.80	85.83	0.00	10.62	149.18
2	T	2	SLE R	-30570.10	439.32	0.00	17.96	217.20
2	T	2	SLE R	-30570.10	0.00	4998.28	17.05	252.19
2	T	4	SLE Q	-25694.30	360.96	0.00	14.96	181.58
3	P	2	SLE R	-21213.40	-410.46	0.00	14.13	163.26
3	P	2	SLE R	-21213.40	0.00	-3117.60	11.41	168.88
3	P	4	SLE Q	-17891.10	-336.61	0.00	11.77	136.56

**Stato limite ultimo - Verifiche a taglio**

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	7081.98	2.50	17295.40	43121.80	2.442
2	P	1	3629.25	2.50	17295.40	43255.00	4.766

**Numero del nucleo n. 1601**

Nodi: -4823 -4824 -4825

**Caratteristiche delle sezioni e dei materiali utilizzati**

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
--------	----	-----	------	-----	-----------	------	-----	-----	-----------



Relazione di calcolo

<cm>	<cm>	<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>	<daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N&ltbr/><daN>	My&ltbr/><daNm>	Mz&ltbr/><daNm>	Nu&ltbr/><daN>	MRdy, r&ltbr/><daNm>	MRdz, r&ltbr/><daNm>	Sic.
1	P	1	SLU	-33603.30	-163.63	0.00	-381658.00	-3247.95	0.00	11.358
2	P	1	SLU	-29421.20	202.79	0.00	-381658.00	3136.03	0.00	12.972
3	P	1	SLU	-26677.30	-220.72	0.00	-26677.30	-3062.25	0.00	13.874

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N&ltbr/><daN>	My&ltbr/><daNm>	Mz&ltbr/><daNm>	σ<sub>c</sub> <daN/cm<sup>q</sup>>	σ<sub>t</sub> <daN/cm<sup>q</sup>>
1	P	2	SLE R	-24025.00	-115.94	0.00	11.80	161.50
1	P	4	SLE Q	-20073.70	-90.71	0.00	9.75	134.11
2	T	2	SLE R	-20611.20	168.75	0.00	11.36	147.81
2	T	4	SLE Q	-17129.40	131.03	0.00	9.28	121.61
3	P	2	SLE R	-19061.10	-156.47	0.00	10.51	136.75
3	P	4	SLE Q	-15856.80	-123.55	0.00	8.63	112.88

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu&ltbr/><daN>	ctgθ	VRsd&ltbr/><daN>	VRcd&ltbr/><daN>	Sic.
1	P	1	281.62	2.50	20417.50	37511.20	72.499
2	T	1	261.66	2.50	20417.50	36794.80	78.030

Numero del nucleo n. 1688

Nodi: -5510 -5517 -5523 1594

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm&ltbr/><daN/cm<sup>q</sup>>	Fctm&ltbr/><daN/cm<sup>q</sup>>	Fcd&ltbr/><daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd&ltbr/><daN/cm<sup>q</sup>>	Fym&ltbr/><daN/cm<sup>q</sup>>	Fyd&ltbr/><daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N&ltbr/><daN>	My&ltbr/><daNm>	Mz&ltbr/><daNm>	Nu&ltbr/><daN>	MRdy, r&ltbr/><daNm>	MRdz, r&ltbr/><daNm>	Sic.
1	P	1	SLU	-28833.40	593.57	0.00	-28833.40	3402.95	0.00	5.733
2	P	1	SLU	-29629.50	-223.77	0.00	-429421.00	-3424.44	0.00	14.493
3	P	1	SLU	-28008.20	-134.13	0.00	-429421.00	-3380.70	0.00	15.332

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N&ltbr/><daN>	My&ltbr/><daNm>	Mz&ltbr/><daNm>	σ<sub>c</sub> <daN/cm<sup>q</sup>>	σ<sub>t</sub> <daN/cm<sup>q</sup>>
1	P	2	SLE R	-20555.00	417.13	0.00	14.00	160.50
1	P	2	SLE R	-20555.00	0.00	-3385.08	11.49	169.99
1	P	4	SLE Q	-17417.20	342.59	0.00	11.69	134.71
2	P	2	SLE R	-21062.80	0.00	-2403.24	10.49	155.61
2	P	4	SLE Q	-17778.30	0.00	-1821.73	8.60	127.74
3	P	2	SLE R	-19864.30	-94.63	0.00	8.65	118.48
3	P	4	SLE Q	-16765.00	-78.06	0.00	7.27	99.78

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu&ltbr/><daN>	ctgθ	VRsd&ltbr/><daN>	VRcd&ltbr/><daN>	Sic.
1	P	1	4311.61	2.50	17295.40	40994.20	4.011
2	P	1	7985.78	2.50	17295.40	41115.30	2.166

Numero del nucleo n. 1696

Nodi: -5507 -5508 -5509

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm&ltbr/><daN/cm<sup>q</sup>>	Fctm&ltbr/><daN/cm<sup>q</sup>>	Fcd&ltbr/><daN/cm<sup>q</sup>>	Fcd (Tag) <daN/cm<sup>q</sup>>	Fctd&ltbr/><daN/cm<sup>q</sup>>	Fym&ltbr/><daN/cm<sup>q</sup>>	Fyd&ltbr/><daN/cm<sup>q</sup>>	Fyd (Tag) <daN/cm<sup>q</sup>>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N&ltbr/><daN>	My&ltbr/><daNm>	Mz&ltbr/><daNm>	Nu&ltbr/><daN>	MRdy, r&ltbr/><daNm>	MRdz, r&ltbr/><daNm>	Sic.
1	P	1	SLU	-26508.60	-237.41	0.00	-26508.60	-2582.20	0.00	10.876
2	P	1	SLU	-22136.60	292.15	0.00	-22136.60	2458.40	0.00	8.415
3	P	1	SLU	-20101.50	-167.60	0.00	-20101.50	-2400.42	0.00	14.322



Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P		2SLE R	-18944.00	-168.81	0.00	11.00	141.86
	1P		4SLE Q	-15758.70	-133.38	0.00	9.02	117.04
	2P		2SLE R	-15801.10	208.26	0.00	10.40	127.56
	2P		4SLE Q	-13107.30	164.38	0.00	8.48	104.67
	3P		2SLE R	-14323.20	-119.48	0.00	8.17	106.14
	3P		4SLE Q	-11756.00	-94.07	0.00	6.63	86.57

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P		1 62.29	2.50	17500.70	36434.60	280.942
	2P		1 68.52	2.50	17500.70	35771.20	255.394

Numero del nucleo n. 1698

Nodi: -5507 -5515 -5521 1590

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P		1SLU	-27595.00	617.62	0.00	-27595.00	3369.56	0.00	5.456
	2P		1SLU	-28320.50	-234.15	0.00	-28320.50	-3389.08	0.00	14.474
	3P		1SLU	-26533.70	-137.16	0.00	-429421.00	-3340.65	0.00	16.184

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P		2SLE R	-19684.80	434.98	0.00	13.97	157.92
	1P		2SLE R	-19684.80	0.00	-3145.51	10.89	161.12
	1P		4SLE Q	-16751.10	357.17	0.00	11.68	132.84
	2P		2SLE R	-20145.00	0.00	-2207.32	9.92	147.24
	2P		4SLE Q	-17077.00	-131.77	0.00	8.23	107.84
	3P		2SLE R	-18829.10	-96.96	0.00	8.31	113.16
	3P		4SLE Q	-15974.30	-80.05	0.00	7.02	95.74

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P		1 4056.84	2.50	17295.40	40805.80	4.263
	2P		1 7929.64	2.50	17295.40	40916.10	2.181

Numero del nucleo n. 1699

Nodi: -5509 -5516 -5522 1591

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P		1SLU	-31675.90	-605.77	0.00	-31675.90	-3479.47	0.00	5.744
	2P		1SLU	-32529.20	242.67	0.00	-429421.00	3502.29	0.00	13.201
	3P		1SLU	-30847.20	148.30	0.00	-429421.00	3457.10	0.00	13.921

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
	1P		2SLE R	-22582.50	-427.13	0.00	14.89	172.63
	1P		2SLE R	-22582.50	0.00	-3221.50	12.03	178.08
	1P		4SLE Q	-18966.40	-350.87	0.00	12.38	144.06
	2P		2SLE R	-23137.70	172.26	0.00	11.05	145.37
	2T		2SLE R	-22670.50	0.00	2102.95	10.70	159.06
	2P		4SLE Q	-19362.40	136.25	0.00	9.13	120.71



Relazione di calcolo

3P	2	SLE R	-21902.40	104.76	0.00	9.54	130.68
3P	4	SLE Q	-18316.10	86.12	0.00	7.96	109.11

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	4214.99	2.50	17295.40	41426.60	4.103	
2P	1	8013.89	2.50	17295.40	41556.40	2.158	

Numero del nucleo n. 1700

Nodi: -5512 -5518 -5524 1595

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-29771.00	-582.57	0.00	-29771.00	-3428.19	0.00	5.885	
2P	1	SLU	-30429.60	228.95	0.00	-429421.00	3445.94	0.00	14.112	
3P	1	SLU	-28678.00	141.35	0.00	-429421.00	3398.70	0.00	14.974	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R	-21213.40	-410.46	0.00	14.13	163.26	
1P	2	SLE R	-21213.40	0.00	-3117.60	11.41	168.88	
1P	4	SLE Q	-17891.10	-336.61	0.00	11.77	136.56	
2P	2	SLE R	-21631.70	162.08	0.00	10.35	136.03	
2T	2	SLE R	-21164.50	0.00	1977.32	10.01	148.74	
2P	4	SLE Q	-18180.60	128.05	0.00	8.57	113.36	
3P	2	SLE R	-20351.10	99.67	0.00	8.90	121.70	
3P	4	SLE Q	-17101.90	82.05	0.00	7.45	102.07	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	4085.00	2.50	17295.40	41136.80	4.234	
2P	1	7595.78	2.50	17295.40	41237.00	2.277	

Numero del nucleo n. 1701

Nodi: -5510 -5511 -5512

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU	-26677.30	-220.72	0.00	-26677.30	-3062.25	0.00	13.874	
2P	1	SLU	-22399.20	272.50	0.00	-22399.20	2946.54	0.00	10.813	
3P	1	SLU	-20311.40	-154.10	0.00	-20311.40	-2889.43	0.00	18.750	

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1P	2	SLE R	-19061.10	-156.47	0.00	10.51	136.75	
1P	4	SLE Q	-15856.80	-123.55	0.00	8.63	112.88	
2P	2	SLE R	-15991.20	193.69	0.00	9.93	123.07	
2P	4	SLE Q	-13261.20	152.55	0.00	8.09	100.98	
3P	2	SLE R	-14477.90	-109.50	0.00	7.82	102.62	
3P	4	SLE Q	-11880.50	-86.05	0.00	6.35	83.70	

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P	1	235.10	2.50	17500.70	36460.30	74.439	
2P	1	220.56	2.50	17500.70	35811.10	79.345	



Numero del nucleo n. 1705

Nodi: 1594 -5528 1595

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.70	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-28657.50	3346.92	0.00	-28657.50	3375.07	0.00	1.008
2	P	1	SLU	-29187.80	-912.36	0.00	-29187.80	-3388.55	0.00	3.714
3	P	1	SLU	-32355.30	94.12	0.00	-393366.00	3469.21	0.00	12.158

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1	P	2	SLE R	-20285.90	2380.25	0.00	87.03	1516.86
1	P	4	SLE Q	-17546.40	1844.22	0.00	66.77	1086.93
2	P	2	SLE R	-20665.80	-648.41	0.00	20.40	206.21
2	P	4	SLE Q	-17727.40	-503.48	0.00	16.23	169.52
3	P	2	SLE R	-22894.20	66.75	0.00	10.28	144.79
3	P	4	SLE Q	-19436.20	49.37	0.00	8.60	122.01

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	43.99	2.50	15293.30	36713.10	347.652
2	T	1	72.46	2.50	15293.30	36711.80	211.052

Numero del nucleo n. 1788

Nodi: -5589 -5596 -5602 -5610

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-28008.20	-134.13	0.00	-429421.00	-3380.70	0.00	15.332
2	T	1	SLU	-28441.60	-624.49	0.00	-28441.60	-3392.39	0.00	5.432
3	P	1	SLU	-14700.40	608.87	0.00	-14700.40	3015.47	0.00	4.953

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>t</sub> <daN/cmq>
1	P	2	SLE R	-19864.30	-94.63	0.00	8.65	118.48
1	P	4	SLE Q	-16765.00	-78.06	0.00	7.27	99.78
2	T	2	SLE R	-20071.90	-439.59	0.00	14.18	160.56
2	T	2	SLE R	-20071.90	0.00	5437.84	13.80	203.18
2	T	4	SLE Q	-16788.50	-362.33	0.00	11.78	133.66
3	P	2	SLE R	-10410.60	427.57	0.00	11.88	109.69
3	P	4	SLE Q	-8756.15	350.17	0.00	9.71	91.00

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	7953.50	2.50	17295.40	40868.60	2.175
2	T	1	4481.01	2.50	17295.40	40934.60	3.860

Numero del nucleo n. 1796

Nodi: -5586 -5587 -5588

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
----------------	------------	------------------	-------------------	------------------	------------------------	-------------------	------------------	------------------	------------------------



Relazione di calcolo

14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94
-------	------	--------	-------	--------	-------	------	---------	---------	---------

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-20101.50	-167.60	0.00	-20101.50	-2883.67	0.00	17.205
2	T	1	SLU	-14965.60	305.75	0.00	-14965.60	2742.46	0.00	8.970
3	P	1	SLU	-12436.30	-210.77	0.00	-12436.30	-2672.59	0.00	12.680

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_t$ <daN/cm <sup>2</sup> >
1	P	2	SLE R	-14323.20	-119.48	0.00	7.93	103.01
1	P	4	SLE Q	-11756.00	-94.07	0.00	6.44	84.02
2	T	2	SLE R	-10612.90	216.22	0.00	8.15	93.40
2	T	4	SLE Q	-8586.48	165.66	0.00	6.43	74.33
3	P	2	SLE R	-8851.25	-150.71	0.00	6.27	73.94
3	P	4	SLE Q	-7199.85	-121.17	0.00	5.08	59.95

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	65.84	2.50	15313.10	35462.40	232.585
2	T	1	58.32	2.50	15313.10	34683.10	262.568

Numero del nucleo n. 1798

Nodi: -5586 -5594 -5600 -5607

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-26533.70	-137.16	0.00	-429421.00	-3340.65	0.00	16.184
2	T	1	SLU	-26913.70	-629.69	0.00	-26913.70	-3350.90	0.00	5.322
3	P	1	SLU	-13118.20	654.81	0.00	-13118.20	2971.62	0.00	4.538

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_t$ <daN/cm <sup>2</sup> >
1	P	2	SLE R	-18829.10	-96.96	0.00	8.31	113.16
1	P	4	SLE Q	-15974.30	-80.05	0.00	7.02	95.74
2	T	2	SLE R	-19003.20	-443.93	0.00	13.87	155.31
2	T	2	SLE R	-19003.20	0.00	5568.09	13.58	199.68
2	T	4	SLE Q	-15975.00	-366.53	0.00	11.55	129.77
3	P	2	SLE R	-9299.61	460.74	0.00	13.21	107.38
3	P	4	SLE Q	-7906.54	375.64	0.00	10.68	89.55

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	7882.18	2.50	17295.40	40644.30	2.194
2	P	1	4164.98	2.50	17295.40	40794.50	4.153

Numero del nucleo n. 1799

Nodi: -5588 -5595 -5601 -5609

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-30847.20	148.30	0.00	-429421.00	3457.10	0.00	13.921
2	T	1	SLU	-31407.90	647.70	0.00	-31407.90	3472.24	0.00	5.361
3	P	1	SLU	-17405.40	-599.83	0.00	-17405.40	-3090.11	0.00	5.152

Stato limite d'esercizio - Verifiche tensionali



Relazione di calcolo

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cmq>	$\sigma_f$ <daN/cmq>
1P	2	SLE	R	-21902.40	104.76	0.00	9.54	130.68
1P	4	SLE	Q	-18316.10	86.12	0.00	7.96	109.11
2T	2	SLE	R	-22209.70	457.32	0.00	15.23	174.21
2T	2	SLE	R	-22209.70	0.00	5767.20	14.97	220.46
2T	4	SLE	Q	-18404.90	377.13	0.00	12.60	144.14
3P	2	SLE	R	-12355.60	-422.84	0.00	11.75	118.63
3P	4	SLE	Q	-10195.90	-347.45	0.00	9.66	97.69

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1P	1		7924.18	2.50	17295.40	41300.50	2.183
2P	1		4425.02	2.50	17295.40	41478.20	3.909

Numero del nucleo n. 1800

Nodi: -5591 -5597 -5603 -5612

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-28678.00	141.35	0.00	-429421.00	3398.70	0.00	14.974
2T	1	SLU		-29048.10	607.27	0.00	-29048.10	3408.77	0.00	5.613
3P	1	SLU		-15652.10	-600.20	0.00	-15652.10	-3041.73	0.00	5.068

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm>	$\sigma_f$ <daN/cm>
1P	2	SLE	R	-20351.10	99.67	0.00	8.90	121.70
1P	4	SLE	Q	-17101.90	82.05	0.00	7.45	102.07
2T	2	SLE	R	-20525.50	427.92	0.00	14.16	161.62
2T	2	SLE	R	-20525.50	0.00	5456.69	13.99	205.95
2T	4	SLE	Q	-17085.40	0.00	4649.34	11.77	173.30
3P	2	SLE	R	-11112.30	-422.77	0.00	11.70	112.56
3P	4	SLE	Q	-9231.91	-345.69	0.00	9.56	92.75

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
1P	1		7505.33	2.50	17295.40	40970.50	2.304
2P	1		4186.91	2.50	17295.40	41119.20	4.131

Numero del nucleo n. 1801

Nodi: -5589 -5590 -5591

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm>	Fctm <daN/cm>	Fcd <daN/cm>	Fcd (Tag) <daN/cm>	Fctd <daN/cm>	Fym <daN/cm>	Fyd <daN/cm>	Fyd (Tag) <daN/cm>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P	1	SLU		-20311.40	-154.10	0.00	-20311.40	-2889.43	0.00	18.750
2T	1	SLU		-15275.00	292.93	0.00	-15275.00	2751.00	0.00	9.391
3P	1	SLU		-12603.60	-195.19	0.00	-12603.60	-2677.25	0.00	13.716

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm>	$\sigma_f$ <daN/cm>
1P	2	SLE	R	-14477.90	-109.50	0.00	7.82	102.62
1P	4	SLE	Q	-11880.50	-86.05	0.00	6.35	83.70
2T	2	SLE	R	-10844.10	206.79	0.00	8.08	93.54
2T	4	SLE	Q	-8772.57	158.21	0.00	6.37	74.46
3P	2	SLE	R	-8978.76	-139.13	0.00	6.12	73.16
3P	4	SLE	Q	-7301.48	-111.66	0.00	4.95	59.30



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	200.33	2.50	15313.10	35494.30	76.438
2P		1	184.30	2.50	15313.10	34811.90	83.090

Numero del nucleo n. 1888

Nodi: -6276 -6283 -6289 1794

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-14700.40	608.87	0.00	-14700.40	3015.47	0.00	4.953
2T		1	SLU	-14870.00	0.00	3491.90	-14870.00	0.00	42884.10	12.281
3P		1	SLU	-13293.30	-213.79	0.00	-13293.30	-2976.50	0.00	13.923

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σc <daN/cmq>	σf <daN/cmq>
1P		2	SLE R	-10410.60	427.57	0.00	11.88	109.69
1P		4	SLE Q	-8756.15	350.17	0.00	9.71	91.00
2P		2	SLE R	-10903.70	0.00	-2311.80	6.72	99.17
2T		2	SLE R	-10436.40	0.00	2420.63	6.69	98.55
2T		4	SLE Q	-8649.86	0.00	2002.02	5.54	81.60
3P		2	SLE R	-9310.54	-148.88	0.00	5.71	67.94
3P		4	SLE Q	-7795.68	-119.71	0.00	4.70	56.30

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	5413.46	2.50	17295.40	38844.20	3.195
2T		1	8937.85	2.50	17295.40	38870.00	1.935

Numero del nucleo n. 1896

Nodi: -6273 -6274 -6275

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-12436.30	-210.77	0.00	-12436.30	-2672.59	0.00	12.680
2P		1	SLU	-7256.16	325.39	0.00	-7256.16	2528.82	0.00	7.772
3P		1	SLU	-6045.80	-220.67	0.00	-6045.80	-2494.92	0.00	11.306

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σc <daN/cmq>	σf <daN/cmq>
1P		2	SLE R	-8851.25	-150.71	0.00	6.27	73.94
1P		4	SLE Q	-7199.85	-121.17	0.00	5.08	59.95
2P		2	SLE R	-5173.93	230.81	0.00	7.30	63.99
2P		4	SLE Q	-4232.71	180.66	0.00	5.68	51.20
3P		2	SLE R	-4299.61	-156.73	0.00	4.88	47.97
3P		4	SLE Q	-3462.69	-123.75	0.00	3.86	38.24

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	41.23	2.50	17500.70	34299.40	424.487
2T		1	22.92	2.50	17500.70	33431.50	763.511

Numero del nucleo n. 1898

Nodi: -6273 -6281 -6287 1790



Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-13118.20	654.81	0.00	-13118.20	2971.62	0.00	4.538
2	P	1	SLU	-14343.90	-248.04	0.00	-14343.90	-3005.54	0.00	12.117
3	P	1	SLU	-12411.00	-215.02	0.00	-12411.00	-2952.01	0.00	13.729

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cmq>	$\sigma_f$ <daN/cmq>
1	P	2	SLE R	-9299.61	460.74	0.00	13.21	107.38
1	P	4	SLE Q	-7906.54	375.64	0.00	10.68	89.55
2	P	2	SLE R	-10105.80	-176.23	0.00	6.43	75.48
2	T	2	SLE R	-9638.58	0.00	2279.48	6.23	91.78
2	P	4	SLE Q	-8512.93	-138.43	0.00	5.26	62.40
3	P	2	SLE R	-8681.01	-150.05	0.00	5.50	64.68
3	P	2	SLE R	-8681.01	0.00	1058.37	4.40	65.32
3	P	4	SLE Q	-7323.94	-120.83	0.00	4.55	53.89

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	4468.32	2.50	17295.40	38603.50	3.871
2	T	1	8104.24	2.50	17295.40	38697.60	2.134

Numero del nucleo n. 1899

Nodi: -6275 -6282 -6288 1791

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1	P	1	SLU	-17405.40	-599.83	0.00	-17405.40	-3090.11	0.00	5.152
2	T	1	SLU	-17227.20	0.00	4393.00	-17227.20	0.00	43811.10	9.973
3	P	1	SLU	-15034.80	229.85	0.00	-15034.80	3024.72	0.00	13.160

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cmq>	$\sigma_f$ <daN/cmq>
1	P	2	SLE R	-12355.60	-422.84	0.00	11.75	118.63
1	P	4	SLE Q	-10195.90	-347.45	0.00	9.66	97.69
2	T	2	SLE R	-12153.50	0.00	3089.86	8.11	119.49
2	T	4	SLE Q	-9909.80	0.00	2489.65	6.58	96.91
3	P	2	SLE R	-10597.30	160.47	0.00	6.35	76.27
3	P	2	SLE R	-10597.30	0.00	1136.52	5.19	77.03
3	P	4	SLE Q	-8724.45	128.56	0.00	5.18	62.37

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1	P	1	6131.35	2.50	17295.40	39255.70	2.821
2	P	1	9719.01	2.50	17295.40	39321.00	1.780

Numero del nucleo n. 1900

Nodi: -6278 -6284 -6290 1795

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione



Relazione di calcolo

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-15652.10	-600.20	0.00	-15652.10	-3041.73	0.00	5.068
	2T	1	SLU	-15777.00	0.00	4056.18	-15777.00	0.00	43240.70	10.661
	3P	1	SLU	-14002.30	220.45	0.00	-14002.30	2996.10	0.00	13.591

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
	1P	2	SLE R	-11112.30	-422.77	0.00	11.70	112.56
	1P	4	SLE Q	-9231.91	-345.69	0.00	9.56	92.75
	2T	2	SLE R	-11117.40	0.00	2852.31	7.45	109.75
	2T	4	SLE Q	-9104.99	0.00	2298.52	6.06	89.23
	3P	2	SLE R	-9855.05	153.78	0.00	5.98	71.46
	3P	2	SLE R	-9855.05	0.00	1261.19	5.07	75.19
	3P	4	SLE Q	-8149.60	123.11	0.00	4.88	58.61

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	5483.38	2.50	17295.40	38989.00	3.154
	2P	1	8787.39	2.50	17295.40	39100.40	1.968

Numero del nucleo n. 1901

Nodi: -6276 -6277 -6278

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-12603.60	-195.19	0.00	-12603.60	-2677.25	0.00	13.716
	2P	1	SLU	-7454.05	308.34	0.00	-7454.05	2534.31	0.00	8.219
	3P	1	SLU	-6083.21	-206.58	0.00	-6083.21	-2496.03	0.00	12.083

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
	1P	2	SLE R	-8978.76	-139.13	0.00	6.12	73.16
	1P	4	SLE Q	-7301.48	-111.66	0.00	4.95	59.30
	2P	2	SLE R	-5323.61	218.23	0.00	6.83	63.09
	2P	4	SLE Q	-4352.23	170.37	0.00	5.31	50.36
	3P	2	SLE R	-4329.20	-146.25	0.00	4.58	46.49
	3P	4	SLE Q	-3486.72	-115.21	0.00	3.62	37.04

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctg $\theta$	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	159.79	2.50	17500.70	34324.80	109.526
	2P	1	140.42	2.50	17500.70	33543.40	124.628

Numero del nucleo n. 1988

Nodi: -6354 -6361 -6367 -6375

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cm <sup>2</sup> >	Fctm <daN/cm <sup>2</sup> >	Fcd <daN/cm <sup>2</sup> >	Fcd (Tag) <daN/cm <sup>2</sup> >	Fctd <daN/cm <sup>2</sup> >	Fym <daN/cm <sup>2</sup> >	Fyd <daN/cm <sup>2</sup> >	Fyd (Tag) <daN/cm <sup>2</sup> >
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-13293.30	-213.79	0.00	-13293.30	-2976.50	0.00	13.923
	2T	1	SLU	-14345.00	-989.11	0.00	-14345.00	-3005.54	0.00	3.039

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	$\sigma_c$ <daN/cm <sup>2</sup> >	$\sigma_f$ <daN/cm <sup>2</sup> >
	1P	2	SLE R	-9310.54	-148.88	0.00	5.71	67.94
	1P	4	SLE Q	-7795.68	-119.71	0.00	4.70	56.30



Relazione di calcolo

2T	2	SLE R	-9933.16	-685.80	0.00	21.21	250.14
2T	2	SLE R	-9933.16	0.00	7874.59	17.47	283.76
2T	4	SLE Q	-8150.14	-552.04	0.00	17.00	194.83

Stato limite d'esercizio - Verifiche a fessurazione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
2T		4	SLE Q	-8150.14	0.00	6396.87	31.00	95.00	0.50	8.00	206.82	1.51	272.97	226.82	0.07	0.02
2T		3	SLE F	-8607.98	0.00	6779.57	31.00	95.00	0.50	8.00	207.16	1.51	273.61	241.74	0.07	0.02

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	9472.07	2.50	19766.10	38630.20	2.087
2T		1	4028.48	2.50	19766.10	38790.20	4.907

Numero del nucleo n. 1996

Nodi: -6351 -6352 -6353

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-6045.80	-220.67	0.00	-6045.80	-1998.73	0.00	9.058
2T		1	SLU	-2185.17	291.86	0.00	-2185.17	1886.41	0.00	6.463

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>ε</sub> <daN/cmq>
1P		2	SLE R	-4299.61	-156.73	0.00	5.03	49.32
1P		4	SLE Q	-3462.69	-123.75	0.00	3.97	39.32
2T		2	SLE R	-1494.54	206.91	0.00	8.88	223.21
2T		4	SLE Q	-1106.13	160.21	0.00	6.91	177.16

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
1P		1	1.68	2.50	20417.40	33329.70	*****
2P		1	9.69	2.50	20417.40	32825.70	*****

Numero del nucleo n. 1998

Nodi: -6351 -6359 -6365 -6372

Caratteristiche delle sezioni e dei materiali utilizzati

Spess. <cm>	Cf <cm>	Fcm <daN/cmq>	Fctm <daN/cmq>	Fcd <daN/cmq>	Fcd (Tag) <daN/cmq>	Fctd <daN/cmq>	Fym <daN/cmq>	Fyd <daN/cmq>	Fyd (Tag) <daN/cmq>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
1P		1	SLU	-12411.00	-215.02	0.00	-12411.00	-2952.01	0.00	13.729
2T		1	SLU	-14030.90	-1018.41	0.00	-14030.90	-2996.89	0.00	2.943

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cmq>	σ <sub>ε</sub> <daN/cmq>
1P		2	SLE R	-8681.01	-150.05	0.00	5.50	64.68
1P		2	SLE R	-8681.01	0.00	1058.37	4.40	65.32
1P		4	SLE Q	-7323.94	-120.83	0.00	4.55	53.89
2T		2	SLE R	-9706.23	-706.68	0.00	22.08	280.66
2T		4	SLE Q	-7994.20	-569.58	0.00	17.72	218.74

Stato limite d'esercizio - Verifiche a fessurazione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cmq>	A <sub>c eff</sub> <cmq>	σ <sub>s</sub> <daN/cmq>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
2T		4	SLE Q	-7994.20	0.00	6218.40	31.00	95.00	0.50	8.00	205.93	1.51	271.30	217.27	0.06	0.02
2T		3	SLE F	-8432.16	0.00	6578.55	31.00	95.00	0.50	8.00	206.22	1.51	271.85	230.98	0.07	0.02



Relazione di calcolo

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1	P	1 8533.66	2.50	17295.40	38496.00	2.027
	2	T	1 2956.58	2.50	17295.40	38742.40	5.850

Numero del nucleo n. 1999

Nodi: -6353 -6360 -6366 -6374

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1	P	1 SLU	-15034.80	229.85	0.00	-15034.80	3024.72	0.00	13.160
	2	T	1 SLU	-15379.70	1011.14	0.00	-15379.70	3034.21	0.00	3.001

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm²>	σ <sub>t</sub> <daN/cm²>
	1	P	2 SLE R	-10597.30	160.47	0.00	6.35	76.27
	1	P	2 SLE R	-10597.30	0.00	1136.52	5.19	77.03
	1	P	4 SLE Q	-8724.45	128.56	0.00	5.18	62.37
	2	T	2 SLE R	-10719.30	704.51	0.00	21.56	235.46
	2	T	2 SLE R	-10719.30	0.00	8504.47	18.87	306.84
	2	T	4 SLE Q	-8716.48	566.15	0.00	17.28	185.05

Stato limite d'esercizio - Verifiche a fessurazione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm²>	A <sub>c eff</sub> <cm²>	σ <sub>s</sub> <daN/cm²>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
	2	T	4 SLE Q	-8716.48	0.00	6850.83	31.00	95.00	0.50	8.00	206.95	1.51	273.23	243.46	0.07	0.02
	2	T	3 SLE F	-9244.59	0.00	7289.24	31.00	95.00	0.50	8.00	207.27	1.51	273.82	260.39	0.08	0.03

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1	P	1 10390.80	2.50	17295.40	38895.10	1.664
	2	P	1 4363.30	2.50	17295.40	39040.00	3.964

Numero del nucleo n. 2000

Nodi: -6356 -6362 -6368 -6377

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1	P	1 SLU	-14002.30	220.45	0.00	-14002.30	2996.10	0.00	13.591
	2	T	1 SLU	-14727.30	993.52	0.00	-14727.30	3016.12	0.00	3.036

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm²>	σ <sub>t</sub> <daN/cm²>
	1	P	2 SLE R	-9855.05	153.78	0.00	5.98	71.46
	1	P	2 SLE R	-9855.05	0.00	1261.19	5.07	75.19
	1	P	4 SLE Q	-8149.60	123.11	0.00	4.88	58.61
	2	T	2 SLE R	-10244.20	690.91	0.00	21.26	242.02
	2	T	2 SLE R	-10244.20	0.00	8075.38	17.90	288.36
	2	T	4 SLE Q	-8339.36	554.13	0.00	17.00	188.98

Stato limite d'esercizio - Verifiche a fessurazione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	c <mm>	s <mm>	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub> <mm>	A <sub>s</sub> <cm²>	A <sub>c eff</sub> <cm²>	σ <sub>s</sub> <daN/cm²>	ε <sub>sm</sub>	W <sub>k</sub> <mm>
	2	T	4 SLE Q	-8339.36	0.00	6516.27	31.00	95.00	0.50	8.00	206.38	1.51	272.14	229.37	0.07	0.02
	2	T	3 SLE F	-8839.61	0.00	6927.82	31.00	95.00	0.50	8.00	206.67	1.51	272.70	245.06	0.07	0.03



Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	9355.28	2.50	17295.40	38738.00	1.849
	2T	1	3640.27	2.50	17295.40	38848.30	4.751

Numero del nucleo n. 2001

Nodi: -6354 -6355 -6356

Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
14.00	3.50	204.50	16.12	144.85	96.57	8.95	4300.00	3583.33	3115.94

Stato limite ultimo - Verifiche a flessione/pressoflessione

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	Nu <daN>	MRdy, r <daNm>	MRdz, r <daNm>	Sic.
	1P	1	SLU	-6083.21	-206.58	0.00	-6083.21	-1999.76	0.00	9.680
	2T	1	SLU	-2257.78	278.44	0.00	-2257.78	1888.55	0.00	6.783

Stato limite d'esercizio - Verifiche tensionali

Liv.	Pos.	CC	TCC	N <daN>	My <daNm>	Mz <daNm>	σ <sub>c</sub> <daN/cm²>	σ <sub>f</sub> <daN/cm²>
	1P	2	SLE R	-4329.20	-146.25	0.00	4.71	47.81
	1P	4	SLE Q	-3486.72	-115.21	0.00	3.72	38.09
	2T	2	SLE R	-1548.68	197.00	0.00	8.38	201.93
	2T	4	SLE Q	-1149.06	152.39	0.00	6.51	160.31

Stato limite ultimo - Verifiche a taglio

Liv.	Pos.	CC	Vsdu <daN>	ctgθ	VRsd <daN>	VRcd <daN>	Sic.
	1P	1	107.75	2.50	20417.50	33335.40	189.489
	2T	1	56.09	2.50	20417.50	32755.00	363.987

Verifiche e armature solette/platee

Simbologia

- Δ<sub>sm</sub> =Distanza media tra le fessure
- Φ<sub>eq</sub> =Diametro equivalente delle barre
- ε<sub>sm</sub> =Deformazione unitaria media dell'armatura (\*1000)
- σ<sub>c</sub> =Tensione nel calcestruzzo
- σ<sub>f</sub> =Tensione nel ferro
- σ<sub>s</sub> =Tensione nell'acciaio nella sezione fessurata
- A<sub>c eff</sub> =Area di calcestruzzo efficace
- A<sub>s</sub> =Area complessiva dei ferri nell'area di calcestruzzo efficace
- A<sub>fE I</sub> =Area di ferro effettiva totale presente nel punto di verifica, inferiore
- A<sub>fE S</sub> =Area di ferro effettiva totale presente nel punto di verifica, superiore
- A<sub>fE St.</sub> =Area di ferro effettiva della staffatura
- CC =Numero della combinazione delle condizioni di carico elementari
- Cf inf =Copriferro inferiore
- Cf sup =Copriferro superiore
- DV =Direzione di verifica
  - XX = Verifica per momento Mxx
  - YY = Verifica per momento Myy
- Fcd =Resistenza di calcolo a compressione del calcestruzzo
- Fcd (Tag) =Resistenza di calcolo a compressione del calcestruzzo per verifica a taglio
- Fcm =Resistenza media
- Fctd =Resistenza di calcolo a trazione del calcestruzzo
- Fctm =Resistenza media a trazione
- Fyd =Resistenza di calcolo dell'acciaio
- Fyd (Tag) =Resistenza di calcolo dell'acciaio per verifica a taglio
- Fym =Tensione media di snervamento
- K<sub>2</sub> =Coefficiente per distribuzione deformazioni
- MRdy =Momento resistente allo stato limite ultimo intorno all'asse Y
- Mom =Momento flettente
- My =Momento flettente intorno all'asse Y
- Nodo =Numero del nodo
- Sic. =Sicurezza
- Spess. =Spessore
- TCC =Tipo di combinazione di carico
  - SLU = Stato limite ultimo
  - SLE R = Stato limite d'esercizio, combinazione rara
  - SLE F = Stato limite d'esercizio, combinazione frequente



## Relazione di calcolo

	SLE Q = Stato limite d'esercizio, combinazione quasi permanente
VRcd	=Taglio ultimo lato calcestruzzo
VRsd	=Taglio ultimo lato armatura
Vrdu	=Taglio ultimo resistente
Vsdu	=Taglio agente nella direzione del momento ultimo
Wk	=Ampiezza caratteristica delle fessure
X	=Coordinata X del nodo
Y	=Coordinata Y del nodo
c	=Ricoprimento dell'armatura
s	=Distanza massima tra le barre

## Armatura platea a quota -3.60

### Caratteristiche delle sezioni e dei materiali utilizzati

Spess.	Cf sup	Cf inf	Fcm	Fctm	Fcd	Fcd (Tag)	Fctd	Fym	Fyd	Fyd (Tag)
<cm>	<cm>	<cm>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>	<daN/cm²>
70.00	3.00	3.00	370.50	28.35	262.44	174.96	15.75	4300.00	3583.33	3115.94

### Stato limite ultimo - Verifiche a flessione/pressoflessione

Nodo	X	Y	DV	CC	TCC	AfE S	AfE I	My	MRdy	Sic.
	<m>	<m>				<cmq>	<cmq>	<daNm>	<daNm>	
-9	54.14	4.66	XX	1	SLU	15.71	15.71	32688.30	37122.40	1.136
-34	50.68	7.55	XX	1	SLU	15.71	15.71	-41519.40	-37122.40	0.894
-42	50.68	8.66	YY	1	SLU	15.71	15.71	33345.70	37122.40	1.113
-5	50.68	4.66	YY	1	SLU	15.71	15.71	-51571.00	-37122.40	0.720

### Stato limite ultimo - Verifiche a taglio

Nodo	X	Y	DV	CC	TCC	AfE S	AfE I	AfE St.	Vsdu	VRcd	VRsd	Vrdu	Sic.T
	<m>	<m>				<cmq>	<cmq>	<cmq/m>	<daN>	<daN>	<daN>	<daN>	
-8	53.47	4.66	XX	1	SLU	15.71	15.71	78.54	106662.00	263750.00	147569.00	147569.00	1.38
-27	50.68	6.96	YY	1	SLU	15.71	15.71	78.54	113547.00	263750.00	147569.00	147569.00	1.30

### Stato limite d'esercizio - Verifiche tensionali

Nodo	X	Y	DV	CC	TCC	AfE S	AfE I	Mom	σc	σf
	<m>	<m>				<cmq>	<cmq>	<daNm>	<daN/cm²>	<daN/cm²>
-9	54.14	4.66	XX	2	SLE R	15.71	15.71	23413.20	42.08	2378.47
-9	54.14	4.66	XX	4	SLE Q	15.71	15.71	20552.10	36.94	2087.82
-34	50.68	7.55	XX	2	SLE R	15.71	15.71	-29605.30	53.21	3007.50
-34	50.68	7.55	XX	4	SLE Q	15.71	15.71	-24906.90	44.76	2530.21
-42	50.68	8.66	YY	2	SLE R	15.71	15.71	23917.60	42.99	2429.71
-42	50.68	8.66	YY	4	SLE Q	15.71	15.71	20398.60	36.66	2072.22
-5	50.68	4.66	YY	2	SLE R	15.71	15.71	-36920.70	66.36	3750.65
-5	50.68	4.66	YY	4	SLE Q	15.71	15.71	-32194.70	57.86	3270.55

### Stato limite d'esercizio - Verifiche a fessurazione

Nodo	X	Y	DV	CC	TCC	c	s	K <sub>2</sub>	Φ <sub>eq</sub>	Δ <sub>sm</sub>	A <sub>s</sub>	A <sub>c eff</sub>	σ <sub>s</sub>	ε <sub>sm</sub>	Wk
	<m>	<m>				<mm>	<mm>			<mm>	<cmq>	<cmq>	<daN/cm²>		<mm>
-9	54.14	4.66	XX	4	SLE Q	20.00	200.00	0.50	20.00	419.62	18.85	904.51	2087.82	0.71	0.51
-9	54.14	4.66	XX	3	SLE F	20.00	200.00	0.50	20.00	419.62	18.85	904.51	2169.94	0.63	0.45
-34	50.68	7.55	XX	4	SLE Q	20.00	200.00	0.50	20.00	419.62	18.85	904.51	2530.21	0.93	0.66
-34	50.68	7.55	XX	3	SLE F	20.00	200.00	0.50	20.00	419.62	18.85	904.51	2664.39	0.84	0.60
-42	50.68	8.66	YY	4	SLE Q	20.00	200.00	0.50	20.00	419.62	18.85	904.51	2072.22	0.71	0.50
-42	50.68	8.66	YY	3	SLE F	20.00	200.00	0.50	20.00	419.62	18.85	904.51	2172.99	0.63	0.45
-5	50.68	4.66	YY	4	SLE Q	20.00	200.00	0.50	20.00	419.62	18.85	904.51	3270.55	1.29	0.92
-5	50.68	4.66	YY	3	SLE F	20.00	200.00	0.50	20.00	419.62	18.85	904.51	3406.02	1.20	0.86

## Verifiche aste in acciaio

### Simbologia

Φ <sub>LT</sub>	=	Coefficiente Φ per stabilità laterale membrature inflesse
Φ <sub>y</sub>	=	Coefficiente Φ per inflessione intorno all'asse y(c)
Φ <sub>z</sub>	=	Coefficiente Φ per inflessione intorno all'asse z(e)
α <sub>imp</sub>	=	Coefficiente di imperfezione
α <sub>my</sub> , α <sub>mz</sub> , α <sub>LT</sub>	=	Coefficienti correttivi per il momento flettente
β <sub>LT</sub>	=	Coefficiente per calcolo Φ <sub>LT</sub>
χ <sub>LT</sub>	=	Coefficiente di riduzione per stabilità laterale membrature inflesse
χ <sub>y</sub>	=	Coefficiente χ di riduzione per instabilità intorno all'asse y(c)
χ <sub>z</sub>	=	Coefficiente χ di riduzione per instabilità intorno all'asse z(e)
λ <sub>y</sub>	=	Snellezza adimensionale per inflessione intorno all'asse y(c)
λ <sub>z</sub>	=	Snellezza adimensionale per inflessione intorno all'asse z(e)
λ <sub>LT</sub>	=	Coefficiente di imperfezione per stabilità laterale membrature inflesse
λ <sub>LT,0</sub>	=	Coefficiente di imperfezione di confronto per stabilità laterale membrature inflesse
λ <sub>y</sub>	=	Snellezza per inflessione intorno all'asse y(c)
λ <sub>z</sub>	=	Snellezza per inflessione intorno all'asse z(e)
ψ	=	Coeff. di correzione momento critico per stabilità laterale membrature inflesse
A <sub>eff</sub>	<cmq>	= Area effettiva per trazione
A <sub>net</sub>	<cmq>	= Area netta per compressione
A <sub>ea</sub>	<cmq>	= Area
A <sub>tag,y</sub>	<cmq>	= Area resistente a taglio in dir. Y
A <sub>tag,z</sub>	<cmq>	= Area resistente a taglio in dir. Z
CC		= Numero della combinazione delle condizioni di carico elementari
Cod.		= Codice



Relazione di calcolo

Curva		= Curva di instabilità adottata
D	<cm>	= Distanza
Fyk	<daN/cm>	= Tensione caratteristica di snervamento dell'acciaio
Fyt	<daN/cm>	= Tensione caratteristica di rottura
Iy	<cm>	= Raggio giratorio d'inerzia rispetto all'asse Y
Iz	<cm>	= Raggio giratorio d'inerzia rispetto all'asse Z
J0	<cm6>	= Costante di ingobbamento
Jy	<cm4>	= Momento d'inerzia rispetto all'asse Y
Jz	<cm4>	= Momento d'inerzia rispetto all'asse Z
Kyy, Kyz, Kzy, Kzz		= Coefficienti di interazione
L	<m>	= Lunghezza dell'asta
Lcr	<m>	= Lunghezza di libera inflessione laterale fra ritegni torsionali
M, cr	<daNm>	= Momento critico per instabilità flesso torsionale
MNy, c, Rd	<daNm>	= Resistenza di calcolo a pressoflessione intorno all'asse Y
My	<daNm>	= Momento flettente intorno all'asse Y
My, Ed	<daNm>	= Momento flettente di calcolo intorno all'asse Y
My, V, c, Rd	<daNm>	= Resistenza di calcolo a flessione ridotta per taglio intorno all'asse Y
My, b, Rd	<daNm>	= Resistenza di calcolo a flessione ridotta per stabilità laterale membrature inflesse
My, c, Rd	<daNm>	= Resistenza di calcolo a flessione intorno all'asse Y
Mz	<daNm>	= Momento flettente intorno all'asse Z
N	<daN>	= Sforzo normale
N, Ed	<daN>	= Forza assiale di calcolo
Nc, Rd	<daN>	= Resistenza a compressione
Ncr, y	<daN>	= Sforzo normale critico euleriano per inflessione intorno all'asse y(c)
Ncr, z	<daN>	= Sforzo normale critico euleriano per inflessione intorno all'asse z(e)
Sez.		= Numero della sezione
Tipo		= Tipologia
		2I = Doppia I
		L = Sezione a L
		Ldx = L destra
		R = Rettangolare
		Rc = Rettangolare cava
		T = Sezione a T
Tp		= Tipo di acciaio
Ty	<daN>	= Taglio in dir. Y
Tz	<daN>	= Taglio in dir. Z
V, Ed	<daN>	= Forza di taglio di calcolo
Vc, Rd	<daN>	= Resistenza a taglio
Wy, plas	<cmc>	= Modulo di resistenza plastico intorno all'asse Y
Wymin	<cmc>	= Modulo di resistenza minimo rispetto all'asse Y
Wz, plas	<cmc>	= Modulo di resistenza plastico intorno all'asse Z
Wzmin	<cmc>	= Modulo di resistenza minimo rispetto all'asse Z
Xl	<m>	= Coordinata progressiva (dal nodo iniziale dell'asta) in cui viene effettuato il progetto/verifica
f		= Fattore di modifica per il coefficiente di riduzione
fz, g	<cm>	= Freccia in direzione Z globale
fz, L	<cm>	= Freccia in direzione Z locale
kc		= Coeff. di correzione momento flettente per stabilità laterale membrature inflesse

Caratteristiche profilati utilizzati

Sez.	Cod.	Tipo	D <cm>	Area <cmq>	Anet <cmq>	Aeff <cmq>	Jy <cm4>	Jz <cm4>	Iy <cm>	Iz <cm>	Wymin <cmc>	Wzmin <cmc>	Tp	Fyk <daN/cm>	Fyt <daN/cm>
55	NTr. 2xIPE200	2I	40.00	56.97	56.97	56.97	3886.45	35890.80	8.26	25.10	388.64	1196.36	S235 UNI EN 10025-2	2350.00	3600.00

Caratteristiche profilati utilizzati

Sez.	Cod.	Wy, plas <cmc>	Wz, plas <cmc>	Atag, y <cmq>	Atag, z <cmq>	J0 <cm6>
55	NTr. 2xIPE200	443.29	0.00	39.16	28.00	12988.10

Asta n. 11007 (1132 1193) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=3.25 - Classe 1  
Sollecitazioni: Ty=33.77  
V,Ed=33.77 Vc,Rd=50605.00 V,Ed/Vc,Rd=0.00

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=3.25 - Classe 1  
Sollecitazioni: Tz=-9838.97  
V,Ed=-9838.97 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.27

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.52 - Classe 1  
Sollecitazioni: N=26.53 My=-4975.53 Ty=33.77 Mz=44.64  
My,Ed=-4975.53 My,c,Rd=9921.19  
N,Ed=26.53 Nc,Rd=127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.50

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
Lcr=1.62 Curva b:  $\alpha_{imp}=0.34$  kc=0.94  $\psi=1.75$  M,cr=22777.60  $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$  f=0.98  $\chi_{LT}=0.99$   
My,Ed=-4975.53 My,b,Rd=9848.88 My,Ed/My,b,Rd=0.51

- Verifica freccia massima per soli carichi accidentali - CC 2  
fz,L=0.10 (L/3114)

- Verifica freccia massima carichi totali - CC 2  
fz,L=0.37 (L/823)

Asta n. 17007 (1791 1792) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.72 - Classe 1  
Sollecitazioni: Tz=-6921.36  
V,Ed=-6921.36 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.19

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=0.72 - Classe 1  
Sollecitazioni: N=157.14 Tz=-6921.36 My=4099.84



## Relazione di calcolo

My,Ed=4099.84 My,V,c,Rd=9921.19  
N,Ed=157.14 Nc,Rd=127504.00 YY n=N,Ed/Nc,Rd=0.00 MNY,c,Rd=9921.19 My,Ed/MNY,c,Rd=0.41

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
L<sub>cr</sub>=0.36 Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$  M<sub>cr</sub>=385091.00  $\lambda_{LT}=0.12$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
My,Ed=4099.84 My,b,Rd=9921.19 My,Ed/My,b,Rd=0.41

- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,L</sub>=0.00 (L/17975)

- Verifica freccia massima carichi totali - CC 2  
f<sub>z,L</sub>=0.02 (L/4548)

Asta n. 30008 (325 326) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.23 - Classe 1  
Sollecitazioni: T<sub>z</sub>=8327.26  
V,Ed=8327.26 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.23
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.69 - Classe 1  
Sollecitazioni: N=214.09 M<sub>y</sub>=-6089.31  
My,Ed=-6089.31 My,c,Rd=9921.19  
N,Ed=214.09 Nc,Rd=127504.00 YY n=N,Ed/Nc,Rd=0.00 MNY,c,Rd=9921.19 My,Ed/MNY,c,Rd=0.61

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
L<sub>cr</sub>=1.62 Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$  M<sub>cr</sub>=22777.60  $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
My,Ed=-6089.31 My,b,Rd=9848.88 My,Ed/My,b,Rd=0.62

- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,L</sub>=0.13 (L/2336)

- Verifica freccia massima carichi totali - CC 2  
f<sub>z,L</sub>=0.46 (L/631)

Asta n. 30008 (326 327) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=3.15 - Classe 1  
Sollecitazioni: T<sub>z</sub>=-8398.43  
V,Ed=-8398.43 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.23
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.68 - Classe 1  
Sollecitazioni: N=124.72 M<sub>y</sub>=-6193.84  
My,Ed=-6193.84 My,c,Rd=9921.19  
N,Ed=124.72 Nc,Rd=127504.00 YY n=N,Ed/Nc,Rd=0.00 MNY,c,Rd=9921.19 My,Ed/MNY,c,Rd=0.62

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
L<sub>cr</sub>=1.62 Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$  M<sub>cr</sub>=22777.60  $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
My,Ed=-6193.84 My,b,Rd=9848.88 My,Ed/My,b,Rd=0.63

- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,L</sub>=0.13 (L/2277)

- Verifica freccia massima carichi totali - CC 2  
f<sub>z,L</sub>=0.48 (L/615)

Asta n. 30008 (327 389) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=3.20 - Classe 1  
Sollecitazioni: T<sub>y</sub>=-12.70  
V,Ed=-12.70 Vc,Rd=50605.00 V,Ed/Vc,Rd=0.00
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=3.20 - Classe 1  
Sollecitazioni: T<sub>z</sub>=-9590.81  
V,Ed=-9590.81 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.27
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.52 - Classe 1  
Sollecitazioni: N=88.05 M<sub>y</sub>=-4927.35 T<sub>y</sub>=-12.70 M<sub>z</sub>=-16.71  
My,Ed=-4927.35 My,c,Rd=9921.19  
N,Ed=88.05 Nc,Rd=127504.00 YY n=N,Ed/Nc,Rd=0.00 MNY,c,Rd=9921.19 My,Ed/MNY,c,Rd=0.50
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
L<sub>cr</sub>=1.60 Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$  M<sub>cr</sub>=23377.20  $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
My,Ed=-4927.35 My,b,Rd=9871.82 My,Ed/My,b,Rd=0.50
- Verifica freccia massima per soli carichi accidentali - CC 2



## Relazione di calcolo

$f_{z,L}=0.09$  (L/3187)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/844)

Asta n. 30008 (389 390) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=239.56$   
 $V,Ed=239.56$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=6626.68$   
 $V,Ed=6626.68$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.18$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=251.63$   $T_z=6626.68$   $M_y=3803.54$   $T_y=239.56$   $M_z=-167.69$   
 $M_y,Ed=3803.54$   $M_y,V,c,Rd=9921.19$   
 $N,Ed=251.63$   $N_c,Rd=127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MN_y,c,Rd=9921.19$   $M_y,Ed/MN_y,c,Rd=0.38$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=0.35$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=407149.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $M_y,Ed=3803.54$   $M_y,b,Rd=9921.19$   $M_y,Ed/M_y,b,Rd=0.38$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/18942)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/5027)

Asta n. 30010 (391 392) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_y=236.05$   
 $V,Ed=236.05$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_z=-6401.16$   
 $V,Ed=-6401.16$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.18$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $N=337.21$   $T_z=-6401.16$   $M_y=3725.29$   $T_y=236.05$   $M_z=169.95$   
 $M_y,Ed=3725.29$   $M_y,V,c,Rd=9921.19$   
 $N,Ed=337.21$   $N_c,Rd=127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MN_y,c,Rd=9921.19$   $M_y,Ed/MN_y,c,Rd=0.38$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=0.36$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=385091.00$   $\lambda_{LT}=0.12$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $M_y,Ed=3725.29$   $M_y,b,Rd=9921.19$   $M_y,Ed/M_y,b,Rd=0.38$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/19235)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/5118)

Asta n. 30010 (392 328) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-91.50$   
 $V,Ed=-91.50$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9521.17$   
 $V,Ed=9521.17$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.67$  - Classe 1  
Sollecitazioni:  $N=-126.88$   $M_y=-4869.33$   $T_y=-91.50$   $M_z=119.67$   
 $M_y,Ed=-4869.33$   $M_y,c,Rd=9921.19$   
 $N,Ed=-126.88$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MN_y,c,Rd=9921.19$   $M_y,Ed/MN_y,c,Rd=0.49$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-126.88$   $M_y,Ed=-4869.33$   $L=3.18$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.59$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23624.70$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.59$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.50$   $N_{cr,y}=398279.00$   $\lambda^*_y=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=142.24$   $N_{cr,z}=29179.60$   $\lambda^*_z=1.51$  Curva b:  $\Phi_z=1.87$   $\chi_z=0.34$



## Relazione di calcolo

Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.96  
Verifica YY: 0.00+0.47=0.47  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3238)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.35$  (L/860)

Asta n. 30010 (328 329) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.10$  - Classe 1  
Sollecitazioni:  $T_z=8113.75$   
 $V, Ed=8113.75$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.22$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1  
Sollecitazioni:  $N=14.47$   $M_y=-5781.05$   
 $M_y, Ed=-5781.05$   $M_y, c, Rd=9921.19$   
 $N, Ed=14.47$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.58$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-5781.05$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.59$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.11$  (L/2525)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.42$  (L/682)

Asta n. 30010 (329 330) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8398.44$   
 $V, Ed=-8398.44$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.68$  - Classe 1  
Sollecitazioni:  $N=187.29$   $M_y=-6193.85$   
 $M_y, Ed=-6193.85$   $M_y, c, Rd=9921.19$   
 $N, Ed=187.29$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.62$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-6193.85$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.63$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2278)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.48$  (L/615)

Asta n. 30010 (330 331) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8398.44$   
 $V, Ed=-8398.44$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.68$  - Classe 1  
Sollecitazioni:  $N=-508.11$   $M_y=-6193.85$   
 $M_y, Ed=-6193.85$   $M_y, c, Rd=9921.19$   
 $N, Ed=-508.11$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.62$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-508.11$   $M_y, Ed=-6193.85$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda^*_y=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda^*_z=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.59, 0.00, 0.98  
Verifica YY: 0.00+0.60=0.60  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2281)



## Relazione di calcolo

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.48$  (L/616)

Asta n. 30010 (331 332) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $Xl=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8398.44$   
 $V,Ed=-8398.44$   $Vc,Rd=36184.00$   $V,Ed/Vc,Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $Xl=1.68$  - Classe 1  
Sollecitazioni:  $N=-844.40$   $M_y=-6193.85$   
 $M_y,Ed=-6193.85$   $M_y,c,Rd=9921.19$   
 $N,Ed=-844.40$   $Nc,Rd=127504.00$   $YY$   $n=N,Ed/Nc,Rd=0.01$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.62$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-844.40$   $M_y,Ed=-6193.85$   $L=3.25$

$\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda^*_{y}=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda^*_{z}=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.95$ ,  $0.60$ ,  $0.00$ ,  $1.00$   
Verifica YY:  $0.01+0.60=0.61$   
Verifica ZZ:  $0.01=0.01$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2276)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.48$  (L/615)

Asta n. 30010 (332 393) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $Xl=3.25$  - Classe 1  
Sollecitazioni:  $T_y=-97.42$   
 $V,Ed=-97.42$   $Vc,Rd=50605.00$   $V,Ed/Vc,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $Xl=3.25$  - Classe 1  
Sollecitazioni:  $T_z=-9857.65$   
 $V,Ed=-9857.65$   $Vc,Rd=36184.00$   $V,Ed/Vc,Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $Xl=1.52$  - Classe 1  
Sollecitazioni:  $N=-1707.81$   $M_y=-4950.87$   $T_y=-97.42$   $M_z=-128.47$   
 $M_y,Ed=-4950.87$   $M_y,c,Rd=9921.19$   
 $N,Ed=-1707.81$   $Nc,Rd=127504.00$   $YY$   $n=N,Ed/Nc,Rd=0.01$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.50$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-1707.81$   $M_y,Ed=-4950.87$   $L=3.25$

$\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda^*_{y}=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda^*_{z}=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.96$ ,  $0.64$ ,  $0.00$ ,  $1.06$   
Verifica YY:  $0.01+0.48=0.49$   
Verifica ZZ:  $0.01=0.01$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3147)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.37$  (L/835)

Asta n. 30010 (393 394) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $Xl=0.00$  - Classe 1  
Sollecitazioni:  $T_y=651.60$   
 $V,Ed=651.60$   $Vc,Rd=50605.00$   $V,Ed/Vc,Rd=0.01$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $Xl=0.00$  - Classe 1  
Sollecitazioni:  $T_z=6974.57$   
 $V,Ed=6974.57$   $Vc,Rd=36184.00$   $V,Ed/Vc,Rd=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $Xl=0.00$  - Classe 1  
Sollecitazioni:  $N=-349.48$   $T_z=6974.57$   $M_y=3813.38$   $T_y=651.60$   $M_z=-423.54$   
 $M_y,Ed=3813.38$   $M_y,V,c,Rd=9921.19$   
 $N,Ed=-349.48$   $Nc,Rd=127504.00$   $YY$   $n=N,Ed/Nc,Rd=0.00$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.38$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1



## Relazione di calcolo

Sollecitazioni: N,Ed=-349.48 My,Ed=3813.38 L=0.65  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ , 0.95, 0.95  
 $L_{cr}=0.33$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=471480.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=7.87$  Ncr,y=9532760.00  $\lambda_y^*=0.08$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.07$  Ncr,z=698410.00  $\lambda_z^*=0.31$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.36=0.37  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/19335)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/5124)

Asta n. 30012 (395 396) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_y=9.88$   
 $V,Ed=9.88$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_z=-6793.60$   
 $V,Ed=-6793.60$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni: N=543.62  $T_z=-6793.60$   $M_y=3786.62$   $T_y=9.88$   $M_z=6.62$   
 $My,Ed=3786.62$   $My,V,c,Rd=9921.19$   
N,Ed=543.62  $N_c,Rd=127504.00$  YY n=N,Ed/Nc,Rd=0.00  $MNy,c,Rd=9921.19$   $My,Ed/MNy,c,Rd=0.38$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=0.34$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=444017.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $My,Ed=3786.62$   $My,b,Rd=9921.19$   $My,Ed/My,b,Rd=0.38$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/18860)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/5118)

Asta n. 30012 (396 333) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=23.58$   
 $V,Ed=23.58$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9722.79$   
 $V,Ed=9722.79$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.71$  - Classe 1  
Sollecitazioni: N=77.90  $M_y=-4978.58$   $T_y=23.58$   $M_z=-31.18$   
 $My,Ed=-4978.58$   $My,c,Rd=9921.19$   
N,Ed=77.90  $N_c,Rd=127504.00$  YY n=N,Ed/Nc,Rd=0.00  $MNy,c,Rd=9921.19$   $My,Ed/MNy,c,Rd=0.50$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $My,Ed=-4978.58$   $My,b,Rd=9858.06$   $My,Ed/My,b,Rd=0.51$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3127)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/832)

Asta n. 30012 (333 334) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.10$  - Classe 1  
Sollecitazioni:  $T_z=8341.50$   
 $V,Ed=8341.50$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.56$  - Classe 1  
Sollecitazioni: N=424.31  $M_y=-6110.15$   
 $My,Ed=-6110.15$   $My,c,Rd=9921.19$   
N,Ed=424.31  $N_c,Rd=127504.00$  YY n=N,Ed/Nc,Rd=0.00  $MNy,c,Rd=9921.19$   $My,Ed/MNy,c,Rd=0.62$



## Relazione di calcolo

### - Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1

$L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_{y,Ed}=-6110.15$   $M_{y,b,Rd}=9858.06$   $M_{y,Ed}/M_{y,b,Rd}=0.62$

### - Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.13$  (L/2325)

### - Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.47$  (L/628)

### Asta n. 50008 (525 526) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

### - Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU $X_l=0.12$ - Classe 1

Sollecitazioni:  $T_z=8611.95$   
 $V_{Ed}=8611.95$   $V_{c,Rd}=36184.00$   $V_{Ed}/V_{c,Rd}=0.24$

### - Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU $X_l=1.64$ - Classe 1

Sollecitazioni:  $N=-279.42$   $M_y=-6512.79$   
 $M_{y,Ed}=-6512.79$   $M_{y,c,Rd}=9921.19$   
 $N_{Ed}=-279.42$   $N_{c,Rd}=127504.00$   $YY$   $n=N_{Ed}/N_{c,Rd}=0.00$   $MN_y,c,Rd=9921.19$   $M_{y,Ed}/MN_y,c,Rd=0.66$

### - Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N_{Ed}=-279.42$   $M_{y,Ed}=-6512.79$   $L=3.25$   
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.95$ ,  $0.58$ ,  $0.00$ ,  $0.97$   
Verifica YY:  $0.00+0.63=0.63$   
Verifica ZZ:  $0.00=0.00$

### - Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.14$  (L/2112)

### - Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.53$  (L/571)

### Asta n. 50008 (526 527) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

### - Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU $X_l=3.15$ - Classe 1

Sollecitazioni:  $T_z=-8398.43$   
 $V_{Ed}=-8398.43$   $V_{c,Rd}=36184.00$   $V_{Ed}/V_{c,Rd}=0.23$

### - Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU $X_l=1.68$ - Classe 1

Sollecitazioni:  $N=-146.47$   $M_y=-6193.84$   
 $M_{y,Ed}=-6193.84$   $M_{y,c,Rd}=9921.19$   
 $N_{Ed}=-146.47$   $N_{c,Rd}=127504.00$   $YY$   $n=N_{Ed}/N_{c,Rd}=0.00$   $MN_y,c,Rd=9921.19$   $M_{y,Ed}/MN_y,c,Rd=0.62$

### - Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N_{Ed}=-146.47$   $M_{y,Ed}=-6193.84$   $L=3.25$   
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.95$ ,  $0.58$ ,  $0.00$ ,  $0.96$   
Verifica YY:  $0.00+0.60=0.60$   
Verifica ZZ:  $0.00=0.00$

### - Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.13$  (L/2276)

### - Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.48$  (L/615)

### Asta n. 50008 (527 589) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

### - Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU $X_l=3.20$ - Classe 1

Sollecitazioni:  $T_y=79.18$   
 $V_{Ed}=79.18$   $V_{c,Rd}=50605.00$   $V_{Ed}/V_{c,Rd}=0.00$

### - Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU $X_l=3.20$ - Classe 1

Sollecitazioni:  $T_z=-9559.12$   
 $V_{Ed}=-9559.12$   $V_{c,Rd}=36184.00$   $V_{Ed}/V_{c,Rd}=0.26$

### - Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU $X_l=1.52$ - Classe 1

Sollecitazioni:  $N=-50.86$   $M_y=-4969.13$   $T_y=79.18$   $M_z=104.61$



## Relazione di calcolo

- My,Ed=-4969.13 My,c,Rd=9921.19  
N,Ed=-50.86 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.50
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-50.86 My,Ed=-4969.13 L=3.20  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ , 0.95, 0.95  
 $L_{cr}=1.60$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23377.20$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.74$  Ncr,y=393317.00  $\lambda_y^*=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=143.14$  Ncr,z=28816.00  $\lambda_z^*=1.52$  Curva b:  $\Phi_z=1.89$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.48=0.48  
Verifica ZZ: 0.00=0.00
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3134)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/831)
- Asta n. 50008 (589 590) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni:  $T_y=-21.65$   
V,Ed=-21.65 Vc,Rd=50605.00 V,Ed/Vc,Rd=0.00
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni:  $T_z=6853.63$   
V,Ed=6853.63 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.19
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni: N=-167.41  $T_z=6853.63$   $M_y=3962.41$   $T_y=-21.65$   $M_z=15.15$   
My,Ed=3962.41 My,V,c,Rd=9921.19  
N,Ed=-167.41 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.40
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-167.41 My,Ed=3962.41 L=0.70  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ , 0.95, 0.95  
 $L_{cr}=0.35$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=407149.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.48$  Ncr,y=8219500.00  $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=31.31$  Ncr,z=602195.00  $\lambda_z^*=0.33$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.38=0.38  
Verifica ZZ: 0.00=0.00
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/18123)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4813)
- Asta n. 50010 (591 592) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=0.72 - Classe 1  
Sollecitazioni:  $T_y=426.90$   
V,Ed=426.90 Vc,Rd=50605.00 V,Ed/Vc,Rd=0.01
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.72 - Classe 1  
Sollecitazioni:  $T_z=-6411.76$   
V,Ed=-6411.76 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.18
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=0.72 - Classe 1  
Sollecitazioni: N=-69.87  $T_z=-6411.76$   $M_y=3732.93$   $T_y=426.90$   $M_z=307.37$   
My,Ed=3732.93 My,V,c,Rd=9921.19  
N,Ed=-69.87 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.38
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-69.87 My,Ed=3732.93 L=0.72  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ , 0.95, 0.95  
 $L_{cr}=0.36$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=385091.00$   $\lambda_{LT}=0.12$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.72$  Ncr,y=7769230.00  $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=32.21$  Ncr,z=569206.00  $\lambda_z^*=0.34$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.36=0.36  
Verifica ZZ: 0.00=0.00
- Verifica freccia massima per soli carichi accidentali - CC 2



## Relazione di calcolo

$f_{z,L}=0.00$  (L/19358)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/5101)

Asta n. 50010 (592 528) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-131.53$   
 $V, Ed=-131.53$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9551.61$   
 $V, Ed=9551.61$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.68$  - Classe 1  
Sollecitazioni:  $N=-408.94$   $M_y=-4829.59$   $T_y=-131.53$   $M_z=171.32$   
 $M_y, Ed=-4829.59$   $M_y, c, Rd=9921.19$   
 $N, Ed=-408.94$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.49$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-408.94$   $M_y, Ed=-4829.59$   $L=3.18$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.59$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23624.70$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.59$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.50$   $N_{cr,y}=398279.00$   $\lambda^*_{y}=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=142.24$   $N_{cr,z}=29179.60$   $\lambda^*_z=1.51$  Curva b:  $\Phi_z=1.87$   $\chi_z=0.34$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.59, 0.00, 0.98$   
Verifica YY:  $0.00+0.47=0.47$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3271)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.34$  (L/867)

Asta n. 50010 (528 529) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.05$  - Classe 1  
Sollecitazioni:  $T_z=-8398.44$   
 $V, Ed=-8398.44$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.57$  - Classe 1  
Sollecitazioni:  $N=-521.68$   $M_y=-6193.85$   
 $M_y, Ed=-6193.85$   $M_y, c, Rd=9921.19$   
 $N, Ed=-521.68$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.62$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-521.68$   $M_y, Ed=-6193.85$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda^*_y=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda^*_z=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.59, 0.00, 0.98$   
Verifica YY:  $0.00+0.60=0.60$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2278)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.48$  (L/615)

Asta n. 50010 (529 530) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8683.14$   
 $V, Ed=-8683.14$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.62$  - Classe 1  
Sollecitazioni:  $N=-533.09$   $M_y=-6620.90$   
 $M_y, Ed=-6620.90$   $M_y, c, Rd=9921.19$   
 $N, Ed=-533.09$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.67$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-533.09$   $M_y, Ed=-6620.90$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$



## Relazione di calcolo

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.59, 0.00, 0.98  
Verifica YY:  $0.00+0.64=0.64$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.15$  (L/2061)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.55$  (L/557)

Asta n. 50010 (530 531) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8398.44$   
 $V,Ed=-8398.44$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.68$  - Classe 1  
Sollecitazioni:  $N=-473.45$   $M_y=-6193.85$   
 $M_y,Ed=-6193.85$   $M_y,c,Rd=9921.19$   
 $N,Ed=-473.45$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.62$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-473.45$   $M_y,Ed=-6193.85$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.59, 0.00, 0.98  
Verifica YY:  $0.00+0.60=0.60$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2279)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,g}=0.48$  (L/616)

Asta n. 50010 (531 532) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8398.44$   
 $V,Ed=-8398.44$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.68$  - Classe 1  
Sollecitazioni:  $N=-446.79$   $M_y=-6193.85$   
 $M_y,Ed=-6193.85$   $M_y,c,Rd=9921.19$   
 $N,Ed=-446.79$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.62$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-446.79$   $M_y,Ed=-6193.85$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.59, 0.00, 0.98  
Verifica YY:  $0.00+0.60=0.60$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2276)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,g}=0.48$  (L/615)

Asta n. 50010 (532 593) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.25$  - Classe 1  
Sollecitazioni:  $T_y=1.87$   
 $V,Ed=1.87$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.25$  - Classe 1  
Sollecitazioni:  $T_z=-9829.86$



## Relazione di calcolo

V,Ed=-9829.86 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.27

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.52 - Classe 1  
Sollecitazioni: N=-358.11 M<sub>y</sub>=-4987.58 T<sub>y</sub>=1.87 M<sub>z</sub>=2.48  
My,Ed=-4987.58 My,c,Rd=9921.19  
N,Ed=-358.11 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.50
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-358.11 My,Ed=-4987.58 L=3.25  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}$ =0.95, 0.95, 0.95  
L<sub>cr</sub>=1.62 Curva b:  $\alpha_{imp}$ =0.34 k<sub>c</sub>=0.94  $\psi$ =1.75 M<sub>cr</sub>=22777.60  $\lambda_{LT}$ =0.48  
 $\lambda_{LT,0}$ =0.40  $\Phi_{LT}$ =0.60  $\beta_{LT}$ =0.75 f=0.98  $\chi_{LT}$ =0.99  
 $\lambda_c$ =39.35 Ncr,y=381308.00  $\lambda_y^*$ =0.42 Curva b:  $\Phi_y$ =0.62  $\chi_y$ =0.92  
 $\lambda_e$ =145.37 Ncr,z=27936.20  $\lambda_z^*$ =1.55 Curva b:  $\Phi_z$ =1.93  $\chi_z$ =0.33  
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.97  
Verifica YY: 0.00+0.48=0.48  
Verifica ZZ: 0.00=0.00
- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,L</sub>=0.10 (L/3098)
- Verifica freccia massima carichi totali - CC 2  
f<sub>z,L</sub>=0.37 (L/823)

Asta n. 50010 (593 594) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni: T<sub>y</sub>=246.09  
V,Ed=246.09 Vc,Rd=50605.00 V,Ed/Vc,Rd=0.00
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni: T<sub>z</sub>=7266.47  
V,Ed=7266.47 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.20
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni: N=-442.25 T<sub>z</sub>=7266.47 M<sub>y</sub>=4003.11 T<sub>y</sub>=246.09 M<sub>z</sub>=-159.96  
My,Ed=4003.11 My,V,c,Rd=9921.19  
N,Ed=-442.25 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.40
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-442.25 My,Ed=4003.11 L=0.65  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}$ =0.95, 0.95, 0.95  
L<sub>cr</sub>=0.33 Curva b:  $\alpha_{imp}$ =0.34 k<sub>c</sub>=0.94  $\psi$ =1.75 M<sub>cr</sub>=471480.00  $\lambda_{LT}$ =0.11  
 $\lambda_{LT,0}$ =0.40  $\Phi_{LT}$ =0.45  $\beta_{LT}$ =0.75 f=1.00  $\chi_{LT}$ =1.00  
 $\lambda_c$ =7.87 Ncr,y=9532760.00  $\lambda_y^*$ =0.08 Curva b:  $\Phi_y$ =0.48  $\chi_y$ =1.00  
 $\lambda_e$ =29.07 Ncr,z=698410.00  $\lambda_z^*$ =0.31 Curva b:  $\Phi_z$ =0.57  $\chi_z$ =0.96  
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.38=0.39  
Verifica ZZ: 0.00=0.00
- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,L</sub>=0.00 (L/17936)
- Verifica freccia massima carichi totali - CC 2  
f<sub>z,L</sub>=0.01 (L/4868)

Asta n. 50012 (595 596) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=0.67 - Classe 1  
Sollecitazioni: T<sub>y</sub>=312.22  
V,Ed=312.22 Vc,Rd=50605.00 V,Ed/Vc,Rd=0.01
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.67 - Classe 1  
Sollecitazioni: T<sub>z</sub>=-6652.69  
V,Ed=-6652.69 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.18
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=0.67 - Classe 1  
Sollecitazioni: N=63.62 T<sub>z</sub>=-6652.69 M<sub>y</sub>=3692.21 T<sub>y</sub>=312.22 M<sub>z</sub>=209.19  
My,Ed=3692.21 My,V,c,Rd=9921.19  
N,Ed=63.62 Nc,Rd=127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.37
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
L<sub>cr</sub>=0.34 Curva b:  $\alpha_{imp}$ =0.34 k<sub>c</sub>=0.94  $\psi$ =1.75 M<sub>cr</sub>=444017.00  $\lambda_{LT}$ =0.11  
 $\lambda_{LT,0}$ =0.40  $\beta_{LT}$ =0.75  $\Phi_{LT}$ =0.45  $\beta_{LT}$ =0.75 f=1.00  $\chi_{LT}$ =1.00  
My,Ed=3692.21 My,b,Rd=9921.19 My,Ed/My,b,Rd=0.37
- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,L</sub>=0.00 (L/19789)
- Verifica freccia massima carichi totali - CC 2



## Relazione di calcolo

$f_{z,L}=0.01$  (L/5262)

Asta n. 50012 (596 533) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-45.02$   
 $V, Ed=-45.02$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9779.31$   
 $V, Ed=9779.31$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.72$  - Classe 1  
Sollecitazioni:  $N=-20.78$   $M_y=-4904.12$   $T_y=-45.02$   $M_z=59.08$   
 $M_y, Ed=-4904.12$   $M_y, c, Rd=9921.19$   
 $N, Ed=-20.78$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.49$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-20.78$   $M_y, Ed=-4904.12$   $L=3.23$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$   $N_{cr,y}=386045.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$   $N_{cr,z}=28283.20$   $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.47=0.47$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3201)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/849)

Asta n. 50012 (533 534) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.10$  - Classe 1  
Sollecitazioni:  $T_z=8341.50$   
 $V, Ed=8341.50$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.56$  - Classe 1  
Sollecitazioni:  $N=-90.38$   $M_y=-6110.15$   
 $M_y, Ed=-6110.15$   $M_y, c, Rd=9921.19$   
 $N, Ed=-90.38$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.62$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-90.38$   $M_y, Ed=-6110.15$   $L=3.23$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$   $N_{cr,y}=386045.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$   $N_{cr,z}=28283.20$   $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.96$   
Verifica YY:  $0.00+0.59=0.59$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2328)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.47$  (L/628)

Asta n. 70008 (725 726) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.12$  - Classe 1  
Sollecitazioni:  $T_z=8611.95$   
 $V, Ed=8611.95$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.64$  - Classe 1  
Sollecitazioni:  $N=147.28$   $M_y=-6512.79$   
 $M_y, Ed=-6512.79$   $M_y, c, Rd=9921.19$   
 $N, Ed=147.28$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.66$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-6512.79$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.66$

- Verifica freccia massima per soli carichi accidentali - CC 2



## Relazione di calcolo

$f_{z,L}=0.14$  (L/2110)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.53$  (L/570)

Asta n. 70008 (726 727) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8398.43$   
 $V,Ed=-8398.43$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.68$  - Classe 1  
Sollecitazioni:  $N=61.59$   $M_y=-6193.84$   
 $M_y,Ed=-6193.84$   $M_y,c,Rd=9921.19$   
 $N,Ed=61.59$   $N_c,Rd=127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MN_y,c,Rd=9921.19$   $M_y,Ed/MN_y,c,Rd=0.62$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y,Ed=-6193.84$   $M_y,b,Rd=9848.88$   $M_y,Ed/M_y,b,Rd=0.63$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2276)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.48$  (L/615)

Asta n. 70008 (727 789) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_y=75.87$   
 $V,Ed=75.87$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-9562.33$   
 $V,Ed=-9562.33$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1  
Sollecitazioni:  $N=-4.86$   $M_y=-4964.89$   $T_y=75.87$   $M_z=100.20$   
 $M_y,Ed=-4964.89$   $M_y,c,Rd=9921.19$   
 $N,Ed=-4.86$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MN_y,c,Rd=9921.19$   $M_y,Ed/MN_y,c,Rd=0.50$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-4.86$   $M_y,Ed=-4964.89$   $L=3.20$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.60$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23377.20$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.74$   $N_{cr,y}=393317.00$   $\lambda^*_y=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=143.14$   $N_{cr,z}=28816.00$   $\lambda^*_z=1.52$  Curva b:  $\Phi_z=1.89$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.48=0.48$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3142)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/831)

Asta n. 70008 (789 790) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-1.35$   
 $V,Ed=-1.35$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=6930.15$   
 $V,Ed=6930.15$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=-166.81$   $T_z=6930.15$   $M_y=4015.97$   $T_y=-1.35$   
 $M_y,Ed=4015.97$   $M_y,V,c,Rd=9921.19$   
 $N,Ed=-166.81$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MN_y,c,Rd=9921.19$   $M_y,Ed/MN_y,c,Rd=0.40$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-166.81$   $M_y,Ed=4015.97$   $L=0.70$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.35$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=407149.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$



## Relazione di calcolo

$\lambda_c=8.48$  Ncr,y=8219500.00  $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=31.31$  Ncr,z=602195.00  $\lambda_z^*=0.33$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.38=0.39  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/17902)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4766)

Asta n. 70010 (791 792) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_y=365.68$   
 $V, Ed=365.68$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.01$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_z=-6623.89$   
 $V, Ed=-6623.89$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.18$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $N=-66.64$   $T_z=-6623.89$   $M_y=3885.66$   $T_y=365.68$   $M_z=263.29$   
 $M_y, Ed=3885.66$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-66.64$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.39$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-66.64$   $M_y, Ed=3885.66$   $L=0.72$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.36$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=385091.00$   $\lambda_{LT}=0.12$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.72$  Ncr,y=7769230.00  $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=32.21$  Ncr,z=569206.00  $\lambda_z^*=0.34$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.37=0.37  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/18414)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4902)

Asta n. 70010 (792 728) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-98.45$   
 $V, Ed=-98.45$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9517.55$   
 $V, Ed=9517.55$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.67$  - Classe 1  
Sollecitazioni:  $N=-350.57$   $M_y=-4874.06$   $T_y=-98.45$   $M_z=128.82$   
 $M_y, Ed=-4874.06$   $M_y, c, Rd=9921.19$   
 $N, Ed=-350.57$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.49$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-350.57$   $M_y, Ed=-4874.06$   $L=3.18$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.59$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23624.70$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.59$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.50$  Ncr,y=398279.00  $\lambda_y^*=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=142.24$  Ncr,z=29179.60  $\lambda_z^*=1.51$  Curva b:  $\Phi_z=1.87$   $\chi_z=0.34$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.97  
Verifica YY: 0.00+0.47=0.47  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,G}=0.09$  (L/3224)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.35$  (L/854)

Asta n. 70010 (728 729) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.05$  - Classe 1



## Relazione di calcolo

- Sollecitazioni:  $T_z=-8398.44$   
 $V, Ed=-8398.44$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.23$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.57$  - Classe 1  
Sollecitazioni:  $N=-278.04$   $M_y=-6193.85$   
 $M_y, Ed=-6193.85$   $M_y, c, Rd=9921.19$   
 $N, Ed=-278.04$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.62$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-278.04$   $M_y, Ed=-6193.85$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.58, 0.00, 0.97$   
Verifica YY:  $0.00+0.60=0.60$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2277)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.48$  (L/615)
- Asta n. 70010 (729 730) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8683.14$   
 $V, Ed=-8683.14$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.62$  - Classe 1  
Sollecitazioni:  $N=-237.82$   $M_y=-6620.90$   
 $M_y, Ed=-6620.90$   $M_y, c, Rd=9921.19$   
 $N, Ed=-237.82$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.67$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-237.82$   $M_y, Ed=-6620.90$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.58, 0.00, 0.97$   
Verifica YY:  $0.00+0.64=0.64$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.15$  (L/2061)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.55$  (L/557)
- Asta n. 70010 (730 731) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8398.44$   
 $V, Ed=-8398.44$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.23$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.68$  - Classe 1  
Sollecitazioni:  $N=-276.54$   $M_y=-6193.85$   
 $M_y, Ed=-6193.85$   $M_y, c, Rd=9921.19$   
 $N, Ed=-276.54$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.62$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-276.54$   $M_y, Ed=-6193.85$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.58, 0.00, 0.97$   
Verifica YY:  $0.00+0.60=0.60$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2281)
- Verifica freccia massima carichi totali - CC 2



## Relazione di calcolo

$f_{z,L}=0.48$  (L/616)

Asta n. 70010 (731 732) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1

Sollecitazioni:  $T_z=-8398.44$

$V, Ed=-8398.44$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.68$  - Classe 1

Sollecitazioni:  $N=-299.71$   $M_y=-6193.85$

$M_y, Ed=-6193.85$   $M_y, c, Rd=9921.19$

$N, Ed=-299.71$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.62$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-299.71$   $M_y, Ed=-6193.85$   $L=3.25$

$\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$

$\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$

$K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.95$ ,  $0.58$ ,  $0.00$ ,  $0.97$

Verifica YY:  $0.00+0.60=0.60$

Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.13$  (L/2276)

- Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.48$  (L/615)

Asta n. 70010 (732 793) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.25$  - Classe 1

Sollecitazioni:  $T_y=32.53$

$V, Ed=32.53$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.25$  - Classe 1

Sollecitazioni:  $T_z=-9835.63$

$V, Ed=-9835.63$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1

Sollecitazioni:  $N=-345.70$   $M_y=-4979.95$   $T_y=32.53$   $M_z=43.02$

$M_y, Ed=-4979.95$   $M_y, c, Rd=9921.19$

$N, Ed=-345.70$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.50$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-345.70$   $M_y, Ed=-4979.95$   $L=3.25$

$\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$

$\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$

$K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.95$ ,  $0.58$ ,  $0.00$ ,  $0.97$

Verifica YY:  $0.00+0.48=0.48$

Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.10$  (L/3111)

- Verifica freccia massima carichi totali - CC 2

$f_{z,G}=0.37$  (L/824)

Asta n. 70010 (793 794) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1

Sollecitazioni:  $T_y=87.56$

$V, Ed=87.56$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1

Sollecitazioni:  $T_z=7351.39$

$V, Ed=7351.39$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.20$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1

Sollecitazioni:  $N=-417.15$   $T_z=7351.39$   $M_y=4058.31$   $T_y=87.56$   $M_z=-56.91$

$M_y, Ed=4058.31$   $M_y, V, c, Rd=9921.19$

$N, Ed=-417.15$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.41$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-417.15$   $M_y, Ed=4058.31$   $L=0.65$



## Relazione di calcolo

$\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.33$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=471480.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=7.87$  Ncr,y=9532760.00  $\lambda_y^*=0.08$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.07$  Ncr,z=698410.00  $\lambda_z^*=0.31$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.39=0.39  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,G}=0.00$  (L/17476)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4799)

Asta n. 70012 (795 796) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_y=243.57$   
 $V,Ed=243.57$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_z=-6860.59$   
 $V,Ed=-6860.59$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $N=-29.34$   $T_z=-6860.59$   $M_y=3831.50$   $T_y=243.57$   $M_z=163.19$   
 $M_y,Ed=3831.50$   $M_y,V,c,Rd=9921.19$   
 $N,Ed=-29.34$   $N_c,Rd=-127504.00$   $YY\ n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.39$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-29.34$   $M_y,Ed=3831.50$   $L=0.67$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.34$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=444017.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.11$  Ncr,y=8972120.00  $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.97$  Ncr,z=657335.00  $\lambda_z^*=0.32$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.37=0.37  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/18488)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/5018)

Asta n. 70012 (796 733) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-46.57$   
 $V,Ed=-46.57$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9750.37$   
 $V,Ed=9750.37$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.71$  - Classe 1  
Sollecitazioni:  $N=-315.64$   $M_y=-4942.17$   $T_y=-46.57$   $M_z=61.35$   
 $M_y,Ed=-4942.17$   $M_y,c,Rd=9921.19$   
 $N,Ed=-315.64$   $N_c,Rd=-127504.00$   $YY\ n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.50$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-315.64$   $M_y,Ed=-4942.17$   $L=3.23$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$  Ncr,y=386045.00  $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$  Ncr,z=28283.20  $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.97  
Verifica YY: 0.00+0.48=0.48  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3161)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/838)



## Relazione di calcolo

Asta n. 70012 (733 734) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.10$  - Classe 1

Sollecitazioni:  $T_z=8626.20$

$V, Ed=8626.20$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.61$  - Classe 1

Sollecitazioni:  $N=-265.67$   $M_y=-6534.35$

$M_y, Ed=-6534.35$   $M_y, c, Rd=9921.19$

$N, Ed=-265.67$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.66$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-265.67$   $M_y, Ed=-6534.35$   $L=3.23$

$\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$

$L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$\lambda_c=39.11$   $N_{cr,y}=386045.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$

$\lambda_e=144.48$   $N_{cr,z}=28283.20$   $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$

$K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.58, 0.00, 0.97$

Verifica YY:  $0.00+0.63=0.63$

Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.14$  (L/2101)

- Verifica freccia massima carichi totali - CC 2

$f_{z,G}=0.53$  (L/568)

Asta n. 90008 (925 926) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.12$  - Classe 1

Sollecitazioni:  $T_z=8611.95$

$V, Ed=8611.95$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.64$  - Classe 1

Sollecitazioni:  $N=-2.33$   $M_y=-6512.79$

$M_y, Ed=-6512.79$   $M_y, c, Rd=9921.19$

$N, Ed=-2.33$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.66$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-2.33$   $M_y, Ed=-6512.79$   $L=3.25$

$\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$

$\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$

$K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$

Verifica YY:  $0.00+0.63=0.63$

Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.14$  (L/2111)

- Verifica freccia massima carichi totali - CC 2

$f_{z,G}=0.53$  (L/570)

Asta n. 90008 (926 927) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1

Sollecitazioni:  $T_z=-8398.43$

$V, Ed=-8398.43$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.68$  - Classe 1

Sollecitazioni:  $N=171.38$   $M_y=-6193.84$

$M_y, Ed=-6193.84$   $M_y, c, Rd=9921.19$

$N, Ed=171.38$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.62$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$M_y, Ed=-6193.84$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.63$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,G}=0.13$  (L/2276)

- Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.48$  (L/615)

Asta n. 90008 (927 989) - Sez. 55 (NTr. 2xIPE200) - Crit. 1



## Relazione di calcolo

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_y=52.52$   
 $V, Ed=52.52$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-9565.45$   
 $V, Ed=-9565.45$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1  
Sollecitazioni:  $N=326.42$   $M_y=-4960.77$   $T_y=52.52$   $M_z=69.33$   
 $M_y, Ed=-4960.77$   $M_y, c, Rd=9921.19$   
 $N, Ed=326.42$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.50$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.60$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23377.20$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $M_y, Ed=-4960.77$   $M_y, b, Rd=9871.82$   $M_y, Ed/M_y, b, Rd=0.50$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3148)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/831)

Asta n. 90008 (989 990) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=34.70$   
 $V, Ed=34.70$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=6990.57$   
 $V, Ed=6990.57$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=-31.14$   $T_z=6990.57$   $M_y=4058.26$   $T_y=34.70$   $M_z=-24.29$   
 $M_y, Ed=4058.26$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-31.14$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.41$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-31.14$   $M_y, Ed=4058.26$   $L=0.70$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.35$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=407149.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.48$   $N_{cr,y}=8219500.00$   $\lambda^*_{y}=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=31.31$   $N_{cr,z}=602195.00$   $\lambda^*_z=0.33$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.39=0.39$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/17476)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4675)

Asta n. 90010 (991 992) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_y=282.21$   
 $V, Ed=282.21$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.01$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_z=-6730.06$   
 $V, Ed=-6730.06$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $N=-6.42$   $T_z=-6730.06$   $M_y=3962.10$   $T_y=282.21$   $M_z=203.19$   
 $M_y, Ed=3962.10$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-6.42$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.40$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-6.42$   $M_y, Ed=3962.10$   $L=0.72$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.36$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=385091.00$   $\lambda_{LT}=0.12$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.72$   $N_{cr,y}=7769230.00$   $\lambda^*_{y}=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=32.21$   $N_{cr,z}=569206.00$   $\lambda^*_z=0.34$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$



## Relazione di calcolo

Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.38=0.38  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/18414)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4808)

Asta n. 90010 (992 928) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-58.13$   
 $V, Ed=-58.13$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9505.90$   
 $V, Ed=9505.90$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.67$  - Classe 1  
Sollecitazioni:  $N=-101.53$   $M_y=-4889.31$   $T_y=-58.13$   $M_z=76.18$   
 $M_y, Ed=-4889.31$   $M_y, c, Rd=9921.19$   
 $N, Ed=-101.53$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.49$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-101.53$   $M_y, Ed=-4889.31$   $L=3.18$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.59$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23624.70$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.59$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.50$   $N_{cr,y}=398279.00$   $\lambda_y^*=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=142.24$   $N_{cr,z}=29179.60$   $\lambda_z^*=1.51$  Curva b:  $\Phi_z=1.87$   $\chi_z=0.34$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.47=0.47  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3208)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.35$  (L/850)

Asta n. 90010 (928 929) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.05$  - Classe 1  
Sollecitazioni:  $T_z=-8398.44$   
 $V, Ed=-8398.44$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.23$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.57$  - Classe 1  
Sollecitazioni:  $N=-270.61$   $M_y=-6193.85$   
 $M_y, Ed=-6193.85$   $M_y, c, Rd=9921.19$   
 $N, Ed=-270.61$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.62$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-270.61$   $M_y, Ed=-6193.85$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.97  
Verifica YY: 0.00+0.60=0.60  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2277)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.48$  (L/615)

Asta n. 90010 (929 930) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.15$  - Classe 1  
Sollecitazioni:  $T_z=-8683.14$   
 $V, Ed=-8683.14$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.62$  - Classe 1  
Sollecitazioni:  $N=-337.72$   $M_y=-6620.90$   
 $M_y, Ed=-6620.90$   $M_y, c, Rd=9921.19$



## Relazione di calcolo

N,Ed=-337.72 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.67

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-337.72 My,Ed=-6620.90 L=3.25  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}$ =0.95, 0.95, 0.95  
 $L_{cr}$ =1.62 Curva b:  $\alpha_{imp}$ =0.34  $k_c$ =0.94  $\psi$ =1.75 M,cr=22777.60  $\lambda_{LT}$ =0.48  
 $\lambda_{LT,0}$ =0.40  $\Phi_{LT}$ =0.60  $\beta_{LT}$ =0.75 f=0.98  $\chi_{LT}$ =0.99  
 $\lambda_c$ =39.35 Ncr,y=381308.00  $\lambda_y^*$ =0.42 Curva b:  $\Phi_y$ =0.62  $\chi_y$ =0.92  
 $\lambda_e$ =145.37 Ncr,z=27936.20  $\lambda_z^*$ =1.55 Curva b:  $\Phi_z$ =1.93  $\chi_z$ =0.33  
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.97  
Verifica YY: 0.00+0.64=0.64  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}$ =0.15 (L/2060)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}$ =0.55 (L/557)

Asta n. 90010 (930 931) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=3.15 - Classe 1  
Sollecitazioni: T<sub>z</sub>=-8398.44  
V,Ed=-8398.44 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.23

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.68 - Classe 1  
Sollecitazioni: N=-174.30 M<sub>y</sub>=-6193.85  
My,Ed=-6193.85 My,c,Rd=9921.19  
N,Ed=-174.30 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.62

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-174.30 My,Ed=-6193.85 L=3.25  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}$ =0.95, 0.95, 0.95  
 $L_{cr}$ =1.62 Curva b:  $\alpha_{imp}$ =0.34  $k_c$ =0.94  $\psi$ =1.75 M,cr=22777.60  $\lambda_{LT}$ =0.48  
 $\lambda_{LT,0}$ =0.40  $\Phi_{LT}$ =0.60  $\beta_{LT}$ =0.75 f=0.98  $\chi_{LT}$ =0.99  
 $\lambda_c$ =39.35 Ncr,y=381308.00  $\lambda_y^*$ =0.42 Curva b:  $\Phi_y$ =0.62  $\chi_y$ =0.92  
 $\lambda_e$ =145.37 Ncr,z=27936.20  $\lambda_z^*$ =1.55 Curva b:  $\Phi_z$ =1.93  $\chi_z$ =0.33  
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.96  
Verifica YY: 0.00+0.60=0.60  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}$ =0.13 (L/2279)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}$ =0.48 (L/616)

Asta n. 90010 (931 932) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=3.15 - Classe 1  
Sollecitazioni: T<sub>z</sub>=-8398.44  
V,Ed=-8398.44 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.23

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.68 - Classe 1  
Sollecitazioni: N=-21.76 M<sub>y</sub>=-6193.85  
My,Ed=-6193.85 My,c,Rd=9921.19  
N,Ed=-21.76 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.62

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-21.76 My,Ed=-6193.85 L=3.25  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}$ =0.95, 0.95, 0.95  
 $L_{cr}$ =1.62 Curva b:  $\alpha_{imp}$ =0.34  $k_c$ =0.94  $\psi$ =1.75 M,cr=22777.60  $\lambda_{LT}$ =0.48  
 $\lambda_{LT,0}$ =0.40  $\Phi_{LT}$ =0.60  $\beta_{LT}$ =0.75 f=0.98  $\chi_{LT}$ =0.99  
 $\lambda_c$ =39.35 Ncr,y=381308.00  $\lambda_y^*$ =0.42 Curva b:  $\Phi_y$ =0.62  $\chi_y$ =0.92  
 $\lambda_e$ =145.37 Ncr,z=27936.20  $\lambda_z^*$ =1.55 Curva b:  $\Phi_z$ =1.93  $\chi_z$ =0.33  
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.60=0.60  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}$ =0.13 (L/2276)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}$ =0.48 (L/615)

Asta n. 90010 (932 993) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=3.25 - Classe 1



## Relazione di calcolo

Sollecitazioni:  $T_y=43.71$   
 $V, Ed=43.71$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.25$  - Classe 1  
Sollecitazioni:  $T_z=-9838.82$   
 $V, Ed=-9838.82$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1  
Sollecitazioni:  $N=128.97$   $M_y=-4975.73$   $T_y=43.71$   $M_z=57.79$   
 $M_y, Ed=-4975.73$   $M_y, c, Rd=9921.19$   
 $N, Ed=128.97$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.50$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-4975.73$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.51$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3114)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.37$  (L/824)

Asta n. 90010 (993 994) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-80.58$   
 $V, Ed=-80.58$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=7413.71$   
 $V, Ed=7413.71$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.20$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=-165.38$   $T_z=7413.71$   $M_y=4098.82$   $T_y=-80.58$   $M_z=52.38$   
 $M_y, Ed=4098.82$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-165.38$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.41$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-165.38$   $M_y, Ed=4098.82$   $L=0.65$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.33$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=471480.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=7.87$   $N_{cr,y}=9532760.00$   $\lambda_y^*=0.08$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.07$   $N_{cr,z}=698410.00$   $\lambda_z^*=0.31$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.39=0.39$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/17476)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4733)

Asta n. 90012 (995 996) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_y=76.76$   
 $V, Ed=76.76$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_z=-6971.35$   
 $V, Ed=-6971.35$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $N=72.85$   $T_z=-6971.35$   $M_y=3905.71$   $T_y=76.76$   $M_z=51.43$   
 $M_y, Ed=3905.71$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=72.85$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.39$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=0.34$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=444017.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $M_y, Ed=3905.71$   $M_y, b, Rd=9921.19$   $M_y, Ed/M_y, b, Rd=0.39$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/18488)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4982)



## Relazione di calcolo

Asta n. 90012 (996 933) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1

Sollecitazioni:  $T_y=-28.43$

$V, Ed=-28.43$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1

Sollecitazioni:  $T_z=9742.19$

$V, Ed=9742.19$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.71$  - Classe 1

Sollecitazioni:  $N=-23.32$   $M_y=-4952.95$   $T_y=-28.43$   $M_z=37.50$

$M_y, Ed=-4952.95$   $M_y, c, Rd=9921.19$

$N, Ed=-23.32$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.50$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-23.32$   $M_y, Ed=-4952.95$   $L=3.23$

$\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$

$L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$\lambda_c=39.11$   $N_{cr,y}=386045.00$   $\lambda^*_{y}=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$

$\lambda_e=144.48$   $N_{cr,z}=28283.20$   $\lambda^*_{z}=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$

$K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.95$ ,  $0.57$ ,  $0.00$ ,  $0.95$

Verifica YY:  $0.00+0.48=0.48$

Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.10$  (L/3151)

- Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.36$  (L/834)

Asta n. 90012 (933 934) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.10$  - Classe 1

Sollecitazioni:  $T_z=8626.20$

$V, Ed=8626.20$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.61$  - Classe 1

Sollecitazioni:  $N=-170.72$   $M_y=-6534.35$

$M_y, Ed=-6534.35$   $M_y, c, Rd=9921.19$

$N, Ed=-170.72$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.66$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-170.72$   $M_y, Ed=-6534.35$   $L=3.23$

$\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$

$L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$\lambda_c=39.11$   $N_{cr,y}=386045.00$   $\lambda^*_{y}=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$

$\lambda_e=144.48$   $N_{cr,z}=28283.20$   $\lambda^*_{z}=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$

$K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.95$ ,  $0.58$ ,  $0.00$ ,  $0.96$

Verifica YY:  $0.00+0.63=0.63$

Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.14$  (L/2099)

- Verifica freccia massima carichi totali - CC 2

$f_{z,G}=0.53$  (L/567)

Asta n. 110008 (1125 1126) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.12$  - Classe 1

Sollecitazioni:  $T_z=8754.30$

$V, Ed=8754.30$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.66$  - Classe 1

Sollecitazioni:  $N=126.96$   $M_y=-6729.87$

$M_y, Ed=-6729.87$   $M_y, c, Rd=9921.19$

$N, Ed=126.96$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.68$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$M_y, Ed=-6729.87$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.68$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,G}=0.15$  (L/2012)



## Relazione di calcolo

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.57$  (L/543)

Asta n. 110008 (1126 1127) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V, Ed=8540.78$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=129.39$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=129.39$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.65$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-6405.58$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.65$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2162)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/584)

Asta n. 110008 (1127 1189) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_y=20.34$   
 $V, Ed=20.34$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-9565.54$   
 $V, Ed=-9565.54$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1  
Sollecitazioni:  $N=131.72$   $M_y=-4960.65$   $T_y=20.34$   $M_z=26.85$   
 $M_y, Ed=-4960.65$   $M_y, c, Rd=9921.19$   
 $N, Ed=131.72$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.50$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.60$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23377.20$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $M_y, Ed=-4960.65$   $M_y, b, Rd=9871.82$   $M_y, Ed/M_y, b, Rd=0.50$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3142)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/830)

Asta n. 110008 (1189 1190) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=150.45$   
 $V, Ed=150.45$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=7059.67$   
 $V, Ed=7059.67$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.20$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=-7.56$   $T_z=7059.67$   $M_y=4106.63$   $T_y=150.45$   $M_z=-105.32$   
 $M_y, Ed=4106.63$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-7.56$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.41$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-7.56$   $M_y, Ed=4106.63$   $L=0.70$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.35$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=407149.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.48$   $N_{cr,y}=8219500.00$   $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=31.31$   $N_{cr,z}=602195.00$   $\lambda_z^*=0.33$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.39=0.39$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2



## Relazione di calcolo

$f_{z,L}=0.00$  (L/17069)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/4645)

Asta n. 110010 (1191 1192) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_y=210.22$   
 $V,Ed=210.22$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_z=-6794.37$   
 $V,Ed=-6794.37$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $N=14.22$   $T_z=-6794.37$   $M_y=4008.40$   $T_y=210.22$   $M_z=151.36$   
 $M_y,Ed=4008.40$   $M_y,V,c,Rd=9921.19$   
 $N,Ed=14.22$   $N_c,Rd=127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MN_y,c,Rd=9921.19$   $M_y,Ed/MN_y,c,Rd=0.40$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=0.36$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=385091.00$   $\lambda_{LT}=0.12$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $M_y,Ed=4008.40$   $M_y,b,Rd=9921.19$   $M_y,Ed/M_y,b,Rd=0.40$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,g}=0.00$  (L/17557)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/4718)

Asta n. 110010 (1192 1128) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-32.15$   
 $V,Ed=-32.15$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9502.53$   
 $V,Ed=9502.53$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.67$  - Classe 1  
Sollecitazioni:  $N=-120.61$   $M_y=-4893.74$   $T_y=-32.15$   $M_z=42.15$   
 $M_y,Ed=-4893.74$   $M_y,c,Rd=9921.19$   
 $N,Ed=-120.61$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MN_y,c,Rd=9921.19$   $M_y,Ed/MN_y,c,Rd=0.49$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-120.61$   $M_y,Ed=-4893.74$   $L=3.18$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.59$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23624.70$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.59$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.50$   $N_{cr,y}=398279.00$   $\lambda^*_y=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=142.24$   $N_{cr,z}=29179.60$   $\lambda^*_z=1.51$  Curva b:  $\Phi_z=1.87$   $\chi_z=0.34$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.96$   
Verifica YY:  $0.00+0.47=0.47$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3208)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.35$  (L/847)

Asta n. 110010 (1128 1129) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.05$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V,Ed=8540.78$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.55$  - Classe 1  
Sollecitazioni:  $N=-110.33$   $M_y=-6405.58$   
 $M_y,Ed=-6405.58$   $M_y,c,Rd=9921.19$   
 $N,Ed=-110.33$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MN_y,c,Rd=9921.19$   $M_y,Ed/MN_y,c,Rd=0.65$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-110.33$   $M_y,Ed=-6405.58$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$



## Relazione di calcolo

$\lambda_c=39.35$  Ncr,y=381308.00  $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$  Ncr,z=27936.20  $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.96  
Verifica YY: 0.00+0.62=0.62  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,g}=0.14$  (L/2163)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,g}=0.51$  (L/584)

Asta n. 110010 (1129 1130) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-8967.82$   
 $V, Ed=-8967.82$   $Vc, Rd=36184.00$   $V, Ed/Vc, Rd=0.25$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.62$  - Classe 1  
Sollecitazioni:  $N=21.07$   $M_y=-7062.16$   
 $M_y, Ed=-7062.16$   $M_y, c, Rd=9921.19$   
 $N, Ed=21.07$   $Nc, Rd=127504.00$   $YY$   $n=N, Ed/Nc, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.71$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-7062.16$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.72$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.17$  (L/1872)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,g}=0.62$  (L/505)

Asta n. 110010 (1130 1131) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V, Ed=8540.78$   $Vc, Rd=36184.00$   $V, Ed/Vc, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=18.47$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=18.47$   $Nc, Rd=127504.00$   $YY$   $n=N, Ed/Nc, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.65$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-6405.58$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.65$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,g}=0.14$  (L/2167)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/586)

Asta n. 110010 (1131 1132) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V, Ed=8540.78$   $Vc, Rd=36184.00$   $V, Ed/Vc, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=22.12$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=22.12$   $Nc, Rd=127504.00$   $YY$   $n=N, Ed/Nc, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.65$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-6405.58$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.65$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,g}=0.14$  (L/2163)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/584)

Asta n. 110010 (1193 1194) - Sez. 55 (NTr. 2xIPE200) - Crit. 1



## Relazione di calcolo

-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-63.73$   
 $V, Ed=-63.73$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=7479.10$   
 $V, Ed=7479.10$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.21$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=-139.81$   $T_z=7479.10$   $M_y=4141.32$   $T_y=-63.73$   $M_z=41.43$   
 $M_y, Ed=4141.32$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-139.81$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.42$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-139.81$   $M_y, Ed=4141.32$   $L=0.65$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.33$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=471480.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=7.87$   $N_{cr,y}=9532760.00$   $\lambda^*_{y}=0.08$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.07$   $N_{cr,z}=698410.00$   $\lambda^*_{z}=0.31$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.40=0.40$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,g}=0.00$  (L/17039)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4636)

Asta n. 110012 (1195 1196) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_y=26.77$   
 $V, Ed=26.77$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_z=-7048.11$   
 $V, Ed=-7048.11$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.19$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $N=-33.57$   $T_z=-7048.11$   $M_y=3957.14$   $T_y=26.77$   $M_z=17.93$   
 $M_y, Ed=3957.14$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-33.57$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.40$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-33.57$   $M_y, Ed=3957.14$   $L=0.67$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.34$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=444017.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.11$   $N_{cr,y}=8972120.00$   $\lambda^*_{y}=0.09$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.97$   $N_{cr,z}=657335.00$   $\lambda^*_{z}=0.32$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.38=0.38$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/18488)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4912)

Asta n. 110012 (1196 1133) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-21.48$   
 $V, Ed=-21.48$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9741.08$   
 $V, Ed=9741.08$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.27$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.71$  - Classe 1  
Sollecitazioni:  $N=-234.19$   $M_y=-4954.41$   $T_y=-21.48$   $M_z=28.34$   
 $M_y, Ed=-4954.41$   $M_y, c, Rd=9921.19$   
 $N, Ed=-234.19$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.50$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1



## Relazione di calcolo

Sollecitazioni: N,Ed=-234.19 My,Ed=-4954.41 L=3.23  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ , 0.95, 0.95  
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$  M,cr=23014.20  $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$  Ncr,y=386045.00  $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$  Ncr,z=28283.20  $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.96  
Verifica YY: 0.00+0.48=0.48  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3151)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/832)

Asta n. 110012 (1133 1134) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.05$  - Classe 1  
Sollecitazioni:  $T_z=8768.54$   
V,Ed=8768.54 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.24

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.59$  - Classe 1  
Sollecitazioni: N=-241.00  $M_y=-6751.78$   
My,Ed=-6751.78 My,c,Rd=9921.19  
N,Ed=-241.00 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.68

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-241.00 My,Ed=-6751.78 L=3.23  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ , 0.95, 0.95  
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$  M,cr=23014.20  $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$  Ncr,y=386045.00  $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$  Ncr,z=28283.20  $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.97  
Verifica YY: 0.00+0.65=0.65  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.15$  (L/2007)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.57$  (L/542)

Asta n. 130008 (1325 1326) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.12$  - Classe 1  
Sollecitazioni:  $T_z=8754.30$   
V,Ed=8754.30 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.24

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.66$  - Classe 1  
Sollecitazioni: N=103.80  $M_y=-6729.87$   
My,Ed=-6729.87 My,c,Rd=9921.19  
N,Ed=103.80 Nc,Rd=127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.68

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$  M,cr=22777.60  $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
My,Ed=-6729.87 My,b,Rd=9848.88 My,Ed/My,b,Rd=0.68

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.15$  (L/2012)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.57$  (L/543)

Asta n. 130008 (1326 1327) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----  
L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
V,Ed=8540.78 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.24

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni: N=140.72  $M_y=-6405.58$   
My,Ed=-6405.58 My,c,Rd=9921.19  
N,Ed=140.72 Nc,Rd=127504.00 YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19 My,Ed/MNy,c,Rd=0.65

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1



## Relazione di calcolo

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-6405.58$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.65$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2163)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/584)

Asta n. 130008 (1327 1389) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_y=35.60$   
 $V, Ed=35.60$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-9570.83$   
 $V, Ed=-9570.83$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1  
Sollecitazioni:  $N=181.54$   $M_y=-4953.66$   $T_y=35.60$   $M_z=46.96$   
 $M_y, Ed=-4953.66$   $M_y, c, Rd=9921.19$   
 $N, Ed=181.54$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.50$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.60$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23377.20$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $M_y, Ed=-4953.66$   $M_y, b, Rd=9871.82$   $M_y, Ed/M_y, b, Rd=0.50$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3152)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/830)

Asta n. 130008 (1389 1390) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-9.18$   
 $V, Ed=-9.18$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=7134.55$   
 $V, Ed=7134.55$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.20$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=-120.59$   $T_z=7134.55$   $M_y=4159.05$   $T_y=-9.18$   $M_z=6.42$   
 $M_y, Ed=4159.05$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-120.59$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.42$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-120.59$   $M_y, Ed=4159.05$   $L=0.70$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.35$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=407149.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.48$   $N_{cr,y}=8219500.00$   $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=31.31$   $N_{cr,z}=602195.00$   $\lambda_z^*=0.33$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.40=0.40$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,g}=0.00$  (L/16681)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/4587)

Asta n. 130010 (1391 1392) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_y=106.20$   
 $V, Ed=106.20$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_z=-6870.77$   
 $V, Ed=-6870.77$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.72$  - Classe 1



## Relazione di calcolo

- Sollecitazioni:  $N=-25.97$   $T_z=-6870.77$   $M_y=4063.41$   $T_y=106.20$   $M_z=76.46$   
 $M_y, Ed=4063.41$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-25.97$   $Nc, Rd=-127504.00$   $YY$   $n=N, Ed/Nc, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.41$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-25.97$   $M_y, Ed=4063.41$   $L=0.72$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.36$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=385091.00$   $\lambda_{LT}=0.12$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.72$   $N_{cr,y}=7769230.00$   $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=32.21$   $N_{cr,z}=569206.00$   $\lambda_z^*=0.34$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.39=0.39$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/17158)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/4660)
- Asta n. 130010 (1392 1328) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $Xl=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-15.96$   
 $V, Ed=-15.96$   $Vc, Rd=50605.00$   $V, Ed/Vc, Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $Xl=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9498.38$   
 $V, Ed=9498.38$   $Vc, Rd=36184.00$   $V, Ed/Vc, Rd=0.26$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $Xl=1.67$  - Classe 1  
Sollecitazioni:  $N=-45.55$   $M_y=-4899.17$   $T_y=-15.96$   $M_z=20.94$   
 $M_y, Ed=-4899.17$   $M_y, c, Rd=9921.19$   
 $N, Ed=-45.55$   $Nc, Rd=-127504.00$   $YY$   $n=N, Ed/Nc, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.49$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-45.55$   $M_y, Ed=-4899.17$   $L=3.18$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.59$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23624.70$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.59$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.50$   $N_{cr,y}=398279.00$   $\lambda_y^*=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=142.24$   $N_{cr,z}=29179.60$   $\lambda_z^*=1.51$  Curva b:  $\Phi_z=1.87$   $\chi_z=0.34$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.47=0.47$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3201)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.35$  (L/844)
- Asta n. 130010 (1328 1329) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $Xl=0.05$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V, Ed=8540.78$   $Vc, Rd=36184.00$   $V, Ed/Vc, Rd=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $Xl=1.55$  - Classe 1  
Sollecitazioni:  $N=-115.05$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=-115.05$   $Nc, Rd=-127504.00$   $YY$   $n=N, Ed/Nc, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.65$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-115.05$   $M_y, Ed=-6405.58$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.96$   
Verifica YY:  $0.00+0.62=0.62$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,G}=0.14$  (L/2160)
- Verifica freccia massima carichi totali - CC 2



## Relazione di calcolo

$f_{z,L}=0.51$  (L/584)

Asta n. 130010 (1329 1330) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1

Sollecitazioni:  $T_z=-8967.82$

$V, Ed=-8967.82$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.25$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.62$  - Classe 1

Sollecitazioni:  $N=-52.17$   $M_y=-7062.16$

$M_y, Ed=-7062.16$   $M_y, c, Rd=9921.19$

$N, Ed=-52.17$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.71$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-52.17$   $M_y, Ed=-7062.16$   $L=3.25$

$\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$

$\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$

$K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.95$ ,  $0.57$ ,  $0.00$ ,  $0.95$

Verifica YY:  $0.00+0.68=0.68$

Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.17$  (L/1872)

- Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.62$  (L/505)

Asta n. 130010 (1330 1331) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1

Sollecitazioni:  $T_z=8540.78$

$V, Ed=8540.78$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1

Sollecitazioni:  $N=8.80$   $M_y=-6405.58$

$M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$

$N, Ed=8.80$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.65$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$M_y, Ed=-6405.58$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.65$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.14$  (L/2166)

- Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.51$  (L/586)

Asta n. 130010 (1331 1332) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1

Sollecitazioni:  $T_z=8540.78$

$V, Ed=8540.78$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1

Sollecitazioni:  $N=60.67$   $M_y=-6405.58$

$M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$

$N, Ed=60.67$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.65$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$M_y, Ed=-6405.58$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.65$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.14$  (L/2160)

- Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.51$  (L/584)

Asta n. 130010 (1332 1393) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.25$  - Classe 1

Sollecitazioni:  $T_y=19.93$



## Relazione di calcolo

- V,Ed=19.93 Vc,Rd=50605.00 V,Ed/Vc,Rd=0.00
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=3.25 - Classe 1  
Sollecitazioni: T<sub>z</sub>=-9845.46  
V,Ed=-9845.46 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.27
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.52 - Classe 1  
Sollecitazioni: N=106.45 M<sub>y</sub>=-4966.95 T<sub>y</sub>=19.93 M<sub>z</sub>=26.32  
My,Ed=-4966.95 My,c,Rd=9921.19  
N,Ed=106.45 Nc,Rd=127504.00 YY n=N,Ed/Nc,Rd=0.00 M<sub>Ny,c,Rd</sub>=9921.19 My,Ed/M<sub>Ny,c,Rd</sub>=0.50
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
L<sub>cr</sub>=1.62 Curva b:  $\alpha_{imp}=0.34$  k<sub>c</sub>=0.94  $\psi=1.75$  M<sub>cr</sub>=22777.60  $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$  f=0.98  $\chi_{LT}=0.99$   
My,Ed=-4966.95 My,b,Rd=9848.88 My,Ed/My,b,Rd=0.50
- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,L</sub>=0.10 (L/3117)
- Verifica freccia massima carichi totali - CC 2  
f<sub>z,L</sub>=0.37 (L/823)
- Asta n. 130010 (1393 1394) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni: T<sub>y</sub>=-1.41  
V,Ed=-1.41 Vc,Rd=50605.00 V,Ed/Vc,Rd=0.00
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni: T<sub>z</sub>=7535.55  
V,Ed=7535.55 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.21
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni: N=-50.11 T<sub>z</sub>=7535.55 M<sub>y</sub>=4178.02 T<sub>y</sub>=-1.41  
My,Ed=4178.02 My,V,c,Rd=9921.19  
N,Ed=-50.11 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.00 M<sub>Ny,c,Rd</sub>=9921.19 My,Ed/M<sub>Ny,c,Rd</sub>=0.42
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-50.11 My,Ed=4178.02 L=0.65  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ , 0.95, 0.95  
L<sub>cr</sub>=0.33 Curva b:  $\alpha_{imp}=0.34$  k<sub>c</sub>=0.94  $\psi=1.75$  M<sub>cr</sub>=471480.00  $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$  f=1.00  $\chi_{LT}=1.00$   
 $\lambda_c=7.87$  Ncr,y=9532760.00  $\lambda^*_y=0.08$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.07$  Ncr,z=698410.00  $\lambda^*_z=0.31$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
K<sub>yy</sub>, K<sub>yz</sub>, K<sub>zy</sub>, K<sub>zz</sub>=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.40=0.40  
Verifica ZZ: 0.00=0.00
- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,G</sub>=0.00 (L/17039)
- Verifica freccia massima carichi totali - CC 2  
f<sub>z,L</sub>=0.01 (L/4668)
- Asta n. 130012 (1395 1396) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=0.67 - Classe 1  
Sollecitazioni: T<sub>y</sub>=28.69  
V,Ed=28.69 Vc,Rd=50605.00 V,Ed/Vc,Rd=0.00
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.67 - Classe 1  
Sollecitazioni: T<sub>z</sub>=-7139.13  
V,Ed=-7139.13 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.20
- Verifica a flessione e taglio YY[4.2.32] - CC 1 SLU Xl=0.67 - Classe 1  
Sollecitazioni: T<sub>z</sub>=-7139.13 M<sub>y</sub>=4018.12 T<sub>y</sub>=28.69 M<sub>z</sub>=19.22  
My,Ed=4018.12 My,V,c,Rd=9921.19 My,Ed/My,V,c,Rd=0.41
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-0.43 My,Ed=4018.12 L=0.67  
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ , 0.95, 0.95  
L<sub>cr</sub>=0.34 Curva b:  $\alpha_{imp}=0.34$  k<sub>c</sub>=0.94  $\psi=1.75$  M<sub>cr</sub>=444017.00  $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$  f=1.00  $\chi_{LT}=1.00$   
 $\lambda_c=8.11$  Ncr,y=8972120.00  $\lambda^*_y=0.09$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.97$  Ncr,z=657335.00  $\lambda^*_z=0.32$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
K<sub>yy</sub>, K<sub>yz</sub>, K<sub>zy</sub>, K<sub>zz</sub>=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.38=0.38  
Verifica ZZ: 0.00=0.00
- Verifica freccia massima per soli carichi accidentali - CC 2



## Relazione di calcolo

$f_{z,L}=0.00$  (L/18488)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4811)

Asta n. 130012 (1396 1333) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-15.15$   
 $V,Ed=-15.15$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9738.42$   
 $V,Ed=9738.42$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.71$  - Classe 1  
Sollecitazioni:  $N=-215.94$   $M_y=-4957.93$   $T_y=-15.15$   $M_z=20.00$   
 $M_y,Ed=-4957.93$   $M_y,c,Rd=9921.19$   
 $N,Ed=-215.94$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.50$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-215.94$   $M_y,Ed=-4957.93$   $L=3.23$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$   $N_{cr,y}=386045.00$   $\lambda^*_{y}=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$   $N_{cr,z}=28283.20$   $\lambda^*_z=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.58, 0.00, 0.96$   
Verifica YY:  $0.00+0.48=0.48$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,G}=0.10$  (L/3139)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.37$  (L/829)

Asta n. 130012 (1333 1334) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.05$  - Classe 1  
Sollecitazioni:  $T_z=8768.54$   
 $V,Ed=8768.54$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.59$  - Classe 1  
Sollecitazioni:  $N=-266.81$   $M_y=-6751.78$   
 $M_y,Ed=-6751.78$   $M_y,c,Rd=9921.19$   
 $N,Ed=-266.81$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.68$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-266.81$   $M_y,Ed=-6751.78$   $L=3.23$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$   $N_{cr,y}=386045.00$   $\lambda^*_y=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$   $N_{cr,z}=28283.20$   $\lambda^*_z=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.58, 0.00, 0.97$   
Verifica YY:  $0.00+0.65=0.65$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.15$  (L/2010)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.57$  (L/542)

Asta n. 150008 (1525 1526) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.12$  - Classe 1  
Sollecitazioni:  $T_z=8754.30$   
 $V,Ed=8754.30$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.66$  - Classe 1  
Sollecitazioni:  $N=143.71$   $M_y=-6729.87$   
 $M_y,Ed=-6729.87$   $M_y,c,Rd=9921.19$   
 $N,Ed=143.71$   $N_c,Rd=127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.68$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$



## Relazione di calcolo

My,Ed=-6729.87 My,b,Rd=9848.88 My,Ed/My,b,Rd=0.68

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.15$  (L/2012)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.57$  (L/543)

Asta n. 150008 (1526 1527) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V,Ed=8540.78$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=54.72$   $M_y=-6405.58$   
 $My,Ed=-6405.58$   $My,c,Rd=9921.19$   
 $N,Ed=54.72$   $N_c,Rd=127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $My,Ed/MNy,c,Rd=0.65$
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $My,Ed=-6405.58$   $My,b,Rd=9848.88$   $My,Ed/My,b,Rd=0.65$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2160)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/584)

Asta n. 150008 (1527 1589) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_y=10.71$   
 $V,Ed=10.71$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-9579.20$   
 $V,Ed=-9579.20$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.26$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1  
Sollecitazioni:  $N=-43.21$   $M_y=-4942.64$   $T_y=10.71$   $M_z=14.11$   
 $My,Ed=-4942.64$   $My,c,Rd=9921.19$   
 $N,Ed=-43.21$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $My,Ed/MNy,c,Rd=0.50$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-43.21$   $My,Ed=-4942.64$   $L=3.20$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.60$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23377.20$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.74$   $N_{cr,y}=393317.00$   $\lambda_y^*=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=143.14$   $N_{cr,z}=28816.00$   $\lambda_z^*=1.52$  Curva b:  $\Phi_z=1.89$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.00+0.48=0.48$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3158)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/832)

Asta n. 150008 (1589 1590) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=118.62$   
 $V,Ed=118.62$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=7177.29$   
 $V,Ed=7177.29$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.20$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=-37.47$   $T_z=7177.29$   $M_y=4188.97$   $T_y=118.62$   $M_z=-83.03$   
 $My,Ed=4188.97$   $My,V,c,Rd=9921.19$   
 $N,Ed=-37.47$   $N_c,Rd=-127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $My,Ed/MNy,c,Rd=0.42$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-37.47$   $My,Ed=4188.97$   $L=0.70$



## Relazione di calcolo

$\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.35$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=407149.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.48$  Ncr,y=8219500.00  $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=31.31$  Ncr,z=602195.00  $\lambda_z^*=0.33$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.40=0.40  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,g}=0.00$  (L/16681)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/4475)

Asta n. 150010 (1591 1592) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_y=85.44$   
 $V_{Ed}=85.44$   $V_{c,Rd}=50605.00$   $V_{Ed}/V_{c,Rd}=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_z=-6911.51$   
 $V_{Ed}=-6911.51$   $V_{c,Rd}=36184.00$   $V_{Ed}/V_{c,Rd}=0.19$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $N=20.75$   $T_z=-6911.51$   $M_y=4092.75$   $T_y=85.44$   $M_z=61.52$   
 $M_{y,Ed}=4092.75$   $M_{y,V,c,Rd}=9921.19$   
 $N_{Ed}=20.75$   $N_{c,Rd}=127504.00$   $YY$   $n=N_{Ed}/N_{c,Rd}=0.00$   $MN_{y,c,Rd}=9921.19$   $M_{y,Ed}/MN_{y,c,Rd}=0.41$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=0.36$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=385091.00$   $\lambda_{LT}=0.12$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $M_{y,Ed}=4092.75$   $M_{y,b,Rd}=9921.19$   $M_{y,Ed}/M_{y,b,Rd}=0.41$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/17158)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/4603)

Asta n. 150010 (1592 1528) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=3.46$   
 $V_{Ed}=3.46$   $V_{c,Rd}=50605.00$   $V_{Ed}/V_{c,Rd}=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9497.48$   
 $V_{Ed}=9497.48$   $V_{c,Rd}=36184.00$   $V_{Ed}/V_{c,Rd}=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.67$  - Classe 1  
Sollecitazioni:  $N=-261.81$   $M_y=-4900.35$   $T_y=3.46$   $M_z=-4.54$   
 $M_{y,Ed}=-4900.35$   $M_{y,c,Rd}=9921.19$   
 $N_{Ed}=-261.81$   $N_{c,Rd}=127504.00$   $YY$   $n=N_{Ed}/N_{c,Rd}=0.00$   $MN_{y,c,Rd}=9921.19$   $M_{y,Ed}/MN_{y,c,Rd}=0.49$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N_{Ed}=-261.81$   $M_{y,Ed}=-4900.35$   $L=3.18$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.59$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23624.70$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.59$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.50$  Ncr,y=398279.00  $\lambda_y^*=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=142.24$  Ncr,z=29179.60  $\lambda_z^*=1.51$  Curva b:  $\Phi_z=1.87$   $\chi_z=0.34$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.97  
Verifica YY: 0.00+0.47=0.47  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3201)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.35$  (L/844)

Asta n. 150010 (1528 1529) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.05$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V_{Ed}=8540.78$   $V_{c,Rd}=36184.00$   $V_{Ed}/V_{c,Rd}=0.24$



## Relazione di calcolo

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.55$  - Classe 1  
Sollecitazioni:  $N=-91.69$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=-91.69$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $M_{Ny, c, Rd}=9921.19$   $M_y, Ed/M_{Ny, c, Rd}=0.65$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-91.69$   $M_y, Ed=-6405.58$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.96$   
Verifica YY:  $0.00+0.62=0.62$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2160)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/584)
- Asta n. 150010 (1529 1530) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-8967.82$   
 $V, Ed=-8967.82$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.25$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.62$  - Classe 1  
Sollecitazioni:  $N=212.27$   $M_y=-7062.16$   
 $M_y, Ed=-7062.16$   $M_y, c, Rd=9921.19$   
 $N, Ed=212.27$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $M_{Ny, c, Rd}=9921.19$   $M_y, Ed/M_{Ny, c, Rd}=0.71$
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-7062.16$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.72$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.17$  (L/1870)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.62$  (L/505)
- Asta n. 150010 (1530 1531) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V, Ed=8540.78$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=58.78$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=58.78$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $M_{Ny, c, Rd}=9921.19$   $M_y, Ed/M_{Ny, c, Rd}=0.65$
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-6405.58$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.65$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2163)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/585)
- Asta n. 150010 (1531 1532) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V, Ed=8540.78$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=-81.67$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=-81.67$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $M_{Ny, c, Rd}=9921.19$   $M_y, Ed/M_{Ny, c, Rd}=0.65$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-81.67$   $M_y, Ed=-6405.58$   $L=3.25$



## Relazione di calcolo

$\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$  Ncr,y=381308.00  $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$  Ncr,z=27936.20  $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.96  
Verifica YY: 0.00+0.62=0.62  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2160)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/584)

Asta n. 150010 (1532 1593) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=3.25 - Classe 1  
Sollecitazioni:  $T_y=6.53$   
 $V_{Ed}=6.53$   $V_{c,Rd}=50605.00$   $V_{Ed}/V_{c,Rd}=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=3.25 - Classe 1  
Sollecitazioni:  $T_z=-9852.01$   
 $V_{Ed}=-9852.01$   $V_{c,Rd}=36184.00$   $V_{Ed}/V_{c,Rd}=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.52 - Classe 1  
Sollecitazioni:  $N=-206.59$   $M_y=-4958.31$   $T_y=6.53$   $M_z=8.62$   
 $M_{y,Ed}=-4958.31$   $M_{y,c,Rd}=9921.19$   
 $N_{Ed}=-206.59$   $N_{c,Rd}=-127504.00$  YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19  $M_{y,Ed}/M_{N_y,c,Rd}=0.50$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N_{Ed}=-206.59$   $M_{y,Ed}=-4958.31$  L=3.25  
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$  Ncr,y=381308.00  $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$  Ncr,z=27936.20  $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.96  
Verifica YY: 0.00+0.48=0.48  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3129)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.37$  (L/825)

Asta n. 150010 (1593 1594) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni:  $T_y=85.37$   
 $V_{Ed}=85.37$   $V_{c,Rd}=50605.00$   $V_{Ed}/V_{c,Rd}=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni:  $T_z=7574.13$   
 $V_{Ed}=7574.13$   $V_{c,Rd}=36184.00$   $V_{Ed}/V_{c,Rd}=0.21$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=0.00 - Classe 1  
Sollecitazioni:  $N=-147.21$   $T_z=7574.13$   $M_y=4203.09$   $T_y=85.37$   $M_z=-55.49$   
 $M_{y,Ed}=4203.09$   $M_{y,V,c,Rd}=9921.19$   
 $N_{Ed}=-147.21$   $N_{c,Rd}=-127504.00$  YY n=N,Ed/Nc,Rd=0.00 MNy,c,Rd=9921.19  $M_{y,Ed}/M_{N_y,c,Rd}=0.42$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N_{Ed}=-147.21$   $M_{y,Ed}=4203.09$  L=0.65  
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.33$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=471480.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=7.87$  Ncr,y=9532760.00  $\lambda_y^*=0.08$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.07$  Ncr,z=698410.00  $\lambda_z^*=0.31$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95  
Verifica YY: 0.00+0.40=0.40  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/17039)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4543)



## Relazione di calcolo

Asta n. 150012 (1595 1596) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1

Sollecitazioni:  $T_y=72.63$

$V, Ed=72.63$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1

Sollecitazioni:  $T_z=-7202.69$

$V, Ed=-7202.69$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.20$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.67$  - Classe 1

Sollecitazioni:  $N=-77.87$   $T_z=-7202.69$   $M_y=4060.71$   $T_y=72.63$   $M_z=48.66$

$M_y, Ed=4060.71$   $M_y, V, c, Rd=9921.19$

$N, Ed=-77.87$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.41$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-77.87$   $M_y, Ed=4060.71$   $L=0.67$

$\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$

$L_{cr}=0.34$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=444017.00$   $\lambda_{LT}=0.11$

$\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$

$\lambda_c=8.11$   $N_{cr,y}=8972120.00$   $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$

$\lambda_e=29.97$   $N_{cr,z}=657335.00$   $\lambda_z^*=0.32$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$

$K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$

Verifica YY:  $0.00+0.39=0.39$

Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.00$  (L/17563)

- Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.01$  (L/4746)

Asta n. 150012 (1596 1533) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1

Sollecitazioni:  $T_y=-11.17$

$V, Ed=-11.17$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1

Sollecitazioni:  $T_z=9736.98$

$V, Ed=9736.98$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.71$  - Classe 1

Sollecitazioni:  $N=-437.89$   $M_y=-4959.82$   $T_y=-11.17$   $M_z=14.74$

$M_y, Ed=-4959.82$   $M_y, c, Rd=9921.19$

$N, Ed=-437.89$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.50$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-437.89$   $M_y, Ed=-4959.82$   $L=3.23$

$\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$

$L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$

$\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$

$\lambda_c=39.11$   $N_{cr,y}=386045.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$

$\lambda_e=144.48$   $N_{cr,z}=28283.20$   $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$

$K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.59, 0.00, 0.98$

Verifica YY:  $0.00+0.48=0.48$

Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2

$f_{z,L}=0.10$  (L/3151)

- Verifica freccia massima carichi totali - CC 2

$f_{z,L}=0.37$  (L/829)

Asta n. 150012 (1533 1534) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.05$  - Classe 1

Sollecitazioni:  $T_z=8768.54$

$V, Ed=8768.54$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.59$  - Classe 1

Sollecitazioni:  $N=-306.46$   $M_y=-6751.78$

$M_y, Ed=-6751.78$   $M_y, c, Rd=9921.19$

$N, Ed=-306.46$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.68$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1

Sollecitazioni:  $N, Ed=-306.46$   $M_y, Ed=-6751.78$   $L=3.23$

$\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$

$L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$



## Relazione di calcolo

- $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$  Ncr,y=386045.00  $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$  Ncr,z=28283.20  $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.97  
Verifica YY: 0.00+0.65=0.65  
Verifica ZZ: 0.00=0.00
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.15$  (L/2008)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.57$  (L/542)
- Asta n. 170008 (1725 1726) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.12$  - Classe 1  
Sollecitazioni:  $T_z=8754.30$   
 $V,Ed=8754.30$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.66$  - Classe 1  
Sollecitazioni:  $N=479.95$   $M_y=-6729.87$   
 $M_y,Ed=-6729.87$   $M_y,c,Rd=9921.19$   
 $N,Ed=479.95$   $N_c,Rd=127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.00$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.68$
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y,Ed=-6729.87$   $M_y,b,Rd=9848.88$   $M_y,Ed/M_y,b,Rd=0.68$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.15$  (L/2015)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.57$  (L/544)
- Asta n. 170008 (1726 1727) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V,Ed=8540.78$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=1008.65$   $M_y=-6405.58$   
 $M_y,Ed=-6405.58$   $M_y,c,Rd=9921.19$   
 $N,Ed=1008.65$   $N_c,Rd=127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.01$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.65$
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y,Ed=-6405.58$   $M_y,b,Rd=9848.88$   $M_y,Ed/M_y,b,Rd=0.65$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2163)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,G}=0.51$  (L/584)
- Asta n. 170008 (1727 1789) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_y=-19.71$   
 $V,Ed=-19.71$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-9588.85$   
 $V,Ed=-9588.85$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.27$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1  
Sollecitazioni:  $N=1477.04$   $M_y=-4929.93$   $T_y=-19.71$   $M_z=-25.94$   
 $M_y,Ed=-4929.93$   $M_y,c,Rd=9921.19$   
 $N,Ed=1477.04$   $N_c,Rd=127504.00$   $YY$   $n=N,Ed/N_c,Rd=0.01$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.50$
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.60$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23377.20$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $M_y,Ed=-4929.93$   $M_y,b,Rd=9871.82$   $M_y,Ed/M_y,b,Rd=0.50$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3164)



## Relazione di calcolo

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/836)

Asta n. 170008 (1789 1790) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=202.92$   
 $V, Ed=202.92$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=7194.63$   
 $V, Ed=7194.63$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.20$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=662.60$   $T_z=7194.63$   $M_y=4201.10$   $T_y=202.92$   $M_z=-142.04$   
 $M_y, Ed=4201.10$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=662.60$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.01$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.42$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=0.35$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=407149.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $M_y, Ed=4201.10$   $M_y, b, Rd=9921.19$   $M_y, Ed/M_y, b, Rd=0.42$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/17476)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/4530)

Asta n. 170010 (1792 1728) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=36.52$   
 $V, Ed=36.52$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9495.96$   
 $V, Ed=9495.96$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.26$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.67$  - Classe 1  
Sollecitazioni:  $N=-146.18$   $M_y=-4902.36$   $T_y=36.52$   $M_z=-47.92$   
 $M_y, Ed=-4902.36$   $M_y, c, Rd=9921.19$   
 $N, Ed=-146.18$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.49$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-146.18$   $M_y, Ed=-4902.36$   $L=3.18$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.59$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23624.70$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.59$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.50$   $N_{cr,y}=398279.00$   $\lambda_y^*=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=142.24$   $N_{cr,z}=29179.60$   $\lambda_z^*=1.51$  Curva b:  $\Phi_z=1.87$   $\chi_z=0.34$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.58, 0.00, 0.96$   
Verifica YY:  $0.00+0.47=0.47$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.09$  (L/3201)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.35$  (L/844)

Asta n. 170010 (1728 1729) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.05$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V, Ed=8540.78$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.55$  - Classe 1  
Sollecitazioni:  $N=-709.72$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=-709.72$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.01$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.65$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-709.72$   $M_y, Ed=-6405.58$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$



## Relazione di calcolo

- $\lambda_e=145.37$  Ncr,  $z=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.60, 0.00, 1.00  
Verifica YY:  $0.01+0.62=0.63$   
Verifica ZZ:  $0.01=0.01$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2163)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/584)
- Asta n. 170010 (1729 1730) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-8967.82$   
 $V, Ed=-8967.82$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.25$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.62$  - Classe 1  
Sollecitazioni:  $N=-1059.46$   $M_y=-7062.16$   
 $M_y, Ed=-7062.16$   $M_y, c, Rd=9921.19$   
 $N, Ed=-1059.46$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.01$  MNy,  $c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.71$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-1059.46$   $M_y, Ed=-7062.16$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$  Ncr,  $y=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$  Ncr,  $z=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.61, 0.00, 1.02  
Verifica YY:  $0.01+0.68=0.69$   
Verifica ZZ:  $0.01=0.01$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.17$  (L/1870)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.62$  (L/505)
- Asta n. 170010 (1730 1731) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V, Ed=8540.78$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=-458.17$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=-458.17$   $N_c, Rd=-127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$  MNy,  $c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.65$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-458.17$   $M_y, Ed=-6405.58$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$  Ncr,  $y=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$  Ncr,  $z=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.59, 0.00, 0.98  
Verifica YY:  $0.00+0.62=0.62$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2166)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/586)
- Asta n. 170010 (1731 1732) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=8540.78$   
 $V, Ed=8540.78$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=138.50$   $M_y=-6405.58$   
 $M_y, Ed=-6405.58$   $M_y, c, Rd=9921.19$   
 $N, Ed=138.50$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$  MNy,  $c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.65$
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1



## Relazione di calcolo

$L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-6405.58$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.65$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.14$  (L/2163)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/584)

Asta n. 170010 (1732 1793) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.25$  - Classe 1  
Sollecitazioni:  $T_y=-30.68$   
 $V, Ed=-30.68$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.25$  - Classe 1  
Sollecitazioni:  $T_z=-9860.70$   
 $V, Ed=-9860.70$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.27$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.52$  - Classe 1  
Sollecitazioni:  $N=647.82$   $M_y=-4946.85$   $T_y=-30.68$   $M_z=-40.45$   
 $M_y, Ed=-4946.85$   $M_y, c, Rd=9921.19$   
 $N, Ed=647.82$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.01$   $M_{Ny, c, Rd=9921.19}$   $M_y, Ed/M_{Ny, c, Rd=0.50}$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-4946.85$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.50$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3141)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.37$  (L/828)

Asta n. 170010 (1793 1794) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=239.88$   
 $V, Ed=239.88$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=7578.39$   
 $V, Ed=7578.39$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.21$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=326.93$   $T_z=7578.39$   $M_y=4205.86$   $T_y=239.88$   $M_z=-155.92$   
 $M_y, Ed=4205.86$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=326.93$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $M_{Ny, c, Rd=9921.19}$   $M_y, Ed/M_{Ny, c, Rd=0.42}$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=0.33$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=471480.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $M_y, Ed=4205.86$   $M_y, b, Rd=9921.19$   $M_y, Ed/M_y, b, Rd=0.42$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/17039)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,G}=0.01$  (L/4605)

Asta n. 170012 (1795 1796) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_y=-4.08$   
 $V, Ed=-4.08$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_z=-7222.53$   
 $V, Ed=-7222.53$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.20$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $N=407.26$   $T_z=-7222.53$   $M_y=4074.00$   $T_y=-4.08$   $M_z=-2.73$   
 $M_y, Ed=4074.00$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=407.26$   $N_c, Rd=127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.00$   $M_{Ny, c, Rd=9921.19}$   $M_y, Ed/M_{Ny, c, Rd=0.41}$

- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=0.34$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=444017.00$   $\lambda_{LT}=0.11$



## Relazione di calcolo

$\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $M_{y,Ed}=4074.00$   $M_{y,b,Rd}=9921.19$   $M_{y,Ed/M_{y,b,Rd}}=0.41$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/16727)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.01$  (L/4683)

Asta n. 170012 (1796 1733) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_1=0.00$  - Classe 1  
Sollecitazioni:  $T_y=20.07$   
 $V_{Ed}=20.07$   $V_{c,Rd}=50605.00$   $V_{Ed/V_{c,Rd}}=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_1=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9738.68$   
 $V_{Ed}=9738.68$   $V_{c,Rd}=36184.00$   $V_{Ed/V_{c,Rd}}=0.27$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_1=1.71$  - Classe 1  
Sollecitazioni:  $N=470.68$   $M_y=-4957.59$   $T_y=20.07$   $M_z=-26.49$   
 $M_{y,Ed}=-4957.59$   $M_{y,c,Rd}=9921.19$   
 $N_{Ed}=470.68$   $N_{c,Rd}=127504.00$   $YY$   $n=N_{Ed/N_{c,Rd}}=0.00$   $M_{Ny,c,Rd}=9921.19$   $M_{y,Ed/M_{Ny,c,Rd}}=0.50$
- Verifica di stabilità aste inflesse (4.2.4.1.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_{y,Ed}=-4957.59$   $M_{y,b,Rd}=9858.06$   $M_{y,Ed/M_{y,b,Rd}}=0.50$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.10$  (L/3151)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.36$  (L/830)

Asta n. 170012 (1733 1734) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_1=0.05$  - Classe 1  
Sollecitazioni:  $T_z=8768.54$   
 $V_{Ed}=8768.54$   $V_{c,Rd}=36184.00$   $V_{Ed/V_{c,Rd}}=0.24$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_1=1.59$  - Classe 1  
Sollecitazioni:  $N=-47.16$   $M_y=-6751.78$   
 $M_{y,Ed}=-6751.78$   $M_{y,c,Rd}=9921.19$   
 $N_{Ed}=-47.16$   $N_{c,Rd}=127504.00$   $YY$   $n=N_{Ed/N_{c,Rd}}=0.00$   $M_{Ny,c,Rd}=9921.19$   $M_{y,Ed/M_{Ny,c,Rd}}=0.68$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N_{Ed}=-47.16$   $M_{y,Ed}=-6751.78$   $L=3.23$   
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$   
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$   $N_{cr,y}=386045.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$   $N_{cr,z}=28283.20$   $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
 $K_{yy}$ ,  $K_{yz}$ ,  $K_{zy}$ ,  $K_{zz}=0.95$ ,  $0.57$ ,  $0.00$ ,  $0.95$   
Verifica YY:  $0.00+0.65=0.65$   
Verifica ZZ:  $0.00=0.00$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.15$  (L/2005)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.57$  (L/542)

Asta n. 190008 (1925 1926) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_1=0.12$  - Classe 1  
Sollecitazioni:  $T_z=12339.10$   
 $V_{Ed}=12339.10$   $V_{c,Rd}=36184.00$   $V_{Ed/V_{c,Rd}}=0.34$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_1=1.66$  - Classe 1  
Sollecitazioni:  $N=-411.80$   $M_y=-9485.71$   
 $M_{y,Ed}=-9485.71$   $M_{y,c,Rd}=9921.19$   
 $N_{Ed}=-411.80$   $N_{c,Rd}=127504.00$   $YY$   $n=N_{Ed/N_{c,Rd}}=0.00$   $M_{Ny,c,Rd}=9921.19$   $M_{y,Ed/M_{Ny,c,Rd}}=0.96$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N_{Ed}=-411.80$   $M_{y,Ed}=-9485.71$   $L=3.25$   
 $\alpha_{my}$ ,  $\alpha_{mz}$ ,  $\alpha_{LT}=0.95$ ,  $0.95$ ,  $0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$



## Relazione di calcolo

$\lambda_c=39.35$  Ncr,y=381308.00  $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$  Ncr,z=27936.20  $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.59, 0.00, 0.98  
Verifica YY: 0.00+0.92=0.92  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.21$  (L/1435)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.79$  (L/390)

Asta n. 190008 (1926 1927) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=12038.20$   
 $V,Ed=12038.20$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.33$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=-1325.14$   $M_y=-9028.63$   
 $M_y,Ed=-9028.63$   $M_y,c,Rd=9921.19$   
 $N,Ed=-1325.14$   $N_c,Rd=-127504.00$  YY  $n=N,Ed/N_c,Rd=0.01$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.91$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-1325.14$   $M_y,Ed=-9028.63$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$  Ncr,y=381308.00  $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$  Ncr,z=27936.20  $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.62, 0.00, 1.04  
Verifica YY: 0.01+0.88=0.89  
Verifica ZZ: 0.01=0.01

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.19$  (L/1540)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.72$  (L/418)

Asta n. 190008 (1927 1989) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_y=-16.62$   
 $V,Ed=-16.62$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=3.20$  - Classe 1  
Sollecitazioni:  $T_z=-13587.20$   
 $V,Ed=-13587.20$   $V_c,Rd=36184.00$   $V,Ed/V_c,Rd=0.38$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.51$  - Classe 1  
Sollecitazioni:  $N=-2109.29$   $M_y=-6854.62$   $T_y=-16.62$   $M_z=-21.72$   
 $M_y,Ed=-6854.62$   $M_y,c,Rd=9921.19$   
 $N,Ed=-2109.29$   $N_c,Rd=-127504.00$  YY  $n=N,Ed/N_c,Rd=0.02$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.69$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-2109.29$   $M_y,Ed=-6854.62$   $L=3.20$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.60$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=23377.20$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.74$  Ncr,y=393317.00  $\lambda_y^*=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=143.14$  Ncr,z=28816.00  $\lambda_z^*=1.52$  Curva b:  $\Phi_z=1.89$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.96, 0.65, 0.00, 1.08  
Verifica YY: 0.02+0.66=0.68  
Verifica ZZ: 0.02=0.02

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,0}=0.13$  (L/2319)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.49$  (L/611)

Asta n. 190008 (1989 1990) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate  
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-68.96$   
 $V,Ed=-68.96$   $V_c,Rd=50605.00$   $V,Ed/V_c,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1



## Relazione di calcolo

- Sollecitazioni:  $T_z=9432.21$   
 $V, Ed=9432.21$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.26$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=-2300.55$   $T_z=9432.21$   $M_y=5471.67$   $T_y=-68.96$   $M_z=48.27$   
 $M_y, Ed=5471.67$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-2300.55$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.02$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.55$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-2300.55$   $M_y, Ed=5471.67$   $L=0.70$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.35$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M, cr=407149.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.48$   $N_{cr,y}=8219500.00$   $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=31.31$   $N_{cr,z}=602195.00$   $\lambda_z^*=0.33$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.02+0.52=0.54$   
Verifica ZZ:  $0.02=0.02$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.01$  (L/13107)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/3563)
- Asta n. 190010 (1991 1992) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_y=413.51$   
 $V, Ed=413.51$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.01$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $T_z=-9185.09$   
 $V, Ed=-9185.09$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.25$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.72$  - Classe 1  
Sollecitazioni:  $N=-1875.89$   $T_z=-9185.09$   $M_y=5416.83$   $T_y=413.51$   $M_z=297.73$   
 $M_y, Ed=5416.83$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-1875.89$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.01$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.55$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-1875.89$   $M_y, Ed=5416.83$   $L=0.72$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.36$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M, cr=385091.00$   $\lambda_{LT}=0.12$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.46$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.72$   $N_{cr,y}=7769230.00$   $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.49$   $\chi_y=1.00$   
 $\lambda_e=32.21$   $N_{cr,z}=569206.00$   $\lambda_z^*=0.34$  Curva b:  $\Phi_z=0.58$   $\chi_z=0.95$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.01+0.52=0.53$   
Verifica ZZ:  $0.01=0.01$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.01$  (L/13481)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/3527)
- Asta n. 190010 (1992 1928) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----  
L'asta accoppiata è stata considerata come due aste separate
- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-5.79$   
 $V, Ed=-5.79$   $V_c, Rd=50605.00$   $V, Ed/V_c, Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=13420.90$   
 $V, Ed=13420.90$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.37$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.67$  - Classe 1  
Sollecitazioni:  $N=-1097.25$   $M_y=-6862.13$   $T_y=-5.79$   $M_z=7.57$   
 $M_y, Ed=-6862.13$   $M_y, c, Rd=9921.19$   
 $N, Ed=-1097.25$   $N_c, Rd=-127504.00$   $YY$   $n=N, Ed/N_c, Rd=0.01$   $MN_y, c, Rd=9921.19$   $M_y, Ed/MN_y, c, Rd=0.69$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-1097.25$   $M_y, Ed=-6862.13$   $L=3.18$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.59$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M, cr=23624.70$   $\lambda_{LT}=0.47$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.59$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=1.00$   
 $\lambda_c=38.50$   $N_{cr,y}=398279.00$   $\lambda_y^*=0.41$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=142.24$   $N_{cr,z}=29179.60$   $\lambda_z^*=1.51$  Curva b:  $\Phi_z=1.87$   $\chi_z=0.34$



## Relazione di calcolo

Kyy, Kyz, Kzy, Kzz=0.95, 0.61, 0.00, 1.02  
Verifica YY: 0.01+0.66=0.67  
Verifica ZZ: 0.01=0.01

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2294)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.49$  (L/611)

Asta n. 190010 (1928 1929) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.05$  - Classe 1  
Sollecitazioni:  $T_z=12038.20$   
 $V, Ed=12038.20$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.33$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.55$  - Classe 1  
Sollecitazioni:  $N=-272.16$   $M_y=-9028.63$   
 $M_y, Ed=-9028.63$   $M_y, c, Rd=9921.19$   
 $N, Ed=-272.16$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.91$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-272.16$   $M_y, Ed=-9028.63$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.58, 0.00, 0.97  
Verifica YY: 0.00+0.87=0.87  
Verifica ZZ: 0.00=0.00

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.19$  (L/1542)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.72$  (L/418)

Asta n. 190010 (1929 1930) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.05$  - Classe 1  
Sollecitazioni:  $T_z=12640.10$   
 $V, Ed=12640.10$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.35$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.62$  - Classe 1  
Sollecitazioni:  $N=870.93$   $M_y=-9754.08$   
 $M_y, Ed=-9754.08$   $M_y, c, Rd=9921.19$   
 $N, Ed=870.93$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.01$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.98$

- Verifica di stabilità aste inflesse (4.2.4.1.3.3.2) CC 1 SLU - Classe 1  
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\beta_{LT}=0.75$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $M_y, Ed=-9754.08$   $M_y, b, Rd=9848.88$   $M_y, Ed/M_y, b, Rd=0.99$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,G}=0.24$  (L/1337)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.87$  (L/363)

Asta n. 190010 (1930 1931) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.20$  - Classe 1  
Sollecitazioni:  $T_z=12038.20$   
 $V, Ed=12038.20$   $V_c, Rd=36184.00$   $V, Ed/V_c, Rd=0.33$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.70$  - Classe 1  
Sollecitazioni:  $N=-66.33$   $M_y=-9028.63$   
 $M_y, Ed=-9028.63$   $M_y, c, Rd=9921.19$   
 $N, Ed=-66.33$   $N_c, Rd=127504.00$  YY  $n=N, Ed/N_c, Rd=0.00$   $MNy, c, Rd=9921.19$   $M_y, Ed/MNy, c, Rd=0.91$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-66.33$   $M_y, Ed=-9028.63$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda_z^*=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95



## Relazione di calcolo

Verifica YY:  $0.00+0.87=0.87$   
Verifica ZZ:  $0.00=0.00$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.19$  (L/1543)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.71$  (L/419)

Asta n. 190010 (1931 1932) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $Xl=0.20$  - Classe 1  
Sollecitazioni:  $T_z=12038.20$   
 $V,Ed=12038.20$   $Vc,Rd=36184.00$   $V,Ed/Vc,Rd=0.33$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $Xl=1.70$  - Classe 1  
Sollecitazioni:  $N=-1013.38$   $M_y=-9028.63$   
 $M_y,Ed=-9028.63$   $M_y,c,Rd=9921.19$   
 $N,Ed=-1013.38$   $Nc,Rd=-127504.00$  YY  $n=N,Ed/Nc,Rd=0.01$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.91$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-1013.38$   $M_y,Ed=-9028.63$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda^*_{y}=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda^*_z=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.95, 0.61, 0.00, 1.02$   
Verifica YY:  $0.01+0.87=0.88$   
Verifica ZZ:  $0.01=0.01$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.19$  (L/1542)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.72$  (L/418)

Asta n. 190010 (1932 1993) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $Xl=3.25$  - Classe 1  
Sollecitazioni:  $T_y=2.10$   
 $V,Ed=2.10$   $Vc,Rd=50605.00$   $V,Ed/Vc,Rd=0.00$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $Xl=3.25$  - Classe 1  
Sollecitazioni:  $T_z=-13940.80$   
 $V,Ed=-13940.80$   $Vc,Rd=36184.00$   $V,Ed/Vc,Rd=0.39$

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $Xl=1.51$  - Classe 1  
Sollecitazioni:  $N=-1817.99$   $M_y=-6917.02$   $T_y=2.10$   $M_z=2.76$   
 $M_y,Ed=-6917.02$   $M_y,c,Rd=9921.19$   
 $N,Ed=-1817.99$   $Nc,Rd=-127504.00$  YY  $n=N,Ed/Nc,Rd=0.01$   $MNy,c,Rd=9921.19$   $M_y,Ed/MNy,c,Rd=0.70$

- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N,Ed=-1817.99$   $M_y,Ed=-6917.02$   $L=3.25$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.62$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M_{cr}=22777.60$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.35$   $N_{cr,y}=381308.00$   $\lambda^*_y=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=145.37$   $N_{cr,z}=27936.20$   $\lambda^*_z=1.55$  Curva b:  $\Phi_z=1.93$   $\chi_z=0.33$   
 $K_{yy}, K_{yz}, K_{zy}, K_{zz}=0.96, 0.64, 0.00, 1.07$   
Verifica YY:  $0.01+0.67=0.69$   
Verifica ZZ:  $0.01=0.01$

- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.13$  (L/2281)

- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.51$  (L/602)

Asta n. 190010 (1993 1994) - Sez. 55 (NTr. 2xIPE200) - Crit. 1  
-----

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $Xl=0.00$  - Classe 1  
Sollecitazioni:  $T_y=-313.44$   
 $V,Ed=-313.44$   $Vc,Rd=50605.00$   $V,Ed/Vc,Rd=0.01$

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $Xl=0.00$  - Classe 1  
Sollecitazioni:  $T_z=9995.86$   
 $V,Ed=9995.86$   $Vc,Rd=36184.00$   $V,Ed/Vc,Rd=0.28$



## Relazione di calcolo

- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $N=-2162.01$   $T_z=9995.86$   $M_y=5522.21$   $T_y=-313.44$   $M_z=203.73$   
 $M_y, Ed=5522.21$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-2162.01$   $Nc, Rd=-127504.00$  YY  $n=N, Ed/Nc, Rd=0.02$   $MNy, c, Rd=9921.19$   $My, Ed/MNy, c, Rd=0.56$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-2162.01$   $My, Ed=5522.21$   $L=0.65$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.33$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M, cr=471480.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=7.87$   $Ncr, y=9532760.00$   $\lambda_y^*=0.08$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.07$   $Ncr, z=698410.00$   $\lambda_z^*=0.31$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
 $Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.02+0.53=0.54$   
Verifica ZZ:  $0.02=0.02$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.00$  (L/13107)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/3549)

Asta n. 190012 (1995 1996) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_y=179.21$   
 $V, Ed=179.21$   $Vc, Rd=50605.00$   $V, Ed/Vc, Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $T_z=-9666.01$   
 $V, Ed=-9666.01$   $Vc, Rd=36184.00$   $V, Ed/Vc, Rd=0.27$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=0.67$  - Classe 1  
Sollecitazioni:  $N=-2033.88$   $T_z=-9666.01$   $M_y=5440.19$   $T_y=179.21$   $M_z=120.07$   
 $M_y, Ed=5440.19$   $M_y, V, c, Rd=9921.19$   
 $N, Ed=-2033.88$   $Nc, Rd=-127504.00$  YY  $n=N, Ed/Nc, Rd=0.02$   $MNy, c, Rd=9921.19$   $My, Ed/MNy, c, Rd=0.55$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-2033.88$   $My, Ed=5440.19$   $L=0.67$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=0.34$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M, cr=444017.00$   $\lambda_{LT}=0.11$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.45$   $\beta_{LT}=0.75$   $f=1.00$   $\chi_{LT}=1.00$   
 $\lambda_c=8.11$   $Ncr, y=8972120.00$   $\lambda_y^*=0.09$  Curva b:  $\Phi_y=0.48$   $\chi_y=1.00$   
 $\lambda_e=29.97$   $Ncr, z=657335.00$   $\lambda_z^*=0.32$  Curva b:  $\Phi_z=0.57$   $\chi_z=0.96$   
 $Kyy, Kyz, Kzy, Kzz=0.95, 0.57, 0.00, 0.95$   
Verifica YY:  $0.02+0.52=0.53$   
Verifica ZZ:  $0.02=0.02$
- Verifica freccia massima per soli carichi accidentali - CC 2  
 $f_{z,L}=0.01$  (L/13010)
- Verifica freccia massima carichi totali - CC 2  
 $f_{z,L}=0.02$  (L/3584)

Asta n. 190012 (1996 1933) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Y [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_y=6.16$   
 $V, Ed=6.16$   $Vc, Rd=50605.00$   $V, Ed/Vc, Rd=0.00$
- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU  $X_l=0.00$  - Classe 1  
Sollecitazioni:  $T_z=13753.30$   
 $V, Ed=13753.30$   $Vc, Rd=36184.00$   $V, Ed/Vc, Rd=0.38$
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU  $X_l=1.71$  - Classe 1  
Sollecitazioni:  $N=-1843.81$   $M_y=-6952.55$   $T_y=6.16$   $M_z=-8.11$   
 $M_y, Ed=-6952.55$   $M_y, c, Rd=9921.19$   
 $N, Ed=-1843.81$   $Nc, Rd=-127504.00$  YY  $n=N, Ed/Nc, Rd=0.01$   $MNy, c, Rd=9921.19$   $My, Ed/MNy, c, Rd=0.70$
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni:  $N, Ed=-1843.81$   $My, Ed=-6952.55$   $L=3.23$   
 $\alpha_{my}, \alpha_{mz}, \alpha_{LT}=0.95, 0.95, 0.95$   
 $L_{cr}=1.61$  Curva b:  $\alpha_{imp}=0.34$   $k_c=0.94$   $\psi=1.75$   $M, cr=23014.20$   $\lambda_{LT}=0.48$   
 $\lambda_{LT,0}=0.40$   $\Phi_{LT}=0.60$   $\beta_{LT}=0.75$   $f=0.98$   $\chi_{LT}=0.99$   
 $\lambda_c=39.11$   $Ncr, y=386045.00$   $\lambda_y^*=0.42$  Curva b:  $\Phi_y=0.62$   $\chi_y=0.92$   
 $\lambda_e=144.48$   $Ncr, z=28283.20$   $\lambda_z^*=1.54$  Curva b:  $\Phi_z=1.91$   $\chi_z=0.33$   
 $Kyy, Kyz, Kzy, Kzz=0.96, 0.64, 0.00, 1.07$   
Verifica YY:  $0.01+0.67=0.69$   
Verifica ZZ:  $0.01=0.01$



Relazione di calcolo

- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,L</sub>=0.13 (L/2246)
- Verifica freccia massima carichi totali - CC 2  
f<sub>z,L</sub>=0.51 (L/599)

Asta n. 190012 (1933 1934) - Sez. 55 (NTr. 2xIPE200) - Crit. 1

L'asta accoppiata è stata considerata come due aste separate

- Verifica a taglio Dir. Z [4.2.16] - CC 1 SLU Xl=0.05 - Classe 1  
Sollecitazioni: T<sub>z</sub>=12359.20  
V,Ed=12359.20 Vc,Rd=36184.00 V,Ed/Vc,Rd=0.34
- Verifica a presso o tenso-flessione retta YY (4.2.4.1.2.7) - CC 1 SLU Xl=1.59 - Classe 1  
Sollecitazioni: N=-1038.81 M<sub>y</sub>=-9516.60  
M<sub>y</sub>,Ed=-9516.60 M<sub>y</sub>,c,Rd=9921.19  
N,Ed=-1038.81 Nc,Rd=-127504.00 YY n=N,Ed/Nc,Rd=0.01 MN<sub>y</sub>,c,Rd=9921.19 M<sub>y</sub>,Ed/MN<sub>y</sub>,c,Rd=0.96
- Verifica di stabilità aste presso-inflesse (C4.2.4.1.3.3.2) - CC 1 SLU - Classe 1  
Sollecitazioni: N,Ed=-1038.81 M<sub>y</sub>,Ed=-9516.60 L=3.23  
α<sub>my</sub>, α<sub>mz</sub>, α<sub>LT</sub>=0.95, 0.95, 0.95  
L<sub>cr</sub>=1.61 Curva b: α<sub>imp</sub>=0.34 k<sub>e</sub>=0.94 ψ=1.75 M<sub>cr</sub>=23014.20 λ<sub>LT</sub>=0.48  
λ<sub>LT,0</sub>=0.40 Φ<sub>LT</sub>=0.60 β<sub>LT</sub>=0.75 f=0.98 χ<sub>LT</sub>=0.99  
λ<sub>c</sub>=39.11 N<sub>cr,y</sub>=386045.00 λ<sub>y</sub>'=0.42 Curva b: Φ<sub>y</sub>=0.62 χ<sub>y</sub>=0.92  
λ<sub>e</sub>=144.48 N<sub>cr,z</sub>=28283.20 λ<sub>z</sub>'=1.54 Curva b: Φ<sub>z</sub>=1.91 χ<sub>z</sub>=0.33  
K<sub>yy</sub>, K<sub>yz</sub>, K<sub>zy</sub>, K<sub>zz</sub>=0.95, 0.61, 0.00, 1.02  
Verifica YY: 0.01+0.92=0.93  
Verifica ZZ: 0.01=0.01
- Verifica freccia massima per soli carichi accidentali - CC 2  
f<sub>z,g</sub>=0.21 (L/1432)
- Verifica freccia massima carichi totali - CC 2  
f<sub>z,L</sub>=0.79 (L/389)

Sintesi

Tipo di normativa: stati limite D.M. 18  
Tipo di calcolo: statico

Dati generali della struttura

- Sito di costruzione: firenze via accademia del cimento 14 LON. 11.22590 LAT. 43.79910  
Contenuto tra ID reticolo: 19836 19837 20058 20059
- Edificio esistente: Si
- Tipo di opera: Opera ordinaria
- Vita nominale V<sub>N</sub>: 50.00
- Classe d'uso: Classe II
- Coefficiente d'uso CU: 1.00
- Periodo di riferimento VR: 50.00

Condizioni di carico elementari

Simbologia

- CCE =Numero della condizione di carico elementare
- Comm. =Commento
- Dir. =Direzione del vento
- Jpx =Moltiplicatore del momento d'inerzia intorno all'asse X
- Jpy =Moltiplicatore del momento d'inerzia intorno all'asse Y
- Jpz =Moltiplicatore del momento d'inerzia intorno all'asse Z
- Mx =Moltiplicatore della massa in dir. X
- My =Moltiplicatore della massa in dir. Y
- Mz =Moltiplicatore della massa in dir. Z
- Sic. =Contributo alla sicurezza  
S = a sfavore
- Tipo =Tipologia di pressione vento  
M = Massimizzata  
E = Esterna  
I = Interna
- Tipo CCE =Tipo di CCE per calcolo agli stati limite
- Var. =Tipo di variabilità  
B = di base
- s =Coeff. di riduzione (T.A. o S.L. D.M. 96)

CCE	Comm.	Tipo CCE	Sic.	Var.	s	Dir. <grad>	Tipo	Mx	My	Mz	Jpx	Jpy	Jpz
1	Permanenti strutturali	20	S	--	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
2	Permanenti non strutturali	21	S	--	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
3	Variabili Civile Abitazione	22	S	B	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
4	Variabili neve	31	S	B	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
5	Scale perm non strutturale	21	S	--	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00



Relazione di calcolo

6	scale variabile	22	S	B	1.00	--	--	1.00	1.00	0.00	0.00	0.00	1.00
---	-----------------	----	---	---	------	----	----	------	------	------	------	------	------

Elenco baricentri e masse impalcati

Simbologia

Imp. =Numero dell'impalcato  
Jpz =Massa rotazionale intorno all'asse Z  
Mo =Massa orizzontale  
X =Coordinata X  
Y =Coordinata Y  
Z =Coordinata Z

Imp.	X <m>	Y <m>	Z <m>	Mo <kg>	Jpz <kg*mq>	Imp.	X <m>	Y <m>	Z <m>	Mo <kg>	Jpz <kg*mq>
2	41.51	12.17	2.00	21338.90	2708180.00	3	40.48	6.61	3.50	598598.00	103836000.00
4	41.43	10.65	5.00	28373.80	3759120.00	5	40.57	6.49	6.50	550233.00	95414700.00
6	41.42	10.42	8.00	25468.60	3375190.00	7	40.64	6.40	9.50	539216.00	92851400.00
8	41.42	10.42	11.00	25468.60	3375190.00	9	40.58	6.44	12.50	531189.00	91206700.00
10	41.42	10.42	14.00	25468.60	3375190.00	11	40.54	6.49	15.50	519369.00	89136700.00
12	41.42	10.37	17.00	24933.40	3304110.00	13	40.55	6.49	18.50	514162.00	88308600.00
14	41.42	10.37	20.00	24933.40	3304110.00	15	40.57	6.50	21.50	513512.00	88205800.00
16	41.42	10.37	23.00	24933.40	3304110.00	17	40.57	6.50	24.50	513512.00	88205800.00
18	41.30	10.39	26.00	25208.60	3334870.00	19	40.12	6.60	27.50	486614.00	79534800.00

Totali masse impalcati

Mo <kg>	Jpz <kg*mq>
4992530.00	846541000.00

Materiali

Cemento armato

Elenco dei criteri di progetto e delle loro principali caratteristiche meccaniche utilizzate:  
Nuclei: 1 Armatura orizzontale con risvolti di estremità  
Pilastri in c.a.: 1 Pilastri rettangolari poco armati  
Travi in c.a.: 1 travi principali

Calcestruzzo

Livello di conoscenza: LC2  
Fattore di confidenza: 1.20  
Tipo di calcestruzzo: C12/15  
Rck calcestruzzo (Rck calcestruzzo): 150.00 <daN/cm²>  
Resistenza media (Fcm): 204.50 <daN/cm²>  
Resistenza di calcolo a compressione del calcestruzzo (Fcd): 144.85 <daN/cm²>  
Resistenza di calcolo a compressione del calcestruzzo per verifica a taglio (Fcd (Tag)): 96.57 <daN/cm²>  
Resistenza media a trazione (Fctm): 16.12 <daN/cm²>  
Resistenza di calcolo a trazione del calcestruzzo (Fctd): 8.95 <daN/cm²>

Acciaio

Livello di conoscenza: LC2  
Fattore di confidenza: 1.20  
Tipo di acciaio: Fe B 44 k  
Tensione media di snervamento (Fym): 4300.00 <daN/cm²>  
Resistenza di calcolo dell'acciaio (Fyd): 3583.33 <daN/cm²>  
Resistenza di calcolo dell'acciaio per verifica a taglio (Fyd (Tag)): 3115.94 <daN/cm²>

Travi in c.a.: 2 cordoli di collegamento  
Travi in c.a.: 3 Travi scale

Calcestruzzo

Livello di conoscenza: LC2  
Fattore di confidenza: 1.20  
Tipo di calcestruzzo: C28/35  
Rck calcestruzzo (Rck calcestruzzo): 350.00 <daN/cm²>  
Resistenza media (Fcm): 370.50 <daN/cm²>  
Resistenza di calcolo a compressione del calcestruzzo (Fcd): 262.44 <daN/cm²>  
Resistenza di calcolo a compressione del calcestruzzo per verifica a taglio (Fcd (Tag)): 174.96 <daN/cm²>  
Resistenza media a trazione (Fctm): 28.35 <daN/cm²>  
Resistenza di calcolo a trazione del calcestruzzo (Fctd): 15.75 <daN/cm²>

Acciaio

Livello di conoscenza: LC2



## Relazione di calcolo

Fattore di confidenza: 1.20  
Tipo di acciaio: Fe B 44 k  
Tensione media di snervamento (Fym): 4300.00 <daN/cm²>  
Resistenza di calcolo dell'acciaio (Fyd): 3583.33 <daN/cm²>  
Resistenza di calcolo dell'acciaio per verifica a taglio (Fyd (Tag)): 3115.94 <daN/cm²>

Travi in c.a.: 4 Nuove Travi

### Calcestruzzo

Tipo di calcestruzzo: C28/35  
Rck calcestruzzo (Rck calcestruzzo): 350.00 <daN/cm²>  
Resistenza caratteristica cilindrica a compressione del calcestruzzo (Fck): 290.50 <daN/cm²>  
Resistenza caratteristica a trazione del calcestruzzo (Fctk): 19.84 <daN/cm²>  
 $\alpha_{cc}$ : 0.85  
 $\gamma_c$ : 1.50  
Resistenza di calcolo a compressione del calcestruzzo (Fcd): 164.62 <daN/cm²>  
Resistenza di calcolo a trazione del calcestruzzo (Fctd): 13.23 <daN/cm²>

### Acciaio

Tipo di acciaio: B450C  
Tensione caratteristica di snervamento dell'acciaio (Fyk): 4500.00 <daN/cm²>  
 $\gamma_s$ : 1.15  
Resistenza di calcolo dell'acciaio (Fyd): 3913.04 <daN/cm²>

Solette/Platee: 1

### Calcestruzzo

Livello di conoscenza: LC2  
Fattore di confidenza: 1.20  
Tipo di calcestruzzo: C28/35  
Rck calcestruzzo (Rck calcestruzzo): 350.00 <daN/cm²>  
Resistenza media (Fcm): 370.50 <daN/cm²>  
Resistenza di calcolo a compressione del calcestruzzo (Fcd): 262.44 <daN/cm²>  
Resistenza di calcolo a compressione del calcestruzzo per verifica a taglio (Fcd (Tag)): 174.96 <daN/cm²>  
Resistenza media a trazione (Fctm): 28.35 <daN/cm²>  
Resistenza di calcolo a trazione del calcestruzzo (Fctd): 15.75 <daN/cm²>

### Acciaio

Livello di conoscenza: LC2  
Fattore di confidenza: 1.20  
Tipo di acciaio: Fe B 44 k  
Tensione media di snervamento (Fym): 4300.00 <daN/cm²>  
Resistenza di calcolo dell'acciaio (Fyd): 3583.33 <daN/cm²>  
Resistenza di calcolo dell'acciaio per verifica a taglio (Fyd (Tag)): 3115.94 <daN/cm²>

### Acciaio

Elenco dei criteri di progetto e delle loro principali caratteristiche meccaniche utilizzate:  
Aste in acciaio: 1

Tipo di acciaio a sezione cava: S235 UNI EN 10025-2  
Tensione caratteristica di snervamento dell'acciaio (Fyk): 2350.00 <daN/cm²>  
Tensione caratteristica di rottura (Fyt): 3600.00 <daN/cm²>  
Modulo elastico (E): 2100000.00 <daN/cm²>  
Modulo elastico tangenziale (G): 800000.00 <daN/cm²>

### Collegamenti e reticolari in acciaio

Elenco dei criteri di progetto e delle loro principali caratteristiche meccaniche utilizzate:  
Nodi in acciaio: 1 Piastre di fondazione

Classe bulloni: 6.8  
Classe Saldature: SECONDA

### Carichi

#### Simbologia

CCE = Numero della condizione di carico elementare  
Comm. = Commento  
Imp. = Numero dell'impalcato  
Mq<sub>Tot</sub> = Area solai  
QA = Primo carico accidentale  
QA2 = Secondo carico accidentale  
QA3 = Terzo carico accidentale  
Qpn = Carico permanente non strutturale  
Qps = Carico permanente strutturale  
Quota = Quota impalcato  
Ts = Numero del tipo solaio



Relazione di calcolo

Imp.	Quota <m>	Ts	Comm.	Mq <sub>rot</sub> <mq>	Qps <daN/mq>	CCE	Qpn <daN/mq>	CCE	QA <daN/mq>	CCE	QA2 <daN/mq>	CCE	QA3 <daN/mq>	CCE
1	0.00	3	Solaio SP	292.47	200.00	1	200.00	2	200.00	3	--	--	--	--
1	0.00	4	Solaio s100	1.19	500.00	1	--	--	200.00	2	--	--	--	--
0	-3.60	3	Solaio SP	152.31	200.00	1	200.00	2	200.00	3	--	--	--	--
1	0.00	4	Solaio s100	152.31	500.00	1	200.00	2	200.00	3	--	--	--	--
3	3.50	1	Solaio di piano sp.24	408.64	230.00	1	190.00	2	200.00	3	0.00	4	--	--
5	6.50	1	Solaio di piano sp.24	408.64	230.00	1	190.00	2	200.00	3	0.00	4	--	--
7	9.50	1	Solaio di piano sp.24	408.64	230.00	1	190.00	2	200.00	3	0.00	4	--	--
9	12.50	1	Solaio di piano sp.24	408.64	230.00	1	190.00	2	200.00	3	0.00	4	--	--
11	15.50	1	Solaio di piano sp.24	408.64	230.00	1	190.00	2	200.00	3	0.00	4	--	--
13	18.50	1	Solaio di piano sp.24	408.64	230.00	1	190.00	2	200.00	3	0.00	4	--	--
15	21.50	1	Solaio di piano sp.24	408.64	230.00	1	190.00	2	200.00	3	0.00	4	--	--
17	24.50	1	Solaio di piano sp.24	408.64	230.00	1	190.00	2	200.00	3	0.00	4	--	--
19	27.50	2	Solaio copertura	408.64	230.00	1	400.00	2	200.00	3	80.00	4	--	--

Minimo coefficiente di sicurezza

Simbologia

- CC = Numero della combinazione delle condizioni di carico elementari  
Elem. = Elemento  
Sic. = Sicurezza  
TCC = Tipo di combinazione di carico  
SLU = Stato limite ultimo  
SLE R = Stato limite d'esercizio, combinazione rara  
SLE F = Stato limite d'esercizio, combinazione frequente  
SLE Q = Stato limite d'esercizio, combinazione quasi permanente  
TV = Tipo di verifica  
PRFL = Flessione e pressoflessione  
TAG = Taglio o altre rotture fragili  
NOD = Nodi in c.a. e collegamenti in acciaio  
STAB = Stabilità  
CP = Capacità portante  
RNP = Resistenza nel piano  
RFP = Resistenza fuori piano  
CIN = Cinematismi  
CON = Connessioni

Tabella elementi e minimo coefficiente di sicurezza

Elem.	CC	TCC	TV	Sic.
Travata n. 4035	1	SLU	PRFL	1.017
Travata n. 4035	1	SLU	TAG	1.953
Pilastrata n. 10	4	SLE Q	PRFL	1.080
Pilastrata n. 52	1	SLU	TAG	1.449
Nucleo n. 315	1	SLU	TAG	1.012
Asta in acciaio n. 190010	1	SLU	PRFL	1.020
Asta in acciaio n. 190010	1	SLU	TAG	2.596
Asta in acciaio n. 190010	1	SLU	STAB	1.010

Minimo coefficiente di sicurezza:1.010